HARMONITOR

D4.1
Literature review and inventory of certification schemes and labels requirements

www.harmonitor.eu

REPORT

Lead Beneficiary	Preferred by Nature (formerly NEPCon)
Authors (Organisation)	Ana Gabriela López Camey, Preferred by Nature
	Beike Sumfleth, DBFZ
	Elena Rocco, RINA-C
	H.M. Junginger, University Utrecht
	Josephin Helka, DBFZ
	Li Shen, University Utrecht
	Matilde Festi, RINA-C
	Maulidia Khairani, University Utrecht
	Meenakshi Piplani, Preferred by Nature
	Simon Møller, Preferred by Nature
	Stefan Majer, DBFZ
	Timothy Bender, Preferred by Nature
Responsible Author	Simon Møller, smoeller@preferredbynature.org
Deliverable Type	Report
Dissemination Level	Public

DOCUMENT HISTORY

Version	Description
0.1	27 July 2023
0.2	09 August 2023
0.3	04 September 2023
0.4	25 September 2023
1.0	28 September 2023

D4.1 - Literature review and inventory of certification schemes and labels requirements

TABLE OF CONTENTS

D4.1 - Literature review and inventory of certification schemes and labels requirements

D4.1 - Literature review and inventory of certification schemes and labels requirements

ACRONYMS

ASC	Aquaculture Stewardship Council
B2B	Business-to-Business
B2C	Business-to-Consumer
BC	Better Cotton
BFA	Bioplastic Feedstock Alliance
BREEAM	Building Research Establishment Environmental Assessment Method
C2C	Cradle to Cradle
CB	Certificate Body
CH	Certificate Holder
CoC	Chain of Custody
CMS	Convention on Migratory Species
CSLs	Certification Schemes and Labels
EPZ	Export Processing Zones
ETP	Endangered, Threatened, or Protected Species
FAO	Food and Agriculture Organization of the United Nations
FM	Forest Management
FSC	Forest Stewardship Council
FSA	Farm Sustainability Assessment
GHG	Greenhouse Gases
GGL	Green Gold Label
HCS	High Carbon Stock
HCV	High Conservation Value
ILO	International Labour Organization
ISO	International Organization for Standardization
ISCC	International Sustainability & Carbon Certification
IUCN	International Union for Conservation of Nature
MSC	Marine Stewardship Council
PPE	Personal Protective Equipment
RA	Rainforest Alliance
RSB	Roundtable on Sustainable Biomaterials

D4.1 - Literature review and inventory of certification schemes and labels requirements

RSL   Restricted Substance List

RSPO   Roundtable on Sustainable Palm Oil

RTRS   Round Table on Responsible Soy Association

SAIA   Sustainable Agriculture Initiative

SBP   Sustainable Biomass Program

SO   National Scheme Operator

VOC   Volatile Organic Compound

WP   Work Package

D4.1 - Literature review and inventory of certification schemes and labels requirements

1 Executive Summary

The HARMONITOR project aims to improve the effectiveness of certification schemes and labels (CSLs) in the EU bioeconomy and thereby strengthen their use as a co-regulation instrument. The project will design and promote the establishment of a participative review platform, enabling CSLs to collaborate and find common ground within bio-based value chains across the EU. Part of this project is the development of an inventory detailing key aspects for selected CSLs, including their activities, covered materials, requirements, assurance and governance systems. In conjunction with the methodology outlined in HARMONITOR's D2.3 Methodology Handbook, this inventory will facilitate a comparative analysis of each selected CSL.

The methodology for developing and analysing the inventories adopted a phased approach. Initially, 22 CSLs were selected for examination. This was followed by a comprehensive analysis of the chosen CSLs, assessing their general information and characteristics, environmental, social, and economic requirements, assurance system requirements and respective governance structures.

The general overview of selected CSLs within the EU Bioeconomy revealed growing trends both in the number and coverage of CSLs. CSLs exhibit varying approaches in certifying biobased products, as reflected in their distinct scheme structures and standard documents. Notably, the majority of examined CSLs demonstrate a dual focus, engaging in both business-to-business (B2B) and business-to-consumer (B2C) communication strategies, covering both commercial exchanges between companies and direct sales to consumers. However, the analysis encountered challenges in sourcing information on countries of origin, with only slightly more than half of the reviewed CSLs providing such data. This suggests potential room for improved transparency in this regard. The varied approaches CSLs employ for different feedstocks and products underscores the versatility of sustainability certification in addressing various elements within the biobased product value chain.

The review of the CSLs revealed notable findings regarding their sustainability requirements for certificate holders. Many standards significantly emphasised responsible harvesting and farming practices at the land-use level. CSLs place considerable weight on environmental sustainability, with requirements for safeguarding climate, ecosystem, and biodiversity values. Hazardous waste management was another common focus, demanding safe handling, minimal usage, and proper disposal in accordance with regulations. Waste management and end-of-life recycling were frequently scrutinized, referring to the requirements for material recycling and waste stream along the value chains. Addressing pollution reduction through eco-friendly practices, water conservation, and sustainable soil use were also prevalent environmental topics within the examined CSLs. Moreover, climate change was a significant consideration, with CSLs incorporating requirements to reduce greenhouse gas emissions and implement measurements for climate change adaptation. Less weight was put on requirements on circularity and climate change adaptation.

Many of the CSLs incorporated criteria related to human rights to ensure that companies adhere to fundamental rights and freedoms. Specific measures were in place across several CSLs to prevent child labour, with some also focusing on the responsible employment of young workers. Worker's rights criteria within certain certification standards emphasize safety and health, requiring facilities to maintain safety standards, provide appropriate Personal Protective Equipment (PPE), and comply with legal workplace health and safety regulations. Compliance with legal workplace health and safety rules was a consistent theme. Prevention of discrimination was another prominent aspect across multiple CSLs, aiming to ensure fair

D4.1 - Literature review and inventory of certification schemes and labels requirements

treatment. Gender equality protection, in line with legal requirements, was an additional area of focus for several CSLs. Less emphasis was placed on employer-provided housing and on the requirements of rural, local and indigenous communities.

Compared to the environmental and social requirements, economic requirements were less prevalent. They encompassed criteria related to economic viability, land tenure and management planning. Beyond the pillars of environmental, social, and economic considerations, the review identified requirements for Certificate Holders (CHs) that contribute to the robustness and integrity of the certification scheme. These mandates address adherence to laws and regulations, specific control on material identification and recycling within the supply chain, terms for conflict resolution, corruption prevention, and the maintenance of the scheme's quality and procedures.

Most assurance rules are used explicitly by CSLs and are specifically outlined in their documented methodologies, covering aspects such as auditor qualifications, the audit process, reporting, addressing non-compliances, making certification decisions, determining certificate validity duration, and stakeholder consultation. On the contrary, the specifics about the governance system are scattered in several documents or standards produced by the certification scheme. In general, selected CSLs prioritise transparency, credibility, and accountability in their sustainability certification processes. They employ third-party verification, adhere to international standards, and align with ISO guidelines to ensure credible and consistent sustainability claims. Differences exist in the scope of assurance requirements and the accreditation/oversight processes for Certification Bodies (CBs) and auditors among these initiatives. Furthermore, the extent of public information availability varies among schemes, with some offering. Comprehensive reports and documentation, while others restrict access to sensitive data. While corruption may not have been explicitly mentioned in many schemes, it was often indirectly addressed through requirements for the CB's impartiality and independence, procedures to prevent bribery, and training and awareness-raising for auditors on related topics.

D4.1 - Literature review and inventory of certification schemes and labels requirements

2 Introduction

This report is produced under the HARMONITOR project, which is an abbreviation for "harmonisation and monitoring platform for certification schemes and labels to advance the sustainability of bio-based systems". The project aims to improve the effectiveness of certification schemes and labels (CSLs) in different sectors of the EU Bioeconomy and therewith strengthen their use as a co-regulation instrument.

To achieve these objectives, HARMONITOR develops a monitoring system in close cooperation with its sister projects SUSTCERT4BIOBASED and STAR4BBS. Furthermore, dedicated assessment activities will analyse the status of sustainability certification in the EU bioeconomy, and finally, HARMONITOR will develop a platform for the cooperation and continuous improvement of CSLs.

The Work Package 4 (WP4) of the HARMONITOR project focuses on developing and applying a benchmarking framework to analyse the content, structure and activities of selected certification schemes and labels. The results of this benchmarking activity will be an input to a monitoring system, which sits under WP5, and the platform for the cooperation of CSLs under WP2. An integral part of WP4 is the creation of an inventory that details key aspects of CSLs. In conjunction with the methodology outlined in HARMONITOR's D2.3 Methodology Handbook, this inventory will facilitate the comparative analysis of each chosen CSL.

3 Scope and structure of this deliverable

The analysis and description of CSLs is an important first step to achieving these targets by understanding similarities and differences between CSLs and potential gaps in CSL standards or the geographical and sectoral coverage of certification activities. Therefore, the specific objective of HARMONITOR Task 4.1 is the development of an inventory of key aspects of CSLs as a reference to the upcoming benchmarking.

As a first step, this deliverable presents an inventory of key aspects for a select number of CSLs from the HARMONITOR longlist. In this report, Chapter 4 describes the methodology employed for conducting the inventory. It elucidates the process of selecting CSLs, as well as the development of the analysis and the description of the CSLs' characteristics. The results are detailed in sections of Chapter 5:

- The first section provides a general overview of the selected CSLs in the EU bioeconomy by describing the relevant biobased materials, feedstocks and products.
- An inventory analysis of the main requirements of the different CSLs, including environmental, economic and social requirements, follows this.
- A comparative analysis of the assurance systems implemented by the selected CSLs complements the general inventory analysis.
- And finally, an extensive review of the governance system requirements.

In Section 5.4 and Section 5.5, the assurance systems requirements and governance systems requirements of the selected CSLs are described. These two sections benefit from a different approach, focusing more on a qualitative format by investigating similarities and differences between the CSLs and including general trends illustrated through examples. Still, the aim was not to explore each CSL in detail.

Please note the authors of this deliverable bear limited responsibility for the preliminary nature of the presented results. We have employed a range of resources and sources, notably the

D4.1 - Literature review and inventory of certification schemes and labels requirements

ITC Standards Map. We can confidently state that to the best of our abilities during the execution of WP4.1, the facts and figures in this report accurately represent the subject matter.

4 Methodology

The development of the above-mentioned inventories and their subsequent analysis was based on a stepwise approach, starting with:

- the selection of the CSLs for analysis,
- the analysis of the selected CSLs according to
  - general information and characteristics (see sections 5.1 and 5.2),
  - the environmental, social and economic requirements (see section 5.3) as well as the
  - assurance system requirements (see section 5.4), and
  - governance structures of the CSLs (see section 5.5).

The first working step focused on the development of a CSL shortlist from the initial CSL selection for HARMONITOR, described under D2.1.

4.1.1 Selection of Certification Schemes and Labels for the analysis

The longlist of CSLs, which has been selected as a starting point for the project in Deliverable D2.1 includes 43 CSLs. As a first working step, a sub-selection of 22 CSLs has been conducted by the project team. The selection followed the aim to cover a representative mix of relevant and innovative CSLs and bio-based products focusing on various feedstocks (including residues and wastes) and a broad range of bioeconomy sectors relevant to EU policymaking. The selected CSLs are presented in the following table.

Table 1 selected Certification Schemes and Labels for the analysis in T4.1

Title of CSL	Description	CSL #
ASC-MSC Seaweed Standard	The Aquaculture Stewardship Council (ASC) and the Marine Stewardship Council (MSC) have developed a joint Seaweed Standard that defines a set of requirements for sustainable and socially responsible seaweed harvesting and farming practices.	1
Better Cotton	BCI promotes sustainable cotton production. The certification ensures that cotton farmers use less water, reduce chemical pesticide usage, and improve working conditions.	2
Bioplastic Feedstock Alliance (BFA)	BFA is a certification scheme that focuses on promoting sustainable sourcing and production of bioplastics. It ensures that feedstocks used for bioplastic production come from sustainable and responsible sources.	3
Bonsucro	Certification program for sustainable sugarcane production. It covers social, environmental, and economic aspects of sugarcane farming, aiming to improve sustainability in the sugar industry.	4
BREEAM	Building Research Establishment Environmental Assessment Method (BREEAM) is a certification for sustainable building design and construction. It evaluates the environmental performance of buildings and provides ratings based on criteria like energy efficiency and material sourcing.	5

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Cradle to Cradle Certified	Cradle to Cradle (C2C) certification assesses products and materials based on their environmental and social impact throughout their life cycle. It encourages the use of safe and recyclable materials and promotes circular economy principles.	6
EU Ecolabel - Paper	The EU Ecolabel for Paper certifies that paper products meet strict environmental criteria, including sustainable sourcing, responsible production, and minimal environmental impact.	7
EU Ecolabel - Textiles	The EU Ecolabel for Textiles certifies textiles that meet certain environmental and social standards, such as reduced resource consumption, non-toxicity, and fair working conditions.	8
Fairtrade International	Fairtrade International certification ensures that producers in developing countries receive fair prices for their products and promotes sustainable farming practices, social development, and environmental protection.	9
Fairtrade International Textile Standard	This certification focuses specifically on fair trade principles and sustainability in the textile supply chain, ensuring fair wages, safe working conditions, and environmental responsibility.	10
Forest Stewardship Council (FSC)	FSC certification verifies that forest products come from responsibly managed forests. It promotes sustainable forestry practices, biodiversity conservation, and the rights of Indigenous communities.	11
GlobalG.A.P.	Certification scheme for agricultural production that ensures compliance with internationally recognized food safety, environmental, and social standards.	12
Green Gold Label (GGL)	Certification program for sustainably produced and sourced biomass. It aims to minimise deforestation, protect biodiversity, and improve the social and economic conditions of plantation workers.	13
ISCC EU & ISCC PLUS	The International Sustainability and Carbon Certification (ISCC) is a scheme that verifies the sustainability and traceability of biomass and bioenergy. It covers various feedstocks and supply chains, ensuring compliance with environmental and social criteria.	14
PEFC International (Programme for the Endorsement of Forest Certification)	Programme for the Endorsement of Forest Certification (PEFC) certifies sustainable forest management practices worldwide. It ensures that timber and forest-based products meet strict environmental, social, and economic criteria.	15
Rainforest Alliance (RA)	The Rainforest Alliance is an international non-profit organization that certifies responsible business practices in agriculture and forestry by building an alliance to protect forests, improve the livelihoods of farmers and forest communities, promote their humans' rights and help them mitigate and adapt to climate change.	16
REDcert, REDcert2	REDcert is a certification system for sustainable biomass and bioenergy production. It verifies compliance with sustainability criteria and ensures the traceability of feedstocks and the reduction of greenhouse gas emissions.	17

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Round Table on Responsible Soy Association (RTRS)	RTRS certification promotes responsible soy production by ensuring the use of environmentally and socially responsible practices, including deforestation-free supply chains and fair labour conditions.	18
Roundtable on Sustainable Biomaterials (RSB)	RSB certification covers various biomaterials, including biofuels and bio-based chemicals. It ensures compliance with sustainability criteria related to land use, greenhouse gas emissions, and social impacts.	19
Roundtable on Sustainable Palm Oil (RSPO)	RSPO certification verifies that palm oil products are produced sustainably without causing deforestation or violating human rights. It promotes responsible palm oil cultivation and supply chain transparency.	20
SAI Platform - Farm Sustainability Assessment FSA	The SAI Platform's FSA certification evaluates the sustainability performance of agricultural farms. It covers various aspects, including environmental impact, social responsibility, and economic viability.	21
Sustainable Biomass Program (SBP)	SBP certification ensures the sustainable sourcing, production, and use of biomass for energy generation. It focuses on responsible biomass supply chains, carbon emissions reduction, and environmental protection.	22

4.1.2 Analysis and description of the general Certification Schemes and Labels' characteristics

For the analysis of the selected CSLs of the EU bioeconomy, a review of scientific and grey literature regarding sustainability of CSLs was performed, focusing on schemes for bio-based products. Based on desktop research of system documentation publicly available for the selected CSLs the focus of the review is on quantitative aspects, such as how long the certification scheme has existed, the number of certificates, and qualitative aspects, such as certification procedure, communication of effectiveness parameters; and tools and practices that focus on measuring effectiveness and robustness of the CSLs.

Topics analysed include:

- A general overview on the selected CSLs in the EU Bioeconomy, the biobased materials, feedstocks and products covered (Chapter 5.1, Chapter 5.2);
- Inventory of environmental, social, and economic requirements (Chapter 5.3);
- Inventory of assurance system requirements (Chapter 5.4);
- Inventory of governance system requirements (Chapter 5.5).

The general overview of the selected CSLs is based on a review of the CSLs' system documentation (e.g., CSLs' websites, ITC Standards Map[1]). To provide a broad overview of the different CSLs, different topics were covered: market relevance, available documentation,

---

[1] The ITC Standards Map is a database for sustainability standards that provides free, accessible, comprehensive, verified and transparent information on over 300 standards for environmental protection, worker and labour rights, economic development, quality and food safety, as well as business ethics.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

certification procedure, communication options, recognition of other schemes, potential geographic application, value chain elements, etc.

First, information available on the CSLs' websites related to the selected topics was reviewed. Information on the topics that could not be identified in the first step was gathered from other sources, such as the ITC Standards Map. Based on this approach, the collected information was inventoried for each CSL and transferred to tables to provide a schematic representation of the results and to facilitate the comparison among the different CSLs (see the results in Chapter 5.1 and Chapter 5.2). A summary and key conclusions were written for each table, highlighting the main common points and the main differences among the analysed CSLs.

The CSLs' websites and the main CSLs' standards represented the main reference for the review of the environmental, social, and economic requirements, which have been presented in this document.

The analysis was complemented by a comparative analysis of the assurance systems implemented by various certification schemes, as well as by a thorough review of the governance system requirements for the 22 selected CSLs. The relevant data was gathered from the CSLs official website and documents as well as ITC Standards Map.

Based on this analysis, a complete inventory of key aspects of the selected CSLs have been developed. This serves as a basis for the comparative analysis to be performed in task 4.2[2] of the project.

4.1.3 Inventory of environmental, social, and economic requirements including control points and the assurance system requirements.

The development of the inventory for environmental, social, and economic requirements, as well as assurance system requirements, involved a two-step process. In the initial step, a conceptual Scheme Evaluation Framework (SEF) was developed to serve as the basis for analysis. The SEF was designed to systematically evaluate the credibility and effectiveness of these schemes across different dimensions. Subsequently, a qualitative examination of the 22 selected CSLs was conducted, identifying gaps in the CSLs with respect to the conceptual SEF.

For environmental aspects, coverage encompassed criteria on forests, ecosystems, biodiversity, chemical management, waste, water, and soil health. Social considerations addressed child labour, modern slavery, workers' rights as established in the International Labour Organisation's (ILO) fundamental conventions, discrimination, and Indigenous and local communities' rights. Economic dimensions touched on subjects like taxes, land tenure, corruption, conflict, trade, and transportation.

The assurance systems of the CSLs underwent a similar evaluation process involving a detailed study of assurance structure requirements. The conceptual SEF facilitated this assessment, allowing the identification of gaps and common aspects across CSLs. The assurance structure of the 22 selected CSLs was studied individually by obtaining copies of the assurance system requirements from the respective publicly available websites. These

---

[2] Task 4.2 is to conduct a comparative analysis of selected CSLs, which is due in Month 21.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

requirements covered aspects of auditor competence and qualifications, impartiality, auditing process, stakeholder consultation and corruption.

After this qualitative analysis, a list of requirements (specifically control points) for ensuring compliance was developed based on the results.

You can find a detailed overview of the methodology for WP 4 **here**.

4.1.4 Inventory of governance system requirements

The process of developing the inventory of governance system requirements involved two steps:

- Selecting a basis to structure the analysis;
- Conducting data collection and analysis.

The inventory adopts eight of ISEAL's credibility principles as the foundation for analysis, including transparency, impartiality, stakeholder engagement, collaboration, measurable progress, continuous improvement, truthfulness, and reliability. Two other ISEAL's credibility principles - sustainability impacts and value creation - were excluded due to their limited relevance to the governance system.

The ISEAL's credibility principles were chosen as they represent the fundamental values of credible and effective sustainability systems. Furthermore, these principles are applicable to the entire scope of operations and governance of sustainability systems. These principles are pertinent to a diverse group interested in engaging with or evaluating sustainability systems.

In terms of data collection, relevant information was gathered from publicly available sources on the CSL's website, such as system and methodology documents. When necessary, information was also collected from secondary sources, like the ITC Standards Map. Finally, all relevant information from the 22 selected CSLs was compared to identify similarities, trends, and differences with respect to each credibility principle.

5 Key aspects of Certification Schemes and Labels

The results of the conducted review are reported in this chapter. First, the main characteristics of the analysed CSLs are presented, together with the specification of certifiable biological resources, bio-based material and products covered (Chapter 5.1and 5.2).Then, the main environmental, social, and economic requirements for the different CSLs are presented (Chapter 5.3). Finally, details about the assurance system requirements (Chapter 5.4) and the governance system requirements (Chapter 5.5) are reported.

5.1 A general overview on the selected Certification Schemes and Labels in the EU Bioeconomy

This section describes the general activities and nature of the selected CSLs, representing the main output of Subtasks 4.1.1 and 4.1.2. This is complemented by information on biobased materials, feedstocks and products covered by the CSLs. The focus is on an inventory of the quantitative aspects, for instance, how long the certification system has been in place, the number of certificates, and the qualitative aspects, such as certification procedures and effectiveness of communication of the CSLs. The results are compiled and presented in tables for different topics:

- **Year of establishment of the CSLs** - to provide an overview on the evolution of CSLs for the biobased sector over the years.
- **Market relevance of the CSLs** - to indicate the relevance of the CSLs through numerical indicators, such as the number of recognised CBs and issued certificates.
- **Documentation of the CSL standard**- to index sources of relevant information about the CSL.
- **Certification procedure** - to provide an overview of the certification procedure.
- **Communication of biomass characteristics** - to detail the target audience of the CSL.
- **Recognition of other schemes** - to provide an overview of what CSLs acknowledge and accept as proof of compliance with specific requirements.
- **Potential geographic application** – indicates the geographical distribution of the CSLs across countries.
- **Value chain elements** – indexes which products and feedstocks are covered by the CSLs.

For each topic, there is a summary of the main aspects of the CSLs and the key conclusions. The focus is on the similarities and differences between the selected CSLs, and the analysis provides a general overview of the selected CSLs in the EU bioeconomy.

5.1.1 Years of establishment

The year of establishment of each CSL is reported to provide an evolutionary context for the presence of certification schemes and labels in the bio-based sector over the years. The starting point is the establishment of the Rainforest Alliance (RA), which was founded in 1987. The number of CSLs and their coverage is constantly evolving, with the ASC-MSC Seaweed Standard, founded in 2017, being one of the most recent CSLs included in this analysis. Please refer to Table 2 for the full overview.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Table 2 Year of establishment of the CSL

Year of establishment of the CSL	
Rainforest Alliance (RA)	1987
BREEAM	1988
EU Ecolabel - Paper	1992
EU Ecolabel - Textiles	1992
Forest Stewardship Council (FSC)	1993
Fairtrade International	1997
Fairtrade International Textile Standard	1997
GlobalG.A.P.	1997
PEFC International (Programme for the Endorsement of Forest Certification)	1999
Green Gold Label (GGL)	2002
Roundtable on Sustainable Palm Oil (RSPO)	2002
SAI Platform - Farm Sustainability Assessment FSA	2002
Cradle to Cradle Certified	2005
Round Table on Responsible Soy Association (RTRS)	2007
Roundtable on Sustainable Biomaterials (RSB)	2007
Better Cotton	2009
ISCC EU & ISCC PLUS	2010
REDcert, REDcert2	2010
Sustainable Biomass Program (SBP)	2010
Bonsucro	2011
Bioplastic Feedstock Alliance (BFA)	2013
ASC-MSC Seaweed Standard	2017

5.1.2 Market relevance of the Certification Schemes and Labels

This section describes the market relevance of CSLs by quantifying various numerical indicators, such as:

- Number of certification bodies (CBs): this indicator lists the total number of recognised CBs accredited to audit each CSL.
- Certified members: this indicator reports the number of certified members per CSL (if applicable, i.e., if the CSL is set up as a membership organisation).
- Number of active certificates: this indicator reports the total number of outstanding active certificates issued by the CSL.
- Output volume of certified products: this indicator quantifies the yield of certified products expressed in a quantity of product types or metric tonnes of claimed material.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Area covered by CSL: this indicator reports the total certified surface a CSL has covered through its Certificate Holders.

Table 3 Market relevance of the CSLs

	No. of certification bodies	Certified members	No. of certificates	Number of certified products	Certified area
ASC-MSC Seaweed Standard	4	NA	17	12,000 MT year^{-1}	NA
Better Cotton	NA	2,2m farmers	NA	4.7m MT cotton	NA
Bioplastic Feedstock Alliance (BFA)	NA	NA	NA	NA	NA
Bonsucro	7	28 members (50+ countries)	240	72m tons sugarcane certified	1.5m ha
BREEAM	55	NA	7,100	NA	NA
Cradle to Cradle Certified	11	NA	NA	972	NA
EU Ecolabel - Paper	61	NA	208 (tissue paper) + 70 (graphic paper)	15,047 (tissue paper) + 3,553 (graphic paper)	NA
EU Ecolabel - Textiles	61	NA	81	8,968	NA
Fairtrade International	1	1,9m farmers	NA	NA	NA
Fairtrade International Textile Standard	1	48 certified producers (44 also licensed)	NA	NA	NA
Forest Stewardship Council (FSC)	49	NA	NA	NA	160m ha
GlobalG.A.P.	185	194,000 producers	NA	NA	NA
Green Gold Label (GGL)	6	86	NA	> 7m tons of biomass	NA
ISCC EU & ISCC PLUS	42	NA	5,744 certificates	NA	12m ha
PEFC International (Programme	139	NA	12,526	NA	292m ha

D4.1 - Literature review and inventory of certification schemes and labels requirements

for the Endorsement of Forest Certification)					
Rainforest Alliance (RA)	30	6,920	6,920 licenses	NA	6m ha
REDcert, REDcert2	29	NA	2,484	NA	NA
Round Table on Responsible Soy Association (RTRS)	9	NA	NA	4.6m tons	NA
Roundtable on Sustainable Biomaterials (RSB)	2	NA	40	NA	23,584
Roundtable on Sustainable Palm Oil (RSPO)	32	NA	NA	128	NA
SAI Platform - Farm Sustainability Assessment FSA	16	> 200,000 farms (40+ countries)	NA	NA	NA
Sustainable Biomass Program (SBP)	5	299	NA	11.95m tons certified biomass	NA

m = million, MT = Metric Tons, NA= not applicable.

5.1.3 Standards and accompanying documentation

CSLs are generally guided by a set of standards that describes the requirements set by the CHs. However, the volume of documents accompanying the CSLs vary in length and detail. Some of the most descriptive are e.g., GlobalG.A.P., GGL, RTRS, while others, such as ASC-MSC Seaweed Standard, Fairtrade International Textile Standard, encompass only a few documents. The CSLs standards can be divided into three groups, depending on the biomaterial or focus:

- Only cover one specific feedstock and product (e.g., BFA, Bonsucro, FSC, RTRS, RSPO),
- Cover several feedstocks and products (e.g., GlobalG.A.P., GGL, ISCC, REDcert), and
- Cover specific interest groups (e.g., Better Cotton, Bonsucro, Fairtrade International).

This approach reflects different methods how biobased products can be certified. In other words, the selected CSLs address their designated feedstocks, products and target groups differently. This is reflected by the scheme structure and standard documents. One positive

aspect that can be said of this inconsistency is that there are CSLs for almost every certification purpose, meaning companies can choose the CSL that aligns with their business objectives. However, this requires that companies and consumers are clear and transparent about the features of each CSL. Otherwise, it may be difficult for them to compare the CSLs and choose the one that best fits their business models or consumer preferences.

Table 4 details the latest available version of each CSL's standards that provide the sustainability requirements needed for certification. Most CSLs also include other relevant documents. These include management rules of the CSLs, requirements for CBs, and auditing requirements, for example. All standards and associated documents covered in this report were in the public domain at publication.

Table 4 Documentation of the CSL standard

Reference documentation	
ASC-MSC Seaweed Standard	ASC-MSC Seaweed (Algae) Standard, Version 1.01 of 30 April 2018
Better Cotton	Principles and Criteria v.3.0, 2023; GIF Expression of Interest, 2023; Better Cotton Chain of Custody Standard: Implementation Guidance for Traders and Distributors, 2023
Bioplastic Feedstock Alliance (BFA)	Methodology for the Assessment of Bioplastic Feedstock of February 2022
Bonsucro	Bonsucro Production Standard, Version 5.1 of January 2022; Bonsucro Production Standard for Smallholder Farmers, Version 1.0 of June 2018; Bonsucro EU-RED Standard for compliance with the EU Renewable Energy Directive 2 requirements, Version 1 of 29 June 2021
BREEAM	BREEAM Technical Standards - BREEAM New construction; BREEAM Refurbishment and fit-out; BREEAM In-use; BREEAM Communities; BREEAM Infrastructure Version 6.0, 2023
Cradle to Cradle Certified	Cradle to Cradle Certified Product Standard Version 4.0
EU Ecolabel - Paper	Commission Decision (EU) 2019/70 of 11 January 2019
EU Ecolabel - Textiles	Commission Decision (EU) 2014/350 of 5 June 2014
Fairtrade International	Standard for Small-scale Producer Organizations, version 2.5, 2019; Standard for Hired Labour, 2015; Production Standard, 2014
Fairtrade International Textile Standard	Fairtrade Textile Standard, 2016
Forest Stewardship Council (FSC)	FSC Principles and Criteria for Forest Stewardship Standard (STD), Version 5.3, 2023
GlobalG.A.P.	Integrated Farm Assurance All Farm Base – Crops Base – Fruits and Vegetables, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Crops Base – Combinable Crops, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Aquaculture Module, Version 5.2 of 1 February 2019;

D4.1 - Literature review and inventory of certification schemes and labels requirements

	Integrated Farm Assurance All Farm Base – Livestock Base – Cattle and Sheep, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Livestock Base – Cattle and Sheep – Dairy, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Livestock Base – Cattle and Sheep – Calves and Young Beef, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Livestock Base – Pigs, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Livestock Base – Poultry, Version 5.2 of 1 February 2019; Integrated Farm Assurance All Farm Base – Livestock Base – Turkey, Version 5.2 of 1 February 2019
Green Gold Label (GGL)	GGLS1 - Chain of Custody Criteria, Version 3-1 of May 2018; GGLS2 - Agricultural Source Criteria, Version 2-3 of December 2018; GGLS4 - Transaction and Product Certificate, Version 2-2 of March 2017; GGLS5 - Forest Management Criteria, Version 2-4 of June 2019; GGLS6 - Power Company Criteria, Version 1-2 of August 2017
ISCC EU & ISCC PLUS	ISCC EU 201 System Basics, Version 4.0 of 1 July 2021; ISCC EU 202-1 Agricultural Biomass: ISCC Principle 1, Version 4.0 of 1 July 2021; ISCC EU 202-2 Agricultural Biomass: ISCC Principles 2-6, Version 1.1 of 1 December 2022; ISCC PLUS, Version 3.3 of 31 August 2021
PEFC International (Programme for the Endorsement of Forest Certification)	PEFC ST 2002:2020 – Chain of Custody of Forest and Tree Based Products – Requirements of 17 January 2020; PEFC ST 1003:2018 – Sustainable Forest Management – Requirements of 14 November 2018; PEFC ST 1002:2018 – Group Forest Management Certification – Requirements of 14 November 2018
Rainforest Alliance (RA)	2020 Sustainable Agriculture Standard: Farm Requirements; 2020 Sustainable Agriculture Standard: Supply Chain Requirements
REDcert, REDcert2	Scheme principles for the production of biomass, biofuels, bioliquids and biomass fuels, Version EU 06 of 18 June 2021; Scheme principles for biomass production in the food industry, Version RC^2 03 of 26 April 2023; Scheme principles for the certification of sustainable material flows in the chemical industry, Version RC^2 1.2 of 01 January 2023; Specific requirements for recycling processes in the chemical industry, Version RC^2 1.0 of 01 January 2023
Round Table on Responsible Soy Association (RTRS)	RTRS Standard for Responsible Soy Production V4.0; RTRS Accreditation and Certification Procedure for Responsible Soy Production V4.3; RTRS Chain of Custody Standard V2.3; RTRS Chain of Custody Accreditation and Certification Procedure for Certification Bodies V3.3; RTRS Group and Multi-site Certification Standard V3.2; RTRS Group and Multi-site Certification Procedure for Certification Bodies V3.2; RTRS Group and Multi-site Certification Procedure for Certification Bodies V3.2 RTRS Country Material Balance Standard for Chain of Custody V1.1

D4.1 - Literature review and inventory of certification schemes and labels requirements

	RTRS Non-GMO Standard for Producers V1.0
	RTRS Standard for Responsible Corn Production V1.0
	RTRS EU RED Compliance Procedure for Producers V3.7
	RTRS EU RED Chain of Custody Standard V.2.8
	RTRS EU RED Compliance Procedure for the Supply Chain V3.8
	RTRS EU RED Accreditation and Certification Procedure for Responsible Soy Production V4.5
	RTRS EU RED Chain of Custody Accreditation and Certification Procedure for Certification Bodies _V3.6
	RTRS EU RED Group and Multi-site certification Procedure for Certification Bodies V3.6
	RTRS EU RED Group and Multi-site Certification Standard V3.5
Roundtable on Sustainable Biomaterials (RSB)	RSB-STD-01-001 RSB Principles & Criteria, Version 3 of 9 November 2016; RSB-SA-01 RSB Standard Amendment – RSB requirements for woody biomass, Version 1.0 of 16 December 2021; RSB-STD-01-010 RSB Standard for Advanced Fuels, Version 2.5 of 15 December 2022; RSB-STD-02-001 RSB Standard for Advanced Products, Version 2.0 of 7 December 2018
Roundtable on Sustainable Palm Oil (RSPO)	2018 RSPO Principles and Criteria3; 2019 RSPO Independent Smallholder Standard; 2020 RSPO Supply Chain Certification Standard; RSPO Jurisdictional Approach
SAI Platform - Farm Sustainability Assessment FSA	FSA User Guide, Version 3.0 of June 2022; FSA 3.0 Self-Assessment Questionnaire, Version 3.0 of April 2021; FSA 3.0 Implementation Framework, Version 3.0 of April 2021
Sustainable Biomass Program (SBP)	Guidance Documents Standards v2.0; Normative Documents Standards v2.0;

5.1.4 Sustainability requirements and standards used in Certification Schemes and Labels

CSLs are usually guided by standards, which are accompanying documentation presented in that describes the sustainability requirements for the individual scheme. The standards focus on the requirements for sustainable land-use operations, such as farms and forests, and operations relating to the manufacturing of certified goods. It may be helpful to distinguish between four types of certifications, depending on the process and object of certification[3]. However, many certification schemes share characteristics of more than just one of the following types.

- Product certification is when the object of certification is the product itself. Product certification ensures that a product meets predetermined specifications, such as quality and composition. These schemes permit on-product certification claims for marketing purposes.
- System certification is when the object of certification is a system of procedures designed to deliver a uniform product or outcome. Under a system certification, the assessment focuses on policies, processes, and systems in place rather than the

---

[3] **https://data.europa.eu/doi/10.2779/126030**

product or performance. The ISO 9000 family of quality management systems is an example of system certification.

- Process certification focuses on specific steps in a production process to acquire desired product properties. Chain of Custody (CoC) certification can be described as a process certification, as the goal is to ensure traceability in the production flow through auditing.
- Performance-based certification focuses on the outcome rather than the process. Performance-based certification allows flexibility in achieving a given result to meet certain thresholds or objectives.

Most of the reviewed CSLs contain elements of both performance-based and system certification. Some criteria and indicators may set specific thresholds that need to be met by the certificate holder, while other criteria and indicators may require specific systems or procedures to be in place.

5.1.5 Overview of certification procedures

Certification procedures ought to be easy to understand and accessible to various stakeholders. CSLs usually achieve this by making information available on their websites or detailing procedures within the scheme's standards. Table 5 indicates whether the CSL has a description of the certification process available online. In case it does, it is also indicated whether it consists of a detailed guide of the certification process or just a brief description of the process. In addition, the table specifies if an online filling form is available to facilitate interested parties who wish to contact the scheme owner to obtain certification. The table also includes a column on the pricing structure of the scheme. It details if the prospective CH can expect a discount on certification fees, for instance, based on the number of certified products or on the CHs own financial performance.

Table 5 Certification procedure

Certification process and discounts			
	Step-by-step description of the certification process	**Online filling form**	**Discounts on fees for certification**
ASC-MSC Seaweed Standard	Detailed guide of stepwise certification process.	No online filling form available.	The higher the sales value of certified B2C labelled products is the lower the fees.
Better Cotton	No description available.	Filling out the general online- contact form.	The membership fees differ for all five membership categories and vary based on the CH's scope of activities and annual income.
Bioplastic Feedstock Alliance (BFA)	No description available.	No online filling form available.	No discounts on fees are available.
Bonsucro	Clear overview of stepwise	Filling out the general	No discounts on fees are available.

D4.1 - Literature review and inventory of certification schemes and labels requirements

	certification process.	online- contact form.	
BREEAM	Brief description of stepwise certification process.	Filling out the general online- contact form.	Batch Certificate requests (≥50 certificates) are possible.
Cradle to Cradle Certified	Brief description of stepwise certification process.	Filling out the general online- contact form.	The amount of the annual fee is based on the annual revenues of the corporate entity or individual brand carrying certification.
EU Ecolabel - Paper	Description of stepwise certification process available.	No online filling form available, but helpdesk available	Discount for SMEs, operators in developing countries and micro-enterprises
EU Ecolabel - Textiles	Description of stepwise certification process available.	No online filling form available, but helpdesk available	Discount for SMEs, operators in developing countries and micro-enterprises
Fairtrade International	Detailed description of stepwise certification process.	No online filling form available.	The licence fee rates depend on which products/commodities the producer is working with.
Fairtrade International Textile Standard	Detailed description of stepwise certification process.	No online filling form available.	The licence fee rates depend on which products/commodities the producer is working with.
Forest Stewardship Council (FSC)	Detailed description of stepwise certification process.	No online filling form available.	The annual administration fee is calculated based on a certificate holder's actual forest products turnover.
GlobalG.A.P.	Brief description of stepwise certification process.	No online filling form available.	No discounts on fees available.
Green Gold Label (GGL)	Brief description of stepwise	No online filling form available.	The lower the biomass volume sold (traders) or used (end-

D4.1 - Literature review and inventory of certification schemes and labels requirements

			user) the lower are the [fees] charged.
ISCC EU & ISCC PLUS	Detailed [description] of stepwise certification process.	Filling out an online-registration [form].	The lower the turnover of a company the lower are [fees].
PEFC International (Programme for the Endorsement of Forest Certification)	Brief [overview] of stepwise certification process in a factsheet.	No online filling form available.	The lower the annual turnover of a company is the lower are the [fees] for a certification project.
Rainforest Alliance (RA)	No description available.	Certification application [form] online for download as zip-file.	No discounts on fees available.
REDcert, REDcert2	Brief [description] of stepwise certification process.	Filling out an online-registration [form].	The lower the total revenue per year of an operator the lower the basic fees ([REDcert-EU], [REDcert2]) are. The higher the number of registered sites the lower the scaled fees are.
Round Table on Responsible Soy Association (RTRS)	Detailed [description] of stepwise certification process.	Online contact [form] available.	[Fees] vary depending on the category of membership and on the amount of certified land.
Roundtable on Sustainable Biomaterials (RSB)	Detailed [description] of stepwise certification process.	Filling out the online-RSB Participating Operator Application [Form].	The more land is cultivated for feedstock production, the less are the fees ([biofuels and advanced fuels], [advanced products], [heat and power]) per hectare. Other discounts: Annual production (output sold as RSB certified); Annual consumption of RSB compliant materials; Annual trading volume (sold as RSB certified).
Roundtable on Sustainable Palm Oil (RSPO)	Detailed [description] of stepwise	On the website, [several]	A volume based RSPO administration [fee] applies.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	certification process.	contacts are available, one per each topic. An online form is available for research studies.	
SAI Platform - Farm Sustainability Assessment FSA	Brief description of how the FSA works (FSA Introduction Flyer).	No online filling form available.	No discounts on fees available.
Sustainable Biomass Program (SBP)	No description available.	Filling out the online form through SCS global services page.	SBP Certificate Holders fees are available in a dedicated document.

5.1.6 Communication of biomass characteristics

CSLs exhibit a varying level of interaction with stakeholders through various means of communication. The intended purpose is generally to reach other businesses (B2B) or consumers (B2C):

- B2B: the primary audience consists of businesses, professionals, or decision-makers representing their organisations.
- B2C: it involves interactions between businesses and individual consumers. The target audience comprises customers who purchase goods or services for personal use.

Observing the aggregated results from Table 6, it appears that the majority of the examined CSLs is oriented towards both the B2B and B2C in their communication. This shows that CSLs cover both the commercial exchange of products or services between companies and the direct sale to the consumer.

Table 6 specifies if the target audience of the scheme is either other businesses (B2B), consumers (B2C), or both.

Table 6 Communication target group

Communication effectiveness			
	B2B	B2C	B2B + B2C
ASC-MSC Seaweed Standard			X
Better Cotton	X		
Bioplastic Feedstock Alliance (BFA)	X		
Bonsucro			X
BREEAM	X		
Cradle to Cradle Certified			X
EU Ecolabel - Paper		X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

EU Ecolabel - Textiles		X	
Fairtrade International			X
Fairtrade International Textile Standard			X
Forest Stewardship Council (FSC)			X
GlobalG.A.P.			X
Green Gold Label (GGL)	X		
ISCC EU & ISCC PLUS			X
PEFC International (Programme for the Endorsement of Forest Certification)			X
Rainforest Alliance (RA)		X	
REDcert, REDcert2	X (REDcert^2)		X
Round Table on Responsible Soy Association (RTRS)			X
Roundtable on Sustainable Biomaterials (RSB)			X
Roundtable on Sustainable Palm Oil (RSPO)	X		
SAI Platform - Farm Sustainability Assessment FSA	X		
Sustainable Biomass Program (SBP)	X		

D4.1 - Literature review and inventory of certification schemes and labels requirements

5.1.7 Certification Schemes and Labels recognition of other schemes

Multiple of the reviewed CSLs included provisions for recognising certified feedstock and material from other schemes. Recognition of other schemes can be beneficial in promoting consistency, avoiding redundancy, and creating a unified approach to addressing shared challenges. It can also enhance the credibility and market value of the recognised schemes because of wider proliferation and familiarity within relevant industries or communities. However, it is essential that the recognition process is based on a thorough evaluation and assessment to ensure that the recognised schemes meet the criteria and objectives desired by the individual CSLs. Table 7 specifies which schemes incorporate provisions for the recognition of other CSLs.

The analysis of the recognised schemes is limited to the CSLs of interest for the HARMONITOR project, as defined within WP2 (see Appendix 9.7). In particular, CSLs from the long list of D2.1 were added to the CSLs selected for the present report. Other schemes can be recognised, but they are not reported in this table because are considered out of scope.

For the vast majority of CSLs, there is no information about the recognition of other CSLs, or the schemes do not recognise others, e.g., ASC-MSC Seaweed Standard, Better Cotton, Bonsucro, Fairtrade International, Fairtrade International Textile Standard, FSC, GlobalG.A.P., ISCC, PEFC, RTRS, RSB, RSPO, and SBP. On the one hand, this suggests that information on the recognition of other CSLs is often unavailable or can only be obtained with great effort. On the other hand, the high number of CSLs for which information on the recognition of other schemes cannot be provided here indicates that cooperation between CSLs should be improved.

However, there are also CSLs that recognise other schemes. For example, Cradle to Cradle Certified and REDcert accept a considerable number of the CSLs. They are followed by GGL and the SAI Platform FSA. Other systems that recognize only a minority of CSLs are BREEAM, EU Ecolabel - Paper and EU Ecolabel - Textiles, and Rainforest Alliance. This means that the CSLs that recognize at least other schemes are much more transparent and organized in terms of providing information to interested parties than the CSLs that do not recognize other schemes.

Table 7 CSLs recognition of other schemes

Recognition of other schemes

	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile Standard	FSC	GlobalG.A.P.	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDcert²	RTRS	RSB	RSPO	SAI	SBP
1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-		-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	X		-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	X	-
5	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	X	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	X	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	X	-	X	X	X	X	-	-		-	X	-	-	-	X	-	-	-	-	X
12	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	X	-
13	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	X		-	-	X	-	-	-	X	-
15	-	-	-	-	X	X	X	X	-	-	-	-	-	-		-	X	-	-	-	-	X
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	X	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		-	-	-	X	-
18	-	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	X		-	-	-	-
19	-	-	X	-	-	-	-	-	-	-	-	-	X	X	-	-	X	-		-	-	-

D4.1 - Literature review and inventory of certification schemes and labels requirements

20	-	-	X	-	-	X	-	-	-	-	-	-	X	-	-	-	-	-	-		X	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-		-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	
Alliance for Water Stewardship Standard (AWS)	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Better Biomass	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	X	-	-	-	-	-
Gold Standard	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOTS	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sustainable Agriculture Network (SAN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
Sustainable Forestry Initiative Inc. (SFI)	-	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
Verified Carbon Standard	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

D4.1 - Literature review and inventory of certification schemes and labels requirements

5.1.8 Geographic proliferation

A significant presence in the European market was among the selection criteria for the 22 CSLs. Many of the reviewed schemes however have a global reach, which is described in this section. The starting point is the **countries of origin**, i.e., countries where feedstocks for biobased products are produced or where the manufacturers can be located (Table 8). The receiving part, the **countries of destination**, i.e., countries where the certified feedstocks and biobased products are imported and sold in markets, are indexed in Table 9. In some cases, countries are deliberately excluded because of a failure to comply with the requirements of the CSL. This is, for instance, the case for the Fairtrade Textile Standard, which bans countries where the freedom of association for workers is not upheld. It should also be noted that most of the CSLs are applicable in the identified countries but are not necessarily present. This is, however, difficult to determine, and in some cases, the table only includes countries where the CSLs are already fielded. For example, GGL, FSC, RTRS, RSPO origin countries, and the SBP. These cases are marked in bold. Please note that the actual number of countries the CSLs can potentially be applied in is probably higher. Information on countries of origin was sometimes hard to come by, and it was only possible to identify these for more than half of the reviewed CSLs. It should be noted that Brazil is the feedstock-producing country where most CSLs are applicable. Other countries with a strong presence of CSLs include South Africa, China, India, Indonesia, Malaysia, Thailand, Australia, Belgium, France, the Netherlands, Spain, Sweden, the United Kingdom, Canada, the United States of America, and Argentina. The presence of a high number of different CSLs in a country may suggest that there is a particular interest in sustainability; however, the obvious prerequisite to applying a CSL is that producers and manufacturers of the specific sector must be present in the country.

Table 8 Countries of origin of the CSLs. In orange: Better Cotton Equivalent Standard Countries; In green: only GlobalG.A.P. Plants; in blue: only GlobalG.A.P. Aquaculture; in red: only GlobalG.A.P. Livestock.

Geographic application – for origin																							
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Worldwide																							X	
Africa	Algeria		X	X			X		X	X	X					X		X					X	
	Angola		X	X			X		X	X	X			X				X					X	
	Benin		X	X			X		X	X	X					X		X					X	
	Botswana		X	X			X		X	X	X							X					X	
	Burkina Faso		X	X			X		X	X	X			X		X		X					X	
	Burundi		X	X			X		X	X	X							X					X	
	Cameroon		X	X			X		X	X	X	X	X					X					X	
	Cape Verde		X	X			X		X	X	X							X						

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin																							
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Central African Republic		X	X			X		X	X	X						X						
	Chad		X	X			X		X	X	X						X						
	Comoros		X	X			X		X	X	X						X						
	Congo		X	X			X		X	X	X	X					X					X	
	Côte d'Ivoire		X	X			X		X	X	X		X		X		X				X	X	
	Democratic Republic of the Congo		X	X			X		X		X						X					X	
	Djibouti		X	X			X		X	X	X						X					X	
	Egypt		X	X			X		X	X			X	X	X		X				X	X	
	Equatorial Guinea		X	X			X		X	X	X						X						
	Eritrea		X	X			X		X	X	X						X						
	Ethiopia		X	X			X		X	X	X		X				X					X	
	Gabon		X	X			X		X	X	X	X			X		X						
	Gambia		X	X			X		X	X	X						X						
	Ghana		X	X			X		X	X	X	X	X		X		X				X	X	
	Guinea		X	X			X		X	X	X						X					X	
	Guinea-Bissau		X	X			X		X	X	X		X				X						
	Kenya		X	X	X		X		X	X	X		X				X					X	
	Lesotho		X	X			X		X	X	X						X						
	Liberia		X	X			X		X	X	X						X					X	
	Libyan Arab Jamahiriya (State of Libya)		X	X			X		X	X							X						
	Madagascar		X	X			X		X	X	X		X				X					X	
	Malawi		X	X	X		X		X	X	X						X					X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin																							
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Mali		X	X			X		X	X	X		X				X					X	
	Mauritania		X	X			X		X	X	X						X					X	
	Mauritius		X	X	X		X		X	X	X		X				X					X	
	Morocco		X	X			X		X	X	X		X		X		X					X	
	Mozambique		X	X			X		X	X	X	X	X				X					X	
	Niger		X	X			X		X	X	X						X						
	Nigeria		X	X			X		X	X	X						X						
	Namibia		X	X			X		X	X	X	X	X				X					X	
	Rwanda		X	X			X		X	X	X	X	X				X					X	
	Sao Tome and Principe		X	X			X		X	X	X						X						
	Senegal		X	X			X		X	X	X		X				X					X	
	Seychelles		X	X			X		X	X	X						X						
	Sierra Leone		X	X			X		X	X	X	X					X			X			
	Somalia		X	X			X		X	X	X						X					X	
	South Africa		X	X	X		X		X	X	X	X	X		X	X	X			X	X		X
	South Sudan		X	X					X	X							X						
	Sudan		X	X			X		X	X			X				X						
	Swaziland (Eswatini)		X	X	X		X		X	X	X	X	X				X						
	Togo		X	X			X		X	X	X				X		X					X	
	Tunisia		X	X			X		X	X	X		X		X		X			X		X	
	Uganda		X	X			X		X	X	X	X					X					X	
	United Republic of Tanzania		X	X			X		X	X	X	X	X				X					X	
	Zambia		X	X			X		X	X	X	X	X				X					X	
	Zimbabwe		X	X			X		X	X	X	X	X				X						

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin																							
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Asia	Afghanistan		X	X			X		X	X	X				X								
	Azerbaijan		X	X			X		X	X	X		X		X		X						
	Bahrain		X	X			X		X				X		X		X						
	Bangladesh		X	X			X		X	X	X*						X						
	Bhutan		X	X			X		X	X	X						X						
	Brunei Darussalam		X	X			X		X		X						X						
	Cambodia		X	X			X		X	X	X	X			X		X					X	
	China		**X**	X	**X**		X		X	X*		X	X		X	X	X			X	**X**	X	
	Democratic People's Republic of Korea		X	X			X		X	X			X				X				X	X	
	Hong Kong China		X	X			X		X		X				X		X				X	X	
	India		**X**	X	**X**		X		X	X	X	X	X		X	X	X		X		X	X	
	Indonesia		X	X			X		X	X	X	X	**X**	X	X	X	X				X	X	
	Iran		X	X			X		X	X							X						
	Iraq		X	X			X		X	X					X		X						
	Israel		X	X			X		X		X				X		X				X		
	Japan	X	X	X			X		X		X	X	X		X	X	X				X	X	
	Jordan		X	X			X		X	X	X		X		X		X						
	Kazakhstan		**X**	X			X		X	X	X						X						
	Kuwait		X	X			X		X		X				X		X						
	Kyrgyzstan		X	X			X		X		X						X						
	Lao People's Democratic Republic		X	X			X		X	X		X					X						
	Lebanon		X	X			X		X	X	X		X		X		X					X	
	Malaysia		X	X			X		X	X	X	X	**X**		X	X	X				X	X	X

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin																							
Continent	**Country**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Maldives		X	X			X		X	X	X						X						
	Myanmar		X	X			X		X	X	X						X						
	Mongolia		X	X			X			X	X						X						
	Nepal		X	X			X		X	X	X						X					X	
	Oman		X	X			X		X	X	X		X		X		X						
	Pakistan		X	X	X		X		X	X	X		X		X		X				X	X	
	Palestine		X	X			X			X	X		X				X					X	
	Philippines		X	X			X		X	X	X		X				X			X	X	X	
	Qatar		X	X			X		X						X		X						
	Republic of Korea	X	X	X			X		X	X	X	X			X		X			X			
	Saudi Arabia		X	X			X		X				X		X		X						
	Singapore		X	X			X		X		X				X		X				X	X	
	Sri Lanka		X	X			X		X	X	X	X	X				X			X	X	
	Syrian Arab Republic		X	X			X		X	X							X						
	Tajikistan		X	X			X		X	X	X		X				X						
	Thailand		X	X	X		X		X	X	X	X	X	X	X		X			X	X	X	
	Timor-Leste		X	X			X		X	X	X						X						
	Turkmenistan		X	X			X		X	X	X						X						
	United Arab Emirates		X	X			X		X		X		X		X		X				X		
	Uzbekistan		X	X			X		X	X	X						X						
	Vietnam		X	X			X		X	X	X	X	X	X	X	X	X				X	X	X
	Yemen		X	X			X		X	X	X						X						
Australia & Oceania	Australia		X	X	X		X		X		X	X	X		X		X			X	X	X	
	Fiji		X	X			X		X	X	X	X					X						
	Kiribati		X	X			X		X	X	X						X						

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Marshall Islands		X	X			X		X	X	X						X						
	Micronesia		X	X			X		X	X	X						X						
	Nauru		X	X			X			X	X						X						
	New Zealand		X	X			X		X	X	X	X	X		X	X	X				X	X	
	Palau		X	X			X		X	X	X						X						
	Papua New Guinea		X	X			X		X	X	X	X					X				X		
	Samoa		X	X			X		X	X	X						X						
	Solomon Islands		X	X			X		X	X	X	X					X				X		
	Tonga		X	X			X		X	X	X						X						
	Tuvalu		X	X			X		X	X	X						X						
	Vanuatu		X	X			X		X	X	X						X						
Central America and Caribbean	Antigua and Barbuda		X	X			X		X	X	X						X					X	
	Bahamas		X	X			X		X		X						X					X	
	Barbados		X	X			X		X		X						X					X	
	Belize		X	X			X		X	X	X	X					X					X	
–	Costa Rica		X	X			X		X	X	X	X	X		X		X				X	X	
	Cuba		X	X			X		X	X	X						X					X	
	Dominica		X	X			X		X	X	X						X					X	
	Dominican Republic		X	X	X		X		X	X	X		X				X					X	
	El Salvador		X	X	X		X		X	X	X						X					X	
	Grenada		X	X			X		X	X	X						X					X	
	Guatemala		X	X	X		X		X	X	X	X	X		X		X				X	X	
	Haiti		X	X			X		X	X	X						X					X	
	Honduras		X	X			X		X	X	X		X		X		X				X	X	
	Jamaica		X	X			X		X	X	X		X				X					X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Nicaragua		X	X	X		X		X	X	X	X	X		X		X					X	
	Panama		X	X			X		X	X	X	X	X				X				X	X	
	St. Kitts and Nevis		X	X			X		X	X	X						X					X	
	St. Lucia		X	X			X		X	X	X						X					X	
	St. Vincent and the Grenadines		X	X			X		X	X	X						X					X	
	Trinidad and Tobago		X	X			X		X	X	X				X		X					X	
Europe	Albania		X	X			X		X		X		X		X		X					X	
	Andorra		X	X			X		X		X				X		X					X	
	Armenia		X	X			X		X	X	X		X				X				X	X	
	Austria		X	X			X	X	X		X	X	X		X	X	X	X				X	
	Belarus		X	X			X		X						X		X	X				X	
	Belgium		X	X			X	X	X		X	X	X	X	X	X	X	X			X	X	X
	Bosnia and Herzegovina		X	X			X		X		X	X	X		X		X					X	
	Bulgaria		X	X			X	X	X		X	X	X		X	X	X				X	X	
	Croatia		X	X			X	X	X		X	X	X		X		X	X			X	X	
	Cyprus		X	X			X	X	X		X		X		X		X				X	X	
	Czech Republic		X	X			X	X	X		X	X	X		X		X	X			X	X	
	Denmark		X	X			X	X	X		X	X	X		X	X	X	X		X	X		X
	Estonia		X	X			X	X	X		X	X			X	X	X	X			X	X	X
	Finland		X	X			X	X	X		X	X	X		X	X	X	X			X	X	X
	France		X	X			X	X	X		X	X	X		X	X	X	X	X		X	X	X
	Georgia		X	X			X		X	X	X				X		X					X	
	Germany		X	X			X	X	X		X	X	X		X	X	X	X			X	X	X
	Greece		X	X			X	X	X		X		X		X		X	X			X	X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hungary		X	X			X	X	X		X	X	X		X		X	X			X	X	
	Iceland		X	X			X	X	X		X		X		X	X	X	X				X	
	Ireland		X	X			X	X	X		X	X	X		X		X	X			X	X	
	Italy		X	X			X	X	X		X	X	X		X	X	X	X			X	X	
	Latvia		X	X			X	X	X		X	X	X	X	X	X	X	X			X	X	X
	Lithuania		X	X			X	X	X		X	X	X		X		X	X			X	X	X
	Luxembourg		X	X			X	X	X		X	X			X	X	X	X			X	X	
	Malta		X	X			X	X	X		X		X		X		X	X				X	
	Netherlands		X	X			X	X	X		X	X	X		X	X	X	X		X	X	X	X
	Norway		X	X			X	X	X		X	X	X		X	X	X			X	X	X	X
	Poland		X	X			X	X	X		X	X	X		X	X	X	X			X	X	X
	Portugal		X	X			X	X	X		X	X	X	X	X	X	X	X			X	X	X
	Republic of Moldova		X	X			X		X		X		X		X		X					X	
	Romania		X	X			X	X	X		X	X	X		X	X	X	X				X	
	Russian Federation		X	X			X		X		X				X		X				X	X	
	Serbia and Montenegro		X	X			X		X		X	X	X		X		X					X	
	Slovakia		X	X			X	X	X		X	X	X		X	X	X	X			X	X	
	Slovenia		X	X			X	X	X		X	X	X		X	X	X	X			X	X	
	Spain		X	X			X	X	X		X	X	X		X	X	X	X		X	X	X	X
	Sweden		X	X			X	X	X		X	X	X		X	X	X	X		X	X	X	X
	Switzerland		X	X			X		X		X	X	X		X	X	X			X	X	X	
	The former Yugoslav Republic of Macedonia		X	X			X		X		X				X		X				X	X	
	Ukraine		X	X			X		X		X	X	X		X	X	X	X				X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for origin

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	United Kingdom		X	X	X	X	X		X		X	X	X		X	X	X	X		X		X	X
North America	Canada		X	X			X		X		X	X	X	X	X	X	X		X	X	X	X	X
	Mexico		X	X	X		X		X	X	X	X	X		X		X		X	X	X		
	United States of America	X	X	X			X		X		X	X	X	X	X	X	X			X	X	X	X
	Argentina		X	X	X		X		X	X	X	X	X		X	X	X		X			X	X
South America	Bolivia		X	X	X		X		X	X	X	X	X		X		X		X			X	
	Brazil		X	X	X		X		X	X	X	X	X		X	X	X		X	X	X	X	X
	Chile		X	X			X		X	X	X	X	X		X	X	X					X	
	Colombia		X	X	X		X		X	X	X	X	X		X		X				X	X	
	Ecuador		X	X			X		X	X	X	X	X		X		X				X	X	
	French Guiana		X	X			X		X		X						X					X	
	Guyana		X	X			X		X	X	X				X	X							
	Paraguay		X	X			X		X	X	X	X			X		X		X			X	
	Peru		X	X			X		X	X	X	X	X		X		X			X	X	X	
	Suriname		X	X			X		X	X	X	X	X				X					X	
	Uruguay		X	X			X		X	X	X	X	X		X		X			X			
	Venezuela		X	X			X		X	X	X		X				X					X	
	Chinese Taipe		X	X			X	X	X		X	X			X		X				X	X	
Undefined	Turkey		X	X			X		X		X	X	X		X		X				X	X	X

The ITC Standards Map[4] is the source unless otherwise stated below.

---

[4] www.standardsmap.org

D4.1 - Literature review and inventory of certification schemes and labels requirements

- 2. Better Cotton: Better Cotton is applicable worldwide as long as producers follow the criteria listed in the *New Country Programme Start-up Policy*.[5] The countries where the scheme is already applied are in bold;[6] the countries marked in green are Better Cotton Equivalent Standard Countries - countries that have their own robust, sustainable cotton standards in place, which have been benchmarked against the Better Cotton Standard and identified as equivalent.
- 5. BREEAM: The table marks the United Kingdom as the country of origin of the certification, as only the international/UK certification is considered. Other countries in Europe developed country specific BREEAM schemes operated by National Scheme Operators (NSOs). There are currently NSOs affiliated with BREEAM in the Netherlands, Spain, Norway, Sweden and Germany.
- 9. Fairtrade International: Fairtrade International determines which countries can be included in the geographical scope, considering economic and social indicators, long-term impact for producers and Fairtrade International's ability to support producers. Excluded from Fairtrade International's geographical scope are members of the European Union and G8-countries.[7] In China (marked with X* in the table), producers can only be certified against the Standard for Small Producer Organizations.
- 10. Fairtrade International Textile Standard: The Fairtrade International Textile Standard is applicable for textile suppliers in all countries and regions where freedom of association is possible. The excluded countries are listed in *Fairtrade Textile Standard Geographical Scope Policy*.[8] Export Processing Zones (EPZ), also known as Free Trade Zones or Special Economic Zones, are also excluded. EPZ are zones set up within a country where governments may permit the relaxation of country labour laws and restrict workers' access to join or form a trade union. The EPZ zone in Bangladesh (marked with X* in the table) is then excluded.
- 11. Forest Stewardship Council (FSC)and 15. PEFC International: the origin table reports the countries where FM (Forest Management) certificates are present.[9]
- 13. Green Gold Label (GGL): certificate holders are taken from the register.[10]
- 22. Sustainable Biomass Program (SBP): In the case of SBP information could only be found on countries where the CSL is applied or is about to be applied.[11]

Table 9 displays the receiving countries to which the CSLs applies. Unlike for the countries of origin, most CSLs are globally applicable in the case of countries of destination. Within this group, the majority of CSLs are seen used in all countries of the world (e.g., Better Cotton, BFA,

---

[5] https://bettercotton.org/wp-content/uploads/2022/09/Better-Cotton-New-Country-Programme-Policy-2022.pdf

[6] https://bettercotton.org/where-is-better-cotton-grown/

[7] https://files.fairtrade.net/standards/Geographical_Scope_Policy_EN.pdf

[8] https://files.fairtrade.net/standards/TextileGeographicalScope.pdf

[9] https://connect.fsc.org/impact/facts-figures, https://pefc.org/find-certified

[10] https://greengoldlabel.com/certification-register-2/

[11] https://sbp-cert.org/about-us/facts-figures/

D4.1 - Literature review and inventory of certification schemes and labels requirements

Bonsucro, BREEAM, GlobalG.A.P., PEFC, RA, REDcert² for the chemical industry, RSPO). Only a few CSLs are applicable in a limited number of countries (e.g., REDcert, SAI Platform FSA).

Table 9 Countries of destination of the CSLs. In red: only REDcert-EU, REDcert-DE; in blue: only REDcert² for chemical industry. In green: countries where only traders are present for SBP.

Geographic application – for destination																								
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Worldwide																		X					
Africa	Algeria		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Angola		X	X	X	X	X		X	X	X		X			X	X				X		
	Benin		X	X	X	X	X		X	X	X		X			X	X				X		
	Botswana		X	X	X	X	X		X	X	X		X			X	X				X		
	Burkina Faso		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Burundi		X	X	X	X	X		X	X	X		X			X	X				X		
	Cameroon		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Cape Verde		X	X	X	X	X		X	X	X		X			X	X				X		
	Central African Republic		X	X	X	X	X		X	X	X		X			X	X				X		
	Chad		X	X	X	X	X		X	X	X		X			X	X				X		
	Comoros		X	X	X	X	X		X	X	X		X			X	X				X		
	Congo		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Côte d'Ivoire		X	X	X	X	X		X	X	X	**X**	X			X	X				X		
	Democratic Republic of the Congo		X	X	X	X	X		X	X	X		X			X	X				X		
	Djibouti		X	X	X	X	X		X	X	X		X			X	X				X		
	Egypt		X	X	X	X	X		X	X		**X**	X			X	X				X	X	
	Equatorial Guinea		X	X	X	X	X		X	X	X		X			X	X				X		
	Eritrea		X	X	X	X	X		X	X	X		X			X	X				X		
	Ethiopia		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Gabon		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination																								
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Gambia		X	X	X	X	X		X	X	X		X			X	X				X		
	Ghana		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Guinea		X	X	X	X	X		X	X	X		X			X	X				X		
	Guinea-Bissau		X	X	X	X	X		X	X	X		X			X	X				X		
	Kenya		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Lesotho		X	X	X	X	X		X	X	X		X			X	X				X		
	Liberia		X	X	X	X	X		X	X	X		X			X	X				X		
	Libyan Arab Jamahiriya State of Libya)		X	X	X	X	X		X	X			X			X	X				X		
	Madagascar		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Malawi		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Mali		X	X	X	X	X		X	X	X		X			X	X				X		
	Mauritania		X	X	X	X	X		X	X	X		X			X	X				X		
	Mauritius		X	X	X	**X**	X		X	X	X	X	X			X	X				X	X	
	Morocco		X	X	X	**X**	X		X	X	X	X	X			X	X				X	X	
	Mozambique		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Namibia		X	X	X	X	X		X	X	X	X	X			X	X				X		
	Niger		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Nigeria		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Rwanda		X	X	X	X	X		X	X	X		X			X	X				X		
	Sao Tome and Principe		X	X	X	X	X		X	X	X		X			X	X				X		
	Senegal		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Seychelles		X	X	X	X	X		X	X	X	X	X			X	X				X		
	Sierra Leone		X	X	X	X	X		X	X	X	**X**	X			X	X			X	X		
	Somalia		X	X	X	X			X	X	X		X			X	X				X		

Geographic application – for destination																							
Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	South Africa		X	X	X	X	X		X	X	X	**X**	X		**X**	X	X			**X**	X	X	
	Sudan		X	X	X	X	X		X	X			X			X	X				X	X	
	Swaziland (eSwatini)		X	X	X	X			X	X	X	**X**	X			X	X				X	X	
	Togo		X	X	X	X	X		X	X	X		X			X	X				X		
	Tunisia		X	X	X	X	X		X	X	X	**X**	X			X	X			**X**	X	X	
	Uganda		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	United Republic of Tanzania		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Zambia		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Zimbabwe		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
Asia	Afghanistan		X	X	X	X	X		X	X			X			X					X		
	Azerbaijan		X	X	X	**X**	X		X	X	X		X			X	X				X		
	Bahrain		X	X	X	X	X		X	X			X			X	X				X		
	Bangladesh		X	X	X	X	X		X	X	X*	**X**	X			X	X				X		
	Bhutan		X	X	X	X	X		X	X			X			X	X				X		
	Brunei Darussalam		X	X	X	X	X		X	X			X			X	X				X	X	
	Cambodia		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	China		X	X	X	**X**	X		X	X		**X**	X			X	X			**X**	X	X	
	Democratic People's Republic of Korea		X	X	X	X	X		X	X			X			X	X				X		
	Hong Kong China		X	X	X	**X**	X		X	X	X	**X**	X	**X**		X	X				X		
	India		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Indonesia		X	X	X	X	X		X	X	X	**X**	X	**X**		X	X				X	X	
	Iran		X	X	X	X	X		X	X		**X**	X			X	X				X		
	Iraq		X	X	X	X	X		X	X			X			X	X				X		
	Israel		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Japan		X	X	X	**X**	X		X	X	**X**	**X**	X	**X**	**X**	X	X		**X**		X	X	**X**

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Jordan		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Kazakhstan		X	X	X	**X**	X		X	X	X	**X**	X			X	X	X			X		
	Kuwait		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Kyrgyzstan		X	X	X	X	X		X	X	X		X			X	X				X		
	Lao People's Democratic Republic		X	X	X	X	X		X	X		**X**	X			X	X				X		
	Lebanon		X	X	X	**X**	X		X	X	X	**X**	X			X	X				X	X	
	Malaysia		X	X	X	X	X		X	X	X	**X**	X	**X**		X	X				X	X	
	Maldives		X	X	X	**X**	X		X	X	X		X			X	X				X		
	Mongolia		X	X	X	X	X		X	X	X		X			X	X				X		
	Myanmar		X	X	X	**X**	X		X	X	X	**X**	X			X	X				X		
	Nepal		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Oman		X	X	X	**X**	X		X	X	X	**X**	X			X	X				X	X	
	Pakistan		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Palestine		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Philippines		X	X	X	X	X		X	X	X	**X**	X			X	X			X	X	X	
	Qatar		X	X	X	X	X		X	X		**X**	X			X	X				X		
	Republic of Korea		X	X	X	**X**	X		X	X	X	**X**	X	**X**		X	X			X	X	X	
	Saudi Arabia		X	X	X	**X**	X		X	X		**X**	X			X	X				X	X	
	Singapore		X	X	X	X	X		X	X	X	**X**	X	**X**		X	X		X		X	X	**X**
	Sri Lanka		X	X	X	**X**	X		X	X	X	**X**	X			X	X			X	X	X	
	Syrian Arab Republic		X	X	X	X	X		X	X			X			X	X				X		
	Tajikistan		X	X	X	X	X		X	X	X		X			X	X				X		
	Thailand		X	X	X	X	X		X	X	X	**X**	X			X	X			X	X	X	
	Timor-Leste		X	X	X	X	X		X	X	X		X			X	X				X		
	Turkmenistan		X	X	X	X	X		X	X	X		X			X	X				X		

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	United Arab Emirates		X	X	X	**X**	X		X	X	X	**X**	X	**X**			X	X				X	X	**X**
	Uzbekistan		X	X	X	**X**	X		X	X	X		X				X	X				X		
	Vietnam		X	X	X	X	X		X	X	X	**X**	X				X	X				X	X	**X**
	Yemen		X	X	X	X	X		X	X	X		X				X	X				X		
Australia & Oceania	Australia		X	X	X	X	X		X	X	**X**	**X**	X		X	X	X		X	X	X	X		
	Fiji		X	X	X	X	X		X	X	X	**X**	X				X	X				X		
	Kiribati		X	X	X	X	X		X	X	X		X				X	X				X		
	Marshall Islands		X	X	X	X	X		X	X	X	**X**	X				X	X				X		
	Micronesia		X	X	X	X	X		X	X	X		X				X	X				X		
	Nauru		X	X	X	X	X		X	X	X		X				X	X				X		
	New Caledonia		X	X	X	X	X		X	X	X		X				X	X				X		
	New Zealand		X	X	X	X	X		X	X	**X**		X		X	X	X					X	X	
	Palau		X	X	X	X	X		X	X	X		X				X	X				X		
	Papua New Guinea		X	X	X	X	X		X	X	X		X				X	X				X		
	Samoa		X	X	X	X	X		X	X	X	**X**	X				X	X				X		
	Solomon Islands		X	X	X	X	X		X	X	X		X				X	X				X		
	Tonga		X	X	X	X	X		X	X	X		X				X	X				X		
	Tuvalu		X	X	X	X	X		X	X	X		X				X	X				X		
	Vanuatu		X	X	X	X	X		X	X	X		X				X	X				X		
Central America and Caribbean	Antigua and Barbuda		X	X	X	X	X		X	X	X		X				X	X				X		
	Bahamas		X	X	X	X	X		X	X	X		X				X	X				X		
	Barbados		X	X	X	X	X		X	X	X		X				X	X				X		
	Belize		X	X	X	X	X		X	X	X	**X**	X				X	X				X		
	Costa Rica		X	X	X	X	X		X	X	X	**X**	X				X	X				X	X	
	Cuba		X	X	X	**X**	X		X	X			X				X	X				X	X	

44

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Dominica		X	X	X	X	X		X	X	X		X			X	X				X		
	Dominican Republic		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	El Salvador		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Grenada		X	X	X	X	X		X	X	X		X			X	X				X		
	Guatemala		X	X	X	X	X		X	X	X	**X**	X			X	X		X		X	X	
	Haiti		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Honduras		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Jamaica		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Nicaragua		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	Panama		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
	St. Kitts and Nevis		X	X	X	X	X		X	X	X		X			X	X				X		
	St. Lucia		X	X	X	X	X		X	X	X		X			X	X				X		
	St. Vincent and the Grenadines		X	X	X	X	X		X	X	X	**X**	X			X	X				X		
	Trinidad and Tobago		X	X	X	X	X		X	X	X	**X**	X			X	X				X	X	
Europe	Albania		X	X	X	X	X		X	X	X		X			X	X				X	X	
	Andorra		X	X	X	X	X		X	X	X		X			X	X	X			X		
	Armenia		X	X	X	**X**	X		X	X	X		X			X	X	X			X	X	
	Austria		X	X	X	**X**	X	X	X	X	X		X		X	X	X	X			X	X	
	Belarus		X	X	X	X	X		X	X			X			X	X	X			X	X	
	Belgium		X	X	X	**X**	X	X	X	X	X		X		X	X	X	X	X		X	X	X
	Bosnia and Herzegovina		X	X	X	**X**	X		X	X	X		X			X	X	X			X	X	
	Bulgaria		X	X	X	**X**	X	X	X	X	X		X			X	X	X			X	X	X
	Croatia		X	X	X	**X**	X	X	X	X	X		X			X	X	X			X	X	
	Cyprus		X	X	X	**X**	X	X	X	X	X		X			X	X	X			X	X	
	Czech Republic		X	X	X	**X**	X	X	X	X	X		X		X	X	X	X			X	X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Denmark		X	X	X	**X**	X	X	X	X			X	**X**	**X**	X	X	X	**X**	**X**	X	X	X
	Estonia		X	X	X	X	X	X	X	X			X		**X**	X	X	X			X	X	X
	Finland		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X	**X**		X	X	X
	France		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X	**X**		X	X	X
	Georgia		X	X	X	X		X	X	X			X			X	X	X			X	X	
	Germany		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X	**X**		X	X	X
	Greece		X	X	X	**X**	X	X	X	X			X			X	X	X			X	X	
	Hungary		X	X	X	**X**	X	X	X	X			X			X	X	X			X	X	
	Iceland		X	X	X	**X**	X		X	X	X		X			X	X	X			X	X	
	Ireland		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X	**X**		X	X	
	Italy		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X	**X**		X	X	X
	Latvia		X	X	X	**X**	X	X	X	X			X		**X**	X	X	X			X	X	
	Lithuania		X	X	X	X	X	X	X	X	**X**		X		**X**	X	X	X			X	X	X
	Luxemburg		X	X	X	**X**	X	X	X	X	X		X		**X**	X	X	X			X	X	
	Malta		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X			X		
	Netherlands		X	X	X	**X**	X	X	X	X	X	**X**	X	**X**	**X**	X	X	X	**X**	**X**	X	X	X
	Norway		X	X	X	**X**	X		X	X	X	**X**	X		**X**	X	X	X	**X**	**X**	X	X	
	Poland		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X			X	X	
	Portugal		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X	**X**		X	X	X
	Republic of Moldova		X	X	X	X	X		X	X	X	**X**	X			X	X	X			X	X	
	Romania		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X			X	X	
	Russian Federation		X	X	X	**X**	X		X	X	X		X		**X**	X	X	X			X	X	
	Serbia and Montenegro		X	X	X	**X**	X		X	X	X	**X**	X			X	X	X			X	X	
	Slovakia		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X			X	X	
	Slovenia		X	X	X	**X**	X	X	X	X	X	**X**	X			X	X	X			X	X	
	Spain		X	X	X	**X**	X	X	X	X	**X**	**X**	X		**X**	X	X	X	**X**	**X**	X	X	X

D4.1 - Literature review and inventory of certification schemes and labels requirements

Geographic application – for destination

Continent	Country	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Sweden		X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
	Switzerland		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	The former Yugoslav Republic of Macedonia		X	X	X	X	X		X	X	X	X	X			X	X	X			X	X	
	Ukraine		X	X	X	X	X		X	X	X	X	X			X	X	X			X	X	
	United Kingdom		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
North America	Canada		X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X
	Mexico		X	X	X	X			X	X	X	X	X			X	X			X	X	X	
	United States of America		X	X	X	X	X		X	X	X	X	X		X	X	X		X	X	X	X	X
South America	Argentina		X	X	X	X	X		X	X	X	X	X			X	X		X		X	X	
	Bolivia		X	X	X	X	X		X	X	X	X	X			X	X					X	
	Brazil		X	X	X	X	X		X	X	X	X	X			X	X		X	X		X	
	Chile		X	X	X	X	X		X	X	X	X	X			X	X		X		X	X	
	Colombia		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Ecuador		X	X	X	X	X		X	X	X	X	X			X	X		X		X	X	
	Falkland Islands (Malvinas)		X	X	X	X	X		X	X	X		X			X	X				X		
	French Guiana		X	X	X	X	X		X	X	X		X			X	X				X		
	Guyana		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Paraguay		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Peru		X	X	X	X	X		X	X	X	X	X			X	X		X	X	X	X	
	Suriname		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
	Uruguay		X	X	X	X	X		X	X	X	X	X			X	X		X	X	X	X	
	Venezuela		X	X	X	X	X		X	X	X	X	X			X	X				X	X	
Undefined	Chinese Taipei		X	X	X	X	X		X	X	X		X			X	X		X		X	X	
	Turkey		X	X	X	X	X		X	X	X	X	X			X	X				X	X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Data on the geographic application was taken from ITC Standards Map,[4] unless otherwise stated below.

- 1. ASC-MSC Seaweed Standard: There is no data publicly available on importing countries for the ASC-MSC Seaweed Standard.
- 5. BREEAM: the destination table lists, in bold, the countries where projects are certified by BRE Global (BREEAM UK, BREEAM International).[12]
- 10. Fairtrade Textile Standard: the destination table reports countries with already licensed traders in bold; the regions where freedom of association is not possible (according to the *Fairtrade Textile Standard Geographical Scope Policy*)[8] are excluded from the applicable countries. The EPZ zone in Bangladesh (marked with X* in the table) is then excluded.
- 11. Forest Stewardship Council (FSC), the destination table reports the countries where CoC (Chain of Custody) certificates are present.[9]
- 13. Green Gold Label (GGL): certificate holders are taken from the Register.[10]
- 18. Round Table on Responsible Soy Association (RTRS): Industry, trade and finance members are considered.
- 22. Sustainable Biomass Program (SBP): in the destination table, countries, where only traders with SBO certificates are present, are marked in green; countries with end-users, or both traders and end-users, are left in white.[11]

In conclusion, the potential geographic application generally indicates a much wider demand for certified biobased feedstocks and products than in countries where feedstocks are produced for such products. Indeed, for all CSLs the number of countries marked in the destination table destination for certified products is greater than the number of countries of origin. Thus, the results point to a disparity in the geographical distribution between the consuming countries and countries supplying certified products. This is true even in cases where only applied data is available, confirming that the potential market for certified raw materials or products is large. In the origin table, predictably, the CSLs are in general applied in the countries where the current producers of feedstocks are located. However, the list of countries may expand in the future, as the applicability of the CSLs is broader than their current application. It is interesting to note that some countries may be intentionally excluded from future certification applications because they do not meet select social sustainability requirements decided by the CSL. These limitations should be considered by companies considering having their products certified. As for the destination table, the relationship between the presence of CSLs and the countries' individual demand for certified feedstock and products is more complex to map out. It is outside the scope of this report to determine the factors that may contribute to the geographical distribution of the destination countries, although import/export flows, possible public incentives, and customers' demand might play a role, depending also on the specific country and considered CSL.

---

[12] https://tools.breeam.com/projects/explore/map.jsp

D4.1 - Literature review and inventory of certification schemes and labels requirements

However, the results presented here are, in some cases, based only on the countries in which the 22 selected CSLs are applicable or have already been applied. These results also remark on the importance of the availability of data related to the geographic scope of CSLs, which is necessary to provide a clear overview of the applicability of certification schemes.

D4.1 - Literature review and inventory of certification schemes and labels requirements

5.2 Value chain elements

The focus of the value chain elements analysis is primarily to provide an overview of the feedstocks and products covered by each selected CSL. This topic is covered in detail in deliverable D2.1 of the HARMONITOR project. As shown in Table 10, most CSLs certify feedstocks and products or feedstocks only. Only a minority of CSLs exclusively certify biobased products. This means that the sustainability assessment of the selected CSLs focuses primarily on the feedstock production stage of the value chain.

In addition, the focus of the selected CSLs differs in terms of feedstocks. There are CSLs that cover only a specific feedstock, e.g., ASC-MSC Seaweed Standard (seaweed), Better Cotton (cotton and fibre), Bonsucro (sugarcane), RTRS (soy and corn), and RSPO (palm oil). Other systems, however, certify a wide range of feedstocks, e.g., GlobalG.A.P., ISCC, Rainforest Alliance, REDcert, RSB, and SAI Platform - Farm Sustainability Assessment FSA.

This can also be observed for the products covered by the CSLs. There are CSLs that only consider specific products, e.g., BFA (bioplastics), BREEAM (building materials), and Fairtrade International Textile Standard (textiles). Whereas others certify a wide range of products made from different feedstocks, e.g., Cradle to Cradle Certified, ISCC, Rainforest Alliance, REDcert and RSB. However, there are also CSLs that cover many products made from one or only a few feedstocks, e.g., Bonsucro, EU Ecolabel - Paper, EU Ecolabel - Textiles, and PEFC.

This means that the selected CSLs represent the diversity of feedstocks and products that may be relevant to the biobased sector. In addition, the diversity of approaches to which feedstocks and products are covered by the selected CSLs demonstrates that sustainability certification has the potential to use different approaches to address the elements of the biobased product value chain. One advantage of this diversity is that companies can select those CSLs that best fit their business model. On the other hand, the diversity of approaches to consider feedstocks and products could be confusing and not transparent for companies and customers.

Table 10 List of value chain elements

	Value chain elements	
	Feedstock	Products
ASC-MSC Seaweed Standard	Algae	
Better Cotton	Cotton, fibres	
Bioplastic Feedstock Alliance (BFA)	Agricultural crops, cellulosic crops, residues and waste products, non-traditional organisms like algae	Bioplastics
Bonsucro	Sugarcane	Raw sugar (non-food grade raw sugar product), Refined sugar (food grade sugar product), Molasses (mother liquor leftover after crystallisation of sugar),

		Bagasse (Residual dry fibre of the cane after cane juice has been extracted), Ethanol, Electricity (e.g., from bagasse, ethanol), Other (e.g., dunder and mill mud that is used as fertilizer).
BREEAM		
Cradle to Cradle Certified		Clothing, Cosmetics, Detergents, Electronics, Health, Households, Jewellery, Textiles / Garment, Toys.
EU Ecolabel - Paper	Paper	Manufactured products for Households (graphic paper, tissue paper and tissue products)
EU Ecolabel - Textiles	Natural fibres	Clothing, Textiles, Manufactured products
Fairtrade International		
Fairtrade International Textile Standard		Textiles
Forest Stewardship Council (FSC)	Cotton & fibbers, Food & Beverages, Health, Households, Housing, Nuts, Other products, Plants	
GlobalG.A.P.	GlobalG.A.P. Plants Certification: Fruits and vegetables - specialty crops (e.g., Oil palm kernel and fruit, Potato); Combinable crops - field crops, e.g.: Barley Buckwheat Castor bean Clover (forage) Cotton	

D4.1 - Literature review and inventory of certification schemes and labels requirements

	Hemp (industrial) Lentil Lupin Maize Millet Oats Rape seed/Canola Rice Rye Sorghum Soybean Spelt Sugar beet Sugarcane Sunflower Triticale Wheat Flowers and ornamentals (e.g., trees (various species); Hop (e.g., hop cone) Tea; Plant propagation material. GlobalG.A.P. Aquaculture Certification: Finfish (e.g., Atlantic Salmon) Crustaceans (e.g., Flathead grey mullet) Molluscs (e.g., Common octopus) Seaweed e.g.: Red dulse Sea grape/Moai caviar Sea lettuce Sugar kelp/Royal kombu GlobalG.A.P. Livestock Certification: Ruminant Base Pigs Poultry Turkey	
Green Gold Label (GGL)	Biomass from forestry, Agricultural biomass	Production, processing, trade made form biomass from forestry and agricultural biomass

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

ISCC EU & ISCC PLUS	All types of agricultural and forest biomass, biogenic waste and residues, non-biological renewables and recycled carbon-based materials (ISCC EU); All types of agricultural and forestry raw materials, bio wastes and residues, renewable feedstocks and fossil materials (ISCC PLUS)	Biofuels, bioliquids, biomass fuels, advanced fuels, low iLUC risk fuels, RFNBOs (Renewable fuels of non-biological origin) and recycled carbon fuels (ISCC EU); Circular and bio-based products, renewables, food, feed & biofuels outside the framework of the REDII (ISCC PLUS)
PEFC International (Programme for the Endorsement of Forest Certification)		Roundwood (e.g., Chips and particles); Fuelwood and energy (e.g., Sawnwood); Engineered wood products (e.g., Laminated Veneer Lumber (LVL)); Wood based panels (e.g., Fibreboard); Wood manufacturers (e.g., Wood packaging); Indoor Furniture (e.g., Hospital and care sector furniture); Exterior products (e.g., Street furniture); Wooden buildings and construction material (e.g., Integrated parts of wooden buildings and constructions);

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

		Pulp (e.g., Pulp from recycled material); Paper and paper board (e.g., Printed matter); Non-wood products (e.g., Chemical, medicinal, and cosmetic products).
Rainforest Alliance	Coffee Nuts Cocoa Tea Banana Fruits vegetables Herbs and spices Flower and plant	Coffee Nuts Cocoa Tea Banana Fruit vegetables Herbs and spices Flower and plant
REDcert, REDcert2	Waste and residues Cereals Hops Hydrogenated vegetable oil Molasses Corn Malt Oilseed Vegetable oil Palm oil Rapeseed Soybeans Substrate for biogas/biomethane Sunflower seed Straw Plant mucilage Soap from sulphate production Cooking oil Used cooking oil Sugar Sugar beet Sugar beet pulp Thick, black liquor Other biomass	Biodiesel Biogas Biogasoline Bio-LNG Bio-LPG Biomethane (density 0.72 kg/m3) Ethanol Fatty acid methyl ester Fatty acids Thick juice Flour Pyrolysis oil
Round Table on Responsible Soy Association (RTRS)	Soy, Corn	
Roundtable on Sustainable Biomaterials (RSB)	Perennial grasses Annual crops Algae	Traditional biofuels:

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

	Oilseeds Short rotation coppice woody biomass Crop residues Municipal solid waste Industrial wastes and residues	Biodiesel and Ethanol Cellulosic Ethanol Drop-in biofuels Bioplastics Biolubricants Renewable base oils Plant oils and Animal fats Starches and sugars Feed and Nutritionals Energy Pellets and chips Bio-chemicals Cosmetics Pharmaceuticals Textiles and fibres
Roundtable on Sustainable Palm Oil (RSPO)	Palm oil	
SAI Platform - Farm Sustainability Assessment FSA	Agave Apples Apricots Asparagus Aubergines Bamboo Shoot Bananas Barley Basil (Herb) Beans Beetroot Beetroot Greens Bell pepper Bitter Oranges Blackcurrants Blueberries Broad Beans / Fava Beans Broccoli Brussel Sprouts Buckwheat Cabbages Carrots Cauliflower Celeriac Celery Chamomile (Herb) Cherries Chickpeas Chilli	

D4.1 - Literature review and inventory of certification schemes and labels requirements

	Chokeberries Cinnamon Clover (Herb) Coriander (Herb) Courgette Cranberries Cucumbers Cumin Dates Dill (Herb) Dry Peas Durum Wheat Elderberries Eucalyptol Flax / Linseed Garlic Grapefruit Grapes Green Malting Guavas Hazelnuts Hibiscus Hop Cones (HO) Kale Kiwis Lavender (Herb) Leeks Lemons Lentils Linen Litchis / Lychees Lucerne Maize Mandarins Mangoes Millet Mint (Herb) Moringa Mushrooms Nectarines Oats Oilseed flax Onions Oregano (Herb) Oranges Papayas Parsley (Herb) Passion Fruit / Granadilla / Maracuja Peaches Pears Peas Peppercorns Peppermint (Herb)	

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Plums	
	Pomegranates	
	Pomelos	
	Potatoes	
	Pumpkin	
	Quinoa	
	Rape Seed/Canola	
	Raspberries	
	Red Currants	
	Rhubarb	
	Rice	
	Rosemary (Herb)	
	Rye	
	Shallot	
	Sorghum	
	Sour Cherries	
	Soursop (Graviola)	
	Soya Beans	
	Spelt	
	Spinach	
	Strawberries	
	Sugar Beet	
	Sugarcane	
	Sunflowers	
	Sweetcorn	
	Sweet Potatoes	
	Swiss Chard	
	Table Grapes	
	Thyme (Herb)	
	Tomatoes	
	Triticale	
	Turmeric	
	Turnip Leaves	
	Wheat	
Sustainable Biomass Program (SBP)		

Matching the CSLs with the value chains selected under T2.1

Table 11 explains how feedstocks and products covered by the CSLs selected under WP4 correspond with the value chains included in Deliverable 2.1. This provides an overview of a representative selection of CSLs potentially applicable for the certification of feedstocks and products relevant for the selected value chains.

A large majority of the selected CSLs cover the feedstocks of the value chains selected under Task 2.1 of WP2. Within this category of edible crops, which accounts for sugarcane, corn, soy, for instance, are covered by a significantly larger number of CSLs than woody biomass and fibres such as cotton, hemp and more. In addition, innovative and advanced feedstocks such as algae and agricultural residues play a significant role in the selected CSLs.

Many CSLs also certify products from the value chains selected under T2.1. Within this group, the majority of CSLs cover textiles, including rayon-based yarns. The CSLs selected under WP4 represent about half of the CSLs selected under Task 2.1 that cover such products. This is trailed by wood-based products, such as MDF/board, packaging materials, and paper. The selected CSLs represent about two-thirds of the CSLs selected under Task 2.1 that cover wood-based products and about half of the CSLs that certify paper. It is noteworthy that the

CSLs selected in WP4 covering bio-based plastics and other chemicals account for about half of the CSLs potentially applicable for certification of such products according to the Task 2.1 longlist of CSLs. In the case of cosmetics, the CSLs selected under WP4 represent about one-third of the CSLs selected under Task 2.1 that cover such products.

These results show that the CSLs selected in WP4 are a suitable selection for the further development of the HARMONITOR project, as they match the value chains selected for the project. In this sense, the comparison presented in the table below is helpful for the development of the benchmark platform to be developed in the project, specifically targeting the value chains selected in Task 2.1.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Table 11 Matching between the Certification Schemes and Labels and the value chains selected under Task 2.1

	Value chain elements	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile Standard	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & RedCert²	RTRS	RSB	RSPO	SAI	SBP
Feedstock	Sugarcane South America			X	X					X			X		X					X		X	
	Corn North America			X						X			X		X		X		X	X		X	
	Corn Europe			X						X			X		X		X	X	X	X		X	
	Sugar beet EU			X						X			X		X			X		X		X	
	Sugar beet US			X						X			X		X					X		X	
	Wheat EU			X						X			X		X		X	X		X		X	
	Soy South America			X						X			X		X			X	X	X		X	
	Soy US			X						X			X		X			X		X		X	
	Palm Oil			X						X			X		X		X	X		X	X	X	
	Canola EU			X						X			X		X			X		X		X	
	UCO Asia			X											X			X		X			
	Wood (primary, secondary) US			X								X		X	X	X				X			X
	Wood (primary, secondary) EU			X								X		X	X	X				X			X
	Cotton Asia		X							X		X	X		X								
	Cotton Africa		X							X		X	X		X								
	Hemp EU		X							X		X	X		X								
	Hemp India		X							X		X	X		X								
	Flax EU		X							X		X			X							X	

Category	Item																			
	Jute India		X						X		X				X					
	Natural Rubber Indonesia														X	X				
	Algae	X		X						X			X		X				X	
	Agricultural residues (e.g., straw)			X	X									X	X		X		X	X
Products	Ethylene glycol			X			X								X[1]		X[2]		X	
	Biopolymers (e.g., Polyurethane, starch polymers)			X			X								X[1]		X[2]		X	
	Bioplastic (e.g., PET, PLA)			X			X								X[1]		X[2]		X	
	Thermoplastic Polyester (e.g., PLA)			X			X								X[1]		X[2]		X	
	Solvents (e.g., Polypropylene glycol, Butanediol, Epichlorohydrin)			X			X								X[1]		X[2]		X	
	Cosmetics (e.g., from Algal fatty acids, Palmitic acid)						X								X[1]	X			X	
	Building materials (e.g., from sawn wooden products)					X	X					X			X[1]	X			X	
	MDF/Particle board (e.g., from fibreboard)						X					X			X[1]	X			X	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Packaging materials (e.g., from wood packaging materials)	X				X		X¹	X			X
Chemicals (e.g., from tall oil)	X						X¹	X		X²	X
Yarn (e.g., from Rayon)	X		X		X		X¹		X		X
Medical devices (e.g., from natural rubber)	X						X¹	X			X
Textile (e.g., T-Shirt	X		X	X	X	X	X¹				X
Technical Textiles	X		X	X	X	X	X¹				X
Paper	X	X			X		X¹	X			X
Pulp	X	X			X		X¹	X			X

Any inconsistencies with the results of Deliverable 2.1 are due to the fact that the analysis of the selected CSLs in Deliverable 4.1 is more detailed. [1] Only ISCC PLUS, [2] only REDcert[2].

D4.1 - Literature review and inventory of certification schemes and labels requirements

5.3 Requirements on Certificate Holders

This section summarises the requirements of the different CSLs, focusing especially on environmental, social, and economic requirements. It includes a detailed overview and description of the elements and conditions that are required in CSLs. This inventory includes an analysis to provide an understanding of the components and requirements of the reviewed CSLs. In the context of a certification scheme's normative requirements, the concept of control points may not have a direct equivalent term. However, the interpretation used in this analysis is that of performance indicators. Certification schemes use performance indicators to assess and track a Certification Holder's performance. These indicators act as control points by providing measurable targets that need to be conformed to by the CH and verified by the CB.

This section begins with a concise overview of key definitions related to various levels of requirements. This is followed by subchapters containing the different categories of requirements for certificate holders. These categories encompass:

- Environmental requirements
- Social requirements
- Economic requirements
- Legal requirements
- Material control
- General requirements

Within the subsequent subchapters, each requirement category is elaborated upon, accompanied by specific examples. Concluding each sub-chapter is a summary table that outlines the inclusion of requirements within different CSLs.

5.3.1 Requirement hierarchy

In general, the requirements of certification standards serve to provide guidelines and criteria for assessing and ensuring the conformity of an organisation or product to certain quality or performance standards.

Principles are the main goals and values of sustainable forest management, such as protecting biodiversity, respecting human rights, or ensuring economic viability. Principles are broad and not measurable by themselves, but they guide the lower levels of standards. Criteria are the specific conditions or actions that are needed to achieve the principles. They are more concrete and practical than principles, but they still need more details to be assessed. Indicators are measurable or verifiable statements that show whether a criterion is met or not. They are the most specific and observable level of standards. The indicators should reflect the meaning and scope of the criteria, which should be derived from and aligned with the principles. The standards should also be compatible with each other and avoid duplication or contradiction. The standards should be written in a clear, concise and unambiguous way to make them easy to understand, implement and audit.[13]

It is important to note that certification standards may vary depending on the sector and scope of application. Each standard has specific requirements that fit the needs of the sector in which it operates and may offer specific benefits based on those requirements.

---

[13] https://www.fao.org/sustainable-forest-management/toolbox/modules/forest-certification/in-more-depth/en/

5.3.2 Environmental requirements

This section provides an overview of the various environmental requirements based on the criteria defined in the conceptual Scheme Evaluation Framework (SEF). These requirements include:

- Forest and natural ecosystems
- Ecosystem and biodiversity values
- The application of chemicals
- Circularity
- Pollution
- Water
- Soil

Environmental requirements also include criteria related to climate change, such as:

- Greenhouse gas emissions reduction
- Greenhouse gas removal and ecosystem restoration
- Climate change adaptation

Forest and natural ecosystems

A natural ecosystem substantially resembles – in terms of species composition, structure, and ecological function – one that is or would be found in each area without significant human impact. This includes human-managed ecosystems where much of the natural species' composition, structure, and ecological function are present. Forests are generally defined by the presence of trees that can reach a minimum height of five metres and the absence of other predominant land uses, according to the UN FAO. (FAO 2020).

At the land-use level, certification schemes have stringent requirements to ensure that feedstock cultivation does not negatively impact natural ecosystems or activities that do not contribute to deforestation or the conversion of forests or other natural ecosystems. This is managed by mainly prohibiting land conversion of High Conservation Value (HCV) or High Carbon Stock (HCS) designated areas. This is also covered in the *Climate Change* section on agriculture. Examples of such restrictions are found in EU-compliant[14] sustainability schemes that ensure feedstock production for biofuels, bioliquids, and biomass fuels does not occur on land with significant biodiversity and prohibits the conversion of land with high carbon content. The European Commission has acknowledged the following schemes that adhere to these standards: Bonsucro EU, ISCC EU, REDcert, RSB EU RED, RTRS EU RED, and SBP. Other schemes with an agricultural focus, such as the Bioplastic Feedstock Alliance, GGL, Rainforest Alliance and RSPO, also include provisions to forbid deforestation.

The requirements for sustainable land use also entail that forests and other ecosystems are not degraded. This necessitates activities that proactively avoid degradation and promote the long-term productivity of natural resources. A core principle in ASC-MSC Seaweed-Algae standard is, for example, that harvesting and farming of seaweeds are conducted to maintain the productive capacity of the wild seaweed populations. When choosing technologies in biofuel operations, RSB requires operations to minimise the risk of environmental damage and improve both its environmental and social performance over the long term. Requirements for sustainable forestry encompass several aspects, such as maintaining or enhancing HCV areas, as specified by the FSC. Additionally, there is a focus on preserving forest ecosystem

---

[14] Recognized in compliance with the rules included in the Renewable Energy Directive by the European Commission. Source: EU Energy Voluntary Schemes

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

health, safeguarding forest resources, and its positive contribution to the carbon cycle, as detailed by the PEFC. Legal compliance with management and harvesting activities within forests and non-forests is another crucial requirement. Emphasis is also placed on utilising natural resources to ensure long-term productivity and yield, for example, by minimising clear-cutting to maintain the ecological appropriateness of a forest ecosystem. Another aspect is the controlled use of fire, limited to land preparation, and demonstrated to provide environmental and social benefits.

Example box 1 Control points in ISCC

> The International Sustainability and Carbon Certification (ISCC) details specific control points to ensure the protection of forests and other natural ecosystems. One of these conditions is raw materials must not be sourced from lands comprising any of the following: Primary forests and other wooded lands; highly biodiverse forests and other wooded land; areas designated by law or by a relevant competent authority for nature protection purposes; areas designed for the protection of rare, threatened or endangered ecosystems or species; and highly biodiverse grassland spanning more than one hectare.
>
> Moreover, raw materials are also prohibited from being procured from lands of high carbon stock. This includes lands which, in January 2008, fell under categories such as wetlands, continuously forested areas, and forested areas with a canopy cover of 10% to 30% but no longer maintain these characteristics. The production of biomass from peatland is strictly forbidden.

Ecosystem and biodiversity values

In alignment with the HCV Network Guidance, many certification schemes require the identification of ecosystem and biodiversity values to maintain and enhance them. Furthermore, strict adherence to legal requirements concerning biodiversity conservation, protection of protected sites, and safeguarding endangered or protected species is an integral part of these sustainability initiatives. The CSLs rely on participants having a comprehensive knowledge of the ecosystem by obtaining and diligently maintaining or improving biodiversity within the production areas. In Bonsucro, for example, the operator shall identify mitigation and restoration measures for biodiversity, ecosystem services, and HCVs in a defined Biodiversity Management Plan. Forests and other natural ecosystems are managed in a manner that sustains and enhances the vital functions and services they offer. In RSB, a criterion is practices shall be implemented to maintain ecosystem function services, such as biodiversity, both inside and outside the operational site. Special attention is given to rare, endangered, or protected animal and plant species. These must be identified, and concerted efforts must be made to protect, maintain, or even enhance their populations. Preventing the introduction of invasive species is a key aspect of these conservation efforts. Additionally, already present invasive species are meticulously controlled to mitigate their impact on the ecosystem. The CH also protects species through legal requirements related to the harvesting, collection, and trade of CITES-defined species, underscoring the dedication to sustainable and responsible practices.

Example box 2 Control points in ASC-MSC Seaweed

> The ASC-MSC Seaweed (Algae) Standard outlines specific performance requirements related to Endangered, Threatened, or Protected Species (ETP). These are defined as recognised by legislation and listed in binding international agreements, including Appendix 1 of CITES, agreements concluded under the Convention on Migratory Species (CMS), and species listed in the IUCN Red List as vulnerable (VU), endangered (EN), or critically

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

endangered (CE). The requirements include ensuring that seaweed harvesting or farming activities do not risk severe or irreversible harm to ETP species and do not hinder their recovery. To achieve this, precautionary management strategies must be implemented to meet national and international standards and protect ETP species from harm while promoting their recovery. Additionally, the ASC-MSC Seaweed (Algae) Standard includes provisions to maintain or enhance the biologically based limits of the main species involved in harvesting and farming activities.

Chemicals

Environmental requirements related to the use of chemicals can be found in various certification standards, especially those that focus on environmental impact, health, and safety. These requirements aim to promote the responsible use and management of chemicals to minimise negative effects on human health and the environment.

Many times, certification schemes may have lists of restricted or banned chemicals that are not allowed in the production of certified products. These lists often include hazardous substances that can be harmful to human health or the environment.

Others may require businesses to have robust chemical management systems in place. This involves proper labelling, storage, handling, and disposal of chemicals to prevent accidents and pollution.

Example box 3 Control points in Ecolabel, Fairtrade and ASC-MSC

Ecolabels, for example, evaluate a range of products that often have requirements related to chemicals, including restrictions on hazardous substances and criteria for low VOC emissions. This scheme has a Restricted Substance List (RSL), which outlines the substances that are restricted or prohibited in products to ensure they meet specific environmental and health criteria. This is also the case of Fairtrade standard, which maintains a Hazardous Materials List (HML) of agrochemicals (including pesticides) that can be potentially hazardous in some form or other to human and animal health as well as to the environment and, therefore should be used only under caution.

Also, Cradle to Cradle Certified products must meet specific criteria for chemical content, such as the exclusion of certain hazardous substances or the use of materials with known safe profiles.

ASC-MSC formally exclude from certification all those harvesting or farming activities which use mutagenic, carcinogenic or teratogenic pesticides or any other chemicals that persist as toxins in the marine environment or on the farm or farmed seaweeds.

Waste management

Environmental requirements related to waste management can vary across different certification standards, but the overall goal is to promote responsible waste handling and minimise environmental impacts from activities, including production and processing, following legal requirements.

Sometimes certification schemes focus on proper waste disposal to ensure that waste is handled in an environmentally friendly manner. This may include requirements for appropriate waste treatment facilities or adherence to waste disposal regulations.

65
D4.1 - Literature review and inventory of certification schemes and labels requirements

Many CSLs address the management of hazardous waste. Companies are often required to handle hazardous materials safely, minimise their use, and ensure proper disposal in compliance with relevant regulations.

While others promote Extended Producer Responsibility (EPR), which holds producers accountable for managing their products' waste throughout their entire life cycle, EPR encourages companies to take responsibility for the end-of-life treatment of their products, including recycling and safe disposal.

While some standards may not have explicit waste management requirements, they often promote practices that minimise waste generation, encourage recycling and reuse, and advocate for responsible waste disposal to support overall environmental sustainability goals. Companies may be required to demonstrate that they have established effective recycling programs and incorporate recycled materials into their products or processes.

Example box 4 Control points in SBP, ASC-MSC, Bonsucro and Ecolabel

SBP includes requirements related to waste management as part of its biomass certification system. It sets criteria for the appropriate treatment and disposal of biomass residues and by-products, ensuring that they are managed in an environmentally sound manner.

ASC-MSC standard promotes environmental awareness training, including disposal of waste, prevention and management of chemical and hydrocarbon spills.

Bonsucro standard has a specific requirement to reduce emissions and effluents and to promote recycling of waste streams where practical.

Ecolabel considers various criteria related to waste disposal and segregation, monitoring and measuring solid waste volumes, and disposal of hazardous waste.

Various CSLs promote waste management principles indirectly by encouraging recycling. This is the case of Cradle to Cradle Certified products, which are assessed based on their ability to be fully recyclable or compostable, thereby reducing waste generation. The certification encourages the use of materials that can be safely returned to the biosphere or industry as nutrients or recycled materials.

Circularity

Sustainable circularity requirements in certification schemes focus on promoting and recognising practices that contribute to a circular economy. A circular economy aims to minimise waste, make the most of resources, and create a closed-loop system where materials and products are continually reused, refurbished, or recycled, reducing the need for new raw materials and minimising environmental impacts.

Certification schemes with sustainable circularity requirements typically evaluate various aspects of a product or process to ensure they align with circular economy principles.

Sometimes, they may assess whether products are designed with circularity in mind. This involves considering the recyclability, reparability, and durability of products, as well as using materials with a reduced environmental impact and encouraging modularity or disassembly for easier end-of-life recycling. In this sense, certifications may require businesses to optimize resource use, including raw materials and energy. This could involve measures such as using recycled or renewable materials, implementing energy-efficient processes and reducing waste generation during production. Indeed, some of them often assess how companies manage their waste and how they recycle or reuse materials at the end of a product's life cycle.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Requirements may include setting targets for the percentage of materials that are recycled or directing waste streams towards recycling facilities.

Cradle to Cradle is a design framework that explicitly focuses on circularity. Cradle to Cradle Certified products are assessed based on their ability to be safely and effectively recycled or composted, promoting the use of materials that can circulate in closed-loop systems. Examples of requirements for obtaining Bronze level include that the applicant is involved in a circularity education initiative, the intended cycling pathway(s) for the product and its materials are defined, a plan is created to address challenges with the cycling infrastructure at the end of the product's first use, a select product and material types contain cycled and/or renewable content or limitations for this specific criteria are publicly reported, at least half of the materials by weight are compatible with the intended cycling pathway(s) and circularity data and cycling instructions are publicly available.

Pollution

Pollution requirements in certification schemes focus on promoting practices that minimise pollution and reduce the environmental impact of various industries and activities. The main aim is to prevent contamination of the soil and of the air through effluents and emissions.

Certification schemes may set limits on emissions of pollutants, such as greenhouse gases, particulate matter, volatile organic compounds (VOCs), and other harmful substances. Businesses must demonstrate compliance with these limits to achieve certification.

In general, certifications often emphasise pollution prevention strategies and monitoring. This involves implementing measures to minimise the generation of pollutants, such as waste reduction, water and energy conservation, and efficient resource use.

Example box 6 Control points in ASC-MSC, Ecolabel, and RTRS

ASC- MSC require responsible aquaculture and fishing practices that consider water quality, waste management, and the use of chemicals to prevent pollution. They have measures to reduce chemical and hydrocarbon waste and measures to prevent spills of chemicals and hydrocarbons.

Ecolabel certifications may assess the use of harmful substances, waste management practices, and emissions to air, water, and soil. Ecolabel considers criteria on sulphur and nitrogen oxide emissions for the paper industry (SSCT) and air quality and pollution monitoring criteria.

RTRS includes criteria related to pollution prevention and responsible soy production in its certification standard. Appropriate measures are implemented to prevent the drift of agrochemicals to neighbouring areas.

Water

Water requirements in certification schemes typically focus on promoting responsible water use, conservation, and protection of water resources.

Certification schemes often encourage businesses and industries to adopt water-efficient practices. This may involve implementing water-saving technologies, optimizing irrigation techniques, and reducing water waste in production processes.

Others include criteria related to the protection of water quality and ecosystems. This may involve measures to prevent water pollution, such as controlling runoff from agricultural activities. Many certification schemes consider the impact of water use on ecosystems and have measures for protecting aquatic habitats, preserving wetlands, avoiding water depletion in critical water-stressed regions, managing wastewater discharge and using eco-friendly products and practices.

Moreover, certification schemes may require the implementation of water conservation strategies to ensure sustainable water use. This can include rainwater harvesting, water recycling and reuse, and measures to reduce water consumption overall. At the same time, certification schemes may require regular monitoring and reporting of water usage and environmental impacts. This helps to track progress, identify areas for improvement, and demonstrate the organization's commitment to responsible water management.

Example box 7 Control points in ASC, MSC, BCI and BREEAM

Both ASC and MSC standards have requirements related to water quality and conservation. They include criteria to minimise the environmental impact of aquaculture and fishing activities on water ecosystems.

BCI promotes sustainable farming practices that include water stewardship, water quality protection, and measures to address water scarcity.

BREEAM encourages the provision of water-efficient solutions, systems and equipment that minimise water consumption (water-efficient fixtures, water metering, leak detection systems, water butts).

Soil

The sustainable use of soil is a critical aspect addressed in several certification schemes, especially those related to agriculture, forestry, and land management. These requirements aim to promote practices that maintain soil health, fertility, and biodiversity while minimising erosion and degradation. These practices may include contour farming, terracing, and using vegetative barriers to protect soil from water and wind erosion.

Certification schemes often address the responsible use of agrochemicals, such as fertilizers and pesticides. They may set limits on the quantity and types of agrochemicals used to prevent soil pollution and protect soil and water quality.

Sustainable soil use requirements may also consider the conservation of biodiversity. This involves protecting natural habitats, maintaining buffer zones, and preserving soil-dwelling organisms that contribute to soil fertility and ecological balance.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Example box 8 Control points in GlobalG.A.P., FSC, PEFC, BCI, Bonsucro, RTRS, and Fairtrade

Examples of certification schemes with sustainable soil use requirements include GlobalG.A.P. for agriculture, FSC and PEFC for sustainable forestry. The measures included are, e.g., a Soil Management Plan (SMP), the avoidance or minimisation of fertilizers use, avoidance of chemical pesticides and the minimisation of biological control agents use.

BCI, Bonsucro and RTRS have a specific principle that requests to develop a SMP and Integrated Crop Management (ICM) whose benefits are to maintain soil structure, enhance soil fertility, and improve nutrient cycling.

Fairtrade encourages the implementation of measures to avoid soil erosion and enhance soil fertility. This certification scheme has created a Hazardous Materials List with the classification of chemical pesticides to be avoided.

Table 12 Overview of Environmental requirements

Environmental requirements	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDCert[2]	RTRS	RSB	RSPO	SAI	SBP
Natural ecosystems	X		X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X		X
Ecosystem and biodiversity values	X		X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Chemicals	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	
Waste management	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Circularity						X											X					
Pollution	X		X	X	X	X	X	X		X		X	X	X		X		X	X	X	X	
Water	X	X	X	X	X	X	X		X	X		X	X	X	X	X	X		X	X	X	
Soil		X	X	X	X	X			X		X	X	X	X	X	X	X	X	X	X	X	

Table 12 provides an overview of the several environmental requirements of the different CSLs. The table clearly indicates that the analysed CSLs comprehensively address environmental requirements. The only requirement that is explicitly mentioned only in two CSLs is the one related to Circularity. All other requirements are addressed more broadly.

5.3.3 Climate change requirements

The High Carbon Stock Approach (HCSA) is a practical tool to protect threatened tropical forests from agricultural expansion by preserving the carbon-rich vegetation and soils in High Carbon Stock (HCS) forests. These forests are crucial in mitigating climate change by absorbing and storing large amounts of carbon dioxide from the atmosphere.

The HCSA is closely related to the HCV designated areas approach, as both focus on conserving forests and their values, including biodiversity and ecosystem services.

Using a HCS Forest Patch Analysis Decision Tree, the HCSA evaluates the importance of each HCS forest stand for conservation, considering factors like size, shape, connectivity, and relationship to other valuable areas such as riparian zones and peatlands, for instance. Notably, the HCSA respects the rights of forest communities, acknowledging their land ownership and right to provide or withhold consent for commercial development in their territories.

Greenhouse gas emission reduction

Implementing best business practices to minimise significant greenhouse gas (GHG) emissions is a key criterion for certification schemes on climate change. These practices must be adjusted to the risks and proportionate to the scale and nature of the operation. The identification of significant greenhouse gas emission sources should consider management practices, land use change, livestock, energy usage, and the sourcing and use of materials. Requirements are made to reduce greenhouse gas emissions resulting from activities, meeting, at the very least, the industry sector's best practices and considering the use of the best available technology. Companies must also comply with national and/or international regulations concerning emission reduction targets for relevant climate change factors and actions. For instance, Cradle to Cradle certification requires final manufacturing facilities to adhere to air emissions regulations, including permits, international guidelines, or industry best practices. Furthermore, the scheme requires that companies quantify annual electricity use and greenhouse gas emissions associated with the final manufacturing stage of the product. The CH should develop a strategy for increasing renewable electricity use and address greenhouse gas emissions accordingly.

Additionally, it is crucial to establish requirements for maintaining or increasing the amount of soil carbon. Some certification schemes, like ISCC, REDcert, and RSB, mandate that raw materials must not be sourced from HCS-designated land after 2008, including wetlands and peatlands.

If there is a risk that sourcing activities may cause significant indirect land use change (iLUC) through the conversion or destruction of forests or natural ecosystems elsewhere, steps must be taken to mitigate such risk. The GHG Protocol Land Sector and Removals Guidance (GHG Protocol, n.d) explains how companies should account for and report GHG emissions and removals from land management, land use change (including iLUC), and related activities in GHG inventories. This guideline is currently being developed and is in the Draft for Pilot Testing and Review stage. Due to its recent publishing, many standards may not yet include it as a requirement. For example, the Bioplastic Feedstock Alliance Methodology mentions that once it is released, it should be used to estimate emissions in the agriculture, forestry, and other land use (AFOLU) sectors. This is to ensure consistent and credible measurement approaches in this area.

Greenhouse gas removal and ecosystem restoration

It is key that opportunities for greenhouse gas removal, ecosystem restoration, and related activities are considered when feasible and relevant. Implementing best business practices ensures GHG removals through land use and land management practices, promoting positive climate regulation over time. For instance, Global G.A.P requires farms to contribute to reducing GHG emissions and supports quantifying such reductions and removals. If ecosystem restoration efforts are employed, the aim is to regain the reference ecosystem's ecological functionality and enhance human well-being. These efforts consider the area's changing environmental, social, and economic conditions. Bonsucro also mandates protecting and rehabilitating biodiversity and ecosystem services while maintaining and enhancing High Conservation Values. As another example, PEFC requires the maintenance or appropriate enhancement of forest resources and their contribution to the global carbon cycle.

Example box 9. Control points in RSB

> The Roundtable for Sustainable Biomaterials includes the following control points in their guidelines relevant to GHG reduction, removal, and ecosystem restoration. Producers must meet the applicable GHG reduction requirements set by national, regional, or local regulations. The certification evaluates the lifecycle GHG emissions from 'well to wheel', encompassing emissions from land-use change, and encourages processors to implement measures that lead to reductions. Regarding biofuels, there is a significant emphasis on their environmental impact. On average, biofuels must achieve 50% lower lifecycle GHG emissions compared to a fossil-fuel baseline, with the target being even higher at 60% for new installations. Additionally, producers must source from FSC-certified or specified equivalent certifications to ensure sustainable sourcing of forestry residues. RSB also requires buffer zones to be protected, restored, or created to safeguard the surrounding environment, and ecological corridors are prioritised for protection, restoration, or creation to support biodiversity and ecosystem connectivity. The RSB also endorses the reuse or transfer of by-products or wastes whenever possible for medium and large-scale operators.

Climate change adaptation

In human systems, adaptation is adjusting to actual or expected climate and its effects to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects, according to the IPCC [15]. This is also recognised in multiple CSLs. Rainforest Alliance promotes Climate Smart Agriculture in its management and farming practices so that farms are managed in a way that supports climate change adaptation and mitigation. Relevant to the criteria on climate change adaptation, the critical risks for the operation resulting or potentially resulting from climate change are identified. Measures for climate change adaptation are implemented for high-risk areas and are proportionate to the scale of the operations and anticipated social, economic and environmental impacts.

Example box 10 Control points in Better Cotton

> The Better Cotton Standard provides a table of 34 indicators relevant to climate change mitigation and/or adaptation in its Principles and Criteria. The CH must be aware of relevant climate change adaptation measures and implement them in line with activity and monitoring plans and training on climate change and mitigation topics. For example, locally relevant practices are implemented to maximise crop diversity, soil cover, water productivity,

---

[15] IPCC Glossary

D4.1 - Literature review and inventory of certification schemes and labels requirements

and minimise soil disturbance. The criteria also recognise females as more vulnerable to climate change impacts, emphasising their inclusion in decision-making by requiring consultation with a Gender Lead or Gender Committee in the context of mitigation and adaptation measures.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Table 13: Overview of Climate change requirements

Climate change																						
	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile	FSC	GlobalG.A. P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDcert²	RTRS	RSB	RSPO	SAI	SBP
Greenhouse gas emissions reduction			X	X	X	X	X	X	X	X			X	X		X	X	X	X	X	X	
Greenhouse gas removal and ecosystem restoration				X			X	X	X	X		X	X	X	X	X		X	X		X	
Climate change adaptation		X		X					X			X			X	X					X	

5.3.4 Social requirements

Certification schemes often include social requirements to ensure that businesses and organisations meet certain ethical and socially responsible standards. These requirements are designed to address various social issues and promote fair practices throughout the supply chain and business operations.

Certification schemes often require companies to adhere to internationally recognized labour standards, such as those defined by the International Labour Organization (ILO). These standards may address issues like child labour, forced labour, working hours, wages, and workers' right to organize. ILO standards are explicitly mentioned in several CSLs, like Ecolabel, RSPO, RTRS, etc.

In this section, several sub-chapters detail specific social requirements related to:

- Human rights;
- Child labour;
- Forced labour;
- Workers' rights;
- Facilities and operational safety;
- Employer-provided housing;
- Worker's remuneration;
- Discrimination;
- Gender equality;
- Local, rural, and indigenous communities;
- Culture.

Human rights

CSLs may incorporate criteria related to human rights to ensure that companies do not violate fundamental rights and freedoms in all aspects of operations and activities.

Human rights should be respected as required by international and national law. This requirement should apply not only to the core activities of the certified company but also to the value chain: harvest or trade in products should not contribute to a violation of international human rights or armed conflicts.

Significant past human rights violations caused by the organisation should be remediated through an adequate, legitimate and culturally appropriate mechanism.

Control box 11 Control Points in Cradle to Cradle, RTRS, and RSPO

Schemes like the Cradle to Cradle requires that the certified companies are committed to upholding human rights and applying fair and equitable business practices, assessing human rights risks and identifying opportunities for improvement for the applicant company. In addition, Cradle to Cradle requires that a human rights policy based on international human rights standards and an understanding of the company's risk areas is in place and that a strategy for implementing the human rights policy is developed.

Some schemes, like, for example, RTRS, recognise that ecosystem conversion may affect human rights (e.g., land rights; right to access natural resources) and thus encourage restoration plans that include remediation for harm to human rights.

Principle 4 of RSPO requires respecting community and human rights and delivering benefits. One of the critical indicators requires documenting a policy to respect human

Child labour

The ILO refers to child labour as work that is mentally, physically, socially or morally dangerous and harmful to children or work that interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely or requiring them to attempt to combine school attendance with excessively long and heavy work. Conviction in this respect refers to a formal outcome from legal proceedings that confirms guilt regarding violation of a forced or child labour law.

The ILO Convention 138 on Minimum Age specify that "The minimum age specified in pursuance of paragraph 1 of this Article shall not be less than the age of completion of compulsory schooling and, in any case, shall not be less than 15 years".

Several schemes have specific requirements to ensure that child labour is not present. Some others also include some specific requirements to ensure that the employment of young workers is responsibly managed.

In general, the responsible management of young workers requires that their employment follows best practices: children under the age of 15 (or underage for the completion of compulsory education, whichever is higher), for example, should not be employed except within the framework of "Family Farm" work or when covered by the national legislation. In addition, young workers should only work outside of compulsory school hours, do not work more than 8 hours a day and do not work without supervision during night hours.

A formal policy for the protection of children, including the prohibition of child labour and remediation, may be required by certain CSLs.

Example box 12 Control points in RSPO, RTRS, and Fairtrade

RSPO requires a formal policy for the protection of children, including prohibition of child labour and remediation is in place and included in service contracts and supplier agreements, while RTRS entails that child labour, forced labour, discrimination and harassment are not engaged in or supported. In particular, RTRS specifies: "Where legal and considered essential, national interpretations may consider including that on family farms, children between 13 and 15 years old may carry out light productive activities during the peak season, providing this does not exceed 14 hours per week and does not interfere with their schooling. The number of hours during which these children may carry out light productive activities on family farms in summer shall be defined at the National Interpretation level. "

Cradle to Cradle requires that Materials associated with a high risk of child or forced labour or support of conflict are certified to a C2CPII-recognized certification program or an equivalent alternative is in place.

Fairtrade International specify that no children under 15 years should be employed. The members' children below 15 years of age are allowed to help the members on their farms under strict conditions: ensuring that they only work after school or during holidays, the work they do is appropriate for their age and physical condition, they do not work long hours and/or under dangerous or exploitative conditions, and their parents or guardians supervise and guide them.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Forced labour

Forced labour requirements in certification schemes are designed to address and prevent forced or involuntary labour use in various industries and supply chains.

The following indicators developed by ILO can help to assess if the organisation is at risk of forced labour:

- Abuse of vulnerability;
- Deception;
- Restriction of movement;
- Isolation;
- Physical and sexual violence;
- Intimidation and threats;
- Retention of identity documents;
- Withholding of wages;
- Debt bondage;
- Significant abusive working and living conditions;
- Excessive overtime.

Wages significantly lower than the minimum wage and farmer income significantly lower than the cost of sustainable production can also indicate the risk of forced labour.

Certification schemes that include forced labour requirements aim to ensure that businesses and organizations adhere to ethical and legal labour practices, respecting the dignity and rights of workers. Certification schemes often require regular monitoring and auditing of labour practices to identify any potential instances of forced labour and ensure compliance with the requirement.

Example box 13 Control Points in EU Ecolabel, and FSA

EU Ecolabel textile requires the Applicants to ensure that the fundamental principles and rights at work as described in the International Labour Organisation's (ILO), the UN Global Compact and the OECD Guidelines for Multi-National Enterprises are observed; among these, the abolition of forced labour is included.

Fairtrade standards explicitly prohibit the use of any form of forced or compulsory labour within the certified supply chains. Relevant procedures can include due diligence and risk mitigation systems to monitor forced labour and relevant projects to respond to and prevent it.

FSA is required to ensure that the farm is not using any form of forced and bonded labour. The following control points are listed in the user guide:

- The farm (or its recruiting agency or labour provider if relevant) does not charge workers fees for the jobs they are offered that require them to be in debt to the farm (or agency) or to be compelled to work for the farm (or recruiting agency) or prevented from leaving solely to pay off the debt.
- The farm does not withhold any part of any worker's salary, benefits, property or documents (e.g., identity cards and travel documents) in order to force such workers to continue working for them.
- Workers are allowed to leave the farm's premises at the end of their shifts.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

- The farm (or its recruiting agency if relevant) does not participate in or allow human trafficking or any other form of Modern Slavery.

Workers' rights

Worker's rights requirements focus on promoting and safeguarding workers' fundamental rights and well-being. The goal is to ensure that workers are treated fairly, with dignity, and have access to decent working conditions.

The rights of all workers should be respected, including the International Labour Organization's (ILO) eight fundamental Conventions. Workers' rights include Freedom of Association, the Right to Organise and the Right to Collective Bargaining. In addition, the legal requirements related to working hours, overtime, rest time and time off should be respected. Overtime, for example, should be considered voluntary and not result in a work week exceeding 60 total hours, except under circumstances of shorter duration where additional labour is required.

Example box 14 Control points in RSPO, ASC-MS, and Better Cotton

Principle 6 of RSPO is about the respect of workers' rights and conditions, including no discrimination and working conditions, freedom of association, no child labour, no harassment, no forced or trafficked labour, and a safe working environment.

ASC-MSC sets some requirements to ensure workers' rights are respected, such as Freedom of association and collective bargaining, policy against abusive disciplinary practices, and legally required working hours (overtime is voluntary). At the minimum level, the production unit shall ensure that:

- Co-signed contracts do not explicitly restrict the right to associate freely.
- The production unit does not restrict worker access to associate or bargain collectively.
- Trade unions and/or civil society organisations, where they legally exist, are able to access/inform all workers directly and have access to their members in the workplace at a mutually agreed time with management.

One of the seven criteria of Better Cotton is to ensure that farmers have a right to decent working conditions. Better Cotton requires that the producers abide by national labour and occupational health and safety legislation or by the referenced internationally recognised standards and conventions when the legislation standards are set below the international ones.

Bonsucro requires to respect workers right to favourable working conditions and to provide all workers (including migrant, seasonal and other contract labour) with benefits and salary sufficient to achieve an adequate standard of living. For example, for all workers on the premises of the mill and farms included in the unit of certification, the operator shall:

- Provide a contract.
- Explain the clauses in the contract to workers in an appropriate manner (especially if workers are illiterate or if they speak another language) to ensure they understand the clauses, rights and obligations included in their contract.
- If not specified by local legislation, ensure the contract includes at least the following elements: hours of work, overtime hours and payment, notice, rest periods, holidays,

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

parental/maternity/paternity leave, wages, mode of payment, and, if legal, any deductions that will be made.
- Provide the worker with a copy of the contract in their own language.

Facilities and operational safety

Among the criteria related to workers 'rights, some CSLs may include specific requirements aimed at ensuring that facilities and activities are safe and healthy, and workers have access to and use appropriate Personal Protective Equipment commensurate with the activities undertaken. At least the legal requirements related to workplace health and safety should be complied with, equipment, vehicles, machinery, and utilities should be safe and in good working order, and relevant safety features should be complete and functioning.

The requirements should not be limited to physical equipment but can also relate to workers 'competency': they should be adequately trained.

Example box 15 Control points in ASC-MSC, BFA, Bonsucro, and EU Ecolabel Textile

ASC-MSC sets some rules about Safe and healthy working and living quarters for workers, Health and safety records and corrective action, Health and safety assessment and personnel training.

BFA includes some specific requirements to ensure Agrochemical use worker safety, addressing some Safety issues such as long working hours, long exposure to sunlight, high elevation, machinery, PPE, and training. Training in pesticides is also foreseen.

Bonsucro requires to provide a safe and healthy working environment in workplace operations. Health and safety assessments must be conducted, the workers must be aware of the main hazards, a management plan must be defined, implemented and reviewed annually. In particular, for all workers on the premises of the mill and farms included in the unit of certification, the operator shall:

- Conduct H&S Assessments on all types of work on the operator's premises and shall adhere to relevant standards (legislation, policy and best practice) with regard to ensuring that employment does not jeopardise the health or safety of any workers.
- Assess H&S hazards and risks regarding occupational risks, environmental risks, heat stress, and pre-existing medical, mental and cognitive health issues.
- Ensure assessment is ongoing/repeated to incorporate changing conditions.
- Communicate the main H&S hazards and risks to all workers.

EU Ecolabel Textile introduces some specific requirements to ensure the safety of the workers during the production processes: considering that sandblasting of denim can be extremely damaging to workers' health if performed without suitable protective equipment, the EU Ecolabel does not allow this process and specifies that alternative processes should be used.

Employer-provided housing

Certification schemes may outline specific standards that employer-provided housing must meet to ensure that the living conditions of workers meet minimum standards and respect their rights and dignity.

These requirements assure consumers and stakeholders that certified businesses are committed to providing decent and safe housing for their workers, contributing to the improvement of labour conditions in various industries.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Requirements may address the availability of clean water, proper sanitation facilities, and waste management to maintain health and hygiene standards in housing facilities. Other CSLs may include criteria for ensuring that employer-provided housing meets safety requirements, such as adequate fire exits, fire extinguishers, and electrical safety measures. Also, access to medical and educational services may be covered. Usually, certification schemes request that the accommodation is free of charge or has a fair price.

Some certification schemes may require employers to involve workers in decisions related to housing conditions, seeking their input and feedback to improve living conditions.

Employer-provided housing is especially important in remote areas or when no viable accommodation is otherwise available.

Example box 16 Control points in BFA, RTRS, and Fairtrade

BFA requires the provision of accommodation for migrant workers hired in case of high seasonal needs. "Company -provided accommodation" indeed is one of the metrics used by BFA to assess the labour risks.

RTRS specifies that employees living in the farm must have access to potable water, sanitary services and food; basic sanitation and safety of the accommodation must be guaranteed.

Fairtrade International also includes criteria about freedom for spouses, specifying that an offer of housing should not be conditional on their spouse's employment, who have the right to work elsewhere.

Worker's remuneration

CSLs may include requirements on workers' wages and other payments. Remuneration should be appropriate to guarantee the workers' right to a decent standard of living (as specified by ILO and WHO), and payment should meet the minimum industry standards and legal requirements. The workers should receive their payment directly and safely for each pay period, as agreed on the contract.

Requirements may address overtime pay, ensuring workers receive appropriate compensation for additional hours worked. Certification schemes may also include provisions for benefits such as paid leave, social security, and health insurance.

Some certifications promote gender pay equity, ensuring that male and female workers receive equal pay for equal work.

Also, certification programs may require businesses to be transparent about wage structures and how remuneration is determined, allowing workers to understand their pay and benefits.

Example box 17 Control points in ASC-MSC, RTRS, RSPO, Fairtrade International, and Rainforest Alliance

ASC-MSC includes specific requirements about Organisation responsibility and insurance provided for personnel accident or injury and minimum wage.

RTRS states that remuneration must be at least equal to the minimum national legal requirement and sector agreements for all workers, who should receive their wage at least monthly in a manner convenient to them.

RSPO Criterium 4 requires a documented system and a mutually agreed procedure for calculating and distributing fair compensations.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Fairtrade International Standard for Hired labour and RSPO Criterium 6 state that wages should be equal or higher than the regional average or than the minimum wage.

Rainforest Alliance requires that the total remuneration (wages plus monetary and in-kind benefits) for all types of workers* is assessed yearly against the Living Wage benchmark, as approved by the Rainforest Alliance and in accordance with the Global Living Wage Coalition (GLWC). Management uses the Rainforest Alliance Salary Matrix Tool to accurately fill in data for workers' wages.

Discrimination

Discrimination is defined as any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation.

According to ILO, all persons should, without discrimination, enjoy equality of opportunity and treatment in respect of:

- access to training and employment of their own choice;
- access to promotion;
- security of tenure of employment;
- remuneration for work of equal value;
- conditions of work, including hours of work, rest periods, annual holidays with pay, occupational safety and occupational health measures, as well as social security measures and welfare facilities and benefits provided in connection with employment.

Several CSLs include requirements to ensure that discrimination does not occur.

Example box 18 Control points in Fairtrade International, Cradle to Cradle, and Bonsucro

Fairtrade International dedicates a paragraph of its standard to the Freedom from discrimination, specifying that "You and your members do not discriminate or tolerate discrimination on the basis of race, colour, gender, sexual orientation, disability, marital status, age, HIV/AIDS status, religion, political opinion, membership of unions or other workers' representative bodies, national extraction or social origin in recruitment, promotion, access to training, remuneration, allocation of work, termination of employment, retirement or other activities." It also lists some effective measures to prevent discrimination in organizations, such as:

- Assess the risks of discrimination and develop/implement policies to prevent and mitigate the identified risks. Create awareness amongst all members of possible risks and measures to be taken.
- Developing and implementing written policies against any forms of discrimination
- Having an equal opportunities policy for recruitment, remuneration, promotion and training and applied in practice with records that show reasons for acceptance, dismissals and promotion of workers.
- Posting in a visible manner a right-to-unionize statement in the workplace addressed to workers and their supervisors.

Cradle to Cradle also includes among its criteria discrimination, requiring the elimination of discrimination with respect to employment and occupation including, but not limited to, ethnicity-, race- and gender-based discrimination and requiring awareness training on diversity and inclusion, gender equality, and anti-discrimination must be provided to all staff.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

According to Bonsucro, the operator shall ensure that workers do not suffer from discrimination by having a publicly available, implemented and communicated non-discrimination and equal opportunity policy (and/or procedures, protocols and internal regulations) applicable to recruitment, remuneration, and access to training, promotion and facilities.

Gender equality

Gender equality requirements in certification schemes aim to promote and ensure equal opportunities, treatment, and representation for individuals of all genders within organizations and supply chains. The goal is to address gender disparities, empower women, and create inclusive and gender-responsive workplaces.

In this sense, several CSLs want to ensure that gender equality is protected according to legal requirements and following best practices, including equal remuneration for work of equal value and sufficient maternity leave.

Example box 19 Control points in Better Cotton, RTRS, and RSPO

One of the five impact targets of the 2030 Strategy of Better Cotton, released in December 2021, aims to reduce gender inequality and discrimination. Principle 6 on Decent work includes core indicators that prohibit discrimination and require equal wages to workers who perform the same job, irrespective of gender. A system shall be in place to detect and remediate any incident of discrimination based on age, gender, ethnicity, nationality, social origin, religion, membership of a trade union or other workers' organisation, or any other characteristics that are not related to merit or the inherent requirements of the job.

RTRS requires that fair opportunities for employment and provision of goods and services are given to the local population, irrespective of gender and race.

For RSPO, a publicly available non-discrimination and equal opportunity policy and a gender committee should be set in place according to the critical indicators. Additionally, the criteria say that equal opportunities and equal pay for the same work should be given to men and women; pregnancy testing must not be conducted as a discriminatory measure, and alternative equivalent employment should be offered for pregnant women.

Local, rural, and Indigenous communities

Local, rural, and Indigenous communities' requirements in certification schemes focus on safeguarding the rights, interests, and well-being of communities that may be affected by the operations of certified organizations, especially in the case of CSLs related to land-use operations.

The goal is to ensure that the rights of communities are respected, and they are actively involved in decision-making processes that impact their livelihoods and environments. In this sense, the principles of Free, Prior and Informed Consent (FPIC) should be followed for Indigenous people's rights and for land ownership and acquisition issues before implementing projects or activities that may affect them.

Example box 20 Control points in BFA, Bonsucro, and RTRS

BFA promotes the Employment of local/Indigenous communities, trying to reduce delocalization or migration. In addition, it sets some requirements to grant Access to

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

resources for local and/or Indigenous communities explicitly considering climate change projections.

Bonsucro requires to verify that the Use of land and water resources does not diminish the legal, customary or user rights of Indigenous peoples and local communities. When rights have been relinquished by indigenous peoples or local communities to the benefit of the operator, on or after the publication of the Bonsucro Production Standard 5.1 (1 January 2022), or when the operator first became certified (whichever is the latest), the operator shall demonstrate that the decision was reached through a process of Free, Prior and Informed Consent in line with United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), as a minimum.

According to RTRS, conflict about land use should be avoided or minimised in areas with traditional land users and Indigenous people. Producers must respect the rights, customs and culture of indigenous people; in case they relinquish their rights, "the affected communities are compensated subject to their free, prior, informed and documented consent." RTRS specifies that channels should be available for communication and dialogue with the local community (including Indigenous peoples) on topics related to the activities of the soy farming operation and its impacts. Evidence of compliance with this indicator may be notifications submitted to neighbours and adjacent local communities. Examples of communication channels may be (but are not limited to) informing third parties on data such as the farm contact person, phone number and/or email, etc.).

Culture

Some CSLs may include criteria to ensure the respect of the culture, which can include local practices and customs, properties, beliefs of local communities, sites and traditions of historical, archaeological, land management, cultural and spiritual significance.

Cultures should be respected and valued, while negative impacts on local communities should be minimised. Some CSLs explicitly consider this impact and include the protection of local traditions and significant sites of historical, archaeological, cultural and spiritual significance.

Example box 21 Control points in BFA, RTRS, and FSC

According to BFA, biobased production "should minimise any displacement of ecosystem services that communities have historically relied on or held sacred." The feedstock cultivation must not have negative impacts on the cultural heritage of local/Indigenous communities and must not affect areas with cultural importance to local communities.

RTRS states that sites of special cultural, ecological, economic or religious significance should be identified with the collaboration of local communities and should be protected by farm managers. An effective mechanism for resolving complaints and grievances is implemented and available to local communities (including Indigenous peoples), employees, other workers and traditional land users. If the producer receives complaints, he/she is required to send an answer within 30 days of receiving such complaints to offer feedback on the reception of such complaints and/or to start addressing the issue.

Principle 9 of FSC, High Conservation Values, requires the commitment of the Organization to maintaining and/or enhancing the High Conservation Values. High Conservation Values include Cultural values: sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Indigenous Peoples, identified through engagement with these local communities or Indigenous Peoples.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Table 14 Overview of **Social requirements**

Social requirements	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile Standard	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDCert²	RTRS	RSB	RSPO	SAI	SBP
Human rights	X	X	X	X		X			X	X	X	X		X	X	X		X	X	X	X	
Child labour	X	X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X
Forced labour	X	X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X
Workers' rights	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Facilities and operational safety	X	X	X	X	X			X	X	X	X	X	X	X		X	X	X	X	X	X	X
Employer-provided housing			X	X					X	X		X		X		X	X	X			X	
Worker's remuneration	X	X	X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Discrimination	X	X	X	X	X	X			X	X	X			X	X	X	X	X	X	X	X	X
Gender equality	X	X	X	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X	X
Local, rural, and Indigenous communities	X	X	X	X	X				X		X			X	X	X	X	X	X	X		X
Culture			X						X		X		X	X		X	X	X		X		X

Table 14 provides an overview of the different social requirements the different CSLs foresee. The only scheme that does not include any social requirement is represented by EU Ecolabel Paper. Almost all the schemes explicitly mention child labour, forced labour and workers' rights, including worker's remuneration. Most of them also include specific requirements about Facilities and operational safety, as well as about discrimination and gender equality. Less common are the requirements related to Local, rural, and Indigenous communities or to employer-provided housing. Finally, only a few schemes explicitly include culture-related requirements.

5.3.5 Economic requirements

In this section, some information about Economic requirements is provided, covering different aspects:

- Economic viability;
- Land tenure and management rights;
- Management planning.

Economic viability

In the context of certification schemes, economic viability may be one of the criteria used to assess the overall sustainability of an organization or initiative. A company seeking certification may need to provide evidence of its financial performance and demonstrate that its economic activities are carried out in a manner that supports its financial stability and long-term success.

The economic viability requirement is an important aspect of sustainability certification because it ensures that the certified entity has a stable financial foundation to continue its operations and fulfil its sustainability commitments.

To meet this requirement, the organisation or project undergoing certification may need to demonstrate to manage financial risks, ensuring that it can withstand economic fluctuations and uncertainties.

Also, the certification scheme may assess the organization's commitment to responsible financial practices, such as transparent accounting, ethical financial reporting, and avoiding unsustainable financial strategies.

Example box 22 Control points in FSA, RSPO, Green Gold Label

Farm Sustainability Assessment (FSA) includes some requirements about financial stability, asking to the farmers if they plan their activities to support the long-term economic viability of their farm or if they have considered the risks to their farm business if they have only one source of income. The scheme also suggests having a business plan to optimize the farm's long-term economic viability and keep records of yields, costs, income and profitability.

RSPO Principle 3 aims to Optimise productivity, efficiency, positive impacts and resilience, including long-term plan and economic viability and Continuous Improvement & Reporting.

Green Gold Label for sustainable palm oil includes criteria related to economic aspects, such as supporting smallholders and local communities contributing to economic viability.

Land tenure and management rights

Certification schemes ' land tenure and management rights requirements focus on ensuring responsible and equitable land use practices. These requirements are commonly found in certifications related to sustainable agriculture, forestry, and land management. They address

the ownership, access, and rights to use and manage land, considering both environmental sustainability and social considerations.

Among the requirements of the CSLs, some aim to assure that Land tenure and management rights are secure and established for all rights holders and ensure that Free Prior and Informed Consent (FPIC) is obtained where operations may affect Indigenous Peoples or local communities' rights and resources.

Example box 22 Control points in FSC, RSPO, and Rainforest Alliance

FSC standard requires that the rights of Indigenous peoples and local communities to their traditional lands are respected, and their free, prior, and informed consent (FPIC) is obtained for forest management activities.

RSPO's Principles and Criteria require members to recognize and respect the legal and customary rights of Indigenous peoples and local communities to their lands and territories. RSPO standard emphasises the importance of obtaining FPIC from affected communities for new planting or expansion of palm oil plantations on their lands. Also, certified members must adhere to the RSPO's Social Impact Assessment procedure, which considers the social and land rights of communities affected by palm oil production.

Rainforest Alliance encourages farms to support the rights of workers, including land rights, and to involve local communities in decision-making processes. Certified farms must demonstrate compliance with local laws and regulations regarding land tenure and land use.

Management planning

Some CSLs include specific requirements to ensure that Management planning and operations are in accordance with legal requirements.

Example box 23 Control points in FSA, Better Cotton, BFA, Bonsucro, BREEAM, Cradle to Cradle and FSC

Farm Sustainability Assessment (FSA) requires the farmers to have a Farm Management Plan, addressing all relevant farming risks and opportunities. In general, this scheme encourages farmers to use its Tool to assess the Farm Sustainability, review performance results and create an Improvement Plant, to be used to adapt farming practices.

One of the seven core principles of Better Cotton is about the management system and requires that Farmers are supported in using a management system to ensure they meet the principles and criteria.

BFA requires that a management plan for biodiversity is implemented, together with a Nutrient management system and an integrated pest management system that allows monitoring.

Bonsucro requires the implementation of Pest, Disease and Weed Management Plans as well as of Soil Management Plan, to avoid erosion and maintain and improve soil health.

BREEAM requires measuring the degree to which management policies and systems consider environmental impacts and stakeholder awareness and understanding.

Responsible sourcing management systems to support the implementation and oversight of the policy within the product's supply chain should be implemented to obtain the gold-level certification of Cradle to Cradle.

D4.1 - Literature review and inventory of certification schemes and labels requirements

FSC requires that the Organization have a management plan consistent with its policies and objectives and proportionate to the scale, intensity and risks of its management activities. The management plan shall be implemented and kept up to date based on monitoring information to promote adaptive management. The associated planning and procedural documentation shall be sufficient to guide staff, inform affected and interested stakeholders, and justify management decisions.

Table 15: Overview of Economic requirements

Economic requirements																						
	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDCert²	RTRS	RSB	RSPO	SAI	SBP
Economic viability				x					x	x	x		x				x	x	x	x	x	x
Land tenure and management rights				x				x	x		x	x	x	x	x	x		x	x	x	x	
Management planning		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	

5.3.6 Legal requirements

Taxes and fees

Certification schemes can require certificate holders to follow all applicable laws and regulations in their operations. This includes rules or laws on taxes. Although several CSLs that were studied did not explicitly mention taxes and fees, these are mandatory legal requirements. They usually include taxes such as Value Added taxes and other sales taxes, income, and profits taxes. These include legislation for different types of bio-based material being sold. Income and profit taxes are in between expenses derived from the sale of bio-based products and harvesting activities (NOTE: these are often incurred in the context of timber, sawn wood or in wood-based supply chains).

Royalties and fees may also be separately stated for the bio-based products as fees paid for the classification of quantities and qualities (and species in the case of timber) and harvesting fees.

Trade and procurement

Trade and procurement of raw bio-based materials is a key aspect of sustainable sourcing. According to the EU Deforestation Regulation (EU Council and European Parliament, 2023), the European Union has utilised one-thirds of the globally traded agricultural products related to deforestation between 1990 and 2008. Therefore, halting deforestation and ecosystem degradation caused by the harvesting and management of bio-based products needs to be regulated. Thus, it includes legality concerning trade and transport of products within the borders of the country as well as transboundary movement of materials (for e.g., waste). Materials sourced from outside the EU should be traceable to a specific geo-location coordinate to meet this regulation.

Regarding the movement of material across borders (i.e., transboundary movement), the certificate holder should also comply with applicable trade restrictions and sanctions of the countries in its supply chain.

In this section, CSLs were studied on whether they have legal requirements related to exporting and importing of bio-based products across national boundaries. Legal requirements for due diligence and care are also included here to ensure companies follow basic national and international guidelines and laws on due diligence in their supply chain.

Due diligence and care are a key section in the EU Deforestation Regulation, and more often than not, the studied CSLs did not include several of the elements of the new requirements in the regulation. However, some are included, as shared in the example box below.

Example box 24 Control points in PEFC

The PEFC states that protected, threatened, and endangered plant and animal species must not be exploited for commercial purposes in certified forest. It includes the CITES convention that contains several appendices on the level of trade and sanctions for various species depending on its population and conservation status. This ensures that timber of rare, endemic, and endangered variety is not sold, exported, or traded.

Table 16: Overview of Legal requirements

Legal requirements	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & RedCert²	RTRS	RSB	RSPO	SAI	SBP
Taxes and fees				X		X	X	X	X	X			X		X	X						
Trade and procurement				X	X	X			X	X	X		X		X	X	X				X	X

5.3.7 Material control

Material origin and identification

Chain of Custody systems within CSLs are designed to ensure materials with certain sustainability attributes have not been contaminated or mixed with materials that don't qualify for those attributes. In CoC systems, requirements must be implemented to ensure materials carrying the certification or verification claim can be traced throughout processing, trade, and transport.

There are usually four distinct aspects of an effective CoC system: (a) information about the origin, (b) avoidance of mixing within and between entities, (c) transferring correct claim information and (d) validation of transactions by, e.g., volume, species and qualities between entities.

Material control requirements may include the identification of origin, species type, segregation and tracking of certified goods, as well as measures to prevent non-compliant materials from entering the supply chain during the transformation of materials into products. For instance, the FSC requires a systematic process to identify the country of harvest for timber products when identifying the origin. Depending on the level of risk identified in the supply chain, either CoC systems or risk-based due diligence systems are employed to validate the source of timber products, extending even to sub-national regions or concession levels.

Species identification is another critical aspect. For instance, in the ASC-MSC Seaweed certification, products must not be mislabelled by species. Either scientific or common names may be used. If species names are not aligned with the relevant legislation in the countries where the product is traded, it is considered mislabelling. Furthermore, certified seaweed products must include the product identification category to which they belong at all stages. This categorisation depends on the product's location, type (e.g., at sea, in land-based systems), and the degree of dependence on the wild stock. It is also essential to have measures to prevent material from non-negligible risk or potentially illegal sources from entering the supply chain. This requires a well-documented process to ensure the segregation of materials from unknown or potentially illegal sources, preventing their mixing. In the forestry sector, in particular, a scheme would lack credibility without a reliable way to ensure that material originates from a certified forest, or a source controlled for illegal harvesting and trade.

The CSL mandates segregating and tracking certified or verified legal wood along the supply chain, using appropriate inventory methods and documented controls. This is necessary to ensure that risks of mixing are identified, managed, and mitigated.

Example box 25 Control points in RSPO

The RSPO uses four supply chain models to track certified oil palm products through one of the following methods: (i) Identity Preserved, (ii) Segregated, (iii) Mass Balance, and (iv) Book and Claim. Each model serves a specific purpose in ensuring that RSPO-certified products are traceable and handled properly throughout the supply chain. The Identity Preserved model ensures that RSPO-certified products are uniquely identifiable to a single certified mill and are physically isolated from all other palm oil sources throughout the supply chain. In the Segregated model, certified products may come from various certified sources but are always kept separate from non-certified ones. The Mass Balance model monitors the trade of RSPO-certified products and allows the mixing of certified and non-certified

HARMONITOR

As certification schemes have expanded, the risks to the CoC systems' integrity have also grown.

To tackle this issue, the Sustainable Biomass Program (SBP) has developed an online platform, the SBP Data Transfer System (DTS), for volume reconciliation and claims transfer. The DTS ensures that the volume supplied by the initial biomass producer is fixed and cannot be changed. In contrast, the FSC planned an Online Claims Platform but decided against implementing it due to data security concerns. Instead, they introduced the Transaction Verification Procedure (FSC-PRO-10-201) to address fraud suspicions in specific sectors or regions. If abuse, such as false claims, is found, CHs risk being banned for up to five years and financial penalties.

Recycled material

CSLs are generally interested in using recycled material, but it must have clear definitions of what constitutes waste material. Within timber products, the recycling requirements state feedstock material must have been produced from material that has completed its lifecycle and would otherwise have been discarded as waste. The recycled feedstock should not be mixed with by-products of a manufacturing process involving material that has not completed its lifecycle, unverified, or virgin material, regardless of the method applied. Consequently, these requirements do not demand tracking of all reclaimed material but allow risk-based systems to manage the risk of contamination with pre-consumer, virgin, or unknown material.

In general, CSLs should necessitate systematic processes to identify waste material that has completed its lifecycle and to differentiate this material from virgin material or by-products of a manufacturing process which has not yet completed its lifecycle. This will allow operators to clearly understand the product's content concerning virgin and/or reclaimed materials.

For instance, several existing certifications follow similar practices. Bonsucro for example, requires efforts to reduce emissions and effluents, advocating for recycling waste streams where practical. The EU Ecolabel for Paper insists that at least 70% of the fibre material allocated to the product or production line should originate from forests or areas managed sustainably or originate from recycled materials. Similarly, the EU Ecolabel for Textiles sets criteria for using post-consumer recycled content in the product and using recycled fibres.

Furthermore, certifications like ISCC, REDcert indicate that biofuels, bioliquids, and biomass fuels can be produced from end-of-life products, by-products, bio-based waste or processing residues. These schemes offer methodologies to identify waste by identifying the point of origin. PEFC International also incorporates a content requirement for recycled material in its Chain of Custody. The SBP, in compliance with ISO 38200, applies a definition of reclaimed or recycled materials in line with the definitions of the EUTR, permitting only post-consumer recycled material into the definition.

Example box 26 Control points in REDCert

The REDcert-EU scheme uses a case-by-case method to classify a material as either waste, residual material from production, product, or co-product. This depends on whether the material is produced intentionally or unintentionally. If the material is intentionally produced, it's considered a product; if it occurs unintentionally, it is considered a production residue. However, a residue can be deemed a co-product if it has an economic value and

meets three cumulative criteria: Certainty of subsequent use, no need for further processing before reuse, and its preparation for reuse is an integral part of the production process. Characteristics for classification as waste include a lack of demand, necessary processing before use, and storage for an indefinite period. For classification as non-waste, it should be economically reusable, have potential profit, and meet the standards of the relevant product regulations.

Table 17: Overview of requirements related to material control

Material control	ASC-MSC	Better Cotton	BFA	Bonsucro	BREEAM	Cradle-to-Cradle	EU Ecolabel Paper	EU Ecolabel Textiles	Fairtrade International	Fairtrade Textile	FSC	GlobalG.A.P	Green Gold Label	ISCC EU & Plus	PEFC	Rainforest Alliance	REDcert & REDCert[2]	RTRS	RSB	RSPO	SAI	SBP
Material origin and identification	x			x	x	x		x	x	x	x	x	x	X	x	x	x	x	x	x	x	x
Recycled material		x		x	x	x	x	x	x	x	x			x	x		x		x			x

5.3.8 General
Conflict resolution

Collaboration and stakeholder engagement is a notable feature among CSLs, and it is defined in the ISEAL as its Seven Credibility Principles (ISEAL, 2021). Conflict resolution is implicit to ensure a credible sustainability system is inclusive and non-discriminatory with fair, impartial and accessible mechanisms for resolving complaints and conflicts. It endeavours to understand the context and perspective of other under-engaged or under-represented stakeholders to enforce a system that creates opportunities for their participation in decision-making. This follows from a collaborative approach towards achieving sustainability objectives. However, only a few inventoried CSLs had a detailed system that fully accounted for this. Some mention the need for a grievance mechanism to address conflicts. Conflicts get resolved through a collaborative and transparent process that, for example, protects the legal customary rights of indigenous people and local communities.

Example box 27 Control points in FSC

> The FSC addresses conflicts concerning indigenous people and local communities through two principles that focus on culturally appropriate engagement with these groups. Under the FSC's principle 7 regarding management planning, the CHs are required to proactively and transparently engage with affected stakeholders in formulating dispute resolution processes, defining living wages, identification of rights, identifying indigenous cultural sites and impacts on these, supporting local communities' socio-economic development activities as well as the assessment, management and monitoring of HCV areas.

Corruption

Under the ISEAL, corruption is defined as the abuse of entrusted power for private gain. This includes bribery, conflict of interest, fraud, money laundering, embezzlement, concealment and obstruction of justice and trading in influence, which are terms adapted from the ISO 26000 standard (ISEAL, 2018). CSLs requirements for fighting corruption usually involve systematic monitoring of specific practices, publicly available policies committing to anti-corruption and existing publicly available mechanisms for stakeholders to report cases of potential misrepresentation or corruption. Several of the inventoried CSLs mention the need for such systems, including a public policy to be in place. Examples account the FSC and Bonsucro sustainability production standards.

Example box 28 Control points in Rainforest Alliance

> RA mandates CHs to ensure workers' rights, such as the freedom of association and collective bargaining and by allowing union membership. The control point indicator specifies that management does not punish, bribe, or influence union members or workers' representatives. The RA also describes fraud, including corruption, and preventing fraudulent recruitment practices when hiring workers in accordance with the ILO Private Employment Agencies Convention, 1997 (No. 181).

5.3.9 Scheme quality and procedure
Internal procedures

CSLs implement its requirements through procedures covering all provisions of the scheme. This approach also includes monitoring systems to periodically review the performance and

proper functioning of the CSL's own procedures. These scheme requirements are written in measurable terms by, for example, using the SMART (*Specific, Measurable, Achievable, Realistic, and Timely)* method. Ensuring the continued implementation of procedures is important to the ongoing ability of the CH to meet certification requirements.

Example box 29 Control points in FSC Forest Management Standard

> The FSC's Forest Management Standard has a principle dedicated to procedures for monitoring the scheme's requirements to ensure a feedback loop that helps improve existing systems and the performance of the certificate holders. The FSC FM system specifies the need for procedures to be documented for monitoring the execution of the management plan along with a verifiable and measurable achievement of management objectives. These objectives are generally broken down into targets. They also emphasise the importance of "adaptive management procedures" that provide a feedback loop to periodically update the management plan. Furthermore, the standard specifies that these improvements should be shared with stakeholders and additionally made available to the public (without any confidential information). These control points are in place to ensure the CH's performance is measurable and there is progress towards meeting sustainability development objectives.

Qualification and competence

CHs must recruit and employ personnel who possess suitable qualifications to meet the CSL's requirements consistently and adequately. These requirements could be related to the handling of chemicals, food safety, waste management, fire safety and control and any other relevant tasks specific to the bio-based resource being harvested, processed and sold in various value chains. This usually requires the CH to provide the staff responsible for meeting the requirements to receive periodic training to monitor their awareness and skills.

Example box 30 Control points in GlobalG.A.P. on worker training

> The GLOBALG.A.P Integrated Farm Assurance (IFA) certification programme implements a third-party auditing process and covers food safety, environmental sustainability and biodiversity, workers health, safety and welfare, animal health and welfare, legal management and traceability and production processes and Integrated Crop Management (ICM), and integrated pest control (IPC), quality management system (QMS), hazard analysis and critical control points (HACCP).
>
> To meet these requirements, the following performance indicators (or control points) are part of the CSL for fruits and vegetables category:
>
> **FV-Smart 03.03** Worker training includes the necessary skills and competencies and is supported by records.
>
> The guideline notes for this requirement specify that the workers should demonstrate competence and skill in assigned tasks, especially for tasks that require training, such as using chemicals, disinfectants, plant protection products, biocides and other corrosive substances and operating equipment. The evidence of training can include attendance records, certificates, and other qualifications. Subcontractors should also be competent either through previous training or from the producers.

Risk-based approaches to sourcing, trade or production

For those CSLs where a risk-based approach to sourcing non-certified material through a due diligence system (DDS) applies, it generally includes explicit requirements for consistent implementation of this system for all activities, materials and suppliers in the scope of the certification. It should also include requirements that ensure changes to the supply chains are

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

assessed so new risks are mitigated and dealt with. CSLs sometimes recognise and accept other CSLs in their DDS requirements. An example of this is the SBP, which assumes a variety of accepted forest certification schemes meet several of its sustainability requirements.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

5.4 Assurance System Requirements

This chapter aims to conduct an inventory of the assurance systems implemented by various certification schemes and labels (CSLs). It explicitly focuses on the similarities and differences among these systems based on a review of 22 CSLs. The assessment of these assurance systems follows the criteria outlined in the conceptual Scheme Evaluation Framework (SEF). The SEF aligns with the ISEAL principles, which serve as a reference for credible and effective assurance practices.

Based on the results of the Qualitative analysis of selected 22 CSLs and their comparison with the requirements in the conceptual SEF, the inventory of Assurance Systems was developed.

The inventory of Assurance Systems is divided into five criteria, with the first addressing the competence and qualifications of relevant personnel such as auditors within the certification bodies (CBs). It emphasises the scheme's responsibility to ensure that auditors possess the necessary qualifications and expertise to evaluate organisational compliance with the specific scheme requirements. Impartiality is a crucial aspect of any CSL and is covered in the inventory of Assurance Systems as a requirement.

In the second criterion, the framework stipulates that auditors and personnel involved in the conformance evaluation process must demonstrate impartiality towards the entities under evaluation. Moreover, the certification decision-making process should be well-defined and conducted by positions or bodies maintaining impartiality towards the auditee.

The third criterion of the inventory of Assurance Systems addresses the auditing process requirements and highlights the need for certification bodies to employ a documented methodology for evaluating clients. This methodology should encompass activities such as conformity evaluation, review, certificate issuance, and periodic re-assessment. Additionally, specific procedures must be in place for audits, covering aspects such as audit frequency, on-site visits, sampling protocols, audit team competencies, and the content of audit reports.

Stakeholder consultation is addressed in the fourth criterion to ensure that certification bodies engage with relevant stakeholders, including rights holders, as appropriate during audits. This requirement emphasises the importance of incorporating stakeholder perspectives in evaluating the compliance of certificate holders (CH).

The fifth criterion explores mechanisms to identify companies engaged in corrupt practices relevant to the forest sector, aiming to safeguard the integrity of certification schemes.

Through this inventory of assurance systems, we aim to provide insights into the strengths, weaknesses, and areas for improvement within different certification schemes. By examining the adherence to the conceptual Scheme Evaluation Framework's criteria, we can better understand the effectiveness of assurance systems in delivering reliable and credible certification outcomes.

5.4.1 What is an assurance system?

An assurance system refers to the overall framework and processes to ensure that the certification requirements are met and maintained. It is a set of measures and controls designed to provide confidence and trust in the certification process and the product, service or system being certified. Assurance systems are developed by scheme owners who detail a set of standards which need to be implemented and upheld by CHs and CBs.

Many assurance systems developed by scheme owners follow the ISEAL Code of Good Practice guidelines, which serves as a supportive framework for standards systems. It covers

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

a wide range of different criteria to support the implementation of credible and effective assurance systems.

5.4.2 Competence and qualification

A cornerstone in auditing is all auditors and personnel involved in the process are adequately trained. This is a crucial part of all certification schemes. ISEAL requires the scheme owner to maintain the competencies of all relevant staff. This includes a thorough understanding of the standard, its purpose and objectives, and expertise in the specific sector to which the standard applies (ISEAL, 2018). Similarly, the requirements of the ISO 19011 Guidelines for auditing management systems stipulate that auditors should have the necessary knowledge and skills to perform audits and have an understanding of sector-specific knowledge (ISO, 2018).

The findings from the comparison of the certification schemes revealed some common trends regarding auditor competence and qualifications. Generally, auditors are mandated to possess at least three years of auditing experience within the relevant sector, accompanied by a certain minimum number of audits conducted within a specified period. Occasionally, regional or commodity-specific knowledge was also either required or advised to have. Such requirements were consistent across all schemes. Moreover, while not explicitly mentioned in every scheme, there is often an expectation for auditors to be compliant, trained in, or possess knowledge of internationally recognised standards such as ISO 19011, ISO/IEC 17065, ISO/IEC 17021, ISO/IEC 17020, or their equivalents. Typically, certification schemes often stipulate the composition of audit teams, necessitating the team's capability to perform all necessary certification and audit tasks. Additionally, these requirements often specify the minimum number of team members who must possess technical or specialised knowledge in relevant areas. In certain cases, the ISEAL Assurance Code serves as a point of reference for determining the qualification criteria and personal attributes for auditors.

5.4.3 Due diligence requirements

Due diligence is the process of investigating and verifying the legality and sustainability of a product or a business before entering into a transaction or an agreement. Due diligence is a way to reduce the risk of being involved in illegal or unethical activities, such as deforestation or forest degradation, which have negative impacts on the environment and society.[16]

The European Union Deforestation Regulation (EUDR) is a new law introduced to prevent the consumption and trade of products associated with global deforestation or forest degradation. The EUDR requires mandatory due diligence for seven key commodities (cocoa, coffee, soy, palm oil, wood, rubber, and cattle) and their derivatives. It mandates companies importing or exporting these goods within the EU to prove that these commodities are deforestation-free. This signifies that the products weren't sourced from lands deforested or degraded post-2020. The older European Union Timber Regulation (EUTR), active since 2013, was specifically tailored towards timber products, necessitating due diligence and prohibiting the sale of illegally harvested timber within the EU. The more encompassing EUDR will replace the EUTR, merging and enhancing its principles.

While certification holds its significance, it is essential to emphasise that it currently cannot serve as a substitute for due diligence requirements to the EUTR and EUDR. Currently, the EUDR stands as a paramount subject within corporations on the brink of adapting to these new regulations. The inventory of assurance systems showed that no CSL required the existence of a due diligence system. The question arises as to whether CSLs should

---

[16] https://environment.ec.europa.eu/topics/forests/deforestation/regulation-deforestation-free-products_en

contemplate the incorporation of a due diligence prerequisite for commodities linked to the EUDR, reflecting the evolving landscape of compliance expectations. The assessment framework requires that if due diligence systems are implemented, auditors are to be qualified to assess these. The previously mentioned sector-specific knowledge could be regarded as the minimum qualification the auditors need to assess risks effectively.

While no CSL seemed to have a requirement in place to implement a due diligence system, some schemes would have a risk-based auditing approach, meaning that certificate holders would be classified into different risk categories. The risk category then defined requirements such as the frequency of the audit and the type of audit. For example, unannounced audits would become required for clients in higher-risk categories. A risk-based approach could also be implemented in cases where social topics were within the scope of the audit. The scope of such audits could, for example, include working and living conditions or labour rights of workers and vulnerable groups such as migrants, youth, women or children.

Example box 31 Fairtrade International on competence and qualifications

Fairtrade places significant emphasis on auditor qualifications and training. The assurance provider ensures that qualification criteria are met before engaging individuals as auditors or assurance personnel. Periodic assessments, including on-the-job evaluations and witness audits, are conducted to evaluate their competency. Auditors are expected to demonstrate the attributes outlined in the ISEAL Assurance Code. The assurance provider provides initial training to auditors and assurance personnel as needed and organises periodic training and calibration programs. Additionally, Fairtrade ensures that clients have a systematic opportunity to provide feedback on auditor performance beyond filing complaints. Fairtrade applies a risk categorisation system to clients, indexing them as high, medium, or low risk based on factors such as prior non-conformances, allegations, trade chain complexity, and more. The audit frequency and intensity are determined according to the risk category, ensuring that the assurance provider's efforts match the identified risk level for each client. This approach ensures that qualified auditors and appropriate audit frequencies are employed, contributing to the integrity and effectiveness of the Fairtrade certification process.

5.4.4 Impartiality and conflicts of interest

A critical aspect of impartiality is the requirement for auditors and other involved personnel to maintain impartiality throughout the certification process. The measures to maintain this include a condition for auditors to disclose any potential conflicts of interest, ensuring transparency and allowing stakeholders to evaluate the impartiality of the assessment.

Additionally, schemes often require auditors to undergo training, such as in ISO 19011, which provides guidance for auditing management systems. ISO 19011 emphasises the significance of impartiality and independence in conducting audits and drawing objective conclusions. The standard states that auditors should strive to maintain independence from the activity of being audited whenever feasible and should consistently act in a manner that is unbiased and free from conflicts of interest. Auditors must uphold objectivity throughout the audit process to ensure that their findings and conclusions are solely based on the evidence presented. Compliance with ISEAL standards was also a common requirement, emphasising the importance of upholding impartiality in certification schemes. ISEAL places significant emphasis on maintaining impartiality throughout the assurance process, addressing risks to impartiality, and implementing measures to uphold integrity and fairness in decision-making.

According to ISEAL, third-party verification systems is a form of assessment considered the most credible as it establishes a strong foundation for impartiality. These systems involve independent entities separate from the parties involved in the certification process, tasked with

D4.1 - Literature review and inventory of certification schemes and labels requirements

assessing and verifying compliance with specific standards and regulations. Relying on impartial third parties enhances credibility and transparency in the assessment process.

The review of the 22 CSLs consistently highlighted the significance of addressing conflicts of interest. Many schemes require specific policies to manage and handle conflicts of interest effectively. These policies outline procedures and guidelines to minimise the impact of personal or organisational conflicts on the impartiality of the certification process.

By incorporating measures such as third-party verification systems, auditors' impartiality requirements, compliance with ISO 19011 and ISEAL standards, and policies for managing conflicts of interest, certification schemes strive to ensure a fair and unbiased assessment process. These requirements collectively enhance the credibility of certification outcomes, assuring stakeholders that the certification process remains impartial and trustworthy.

Example box 32 RSPO on impartiality and conflict of interest

As an ISEAL Code Compliant Member, RSPO has implemented several measures to ensure impartiality in its certification process. Any person or entity engaged by the CB must declare any interests or conflicts of interest that could potentially affect the certification process. The CB must report any circumstances or pressure that may compromise its independence or confidentiality. Furthermore, the CB is restricted from including individuals employed by current RSPO clients or palm oil trade associations related to the client in its audit teams. Additionally, RSPO requires the establishment of an independent committee to review the CB's implementation of impartiality procedures and records. These measures, among others, promote transparency, independence, and accountability, ensuring that the certification process remains fair and unbiased.

5.4.5 Certification body requirements for auditing and certification

Most certification schemes apply a comparable structured approach to evaluating the conformance of certificate holders. The following describes some key aspects of this process and clarifies the meaning of some of the terms often used.

Auditing conformance

Typically, audits are employed to assess the extent to which the certificate holder complies with the applicable requirements (standards). These audits often entail on-site visits, where representatives from the CB evaluate the performance of the CH. Various methods, such as document review, direct observation and measurement, staff interviews, and stakeholder consultation, are utilised during these evaluations.

Audits may be located at different stages of the certification process and serve different purposes. The types and frequency of audits are normally detailed within scheme rules and procedures. The usual types of audits are:

- Certification main assessment: these are usually the principal audits of an organisation entering a certification scheme. During these audits, the auditor from the certification body evaluates all the relevant requirements applicable to the organisation.
- Annual or surveillance audits. Compared to certification and re-certification audits, these audits are generally less intensive. They are designed to verify the presence of a continuous monitoring program for the CH's business operation. The CB may assess requirements partially or utilise a lower sample rate in these audits.

D4.1 - Literature review and inventory of certification schemes and labels requirements

- Re-certification or re-assessment audits happen at the end of a certification cycle. It is very similar in practice to a main assessment.

Verification audits may also be conducted to evaluate the closure of non-conformances, or NCRs, outside the regular audit schedule. Similarly, scope change audits may be employed when the certificate holder intends to significantly modify the certificate's scope between regular audits. Moreover, several certification schemes permit certification bodies to carry out unannounced or "short notice" audits when major non-conformances are detected outside of the regular audit schedule or when a stakeholder lodges a credible complaint against a certified organisation.

Another distinction to consider is the method of audit. Some schemes require on-site audits, enabling direct observations, monitoring, and in-person interviews to be conducted. In contrast, certain situations may call for a remote (desk-based) audit, primarily involving reviewing electronically provided information from the audited entity (although remote interviews are also possible). Frequently, a combination of on-site and remote audits is employed within the scheme, depending on the specific circumstances at hand.

Documented Methodology

Certification schemes usually include requirements that ensure the CB applies a documented methodology for organisations' assessments and audits. The set of rules vary in detail, approach and transparency.

The ASC-MSC Seaweed, Better Cotton, Bonsucro, Cradle to Cradle, Fairtrade International, FSC, Global G.A.P, GGL, ISCC, PEFC, REDcert, RSB, RSPO, FSA, Rainforest Alliance, and SBP schemes all have documents in their public online libraries that outline assurance procedures for Certification Bodies. BREEAM does not have a publicly available methodology document that outlines assurance procedures for CBs. Regarding the EU Ecolabel, EU Regulation EEC No 880/92 stipulates that competent bodies shall ensure that the verification process is carried out in a consistent, neutral, and reliable manner. These processes' details may vary slightly and can be freely found in country-specific and product-specific User Manuals. There is currently no audit mechanism for BFA, as it utilises a self-assessment approach for responsible sourcing of bioplastic feedstocks by brands and producers.

Standard compliance guidelines are developed to align with internationally recognised assurance standards, incorporate industry best practices, integrate lessons learned from previous implementations, and consider relevant decisions made by higher governance bodies. However, the presence and extent of these elements in the scheme's guidelines may vary. Compliance with ISO and/or ISEAL standards ensures that the CBs operate with adequate independence and impartiality, adhere to specific procedures, and employ competent auditors. All the guidelines for CBs in the reviewed CSLs follow, at least to some degree, either ISEAL or ISO Standards.

Most schemes' evaluation methodologies incorporate requirements aligned with ISO 17065 (Conformity assessment- Requirements for bodies certifying products, processes and services) and/or mandate audits conducted in accordance with ISO 19011. ASC, MSC, Better Cotton, Bonsucro, Fairtrade International, FSC, RSB, RSPO and Rainforest Alliance have achieved the ISEAL Code Compliant designation. This designation signifies that these schemes have undergone independent evaluations, including assessments against key ISEAL Codes, including the ISEAL Assurance Code

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Conducting audits

The documented methodologies for CBs to conduct audits typically cover several key aspects, which are discussed in this section. The guidelines provide instructions for the evaluation of conformity, which can include auditing of sites, inspection of records, or self-assessment declarations. It also outlines the procedure for the review and certification decision-making process and stipulates the issuance of a certificate upon successful completion of the audit.

Additionally, these guidelines address the need for periodic reassessment and establishing the frequency of audits. It's commonplace for annual or surveillance audits to be conducted within 12 months of each other. Meanwhile, recertification or reassessment audits are usually carried out in five-year cycles.

The guidelines also outline requirements for on-site visits, if applicable. Bonsucro, for instance, involves a two-phase audit process—remote and onsite—in alignment with ISO 17011. The guidelines may also set out the sampling protocol for audits when appropriate.

The composition and competencies of the audit team are also under the purview of these guidelines. Furthermore, they specify the minimum set of aspects that must be checked in every audit and dictate the minimum content of audit reports (See below). The guidelines provide clear instructions on how audits must be recorded and how audit records should be managed.

Provision for unannounced short-notice audits is also included in these guidelines in case of substantiated claims or for other specified reasons. Lastly, the guidelines specify steps that the audits must include in the audit. For instance, CBs shall ensure procedures such as opening and closing meetings, effective communication, comprehensive report writing, grading of non-conformances, and post-audit activities are incorporated, according to ISO 19011.

Audit reports

Most certification schemes require a record of audit findings and conclusions made by the auditor to be presented in an audit report. The rules in place can determine various aspects of this report.

Firstly, these rules usually define the structure and the elements to be included in the audit reports. While the content varies among certification schemes, it often contains information such as key findings, compliance with the applicable indicators of the standards, provided references or evidence from the CH, descriptions of NCRs, corrective actions, and certification recommendations. Schemes such as ASC-MSC, Bonsucro, Fairtrade International, FSC, Global G.A.P, PEFC, REDcert, RTRS, RSB, RSPO, and Rainforest Alliance have a set of clear rules dictating the minimum content of audit reports. Beyond the elements mentioned, these may include clarification of scope, stakeholder submissions, reviewers' names, time of audit, and sampling justification.

Secondly, audit record rules may often mandate an internal review process for the reports. This can serve as a quality assurance mechanism, ensuring the reports are accurate, complete, and conform to the defined format. Most schemes require a peer review process by an independent entity, which could be an employee not involved in the audit process. The requirements for reviewers also address issues of impartiality, requisite knowledge and competencies.

Thirdly, the CB's defined procedure may specify the level of confidentiality applicable to the report or its constituent parts. This can vary depending on the nature of the audit, the audited

entity, or the sensitivity of the information involved. To promote transparency, a scheme may require a summary of the audit report to be made public. Schemes like ASC-MSC, FSC, ISCC, RTRS, RSPO, and Rainforest Alliance require elaborating a public summary report and making it available on the scheme's designated website. The report may also be made available to stakeholders or the public for consultation, as with ASC-MSC. No rules regarding audit reports were found for BREEAM or Ecolabel.

Example box 33 ASC-MSC Seaweed report rules on audit reports

> The Certification Assessment Body (CB equivalent) creates a Client Draft Report following the scoring of the production unit. The client can provide feedback and an action plan to address any conditions raised. Without an action plan, the unit can be withdrawn from the audit. The CAB then prepares a Public Comment Draft Report (PCDR) considering the client's feedback, and this report is made public for further comments. The audit team reviews this PCDR, considering stakeholder and Quality Assurance Team feedback, and revises the report to create a Final Report. After a 10-day objection period following the posting of the Final Report, the Public Certification Report is created, which includes the Final Report and any decisions regarding objections.

Non-conformances

During audits, auditors will assess whether the organisation is in conformance with applicable requirements. According to Sullivan, the use of the word 'conformance' rather than 'compliance' is usually favoured by CSLs (Sullivan, 2014).

Non-conformances are considered as the failure to implement and maintain systems or procedures or the meeting of performance thresholds. These events affect the organisation's ability to meet one or more requirements of the standard and may result in a risk to the functioning and effectiveness of the certification as intended by the scheme.

Non-conformances may be split between "major" and "minor" size classes, depending on their gravity and scale. The classification of a non-conformance into different categories can result in various outcomes. For instance, a major non-conformance may necessitate corrective action within three months, while minor non-conformance may allow twelve months to be managed by the CH. Additionally, the nature of the non-conformance can also significantly impact the certification decision, with certain types possibly needing to be addressed before the certification is granted.

The level of non-conformances can be categorised based on their significance, frequency, impact, and risk to the integrity of the certification. Minor non-conformances must often be resolved within a set period to avoid escalating into major non-conformances. The issuing of certificates typically rests on the condition that there are no outstanding major non-conformances. Some schemes may allow for adjustments post-audit or emphasise preventive actions and risk management.

For some schemes, the auditor may raise' Observations', which brings to attention issues of potential risk of non-conformance. According to the schemes, an evaluation finding may not warrant a non-conformance but a topic identified by the audit team as an opportunity for improvement or an issue that may become a breach of the standard in the future.

Corrective actions are the measures taken to resolve a non-conformance. These actions are often documented in a corrective action plan, outlining the procedures that will be put into place, how these will tackle the issue, and the timeframe for the changes. In some instances, evidence of non-conformance resolution may be necessary, potentially via documents,

photographs, or on-site visits. The certification body generally needs to verify these corrective actions before issuing or re-issuing a certificate.

If organisations fail to rectify non-conformances within the designated period or violate the rules of the certification scheme, sanctions can be imposed. The severity and type of sanction vary depending on the level of non-conformance, its impact, and the certification scheme's policies. Sanctions could include the refusal, suspension, or withdrawal of the certification.

It should be noted that schemes may or may not require a different response, where the non-conformance relates to a legal non-compliance. In some schemes, legal non-compliances are likely to influence the gravity and scale of the non-conformance which is concluded by the auditor. However, auditors are generally not obligated to inform a relevant competent authority if they observe activities in breach of legislation to which the certificate holder is bound. If observed breaches take place outside the scope of the certification, the auditor may not be in a position to mark this as a non-conformance, although some schemes do provide avenues and alternative options to raise such issues.

Example box 34 Bonsucro's corrective action plans management

Bonsucro has implemented a corrective action management plan, providing CBs with a comprehensive matrix for addressing sanctions. This plan encompasses three primary standard indicator groups: Production Standard core indicators, non-core indicators, and Chain of Custody Standard indicators. For both core and CoC indicators, full compliance is mandatory, while for non-core indicators, a minimum number of non-conformances must be corrected. The plan details the timeline for correcting these non-conformances, which varies depending on the type of audit: initial, re-certification, or surveillance. Conditions for re-audit, certificate suspension, or withdrawal are also comprehensively outlined.

Certification decision

Based on the audit conclusion, a recommendation will determine certification approval for an organization, maintaining validity for existing CH. Schemes often may require that certification decisions be made by separate and impartial bodies, ensuring a well-defined process. Schemes might include different rules that specify decision-making grounds, authorized personnel, and communication to the CH. Regarding decision-making on non-conformances, minor non-conformances are usually allowed longer correction times, while major ones lead to suspension if not rectified promptly. Public posting of certification decisions is often required.

Certificate validity

The validity of a certificate is the period during which the certificate is deemed valid, indicating that the certificate holder fulfils the requirements of the evaluated criteria outlined by a particular standard. The validity period of a certificate can range from one to five years, depending on the certification scheme. A three-year validity period is the most common across the various reviewed CSLs. However, for specific cases such as ISCC EU & ISCC PLUS and REDcert, REDcert2, the validity period is only one year, whereas a five-year validity period is typical for forest-related certification schemes.

Alterations in certification standards or regulations, as seen in the EU Ecolabel system, can affect a certificate's validity. When the EU Ecolabel updates the criteria for each group, CHs are required to comply. Such changes may necessitate resubmission of an application to retain certification, aligning with the revised standards.

To extend the certificate's validity beyond its expiration date, the CH typically needs to undergo a recertification audit before the current certificate expires. This process is similar to the initial certification and involves a comprehensive review of the organisation's compliance with the

D4.1 - Literature review and inventory of certification schemes and labels requirements

standard. Throughout the validity period, most CSLs require annual or, at the very least, regular surveillance audits. These audits are generally less rigorous than the primary certification assessments or recertification audits. It is important to keep in mind that surveillance audits can still lead to the suspension of a certificate. Hence, the maintenance of public-facing, official databases that detail certificate validity and scope are vital components of scheme transparency and robustness. These databases should be kept updated consistently. Some schemes might not have an online database, but they can be contacted to verify certificate validity.

If the certificate isn't renewed following the validity period, the involved entity will lose its permission to sell products as certified or make any other certification-related claims to businesses or consumers. Similarly, an entity involved in a certification process is typically not allowed to sell products as certified or make any certification-related claims before the official issuance date of the certificate.

Stakeholder consultation

Stakeholder consultation relates to the robustness of a Certification scheme. Stakeholder consultation involves engaging with stakeholders who are or may be affected by the enterprise's activities, as well as those who have an interest in those activities (OECD, 2023). It aims to capture the requirements of certification bodies and their ability to detect potential legal non-compliances via stakeholder consultation processes. This consultation refers to specific areas of legal requirements such as, but not limited to, land tenure, indigenous and third parties' rights, FPIC (Free, Prior and Informed Consent - a foundational principle of indigenous people's rights), legal requirements relating to directly affected stakeholder or neighbouring communities.

The level of detail and depth of stakeholder consultation requirements for CBs varies significantly among different schemes. While numerous certification schemes acknowledge the necessity of stakeholder engagement, consultation, or feedback, suggesting that stakeholders play an integral role in the certification process, approximately only half of these schemes have a detailed and defined stakeholder consultation mechanism in place. The requirements might stipulate that a public announcement about the audits be made, often through website postings. This provides an opportunity for stakeholders to be informed about the process and provide their input. An important distinction between schemes lies in whether stakeholder consultation forms a part of the audit process. Stakeholder input is indeed a vital component of the audit process for some schemes, gathered via interviews or written contributions. Some CSLs have mechanisms for stakeholders to submit complaints or allegations, providing them an avenue to express concerns about potential misrepresentations or fraudulent practices.

Example box 35 Roundtable on Sustainable Biomaterials' Stakeholder Consultation

The CB requires the audit team to conduct stakeholder consultation for RSB Principles & Criteria evaluation. The lead auditor must appropriately consult stakeholders based on certification scope, risk class, and screening results. This should include environmental, legal, social, and economic RSB standard compliance stakeholders. Stakeholders must be represented fairly, able to submit comments confidentially and in their native language. Comments are evaluated objectively and impact certification only if they prove compliance or non-compliance with RSB standards. Stakeholders should receive a four-week notice with details about the audit schedule, evaluation process, applicable RSB standards, and the purpose of seeking comments on the social, environmental, and economic impacts of the PO's operation for RSB compliance.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Corruption

ISEAL defines corruption as the abuse of entrusted power for private gain (ISEAL, 2018). Examples of corruption include bribery, conflict of interest, fraud, money laundering, embezzlement, concealment and obstruction of justice and trading in influence, as mentioned in ISO 26000. They state that the scheme owner must ensure monitoring activities are in place to identify and mitigate misrepresentation or corruption. These actions include follow-up on suspended clients to monitor claims cessation and a publicly available mechanism for stakeholders to report potential misrepresentation or corruption. The mechanism for stakeholders could be the scheme's complaints process, specifically accommodating informal and confidential allegations of corruption.

While corruption may not have been explicitly mentioned in many schemes, it was often indirectly addressed through requirements for the CB's impartiality and independence, procedures to prevent bribery, and training and awareness-raising for auditors on related topics.

Requirements that target corruption may involve systematic monitoring of specific practices, follow-up of suspended clients to ensure termination of claims, and using publicly available mechanisms for stakeholders to report cases of potential misrepresentation or corruption. The publicly available mechanism could be the complaints procedure, which should accommodate informal and confidential allegations to be submitted. Monitoring the use of claims and seals could also be conducted to identify abuse of such. With the advent of new technology, it is increasingly possible to track products and their quality and make humans more accountable (Transparency International, 2021). These new tools include blockchain-based land registries to algorithmic detection of fraud in procurement or even real-time disclosure of political donations to promote transparency in transactions (Transparency International, 2021).

Example box 36 FSC on corruption and fraud detection

FSC requires that the CB must have an anticorruption policy in place. Personnel involved in the certification process are required to sign a contract committing to conform with the certification body's rules, including those on confidentiality, anti-corruption, and independence from commercial and other interests. In addition, they use a fraud detection methodology that involves training auditors to verify the correct use of the FSC trademark on products. FSC also conducts market checks to identify fraudulent products. If there are tip-offs or allegations about unverified products carrying the FSC trademark, the legal department takes note of them. When an infringement is confirmed, FSC responds to each case to uphold the system's integrity.

5.5 Governance System Requirements

The essence of any organisation lies in its governance, which establishes norms for functioning and ensures accountability among its constituents. It plays a vital role in regulating operations and upholding the organization's integrity, ensuring that fundamental principles and goals are upheld.

This chapter presents the results of an extensive review of the governance system requirements for the 22 selected certification schemes and labels (CSLs).

To structure the analysis, this chapter follows eight ISEAL credibility principles: (1) Transparency, (2) Impartiality, (3) Stakeholder engagement, (4) Collaboration, (5) Measurable progress, (6) Continuous Improvement, (7) Truthfulness, and (8) Reliability. Two other ISEAL credibility principles, Sustainability Impacts, and Value creation, are intentionally excluded due to their limited relevance to the governance system.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Each sub-chapter is organised as follows: it begins by defining an ISEAL credibility principle, presents a synthesis of results for the 22 selected CSLs, and then identifies commonalities and differences in the governance system requirements among them. Notable trends and findings are especially highlighted throughout the discussion.

5.5.1 Transparency

Transparency: A credible sustainability system makes important information publicly available and easily accessible while protecting confidential and private information. It enables stakeholders to understand and evaluate the system's processes, decision-making, results, and impacts. Stakeholders have the information they need to actively participate in decisions or raise concerns.

Synthesis of Results

Transparency is a core principle promoted by the **ASC-MSC Seaweed (Algae) Standard**. ASC-MSC Seaweed (Algae) Standard requires accountability and openness throughout the decision-making process. At the minimum level, information on the production unit's performance and management actions shall be generally available to stakeholders upon request to ensure that decisions are clear, evidence-based and fair. Furthermore, the ASC-MSC Seaweed (Algae) Standard requires the conformity assessment body to publish both the results of the initial audit and a Public Certification Report, thereby enhancing transparency in the certification process. All documents related to the ASC-MSC Seaweed (Algae) Standard, along with a list of certified suppliers, are accessible online through the standard's website.

Better Cotton emphasises flexible communication and storytelling through its Better Cotton Claims Framework. While it aims to enable members to make positive and credible claims about Better Cotton, the specific transparency practices are not explicitly mentioned in the provided information.

BFA focuses on being credible and transparent. Their level screenings assess transparency at various levels based on their assessment methodology. However, the exact transparency practices and information disclosure mechanisms are not elaborated upon.

Bonsucro, in collaboration with SupplyShift, launched Sugar Mapping, a platform that enhances transparency and monitors suppliers' social and environmental practices at mill and farm levels. The use of digital technologies, such as blockchain, is also expected to improve transparency and visibility along supply chains in the future.

BREEAM emphasises transparency, robustness, and rigour in validating sustainability claims. It aims to provide stakeholders in the built environment with the information they need to make informed decisions and achieve sustainability goals. However, specific transparency practices are not explicitly outlined in the provided information.

The **Cradle to Cradle Certified Product Standard** emphasises transparency, openness, and inclusiveness in its development process. Transparency, along with stakeholder engagement, is a social requirement for achieving certification. However, specific transparency practices are not elaborated upon.

The **EU Ecolabel** certification schemes for **Paper** and **Textiles** have detailed verification requirements and criteria that require the submission of documentation, test reports, and evidence related to the product's supply chain. However, the certification and verification decisions themselves are not publicly available, according to the provided information.

Fairtrade International prioritises transparency and traceability in its certification processes. They develop platforms like FairInsight to store and share information about Fairtrade

Premium investments and impact. However, the specific transparency practices related to certification are not elaborated upon.

The **Fairtrade International Textile Standard** emphasises sharing audit results with workers and accepting announced and unannounced audits. The standard requires companies to provide the necessary information requested by the CB. However, specific transparency practices related to the certification process are not explicitly mentioned.

FSC requires a commitment to its principles to be made publicly available. The FSC emphasises transparency in its monitoring and assessment processes, including reporting on fishery performance, management actions, and impact evaluations. The chain of custody system also requires transparent information flow in each stage of the production chain.

GlobalG.A.P. acknowledges the importance of transparency in its benchmarking process and aims to make stakeholders aware of differences between its certification system and others. The benchmarking recognition and certification information are made available in the GlobalG.A.P. database.

GreenGoldLabel CB is responsible for managing and disclosing information obtained during certification activities. The CB informs participants in advance of the information it intends to make public, except for information agreed to be kept confidential.

ISCC EU & ISCC PLUS certification schemes require transparency from CB and system users. Certification bodies must disclose information about their scope, fees, and procedures, among others. ISCC publishes certificates, summary audit reports, system documents, and other relevant information on its website.

The **PEFC** also recognises the significance of transparency. Its Standard 6.1 on Management mandates that a summary of the forest management plan, tailored to the scope and scale of the management, should be publicly available. This summary should include information on general objectives, forest management principles, and leadership commitment. PEFC requires the organization's management system to include relevant documented information necessary for effective, sustainable forest management. However, the standard allows for the exclusion of confidential and personal information.

REDcert and REDcert2 have specific measures in place to ensure transparency and scheme integrity. Transparency is addressed at various levels, including scheme representation, membership, administration, and participation. The schemes require information sharing through tools and materials, binding and verifiable contracts for scheme members, and the collection of reporting documents in a database. These measures aim to prevent misuse and fraud and enhance transparency within the certification process.

RTRS emphasises transparency by ensuring that producers have access to information on legal requirements. They need to maintain a register of laws or have access to relevant advice on legislation. Additionally, the RTRS requires the availability of a summary of the social and environmental assessment report upon request, enabling stakeholders to access key information.

The **RSB** incorporates transparency as part of its certification process. Principle 1 focuses on legality and requires the availability of a legal register or equivalent system containing relevant international, national, and regional laws and regulations. Additionally, the RSB promotes the timely, open, and accessible distribution of documentation necessary to inform stakeholder positions.

D4.1 - Literature review and inventory of certification schemes and labels requirements

The **RSPO** emphasises transparency by making certain documents publicly available on its website. This includes a summary report of certification audits, procedures for complaints and grievances, the registry of certified organisations, and public notifications and NPP reports. However, confidential or commercially sensitive information is excluded from the publicly available documents.

SAI Platform – Farm Sustainability Assessment aims to ensure accountability and transparency through various means, such as pre-readings, minutes, record keeping, and annual reports. The Code of Conduct also requires members to avoid misleading or unsubstantiated claims and encourages annual reporting on the progress of agricultural activities.

The **SAN** has set goals to collect production and operational data, develop tools for transparency, and regularly review and update their system to reflect the reality of operations. SAN also places importance on record-keeping, including training activities, processing processes, and worker information, to ensure transparency and accountability.

The **SBP** values transparency as one of its main principles. It encourages stakeholder consultation, provides public summaries of assessments, and shares information along the biomass supply chain. The SBP aims to facilitate responsible choices by promoting access to data and information.

Main points

Commonalities:
- Emphasis on Transparency: All the certification schemes mentioned prioritise transparency as a key element of their certification processes. They aim to provide information and data to stakeholders, including the public, NGOs, and communities.
- Public Disclosure: All certification schemes publish information and reports on their websites to promote transparency. This includes audit reports, non-conformities, corrective actions, and certification decisions.

Differences:
- Level of Detail: Some certification schemes provide more detailed information about their transparency practices than others. While some schemes outline specific practices such as advance announcement of audits, use of digital technologies, or sharing audit results with workers, others do not provide explicit details. For example, FSC mandates the disclosure of contact points, the scope of monitoring and evaluation systems, indicators used, impact evaluations, and more. Similarly, ISCC provides a detailed list of information that should be publicly available, including certificates, audit reports, system documents, stakeholder meeting documentation, and more.
- Information Availability: The extent to which information is made publicly available varies across the certification schemes. While some schemes publish detailed reports and documentation, others limit the public availability of certain information, particularly confidential or commercially sensitive data. For example, some certification schemes, like GGL and REDcert, consider certain information obtained during certification activities as confidential and require CB to obtain consent before making it public. This approach differs from schemes that prioritise open access to information, such as ASC and Fairtrade International.
- Focus Areas: Each certification scheme has its own focus area and sector-specific requirements. The transparency practices may differ based on the specific sustainability goals, supply chain complexities, and stakeholder expectations within those sectors.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

⊗⊗⊗ HARMONITOR

- Documentation and Reporting: The certification schemes differ in their requirements for documentation, reporting, and disclosure. Some schemes specify the submission of documentation, test reports, and evidence related to the supply chain, while others focus on sharing specific types of information or maintaining records.
- Use of Technologies: Some certification schemes leverage digital technologies such as blockchain to enhance transparency and visibility along supply chains. Others may not explicitly mention the use of specific technologies.

5.5.2 Impartiality

Impartiality: A credible sustainability system identifies and avoids or mitigates conflicts of interest throughout its governance and operations, particularly when it comes to assessing its users' performance. Transparency and stakeholder engagement help ensure the system's integrity can be trusted.

Synthesis of Results

The **ASC-MSC Seaweed (Algae) Standard** employs an independent third-party certification model for seaweed operations seeking assessment against the standard. Neither ASC nor MSC directly assesses operations or issues certificates. Instead, the responsibility for auditing farms and wild harvest operations lies with Independent Conformity Assessment Bodies (CABs). To maintain complete independence from the certification process, a third-party organization, Assurance Services International (ASI), manages the accreditation of CABs to conduct assessments. Further information regarding the roles and responsibilities of various stakeholders, including the client, conformity assessment body, and ASC-MSC quality assurance team, are outlined in the GetCertified document of the ASC-MSC Seaweed (Algae) Standard.

To address impartiality, **Better Cotton** incorporates conflict of interest declarations and implements appeal processes based on impartiality criteria and other considerations (Better Cotton, 2023a). The scheme ensures that assurance panels are selected based on impartiality standards. By upholding these principles, Better Cotton strives to maintain independence and transparency in its certification and licensing processes.

As a scientific group fostering research on bioplastics, the **BFA** does not operate as a standard or certification scheme. Consequently, impartiality is not directly addressed in its content. However, concerns have been raised regarding the sustainability claims of some BFA members, such as Nestlé, P&G, PEPSICO, which may affect impartiality perceptions (Bioplastic Feedstock Alliance, n.d).

While **Bonsucro** provides a way to complain to CBs, it lacks detailed information on its website regarding the complaint resolution process. Each auditor may have different procedures, which can potentially undermine impartiality. Bonsucro's policies on complaint resolutions are available based on the standard map, offering some insights into addressing impartiality concerns (Bonsucro, 2023).

BREEAM emphasises the role of assessors and Accredited Professionals (Aps) in ensuring impartiality. These professionals are sustainability experts who represent BREEAM in the market, gather data, deliver assessments, and provide insights. Their expertise contributes to driving sustainability solutions and facilitating the ongoing development of BREEAM (BRE Group, 2023b).

Cradle to Cradle Certified has a mechanism in place where employees, customers, suppliers, and other stakeholders can safely report negative effects of business activities and

other social fairness concerns. This mechanism ensures non-retaliation, addresses risks, and provides a transparent and understandable process for stakeholders to raise concerns (Cradle to Cradle Innovation Institute, 2021).

The **EU Ecolabel** regulation sets requirements for competent bodies to ensure that their activities and personnel remain confidential, objective, and impartial. The remuneration of top-level management and assessment personnel should not depend on the number of results of assessments. Complaint resolutions and disputes are publicly available according to the ITC Standards Map (European Parliament & Council of the European Union, 2010; Standards Map, n.d.).

Similar to the **EU Ecolabel for Paper**, the **EU Ecolabel for Textiles** also requires competent bodies to maintain confidentiality, objectivity, and impartiality in their conformity assessment activities. The remuneration of top-level management and assessment personnel should not be based on the number of results of assessments. However, complaint resolutions and disputes are not publicly available according to the ITC Standards Map (European Parliament & Council of the European Union, 2010; Standards Map, n.d.).

Fairtrade International emphasises maintaining the independence, consistency, and impartiality of its certification and licensing processes globally. It follows ISEAL's Assurance Code and ISO17065 requirements, and FLOCERT, the main independent certifier, is accredited against ISO17065. An oversight committee ensures compliance with Fairtrade's expectations. While exceptions on standards are allowed, Fairtrade has a public exception policy to address omissions and errors (Fairtrade International, n.d.-a).

The **Fairtrade Textile Standard** implemented measures to address weaknesses in certification, including improving auditor competencies, strengthening worker participation, identifying root causes of non-compliance, maintaining scrutiny through audit frequency and duration, and increasing transparency. The standard aims to improve impartiality and accountability in the certification process (Fairtrade International, 2016).

FSC requires certified organizations to prevent and resolve disputes through stakeholder engagement, prioritising resolution outside of court. Anti-corruption measures and a commitment to non-bribery are also part of FSC's requirements. FSC has procedures for processing complaints and a committee for safeguarding impartiality. However, the disclosure of the complainant's identity and language barriers may pose challenges.

GlobalG.A.P. emphasises impartiality in its benchmarking process and has mechanisms to address conflicts of interest, lack of independence, and interest management for reviewers, assessors, and committee members. It has a Certification Integrity Program (CIPRO) and a Brand Integrity Program (BIPRO) to ensure impartiality and address improper use of the GlobalG.A.P. brand (GLOBALG.A.P., 2022; n.d.-a).

GreenGoldLabel ensures a clear separation between its role as the scheme owner and the CB conducting audits to avoid potential conflicts of interest. Impartiality and independence of auditors, the Advisory Council, and certifiers are listed as requirements. A complaints system is in place, and decisions are made or reviewed by individuals not involved in the evaluation (GGL, n.d.).

ISCC EU & ISCC PLUS emphasises the impartiality of CBand auditors. Prior to conducting an ISCC audit, the certification history of the System User is evaluated by the CB, ensuring impartiality and freedom from conflicts of interest. CBs cooperating with ISCC must have recognition by a competent national authority or comply with ISO/IEC 17065 or ISO/IEC 17021 accreditation. The audit processes should align with relevant ISO standards, promoting

D4.1 - Literature review and inventory of certification schemes and labels requirements

impartiality. ISCC has established a conflict resolution process to handle conflicts consistently, impartially, and in a user-friendly manner. Parties involved in conflicts are encouraged to seek resolution through direct dialogue, but if conflicts persist, the ISCC conflict resolution process can be initiated. The process consists of two levels: complaints and appeals. Complaints express dissatisfaction with decisions or non-compliance with ISCC requirements, while appeals request reconsideration of decisions. ISCC ensures the confidentiality of complainants if anonymity is requested. Accepted complaints are analysed, investigated, and decided upon impartially by ISCC management, while unaccepted complaints can be appealed using an arbitration system. The governance structure of ISCC also addresses non-conformities and sanctions, with an integrity program in place to assess compliance and verify claims.

The **PEFC** certification scheme emphasises the importance of impartiality, independence, and competence in certification decisions. It maintains a clear separation between standard setting, certification, and accreditation processes to eliminate the risk of conflicts of interest. The standard setting is conducted by PEFC or regional and national forest certification systems, certification is carried out by CBs, and accreditation is performed by bodies affiliated with the International Accreditation Forum (IAF) (PEFC, 2018). Complaints against certified entities are addressed through the respective complaints and appeals procedures established by certification bodies, and unresolved issues can be raised with national accreditation bodies and, ultimately, the IAF (PEFC, 2018).

The **REDcert** and **REDcert²** schemes have provisions for ensuring impartiality and integrity. They include measures to prevent misuse and fraud, such as reporting requirements, transparency in non-compliance methods, and a system to prevent "scheme hopping." Complaint management systems and sanction mechanisms are also in place to address any breaches of integrity (REDcertEU, 2021b).

The **RTRS** emphasises managing bribery risks, conducting comprehensive community rights assessments, and ensuring free, prior, informed, and documented consent for land use rights (RTRS, 2022).

The **RSB** places importance on prohibiting bribery, conflicts of interest, and fraudulent practices, and it establishes a grievance mechanism for addressing complaints and grievances in a timely and consensus-based manner (RBS, 2016).

The **RSPO** acknowledges the need for impartiality and conflict of interest management. This includes engagement with CBs and the inclusion of companies associated with RSPO or the palm oil industry in CBs. Independent committees are responsible for reviewing impartiality procedures, and time limitations are set for the relationships between CBs, auditors, and organizations being assessed. RSPO also provides technical advice and mechanisms for resolving complaints (RSPO, 2020).

The **SAI Platform** scheme has a dedicated Complaint Committee to ensure competent and impartial handling of complaints and grievances. The committee members are required to make independent judgments without considering the interests of their employers (SAI Platform, 2021a). The scheme also emphasises reviewing farm activities, compliance with the law, and staying up to date with legislative changes (SAI Platform, 2021b).

SAN focuses on labour conditions and requires operations to keep records of all hired workers, including basic information, working conditions, and labour agreements. This emphasis on transparency and record-keeping helps promote impartiality by ensuring that workers' information is properly documented (SAN, 2021).

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

SBP does not have direct involvement in the certification decision-making process. Instead, SBP requires independent Certification Bodies to be accredited and approved by SBP before they can offer certification services to prospective CHs. Since 2016, the SBP assurance program has been outsourced to Assurance Services International (ASI), an independent assurance and accreditation body. ASI is responsible for accrediting CBs and monitoring their performance through regular assessments. This arrangement increases impartiality and strengthens the certification scheme (SBP, 2022).

Main Points

Commonalities:
- Involvement of Independent Third-Party Certifiers: Many certification schemes, including ASC, Fairtrade International, FSC, GlobalG.A.P., Marine Stewardship Council (MSC), PEFC, and Roundtable on Sustainable Palm Oil (RSPO), involve independent third-party certifiers or certification bodies to conduct audits and assessments. This approach helps ensure impartiality in the certification process.
- Conflict of Interest Management: Several certification schemes, such as Better Cotton, GlobalG.A.P., ISCC, MSC, PEFC, RSPO, and SAI Platform – Farm Sustainability Assessment (FSA), have measures in place to address conflicts of interest. These measures may include conflict of interest declarations, impartiality criteria, or committees responsible for safeguarding impartiality.
- Complaints and Grievance Mechanisms: Many certification schemes, such as ASC, Bonsucro, Cradle to Cradle Certified, EU Ecolabel, Fairtrade International, FSC, MSC, PEFC, REDcert, RTRS, and RSPO, have established procedures to handle complaints and grievances raised by stakeholders. These mechanisms contribute to addressing impartiality concerns and ensuring transparency in the resolution process.
- Accreditation and Oversight: Several certification schemes, including ASC, Better Cotton, GlobalG.A.P., ISCC, MSC, PEFC, and RSPO, emphasise accreditation or approval of CBs by independent bodies. These external bodies monitor and assess the performance of CBs to maintain impartiality and the integrity of the certification process.

Differences:
- Certification Scheme Roles: Some certification schemes, such as ASC, Fairtrade International, FSC, GlobalG.A.P., MSC, PEFC, and RSPO, act as standard holders but do not participate directly in the certification process. In contrast, schemes like BREEAM, Cradle to Cradle Certified, and EU Ecolabel have a more direct involvement in the certification process through assessors, accreditation, or governance structures.
- Financing Models: The certification schemes vary in terms of their financing models. For example, ASC generates income through a percentage of product sales, while EU Ecolabel charges fees for assessments. Fairtrade International and MSC also derive income from product sales carrying their labels. On the other hand, schemes like BREEAM and FSC do not specify financial arrangements related to the certification process.
- Scope of Impartiality Considerations: The certification schemes differ in the extent to which they address impartiality. Some schemes, such as BFA and Cradle to Cradle Certified, do not directly address impartiality in their content. Others, like EU Ecolabel and Green Gold Label Foundation, focus on ensuring impartiality but may have variations in their approach, such as the availability of complaint resolutions or requirements for assessors and certifiers.
- Specific Measures: Each certification scheme has its specific measures to ensure impartiality. For example, Better Cotton emphasises conflict of interest declarations

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

and appeal processes, while SBP outsources its assurance program to an independent body. Bonsucro lacks detailed information on complaint resolution processes, while RSPO sets time limitations for relationships between certifiers and auditors.

5.5.3 Collaboration

Collaboration: A credible sustainability system <u>identifies governments, businesses, and civil society organisations</u>, including other sustainability systems, that are working towards shared sustainability objectives. It actively seeks <u>alignment and respectfully pursues collaboration</u> with others. It establishes <u>partnerships</u> and shares learnings to improve its efficiency and its direct or systemic impacts.

Synthesis of Results

The **ASC-MSC Seaweed (Algae) Standard** is the result of a collaborative effort between two globally recognised certification programs, ASC and MSC, which share a common vision of promoting sustainable and responsible seafood practices supported by secure supply chains. The standard refers to international norms of good conduct, including the United Nations FAO Guidelines for Ecolabelling and the ISEAL Codes of Good Practice. In addition, the standard acknowledges the significance of collaborating with stakeholders, including NGOs, academics, governments and the local community. As an example, the Unit of Assessment is expected to exhibit a proven dedication to working together with NGOs, academics, and governments to assess any potential impacts on wild stocks.

Similarly, the **Better Cotton** certification scheme promotes collaboration among field-level partners, including farm workers, sharecroppers, and organizations involved in cotton production. These partners, ranging from national producer organisations to government bodies and initiatives, contribute their expertise and support farming communities in adopting sustainable practices (Better Cotton, 2022). Better Cotton also fosters learning and sharing of best practices among its partners (Better Cotton, 2023b).

The **BFA** brings together scientists, companies, policy-makers, NGOs, and others to explore the risks and opportunities of biobased and biodegradable plastics. Through research, collaboration, and education, the BFA aims to establish a sustainable flow of materials and create lasting value (Simon et al., 2022).

Bonsucro, as a multi-stakeholder initiative, collaborates with external consultants and a Steering Committee to develop strategies. It also works with various stakeholders, including farmers, millers, traders, and civil society, to scale sustainability across the sugarcane sector and landscapes. Collaboration is fundamental to Bonsucro's identity and success, requiring engagement, learning, and sharing with like-minded organizations (Bonsucro, 2021).

BREEAM promotes collaboration through its Constructing Excellence Performance Measurement forum, which focuses on measuring collaboration based on critical success factors. BREEAM has collaborated with Constructing Excellence to develop SmartSite KPIs, an online performance measurement and productivity software tool, enabling organizations to benchmark their performance and drive operational improvement (Katepaul, 2021).

Cradle to Cradle Certified encourages collaboration to comprehensively address social issues. Collaboration must involve a multi-stakeholder program or consortium working towards a common goal and actively participating throughout the certification period. The selected initiative should support the company's social strategy, drive progress within industries, provide an adequate voice for all participants, and include an ongoing impact assessment (Cradle to Cradle Innovation Institute, 2021).

While the **EU Ecolabel for Paper and Textiles** does not have specific references to collaboration, achieving the certification requires close collaboration between the assessing competent bodies and the applicants to meet the certification's requirements. Collaboration among different partners is crucial to address the certification's effects across various fields (European Commission, 2020, 2022).

Fairtrade International embraces radical collaboration as a key principle, collaborating with centres of excellence, producer networks, and various stakeholders to increase the impact of Fairtrade programs and services. They also establish partnerships to address issues such as living wages and strengthen the fair-trade system globally (Fairtrade International, 2022).

The **FSC** highlights collaboration with indigenous communities and stakeholders for proper forest management. Collaboration extends to external researchers through the FSC Research Portal, and collaboration within FSC departments ensures effective monitoring, evaluation, and dispute resolution (FSC, 2022, 2023).

GLOBALG.A.P. is a member-driven organization with a strong network of international retailers, food service providers, producer and supplier companies, and associate members. The organization promotes collaboration through various initiatives such as the GLOBALG.A.P. TOUR, which facilitates connections between local and global stakeholders in the food chain industry. They also have programs like localg.a.p. and Farm Assurer mentorship that support capacity building and implementation of GLOBALG.A.P. standards (GLOBALG.A.P., n.d.-b).

The **GreenGoldLabel** website and documents provide limited information on collaboration and governance structures, making it difficult to identify specific collaborations related to the certification scheme.

ISCC has established partnerships with various organizations and initiatives, including aireg, Food Security Standard (FSS), Forum for Sustainable Palm Oil (FONAP), Sustainability Assurance & Innovation Alliance (SUSTAIN), Sustainable Cotton Challenge 2025, Tropical Forest Alliance (TFA), and the UN Global Compact. These collaborations involve international associations, corporations, research institutions, and NGOs from around the world, contributing to the development and practicality of ISCC (ISCC System, n.d.-a).

The **PEFC** chain of custody is based on ISO and EU principles, regulations, and requirements. The requirements for Sustainable Forest Management are based on ILO Conventions, ISO standards, United Nations Declarations on Human Rights and Indigenous Rights, and the Stockholm Convention. These references reflect collaboration with international bodies and agreements to ensure social and ecological sustainability (PEFC, 2020, 2018).

REDcert² certification is based on the requirements of the REDcert-EU scheme and the criteria of SAI (Sustainable Agriculture Initiative). The scheme involves collaboration with farmers, supply chains, and CBs, ensuring practicality and cost-effectiveness. The benchmark results achieved by REDcert² indicate collaboration with SAI and compliance with sustainability criteria in European countries (Kahn, n.d.).

The **RTRS** collaborates with 117 institutions involved in certification activities and partners with various organizations, including the EU, the UK, Germany, the United Nations Economic Commission for Europe (UNECE), the Collaborative Soy Initiative (CSI), and universities. These collaborations help in the restoration of native vegetation and support the implementation of responsible soy production practices (RTRS, 2021).

D4.1 - Literature review and inventory of certification schemes and labels requirements

The **RSB** incorporates references to ILO conventions, conservation values, WHO indications, and FAO guidelines in its principles and criteria, reflecting collaboration with international bodies and guidelines. Collaboration is at the core of RSB's strategic goals, including expanding the global collaborative network (RSB, 2016, 2021a).

RSPO is a global, multi-stakeholder initiative focused on sustainable palm oil production and use. Members of the RSPO come from diverse backgrounds, including plantation companies, manufacturers, retailers of oil palm products, environmental and social NGOs, and countries involved in palm oil production and consumption. The RSPO is a full member of the ISEAL Alliance, a global membership organization for sustainability standards. Collaboration with local governments and other palm oil certification schemes, such as ISPO, is endorsed to facilitate the integration of smallholders into the RSPO scheme (RSPO, 2020, 2023).

The **SAI Platform** collaborates with local communities to promote regional initiatives and implement management systems that are tailored to local conditions. They also collaborate with organizations in the region to develop and implement frameworks for living wages and incomes. Furthermore, the SAI Platform provides access to financial support and investments, either directly or through partnerships with organizations and companies, to support sustainable farming practices (SAI Platform, 2021b).

SAN's signature projects aim to support businesses, governments, NGOs, communities, and other stakeholders in the sustainability agenda. Collaboration is a key aspect of SAN's strategic goals, which include expanding the global collaborative network. Additionally, SAN incorporates various ILO conventions in its work, highlighting collaboration with international labour standards (SAN, 2021a, 2019).

The **SBP** defines feedstock based on recognised schemes such as the Forest Stewardship Council (FSC®), Programme for the Endorsement of Forest Certification (PEFCTM), and others recognised by PEFC, including the Sustainable Forestry Initiative (SFI®). The biomass sustainability criteria of European countries, particularly Belgium, Denmark, the Netherlands, and the United Kingdom, also inform the SBP's standards. Collaboration is fostered through training, events, and workshops, including auditor training and a biomass workshop series. The SBP has achieved formal recognition by governments, ensuring compliance with national agreements, regulations, and legislation (SBP, 2022).

Main Points

Commonalities:

- Multi-stakeholder approach: Many of the certification schemes mentioned emphasise collaboration through a multi-stakeholder approach. They involve various stakeholders such as industry representatives, NGOs, academia, government bodies, and local communities in decision-making processes, standards development, and implementation. ASC, Bonsucro, Cradle to Cradle Certified, Fairtrade International, FSC, RSPO, SAN, and SBP all emphasise collaboration through a multi-stakeholder approach.
- Partnerships and alliances: Collaboration is often achieved through partnerships and alliances with external organizations, initiatives, and associations. These collaborations contribute to knowledge sharing, research, and the practicality of the certification schemes.
- Engagement with local communities: Several certification schemes highlight collaboration with local communities to promote regional initiatives, implement management systems adapted to local conditions, and address social issues. They

recognise the importance of involving and supporting local stakeholders in sustainable practices.
- Learning and best practice sharing: Many schemes foster collaboration by promoting learning and sharing best practices among their partners. They provide platforms, workshops, training programs, and events that facilitate knowledge exchange and capacity building.

Differences:

- Focus areas: Each certification scheme has its own specific focus area, such as aquaculture, cotton production, plastics, forestry, agriculture, or specific industries. While collaboration is a common element, the specific goals and objectives of collaboration may vary based on the sector and issues being addressed.
- Governance structures: The level of detail provided regarding collaboration and governance structures varies among the schemes. Some schemes provide extensive information about their collaboration mechanisms, stakeholder engagement processes, and decision-making bodies, while others offer limited information.
- References and standards: Collaboration with international bodies, guidelines, and standards is emphasised differently in each scheme. Some schemes explicitly reference specific conventions, guidelines, or international agreements to ensure social and ecological sustainability, while others may not provide explicit references to collaboration with external bodies.

5.5.4 Stakeholder Engagement

Stakeholder Engagement: A credible sustainability system is inclusive and non-discriminatory. It empowers stakeholders to participate in decisions and hold the system to account. It involves a balanced and diverse group of stakeholders in decisions that will affect them. It strives to understand the context and perspectives of stakeholders who have been under-engaged or under-represented, and it creates opportunities to ensure their participation in decision-making. It provides clear and transparent feedback on stakeholder input and concerns. It has fair, impartial and accessible mechanisms for resolving complaints and conflicts.

Synthesis of Results

The **ASC-MSC Seaweed (Algae) Standard** promotes the involvement of relevant stakeholders in the standard development process, as well as in social impact assessment and conflict resolution. The development of the standard was a participatory process, with a joint governance body formed to guide the standard's creation. Regarding the social impact assessment, production units are expected to engage in regular and meaningful consultation with community representatives and organizations at least twice per year when assessing social impacts. All assessment activities are carried out in a manner that allows for input from all stakeholder groups, and the steps taken, and information gathered are openly accessible. Community and stakeholders are consulted and informed of impact assessment results and recommendations. As for conflict resolution, it is expected that the processes provide opportunities for all interested and affected parties to be involved.

The **Better Cotton** initiative focuses on stakeholder alignment and capacity building. Through a rigorous endorsement process, Better Cotton ensures that organizations becoming Programme Partners are aligned with their mission (Better Cotton, 2023b). They actively review Programme Partners' performance, provide guidance in training and supporting

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

farmers and communities, and foster learning by encouraging the sharing of best practices among partners.

BFA recognises the importance of engaging a diverse set of stakeholders affected by biobased plastic production (Simon et al., 2022). The BFA's guiding principles emphasise stakeholder engagement aspects such as Free, Prior and Informed Consent (FPIC), consultation, and participation. They incorporate stakeholder engagement into various screenings and assessments, considering factors like food security, legal procedures, and the involvement of local and indigenous communities.

Bonsucro adopts a multi-stakeholder approach. They offer different value propositions aligned with the interests, locations, and ambitions of their diverse member and stakeholder groups (Bonsucro, 2021). Bonsucro utilises stakeholder consultation and considers stakeholder demands during the revision of their production standards. They also prioritise engagement with policymakers, the financial sector, industry bodies, international organizations, academic institutions, and campaigning groups, aiming to improve access and effectiveness.

BREEAM collaborates with National Scheme Operators (NSOs) and other organizations to deliver improved asset performance (BRE Group, 2023b). NSOs contribute local knowledge, market presence, and stakeholder engagement to adapt BREEAM to specific countries. Currently, BREEAM is developing a platform that will provide stakeholders with access to all necessary tools, further facilitating engagement and promoting sustainable practices in the construction industry.

The **Cradle to Cradle Certified** scheme incorporates stakeholder engagement within its social standards (Cradle to Cradle Innovation Institute, 2021). It emphasises aspects such as investment in social impact, fair recruitment and remuneration practices, and fostering a culture of high social performance. By promoting a collaborative environment, Cradle to Cradle Certified encourages employees and business partners to achieve and maintain socially responsible practices.

The **EU Ecolabel**, applied to paper and textiles, emphasises training as a means to ensure compliance with eco-label requirements (European Commission, 2020; European Commission, 2014). Additionally, the EU has initiated a co-creation process with stakeholders to strengthen eco-labelling mechanisms in the textile sector, demonstrating their commitment to engaging stakeholders in decision-making (European Commission, 2022).

Fairtrade International actively supports and guides a wide variety of stakeholders through the provision of tools and reports (Fairtrade International, 2022). Fairtrade-certified producer organizations prioritise stakeholder engagement, which contributes to their transparency and democratic processes (Mauthofer and Santos, 2022). The **Fairtrade International Textile Standard** places a strong emphasis on empowering workers and small producers through training, skill development, and equitable practices (Fairtrade International, 2021).

FSC incorporates stakeholder engagement as a fundamental aspect of its standards (FSC, 2023). The FSC encourages the involvement of affected and interested stakeholders in management planning, conservation value assessments, and monitoring practices (FSC, 2023). Moreover, the FSC recognises the importance of fair compensation, grievance mechanisms, and staff competence training within certified organizations (FSC, 2021).

GlobalG.A.P. ensures stakeholder participation by requiring public consultation and the involvement of technically competent representatives during the drafting and benchmarking processes (GLOBALG.A.P., 2022; GLOBALG.A.P., n.d.-d). They adopt a market-driven

approach, aligning producers' practices with the requirements of future customers and promoting market integration (GLOBALG.A.P., n.d.-c).

GreenGoldLabel conducts stakeholder consultations during significant changes to the scheme's standards and provides a platform for interested parties to provide feedback (GGL, 2021). Similarly, ISCC EU & ISCC PLUS guarantee stakeholder engagement through a multi-stakeholder process involving various organizations, representatives, and stakeholders from different sectors (ISCC System GmbH, 2021a). Stakeholders can participate in committees, working groups, regional dialogues, and training programs (ISCC System GmbH, 2021a).

PEFC emphasises open and transparent stakeholder engagement. Their Requirements for Sustainable Forest Management are developed through a consultative and consensus-based process involving a broad range of stakeholders (PEFC, 2018). Additionally, PEFC promotes equal opportunities, non-discrimination, and gender equality within certified organizations (PEFC, 2018). PEFC provides various channels for stakeholder involvement, including participation in standard-setting working groups, expert forums, regular updates through newsletters and social media, stakeholder conferences, and global public consultations (PEFC, 2018).

REDcert and REDcert2 focus on stakeholder involvement, particularly the consultation of indigenous and local communities during the drafting, reviewing, and inspection processes (REDcert-EU, 2021). They also provide technical support and training opportunities to employees, inspectors, and certification participants (Kahn, n.d.-b).

RTRS adopts a multi-stakeholder development process that involves representatives from different membership constituencies (RTRS, 2022). They conduct public consultations to gather input from stakeholders, and they have policies in place to prevent discrimination within certified farms. RTRS collaborates with training programs for local populations, including indigenous peoples, and conducts stakeholder consultations to inform social and environmental assessments (RTRS, 2022).

RSB operates as a global, multi-stakeholder independent organization (RSB, 2017). RSB FPIC as the basis for stakeholder consultations, ensuring gender sensitivity and consensus-driven negotiated agreements (RSB, 2016). They employ participatory methodologies and conduct informal workshops to facilitate meaningful engagement with different stakeholders, including women, youth, elders, and indigenous and vulnerable communities. Training and capacity building are also provided to workers according to established principles and criteria (RSB, 2016).

RSPO requires stakeholder consultations as part of the certification procedure. They gather evidence from relevant stakeholders to identify compliance issues, including representation from statutory bodies, indigenous peoples, local communities, workers, smallholders, and NGOs (RSPO, 2020). RSPO prioritises FPIC in engagement processes, ensuring respect for legal and customary rights, and provides support to smallholders through clear contracts, capacity building, and support (RSPO, 2018).

The **SAI Platform - Farm Sustainability Assessment** focuses on awareness and protection of endangered species, economic benefits to local communities, understanding and training on applicable legislation, and non-discrimination based on various factors (SAI Platform, 2021b).

SAN employs participatory approaches and multi-stakeholder platforms to identify desired futures for landscapes through common territorial agendas (SAN, 2021a). They conduct Free, Prior and Informed Consent (FPIC) processes with local communities when required by

legislation or when negative impacts occur. SAN also implements training activities for management and workers and promotes biodiversity conservation and protection efforts while addressing equality and non-discrimination (SAN, 2021b).

SBP adopts an open and transparent approach to stakeholder engagement, offering public consultations, opportunities for engagement in the Standards Development Process, workshops, and one-to-one discussions with topic experts (SBP, 2022). SBP employs stakeholder mapping to redefine objectives.

Main Points

Commonalities:

- Stakeholder Consultation: Many certification schemes, such as ASC, ASC International, Bonsucro, Cradle to Cradle Certified, EU Ecolabel, GlobalG.A.P., GGL, ISCC EU & ISCC PLUS, MSC, PEFC International, REDcert, REDcert2, RTRS, RSPO, SAI Platform – Farm Sustainability, SAN, and SBP, prioritise stakeholder consultation. They actively seek input from relevant stakeholders during the development, review, and update of standards or certification processes.
- Inclusion and Transparency: Several schemes, including ASC, ASC International, BFA, Bonsucro, Cradle to Cradle Certified, FSC, PEFC International, RSB, RSPO, SAN, and SBP, emphasise inclusive and transparent processes. They aim to involve a broad range of stakeholders and provide access to relevant information through public meetings, online resources, and open consultations.
- Training and Capacity Building: Many schemes, such as ASC, Better Cotton, Cradle to Cradle Certified, Fairtrade International, ISCC EU & ISCC PLUS, RSB, RSPO, SAI Platform – Farm Sustainability, SAN, and SBP, recognise the importance of training and capacity building. They offer programs and initiatives to enhance the knowledge and skills of farmers, workers, and other stakeholders involved in the certified processes.
- Non-Discrimination and Gender Equality: Several schemes, including ASC, BFA, PEFC International, RTRS, RSB, RSPO, SAI Platform – Farm Sustainability, SAN, and SBP, highlight the importance of non-discrimination, equal opportunities, and gender equality within certified organizations. They promote fair treatment and inclusivity across various dimensions.

Differences:

- Stakeholder Composition: Certification schemes differ in terms of the specific stakeholders they engage with. For example, ASC, ASC International, Bonsucro, Cradle to Cradle Certified, FSC, GGL, ISCC EU & ISCC PLUS, MSC, PEFC International, RTRS, RSPO, SAN, and SBP involve a diverse range of stakeholders, including local communities, indigenous peoples, workers, NGOs, industry bodies, policymakers, and academic institutions.
- Specific Engagement Processes: While stakeholder engagement is a common element, the specific processes and methods of engagement vary across schemes. For instance, ASC and MSC provide opportunities for public input and objections during the certification process, while RSB emphasises consensus-driven negotiated agreements and participatory methodologies. REDcert and REDcert2 focus on consulting indigenous and local communities, while ISCC EU & ISCC PLUS and SBP offer multiple avenues for engagement, such as public consultations, working groups, and one-to-one discussions.

D4.1 - Literature review and inventory of certification schemes and labels requirements

- Focus Areas: Each certification scheme has its own specific focus areas and priorities in stakeholder engagement. For example, BFA concentrates on engaging stakeholders affected by biobased plastic production, while EU Ecolabel emphasises training for compliance with eco-label requirements. Fairtrade International places a strong emphasis on empowering workers and small producers, and SAI Platform – Farm Sustainability emphasises the awareness and protection of endangered species.

5.5.5 Measurable Progress

Measurable progress: A credible sustainability system <u>can demonstrate</u> the difference it is making. A credible sustainability system has tools that are relevant to achieving its sustainability objectives, and these tools allow progress towards objectives to be measured over time. It <u>collects and analyses the data it needs to measure, understand, and demonstrate the progress its users are making towards these objectives</u>.

Synthesis of results:

The **ASC-MSC Seaweed (Algae) standard** incorporates five principles, each with defined performance indicators, to govern the seaweed production process. These principles cover sustainable wild populations, environmental impacts, effective management, social responsibility, and community relations and interactions. The Unit of Assessment (UoA) specifies the production unit to be evaluated for compliance with the standard. Evaluations are conducted based on an assessment tree structure containing Performance Indicators (PIs) and scoring issues for each principle. The UoA is assessed against the PIs, which are scored at minimum and target levels.

The **Better Cotton** identified its impact areas through a comprehensive process encompassing thorough desk research on global sustainability targets and a global hotspot analysis, focusing on key areas of concern in both Better Cotton direct and benchmarked countries. To effectively track and assess progress on the ground, each impact area is accompanied by a corresponding indicator. The results and achievements are reported annually in the Impact report, highlighting the performance of Better Cotton farmers compared to non-Better Cotton farmers. Additionally, BCI is actively developing a robust Monitoring and Evaluation Framework to further enhance its monitoring and assessment capabilities.

BFA aims to develop and maintain a methodology for assessing feedstocks at the regional level, promoting responsible sourcing based on scientific knowledge. This methodology guides the assessment of risks associated with various feedstock types to facilitate transparent sourcing decisions that positively impact the environment, society, and the economy. The BFA reviews existing tools, standards, and certifications to enhance on-ground management systems. The methodology includes 13 indicators covering environmental and social aspects and consists of two tiers: Executive Level Screening and Survey Level Screening. These tiers provide directional assessments, with the second tier offering more in-depth analysis. The methodology requires specific information availability and may involve expert input. Risk levels are identified at each tier to inform final decisions.

Bonsucro recognises that measurable progress is achieved through the performance of certified members. Indicators for measuring progress are derived from the Bonsucro Production Standard, aligned with the Theory of Change Outcomes and key performance indicators for the secretariat. Their Monitoring, Evaluation, and Learning (MEL) system monitors and evaluates Bonsucro's contributions to change, generates evidence of impact, fosters learning and improvement, and reports and celebrates success. The M&E Framework provides granular information on outcomes, indicators, means of verification, data collection, and reporting. Bonsucro uses a global metric standard and the Bonsucro Calculator to report

performance indicators. They are also developing a data culture and maturity to enhance M&E engagement across the organisation. Additionally, Bonsucro conducts periodic assessments and collaborates with external evaluators to gain insights into their work and the ability to drive change.

BREEAM requires its users to create a written policy and management system that clearly defines and outlines specific categories to be addressed. These categories include greenhouse gas emissions and energy usage, and the policy must adhere to industry norms while incorporating appropriate metrics to measure performance. All procedures must be carefully documented and monitored within the management system. Additionally, users should prepare an annual report that is publicly available for stakeholders to compare performance from year to year.

Measurable progress is one of the general requirements of the **Cradle to Cradle** certification. Progress is measured through the use of different tiers, ranging from Bronze to Platinum, which reflect the degree of accomplishment in each of the five key requirement categories.

EU Ecolabel claims itself as measurable and marketable. For businesses, displaying 'the flower' logo on their products and promotional materials has a measurable impact on returns, especially when targets (on circularity, emissions, waste…) are integrated into a company's sustainability strategy. Both **EU Ecolabel – paper and EU Ecolabel – Textile** demonstrate its progress in terms of the number of awarded licenses and products. This information is published online; however, no further details were discovered.

Fairtrade International has developed a Theory of Change that articulates its intended impact and how it would go about it. In an interactive model, they show how their activities can benefit farmers and workers. The impact is reported annually in an annual report. Fairtrade International frequently involves the engagement of reputable independent research institutions that possess specialised knowledge in the assessment of certification impacts. These organisations conduct thorough evaluations on a range of products and subject matters, analysing both outcomes and impacts in a comprehensive manner.

Fairtrade International Textile Standard emphasises measurable progress through the requirement for users to develop systems for measurement, control, and evaluation in key categories such as water consumption, emissions reduction, energy consumption, and environmental hazard and pollution load. Users are expected to document the achieved impact. Internal auditing policies and procedures are in place to monitor compliance and assess performance with the standard's requirements.

FSC exemplifies this principle through their Theory of Changes, which outlines its intended impacts and strategies, and its collaboration with the ISEAL Alliance in developing a Code of Good Practice for assessing social and environmental standards. FSC prioritises and refines intended outcomes and indicators for monitoring and evaluation based on global relevance, the added value of FSC certification, international consistency, and practicality. They collect and analyse scientific studies as evidence of FSC certification outcomes and provide access to relevant information for independent research. Moreover, FSC established the FSC Impact Dashboard, which compiles independent scientific studies comparing FSC-certified and uncertified forests to showcase the effects of FSC certification.

GLOBALG.A.P. is actively developing a robust Monitoring and Evaluation (M&E) System to comprehensively assess the impact of their worldwide activities. Aligned with their Theory of Change, which outlines strategies for safe and responsible farming, the M&E System is currently undergoing internal development and will undergo public consultation before its

launch in early 2024. As part of its sustainability commitment, GLOBALG.A.P. is introducing an Impact-Driven Approach within their standards. This approach involves collecting and analysing data on input consumption from growers to generate valuable information with diverse applications. GLOBALG.A.P. has also approved FMS software providers to facilitate the implementation of this Impact-Driven Approach to Sustainability. These initiatives strongly adhere to the measurable progress principle by prioritising the development of an M&E System and emphasising data collection and analysis to showcase and enhance sustainability outcomes.

GreenGoldLabel focuses on greenhouse gas (GHG) and energy balance calculations and savings. According to Criteria 10.1, conducting and maintaining a thorough GHG and energy balance calculation is mandatory, adhering to the guidelines outlined in GGL 1a's instruction document on Greenhouse Gas Calculations. The document aims to provide lean, simple, accurate, and transparent GHG calculations, referencing all the values used and their origins. The data used in these calculations must comply with the requirements of the Biograce II tool and be reported in the same tool. Additionally, each participant in the chain must utilise the previous and partial GHG calculations as input for their BioGrace-II Excel tool calculation. These calculations are generally based on data collected over an annual period, and the reporting process should include a comprehensive explanation along with proper source references.

ISCC EU & ISCC PLUS conducts an Impact Assessment to monitor and evaluate the outcomes and impacts of its certification system, ensuring the effectiveness of its strategies in achieving its mission and goals. The assessment follows the principles outlined by ISEAL for assessing the impacts of social and environmental standards systems. It analyses data gathered through the registration and certification process of System Users and the ISCC Integrity Program. ISCC publishes regular Impact Reports reflecting its contribution to sustainable development, the scope of its operations, and the actual impact of its certification. These reports are based on data assessment and stakeholder dialogue and may include case studies as tangible examples. The Impact Reports are publicly available on the ISCC website, demonstrating adherence to the measurable progress principle by providing transparent information on the scheme's impact and progress over time.

PEFC is taking significant steps towards promoting sustainable forest management through its Strategic Pathway, which emphasises the importance of performance monitoring and evaluation systems. Under Strategic Pathway 2, PEFC aims to demonstrate the sustainability impact of its efforts. PEFC requires regular monitoring of factors that can impact forest ecosystems, such as pests, diseases, overgrazing, overstocking, fires, and damage caused by climatic factors or forest management operations. The responsible use of non-wood forest products, including hunting and fishing, is expected to be regulated, monitored, and controlled where applicable.

By 2030, the organization envisions that key stakeholders will recognize the environmental, social, and economic contributions of PEFC certification towards safeguarding the world's forests. To achieve this, PEFC is launching a project to measure the impact of sustainable forest management certification in European forests. Moreover, PEFC is making the certification data available per country over time, fostering transparency and accountability.

Supported by the 2018 PEFC Collaboration Fund, PEFC Spain and Agresta have initiated the development of an online platform that will leverage satellite data to enhance the monitoring of group certification, focusing on improving auditing processes and detecting changes in forest areas, such as clear-cuts, thinnings, and burned areas. The user-friendly platform will

D4.1 - Literature review and inventory of certification schemes and labels requirements

provide access to valuable geo-information, including cadastres, certified areas, and change detection maps, making it accessible even to individuals with no GIS knowledge.

According to [ITC Standards Map (2023)](), **REDcert and REDcert[2]** publish annual reports. However, no further information related to the Measurable Principle was obtained.

RTRS has developed a Monitoring and Evaluation (M&E) System which complies with the ISEAL Impact Code. The M&E System aims to achieve expected impacts and outcomes and will be reviewed at least once every three years. Regular reporting on the system's outputs will be done through annual results reports published on the RTRS website. The components of the M&E System include the Theory of Change, Impact Indicators, data collection process, impact evaluation, and reporting process. An Annual Impact Report will be compiled, approved by the Executive Board, and distributed to RTRS members and stakeholders. Participating Members are also required to submit an annual progress report.

RSB has a Theory of Change that outlines the short-term, mid-term, and long-term effects it aims to drive in contributing to a sustainable bio-based economy. Their monitoring and evaluation framework aligns with the ISEAL Alliance Impact Code. Data collected from certified operators are processed using "outcome indicators" covering environmental, social, and economic issues. Measured impacts are compared to expected results defined in the Theory of Change. Outcome Evaluation reports are circulated annually for feedback and review. The RSB M&E System collects data through ongoing certification processes, ensuring continuous verified data collection.

RSPO has a Theory of Change that outlines the short-term, mid-term, and long-term outcomes it aims to achieve. They publish a bi-annual RSPO Impact Report highlighting the impacts generated through certification and other RSPO systems. The RSPO's Monitoring and Evaluation (M&E) framework aligns with the Theory of Change, utilising data from certification and other procedures to measure progress, identify trends, and address gaps. They are currently revising their M&E approach to include a learning function and are recalibrating their impacts into a new RSPO Impact Framework. These revisions aim to provide a clearer and more strategic direction for RSPO, ensuring continuous improvement and better narrating their achievements.

The Outcome Measurement Module by **SAI Platform** offers guidance on selecting and integrating outcome measurement tools into farm sustainability approaches. The module currently focuses on GHG and Climate Tools based on member priorities but aims to expand the range of assessed tools to cover topics like soil, water, and biodiversity in the coming years. These outcome measurement tools will assist in monitoring and supporting progress with the **FSA** Continuous Improvement Plan, aligning with the measurable progress principle by emphasising the use of tools to measure and track sustainability outcomes.

SAN uses tools and processes to transform business operations and defines impact areas. They have developed the Sustainable Agricultural Framework (SAF), an outcome-based sustainability catalogue, offering good practices and indicators to achieve, measure, and demonstrate specific sustainability outcomes. The SAF translates SAN's vision into a practical and science-based approach to sustainable agriculture that meets the needs of producers and aligns with global market expectations.

SBP has developed an Impact Pathway that defines the causal relationship between their strategic objectives, activities, and outcomes. Short, medium, and long-term outcomes and intended impacts are clearly articulated. They are currently developing a Monitoring and Evaluation system to enhance the range and quality of indicators reported, providing evidence-

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

based support for the use of biomass. Reporting is conducted annually, focusing on six key impacts that represent desired outcomes from the implementation of SBP's certification system. The total number of SBP certificates is produced monthly. The analysis of this data is communicated through performance and impact reporting.

Main points

Commonalities:

- Theory of change: Selected CSLs recognise the importance of having a clear Theory of Change to guide their activities and assess their intended impacts. A Theory of Change is typically referred to as an articulation of the intended impacts that a CSL wishes to make and how they would go about it. It serves as a roadmap, guiding activities and interventions to drive positive change in their respective areas. Most selected CSLs, such as Better Cotton, Bonsucro, Fairtrade International, and ISCC, articulate their Theory of Change, which is further derived into short-, medium-, and long-term strategies as well as impact areas or pathways, a set of impact indicators, and metrics. CSLs typically track their progress and improvements using the defined impact indicators and metrics. This trend is particularly identified amongst CSLs that are members of ISEAL.
- Regular reporting: Reporting of impacts is a common practice among these sustainability initiatives, with annual or periodic reports being publicly available. Reporting is typically done showing collective impacts on a Scheme level.
- Acknowledge the need for a robust monitoring and evaluation framework: Selected CSLs acknowledge the importance of a monitoring and evaluation framework to measure their progress and impacts. Some CSLs, such as Bonsucro, RTRS, RSB, GlobalG.A.P are actively developing or revising their monitoring and evaluation frameworks to enhance their assessment capabilities and provide more transparent information about their impact.
- Collaboration with external research institutions: Several CSLs, such as Fairtrade International, FSC, and RSPO, collaborate with reputable independent research institutions to conduct comprehensive evaluations of their certification impacts. The collaboration results are typically a report and made publicly available on the CSL's website.

Differences:

- Different levels of focus: CSLs apply the Measurable progress principle on two different levels of objects, namely on a Scheme-level and a User-level. On Scheme-level, CSLs typically measure the impact and/or progress it is making collectively through a more granular assessment on a field or user level. A few CSLs in this study, e.g., Cradle-to-cradle Certified and Farm Sustainability Assessment, particularly focus on applying the measurable progress principle on a user level by using different tiers to determine the users' sustainability achievement level.
- Baseline and methodology to measure progress: Selected CSLs use different approaches in setting the baseline and measuring progress, for example, through a comparison between non-certified farmers and certified farmers, the number of certified users over time, or the performance of certified farmers on key performance indicators compared to the previous year(s). The latter is especially more common amongst the selected CSLs in this study.
- Unintended impacts: Unintended impacts or consequences as a result of certification activities are rarely mentioned or acknowledged. This study found that only a few CSLs explicitly acknowledge unintended impacts that may occur due to the activities of

certification. For example, RSB mentioned that they acknowledged unintended impacts, but they did not measure them. RSPO and Bonsucro measure unintended impacts; however, the information is not publicly available.

5.5.6 Continuous Improvement

Continuous Improvement: A credible sustainability system <u>regularly reviews its objectives</u>, <u>its strategies, and the performance of its tools and system</u>. It <u>evaluates the impacts and outcomes of its activities</u>. It applies the lessons learned to improve. It <u>responds to new evidence, stakeholder input, and external changes</u>, adapting its strategies to improve its impacts and remain fit for purpose.

Synthesis of results:

The **ASC-MSC Seaweed (Algae) Standard** requires a regular review and potential revision every five years, at a minimum, to incorporate feedback from stakeholders and the Monitoring & Evaluation (M&E) program. Performance levels are adjusted over time based on new scientific insights and improved management practices. The standard's relevance is emphasised, recognising the crucial role of seaweeds in aquatic ecosystems and the increasing demand for sustainable certification in the seaweed industry. Updates are made when there is improved scientific understanding, widespread scientific support, and evidence of growing support for industry management and policy changes, aligning with the relevant FAO Codes of Conduct and the standard's Principles and Indicators. The standard's formulation ensures objective verifiability, facilitating consistent interpretation and verification. It is based on performance outcomes that represent the sector's best practices across different regions, with Principles, Performance Indicators, and Scoring Guideposts defining high-level goals and specific measures to achieve the desired impact. The MSC Secretariat coordinates the entire standard-setting process, ensuring a robust and continuously improving framework for sustainable seaweed production and certification.

Better Cotton demonstrates a strong commitment to continuous improvement by regularly reviewing and revising their Production and Chain of Custody (P&C) standards. In line with ISEAL requirements, these reviews aim to maintain the standard's relevance, effectiveness, and integration of sustainable cotton production advancements. The maximum period between revisions is limited to five years, ensuring the standard remains up to date. The review process considers the standard's ongoing relevance, effectiveness, and potential need for changes based on external circumstances. In defining the standard's content, regulatory requirements, market needs, scientific, and technological developments are carefully considered. The standard's structure allows for effective monitoring and evaluation of progress toward achieving its objectives. To ensure broad input and collaboration, Better Cotton encourages organisations with related standards to participate in the process. Additionally, any proposed draft of a standard undergoes at least two rounds of public consultation.

The **BFA** has a clear objective of assessing the diversity of potential bioplastic feedstocks using advanced scientific methods. The aim is to establish a shared comprehension of the current sustainability improvements each feedstock may offer, as well as their potential for future enhancements. Through continuous monitoring, BFA strives to gauge their progress and ensure they align with the expectations for improvement, thereby contributing to positive and impactful changes on a larger scale. BFA involves collaboration among multiple stakeholders, pooling their expertise to gain deeper insights into the complex challenges faced by the bioplastics industry. As part of their concerted efforts, the BFA will conduct reviews and

D4.1 - Literature review and inventory of certification schemes and labels requirements

evaluations of existing tools, standards, and certifications that can be effectively applied to enhance management systems on the ground.

Bonsucro is committed to continuously improving its operations and processes, as evidenced by its Strategic Plan 2021-2026. This plan considers past successes and incorporates innovative approaches while recognising improvement areas. Bonsucro has a comprehensive development plan that includes creating new tools and processes and ensuring stakeholders have greater visibility and accessibility.

BREAAM adheres to a continuous improvement principle, ensuring its products and services remain relevant to changing market demands. They actively involve customers and stakeholders in the BREEAM V7 consultation and the NZC survey, aiming to keep their offerings aligned with the latest and most robust scientific advancements. Moreover, BRE conducts independent research, dedicated to developing products, standards, and qualifications that emphasise the safety and sustainability of buildings, homes, and communities.

The **Cradle to Cradle Certified** upholds a continuous improvement principle within its Cradle to Cradle Certified Product Standard since its inception in 2005. The standard has evolved to incorporate a deeper understanding of the environmental and human health impacts related to material design, manufacturing, use, reuse, and disposal. Ongoing improvements are collaboratively developed by C2CPII staff, volunteer committees, external experts, and the C2CPII Standards Steering Committee, ensuring a comprehensive and inclusive approach. The standard's requirements are regularly updated, and new versions are developed, all subject to review and approval by the C2CPII Standards Steering Committee and Board of Directors. This development process prioritises transparency, openness, and inclusiveness, ensuring the standard remains up-to-date, relevant, and impactful.

The governance system requirements of both **EU Ecolabel Paper** and **EU Ecolabel Textiles** reflect a commitment to continuous improvement. The European Commission sets specific criteria for different product categories, tailoring them to minimise environmental impacts throughout the products' entire lifecycle while upholding high-quality standards. These criteria are developed in consultation with key stakeholders, including consumer associations and experts in the relevant field. Furthermore, the EU Ecolabelling Board (EUEB) periodically revises the criteria, taking into account technical innovations and market changes to ensure they remain current, robust, and trustworthy. This iterative process of consultation and revision allows the EU Ecolabel programs to evolve and adapt, driving continuous improvement in the environmental performance and sustainability of certified paper and textiles.

Fairtrade International takes a continuous improvement approach to its sustainability certification scheme and actively encourages research to address fundamental questions surrounding trade practices. By collecting data and conducting research, Fairtrade enhances its standards and pricing systems, promoting innovative solutions to tackle the systemic challenges farmers and workers face in global supply chains. During the research phase, input is gathered from stakeholders, internal and external sources. Draft standards undergo formal consultation exercises with identified stakeholders, and all standards undergo comprehensive review at least every five years.

The **Fairtrade International Textile Standard** follows a similar standard-setting procedure as its parent organisation, Fairtrade International. This standard undergoes a thorough review every five years, which includes a research and consultation phase involving relevant stakeholders. In addition to improving the standard, the Fairtrade International Textile Standard outlines a set of Development requirements for participating organisations. These

D4.1 - Literature review and inventory of certification schemes and labels requirements

requirements focus on continuous improvements and are measured against a scoring system that sets minimum average thresholds defined by the CB.

FSC implements a continuous improvement principle within its sustainability certification scheme through collaborative co-creation of solutions that address emerging challenges and opportunities in their global strategy. The FSC General Assembly serves as the organisation's primary decision-making body, bringing together members representing environmental, social, and economic interests every three years to determine the organisation's direction. The establishment of values and the global strategy involves engaging members and partners from diverse backgrounds to set benchmarks for forest stewardship and achieve significant results for both forests and the people who rely on them. The FSC Statutes serve as the governing documents that shape the organisation's foundation and are updated every three years through motions proposed by FSC members at the General Assembly. In 2022, the monitoring and evaluation program emphasised institutional learning, including the publication of the Global Strategy 2021 data report.

GlobalG.A.P. places great importance on the use of feedback mechanisms to continuously improve their standards and contribute to the ongoing development of the GLOBALG.A.P. System. They recognise the significance of staying up-to-date with the latest developments in agriculture and aquaculture and are committed to adapting their standards to reflect these changes. This adaptability aims to facilitate stakeholder compliance in a harmonised manner on an international level. GlobalG.A.P. Standards undergo regular reviews and timely revisions to ensure their continued relevance and effectiveness.

GreenGoldLabel upholds a continuous improvement principle by actively encouraging interested parties and stakeholders to provide feedback and comments on the GGL Scheme, which includes its standards and supporting documents.

The **ISCC EU & ISCC PLUS** are committed to the principle of continuous improvement, which is achieved through a robust and comprehensive approach. The ISCC framework places great emphasis on quality and risk management to ensure consistency in all related activities, including implementation and verification. Key components of ISCC's quality and risk management include the ISCC Integrity Programme, benchmarking processes, multi-stakeholder dialogue, participation in sustainability conferences, and a stakeholder training program. In addition, ISCC engages in collaborative discussions with authorities and regularly solicits feedback from CBs and stakeholders to drive ongoing improvements. ISCC prioritises customer and stakeholder service and encourages engagement through its helpdesk for inquiries, feedback, and concerns. The system undergoes regular revisions and adaptations based on the latest scientific findings, stakeholder feedback, practical experiences, and best practices. Additionally, information derived from impact assessments is utilised to drive the continuous improvement of the ISCC System.

The **PEFC** standards and normative documents undergo regular reviews, ensuring that no more than five years pass between each review. These reviews consider feedback received during the implementation of the standard and conduct gap analyses. If necessary, stakeholder consultations are organised to gather further input and feedback. The standard emphasises the continuous improvement of the sustainable forest management system and the sustainable management of forests. The development and revision of standards within PEFC follow a meticulous and inclusive process. Stakeholders are invited to participate, ensuring diverse representation and preventing any single interest from dominating. The process is consensus-driven, transparent, and open. PEFC's commitment to innovation is reflected in its strategic pathway, which strives to provide innovative and cost-effective solutions that cater to the varied needs of members, markets, and society. To achieve this,

D4.1 - Literature review and inventory of certification schemes and labels requirements

PEFC continuously measures and monitors the impacts of their technical documents and actively encourages stakeholders to provide feedback and participate in their ongoing development.

The Continuous Improvement principle of **REDcert and REDcert[2]** centres around the ongoing enhancement of sustainability practices in the agricultural and biofuel industries. REDcert GmbH, established in 2010 by prominent associations and organizations in the German agricultural and biofuel sector, took joint responsibility for promoting sustainable biofuels and liquid biomass. Today, REDcert operates leading certification schemes for sustainable biomass, biofuels, and agricultural raw materials in Germany and Europe. The scope of sustainability has expanded beyond greenhouse gas reduction and traceability, now encompassing sustainable raw materials for the food, animal feed, and material use industries. REDcert[2], introduced in 2015, addresses the certification needs for agricultural raw materials in these sectors. The vision is to create a framework for certifying all types and uses of biomass in the future, preparing companies to adapt to legislative or market-driven requirements. The focus remains on actively shaping a sustainable future by continuously refining scheme requirements to comply with legal and operational standards.

The **RSB** is committed to continuously improving its standards, policies, guidance, and tools to ensure their effectiveness. The RSB regularly reviews and streamlines all components of its certification system, aiming for optimal performance and impact. The development, adaptation, and review of the RSB Standard follow a formal process that involves consultation with RSB members. Major modifications to the standard undergo a formal consultation in line with the ISEAL Codes of Good Practice and require approval from RSB members. The RSB has implemented a comprehensive Monitoring and Evaluation (M&E) system to drive continuous improvement. The results obtained from this system are instrumental in identifying areas for improvement and informing the enhancement of the RSB Standards, Policies, Guidance, Tools, strategies, and activities.

As a member of the ISEAL Community, **RTRS** actively engages in learning, collaboration, and innovation activities facilitated by ISEAL. RTRS is developing a Monitoring and Evaluation System (M&E) that will enable the measurement of expected changes and facilitate an ongoing assessment of the RTRS system for further improvement. The RTRS standard undergoes regular reviews to ensure its effectiveness, with a minimum review period of once every five years and a maximum review period of once every three years. Exceptions to this timeline may be considered based on specific circumstances or at the discretion of the RTRS Executive Board or General Assembly.

RSPO initiates a five-year review cycle of the RSPO Principles and Criteria and the Independent Smallholder Standard to ensure continued relevance and effectiveness in demonstrating the credibility and inclusivity of RSPO Certified Sustainable Palm Oil (CSPO). The review process addresses challenges such as enhancing the comprehensiveness and relevance of standards, achieving desired impact, clarifying interpretations, resolving capacity issues, and aligning approaches with other sustainability initiatives. Guided by the RSPO Standard Operating Procedure for Standard Setting and Review, the review process adheres to the requirements of the ISEAL Alliance and the ISEAL Standard-setting Code of Good Practices. RSPO standards are developed through a transparent, consensus-driven process involving multi-stakeholder members, public feedback, and contributions from interested stakeholders through public consultations. The organisation's Theory of Change guides progress assessment and informs strategies for continuous improvement, supported by its Monitoring, Evaluation, and Learning (MEL) system, which is continuously reviewed and improved.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

The **FSA** operates with the aim of promoting continuous improvement in on-farm environmental, social, and economic performance. This is achieved through collaboration within the supply chain and cultivating a shared understanding of sustainable agriculture. The development and implementation of the FSA are overseen by the SAI Platform, adhering to their Governance Framework. The Governance Framework itself undergoes regular reviews and updates, ensuring its ongoing relevance and effectiveness, with a minimum review period of every two years.

SAN has implemented a program quality review process to drive continuous learning and improvement. Through regularly scheduled meetings, this process ensures the timely delivery and quality of their program and project management commitments within budget. Monitoring, evaluation, and learning are key components of SAN's approach. They are committed to capturing and analysing crucial data to assess impact, scale, and sustainability. Rigorous evaluation is conducted, and technical reports are published on their website and beyond to share best practices, case studies, and lessons learned.

SBP maintains a continuous improvement principle in their Theory of Change document, which undergoes annual reviews with stakeholder input. Their Standards Development Process facilitates comprehensive reviews and revisions of their Standards, with stakeholder participation. This ensures ongoing improvement and alignment with evolving needs and practices. Moreover, they also publish an annual review to document progress and improvements.

Main points:

Commonalities:

- Regular Reviews and Stakeholder Involvement: A common thread among these CSLs is conducting regular reviews of their standards, processes, and approaches, involving relevant stakeholders. Most CSLs, such as Better Cotton, ISCC EU & ISCC PLUS, PEFC, explicitly mention that they regularly review their standards, systems, and processes to ensure they stay relevant and effectively drive positive sustainability outcomes. CSLs seek feedback and stakeholder collaboration in their continuous improvement efforts to ensure diverse perspectives and input.

- Use of Monitoring and Evaluation Framework and Data-Driven Approach: The majority of the selected CSLs emphasise a data-driven approach and the use of monitoring, evaluation, and learning framework to assess their impacts and outcomes, which allows them to identify areas of improvement and to inform decision-making and enhance their sustainability efforts.

Differences:

- Review Periods: The timeframes for reviews and revisions vary among the CSLs. Some CSLs, such as the Better Cotton and the Roundtable on Sustainable Palm Oil (RSPO), have specific time limits for their review cycles (e.g., a maximum of five years between revisions). On the other hand, CSLs like the Sustainable Biomass Program (SBP) undergo annual reviews, which allow for more frequent updates and adjustments to their standards and policies.

- Governance structures and decision-making: The governance structures and decision-making processes vary among the CSLs. For example, the RSPO involves its General Assembly, where members representing diverse interests convene every three years to determine the organization's direction. GlobalG.A.P. operates with feedback mechanisms

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

for continuous improvement and relies on benchmarking processes, multi-stakeholder dialogue, and stakeholder training programs.

5.5.7 Truthfulness

Truthfulness: A credible sustainability system's claims and communications can be trusted.

A credible sustainability system substantiates its claims. Any claims the system or its users make are <u>clear, relevant, and can be checked</u>. They enable customers and other stakeholders to make informed choices. The scope and design of the system are accurately reflected in any claims, ensuring these are not misleading. <u>Claims about sustainability impacts are backed up with data and evidence that is publicly available.</u>

Synthesis of results:

The **ASC-MSC Seaweed (Algae) Standard** emphasises traceability and process requirements for certification. To achieve traceability, the Unit of Certification (UoC) must provide the necessary information to identify applicable traceability risks and determine the start of the chain of custody. The UoC must ensure that seaweed and seaweed products are segregated from non-certified ones, identified as coming from the UoA (Unit of Assessment), and traceable back to the harvesting/culturing facilities from the point of first sale. These systems must be in place before selling certified products. The certification process involves pre-audit, preparation, initial audit, and post-audit stages, with a focus on evaluating the production unit's adherence to the standard's performance indicators. The MSC Chain of Custody Requirements, used in the implementation of ASC-MSC Seaweed (Algae) Standard, further emphasise the identification, segregation, and traceability of certified products throughout their purchasing, processing, packing, labelling, selling, and delivery stages. The organization must maintain accurate and complete records, allowing traceability and volume calculations for certified products. Auditors conduct record-verification exercises, including traceability tests, cross-checks of purchase and delivery records, and input-output reconciliation to ensure compliance with certification requirements.

Better Cotton emphasises the credibility, transparency, and accuracy of claims made about Better Cotton. While members are not obligated to make such claims, they have the option to do so following the guidelines outlined in the Claims Framework. This framework includes eligibility criteria for making claims, an approval process, and a corrective action plan in case of misleading or unauthorised claims. The Better Cotton Chain of Custody (CoC) ensures that the volume of Better Cotton claimed by Retailer and Brand Members aligns with the actual volume produced by licensed Better Cotton Farmers. It incorporates two chain of custody models: product segregation and mass balance. To facilitate tracking and recording of Better Cotton transactions, the Better Cotton Platform (BCP) serves as a centralised digital system used exclusively by the Better Cotton Initiative and registered supply chain organizations. The BCP is mandatory for all Better Cotton transactions, and it enables suppliers and manufacturers to demonstrate their sourcing activities and volumes accurately. The Better Cotton Initiative conducts supply chain monitoring and audits to ensure compliance with the relevant Chain of Custody guidelines.

The **BFA** published a position paper on Biobased Content Claims, where they emphasised the importance of assessing sourcing to ensure responsible and sustainable practices in the supply chain. They recognise the complexity of implementing responsible sourcing practices, which may vary across industries and feedstocks. Regarding biobased content claims, the BFA advocates for transparency and credibility. Claims should clearly identify the biobased

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

content percentage in specific components and be limited to measurable and verifiable biobased content backed by a commitment to responsible sourcing. The minimum amount of biobased content required for claims is 20% for fast-moving consumer goods, while durable goods can make claims on any percentage as long as transparency and criteria are met. All claims must comply with national and regional environmental marketing regulations. The BFA accepts the use of "Book and Claim" and "Mass Balance" approaches without physical biobased content, with a note that they should be viewed as steps towards traceable biobased content with a set timeline. However, claims based on these systems should not state any biobased content percentage and should be transparent about this distinction. The ultimate goal is a transparent, segregated, and responsible biomass supply chain, with these systems serving as intermediate steps towards achieving it.

Bonsucro follows the ISEAL Sustainability Claims Good Practice Guide (2015) in its Claims & Labelling Rules. Any Bonsucro-related claim must include a link to the Bonsucro website for further information. Bonsucro establishes the Chain of Custody Standard that is essential for tracking the product supply from feedstock production to consumption, allowing responsible sourcing claims for sugarcane. Its key principles include implementing Mass Balance Chain of Custody, validating and reconciling Bonsucro data, and ensuring traceability to clients. Transparent calculations are made, accounting for losses proportionate to compliant and non-compliant products. Bonsucro data is valid for three years from the date of production or purchase, depending on the organisation type.

The **BREEAM** Framework Standard for Responsible Sourcing includes Supply Chain Management Requirements to ensure traceability of constituent materials to their respective suppliers. This traceability applies to materials involved in the extraction of raw materials, provision of recycled/recovered materials, production of by-products, or processing of commodity traded materials. Each sub-section's percentage performance rating should be based on a single criterion, such as volume, mass, or cost, depending on the most appropriate for the construction product under assessment. The chosen metric must be clearly defined and justified for consistency across all clauses in this standard (4.3). This approach ensures transparent and accountable practices in the supply chain management process within the BREEAM responsible sourcing framework.

The Truthfulness principle of **Cradle-to-Cradle** is anchored in transparent and accurate communication of a product's certification level and adherence to the program's guidelines. To maintain integrity, the Cradle to Cradle certificate clearly states the product's certification level, and this information, along with a detailed scorecard reflecting achievements in the five categories, is openly accessible through the Cradle to Cradle Certified Products Registry on the C2CPII website. When utilising Cradle-to-Cradle trademarks, the program mandates strict adherence to the Trademark Use Guidelines, available online. This includes using the appropriate mark, consistently identifying the certification level, mentioning the version of the standard used for certification, and ensuring the certification marks are unambiguously associated with the certified product.

In order to be awarded the **EU Ecolabel**, EU Ecolabel requires its users with products falling under 'graphic paper' or 'tissue paper and tissue products' to meet the criteria mentioned in Annex I or II of Regulation (EC) No 66/2010. Organizations must adhere to EU Ecolabel Logo Guidelines to display the label on their products. The guidelines require a declaration of compliance with the criteria, which includes low emissions to air and water during production, low energy use during production, and the percentage of sustainably sourced or recycled fibres used in the product. Additionally, the product packaging must clearly show the label, registration/licence number, and relevant statements.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

The **EU Ecolabel Textile** criteria require traceability of inputs and records of materials used in the product document. The applicant needs to provide declarations, documentation, analyses, test reports, and other evidence relating to the product(s) and their supply chain. The standard sets out that all cotton used to manufacture an Ecolabelled textile product must be traceable from the point of verifying the production standard up until, at a minimum, greige fabric production. Compliance with the minimum cotton content requirement can be demonstrated either for the annual volume of cotton purchased or for the blend of cotton used to manufacture the final product(s), and documentation must be provided for each product line. This documentation should reference the Control Body or certifier of the different forms of cotton.

Fairtrade International emphasises traceability in its products to promote transparency and fairness in the supply chain. The majority of Fairtrade products are fully traceable. However, certain products, including cocoa, tea, sugar, and fruit juices, present challenges due to complex manufacturing processes and routine mixing. To address this, Fairtrade utilises a traceability program called 'mass balance' for these products, allowing the mixing of Fairtrade and non-Fairtrade ingredients during manufacturing. The key is to ensure that the actual volumes of Fairtrade sales are tracked and audited throughout the supply chain. While mass balance is allowed for these specific categories, Fairtrade still encourages companies to strive for full traceability whenever possible. The process guarantees that the amount of Fairtrade ingredients in the final labelled product matches the quantity sold by farmers. To comply with the Fairtrade Trader Standard, companies must maintain detailed records of all entries, processing, and sales of Fairtrade products, enabling CBs to trace back from the end product to the Fairtrade inputs, assuring integrity and accountability in the Fairtrade system.

Fairtrade International Textile Standard imposes both documentary and physical traceability requirements on manufacturers. All manufacturers must adhere to documentary traceability requirements 2.1.1 and 2.1.2 from the Fairtrade Trader Standard. Additionally, products containing physically traceable Fairtrade cotton must meet requirements 2.1.3 to 2.1.7 from the same standard. These physical traceability requirements entail the physical segregation of Fairtrade products from non-Fairtrade products at all stages of the supply chain, clear identification of Fairtrade products throughout the process and on-site, proper labelling when selling Fairtrade products, optional physical traceability for specific, and compliance with physical traceability requirements for composite products containing both physically traceable and non-physically traceable ingredients.

FSC place a strong emphasis on supply chain integrity through collaboration with ASI and CBs, conducting thorough investigations to verify claims made by FSC-certified product holders and trading partners. FSC leads with innovative technologies like blockchain and wood identification to enhance supply chain transparency. Materials compliance checks, facilitated by FSC's Blockchain Beta program, enable real-time monitoring, ensuring the authenticity of FSC-certified materials sold by organizations. Chain of custody certification guarantees adherence to rigorous standards from sourcing to finished goods. The FSC label on products indicates compliance with chain of custody requirements, featuring three types of labels signifying different certification statuses.

The **GLOBALG.A.P.** CoC standard serves as a set of strict guidelines that ensure the reliability of products bearing the GGN logo or associated with a GLOBALG.A.P. claim. By enforcing rigorous standards for the handling, segregation, and tracing of products throughout the supply chain, this standard helps prevent food fraud and facilitates prompt response measures when necessary. Businesses that use GLOBALG.A.P. identification numbers, such as GGN or CoC Number, must adhere to the standard's requirements, which certify products

that originate from certified production processes. The GGN label logo represents responsible farming practices and encourages transparency and trust between businesses and consumers. Consumers can access information about the corresponding farm or business by referencing the unique 13-digit GGN numbers linked to certified supply chain members. To qualify for the GGN label, every member in the supply chain must hold the appropriate certification and meet assessment requirements, ensuring accountability and reliability throughout all stages.

GreenGoldLabel emphasises the importance of a robust CoC Standard to ensure accurate tracking and tracing of inputs and outputs within the organization. Under Principle 1, the participant must provide detailed descriptions of the main processing steps, considering information flow and physical biomass movement, along with procedures for monitoring critical control points. All process documentation and procedures must be kept up-to-date to maintain integrity. Principle 4 focuses on controlling incoming products, requiring participants to correctly identify and allocate the proportion of material received with a mixed claim from endorsed schemes, categorising them as GGL-Certified and GGL-Controlled. Monitoring and registering the volumes of GGL material supplied is essential, with any deviations from stated amounts being verified with the supplier and recorded. Lastly, Principle 6 emphasises tracing and identifying all raw materials and products throughout processing to mitigate risks of pollution with foreign material or mixing with contaminated products, ensuring transparency and adherence to GGL Certified and Controlled standards.

The **ISCC EU & ISCC PLUS** governance system requires strict adherence to the Truthfulness principle, particularly concerning chain of custody methods for handling sustainable materials in the supply chain. Two approved methods for this standard are Product Segregation and Mass Balance, while the use of the Book & Claim method is prohibited. ISCC mandates the comprehensive identification and tracking of materials throughout the entire supply chain, ensuring a step-by-step record of their origin, processing history, distribution, and location. Meeting traceability and chain of custody requirements necessitates accurate information and documentation for incoming and outgoing sustainable materials. Detailed guidelines for Traceability can be found in the ISCC EU 203 Traceability and Chain of Custody document.

PEFC ST 2002, the CoC international standard, outlines the requirements for successfully implementing a chain of custody for forest and tree-based products. Three methods are available for implementing the PEFC chain of custody: the physical separation method, the percentage method, and the credit method. Organisations can choose the most appropriate method based on their material flows and processes. This standard enables organisations to make PEFC claims to customers regarding the origin of the products from sustainably managed forests, recycled material, and PEFC-controlled sources, providing accurate and verifiable information. In addition, the PEFC label provides further insights into the product's origin by using a string of numbers beneath the logo, which can be entered into the 'Find Certified' database for more information about the manufacturing company.

The **REDcert²** logo and product claims can be displayed on certified bio-based and biomass-balanced products as well as certified recycled products, either on the product itself or in advertising and explanatory materials. CHs supplying these products to other certified companies must ensure that the sustainability information on delivery slips meets REDcert² requirements, determining permissible advertising claims. Traceability of biomass production and processing is also essential, with record-keeping of seed/planting stock details and other relevant information. Internal documentation should include data on sustainable biomass quantity, clear labelling of consignments, country of origin, internal processes, conversion rates, and GHG emissions.

The **RTRS** CoC Standard outlines traceability systems for controlling RTRS-certified soybean or soy by-product inventories across the supply chain. It is mandatory for organisations trading RTRS soy offering three supply chain models: Country Material Balance, Mass Balance, and Segregation. The Online Platform of RTRS facilitates physical traceability records for soy and corn in RTRS Physical flow cases. Organisations must maintain complete and up-to-date records, including purchase and sales documents, training records, production records, and volume summaries. These records should be retained for at least five (5) years, ensuring transparent and reliable traceability in the sustainable value chain.

RSB offers five chain of custody options for the traceability of certified material: Identity Preserved, Product Segregation, Mass Balance, Content Ratio Accounting, and Book & Claim. The RSB Procedure for Traceability provides information about these systems and their traceability requirements. The aim is to ensure certified operators establish a robust and transparent chain of custody for RSB-certified material acquired from or delivered to other supply chain operators. Sustainability claims must accompany material handled and forwarded by RSB-certified operators in accordance with the procedure's requirements. Operators must implement a chain of custody system to track RSB-certified material throughout their certified processes, maintaining product information records from suppliers (e.g., invoices, transport documentation) as described in Annex I RSB Procedure for Traceability.

RSPO provides four distinct supply chain models for organizations to communicate their commitment to and utilisation of certified sustainable palm oil products. These models include Identity Preserved and Segregated for direct use of sustainable palm oil, Mass Balance for products contributing to sustainable palm oil production, and Book and Claim for supporting sustainable palm oil production. To ensure integrity, organisations must only make claims supported by the model they use. RSPO has developed the RSPO Trademark and Labels, which RSPO members can use when complying with the communication rules. These rules outline requirements for each supply chain model, as described in the RSPO SCCS. Transparency is paramount for RSPO members, and any sustainability claims related to sustainable palm oil products must be accurate and verifiable, regardless of RSPO reference. False or misleading claims will be subject to RSPO sanctions. To uphold RSPO's objectives and principles, it is recommended that all members fulfil the outlined requirements in the RSPO Rules on Market Communications and Claims document.

FSA offers three types of performance-level claims: FSA Benchmarking Claim, FSA Verified Claim, and GLOBALG.A.P. FSA Add-on Claim. Companies can make these claims on their websites and social media, indicating bronze, silver, or gold performance levels and displaying the FSA logo. However, on-pack claims using the FSA name and logo are not allowed. FSA is a business-to-business improvement and verification scheme and does not prescribe specific Chain of Custody requirements. Instead, FSA relies on companies to establish traceability agreements for FSA verified material, and there is no mechanism to validate the flow of FSA products through the supply chain.

SAN holds accountability as one of its core values and effectively communicates the impactful work funded by its clients and donors in the field.

The **SBP** Framework Standard 1: Feedstock Compliance Standard (Version 1.0, 2015) ensures traceability and compliance in the feedstock sourcing process. Feedstock must be traced back to the defined Supply Base, and means of verification include matching feedstock inputs, transport documentation, and goods-in records with the defined Supply Base. The feedstock input profile must be described and categorised based on the mix of inputs, and feedstock input records serve as a means of verification. The organisation must maintain

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding
from the European Union's Horizon
Europe research and innovation
programme under grant agreement
N° 101060133

HARMONITOR

accurate, up-to-date records covering all SBP requirements applicable to the certificate scope for a minimum of five years, complying with legal regulations. Transactions of SBP-certified material must be traceable one step upstream and one step downstream from the organization, and all material must be accounted for under its legal ownership. For organisations using a mass balance system, a mass balance account must be set up and maintained to record additions and deductions of eligible inputs for a single physical site.

Main points

Commonalities:

- Traceability: All the CSLs mentioned emphasise the importance of traceability within their supply chains. They aim to ensure that claims made about sustainable practices and products can be verified and backed up with evidence. Traceability helps maintain transparency and accountability throughout the supply chain, enabling consumers and stakeholders to make informed choices.
- Chain of Custody: The majority of the CSLs have established Chain of Custody standards or systems to monitor and track the flow of certified materials or products from the source to the end-user. These standards ensure that certified materials are correctly handled, segregated, and labelled, maintaining their integrity and credibility.
- Compliance with Standards: Each CSLs requires organisations to comply with their specific standards and guidelines to make sustainability claims. Compliance ensures that claims are accurate, relevant, and aligned with the objectives and principles of the initiative.
- Transparency on the use of claims and labels: Most CSLs provide guidelines on the use of claims and labels to ensure that claims made on the products are correctly conveyed and not misleading. The guidelines are publicly available on the website of CSLs. To further enhance transparency on the claims, CSLs such as Bonsucro require the organisations to include the CSL's website on the products to provide consumers with further information. GlobalG.A.P. and PEFC give a series of numbers which can be entered into their respective database to obtain more information about the certified supply chain members.

Differences:

- Use of Technology: Innovative technologies like blockchain are being utilised by various CSLs, including FSC and GLOBALG.A.P., to improve supply chain transparency and guarantee the legitimacy of certified materials.
- Variety of Chain of Custody Options: Different CSLs offer various chain of custody options to suit the needs and processes of their industries. These options may include identity preserved, product segregation, mass balance, content ratio accounting, book & claim, etc. Some CSLs, like Fairtrade International, Bonsucro, and RSPO, use a mass balance approach for certain products, allowing the mixing of certified and non-certified ingredients during manufacturing while ensuring that the actual volumes of certified materials are accurately tracked and audited.

5.5.8 Reliability

Reliability: A credible sustainability system provides **trustworthy assessments** of users' performance. A credible sustainability system designs its tools so that these can be **consistently implemented and assessed**. It ensures assessments of users' sustainability

performance are **competent and accurate** and that these assessments support any claims it allows users to make.

Synthesis of results:

The **ASC-MSC Seaweed (Algae) Standard** was developed in accordance with the ISEAL Standard Setting Code, following a participatory process. A joint governance body, the Seaweed Standard Committee, comprising representatives from ASC and MSC Technical Advisory Groups, Boards, and additional seaweed industry and NGO stakeholders, guided the standard's development. The process included stakeholder workshops, online consultations, webinars, meetings, and local outreach to ensure a robust and credible process. Part A of the standard outlines general requirements for Conformity Assessment Bodies (CABs) offering certifications against the ASC-MSC Seaweed (Algae) Standard, while Part B provides specific operational requirements for CABs conducting seaweed production unit audits, following the ISO 17065 approach for section numbering. CAB audit personnel must adhere to the guidance on auditing provided in ISO 19011, and compliance with legal requirements in the countries of operation is mandatory. The CAB's decision-making entity must authorise any changes to certification status. Regarding resource requirements, the CAB must register all auditors with ASC-MSC and the accreditation body, ensure auditors meet required competencies and have personnel experienced and qualified for evaluation purposes. The CAB must also have a written procedure to confirm the annual qualifications and competency of auditors and personnel involved in audits, as described in Annex A of the ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements.

The **Better Cotton** Initiative (BCI) upholds ISEAL's credibility principle of "Reliability" through its robust Better Cotton Assurance Programme. The Assurance Programme serves as a comprehensive reference manual for various stakeholders, such as Programme Partners, Producers, Better Cotton staff, and third-party verifiers. It aims to ensure consistent implementation of assurance requirements across all Better Cotton projects.

Better Cotton is ISEAL Code Compliant, meaning its entire system, including the Assurance Programme, has undergone independent evaluation against ISEAL's Codes of Good Practice. To maintain their standards, Better Cotton outlines specific qualifications and competencies required for third-party verifiers, providing guidance on the application and approval process, performance review, and handling of complaints against verifiers in the Approval Procedures for Verifiers document. Better Cotton conducts periodic reviews of verifier performance, gathering feedback from various sources, such as Better Cotton country and assurance staff, partners, and external oversight processes. These reviews assess the quality of verification visits conducted in the field and the submitted reports.

The **BFA** provides a methodology for decision-making that enables the assessment of risk and trade-offs across different feedstock opportunities. This methodology is not a certification or production management method, but it complements other management programs, such as certifications, roundtables, standards, and best management practices for commonly used feedstocks. To ensure credibility in sustainability standards, the BFA recommends pursuing ISEAL code-compliant sustainability certifications, which indicates that the certification successfully adheres to ISEAL's Standard Setting, Impacts and Assurance Codes of Good Practices.

Bonsucro's Certification Protocol, as per version 6, outlines requirements for Certification Bodies (CBs) to ensure the consistent and long-term delivery of Bonsucro certification. The protocol emphasises the importance of audit documentation, mandating that audit reports

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

must be comprehensive, accurate, and concise and adhere to ISO 19011:2018 standards. Moreover, Bonsucro is ISEAL Code Compliant and a Full Member of ISEAL.

BREEAM's standards include specific requirements to ensure quality management systems throughout the supply chain and validate data related to sustainable development. Its quality management system must follow the fundamentals of ISO 9001. Additionally, BREEAM mandates that data and information related to sustainable development management must undergo external verification by an independent, competent third party who is not involved in the organisation's BES 6001 certification assessment.

The **Cradle-to-Cradle Certified**™ Products Innovation ensures the credibility of its certification process through a well-structured oversight system. The Certification Scheme Owner provides ongoing operational oversight of both CBs and Assessment Bodies (ABs). This includes offering guidance, conducting performance audits, and reviewing assessment practices to ensure consistent application of the Cradle-to-Cradle standard.

For CBs, specific responsibilities are outlined to maintain high-quality evaluations. They are required to develop and maintain a quality management system based on ISO 9001, designed to implement certification evaluations and decisions following ISO 17065 requirements. CBs must maintain independence, impartiality, and avoid any business relationships with ABs involving financial or other considerations for the purpose of referral. Moreover, CBs performing conformity audits must be accredited by the Cradle to Cradle Products Innovation Institute (C2CPII). When evaluating products for certification, CBs rely on the Assessment Summary provided by an accredited AB. This evaluation aligns with ISO 17065 and is carried out in accordance with the Certification Manual for Certification Bodies Operating within the Cradle-to-Cradle Certified Products Program. The certification issued by the CB is effective for a term of two years, maintaining the credibility of the certification scheme. The accreditation audit process itself follows ISO 19011 guidelines, ensuring that the scheme owner conducts thorough and credible audits of the ABs operating within the Cradle-to-Cradle Certified™ Product Certification Scheme.

The **EU Ecolabel** is an ISO 14024 Type 1 ecolabel, demonstrating its reliability, multi-criteria nature, and third-party verification. Its criteria are developed through an open, transparent, and multi-stakeholder process, taking a lifecycle approach. To ensure independent verification, a third-party Competent Body assesses products for full compliance with the EU Ecolabel criteria. These National Competent Bodies, designated by European Economic Area states, function independently and impartially, implementing the EU Ecolabel scheme at the national level. They receive and assess applications, awarding the label to products that meet the criteria. The Competent Bodies are responsible for maintaining consistency, neutrality, and reliability in the verification process, adhering to international, European, or national standards and procedures for product-certification schemes. Regular meetings at the Competent Body Forum facilitate experience exchange and consistent implementation of the scheme across different countries.

Fairtrade International and **Fairtrade International Textile Standard** employ a robust assessment methodology based on third-party audits and certification. Most audits are conducted on-site, with initial, renewal and unannounced audits being predominantly on-site. Remote audits are utilised for surveillance and follow-up of non-conformities. The assurance process is regulated by the Requirements for Assurance Providers (RAPs), allowing for remote auditing under special circumstances for a temporary period if the safety of the auditor cannot be guaranteed. All personnel involved in assurance, including auditors, must adhere to qualification and competency criteria, as specified in the RAPs. Periodic training, calibration programs, and personnel evaluations are conducted to maintain competence. Fairtrade

D4.1 - Literature review and inventory of certification schemes and labels requirements

International, as the scheme owner, takes responsibility for Fairtrade's Assurance and Licensing through its multi-stakeholder Oversight Committee (OC). The OC defines regulations governing the Assurance and Licensing program and evaluates its effectiveness regularly, ensuring independent decision-making. Fairtrade International verifies compliance of Assurance Providers and Licensing Bodies through a combination of desktop reviews and independent audits, with assessment cycles of 3 and 4 years, respectively. Non-conformities or unwillingness to follow the Oversight Procedure may lead to the withdrawal of the right to operate within the Fairtrade program. While Fairtrade International's OC acts as the scheme oversight body, the RAPs align closely with the ISEAL Assurance Code and ISO/IEC 17065. FLOCERT, the largest assurance provider, is accredited against ISO/IEC 17065 by the German Accreditation Body DakkS, following DIN EN ISO/IEC 17011 norm, with no use of proxy accreditation in the Assurance program.

FSC's commitment to reliability is supported by a rigorous accreditation process overseen by Assurance Services International (ASI). ASI ensures that FSC-certified programs are managed with competence, consistency, and transparency, adhering to the highest standards of credibility and rigour as outlined in the ISEAL Code of Good Practice and the DIN EN ISO/IEC standard 17065:2013-01.

GLOBALG.A.P. depends on independent third-party certification by authorised bodies. To obtain GLOBALG.A.P. approval, CBs must have ISO/IEC 17065 accreditation in the relevant area. Recognition necessitates International Accreditation Forum (IAF) membership and adherence to the multilateral agreement on Product Certification. The information about approved CBs and their performance ratings is accessible online. GLOBALG.A.P., through its Certification Integrity Program (CIPRO), oversees and evaluates its approved certification bodies to guarantee certification bodies conduct their audits in accordance with GLOBALG.A.P guidelines and procedures while also verifying the consistent use of the same criteria and quality standards. GLOBALG.A.P uses the Audit Online Hub to streamline data collection with digital checklists and inspection reports in multiple languages.

The reliability of the **GreenGoldLabel** sustainability certification scheme is ensured through its Certification Regulation document, which enforces uniform and procedural management by the GGL Foundation and approved CBs. CBs seeking accreditation must obtain ISO 17065 with GGL scope from members of the European Accreditation (EA) Multilateral Agreement (MLA) or the IAF. GGL audits strictly follow ISO 19011 requirements, including communication, report writing, and non-conformity grading. Auditors are prohibited from compromising objectivity to uphold independence and impartiality.

ISCC EU and ISCC PLUS require certification bodies to be recognised by a competent national authority or ISO/IEC 17065 or ISO/IEC 17021 accreditation to cooperate with them. Audits must adhere to international standards, relying on objective evidence of conformity. ISCC mandates that CBs publish Summary Audit Reports on their website, based on ISCC audit procedures, alongside respective certificates. CBs and auditors must be impartial and free from conflicts of interest. Auditors must complete mandatory ISCC EU and PLUS Basic Trainings. The selection and appointment of audit teams follow ISO 19011, considering the required competence for specific audits.

PEFC ensures reliability through its third-party certification process. Independent CBs issue PEFC certificates, maintaining impartiality and adhering to PEFC and ISO requirements. PEFC only collaborates with "PEFC notified" CBs with the necessary accreditation, ensuring standardised ISO procedures and competent auditors with regular PEFC training. PEFC relies on national accreditation bodies (ABs) under the International Accreditation Forum (IAF) for accreditation, emphasising independence and impartiality. Personnel involved in the chain of

D4.1 - Literature review and inventory of certification schemes and labels requirements

custody certification must attend PEFC-recognised training, promoting consistency in auditing worldwide. To ensure CBs and ABs operate independently and impartially, PEFC works only with those complying with relevant ISO requirements (e.g., ISO/IEC 17011, ISO/IEC 17021-1, ISO/IEC 17065). The auditing procedures must align with ISO 19011. Accreditation bodies must be IAF members, following ISO/IEC 17011:2004 procedures and other recognised documents.

REDcert and REDcert[2] ensure reliability through a robust audit process in line with ISO 19011 requirements. CBs conduct complete audits annually to determine continued compliance with certification requirements. Audit reports transparently explain all evaluations, except for 100% compliance. Certification bodies must be recognised by a national authority or accredited according to ISO/IEC 17065 or ISO/IEC 17021, aligning with the Renewable Energy Directive (EU) 2018/2001 (RED II) scope or the specific scope of the voluntary scheme. Audits are conducted following ISO 19011 requirements, and conformity evaluations adhere to ISO/IEC Guide 60 specifications. Both certification bodies and auditors maintain independence from interfaces, operations, and suppliers, free from conflicts of interest, and provide verifiable proof of their impartiality.

RTRS ensures reliability in its accreditation and certification procedure by setting clear requirements for CBs to be approved as competent entities capable of assessing and issuing certificates for Responsible Soy and Corn Production. Accreditation bodies (ABs) must be formally endorsed by RTRS, operating in line with ISO 17011:2017, and independent from the assessed CBs. International Accreditation Bodies must have full membership in ISEAL or fully comply with ISEAL Assurance Code. RTRS continuously monitors the efficiency of the oversight mechanism, updating risk classification and informing improvements annually. The RTRS evaluates the Accreditation Body's performance and conformity, reviewing audit reports and conducting annual update meetings between AB and RTRS.

RSB certification system relies on independent CBs to conduct audits in a stringent, impartial, and transparent manner, aligning with internationally recognised standards. Furthermore, RSB ensures reliability through accreditation and oversight procedures for certification bodies and auditors. The Oversight Body evaluates CB reports, ensuring conformity to RSB requirements and adherence to principles of independence and integrity according to ISO 14066:2014. CBs must comply with ISO/IEC 17065, ISO 19011, and ISO 14064-3 for audits and assessments, with RSB standards prevailing in case of conflicts. Accreditation bodies must comply with ISO/IEC 17011 and RSB standards, demonstrating consistent and credible evaluation practices. Evaluations include assessing CBs' competence, staffing levels, and reporting ability under RSB certification systems.

RSPO ensures reliability through its accredited third-party CBs, which conduct audits to evaluate members' compliance with RSPO Standards. To maintain credible and consistent audits, only accredited CBs are allowed to provide RSPO Certification services. ASI accredits CBs offering RSPO Certification services. The RSPO Certification System requires annual audits to ensure continuous compliance with RSPO Standards throughout the certification cycle.

The **SAI Platform - Farm Sustainability Assessment (FSA)** provides companies flexibility to determine their desired FSA performance level and suitable supply chain options. However, they require third-party verifications for external claims regarding the FSA Performance Level of farms, Farm Management Groups (FMGs), or supply chains. Verification Bodies pursuing FSA audits must have a license agreement with the SAI Platform to confirm their competence. Only approved Verification Bodies can conduct FSA Verification Audits. They must have a quality management system in place and be ISO/IEC 17065 accredited for an FSA-recognised

D4.1 - Literature review and inventory of certification schemes and labels requirements

standard or apply for accreditation alongside the approval process. The Verification Body must be separate from other functions if part of an organisation involved in non-audit activities. They are prohibited from providing paid FSA consultancy services to organisations for which they offer FSA verification services. The FSA Verification Audit validates the correct implementation of FSA and the accuracy of the FSA Self-Assessment results for Stand-Alone Farms or entire Farm Management Groups (FMGs).

SAN operates under the guidance of a Board of Directors, consisting of up to 11 representatives elected by the General Assembly from among the members. This board plays a crucial role in approving the organization's annual plans, goals, and strategies, providing a strong foundation for the SAN's endeavours. To uphold quality standards, all projects and contracts are subject to a rigorous quality review mechanism, which involves regular meetings. Through this process, the SAN ensures timely delivery and maintains the desired level of quality in managing its programs and projects within the allocated budget, promoting sustainable agricultural practices and a greener future.

SBP ensures the reliability of its certification process through several measures. CBs must hold SBP accreditation in accordance with ISO 17065 and have at least one of the following accreditations: FSC®, PEFC, or Sustainable Forest Initiative® (SFI®). The CBs are responsible for monitoring the competence and performance of all personnel involved in the evaluation and certification activities, conducting periodic on-site evaluations of auditors' performance, and ensuring legally enforceable agreements with subcontracted service providers to maintain confidentiality and avoid conflicts of interest. They also have a process to approve and monitor subcontracted service providers used for certification activities, maintaining records of personnel competence. CBs are required to enter all necessary information in the Audit Portal and keep it updated.

Main points
Commonalities:

- Reliability and Credibility: The selected CSLs above place a strong emphasis on transparency and accountability in their certification and verification process. They establish an assurance programme, conduct periodic reviews, follow internationally recognised standards, undergo independent evaluations, and engage in transparent and rigorous auditing to ensure that their sustainability claims are credible and trustworthy.

- Third-Party Verification: The majority of CSLs use third-party verification by accredited CBs or auditors. Third-party verification adds an extra layer of objectivity and impartiality to the certification process, enhancing the credibility of sustainability claims. Certification bodies must be accredited by national or internationally recognised accreditation bodies. For instance, GlobalG.A.P AND GreenGoldLabel require their CBs to be accredited by accreditation bodies that are a member of the IAF. Most CSLs outline minimum requirements for CBs and auditors to ensure capabilities. These requirements are typically defined in a CSL's system or procedure document that is publicly available. In some cases, such as ISCC EU and ISCC PLUS, auditors must undertake training before conducting audits.

- Adherence to International Standards: In general, the selected CSLs align their certification and auditing processes with internationally recognised standards. Some CSLs such as Better Cotton and Bonsucro are ISEAL-Code Compliant which indicates that they have undergone independent evaluation against ISEAL's Codes of Good Practice. In addition, ISO standards play a crucial role in guiding the certification and

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

auditing processes of these sustainability initiatives, ensuring consistency and credibility across the board. Most CSLs above typically require CBs to comply with ISO/IEC 17065, Accreditation Bodies to comply with ISO/IEC 17011, and audit reports to comply with ISO 19011. This alignment ensures consistency, transparency, and conformity with established best practices.

Differences:

- Scope of Assurance: The extent and scope of assurance requirements vary among the CSLs. For instance, Bonsucro and RSPO have comprehensive assurance programs covering various stakeholders and projects, while others, like the SAI Platform's FSA, offer flexibility in determining performance levels and supply chain options.

- Accreditation and Oversight Processes: The mechanisms for accreditation and oversight of CBs and auditors differ among the initiatives. Some CSLs, like PEFC and RSB, work with national or international accreditation bodies, while others may have their own oversight bodies, such as Assurance Services International (ASI) for FSC and RSPO. Some CSLs, such as Better Cotton and RTRS regularly monitor their verifiers or accreditation bodies' performance.

6 Conclusion

The examination of CSLs highlights the growing trends in both the number and coverage of CSLs within the EU bioeconomy. The reviewed schemes exhibit diverse approaches to certifying biobased products, showcasing distinct structures and requirements. Notably, the majority of these CSLs adopt a dual focus, engaging in both business-to-business (B2B) and business-to-consumer (B2C) communication strategies, which encompass commercial exchanges between companies and direct sales to consumers. However, it is worth noting that the analysis faced challenges in sourcing information on countries of origin, with only slightly more than half of the reviewed CSLs providing such data, suggesting room for improved transparency on this matter. The varied approaches employed by CSLs for different feedstocks and products highlight the versatility of sustainability certification in addressing various elements within the biobased product value chain.

The review of the selected CSLs revealed that many placed a significant emphasis on responsible harvesting and farming practices at the land-use level, with requirements for safeguarding climate, ecosystem, and biodiversity values. This includes requirements related to hazardous waste management, waste recycling, pollution reduction, water conservation, and sustainable soil use. CSLs include requirements to reduce greenhouse gas emissions and implement measures for climate change mitigation. However, there is less emphasis on requirements related to circularity and climate change adaptation compared to other environmental considerations.

Human rights considerations are well-incorporated into many CSLs, focusing on preventing child labour, ensuring worker safety and health, preventing discrimination, and promoting gender equality. While these aspects are emphasised, less weight is placed on employer-provided housing and rural, local, and indigenous community requirements. Economic requirements within CSLs are relatively less prevalent but encompass criteria related to economic viability, land tenure, and management planning.

Beyond environmental, social, and economic considerations, the review identified requirements for Certificate Holders (CHs) that contribute to the robustness and integrity of

the certification scheme. These include adherence to laws and regulations, control over material identification and recycling within the supply chain, terms for conflict resolution, corruption prevention, and the maintenance of scheme quality and procedures.

Assurance rules are typically outlined in documented methodologies, covering aspects such as auditor qualifications, the audit process, reporting, non-compliance resolution, certification decisions, validity duration, and stakeholder consultation. Governance specifics, however, are found scattered in various documents or standards produced by the certification scheme. Overall, selected CSLs prioritize transparency, credibility, and accountability, employing third-party verification, adhering to international standards, and aligning with ISO guidelines to ensure credible and consistent sustainability claims.

The extent of public information availability varies among schemes, with some offering comprehensive reports and documentation while others restrict access to sensitive data. Although corruption may not be explicitly mentioned in many schemes, it is often indirectly addressed through requirements for the impartiality and independence of Certification Bodies (CBs), procedures to prevent bribery, and training and awareness-raising for auditors on related topics.

In summary, this review offers a comprehensive examination of Certification and Labelling Schemes (CLSs) within the EU bioeconomy. It highlights the dynamic landscape of sustainability certification, showcasing trends, strengths, and areas for improvement. By leveraging these insights through benchmarking activities, we can better understand the commonalities, differences, and operational aspects of CSLs. This knowledge will be instrumental in enhancing our platform development, enabling us to incorporate the most relevant information and foster collaboration among stakeholders.

7 References

ASC International. (2022, January 27). *Public consultations: why they're important, how to make them count*. Https://asc-aqua.org/blog/public-consultations-why-are-they-important-and-how-do-we-make-them-count/

ASC International. (2023a, April 5). *15 Facts about the ASC - ASC International*. Https://asc-aqua.org/blog/15-facts-about-the-asc/

ASC International. (2023b, April 13). *Principle 3 - ASC International*. Https://asc-aqua.org/new-standards-programme-improvements/aligned-farm-standard/principle-3/

ASC International. (2023c, April 27). *Programme improvements - ASC International*. Https://asc-aqua.org/new-standards-programme-improvements/

ASC International. (2023d, May 15). *Governance - ASC International*. Https://asc-aqua.org/about-asc/governance/

ASC International. (2023e, June 19). *About ASC - ASC International*. Https://asc-aqua.org/about-asc/

Ashikhmina, S., & Ashikhmina, S. (2022). BRE smartsite kpis | smartsite. *Smartsite | Software for Better Site Safety, Health, Environmental and Quality Performance.* Https://www.bresmartsite.com/blog/bre-smartsite-kpis/

Better Cotton. (2021). Better Cotton - Claims Framework. In *Better Cotton* (Version 3.0). Https://bettercotton.org/wp-content/uploads/2021/12/Better-Cotton-Claims-Framework-V3.0.pdf

Better Cotton. (2022, July 8). *Strategic Partners - Better Cotton*. Https://bettercotton.org/who-we-are/partners/strategic-partners/

Better Cotton. (2023a). Better Cotton Assurance Manual. In *Better Cotton* (V4.3.1). Https://bettercotton.org/wp-content/uploads/2023/06/Better-Cotton-Assurance-Manual-v4.3.1.pdf

Better Cotton. (2023b, March 31). *Demonstrating Compliance: the Better Cotton Assurance System*. Https://bettercotton.org/what-we-do/demonstrating-compliance-assurance-programme/

Bioplastic Feedstock Alliance. (n.d.). *About BFA | Bioplastic Feedstock Alliance*. Https://bioplasticfeedstockalliance.org/about

D4.1 - Literature review and inventory of certification schemes and labels requirements

Bonsucro. (2021). Sustainable Sugarcane Changing For Good Bonsucro Strategic Plan
2021-2026. In *Bonsucro*. Https://www.bonsucro.com/wp-
content/uploads/2021/05/Bonsucro-2021-26-Strategic-Plan-full.pdf

Bonsucro. (2023, June 22). *- Complaining to a Bonsucro Licensed Certification Body -
Bonsucro*. Https://bonsucro.com/complaints-and-grievances/complaining-to-
certification-body/

BRE Global Limited. (2022). BRE Environmental and Sustainability Standard BES 6001:
Issue 4.0 Framework Standard for Responsible Sourcing. In *BRE Group* (BES
6001). Https://files.bregroup.com/standards/BES_6001_V4-0.pdf

BRE Group. (2023a, February 9). *BREEAM Disclosures and reporting - BRE Group*. BRE
Group - Building a Better World
Together. Https://bregroup.com/products/breeam/breeam-solutions/breeam-
disclosures-and-reporting/

BRE Group. (2023b, February 9). *BREEAM Partnerships - BRE Group*. BRE Group -
Building a Better World Together. Https://bregroup.com/products/breeam/breeam-
engage/breeam-partnerships/

BRE Group. (2023c, February 9). *For BREEAM Professionals - BRE Group*. BRE Group -
Building a Better World Together. Https://bregroup.com/products/breeam/breeam-
tools/for-breeam-professionals/

Cradle to Cradle Products Innovation Institute. (2021). Cradle To Cradle Certified® Version
4.0 - Product Standard. In *Cradle to Cradle Products Innovation
Institute*. Https://c2ccertified.org/the-standard/version-4-0

European Commission, Directorate-General for Environment. (2021). Study on certification
and verification schemes in the forest sector and for wood-based products: report.
Publications Office of the European Union.
https://data.europa.eu/doi/10.2779/126030

European Commission. (n.d.). Voluntary schemes for renewable energy.
https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-
schemes_en

European Commission. (2014). Consolidated text: Commission Decision of 5 June 2014
establishing the ecological criteria for the award of the EU Ecolabel for textile

D4.1 - Literature review and inventory of certification schemes and labels requirements

products (notified under document C(2014) 3677) (Text with EEA relevance).

In *EUR-Lex* (2014/350/EU). Https://eur-lex.europa.eu/legal-

content/EN/TXT/?Uri=CELEX%3A02014D0350-20201201

European Commission. (2019). Commission Decision (EU) 2019/70 of 11 January 2019

establishing the EU Ecolabel criteria for graphic paper and the EU Ecolabel criteria

for tissue paper and tissue products (notified under document C(2019) 3) (Text with

EEA relevance.). In *EUR-Lex* (L 15/27). Official Journal of the European

Union. Https://eur-lex.europa.eu/legal-

content/EN/TXT/?Qid=1548153232191&uri=CELEX:32019D0070

European Commission. (2020). Commission Decision (EU) 2020/1803 of 27 November 2020

establishing the EU Ecolabel criteria for printed paper, stationery paper, and paper

carrier bag products (notified under document C(2020) 8155) (Text with EEA

relevance). In *EUR-Lex* (L 402/53). Official Journal of the European

Union. Http://data.europa.eu/eli/dec/2020/1803/oj

European Commission. (2022). Communication From The Commission To The European

Parliament, The Council, The European Economic And Social Committee And The

Committee Of The Regions Eu Strategy for Sustainable and Circular Textiles.

In *EUR-Lex* (COM/2022/141 final). Https://eur-lex.europa.eu/legal-

content/EN/TXT/?Uri=CELEX%3A52022DC0141

European Commission & EU Ecolabel Helpdesk. (2022). EU Ecolabel Logo Guidelines.

In *European Commission*. European

Commission. Https://environment.ec.europa.eu/system/files/2022-

07/euecolabel_logoguidelines_2022.pdf

EU Council and European Parliament. (2023). Regulation (EU) 2023/1115 of the European

Parliament and of the Council of 31 May 2023 on the making available on the Union

market and the export from the Union of certain commodities and products

associated with deforestation and forest degradation and repealing Regulation (EU)

No 995/2010. https://eur-lex.europa.eu/legal-

content/EN/TXT/PDF/?uri=CELEX:32023R1115

European Parliament & Council Of The European Union. (2010). Regulation (Ec) No

66/2010 Of The European Parliament And Of The Council Of 25 November

D4.1 - Literature review and inventory of certification schemes and labels requirements

2009 On The Eu Ecolabel. In *EUR-Lex* (OJ L 27). Official Journal of the European

   Union. Http://data.europa.eu/eli/reg/2010/66/oj

Fairtrade International. (n.d.-a). *Assuring integrity in checking*

   compliance. Https://www.fairtrade.net/about/integrity-in-compliance

Fairtrade International. (n.d.-b). *The Fairtrade Textile*

   Programme. Https://www.fairtrade.net/about/the-fairtrade-textile-programme

Fairtrade International. (2016). Fact sheet - Introducing Fairtrade Textile Standard.

   In *Fairtrade International*. Https://files.fairtrade.net/standards/2016-10-

   10_factsheettextiles.pdf

Fairtrade International. (2021). Fairtrade Textile Standard. In *Fairtrade*

   International (22.03.2016_v1.3). Https://files.fairtrade.net/standards/textilestandard_E

   N.pdf

Fairtrade International. (2022). Building resilience in a changing world ANNUAL REPORT

   2021-2022. In *Fairtrade*

   International. Https://files.fairtrade.net/publications/FI_Annual-

   Report_2021_web_sp.pdf

FAO. (2020a). Global Forest Resources Assessment 2020. Main report.

   https://www.fao.org/3/I8661EN/i8661en.pdf

FAO. (2020b). Global Forest Resource Assessment - Terms and Definitions.

   https://www.fao.org/3/I8661EN/i8661en.pdf

FAO. (2023). Sustainable Forest Management (SFM) Toolbox.

   https://www.fao.org/sustainable-forest-management/toolbox/modules/forest-

   certification/in-more-depth/en/

Ferreira, L. C.-W. C., Tregurtha, N., Foggitt, L., & Chang, C.-W. (2021). Bonsucro Outcome

   Report 2021. In *Bonsucro* (Version 1.0). Bonsucro. Https://bonsucro.com/wp-

   content/uploads/Bonsucro-outcome-Report-2021.pdf

FSC. (2014). Processing Complaints in the FSC® Certification Scheme. In *FSC* (FSC-PRO-

   01-008 (V2-0) EN). Https://fsc.org/sites/default/files/2019-08/FSC-PRO-01-008-V2-0-

   EN-Processing-complaints.pdf

FSC. (2015). General requirements for FSC accredited certification bodies. In *FSC* (FSC-
STD-20-001 V4-0 EN). Https://connect.fsc.org/document-
centre/documents/resource/280

FSC. (2019). Report on the Structure of the FSC Certification System, Version 3.
https://connect.fsc.org/sites/default/files/2022-08/FSC-RP-
FSC%20Certification%20system%20V3%20EN%202019-03.pdf

FSC. (2021). Chain of Custody Certification. In *FSC* (FSC-STD-40-004 V3-1
EN). Https://uk.fsc.org/sites/default/files/2021-11/01092021_FSC-STD-40-004_V3-
1_EN_FINAL.pdf

FSC. (2022). FSC Monitoring And Evaluation Public Report 2022.
In *FSC*. Https://connect.fsc.org/sites/default/files/2022-
12/FSC%20Monitoring%20and%20Evaluation%20Public%20Report%202022.pdf

FSC. (2023). FSC® Principles And Criteria For Forest Stewardship. In *FSC* (FSC-STD-01-
001 V5-3 EN).

GGL. (n.d.). *Governance*. Https://greengoldlabel.com/governance/

GGL. (2021). *Green Gold Label Certification Regulation* (No. V7-
6). Https://greengoldlabel.com/wp-content/uploads/2021/11/GGL-Certification-
Regulation-v7-6.pdf

GHG Protocol. (n.d.). Land Sector and Removals Guidance. https://ghgprotocol.org/land-
sector-and-removals-guidance

GLOBALG.A.P. (n.d.-a). *BIPRO*. Https://www.globalgap.org/uk_en/what-we-do/the-gg-
system/integrity-program/BIPRO/index.html

GLOBALG.A.P. (n.d.-b). GLOBALG.A.P. Certification The First Choice for Retailers and
Producers Around the World.
In *GLOBALG.A.P.* https://www.globalgap.org/export/sites/default/.content/.galleries/D
ocuments_Media_Gallery/190808_capacity_building_flyer_general_web_en.pdf

GLOBALG.A.P. (n.d.-c). *Projects*. Https://www.globalgap.org/uk_en/what-we-do/un-
sustainable-development-goals/projects/

GLOBALG.A.P. (n.d.-d). *Standard Setting*. Https://www.globalgap.org/uk_en/what-we-
do/globalg.a.p.-certification/standard-setting/

D4.1 - Literature review and inventory of certification schemes and labels requirements

GLOBALG.A.P. (2022). GLOBALG.A.P Benchmarking Regulations.

   In *GLOBALG.A.P* (V6.0_Oct22). GLOBALG.A.P c/o foodplus

   gmbh. Https://www.globalgap.org/.content/.galleries/documents/221005_GG_bench

   marking_regulations_v6_0_Oct22_en.pdf

High Carbon Stock Approach. (2015). HCS Approach Toolkit: Chapter 6 - Decision Tree.

   https://highcarbonstock.org/wp-content/uploads/2015/04/HCS-Approach-Toolkit-Ch6-

   Decision-Tree.pdf

High Carbon Stock Approach. (2022). HCSA Restoration & Remediation Guidance (V1

   approved 1-Mar-2022). https://highcarbonstock.org/wp-

   content/uploads/2022/03/HCSA-Restoration-Remediation-Guidance_V1-approved-1-

   Mar-2022.pdf

IPCC (Intergovernmental Panel on Climate Change). (n.d.). Glossary.

   https://www.ipcc.ch/sr15/chapter/glossary/

ISEAL. (2018b). Assuring Compliance with Social and Environmental Standards ISEAL

   Code of Good Practice V2.0. https://www.isealalliance.org/get-

   involved/resources/iseal-assurance-code-good-practice-version-20

ISEAL. (2021). Credibility Principles. https://www.isealalliance.org/defining-credible-

   practice/iseal-credibility-principles

ISCC System. (n.d.-a). *Multi Stakeholder Initiative – ISCC System*. Https://www.iscc-

   system.org/governance/multi-stakeholder-initiative/

ISCC System. (n.d.-b). *Partnerships – ISCC System*. Https://www.iscc-

   system.org/governance/partnerships/

ISCC System gmbh. (2021a). ISCC EU 102 Governance. In *ISCC UE* (Version

   4.0). Https://www.iscc-system.org/wp-

   content/uploads/2022/05/ISCC_EU_102_Governance_v4.0.pdf

ISCC System gmbh. (2021b). ISCC EU 103 requirements for certification bodies and

   auditors. In *ISCC EU* (Version 4.0). Https://www.iscc-system.org/wp-

   content/uploads/2022/05/ISCC_EU_103_Requirements-v4.0-1.pdf

ISO. (2018). ISO 19011:2018 - Guidelines for auditing management systems. ISO.

Kahn, H. (n.d.-a). *Biomass for material purposes*. Https://www.redcert.org/en/redcert-

   systems/material-purposes.html

D4.1 - Literature review and inventory of certification schemes and labels requirements

Kahn, H. (n.d.-b). *Our services*. Https://www.redcert.org/en/about-us/our-services.html

Katepaul. (2021, July 8). *How to Measure Collaboration – Performance Measurement Forum - Constructing Excellence*. Constructing Excellence - Positively Disrupting the Construction Industry. Https://constructingexcellence.org.uk/how-to-measure-collaboration-performance-measurement-forum/

Mauthofer, T., & Santos, M. (2022). Assessing the Impact of Fairtrade on Poverty Reduction and Economic Resilience through Rural Development. In *Fairtrade International*. Mainlevel Consulting AG. Https://files.fairtrade.net/publications/Fairtrade_povertyandruraldevelopment_Impact-Study_June2022.pdf

MSC. (n.d.). *How we meet best practice*. MSC International. Https://www.msc.org/about-the-msc/how-we-meet-best-practice

MSC. (2020). MSC Complaints Procedure. In *MSC* (Version 4.0). Https://www.msc.org/docs/default-source/default-document-library/stakeholders/msc-complaints-procedure.pdf?Sfvrsn=e0c23073_32

MSC. (2022). MSC Fisheries Standard. In *MSC* (v3.0). Https://www.msc.org/docs/default-source/default-document-library/for-business/program-documents/fisheries-program-documents/msc-fisheries-standard-v3-0.pdf?Sfvrsn=53623a3_21

MSC. (2023). *MSC Chain of Custody Certification Requirements* (Version 3.2). Https://www.msc.org/docs/default-source/default-document-library/for-business/program-documents/chain-of-custody-program-documents/msc-chain-of-custody-certification-requirements-3.2.pdf

OECD. (2007). Corruption. A Glossary of international criminal standards. https://www.oecd.org/corruption/anti-bribery/39532693.pdf

PEFC. (2018). Sustainable Forest Management – Requirements. In *PEFC* (PEFC ST 1003:2018). Https://cdn.pefc.org/pefc.org/media/2019-01/b296ddcb-5f6b-42d8-bc98-5db98f62203e/6c7c212a-c37c-59ee-a2ca-b8c91c8beb93.pdf

PEFC. (2020). Chain of Custody of Forest and Tree Based Products – Requirements. In *PEFC* (PEFC ST 2002:2020). Https://cdn.pefc.org/pefc.org/media/2020-02/66954288-f67f-4297-9912-5a62fcc50ddf/23621b7b-3a5d-55c9-be4d-4e6a5f61c789.pdf

D4.1 - Literature review and inventory of certification schemes and labels requirements

Redcert. (2021). Scheme principles for neutral inspections. In *redcert* (EU

06). Https://www.redcert.org/images/SP_EU_Neutral_Inspection_Vers.06.pdf

Redcerteu. (2021a). Scheme principles for integrity management. In *redcerteu* (EU

01). Https://www.redcert.org/images/SG_EU_Integrity_management_Vers.01.pdf

Redcerteu. (2021b). Scope and basic scheme requirements. In *redcerteu* (Version EU

06). Https://www.redcert.org/images/SP_EU_Basic_Vers.06.pdf

RSB. (2016). RSB PRINCIPLES & CRITERIA. In *RSB* (RSB-STD-01-001 (Version

3.0)). Https://rsb.org/wp-content/uploads/2017/04/RSB-STD-01-

001_Principles_and_Criteria-DIGITAL.pdf

RSB. (2017). A GUIDE TO THE RSB STANDARD. In *RSB*. Https://rsb.org/wp-

content/uploads/2020/07/RSB-Guide-to-the-RSB-Standard-1.pdf

RSPO. (2002). Principles and Criteria For the Production of Sustainable Palm Oil 2018*.

In *RSPO*.

RSPO. (2020). RSPO Certification Systems for Principles & Criteria and RSPO Independent

Smallholder Standard. In *RSPO*(RSPO-PRO-T01-002 V3.0 ENG).

RSPO. (2023). Press Release: Rspo-Ispo Collaboration Key to Smallholder inclusion in

Sustainable Palm Oil Ecosystem. *Roundtable on Sustainable Palm Oil

(RSPO)*. Https://rspo.org/press-release-rspoispo-collaboration-key-to-smallholder-

inclusion-in-sustainable-palm-oil-ecosystem/

RTRS. (2021). Management Report 2021.

In *RTRS*. Https://responsiblesoy.org/management?Lang=en

RTRS. (2022). RTRS Standard for Responsible Soy Production. In *RTRS* (Version

4.0). Https://responsiblesoy.org/wp-content/uploads/2023/03/RTRS-Standard-for-

Responsible-Soy-Production-V4.0.pdf

SAI Platform. (2020). *SAI Platform Code of Conduct*. Https://saiplatform.org/wp-

content/uploads/2020/10/sai-platform-code-of-conduct_june2020-1.pdf

SAI Platform. (2021a). *Governance Framework - Farm Sustainability

Assessment*. Https://saiplatform.org/wp-content/uploads/2021/10/fsa-governance-

framework.pdf

D4.1 - Literature review and inventory of certification schemes and labels requirements

SAI Platform. (2021b). Sustainable Agriculture Principles & Practices. In *SAI*

  Platform. Https://saiplatform.org/wp-

  content/uploads/2021/02/principlespractices_saiplatform_2021.pdf

SAN. (2019). Refreshed Strategic Plan 2019 - 2024.

  In *SAN*. Https://www.sustainableagriculture.eco/_files/ugd/98f7ca_6d733b79d7ad4cb

  1be8360b13b019b74.pdf?Index=true

SAN. (2021a). Annual Report 2021.

  In *SAN*. Https://www.sustainableagriculture.eco/_files/ugd/98f7ca_cff070fb0dca465f9

  8f499869cd03bed.pdf?Index=true

SAN. (2021b). Sustainable Agriculture Framework 2021.

  In *SAN*. Https://www.sustainableagriculture.eco/_files/ugd/98f7ca_2d290d93508d44a

  69ae32ced9ee21572.pdf?Index=true

SBP. (2022). Sustainable Biomass Program Annual Review 2021 - The promise of good

  biomass. In *SBP*. Https://sbp-cert.org/wp-

  content/uploads/2023/02/SBP_annualreview_2021_r.pdf

Simon, E., Grabowski, A., Goldberg, K., Kuhn, D., & lamay Zeuner, J. (2022). Methodology

  for the Assessment of Bioplastic Feedstocks. In *Bioplastic and Feedstock Alliance*.

  WWF. Https://files.worldwildlife.org/wwfcmsprod/files/Publication/file/8vaykm2tn1_20

  22_BFA_Methodology.pdf?_ga=2.263706188.1970880317.1687502840-

  951563620.1687502840

Standardsmap.(n.d.). Https://www.standardsmap.org/en/factsheet/295/overview?Name=EU

  %20Ecolabel%20-%20Textiles,EU%20Ecolabel%20-%20Paper

Sullivan, J. (2014). Conformity vs. compliance.

  https://www.certificationkitbag.com/blog/2014/3/5/conformity-vs-compliance

Transparency International. (2021). Holding power to account.

  https://images.transparencycdn.org/images/Strategy2030_Brochure-

  final_15022021.pdf

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

8 Glossary of terms

Term	Definition
Abuse	Abuse in the workers' rights setting refers to any mistreatment or exploitation of employees by their employers, supervisors or colleagues that violate their legal and ethical rights. Such abuse can take many forms, including: ● Physical abuse. It refers to any physical harm or injury inflicted on a worker by their employer or co-worker. ● Verbal abuse. It refers to any spoken or written communication that is intended to harm or intimidate a worker, such as insults, threats or harassment. ● Psychological abuse. It refers to any behaviour that is intended to manipulate or control a worker's thoughts, feelings or actions, e.g., gaslighting or emotional manipulation. ● Sexual abuse. It refers to any unwanted sexual behaviour, including sexual harassment, assault or rape that is perpetrated by an employer or co-worker. ● Economic abuse. This refers to any exploitation of a worker's financial situation, such as withholding wages or benefits, forcing workers to work in unsafe conditions or denying them breaks or rest periods.
Accreditation/ Oversight	Assessment of a certification body's provider's demonstration of competence to carry out specific assurance tasks.
Agriculture	Agriculture refers to the science, art and practice of cultivating crops and raising animals for food, fibre, fuel and other products. It involves various activities, such as planting, harvesting, irrigation, pest management, animal husbandry and soil management, among others.
Agricultural land	Land that is not classified as forest, other wooded land or other land. Explanatory notes: ● Land used for the production of agricultural crops, including palms (oil, coconut, dates, etc.), tree orchards (fruit, nuts, olive etc.), agroforestry and trees in urban settings; ● Land used for meadows or pasture for livestock and other animals.
Agricultural use	Agricultural use means using land for agriculture, including for agricultural plantations, livestock, and set-aside agricultural areas. Source: Text of the EU Deforestation Regulation adopted by the European Parliament on 19 April 2023
Armed conflict	Armed conflict refers to a situation where two or more groups engage in a violent confrontation using military or paramilitary forces. It is often characterised by using weapons, including firearms, explosives and other types of weaponry, and may involve fighting on the ground, in the air or at sea. Armed conflicts can be categorised into different types based on various factors, such as the nature of the conflict, the parties involved, the duration and the level of intensity. These include: ● International armed conflict. This is a conflict between two or more states or nations. ● Non-international armed conflict. This is a conflict that occurs within the boundaries of a single state or nation, between the government and non-state actors or between non-state actors. ● Civil war. This is a type of non-international armed conflict that occurs between different groups within the same state or nation. ● Guerrilla warfare. This is a type of non-international armed conflict characterised by small-scale, hit-and-run tactics used by irregular forces against a larger, more organised army.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Assessment / Main evaluation / Certification Audit	These terms often refer to the first full scale evaluation performed for a company who desires to be certified/ verified. In ISO documents the term audit is used for both first and subsequent audits with the most common terms being initial audit or certification audit. Full system audit is used primarily for management systems auditing and consists of Stage 1 audit (document review and initial review), which can be replaced by pre-assessment (see below); and Stage 2 audit which is an on-site audit of full management system implementation.
Audit/ Surveillance audit	These terms often refer to repeatedly conducted evaluations to monitor continuous conformance of the auditee to the requirements. The term 'annual audit' usually refers to annual surveillance audits.
Applicant Auditee Audit Client Certificate holder Certified client Company Client Organisation Supplier (in product certification)	Although these terms are sometimes used interchangeably, they are not necessarily synonyms. *Applicant* refers to a company that has applied for certification, but has not yet received it. An *audit client* may request an audit; the *auditee* is the organisation being audited. In some cases, these can be different (e.g., a company ordering an audit for its supplier). With auditing services, the general term *client* seems to be the most widely used term. In the COC certification, the certificate is often issued to the organisation that has direct management responsibility for the Chain of Custody system under its control. In FM certification, the certificate is often issued to the organisation that has ownership or management control over the applicable forest management units.
Biodiversity	The variability among living organisms from all sources, including, among other things, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; it includes diversity within species, between species and of ecosystems. Source: Convention on Biological Diversity 1992, Article 2. https://www.cbd.int/doc/legal/cbd-en.pdf
Carbon footprint	The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (eCO2). This means that the carbon footprint may include the emissions of other greenhouse gasses than carbon dioxide (such as methane).
Certification	This is the process whereby an independent third-party (called a certifier or certification body) assesses the quality of forest management in relation to a set of predetermined requirements (the standard). The certifier gives written assurance that a product or process conforms to the requirements specified in the standard
Certification / Verification	The term is used a bit differently in different situations; however, it generally refers to the whole process of granting a certificate/ verification statement by an independent third-party assessor. The process starts formally with an application and ends after the certification/ verification decision has been made and certificate/ verification statement has been issued. In the broader context, annual surveillance activities are part of the certification/ verification process.
Certification body (CB) /	A certification body is an independent, impartial and competent legal entity that carries out certification auditing. Although it is not always a requirement that the assessor be accredited, professional certification

D4.1 - Literature review and inventory of certification schemes and labels requirements

Assurance provider	bodies are usually considered to be those who have gained accreditation for the auditing services they offer.
Certification requirements / Norm / Normative document / Requirements / Standard	These terms refer to documented requirements that must be fulfilled by the auditee in order to receive a certificate. *Audit criteria* is the definitive, formal common ISO term for any set of requirements against which the auditee is audited. *Standard* is a term used more commonly in everyday language.
Certification Scheme	3rd party scheme providing assurance of conformance to a normative standard. The organisation determines the objectives and scope of the certification system and applicable standards, as well as the rules for how the System will operate and the standards against which conformance will be assessed. In most cases this is the standard-setting organisation, but it may also act as a Certification body.
Certification scope	The boundaries within which the certification audit will be conducted.
Chain of Custody (CoC)	The path taken by raw materials, processed materials, finished products and co-products from the area of production to the consumer or (in the case of reclaimed/recycled materials or products containing them) from the reclamation site to the consumer, including each stage of processing, transformation, manufacturing, storage and transport where progress to the next stage of the supply chain involves a change of ownership (independent custodianship) of the materials or the product. Source: FSC-STD-40-004 V2-1. https://fsc.org/en/document-centre/documents/resource/302
Chemical	In the Sustainability Framework, chemicals are broadly defined as distinct compounds or substances that have been artificially prepared or purified. Chemicals in the context of the Sustainability Framework may include any such substance, including different types of prohibited chemicals, but focus on different types of agrochemicals, such as pesticides, herbicides, insecticides, fungicides, fertilisers. It may also include other chemicals used in processing and manufacturing. (Also see the definition of prohibited chemicals in this document.)
Child	Any person under the age of 15, unless the minimum age for work or mandatory schooling is higher by local law, in which case the stipulated higher age applies in that locality. Source: Social Accountability Standard 8000-2014
Child labour	The term "child labour" is often defined as work that deprives children of their childhood, their potential and their dignity and that is harmful to physical and mental development. It refers to work that: • is mentally, physically, socially or morally dangerous and harmful to children; and • interferes with their schooling by: ▪ depriving them of the opportunity to attend school; ▪ obliging them to leave school prematurely or ▪ requiring them to attempt to combine school attendance with excessively long and heavy work. In accordance with international labour standards, a minor between the age of 12 and 15 may work, in parallel with studying, on a farm owned

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	or operated by that parent or person standing in place of their parents [a guardian] if the following conditions are met:
	• The minor freely reports their wish to help and learn at the family farm if interviewed outside the farm
	• Work takes place outside of schooling
	• Work is always supervised by a parent or guardian
	• Work does not take place at night, does not consist of heavy lifting duties or hazardous work conditions, defined as:
	▪ operating or assisting to technically operate any type of machine, including tractor and power engines; working from
	a ladder or scaffold (painting, repairing or building structures, pruning trees, picking fruit, etc.) at a height of over
	2 metres; ▪ working in a confined space (e.g., silo or storage designed to retain an oxygen-deficient or toxic atmosphere);
	▪ handling or applying any type of agricultural chemicals.
	The above requirements also apply to agricultural schools – apprentices and students that can be present on farms. Not all work done by children should be classified as child labour that is to be targeted for elimination.
	Children's or adolescents' participation in work that does not affect their health and personal development or interfere with their schooling is generally considered positive. It includes activities such as helping their parents with housework, assisting in a family business or earning pocket money outside school hours and during school holidays. These kinds of activities contribute to children's development and to the welfare of their families. They provide them with skills and experience and help prepare them to be productive members of society during their adult life.
	Source: International Labour Organization
Child labour	Whilst child labour takes many different forms, a priority is to eliminate without delay the worst forms of child labour as defined by Article 3 of ILO Convention No. 182:
	● All forms of slavery or practices similar to slavery, such as the sale and
	trafficking of children, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict; ● The use, procuring or offering of a child for prostitution, for the
	production of pornography or for pornographic performances; ● The use, procuring or offering of a child for illicit activities, for the production and trafficking of drugs as defined in the relevant international treaties;
	● Work which, by its nature or the circumstances in which it is carried out, is likely to harm children's health, safety or morals.
	Source: Worst Forms of Child Labour Convention, 1999 (No. 182).
Community rights	Although "community rights" is not a defined concept in international law, community members are entitled to the full range of human rights. Moreover, given the social, economic and political structures and cohesion of communities, there may often be a collective aspect to their rights. In this regard, there may be commonalities between community rights and indigenous peoples' rights, especially when projects impact lands and resources that concern entire communities rather than individuals.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

◇◇◇ HARMONITOR

Competent authority	National competent authorities are organisations that have the legally delegated or invested authority, or power to perform a designated function, normally monitoring compliance with the national statutes and regulations.
Complaint	A complaint is defined as a formal expression of dissatisfaction by any person or organisation presented as a complaint to an organisation or a person.
Conflict of interest	A conflict of interest occurs when a person's or entity's vested interests may affect their actions, judgment, and/or decision-making. For a public servant, a conflict of interest involves a conflict between a public official's public duty and private interests, in which the public official has private-capacity interests, which could improperly influence the performance of their official duties and responsibilities. Source: OECD, https://www.oecd.org/gov/ethics/2957360.pdf
Control measure	An action that an organisation shall take to mitigate the risk of sourcing material from unacceptable sources.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	A multilateral treaty that aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Source: CITES
Conversion	Conversion is defined as a change in a natural ecosystem (including forest and non-forest ecosystems) to another land use or severe degradation that results in a profound change in the ecosystem's species composition, structure or function.
Corruption Perceptions Index (CPI)	A global index of the perceived level of corruption in individual countries. The index has been developed by Transparency International. Source: Transparency International
Corruption	Transparency International defines corruption as the abuse of entrusted power for private gain. Corruption can be classified as grand, petty and political, depending on the amounts of money lost and the sector where it occurs.
Customary law	Interrelated sets of customary rights may be recognised as customary law. In some jurisdictions, customary law is equivalent to statutory law within its defined area of competence and may replace the statutory law for defined ethnic or other social groups. In some jurisdictions, customary law complements statutory law and is applied in specified circumstances. Source: FSC standard FSC-STD-01-001 V5-2. https://fsc.org/en/current-processes/fsc-std-01-001-v5-2-fsc-principles-and- criteria-pc-for-forest-stewardship
Customary rights	Rights resulting from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and uninterrupted acquiescence, acquired the force of law within a geographical or sociological unit. Source: FSC-STD-01-001 V5-2. https://fsc.org/en/current-processes/fsc-std-01-001-v5-2-fsc-principles-and-criteria-pc-for-forest-stewardship

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Deforestation	In the EU Deforestation Regulation, deforestation is defined as the conversion of forest into agriculture, whether human-induced or not. In the context of the Sustainability Framework, Preferred by Nature takes a slightly broader definition, including the conversion of natural forests into plantations or other wooded land or other lands. In this definition, deforestation is the loss of natural forest as a result, whether human-induced or not, of: ● Conversion to agriculture or other non-forest land uses ● Conversion to a plantation forest or ● Severe and sustained degradation. **Severe degradation** (scenario iii in the definition) constitutes deforestation even if the land is not subsequently used for non-forest land use. Loss of natural forest that meets this definition is considered deforestation regardless of whether or not it is legal. Adopted from the Accountability Framework and FAO. Source: Afi Definitions
Deforestation-free (synonym: no-deforestation)	Commodity production, sourcing or financial investments that do not cause or contribute to the deforestation of natural forests. Adopted from the Accountability Framework. Source: Afi Definitions
Discrimination	Any distinction, exclusion or preference made based on race, national or territorial or social origin, caste, religion, disability, gender, sexual orientation, family responsibilities, marital status, union membership, political opinions, age or any other issue. Source: ILO Convention 111 Examples include discrimination based on: ● Race, colour, sex, age, sexual orientation, gender, caste, religion, political opinion, national extraction or social origin ● Nationality or migratory status ● Civil status ● Medical condition ● Family condition, including pregnant women and parents with children, or any other protected status as included in applicable laws ● Worker organisation membership or being an organiser ● Having filed complaints within the complaints or grievance mechanisms. Source: Sustainable Agriculture Standard
Due Diligence System (DDS)	A set of steps or actions taken to ensure that due diligence is exercised. The Due Diligence System may consist of written guidelines and procedures describing the due diligence process in detail.
Due diligence	In the context of this Framework, due diligence is considered to define the actions taken by organisations to ensure that the production, processing or sourcing of commodities is done in a responsible way, using a risk-based approach. A general definition of the term is "the care that a reasonable person exercises to avoid harm to other persons or their property".
Ecosystem restoration	(In relation to environmental harms) The process of assisting the recovery of an ecosystem and its associated conservation values that have been degraded, damaged or destroyed. Source: Accountability Framework definitions
Endangered species	Plant or animal species categorised as endangered by national law or by international organisations, such as the International Union for Conservation of Nature (IUCN). In descending order of threat, the IUCN Red List threat categories are as follows: Extinct or Extinct in the Wild. Critically Endangered, Endangered and Vulnerable: species threatened with global extinction. Source: IUCN

Employer-provided housing	Housing provided to workers by the employer.
	For healthy and safe housing, the following should be met: ● Employer-provided housing shall be clearly segregated from the factory and production areas and have clearly segregated housing for males and females for respect of privacy, where necessary. ● Employer-provided housing shall be safely built and maintained hygienic. ● Workers shall be able to enter and leave buildings freely. ● Employer-provided housing shall have automatic fire detection and alarm systems. ● Employer-provided housing shall respect personal floor space and minimum cubic air content. ● Employer-provided housing shall be provided with adequate lighting and ventilation. ● Employer-provided housing shall have windows large enough to enable the workers to read by natural light and be constructed to allow fresh air entrance, whether artificial lighting or ventilation turned on. ● Employer-provided housing shall have appropriate ventilation that is properly functioning and maintained.
	● Employer-provided housing shall be equipped with sleeping facilities with beds and mattresses above the floor and quiet and dark enough to allow for good sleep quality. ● Employer-provided housing shall enable access to potable water,
	electricity, clean shower and toilet facilities respecting the right of privacy, sanitary food preparation and storage facilities.
	● Employer-provided housing s hall have personal storage equipment with lockable lockers.
	Source: Adapted from the ILO Workers' housing recommendation. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R115
Environmental Impact Assessment (EIA)	The systematic process used to identify potential environmental and social impacts of proposed projects to evaluate alternative approaches and to design and incorporate appropriate prevention, mitigation, management and monitoring measures.
	Source: Based on environmental impact assessment, guidelines for FAO field projects.
	Food and agriculture organization of the United Nations (FAO). Rome. http://www.fao.org/climatechange/29103-02e9a33753ffc325da1e25250c06c927b.pdf
Fertiliser	Organic or inorganic substances containing chemical elements that improve the growth of plants and the fertility of the soil.
	In inorganic or mineral fertilisers, the nutrients are inorganic salts obtained by extraction and/or physical and chemical processes. The three primary plant nutrients are nitrogen, phosphorus and potassium.
	Source: OECD. https://stats.oecd.org/glossary/detail.asp?ID=947
Forest	Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 per cent or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. Also, see Annex B.
	Explanatory notes:
	Forest is determined both by the presence of trees and the absence of other predominant land uses. ● The trees should be able to reach a minimum height of 5 metres in situ. ● It includes areas with young trees that have not yet reached but
	which are expected to reach a canopy cover of 10 per cent and tree height of 5 meters. It also includes areas that are temporarily

| | unstocked due to clear-cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within 5 years. Local conditions may, in exceptional cases, justify that a longer time frame is used. ● It includes forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas, such as those of specific environmental, scientific, historical, cultural or spiritual interest. ● It includes windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 hectares and a width of more than 20 metres. ● It includes abandoned shifting cultivation land with the regeneration of trees that have or are expected to reach a canopy cover of 10 per cent and tree height of 5 metres. ● It includes areas with mangroves in tidal zones, regardless of whether this area is classified as a land area or not. ● It includes rubber-wood, cork oak and Christmas tree plantations. ● It includes areas with bamboo and palms provided that land use, height and canopy cover criteria are met. ● It includes areas outside the legally designated forest land that meet the forest definition. ● It excludes tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems when crops are grown under tree cover.

Note: Some agroforestry systems, such as the "Taungya" system, where crops are grown only during the first years of the forest rotation, should be classified as forest.

Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf |
|---|---|
| **Forest degradation** | In the context of the EU Deforestation Regulation, forest degradation means structural changes to forest cover, taking the form of the conversion of primary forests or naturally regenerating forest into plantation forest or into other wooded land and the conversion of primary forest into planted forests.

Source: Text of the EU Deforestation Regulation adopted by the European Parliament on 19 April 2023 |
| **Free, Prior, and Informed Consent (FPIC)** | A legal condition whereby a person or community can be said to have given consent to an action prior to its commencement, based upon a clear appreciation and understanding of the facts, implications and future consequences of that action, and the possession of all relevant facts at the time when consent is given. Free, Prior and Informed Consent includes the right to grant, modify, withhold or withdraw approval. FPIC is required prior to the approval and/or commencement of any project that may affect the lands, territories and resources that Indigenous Peoples customarily own, occupy or otherwise use in view of their collective rights to self-determination and to their lands, territories, natural resources and related properties. Understanding the terminology associated with FPIC can help companies to effectively contribute to, facilitate, lead and assess FPIC processes: ● Free: Consent is given by the affected Indigenous Peoples (IP) or local communities (LC) voluntarily without coercion, duress and intimidation. ● Prior: The consent is given before the specified activity is authorised or commenced. ● Informed: The consent is given after the Indigenous Peoples or local communities have received the relevant, timely and |

	culturally appropriate information necessary to make a fully informed decision. ● Consent: The IP/LC take a collective decision to grant or withhold approval of the specified activity. Source: United Nations Office of the High Commissioner for Human Rights
Gender equality	Gender equality means that women and men have equal conditions for realising their full human rights and for contributing to and benefiting from economic, social, cultural and political development. Gender equality is, therefore, the equal valuing by society of the similarities and differences of men and women, and the roles they play. It is based on women and men being full partners in their home, their community and their society. Source: UNESCO
Genetically Modified Organism (GMO)	A gas that contributes to the natural greenhouse effect. The Kyoto Protocol covers a basket of six greenhouse gases (GHGs) produced by human activities: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Annex I: Parties' emissions of these gases taken together are to be measured in terms of carbon dioxide equivalents based on the gases' global warming potential. Source: https://www.eea.europa.eu/help/glossary/eea-glossary/greenhouse-gas
GHG offset	A carbon offset is a reduction in carbon dioxide emissions or other greenhouse gases made to compensate for emissions produced elsewhere. Carbon offsets are measured in tonnes of carbon dioxide equivalent (CO2e). Carbon offset schemes allow individuals and companies to invest in environmental projects around the world to balance out their own carbon footprints. The projects are usually based in developing countries and most commonly are designed to reduce future emissions. This might involve rolling out clean energy technologies or purchasing and ripping up carbon credits from an emissions trading scheme. Other schemes work by soaking up CO2 directly from the air by planting trees.
Hazardous work	Hazardous work is defined as work that may expose the worker to one or more of the following: ● Mechanical hazards. Certain equipment poses a cutting or crushing hazard. ● Chemical hazards. Certain substances and compounds pose a chemical hazard. ● Physical hazards. Physical hazards may include noise, machinery vibration, work at elevated heights, cold, heat or unusually high or low air pressure. ● Electrical hazards. A particular electrical hazard is involved in working on live wires or in the vicinity of exposed live components, and in the maintenance and repair of high-tension current equipment and lifts. ● Bodily strain. Bodily strain may result from heavy lifting and other work involving unequal loading. ● Biological hazards. Certain biological factors pose a specific hazard. ● Certain other types of work. Source: https://www.ilo.org/safework/areasofwork/hazardous-work/lang--en/index.htm
High Conservation Value (HCV)	Any of the following values: ● HCV1: Species diversity. Concentrations of biological diversity, including endemic species and rare, threatened or endangered species, that are significant at global, regional or national levels. ● HCV 2: Landscape-level ecosystems and mosaics. Intact forest landscapes and large landscape-level ecosystems and ecosystem mosaics that are

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance. ● HCV 3: Ecosystems and habitats. Rare, threatened or endangered ecosystems, habitats or refugia. ● HCV 4: Critical ecosystem services. Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes. ● HCV 5: Community needs. Sites and resources fundamental for satisfying the necessities of local communities or Indigenous Peoples (for example, for livelihoods, health, nutrition, water), identified through engagement with these communities or Indigenous Peoples. ● HCV 6: Cultural values. Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or Indigenous Peoples, identified through engagement with these local communities or Indigenous Peoples. Source: FSC standard FSC-STD-01-001 V5-2
Human rights	Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination. Source: United Nations
Illegally harvested wood	Wood that has been harvested in violation of applicable laws related to harvesting in that location or jurisdiction. Source: Adopted from FSC Glossary of Terms (FSC-STD-01-002, updated 19 October 2017).
ILO fundamental conventions	The eight ILO fundamental conventions are: 1. The Forced Labour Convention, 1930 (No. 29) 2. The Abolition of Forced Labour Convention, 1957 (No. 105) 3. The Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) 4. The Right to Organise and Collective Bargaining Convention, 1949 (No. 98) 5. The Equal Remuneration Convention, 1951 (No. 100) 6. The Discrimination (Employment and Occupation) Convention, 1958 (No. 111) 7. The Minimum Age Convention, 1973 (No. 138) and 8. The Worst Forms of Child Labour Convention, 1999 (No. 182) Source: ILO
Indicator	A quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a Management Unit complies with the requirements of a Criterion. Indicators and the associated thresholds thereby define the requirements for responsible management at the level of the Management Unit and are the primary basis of conformance evaluation. Source: Adopted from FSC Glossary of Terms (FSC-STD-01-002, updated 19 October 2017).
Indigenous Peoples	People and groups of people that are characterised by all of the following point: ● The key characteristic or criterion is self-identification

D4.1 - Literature review and inventory of certification schemes and labels requirements

	as Indigenous Peoples at the individual level and acceptance by the community as their member ● Historical continuity with pre-colonial and/or pre-settler societies ● Strong link to territories and surrounding natural resources ● Distinct culture and beliefs ● Form non-dominant groups of society and ● Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. Sources: ILO, Indigenous and Tribal Peoples Convention, 1989 (No. 169), United Nations Permanent Forum on Indigenous Issues, Factsheet 'Who are Indigenous Peoples' October 2007; United Nations Development Group, 'Guidelines on Indigenous Peoples' Issues' United Nations 2009, United Nations Declaration on the Rights of Indigenous Peoples, 2008.
Industry wage standards	Industry wages are wages paid for all occupations within an industry.
Inventory	In the context of this project, and inventory is interpreted as "a description of". It includes a detailed overview and description of the elements and conditions that are required in CSLs.
Issued / Valid	These terms define the status of a certification.
Land management rights	Land management rights refer to the specific ways in which a piece of land can be used or developed, as designated by local land-use regulations or zoning laws. Land management rights may include the right to build a particular type of structure, the right to operate a specific type of business or the right to farm or extract resources from the land. These rights can be subject to various conditions and restrictions, such as environmental regulations or building codes. In general, land tenure rights establish who has legal control over a piece of land, while land management rights specify how that land can be used.
Land tenure rights	transfer or sell the land to others. Land tenure rights are often associated with land ownership but can also be established through leasehold or other forms of tenancy agreements. Land tenure is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land. (For convenience, "land" is used here to include other natural resources, such as water and trees.) Land tenure is an institution, i.e., rules invented by societies to regulate behaviour. Rules of tenure define how property rights to land are to be allocated within societies. They define how access is granted to rights to use, control and transfer land, as well as associated responsibilities and restraints. In simple terms, land tenure systems determine who can use what resources for how long and under what conditions. Source: Food and Agriculture Organization of the United Nations
Legal compliance indicators	Indicators of the Sustainability Framework that require compliance with applicable legislation.
Living wage	The remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing and other essential needs, including provision for unexpected events. Source: Global Living Wage Coalition

D4.1 - Literature review and inventory of certification schemes and labels requirements

Local community	Communities of any size that are in or adjacent to the Management Unit and also those that are close enough to have a significant impact on the economy or the environmental values of the Management Unit or to have their economies, rights or environments significantly affected by the management activities or the biophysical aspects of the Management Unit. Source: FSC Glossary of Terms (FSC-STD-01-002, updated 19 October 2017).
Low risk	A conclusion, following a risk assessment, that there is a negligible or insignificant risk that material does not meet specific criteria (legal or otherwise) when produced, sourced or traded in a supply chain. Risk mitigation actions are not required for products with the low-risk designation. Note: The term 'negligible' can be considered to mean that the level of risk applied to the material shows no cause for concern in relation to its conformance with the specific criterion after a full assessment is conducted and, where necessary, appropriate mitigation measures are applied. Source: Adapted from Requirements for sourcing FSC Controlled Wood FSC-STD-40-005 and EU Deforestation Regulation 21Dec22 text.
Modern slavery	Modern slavery is defined as situations when people are: ● Forced to work – through coercion or mental or physical threat ● Owned or controlled by an 'employer' through mental or physical abuse or the threat of abuse ● Dehumanised, treated as a commodity or bought and sold as ' property' or ● Physically constrained or having restrictions placed on their freedom of movement. Modern slavery can take different forms: ● Forced labour – any work or services which people are forced to do against their will under the threat of some form of punishment; ● Debt bondage or bonded labour – the world's most widespread form of slavery, when people borrow money they cannot repay and are required to work to pay off the debt, then losing control over the conditions of both their employment and the debt; ● Human trafficking – involves transporting, recruiting or harbouring people for the purpose of exploitation, using violence, threats or coercion; ● Descent-based slavery – where people are born into slavery because their ancestors were captured and enslaved; they remain in slavery by descent. ● Child slavery – many people often confuse child slavery with child labour, but it is much worse. Whilst child labour is harmful to children and hinders their education and development, child slavery occurs when a child is exploited for someone else's gain. It can include child trafficking, child soldiers, child marriage and child domestic slavery. ● Forced and early marriage – when someone is married against their will and cannot leave the marriage. Most child marriages can be considered slavery. Source: Anti-Slavery International
Natural forests	Natural forest is defined as including both primary forest and naturally regenerating forest. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf
Naturally regenerating forest	Forest predominantly composed of trees established through natural regeneration. Explanatory notes: ● It includes forests for which it is not possible to distinguish whether planted or naturally regenerated. ● It includes

D4.1 - Literature review and inventory of certification schemes and labels requirements

	forests with a mix of naturally regenerated native tree species and planted/seeded trees, and where the naturally regenerated trees are expected to constitute the major part of the growing stock at stand maturity. ● It includes coppice from trees originally established through natural regeneration. ● It includes naturally regenerated trees of introduced species. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
NCR (non-conformance report, or non-conformance report)	These two terms are commonly used by various auditing systems to describe the documentation of non-conformances.
Non-conformance Non-conformity Non-compliance	These terms refer to non-fulfilment of a requirement. In simpler terms this means that some part of the standard has not been correctly fulfilled. Nonconformity is the definitive term in ISO documents. Similar options are used for positive fulfilment of requirements (conformance, conformity, compliance). Compliance is most often used as reference to legal requirement, whereas conformance is referring to voluntary requirements.
Non-conforming product/material	Any material or product that is produced, processed or traded in violation of applicable legislation or the requirements of the Sustainability Framework.
Non-forest land	A category containing sub-categories other wooded land and other non-wooded land. These include other wooded land, other natural ecosystems, other land and agricultural land. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Organisation	Individual, company or legal entity responsible for meeting the requirements of this Framework. Organisation covers all legal entities owned or managed directly by that legal entity.
Origin	The geographic source of materials, which at a minimum, must specify the country of production/harvest, and where applicable, sub-national region or farm or forest where the produce was harvested or produced.
Other land	Land that is not classified as agricultural land, forest or other wooded land. Other land may or may not have trees on them. Explanatory notes: ● Land use is the key criterion for distinguishing between forest and other land with or without tree cover. ● It includes built-up areas, mining, barren land, land under permanent ice etc. ● It includes groups of trees and scattered trees (e.g., trees outside forest) in agricultural landscapes, parks, gardens and around buildings ● It includes tree stands in agricultural production systems, such as fruit tree plantations/orchards. ● It includes agroforestry systems where crops are grown under tree cover and tree plantations established mainly for purposes other than wood, such as oil palm plantations. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Other natural ecosystems	Natural ecosystems other than forests that substantially resemble, in terms of species composition, structure and ecological function – one that is or would be found in a given area in the absence of major human impacts. These include human-managed ecosystems where much of the natural species' composition, structure and ecological function are present.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Explanatory notes: ● They include largely "pristine" natural ecosystems that have not been subject to major human impacts in recent history. ● They include regenerated natural ecosystems that were subject to major impacts in the past (for instance, by agriculture, livestock raising, tree plantations or intensive logging) but where the main causes of impact have ceased or greatly diminished, and the ecosystem has attained species composition, structure and ecological function like prior or other contemporary natural ecosystems. ● They include managed natural ecosystems (including many ecosystems that could be referred to as "semi-natural") where much of the ecosystem's composition, structure and ecological functions are present. These include managed natural forests and native grasslands or rangelands that are, or have historically been, grazed by livestock. ● They include natural ecosystems that have been partially degraded by anthropogenic or natural causes (e.g., harvesting, fire, climate change, invasive species or others) but where the land has not been converted to another use and where much of the ecosystem's composition, structure and ecological function remain present or are expected to regenerate naturally or by management for ecological restoration. Source: Accountability Framework definitions
Other non-wooded land	A category that encompasses other natural ecosystems, other land and agricultural land. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Other planted forest	Planted forest which is not classified as plantation forest. Forest predominantly composed of trees established through planting and/or deliberate seeding. Explanatory notes: ● In this context, predominantly means that the planted/seeded trees are expected to constitute more than 50 per cent of the growing stock at maturity. ● Includes coppice from trees that were originally planted or seeded.
Other wooded land	Land not classified as forest, spanning more than 0.5 hectares, with trees higher than 5 metres and a canopy cover of 5-10 per cent, or trees able to reach these thresholds in situ; or with a combined cover of shrubs, bushes and trees above 10 per cent. It does not include land that is predominantly under agricultural or urban land use. Explanatory notes: The definition above has two options: ● The canopy cover of trees is between 5 and 10 per cent; trees should be higher than 5 metres or able to reach 5 metres in situ; or ● The canopy cover of trees is less than 5 per cent, but the combined cover of shrubs, bushes and trees is more than 10 per cent. ▪ It includes areas of shrubs and bushes where no trees are present; ▪ It includes areas with trees that will not reach a height of 5 metres in situ and with a canopy cover of 10 per cent or more, e.g., some alpine tree vegetation types, arid zone mangroves etc. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Ozone depleting substances	Man-made substances that, when released into the atmosphere, damage the stratospheric ozone layer, Earth's protective shield that protects humans and the environment from harmful levels of ultraviolet radiation from the sun. The Montreal Protocol on Substances that Deplete the Ozone Layer controls the global use of these substances. Its objective is to protect the stratospheric ozone layer by phasing out

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	the production of ozone-depleting substances. The protocol covers over 200 individual substances with a high ozone-depleting potential (ODP), including chlorofluorocarbons (CFCs), halons, carbon tetrachloride (CTC), 1,1,1-trichloroethane (TCA), hydrochlorofluorocarbons (HCFCs), hydrobromofluorocarbons (HBFCs), bromochloromethane (BCM) and methyl bromide (MB), all of which are referred to as 'controlled substances'. The controlled substances can be found in annexes A, B, and C of the Montreal Protocol. Source: https://ozone.unep.org/treaties/montreal-protocol/articles/annex-controlled-substances
Plantation forest	Planted forest that is intensively managed and meets ALL of the following criteria at planting and stand maturity: one or two species, even age class and regular spacing. Explanatory notes: ● It specifically includes short rotation plantation for wood, fibre and energy. ● It specifically excludes forest planted for protection or ecosystem restoration. ● It specifically excludes forest established through planting or seeding which at stand maturity resembles or will resemble a naturally regenerating forest. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Planted forests	A category including plantation forest and other planted forest. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Planted forest, other	Planted forest which is not classified as plantation forest. Forest predominantly composed of trees established through planting and/or deliberate seeding. Explanatory notes: ● In this context, predominantly means that the planted/seeded trees are expected to constitute more than 50 per cent of the growing stock at maturity. ● It includes coppice from trees that were originally planted or seeded. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Post-consumer reclaimed material	Material that is reclaimed from a consumer or commercial product that has been used for its intended purpose by individuals, households or by commercial, industrial and institutional facilities in their role as end-users of the product and would otherwise have been discarded as waste. This definition, therefore, excludes material that is reclaimed from a process of secondary manufacture or further downstream industry, in which the material has not been intentionally produced, is unfit for end-use and may or may not be capable of being re-used on-site in the same manufacturing process that generated it.
Primary forest	Naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed. Explanatory notes: ● It includes both pristine and managed forests that meet the definition. ● It includes forests where Indigenous Peoples engage in traditional forest stewardship activities that meet the definition. It includes forest with visible signs of abiotic damages (such as storm, snow, drought, fire) and biotic damages (such as insects, pests and diseases). ● It excludes forests where hunting, poaching, trapping or gathering have caused significant native species loss or disturbance to ecological processes. ● Some key characteristics of primary forests are: ▪ They show natural forest dynamics, such as natural tree species composition, the occurrence of dead wood, natural age structure and natural regeneration processes. ▪

	The area is large enough to maintain its natural ecological processes. ▪ There has been no known significant human intervention, or the last significant human intervention was long enough ago to have allowed the natural species composition and processes to have become re-established. Source: FAO FRA 2020. https://www.fao.org/3/I8661EN/i8661en.pdf.
Processing	Processing denotes activities of processing primary commodities or raw materials. Processing may be primary or secondary.
Production	Referred to primary production at the farm or forest level, such as growing crops and trees.
Prohibited chemicals	Chemicals that may not be used by entities verified as complying with the Sustainability Framework. This list has been developed by Preferred by Nature, and includes chemicals with active ingredients classified according to at least one of the following criteria: ● Listed in Annex A or B of the Stockholm Convention on Persistent Organic Pollutants (POP) and/or recommended for inclusion in Annex A or B of the Stockholm Convention by the POPs Review Committee (POPRC); ● Listed in the Montreal Protocol on Substances that Deplete the Ozon Layer; ● Listed in Annex III of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) or recommended for inclusion in Annex III by the Chemical Review Committee (CRC); ● Listed in classes Ia and Ib under the World Health Organisation's Recommended Classification of Pesticides by Hazard; ● Classified as reproductive toxicity category 1 or carcinogenic toxicity category 1 or mutagenic toxicity category 1 or carcinogenic toxicity category 2 and reproductive toxicity category 2, according to the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals as implemented/applied by the European Union (Regulation 1272/2008 and Regulation 1107/2009) and by Japan. It should be noted that some pesticides or chemicals on the prohibited list may be used in certain circumstances that limit the risk from said ingredients. As an exception, it is allowed to use rodenticides with active ingredients in the prohibited list to control rodents, but only if the chemical is contained in dedicated bait boxes, thus preventing access for other than the intended purpose. In cases where Preferred by Nature develops a commodity-specific adaptation of the Sustainability Framework, the list of Prohibited Chemicals may be adjusted considering the specifics within the commodity. See Annex A for the list of prohibited chemicals.
Protected species	Animal or plant species protected by national or international law.
Publicly available information	Information that has been published or broadcast for public consumption, is available at request to the public, is accessible online or otherwise to the public, is available to the public by subscription or purchase, could be seen or heard by any casual observer, is made available at a meeting open to the public or is obtained by visiting a place or attending an event that is open to the public.
Records	Written or stored information. Records may mean copies of documents or information stored digitally with information on systems and data collected that can be used to show compliance with the Framework's requirements.

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

Remediation	Terms used interchangeably or in combination with one another to refer to both the process of providing redress for a negative impact and the substantive outcomes that can counteract, or make good, the negative impact. These outcomes may take a range of forms, such as apologies, restitution, rehabilitation, restoration, financial or non-financial compensation and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition. In the context of the Sustainability Framework, remediation activities refer to social issues. Source: Accountability Framework definitions
Responsible recruitment	Responsible recruitment covers issues related to the recruitment process, as follows: ● Medicals shall only be mandated for after an offer of employment has been made and where it is relevant to the safety & health of the individual and those around him/her. ● Pregnancy screening or testing is not used at any time before or after the jobseeker signs an employment agreement, except where required by law. ● Recruitment-related information (including the details of working conditions, worker's legal rights, nature of work, wages and benefits, duration of the contract) and the employment contract shall be provided to a jobseeker in a language they understand. ● Recruitment fees/costs shall not be charged to jobseekers, nor shall deposits for job placement services, from jobseekers, his/her employers, agents, or subagents. ● Recruitment of migrants shall include full transparency about terms, conditions and any employment costs, and the migrants shall be informed about the labour laws applicable in the place of work prior to granting their written consent. ● Only charges or deductions for room and board that are permitted or required by law and are consistent with market rates shall be applied and communicated to jobseekers prior to signing an employment contract. ● Employment contracts shall specify hours of work, including regular hours, requirements for overtime and days off, specify and comply with all legally required breaks, including breaks for prayer, and provide at least one day off every seven days. ● The Organisation shall provide reasonable opportunities for employment, training and other services to local communities, contractors and suppliers proportionate to the scale and intensity of its management activities.
Responsible remuneration	The process of managing workers' remuneration, including: ● Employers shall not engage in making personal loans to workers or jobseekers under circumstances where repayment terms could be defined as debt bondage or forced labour. ● Employees shall not be required to participate in any forced saving scheme unless required by law. ● Employers shall not avoid obligations to employees under labour or social security laws and regulations arising from the regular employment relationship using labour-only sub-contracting, home-working arrangements, or apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor shall any such obligations be purposefully avoided through the excessive use of fixed-term contracts of employment. ● Wage calculations shall be transparent, equitable and objective, including for remuneration based on production, quotas or piecework and overtime hours shall be specified separately.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	● Recognition and promotion processes and practices shall be made based on worker performance, without discrimination and with the aim to provide equal opportunities for empowerment. ● Deductions from wages as a disciplinary measure shall be prohibited, nor shall any deductions be made from wages without the expressed permission of the worker concerned. ● All disciplinary remuneration measures shall be recorded.
Rights holder	Any person, group of persons or entity (typically Indigenous Peoples or other local communities) who holds customary or legal use rights in accordance with the UNDRIP (United Nations Declaration on the Rights of Indigenous Peoples) and national laws or traditions.
Species	A group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding. The species is the principal natural taxonomic unit, ranking below a genus. The common and (where applicable) the full scientific name is required for all species included within the scope of the management system.
Specified risk	A conclusion following a risk assessment that there is a risk that illegal or otherwise non-conforming products may enter the supply chain. In such cases, risk mitigation is required. Note: The term 'specified' can be considered to mean that the level of risk applied to the material shows cause for concern in relation to its conformance with the specific criterion, after a full assessment is conducted.
Stakeholder	Any person, group of persons or entity that is or is likely to be subject to the effects of the activities of a Management Unit. Examples include but are not restricted to persons, groups of persons or entities. The following are examples of affected stakeholders: ● Local communities; ● Indigenous peoples; ● Workers; ● Neighbours; ● Landowners; ● Local processors; ● Local businesses; ● Tenure and use rights holders, including landowners; ● Organisations authorised or known to act on behalf of affected stakeholders, for example, social and environmental NGOs, labour unions, etc. Source: FSC-STD-01-001 V5-2
Stakeholder Consultation	To engage with stakeholders through a consultation process that includes in-person meetings, facilitated workshops and topic-based webinars.
Substantiated complaint	A grievance or objection raised against an organisation regarding its certification, due diligence system or timber legality risk, which is accompanied by or is found to be established by proof or competent verifiable evidence.
Sub-supplier	Any entities further up the supply chain supplying material to the suppliers or other sub-suppliers.
Supplier	The entity that supplies material to the organisation.
Supply chain	The route of products and entities that take legal ownership of the products from the source area – where the material is harvested or produced – to the organisation that takes final ownership of the material.
Suspension	*Suspension* refers to the temporary ceasing of a certification validity. A suspension may occur under specific situations, such as where a certificate holder fails to meet certification requirements as part of an

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding
from the European Union's Horizon
Europe research and innovation
programme under grant agreement
N° 101060133

HARMONITOR

	annual audit or to meet certification requirements detailed in a certification agreement.
Termination	*Termination* refers to the definitive end of a certification. A termination may occur prior to the end of the certification period (i.e., prior to the expiration date).
Threatened species	Species that meet the International Union for Conservation of Nature's (IUCN) (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. Source: Based on IUCN. (2001). IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN. Gland, Switzerland and Cambridge, UK
Waste	Waste means any substance or object the holder discards, intends, or is required to discard. In the context of the Sustainability Framework waste, may encompass a range of different materials. Source: EU Waste Framework Directive. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0851&from=EN
Worker, migrant	A person who migrates from one country to another with a view to being employed otherwise than on his own account and includes any person regularly admitted as a migrant for employment. Source: ILO Migration for Employment Convention (Revised), 1949 (No. 97). https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::p12100_instrument_id:312242
Worker, permanent	Permanent workers work for an employer and do not have a predetermined end date for employment. The definition of a permanent worker may include different types of employment, covering any person who works on a farm, forest or for a group administrator and is paid for his or her work. In terms of the requirements of the Sustainability Framework, permanent workers can encompass different types of workers, including documented, undocumented, migrant, workers of sub-contractors and outsourced workers, as well as persons temporarily absent from a job or enterprise at which they recently worked for illness, parental leave, holiday, training or industrial dispute.
Worker, seasonal	A seasonal worker is a worker who is under a form of temporary employment linked to specific periods of the year and sectors (for example, fruit pickers in the agricultural sector). Seasonal workers may also encompass different types of workers, as is the case with permanent workers.
Water bodies	Water bodies include, but are not limited to, water courses, rivers, streams, lagoons, springs, lakes, reservoirs and ditches.
Young worker	Any worker under the age of 18 but over the age of a child (15). Source: Social Accountability Standard 8000- 2014

D4.1 - Literature review and inventory of certification schemes and labels requirements

9 Appendices

9.1 Appendix - Control Points

Table Control Points – Environmental sustainability

GENERIC PROPOSED CONTROL POINTS	Applicability	
	Land-use	Operations
Forests are not converted to Agriculture after January 2008	✓	
Primary forest is not degraded or converted to Plantation Forest, Other Planted Forest or Other Wooded Land after January 2008	✓	
Naturally Regenerating Forest is not degraded or converted to Plantation Forest or Other Wooded Land after January 2008	✓	
Natural Forest is not degraded or converted to other forest types or Other Land AND Primary Forest is not converted to Other Natural Ecosystems after January 2008	✓	
Other Wooded Land and Other Natural Ecosystems are not converted to Plantation Forests, Other Land or Agriculture after January 2008	✓	
Other Natural Ecosystems are not converted to Other Planted Forest or Other Wooded Land after January 2008	✓	
Where conversion of Natural Forests or other Natural Ecosystems has occurred within the last 10 years, restoration activities are implemented to compensate for past ecosystem loss.	✓	
All fibres shall be covered by valid chain of custody certificates issued by an independent third-party certification scheme such as the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC) or equivalent, or be covered by delivery notes of paper for recycling in accordance with EN 643 (EU Ecolabel)		✓
Forestry residues must come from forests with a valid FSC certification or equivalent (RSB)		✓
Legal requirements relating to management and harvesting activities in Forests are complied with	✓	
Legal requirements relating to activities in non-forest areas, including Other Natural Ecosystems, are complied with	✓	
The use of natural resources ensures long-term productivity and yield of the resources	✓	
If clear-cuts are used for forest management, the size of clear-cuts is minimised to be ecologically appropriate for the forest ecosystem, type and biome	✓	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Fire risk is controlled, and fire is only used for land preparation, where environmental and social benefits are demonstrated	✓	
Legal requirements related to biodiversity conservation, protected sites and the protection of endangered or protected species are complied with.	✓	
Ecosystem and biodiversity values within the production area are known and maintained or enhanced.	✓	
Forests and other natural ecosystems are managed in a way that maintains or enhances the functions and services provided by the ecosystem, including related biodiversity and structural complexity.	✓	
Rare, endangered or protected animal and plant species are identified, and their populations are protected, maintained or enhanced.	✓	
Introducing invasive species is avoided, and already present invasive species are controlled as possible.	✓	
Legal requirements relating to the harvesting, collection and trade of CITES species are complied with.	✓	
Legal requirements for chemical use and storage are complied with.	✓	
Prohibited chemicals are not used.	✓	
Where chemicals are used, they are stored and used to ensure minimal adverse impacts on people, ecosystems and the environment.	✓	
The use of chemicals is monitored and minimised.	✓	
Chemical drift, run-off or spills are effectively avoided and controlled.	✓	✓
Chemicals and materials used in the product are selected to prioritize the protection of human health and the environment, generating a positive impact on the quality of materials available for future use and cycling (Cradle to Cradle).		✓
Legal requirements relating to waste management are complied with.	✓	
Waste storage, treatment and disposal practices do not pose health or safety risks to people or natural ecosystems.	✓	
Waste is not deposited outside appropriate and legally approved waste storage facilities.	✓	
Waste is not burned, except in incinerators technically designed for the specific waste type and to recover energy.	✓	
Waste is managed to ensure reduction, recycling, reusing and safe disposal based on the toxicity of the materials.	✓	
In the case of cross-border transportation of hazardous waste, the requirements of the Basel Convention are complied with.	✓	
Products are intentionally designed for their next use and are actively cycled in their intended cycling pathway(s) as far as possible. (Cradle to Cradle).	✓	
Wastewater and sewage from operations are not discharged into the surrounding environment, including aquatic ecosystems unless it has undergone treatment to reach a safe level.	✓	✓

D4.1 - Literature review and inventory of certification schemes and labels requirements

The use of Ozone Depleting Substances (ODS) is conducted according to legal requirements and minimised as far as possible.	✓	✓
Land management is conducted in a way that reduces run-off to the surrounding environment, including aquatic resources.	✓	
Release of pollutants into the air is prevented or reduced and meets all legal levels for emissions.	✓	✓
Pollution from noise and light is minimised or avoided.	✓	✓
Legal requirements for using and protecting surface and groundwater are complied with.	✓	
Ground and surface water use is optimised and potential negative impacts on the surrounding environment are reduced.	✓	
Water resources are used and managed to ensure that water quality and balance are maintained or improved and do not restrict other users' availability.	✓	
Natural water bodies are protected from adverse impacts of activities, including chemical, fertiliser and slurry drift and run-off.	✓	
Riparian buffer zones are protected.	✓	
Legal requirements related to soil management are complied with.	✓	
Water and wind erosion are reduced through practices such as ground covers, mulches, protection and re-vegetation of steep areas, terracing or filter strips to protect soils.	✓	
Harvesting, cultivation and grazing practices are implemented to maintain or improve the soil's physical, chemical and biological condition.	✓	
Harvesting, cultivation and grazing are not practised on vulnerable soils where it causes long-term damage to the ecological functions of the soil, such as very steep slopes and peat soil types.	✓	

Table Control Points – Climate change

Control points	Applicability	
	Land-use	Operations
Significant *greenhouse gas* emission sources are identified, considering management practices, land use change, livestock, energy, sourcing and use of materials.	✓	✓
If there is a risk that sourcing activities may cause significant indirect land use change through *conversion* or destruction of forests or *natural ecosystems* elsewhere, steps are taken to mitigate such risk.	✓	✓
Efforts are taken to reduce the emission of *greenhouse gases* resulting from activities, meeting, at minimum, the industry	✓	

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Land-use	Processing
sector's best practices and considering the best available technology.		
The amount of soil carbon is maintained or increased.	✓	
Biomass is harvested from land that follows the evaluation based on the High Carbon Stock Approach (HCSA)	✓	
If applicable, national and/or international regulations concerning emission reduction targets for relevant climate change factors and actions are complied with.	✓	✓
The critical risks for the operation resulting or potentially resulting from climate change are identified.	✓	
Measures for climate change adaptation are implemented for high-risk areas and are proportionate to the scale of the operations and anticipated social, economic and environmental impacts.	✓	
Best business practices to ensure *GHG* removals based on land use and land management practices and carbon stocks to promote positive climate regulation over time are implemented.	✓	
If implemented, *ecosystem* restoration efforts aim to both regain the ecological functionality of the reference *ecosystem* and enhance human well-being while considering the area's changing environmental, social and economic conditions.	✓	

Table: Control points – social sustainability

GENERIC PROPOSED CONTROL POINTS	Applicability	
	Land-use	Processing
Human rights are respected as required by international and national law.	✓	✓
Harvest or trade in products do not contribute to a violation of international human rights or armed conflicts.	✓	✓
Significant past human rights violations caused by the organisation are remediated as indicated in Principle 31 of the UN Guiding Principles on Business and Human Rights.	✓	
Legal requirements related to child labour and employment of young workers are complied with.	✓	✓
Children under the age of 15 (or underage for the completion of compulsory education, whichever is higher) are not employed except within the framework of "Family Farm[17]" work or where covered by the national legislation.	✓	✓
Where young workers are employed, the following are met: a) Young workers only work outside of compulsory school hours.	✓	✓

---

[17] See definitions in RS-09 and https://www.fao.org/3/i4306e/i4306e.pdf

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

b) Young workers do not work more than 8 hours a day. c) Young workers do not work without supervision during night hours.		
Legal requirements related to modern slavery, including forced and prison labour, are complied with.	✓	✓
Modern slavery, forced or compulsory labour are not used, promoted or supported in any way.	✓	✓
Withholding of salary, benefits, documents, or property is not used in ways to restrict workers' freedom.	✓	
Workers are free to terminate their employment provided they give their employer reasonable notice.	✓	
Legal requirements related to Freedom of Association, the Right to Organise and the Right to Collective Bargaining are respected.	✓	✓
ILO convention requirements related to Freedom of Association, the Right to Organise and the Right to Collective Bargaining are respected.	✓	✓
Overtime is voluntary and does not result in a work week exceeding 60 total hours, except under circumstances of shorter duration where additional labour is required.	✓	
Workers are treated respectfully and never subjected to abuse or harassment (including sexual) or verbal, physical or psychological mistreatment.	✓	✓
Workers' privacy rights are respected, including, but not limited to, whenever an employer gathers private information or implements employee-monitoring practices.	✓	
Legal requirements related to recruitment and employment of workers are complied with.	✓	
Employment conditions of workers, including wages, bonuses, work hours, overtime, vacation, and others, are documented and available to workers before employment.	✓	
Responsibilities towards workers are not avoided by hiring de facto permanent, long-time, full-time workers under seasonal or temporary contracts.	✓	
Where migrant workers are hired, the following are ensured: a) The employment of migrant workers follows legal requirements. b) Migrant workers are legally authorised to enter, stay and engage in a remunerated activity in the area/country. c) Migrant workers and their families are free to travel and leave the area/country without restrictions, except those defined by law.	✓	
Migrant workers are ensured equal opportunities and no less favourable treatment than local workers.	✓	✓
Legal requirements related to discrimination are complied with.	✓	
There is no discrimination in hiring, remuneration and access to training, promotion, termination, or retirement.	✓	✓

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Legal requirements related to workers' wages and other payments, such as social insurance, are complied with.	✓	
The remuneration received for a standard workweek by a worker in a particular place is sufficient to afford a decent standard of living for the worker and their family.	✓	
Workers' wages meet or exceed minimum industry standards or other recognised industry wage standards.	✓	
Payment is made directly to all workers to ensure they safely receive and retain their wages.	✓	
Where an employer provides services for which workers' pay, such as medical services, schooling, meals, and other amenities, these are valued fairly and do not exceed local market prices.	✓	
Workers' wages and benefits are received as contractually agreed for each pay period.	✓	
Legal requirements related to workplace health and safety are complied with.	✓	
Equipment, vehicles, machinery, and utilities are safe and in good working order, and relevant safety features are complete and functioning.	✓	✓
Indoor workplaces are hygienic with adequate lighting, temperature, ventilation, sanitation, drinking water, sanitary facilities, as well as break facilities and food storage.	✓	
Workers are competent in relevant health and safety issues, including handling chemicals and machinery, and receive appropriate safety and health training.	✓	
Personal Protective Equipment (PPE) and tools are available to and used by workers, are in good condition, and are appropriate for the specific activity.	✓	✓
Workers handling chemicals have access to appropriate facilities for cleaning and washing.	✓	✓
Expectant and nursing mothers are not engaged in activities that expose them to health and safety risks.	✓	
Emergency exits, fire detection, emergency alarms and fire suppression equipment are in place, visible and in working order and workers are competent to handle equipment and react to emergencies.	✓	✓
Workers have access to appropriate first-aid equipment and medical services, in case of emergencies.	✓	✓
Legal requirements related to gender equality in the workplace are complied with.	✓	
Job opportunities are available to everyone, irrespective of gender, under the same conditions.	✓	
Irrespective of gender, there is equal remuneration for work of equal value.	✓	
Legal requirements related to maternity and paternity leave are complied with.	✓	

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Legal requirements related to the rights of Indigenous Peoples are followed according to the principles of Free, Prior and Informed Consent (FPIC).	✓	
Legally recognised customary and community rights are identified and respected.	✓	
Sites and resources within the area of operation fundamental for satisfying the basic needs of communities are identified and protected (High Conservation Value-HCV- 5).	✓	
Sites, resources, habitats of cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of communities affected by operations are identified and protected as appropriate (High Conservation Value-HCV- 6).	✓	

Table: Control points – Economic sustainability

GENERIC PROPOSED CONTROL POINTS	Applicability	
	Land-use	Processing
Land tenure rights are secure and registered according to legal requirements and include clear demarcation of legally gazetted boundaries.	✓	
Legal requirements for management and operational activities are complied with.	✓	
Land tenure and management rights are obtained through a process that ensures that Free Prior Informed Consent (FPIC) is secured before any activities are commenced that may affect Indigenous Peoples' or local communities' lands, territories, and resources	✓	
In case of ongoing land tenure or management rights disputes, these are managed through a culturally appropriate and transparent process, agreed upon by the affected parties	✓	
Land areas under management are protected from illegal encroachment by third parties.	✓	
The use of natural resources ensures long-term productivity and yield of the resources.	✓	
Legal requirements for land use and management planning are complied with.	✓	
Legal requirements for payment of royalties, land/area taxes and fees are complied with.	✓	
Legal requirements for payment of value-added taxes and/or other sales taxes are complied with.	✓	
Legal requirements for payment of corporate taxes are complied with, including profit taxes.	✓	
Legal requirements relating to corruption - including bribery, fraud and conflict of interest are complied with.	✓	
Data and document falsification do not occur.	✓	
Legal requirements relating to trade and transport of products are complied with.	✓	
Legal requirements related to applicable trade restrictions and sanctions are complied with.	✓	

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

⟨⟨⟩⟩ HARMONITOR

Legal requirements relating to export and/or import are complied with.	✓	
Legal requirements relating to due diligence or due care are complied with.	✓	
Contracts with suppliers and/or buyers have clear terms, are fair and transparent, have an agreed timeframe and are not changed or cancelled unilaterally.	✓	

9.2 Appendix - Assurance requirements

	ASC-MSC Seaweed Standard
General Requirements	To ensure our complete independence from the certification process, a third-party organisation – Assurance Services International (ASI) – manages the accreditation of CABs to conduct assessments. ASI monitors CABs to ensure that they are complying with ASC and MSC requirements. A list of accredited CABs can be found on the ASI website. ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements document specifies the mandatory requirements for Conformity Assessment Bodies during audits. Part A of the ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements (CAR) includes requirements for CABs carrying out audits of seaweed production units that wish to make a claim that the seaweed they are selling is certified to the ASC-MSC Seaweed (Algae) Standard, and where desired to use the MSC/ASC label/s to promote a product. The ASC and MSC do not assess the seaweed operations, nor issue certificates. Instead, independent third-party conformity assessment bodies (CABs) audit farms and wild harvest operations. ASC and MSC are ISEAL Code Compliant
Auditing and Certification	ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements The auditing process requirements involve the following: Determining the Unit of Assessment (UoA): At the beginning of the audit process, the necessary information should be provided to the Conformity Assessment Body (CAB) to determine the UoA, which includes factors such as land-based facilities, target species, harvesting/culturing entities, receiving water body, stock region, and production system. Unit of Certification (UoC): The UoC is entitled to receive certification if the audit is successful. It includes the UoA and other client group members contributing to the assessment cost but not part of the farm or wild harvest operation management. Performance Indicators (PIs): The CAB's assessment team scores the operation based on 31 PIs in the ASC-MSC Seaweed Standard. The number of PIs scored depends on the type of seaweed production system used, and social requirements are always audited. The combined outcomes for all PIs determine if certification is awarded. Certification Outcomes: Each PI can have three outcomes: meeting global best practice, meeting an acceptable level but needing improvements, or not meeting the acceptable level. The combined outcomes for all PIs determine if certification is awarded. Conditions and Improvements: If improvements are needed for any PI, conditions are given, and the operation must take appropriate action to achieve global best practice within a specified timeframe. Pre-Audit: An optional pre-audit helps assess readiness for the full audit process, identifying strengths, weaknesses, and obstacles to be

	addressed before proceeding. Seaweed producers may undertake pre-audits themselves, or use CABs, independent consultants or other qualified auditors or organisations. Initial Audit: The detailed and public audit process follows the ASC-MSC Seaweed Standard to determine compliance. The CAB announces the audit, and the period from announcement to the Final Report should not exceed 12 months. The Client Application Checklist is a list of all performance data that will be required by the CAB prior to the audit, it must be filled and submitted to the assessment team in advance of the initial audit. Review and Public Consultation: The CAB compiles a draft report, and stakeholders have an opportunity to comment during a public consultation period. Final Report and Determination: The final report includes the certification team's determination based on stakeholder comments and revisions made. Objections can be raised within a specific period if there are perceived errors in the report. Action Plans and Certification: Necessary action plans for improvement are created if certified. The CAB issues a Public Certification Report, and a farm or wild harvest operation certificate is provided. Certification lasts for up to three years, subject to annual surveillance audits. Recertification: After three years, the operation can choose to be re-certified, and the new audit process should be completed before the expiry of the original certificate for continuous certification. Certification lasts for up to three years and it is subject to regular surveillance audits. Sampling: requirements for sampling only found for social audits: 15% of the employees (up to 40 people) are interviewed to evaluate principles 4 and 5. Document ISEAL Standard Setting Code, ISO 17065, ISO 19011.
Stakeholder Consultation	The CB shall submit the Public Certification Report to the ASC-MSC for posting on the website. After the Public Certification Report and certification decision have been posted on the website, the CAB shall issue the certificate as per Section 4.9 with a maximum duration of three years from the date of issue. The CB shall provide a statement for MSC-ASC to post on their website defining key elements. The CB shall carry out a surveillance audit, which includes a site visit, to monitor the certificate holder's continued conformity with the Standard at least annually from the date of certificate issuance. The CB shall start the re-certification audit of a certified production unit before the expiry of the existing certificate. The CAB shall update the ASC-MSC seaweed database not later than five days before the expiry of the existing certificate if certificate validity will be extended.
Corruption mechanism	Not found
	Better Cotton
General Requirements	BCI conducts periodic Assurance System Reviews to ensure the effectiveness and integrity of its assurance model. These reviews occur at least every 3 years and involve a comprehensive assessment of the entire assurance model, its implementation, and its role within the Better Cotton Standard System, based on feedback from an external body. The reviews aim to improve the assurance model and guide strategic decisions to support the goals of the Better Cotton Standard System. The external oversight mechanism is a key component of the Assurance System Review. It is conducted by an independent body contracted by BCI. The oversight activities aim to ensure consistency in assurance across the

	standard system, evaluate the competence of assurance providers, and identify areas for improvement and challenges within the assurance model. Lead Verifier shall have 3 years of auditing or other work experience in (cotton) farming, natural resources, or environmental management. Auditors are trained on ISO 19011 or equivalent. Auditors must remain impartial. BCI is ISEAL code compliant member. Third-party verification systems
Auditing and Certification	Better cotton assurance manual Assurance Model System review The oversight component of the Assurance System Review includes several activities: 1. Desk Analysis: An independent body evaluates the effectiveness of each step in the assurance process, reviews adherence to internal protocols, assesses the quality of reporting, and identifies areas for improvement. 2. Review of Information on Verifier Performance: Performance metrics of third-party verifiers are reviewed to identify strengths, weaknesses, and consistency across countries. 3. Assurance Provider and External Assessor interviews: Interviews are conducted with program officers, coordinators, strategic partners, third-party verifiers, and assurance managers to assess their understanding of their roles and the assurance program. 4. Implementing Partner interviews: Interviews with representatives from Implementing Partner organizations focus on their approach to readiness checks, monitoring improvements, and supporting continuous improvement. 5. Shadow Assessment: The independent body conducts on-site or remote shadow assessments of third-party verifiers and program officers to evaluate their conduct of licensing assessments. 6. Review of Overall System Performance: The linkage between different actors and processes is analysed to identify strengths, weaknesses, and risks to the system's credibility. BCI uses the findings of the oversight mechanism to improve the assurance model. Internal assessments are conducted, corrective actions are taken to address non-conformances, and training activities are reinforced or improved. The risk assessment and management plan are reviewed, and preventive actions are implemented. The BCI Council monitors and enforces the implementation of these actions. The independent body contracted for oversight must have a good understanding of the Better Cotton Standard System, the BCI approach to assurance, and the ISEAL Assurance Code. They should be competent in reviewing BCI assurance protocols, conducting interviews with assurance providers, and assessing group-level assessments. First-party audits in the form of producer self-assessment are conducted annually. Licensing Assessments comprising either 2nd party audits (conducted by BCI) or 3rd party audits (conducted by approved third party verifier) are conducted prior to a licence being granted. A licence is valid for 3 years and the producer must undergo a new Licensing Assessment at the end of the 3 years to demonstrate continued compliance. In addition to Licensing Assessments, a producer may receive a Surveillance Assessment at any time during their active 3-year licence period. Each Better Cotton Country Team has Programme Officers and Coordinators responsible for the implementation of activities and protocols

D4.1 - Literature review and inventory of certification schemes and labels requirements

	in the assurance model. Better Cotton Country Teams conduct Licensing and Surveillance Assessments, maintain communication with Programme Partners and PU Managers.
Stakeholder Consultation	Not found
Corruption mechanism	Not found
	Bioplastic Feedstock Alliance (BFA)
General Requirements	Not found The decision-making methodology provided by BFA is a tool for assessing risk and understanding the trade-offs across various feedstock opportunities. It is not a certification, standard, or method for production management, measurement, or improvement over time. The BFA recommends pursuing sustainability certifications that are ISEAL code compliant. Therefore, there is no assurance system in place for BFA.
Auditing and Certification	Not found
Stakeholder Consultation	Not found
Corruption mechanism	Not found
	Bonsucro
General Requirements	5. Creating the audit team 5.2 Multidisciplinary audit teams shall be created when the required experience and qualifications of auditors are met by more than one (1) individual. As a whole, the audit team shall have audit skills and audit experience with certification in agricultural, forestry and/or industrial areas covering the following topics: 5.2.1 environmental impact and ecology 5.2.2 health and safety 5.2.3 labour conditions and social aspects 5.2.4 legal framework for production of sugarcane and all sugarcane derived products 5.2.5 traceability / chain of custody schemes 5.2.6 group certification 14. Initial and Re-certification Audit Checklist 14.2 For audits against the Production Standard and Production Standard for Smallholder Farmers, the auditors shall: 14.2.7 Verify that training and internal inspections have taken place (if applicable). Bonsucro is ISEAL Code Compliant. Bonsucro' system has been independently evaluated against ISEAL's Codes of Good Practice 5. Creating the Audit Team 5.5 Technical experts and Interpreters/translators shall be independent from the client. When independent experts are used, they shall be agreed with the client in advance. The CB shall ensure that their role is limited to advising the audit team on issues related to their area of expertise. They shall not participate actively in the audit process unless they are specifically qualified by the CB as auditors for that purpose. 14. Initial and Re-certification Audit Checklist 14.2 For audits against the Production Standard and Production Standard for Smallholder Farmers, the auditors shall: 14.2.8 Verify any complaints & grievance mechanisms (if applicable). 14. Initial and Re-certification Audit Checklist

	14.2 For audits against the Production Standard and Production Standard for Smallholder Farmers, the auditors shall: 14.2.10 After the audit, the auditor shall amend the calculator to acknowledge the corrective actions carried out after the audit, so as to reflect the conformity score taken into consideration for the certification decision, the CB shall submit this last version of the document with the audit report. (See section 21)
Auditing and Certification	Bonsucro Certification Protocol V6 1.2 The Bonsucro Certification Protocol aims to provide the transparency that is required of an international Certification System for it to have credibility with stakeholders, including governments, international governmental bodies (e.g., regulatory bodies), CBs, suppliers of sugarcane and sugarcane-derived products, non-governmental organisations and consumers. 1.3 The Bonsucro Certification Protocol outlines the audit process and general procedures linked to providing certification against the Bonsucro Standards. 14. Initial and Re-certification Audit Checklist 14.2 For audits against the Production Standard and Production Standard for Smallholder Farmers, the auditors shall: 14.2.11 Sample farms or sites chosen as representative of the diversity of the work force and in accordance with section 9 of this Protocol. The auditor(s) may decide which farms/sites to audit depending on their level of confidence in the effectiveness of the Group's procedures and/or on a risk assessment. The rationale for the samples chosen shall be included in the audit report. The auditor(s) shall assess groups in accordance with the section Evaluation of Groups. 14.3 For audits against the Mass Balance Chain of Custody Standard, the auditors shall: 19. Corrective Action Plans 19.1 The CB shall request that the client submit within four (4) weeks of the audit closing meeting a corrective action plan Annually (16.3) 5. Creating the audit team 5.2 Multidisciplinary audit teams shall be created when the required experience and qualifications of auditors are met by more than one (1) individual. As a whole, the audit team shall have audit skills and audit experience with certification in agricultural, forestry and/or industrial areas covering the following topics: 5.2.1 environmental impact and ecology 5.2.2 health and safety 5.2.3 labour conditions and social aspects 5.2.4 legal framework for production of sugarcane and all sugarcane derived products 5.2.5 traceability / chain of custody schemes 5.2.6 group certification Annually (16.3) 5. Creating the audit team 5.2 Multidisciplinary audit teams shall be created when the required experience and qualifications of auditors are met by more than one (1) individual. The audit team shall have audit skills and audit experience with certification in agricultural, forestry and/or industrial areas covering the following topics: 5.2.1 environmental impact and ecology

D4.1 - Literature review and inventory of certification schemes and labels requirements

	5.2.2 health and safety
	5.2.3 labour conditions and social aspects
	5.2.4 legal framework for production of sugarcane and all sugarcane derived products
	5.2.5 traceability / chain of custody schemes
	5.2.6 group certification
	Document refers to ISEAL, ISO 17065 and ISO 19011
Stakeholder Consultation	Not found
Corruption mechanism	Not found
	BREEAM
General Requirements	Compliance and qualification
	BRE Global Ltd is accredited by the United Kingdom Accreditation Service (UKAS) against BS EN ISO/IEC 17065:2012 – General requirements for bodies operating product certification systems for providing certification activities associated with the assessment of environmental performance of: Master planning, new construction of infrastructure & buildings, Buildings in use, Refurbishment of buildings
	In addition, all BREEAM related activities are aligned to ISO 9001. BREEAM's third-party certification involves the validation of the assessment by impartial experts known as BREEAM Assessors. BREEAM Assessors are qualified and licensed to ensure the assessment meets BREEAM quality and performance standards. The list of BREEAM Assessors is publicly available here. The process of accreditation of the Assessors takes place through a training course.
	As an accredited certification body, BRE Global maintains an open and accountable governance structure that, amongst other things, safeguards impartiality. The company follows strict guidelines and procedures outlined in their Statement of Impartiality to maintain impartiality and refrain from providing consultancy or guidance that may conflict with their assurance services.
Auditing and Certification	Auditing process
	The steps for assessment are
	1. Find a licenced BREEAM assessor
	2. Register your project
	3. Undertake the assessment
	4. Quality Assurance check of the assessment
	5. Certification
	• A BREEAM certified rating evaluates the performance of a project and its stakeholders based on the BREEAM standard and benchmarks. The rating allows for comparisons between projects and offers assurance regarding the performance, quality, and value of the asset. The BREEAM ratings range from Acceptable to Outstanding, which is indicated by a series of stars on the BREEAM certificate. To verify an assessment and its BREEAM rating, one should look for the BREEAM certificate and certification mark, or search for certified assessments through available listings.
	No documents providing details on the auditing process are readily available in a public library.
Stakeholder Consultation	Not found
Corruption mechanism	Not found

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Cradle to Cradle
General Requirements	Certification Scheme Owner (Scheme Owner): The Cradle-to-Cradle Products Innovation Institute (C2CPII). The Cradle-to-Cradle Products Innovation Institute evaluates products for certification through a network of Cradle-to-Cradle Certified assessment bodies who are recognized by the Institute based on the experience, qualifications, and training of their organization's staff. Assessors are trained to help companies achieve certification for their products. Find our Cradle-to-Cradle Certified assessment bodies in this link. The auditor conducts the audit using the tools and audit protocols established by the scheme owner, in accordance with ISO 19011. AB shall have a mechanism for safeguarding impartiality.
Auditing and Certification	Policy for Accrediting Assessment Bodies Operating within the Cradle to Cradle Certified Product Certification Scheme. The scheme owner reviews application. The scheme owner decides to accept or reject the application. If the application is accepted, the scheme owner initiates the accreditation audit process by offering a legally binding document delineating the terms, roles and responsibilities of the AB and C2CPII, including associated costs for attaining accreditation. The accreditation auditor shall provide AB with an audit plan that includes an audit schedule. AB shall submit any documentation requested by the auditor prior to the audit. The auditor and AB shall schedule an audit at a mutually acceptable time. The auditor and responsible AB representative shall hold an opening meeting that shall establish the scope and terms of the audit and clarify any questions concerning the audit. The auditor conducts the audit using the tools and audit protocols established by the scheme owner, in accordance with ISO 19011. The auditor documents findings in an annotated checklist. The auditor and responsible AB representative shall hold a closing meeting where the findings are discussed. The auditor and responsible AB representative agree upon a corrective action plan for any Opportunities for Improvement (OFI) and Non-conformance Reports (NCR.) If agreement cannot be reached, further discussion shall be conducted later between the scheme owner and AB. These discussions may lead to employing the scheme owner's complaints and appeals process. OFIs shall be revisited and addressed in the next accreditation audit. NCRs shall be closed within 60 days, unless documented circumstances render that timeframe unrealistic. In such cases an appropriate, explicitly defined timeframe may be applied once approved by the auditor and the VP, Science and Certification. The findings of the audit and corrective action plan are incorporated into a draft report, which is reviewed and approved by authorized scheme owner personnel. The final approved report is sent to the AB. The authorized representative of the AB signs and returns the report to the scheme owner. Authorized scheme owner personnel sign the report and send to the AB. The scheme owner oversees any corrective action plan execution and closes out OFIs and NCRs.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Accreditation is granted through a fully executed Accreditation Agreement between the AB and C2CPII. (*note: accreditation may be provisional, per the Certification Scheme.*). AB is listed on C2CPII website as a Cradle-to-Cradle Certified Accredited Assessment Body. AB is issued a Cradle-to-Cradle Certified Accredited Assessment Body badge for use in marketing its services. Under Version 4.0, recertification is required every three years and companies need to show measurable improvement to re-certify. The certification holder must work with the assessor and supply chain to gather additional data needed for re-certification. The assessor evaluates data and progress on optimisation strategies. Re-certification Assessment Summary Report submitted to the Institute for review. There is no clear information on surveillance or re-certification visits Reference to ISO 9001, ISO 17065, ISO 190011.
Stakeholder Consultation	Not found.
Corruption mechanism	Not found
	EU Ecolabel - Paper and Textiles
General Requirements	An independent third party ('Competent Body') ensures that products fully comply with the relevant EU Ecolabel criteria. The personnel responsible for carrying out conformity assessment activities shall have the following: (a) sound knowledge covering all the conformity assessment activities in relation to which the competent body has been designated; (b) the ability to draw up certificates, records and reports demonstrating that assessments have been carried out. Annex V: 2. A competent body, its top-level management, and the personnel responsible for carrying out the conformity assessment tasks shall not be directly involved in the design, manufacture or construction, the marketing, installation, use or main tenancy of those products, or represent the parties engaged in those activities. They shall not engage in any activity that may conflict with their independence of judgment or integrity in relation to conformity assessment activities for which they are designated. This shall apply to consultancy services. Competent bodies and their personnel shall carry out the conformity assessment activities with the highest degree of professional integrity and the requisite technical competence in the specific field and shall be free from all pressures and inducements, particularly financial, which might influence their judgment or the results of their conformity assessment activities, especially as regards persons or groups of persons with an interest in the results of those activities. The impartiality of the competent bodies, of their top-level management and of the assessment personnel shall be guaranteed. The remuneration of the top-level management and assessment personnel of a competent body shall not depend on the number of assessments carried out or on the results of those assessments 3rd party verification system Step 3: Information, testing and verification requirements Use the criteria document, and the information and checklists in this User Manual, to assemble a dossier containing all the information and test results needed to show how the product has met each criterion. Each criterion will include a section setting out the assessment and verification requirements which may include product tests, declarations of compliance, or independent verification. It is essential that data is accurate and substantiated; further

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	checks may be carried out by the Competent Body if deemed appropriate. Step 4: Compile and submit dossier and application form. Please note that a dossier, comprising an application form with all the above supporting documentation, will need to be submitted to the relevant Competent Body. (Source: standardsmap.org)
Auditing and Certification	EU Regulation (EC) No. 66/2010 EU Ecolabel User Manual Part A: General Information Within two months of receipt of an application, the competent body concerned shall check whether the documentation is complete and shall notify the operator. The competent body may reject the application if the operator fails to complete the documentation within six months after such notification. Provided that the documentation is complete, and the competent body has verified that the product complies with the EU Ecolabel criteria and assessment requirements published according to Article 8, the competent body shall assign a registration number to the product. Operators shall meet the costs of testing and assessment of conformity with EU Ecolabel criteria. Operators may be charged for travel and accommodation costs where an on-site verification is needed outside the Member State in which the competent body is based. Where EU Ecolabel criteria require production facilities to meet certain requirements, they shall be met in all facilities in which the product bearing the EU Ecolabel is manufactured. Where appropriate, the competent body shall undertake on-site verifications or assign an authorised agent for that purpose Where, after giving the user of the EU Ecolabel the opportunity to submit observations, any competent body which finds that a product bearing the EU Ecolabel does not comply with the relevant product group criteria or that the EU Ecolabel is not used in accordance with Article 9, it shall either prohibit the use of the EU Ecolabel on that product, or, in the event that the EU Ecolabel has been awarded by another competent body, it shall inform that competent body. The user of the EU Ecolabel shall not be entitled to repayment of the fees referred to in Article 9(4), either in whole or in part. The competent body shall without delay inform all other competent bodies and the Commission of that prohibition. The competent body which has awarded the EU Ecolabel to the product shall not disclose, or use for any purpose unconnected with the award for use of the EU Ecolabel, information to which it has gained access in the course of assessing the compliance by a user of the EU Ecolabel with the rules on use of the EU Ecolabel set out in Article 9. It shall take all reasonable steps to secure the protection of the documents provided to it against falsification and misappropriation. Audit frequency: 4-5 years 2.1 Revision of criteria. The criteria for each product group are revised every three/four years, and existing EU Ecolabel holders have to re-apply when these new, revised criteria come into force. Therefore, it is advisable to consider the timing of your application to avoid consecutive application and then re-application against new criteria. A transition period for adjusting the product(s) and applying for re-assessment is usually allowed for and is set out in the new criteria document (Source: standardsmap.org. Can't find original source)

	The criteria for each product group are revised every three/four years, and existing EU Ecolabel holders must re-apply when these new, revised criteria come into force. Source. Unannounced audit: Allowed 1.8 Assessment of compliance with the criteria ...the Competent Body may, at any reasonable time and without notice, request, and the licence holder shall grant, access to the premises. (Source: standardsmap.org). Refers to ISO 17065 and EN 45011 (now withdrawn, replaced by ISO 17065)
Stakeholder Consultation	Not found
Corruption mechanism	Not found
	Fairtrade International and Fairtrade Textile Standard
General Requirements	Assurance: Demonstrable evidence that specified requirements relating to a product, process, system, person or body are fulfilled (from ISEAL Assurance Code). In this document the term assurance includes all the steps that lead up to and including decision taking on compliance against a Fairtrade Standard (such as audit planning, auditing and evaluation of audit results). Although fundamental for the activities of assurance providers, all financial activities related to assurance such as invoicing and fee application, are not considered assurance in these requirements. Assurance Provider: any organisation, or part of it, that is allowed by Fairtrade International to perform assurance against Fairtrade standards. Their activities are regulated by these Fairtrade's Requirements for Assurance Providers in compliance with ISEAL Assurance Code. Auditors are able to display the attributes of an auditor as set out in the ISEAL Assurance Code and have to be compliant with ISO/IEC 17065, ISO/IEC 17021, ISO/IEC 17020 or equivalent. They are not trained on ISO 19011 or equivalent. 4.2.1 *The assurance provider verifies that qualification criteria have been met prior to engaging an individual as auditor or assurance personnel, and periodically assesses whether competency criteria have been met including periodic on-the-job evaluation. In the case of auditors this includes witness audits. 4.2.2 *The assurance provider provides initial training to auditors and assurance personnel as needed for their respective positions and organizes a periodic training and calibration program of auditors and other assurance personnel. Training and calibration also include information and trainers from Fairtrade International, where deemed necessary by the assurance provider or the scheme owner. 4.2.3 Assurance providers provide clients with a systematic opportunity to provide feedback on auditor performance beyond complaints. 4.2.4 Assurance providers make their training programmes available to all Fairtrade assurance personnel and auditors. 3.2.1 *The assurance provider conducts its certification activities impartially and does not allow commercial, financial or other conflicts of interest to compromise the impartiality of its activities and decisions. 3.2.2 *All certification personnel and committees, both whether internal or external, who could influence the certification decision act impartially. 3.2.3 *The assurance provider identifies risks to impartiality and potential conflicts of interest on regular basis, and documents how potential risks and conflicts are avoided or mitigated. The analysis includes risks that arise from its audit and certification as well as licensing or consulting

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	activities (if any), from its relationships with clients or partner organizations, or from the relationships of its personnel. 3.2.4 *The assurance provider has and implements a conflict-of-interest policy that describes how conflict of interests of audit and certification personnel are identified, disclosed, managed and prevented. The policy shall describe in particular how the risk of auditor impartiality is mitigated by adequate measures such as e.g., rotation of auditors or witnessing of audits. Note: The policy may be part of the assurance provider's Certification SOP
Auditing and Certification	Fairtrade International Requirements for Assurance Providers Fairtrade International Requirements for Licencing Bodies Fairtrade Textile Standard Standardsmap Documents refers to ISO 17065 and ISO 19011. All producer organizations must go through an initial on-site audit before they can sell Fairtrade certified products. Following a successful certification for a producer organization, a three-year certification cycle starts. During this time, up to two confirmation audits normally take place depending on FLOCERT's assessment of the organization's individual situation. In addition to the regular audits, FLOCERT conducts unannounced audits at any time if there are indications of additional risk, such as specific allegations, expansion of the organization's certification scope, or product- or country-specific risks. A renewal audit is conducted during the third year. If the renewal audit is concluded successfully, FLOCERT issues a new certificate, and the next three-year certification cycle begins. (Source: standardsmap.org)
Stakeholder Consultation	No detailed stakeholder consultation mechanism in place. There is a requirement to have a written procedure to manage allegations and complaints which shall be made publicly available. The complaint and allegation procedure is accessible to stakeholders as a means to provide input to the assurance process, ensure a mechanism for stakeholders to report instances of potential misrepresentation or fraudulent practices to the assurance providers. Information received from stakeholders about clients is handled as confidential.
Corruption mechanism	Not found
	Forest Stewardship Council (FSC)
General Requirements	3. Successful completion (with certificate) of an IRCA1 registered "ISO management standard auditor course" or an ISO 19011 course on auditing techniques as described in FSC-PRO-20-004; 5. Attendance as an auditor in training in at least four (4) complete third-party FM audits in a three (3) year period [...] Personal attributes which were identified by ISEAL as being relevant for personnel involved in certification activities Specific training for different certification type (COC, FM, CW, etc...) needed For detailed qualifications see Annex 2 1.5.5 The certification body shall maintain and implement written policy and procedures for avoidance of conflicts of interest. These procedures shall include: a) the contractual obligation for all personnel involved in the certification process, to disclose in writing to the certification body all possible and actual conflicts of interest, at the time that the conflict or possibility of conflict becomes evident Is ISEAL code compliant member

D4.1 - Literature review and inventory of certification schemes and labels requirements

	1.5 Impartiality: 1.5.1 The certification body shall be responsible for ensuring that certification activities are undertaken impartially and shall not allow commercial, financial or other pressures to compromise impartiality 1.5.13 The certification body shall have a committee for safeguarding its impartiality. The committee shall provide input on the following 3rd party verification system
Auditing and Certification	4.3.2 The certification body shall conduct audits for forest management certification in accordance with FSC-STD-20-007 and related normative documents. 4.3.11 The certification body shall evaluate each nonconformity identified in the audit to determine whether it constitutes a minor or major nonconformity. 4.3.16 The corrective action request timelines commence from the moment when they are formally presented to the client and no later than three (3) months from the audit closing date. Corrective action requests shall have the following timeframes: 2.5.5 Each body providing outsourced services shall be subject to at least one (1) annual audit. At least one (1) on-site audit shall be conducted by the certification body every three (3) years. Furthermore, the internal audit procedure shall specify criteria and conditions (e.g., risk assessment results, internal corrective actions requests, number of clients, complaints) where onsite audits of bodies providing outsourced services are required. Annex 3 Audit teams: 1.2 An audit team shall always include a qualified auditor and audit team leader. Also needed: language requirements, independent interpreter, technical experts (for more see Annex 3) 4.3.11 The certification body shall evaluate each nonconformity identified in the audit to determine whether it constitutes a minor or major nonconformity. Reporting 4.3.21 The certification body shall document the findings and conclusions of all audit activities prior to review and decision making in a certification report in conformity with the report writing requirements specified in: a) FSC-STD-20-007a for forest management certification reports; b) FSC-STD-20-007b for forest management public summary certification reports; c) FSC-STD-20-011 for chain of custody certification reports; d) FSC-STD-20-012 for controlled wood forest management certification reports. 1.2.3 The certification agreement shall require the client at least to: Regarding the obligations of the client d) agree to the conduct of evaluations at the required intervals, including the certification body's right to carry out unannounced or short notice audits.
Stakeholder Consultation	See FSC-STD-20-006 Stakeholder consultation for forest evaluations https://connect.fsc.org/document-centre/documents/resource/277
Corruption mechanism	1.5.12 The certification body shall have, maintain and implement a documented anticorruption policy 3.1.9 The certification body shall require personnel involved in the certification process to sign a contract or other documents by which they

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	commit themselves to the following, in accordance with the requirements of Annex 1: a) to conform with the rules defined by the certification body, including those relating to confidentiality, anti-corruption and independence from commercial and other interests; International and Fairtrade Textile Standard
	Global G.A.P.
General Requirements	ANNEX III.2 GLOBALG.A.P AUDITOR QUALIFICATIONS 2. FORMAL QUALIFICATIONS AND WORK EXPERIENCE 3. TECHNICAL SKILLS AND QUALIFICATIONS 3.1 Lead assessor training 3.2 Food safety, G.A.P training and Work experience 3. OPERATIONAL REQUIREMENTS 3.4 Independence, impartiality, confidentiality and integrity of CB ANNEX III.2 GLOBALG.A.P AUDITOR QUALIFICATIONS 4. KEY TASKS 4.4 Independence and Confidentiality 3.3 CB Certification data communication with GLOBALG.A.P b) (i) 6. CERTIFICATION PROCESS 6.1 General 6.2 Inspection duration 6.3 Producer non-conformance and sanctions 6.4 Paper Certificate requirements
Auditing and Certification	4. KEY TASKS 4.1 GLOBALG.A.P QMS Audits 4.2 GLOBALG.A.P Farm Inspections 4.3 General 4. KEY TASKS 4.1 GLOBALG.A.P QMS Audits 4.2 GLOBALG.A.P Farm Inspections 4.3 General 8. CERTIFICATION BODY SANCTIONS 8.1 General rules 8.2 Types of non-conformances 9. INTEGRITY PROGRAM (IPRO) 9.2.1. Evaluation and Classification of Assessment Results 3. TECHNICAL SKILLS AND QUALIFICATIONS 3.6 Rotation of the auditor 4. KEY TASKS 4.1 GLOBALG.A.P QMS Audits 4.2 GLOBALG.A.P Farm Inspections 5. ASSESSMENT PROCESS 5.3 Unannounced reward program 5.4 Option 2 Producer Groups and Option 1 Multi-sites with QMS 6. CERTIFICATION PROCESS 6.1 General
Stakeholder Consultation	The CB shall establish measures and procedures to prevent bribery and corruption at all levels of its organization. There is also requirement to include stakeholder comments or allegations in the selection process of sampling units.
Corruption mechanism	3. OPERATIONAL REQUIREMENTS 3.4 Independence, impartiality, confidentiality and integrity
	Green Gold Label (GGL)

D4.1 - Literature review and inventory of certification schemes and labels requirements

General Requirements	The CB must have obtained accreditation according to ISO 17065 with GGL scope within 9 months after filing an application. The appointed accreditation body should be a member of the European Accreditation (EA) Multilateral Agreement (MLA) or the International Accreditation Forum (IAF).
	Each CB should appoint a representative who is qualified as per the requirements of a certifier (described in Annex 4). This representative is responsible for implementing relevant GGL regulations and standards within the CB.
	CB auditors must meet the requirements outlined in Annex 1 (Standard GGLS1), 2 (GGLS2), and 3 of the Assurance GGL (GGLS5) Certification Regulation. At least one expert shall be used to developed local verifiers. The expert shall at minimum have work experience or training/education in the country where GGLS5 or GGLS2 audits are conducted in relation to the scope of the audits for which the verifiers are developed (e.g., forestry, agricultural etc.).
	Auditors and certifiers are not allowed to perform work that might compromise their independence or impartiality.
Auditing and Certification	Relevant documentation regarding the applicant must be retained. The CB is obliged to fulfil prescribed fees on time.
	GGL audits must comply with GGL scheme requirements and be conducted according to ISO19011. GGL audits shall at a minimum include the following activities: opening meeting, closing meeting, communications, report writing, grading of non-conformances and post-audit activities.
	An audit report should be drafted for each GGL audit in accordance with ISO/IEC 17021-1:2015 clause 9.4.8.2. and 9.4.8.3. The audit report shall include a checklist covering each applicable GGL standard and requirement in a clear and concise manner clearly identifying compliance for each requirement.
	The CB is responsible for an initial analysis of the supplier's management systems, and the review of conformity with all applicable requirements. On-site verification is required for certain scenarios and standards. Requirements for verification against GGLS5 standard are described in Principle 4 of the GGL chain of custody standard (GGLS1). For option 1 (individual verification) the Certification Body shall conduct onsite audits at all FMU's included in the scope. In this case the biomass producer (as GGL Participant) is not required to conduct its own onsite verification at each FMU. This does not apply to options 2 (group or regional association) or 3 (risk-based approach). In these cases, the biomass producer shall be responsible for ensuring onsite verification audits are carried out as stipulated in this standard.
	Sampling methods are utilized in audits against GGLS2 and GGLS5 and others.
	Any non-conformances are graded as major or minor and should be corrected within specified timeframes. Major non-conformances may lead to immediate suspension of the participant's certificate. A certificate can only be issued if no major non-conformances are outstanding.
	Post-audit activities include a technical review by an uninvolved staff member.
	The certification decision should be taken within 2 months of finalizing the audit report and communicated in writing within 1 month after the decision.

	A GGL certificate is awarded if all the requirements are fulfilled, with a maximum validity of 5 years. Each participant is audited on-site on an annual basis. The GGLS5 and GGLS2 standards must be re-verified every 12 months for continuous or repeated deliveries from the same forest management unit or agricultural supply unit. GGL Certification Regulation
Stakeholder Consultation	Stakeholder feedback is required in the selection process for supply units and during audits to verify effective management systems.
Corruption mechanism	Complaints and appeals are handled as per chapter 5 of the Assurance Certification Regulation. The CB must have a documented procedure to resolve complaints and appeals in a timely manner. Decisions must be made or reviewed by individuals not involved in the evaluation related to the complaint or appeal.
	ISCC EU & ISCC PLUS
General Requirements	Certification bodies (CBs) recognized by the Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung – BLE) or by a competent national authority or accreditation body may cooperate with ISCC, if the requirements laid down in the ISCC System Document 103 "Requirements for Certification Bodies and Auditors" are met. 5.3 Qualifications of Auditors on Farms, Plantations and Forests The CB must establish documented procedures to appropriately determine and manage conflicts of interest which may arise in the context of ISCC certification activities. Auditors must be independent of the activity being audited. The only exceptions possible are audits of forest biomass where in certain cases first or second party auditing may be used up to the first gathering point Third party audits 4.6 Issuance, Termination and Withdrawal of Certificates (Requirements for CB and Auditors)
Auditing and Certification	ISCC EU 201 System Basics ISCC EU 103 Requirements for Certification Bodies and Auditors V4.0 ISCC EU Audit Procedures Document 204 "Risk Management" 4.5 Establishing the Framework to Conduct Audits ISCC System Documents provide audit procedures that are a crucial tool to facilitate the work of the Certification Bodies and facilitate consistent and comparable verification of ISCC requirements during ISCC audits. The initial (first) audit shall be conducted on the site of the System User as registered with ISCC. Each System User registered for certification under ISCC must conduct an internal assessment 4.6 Issuance, Termination and Withdrawal of Certificates in Requirements for CB and Auditors document 4.3 ISCC Certificates from System Basics document Audits every year ISCC audits may be conducted remotely, especially if appropriate tools that provide at least the same level of assurance as an on-site audit are used (System Basics) Sampling if applicable 4.2 Competence of Auditors, 4.7 Documentation in Requirements for CB and Auditors document 4.2.2 Audit Preparation and Conduction, 4.2.3 Non-Conformities in System Basics document Surveillance audits possible

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Stakeholder Consultation	Verification with stakeholders is often mentioned verification guidance or evidence/documents Procedure Document for Farm Plantation
Corruption mechanism	Principle 1, all intentional violations of ISCC requirements (fraud) and non-cooperation in the ISCC Integrity Programme. Is critical non-conformance For Farm Plantation procedure: Check if adequate procedures are in place to prevent bribery in all commercial dealings undertaken by the farm/plantation. Awareness for the topic should be raised in trainings. (See ISCC 202-2 5.3) International and Fairtrade Textile Standard
	PEFC International
General Requirements	6.1.1.2Auditors 6.1.1.2.1Education Auditors should have at least a secondary education that includes courses related to forest and tree-based management. This may be substituted with working experience in these sectors if the certification body can demonstrate it is equivalent to the required education. Auditors should have a minimum of 3 years full time related working experience in the forest and affiliated industries. 6.1.1.2.6Competencies List of standards that they should have knowledge and skills in such as PEFC SFM standard, PEFC COC standard and ISO 19011:2018. 6.1.1.2Auditors 6.1.1.2.6Competencies Includes the knowledge of relevant risk assessment methodologies and indicators in relation to trade and procurement. 4. General requirements 4.2Management of impartiality All the requirements given in clause 4.2 of ISO/IEC 17065:2012(E) apply. 7. Process requirements Includes information regarding the stages of the certification process such as application review, audit, certification decision and documentation. It also includes Termination, reduction, suspension or withdrawal of certification and impartiality through records and process for complaints and appeals.
Auditing and Certification	4. Sampling for on-site audits 4.1 Methodology Consists of information on audit times, surveillance audits, size of sample, recertification audits and initial audits. 7. Process requirements Includes information regarding the stages of the certification process such as application review, audit, certification decision and documentation. It also includes Termination, reduction, suspension or withdrawal of certification and impartiality through records and process for complaints and appeals. Annual audits 4.Sampling for on-site audits And methodology and size of sample for surveillance audits, recertification audits and initial audits. Appendix 4 (normative): Minimum content of audit reports Contains a table with the relevant information
Stakeholder Consultation	Not found

D4.1 - Literature review and inventory of certification schemes and labels requirements

Corruption mechanism	Not found
	REDcert, REDcert²
General Requirements	6.2 Required knowledge, professional and practical experience as an auditor: Training (e.g., in accordance with ISO 19011) At least 4 years of professional experience in the area to be inspected in a relevant position At least 5 audits/inspections in the last 2 years in the inspected area (e.g. ISO-, EfbV, EMAS, GMP, QS, SURE, ISCC 6.1 Training and qualification: Depending on what they are auditing, REDcert auditors must have knowledge of: - GHG balancing - Inspections of farms: - Knowledge of handling data sources and analysis of geographic data - Soil knowledge - Biological and ecological knowledge - Waste and residues: - Knowledge of handling data sources and registers - Knowledge of waste management - Inspection of interfaces, warehouses and suppliers - ISO 19011 training for auditors 5.1.4 Independence and impartiality Evaluations and decisions may not be affected by personal relationships, financial incentives or other types of influences. The certification bodies and the auditors are independent of the interfaces, operations and suppliers and free of all conflicts of interest and can provide proof of this.
Auditing and Certification	The audit and certification process comprises the following steps: 1. The commissioned certification body conducts the initial audit of the operation (on-site audit and evaluation of the scheme requirements). 2. The certification body writes the audit report, submits it to peer review for approval and saves it in the REDcert database. 3. REDcert registers the audit report. 4. The certification body issues a certificate (certificate and/or inspection certificate) and enters the certificate data in the REDcert database (https://redcert.eu). 5. Re-certification audit within 12 months, etc. Initial audit: The initial audit is the first check and assessment of compliance with the REDcert-EU requirements prior to certification of an economic operator. During this audit, the processes are checked for coherence, and the documentation checked for accuracy, completeness, thoroughness and plausibility. The initial audit always takes place on site. Re-certification audit: The re-certification audit is a complete scheme audit to check whether the operation still satisfies the scheme requirements and that agreed corrective measures have been implemented. Processes and documents are audited retroactively and randomly inspected. The re-certification audit and the subsequent certification decision is carried out before the existing certificate or inspection certificate expires to ensure that certification is continuous. Further information and details: 2.1 Types of audits 2.2 Audit methods

D4.1 - Literature review and inventory of certification schemes and labels requirements

	2.4 Audit intervals: Once a year On-site requirements: The initial audit always takes place on site. Generally, audits can be carried out on site, remotely or through a combination of both. The use of audit methods should be appropriate and balanced, taking into account the possibilities and limitations involved (in accordance with ISO 19011: Guide for auditing management systems). Selection of audit team: 5.1.8 Selection and appointment of an audit team: The audit team must have the appropriate competencies required to conduct the audit to ensure compliance with the criteria of the REDcert-EU scheme and in accordance with the audit scope. Minimum content on reports: See 2.6 Reporting Unannounced audits: Spot audit: A spot audit is an audit announced at short notice. Spot audits usually focus on checking reports of non-scheme-compliant activities/conduct or selected sustainability criteria.
Stakeholder Consultation	Possibly addressed in 5.3.2 Performing audits/inspections and issuing certificates and inspection certificates: requests that the economic operator provide any missing elements of inspection trails, explain variations, or revise claims or calculations before reaching a final verification conclusion
Corruption mechanism	Not found
	Round Table on Responsible Soy Association (RTRS)
General Requirements	Certification Bodies must be accredited by RTRS-endorsed accreditation bodies to carry out compliance assessments and award certificates. Up to now there are 8 recognised certification bodies for RTSR. The list is available here. Accreditation should specify the geographical area and the type of certification (responsible soy production or supply chain) for which the CB is accredited. The CB is responsible for auditing and certifying RTRS standards through qualified RTRS Lead Auditors. CBs are accountable for maintaining independence from the organization being assessed for a minimum of five years to prevent conflicts of interest. The CB must comply with the requirements of ISO/IEC 17065, ISEAL Assurance Code, and other requirements specific to the procedure. CB should demonstrate that it has at least one auditor who meets the requirements for RTRS lead auditors for the modules they are seeking accreditation. Qualified lead auditors must meet specific requirements, including the successful completion of a RTRS-endorsed training course and proven lead assessor experience in similar certification schemes. Where certification bodies assess GHG emission data that has been measured, monitored and recorded, additional qualifications follow for the certification body and assessment team. The CB should maintain a policy and procedures for avoidance of conflict of interest. The organization must not offer assessment or surveillance audits for any organization to which it has provided management advice or technical support related to the scope of RTRS certification. No client should be evaluated by the same auditor on more than three consecutive evaluations.
Auditing and Certification	RTRS Accreditation and Certification Procedure for Responsible Soy Production V4.3 Certification bodies (CB) intending to conduct compliance assessments and issue RTRS certificates must develop documented procedures

	consistent with ISO 19011: 2011 and the requirements of this document. The scope of accreditation should specify the geographical area and the type of certification for which they are accredited.
	If a CB is applying for accreditation against both Soy Production certification and RTRS Chain of Custody Certification, there should be two separate witnessed audits (one for each type of certification).
	Prior to the assessment, the CB should publish their intention on their website and inform the RTRS. Compliance assessments should determine conformity or non-conformance with each indicator of the applicable standards.
	The assessment begins with an opening meeting to brief the certification applicant and ends with a closing meeting where the findings are shared. The CB should also verify compliance by any independent third parties involved.
	Auditors will evaluate the management documentation and records to verify conformity with all the indicators of the applicable RTRS standard. They will use the "RTRS Data Collection Sheet" to collect and verify the data. Auditors will also select sites for inspection based on an evaluation of risk points in the management system and potential social and environmental risks. For CoC certification, the certificate is held by a single company and covers all participating sites.
	Nonconformities are classified as minor or major. A certificate of compliance will not be issued until any major non-conformance is resolved. Failure to address minor non-conformances timely can escalate them to major non-conformances.
	The certification body documents findings in a certification report, which goes through an independent internal peer review. A publicly available summary of the performance of each certified organization shall be produced and published on the CB's website and the RTRS database before a certificate is issued. A certificate will only be issued after a positive formal certification decision has been taken by the designated entity.
	CBs need to ensure that certified organizations comply with the RTRS Use of the Logo & Claims Procedure.
	A certificate is valid for 5 years and requires an annual surveillance assessment to confirm continued conformance. At the end of the 5-year period, a full re-assessment must take place before the issuance of a new certificate. CBs can also make unannounced surveillance assessments.
	Complaints: The CB should develop procedures for dealing with complaints and appeals that are open to any interested party. Summary information about the procedures for submitting complaints and appeals and about the CB's procedure for handling such complaints or appeals should be published on its website.
Stakeholder Consultation	Two weeks before the assessment, the CB should publish their intention to carry out an assessment on their website. Stakeholders are invited to submit comments. During the assessment, auditors are required to conduct interviews with a diverse group of individuals impacted by or involved in the farm operation. This is to gather direct factual observations regarding the operation's compliance with its documented systems, procedures, and all the indicators of the applicable RTRS standard, as consultation is a necessary verification method. In areas where there is no RTRS-accredited National Interpretation of the RTRS Standard for Responsible Soy Production, CBs can perform certification according to the generic international RTRS Standard for Responsible Soy Production.

D4.1 - Literature review and inventory of certification schemes and labels requirements

	However, before proceeding, the CB must adapt this generic standard to fit the local conditions in the specific country or region, involving local stakeholders in this adaptation process.
Corruption mechanism	Not found
	Roundtable on SustainableBiomass (RSB)
General Requirements	The RSB assurance system comprises: • The Accreditation Body (AB); • The RSB Oversight Body (OB); • Certification Bodies (CBs); and • Auditors, who are either employed or subcontracted by CBs. • The procedure RSB-PRO-70-001 describes the requirements to be applied by CBs to be accredited to perform audits of RSB POs, issue RSB certificates and ensure the continuous monitoring of RSB POs. The aim of this procedure is to make sure that RSB CBs carry out evaluations and certification of POs against the RSB standard in a stringent, efficient, impartial, consistent, comprehensive and transparent way. This procedure is based on the requirements of the international standards ISO/IEC 17065, ISO 19011, ISAE 3000 as well as the ISEAL Assurance Code. Version 4.0 of the RSB Procedure for Certification Bodies and Auditors [RSB-PRO-70- 001] shall be effective on 17h March 2023. Section F covers the general requirements that apply to CB as an organization. Section G covers specific requirements for RSB auditors, including competence, knowledge, skills, experience required to perform RSB audits. System requirements include training and requirement, additional training and qualification requirements for lead auditors, audit team competence, knowledge management and calibration The CB shall include social and/or environmental experts in the team whenever the screening exercise triggers an impact assessment, or the risk assessment shows an environmental or social risk (see Section H.1.3). Certification Body defines required knowledge and competence based on specific environmental or social issue or risk that is detected during risk assessment or screening exercise. Auditor team is chosen, at its discretion, based on due diligence. Wherever the evaluation includes the verification of a GHG calculation, appropriate knowledge, skills and experience in LCA and Greenhouse Gas (GHG) auditing, as well as in data collection and handling (e.g., relevant for addressing methodologies). Grievance mechanism in line with RSB Grievance Procedure to address cases of complaint, dispute, challenge or conflict filed by POs or by any third party about any element of RSB evaluations and certifications. International standard ISO/IEC 17065 has requirements on impartiality. F8. CB shall keep a documented profile including its certification decision entity and other relevant committees. In case of grievance by a third party about any aspect of the evaluation and certification process, the lead auditor shall inform the RSB Secretariat.
Auditing and Certification	RSB-PRO-70-001 v4.0 Procedure CBs and auditors Section H covers the requirements for conducting audits and delivering RSB certificates. A request submitted by the PO requesting validation should include a self-risk assessment, an up-to-date self-evaluation and where relevant, up-to-date pre-audit tools (includes a Greenhouse Gas calculation, screening

D4.1 - Literature review and inventory of certification schemes and labels requirements

	tool and environmental and social management plan (ESMP)). For main audits, the office and management systems of the PO shall be audited individually on site. When all major non-compliances (if any) are closed, the Certification Decision Entity may issue a certificate of RSB compliance to the PO in line with the scope of certification. There are requirements for details on issued certificate. Major non-compliances found during the audit shall be corrected within 90 days of the audit closing meeting. The CB shall ensure that minor non-compliances are addressed according to the corrective action plan within 12 months. The CB may suspend the RSB certificate if, in its sole opinion, the PO is not in compliance with any particular aspect of the RSB standard. iii) Re-certification main audit shall be planned and conducted within the validity period of the certificate. Certificate validity and frequency of main audits depend on the Risk Class (low, medium and high). Extension of certificate of validity and/or audit schedule changes is possible for up to six months, conditions are detailed (e.g., risk class is low). Surveillance audit is performed on a yearly basis. Additional surveillance audit requirements are available for EU RED certified operators and first collectors and traders dealing with waste and/or residues. Specific requirement of the audit plan for each operator type are described in a table, specifying audit type (individual or risk-based sampling), location of main audit (on site or remote with conditions) and location of surveillance audit (on site or remote with conditions). The conditions for desk-based surveillance audits are detailed. Sampling requirements are based on certification scheme, risk class. The lead auditor may increase number of sampling units based on the results of the self-risk assessment, the screening exercise or any due diligence. Sample size formula available, depends on risk class. One lead auditor. Knowledge described in G.3. Translator. Social expert. Environmental expert. Combination is possible - i.e. The lead auditor can also have knowledge of local context and speal the local language fluently. Compliance is verified by RSB-accredited certification bodies at the level of criteria and minimum/progress requirements (not at the level of principles). The lead auditor shall compile all audit results in an evaluation (audit) report. Content requirements are detailed. Lead auditor shall submit all evaluation reports for reviewing to a competent auditor. Outcome documents are submitted to the certification decision entity. When all major non-compliances (if any) are closed, the Certification Decision Entity may issue a certificate of RSB compliance to the PO in line with the scope of certification. The lead auditor may organise extraordinary audits as part of the surveillance process, for example if a grievance process is initiated.
Stakeholder Consultation	Principle 2, criteria 2b. Free, Prior & Informed Consent (FPIC) to be followed during all stakeholder consultation at biomass producing and industrial facilities level. Whenever the audit includes an evaluation against the RSB Principles & Criteria, the CB shall ensure that the audit team conducts a stakeholder consultation for all main audits. Stakeholder consultation mechanism is detailed in RSB PRO 70 001 Procedure CBs and Auditors.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Corruption mechanism	Not found
	Roundtable on Sustainable Palm Oil (RSPO)
General Requirements	4.8.6 All auditors shall have the following qualifications: • At least three (3) years of field experience in the palm oil sector, health and safety, or environmental management. These include experience in HCV and HCS assessment, social auditing or involvement in human rights activities; • Successfully completed the 5-day lead auditor course for ISO 9001 or ISO 14001 or ISO 45001; • More details and requirement under 4.8.6 and 4.8.7 (lead auditor requirements) 4.6. Impartiality and conflict of interest – describes impartiality requirements in detail. Not all requirements are listed here (see source document for more) 4.6.3 The CB shall retain records of any actual and potential conflicts of interest from its auditors. The CB shall also retain records of its justification behind any decisions, including all actions taken to resolve any potential or actual conflict of interest, for at least five (5) years. 4.6.7 The CB shall not use the same lead auditor as audit team leader for more than two (2) consecutive audits (counting all types of audits, i.e., certification audits and surveillance audits) of a management unit, including if the lead auditor changes CB. The same lead auditor shall also not participate or involve in any associated audit activities (either as auditor or technical reviewer or decision maker) of the same management unit for at least two (2) years. RSPO is ISEAL Code Compliant Member 3rd part verification system 4.6.6 The CB and members of its assessment teams shall maintain independence from the organisation being assessed for a minimum of three (3) years to be considered not to have a conflict of interest. 4.6.3 The CB shall retain records of any actual and potential conflicts of interest from its auditors. The CB shall also retain records of its justification behind any decisions, including all actions taken to resolve any potential or actual conflict of interest, for at least five (5) years.
Auditing and Certification	Detailed process described in 5. CERTIFICATION PROCESS REQUIREMENTS FOR CERTIFICATION AGAINST P&C & RSPO ISH STANDARD 5.3 Initial certification audit planning 5.3.1 The CB shall plan the certification audit to be consistent with the requirements defined in clause 9.2 of ISO/IEC 17021-1 and to include all applicable requirements of this Certification Systems. [...] 5.4 Procedure for the initial certification audit process 5.4.1 The CB shall define procedures for the certification audit process. The procedures shall require that the certification audits, and the subsequent surveillance audits, use appropriate sampling to collect objective evidence through: documentation review, field checks and interviews with internal and external stakeholders. 5.4.3 The CB's site assessment shall start with an opening meeting, during which the lead auditor shall: i. Inform the applicant about the certification process; ii. Agree on logistic for the assessment;

D4.1 - Literature review and inventory of certification schemes and labels requirements

	iii. Confirm access to all relevant documents, field sites and personnel; iv. Explain confidentiality and conflicts of interest measures; and v. Agree on the timing of the closing meeting i) Frequency of audits: 5.11.3 The maximum period of validity of the RSPO P&C certificate is five (5) years. The CB shall undertake annual surveillance audits during the certificate's validity, and a full recertification audit of compliance shall take place before the end of the five-year period. ii) Field check required for initial audit (5.4.1) iii) 5.7.1 The CBs shall establish a procedure for sampling methodology of all audits, where there are more than four (4) estates or scheme smallholders. However, for units that have less than four (4) estates, all estates shall be audited (for more detail see 5.7 Sampling for RSPO P&C certification iv) structure of auditing team: 4.8.8 Composition of an RSPO audit team (including NPP verification) shall ensure that the team collectively demonstrate sufficient oil palm expertise and knowledge of RSPO requirements including the legal, technical, environmental and social issues, and shall consist of auditors who as a team are: [...see document] vi) 5.10.1 The CB shall prepare an audit report in accordance with Annex 3. The CB is encouraged to use the generic RSPO audit checklist as published on the RSPO website or develop its own checklist based on the NI's requirements. vii) No unannounced audits
Stakeholder Consultation	Detailed stakeholder consultation under 5. Stakeholder consultation 5.6.6 The CB shall review whether oil palm operations have been established in areas that were previously owned by other users and/or are subject to customary rights of local communities and indigenous peoples. If applicable, the CB shall consult the interested parties directly to assess whether land transfers and/or land use agreements have been developed with their free, prior and informed consent and check compliance with the specific terms of such agreements. The CB shall have a mechanism in place to identify the interested parties and ensure a represented samples size of the interested parties are consulted in each audit. The CB shall keep track which party that has been interviewed in the previous audits to ensure proper coverage of the parties throughout the certification cycle.
Corruption mechanism	Not found
	SAI Platform - Farm Sustainability Assessment (FSA)
General Requirements	The verification process rigorously examines the Farm Management Group's system for monitoring and accounting sustainable volumes, the legitimacy of the Self-Assessment Questionnaires, and the Continuous Improvement plan based on the priority screening process. Upon completion of the audit, the farmer or Farm Management Group receives a Letter of Attestation, which substantiates their sustainability claim. Third-party auditors, who have qualifications in sustainability and agriculture, experience auditing various ISEAL agriculture standards, and have undergone FSA auditor training, conduct FSA verifications. A quality management system must be in place to control the FSA Verification Audits. The Verification Body must be ISO/IEC 17065 accredited for an FSA recognized standard, or must apply for accreditation at the same time as applying for approval to be an FSA VB. The certificate must be issued by an accreditation body that is recognized

D4.1 - Literature review and inventory of certification schemes and labels requirements

	by GLOBALG.A.P. For a list of these accreditation bodies, please see this link. For a list of recognised schemes please see the current "List of Verification Audit Schemes recognised by SAI Platform in the VB Approval Process" avail- able on the GLOBALG.A.P. Website. GLOBALG.A.P. manages the approval and maintenance of FSA Verification Bodies on behalf of SAI Platform. The Verification Body for FSA audits must ensure that their auditors meet the required training and experience criteria. They should have a sufficient number of qualified staff, including a Scheme Manager, an In-House Trainer, and at least one FSA Principal Auditor. The Scheme Manager and In-House Trainer can be the same person. The Verification Body is responsible for implementing updates to the FSA and training auditors accordingly. They must maintain records of training and updates received by auditors to demonstrate ongoing competence when requested by SAI Platform or an appointed organization managing the Verification Body Approval Process. The auditor should use a risk-based approach to determine the necessary evidence for verifying measures implemented at a farm. When selecting a verification body, it is essential to consider their experience with specific farms and commodities in the geographic region of operation. Language skills and familiarity with particular crops may also be important factors to consider. To ensure impartiality and confidentiality, a Verification Body must be separate from any other activities it is involved in. It is important to maintain the impartiality of audit personnel and keep the information obtained during audit activities confidential. Additionally, a Verification Body cannot offer paid FSA consultancy services to an organization for which they provide FSA verification services.
Auditing and Certification	The FSA implementation and verification process are governed by these reference documents, available in the FSA Resource Centre. FSA Implementation Framework FSA Self-Assessment Questionnaire FSA Requirements for FSA Verification Bodies and Auditors FSA Audit Guide for Stand-Alone Farms FSA Audit Guide for Farm Management Groups FSA Audit Control Points and Criteria The purpose of the FSA Verification Audit is to validate the correct implementation of the FSA, ensuring that the results of the FSA Self-Assessment accurately apply to the Stand-Alone Farm or the entire Farm Management Group (FMG). During the engagement stage, the Verification Body (VB) and Farm Management Group (FMG) Coordinator engage in dialogue and establish a clear contract that outlines audit activities, fees, and information disclosure. The VB conducts a Pre-Audit Check to ensure the FMG meets FSA requirements regarding setup and membership. If any issues arise, the VB notifies the FMG Coordinator, who is responsible for addressing them before the audit begins. The VB is in charge of randomly selecting farms for the Audit Self-Assessment Sample, without any stratification or risk assessment. The sample size is determined by the FMG's size, and the VB must keep a record of the selection process. The FSA Management System Audit focuses on verifying compliance with FSA requirements outlined in the FSA Implementation Framework. It assesses the systems and components used to govern, manage,

D4.1 - Literature review and inventory of certification schemes and labels requirements

	implement, and monitor the FSA. The audit activities include management interviews, document and record review, sample testing, and data checks. The VB provides the FMG Coordinator with an FSA Management System Audit report summarizing the findings, confirming whether the FSA Management System meets the requirements. If it does, the confirmation is valid for three years from the date of the Management System Audit. On-farm audits can only occur after the FMG and FSA Management System have been verified to meet FSA requirements. The number of farms audited depends on the number of Audit Self-Assessments. Farms are selected randomly. On-farm audits must commence within two weeks of the selection of the audit sample and within three months of the selection of the audit self-assessment sample. Once the selected farms complete the Audit Self-Assessment, their responses are forwarded to the auditor for review. The self-assessment questions are categorized as Essential, Intermediate, or Advanced. The FSA Performance Score is determined by the proportion of "YES" answers. After identifying priorities, a continuous improvement plan is developed, which becomes part of the FSA verification process. The FSA 3.0 FMS Audit Control Points and Criteria document outlines the points the auditor must investigate during the on-farm FSA Audit, including criteria and evidence for assessing compliance. The auditor verifies farm-level awareness of relevant issues and collects evidence, especially for small-scale farms or FMGs with a large number of small-scale farms. If third parties manage activities or policies, evidence must be provided to show their alignment with FSA requirements. A typical farm audit includes document review, management interviews, field visits, and worker interviews. The on-farm FSA Audit report summarizes the findings for each audited farm, including deviations from the self-assessment. A deviation is any change in a farm's answer resulting from an FSA verification audit. The FMG Coordinator must provide evidence of a negative change in performance level, and corrective actions are not allowed. The minimum required content for the on-farm FSA Audit report is provided in Appendix 2 of the FMG Audit Guidance document. A closing meeting with the FMG Coordinator must be held within six weeks after an Audit Review Meeting, and the minutes of this meeting must be included in the final audit report. A successful FSA Verification Audit results in a Letter of Attestation (LoA) that confirms the performance of the Stand-Alone Farm or FMG. The LoA includes the MFG Performance Level Claim, which indicates the percentage volume produced by the farm in the FMG that can be claimed at each FSA Performance Level during the LoA's validity period, which is a maximum of three years. The VB must register the LoA in the FSA Verification Database within 12 weeks of completing the audit. The FMG Coordinator must provide the VB with an annual report confirming that any changes in the FMG Composition do not exceed 10%.
Stakeholder Consultation	The information does not explicitly mention mechanisms for certification bodies to conduct stakeholder consultation. However, it suggests that Farm Management Groups encourage collaboration among farmers, which could potentially involve stakeholder consultation. Farm Management Groups encourage collaboration among farmers to address landscape-level issues that impact their broader environment. After completing the Self-Assessment Questionnaire alongside other farmers in

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	their group, growers undergo a priority screening process to identify areas for improvement in their performance.
Corruption mechanism	Not found
	Rainforest Alliance
General Requirements	2.2 PERSONNEL APPROVAL REQUIREMENTS (SA-R_GA-2-V1.2 Rules for certification bodies) Certifier Table 4: Certifier Requirements for Farm and Supply Chain Scope Several qualifications have been listed under the required or preferred ones for the audit team. These include but are not limited to ISO 9001 lead auditor course or ISO 22000 certified. They have completed at least 16 hours of social auditor training such as SA8000:2014, SMETA, ETI. They also should be knowledgeable in applicable local and national laws. Table 5: Additional Certifier Requirements for Farm Scope Table 6: Additional Certifier Requirements for Supply Chain Scope Risk Assessment mentioned separately, not as part of auditor competence except for social topics AR 4.1 Risk-based auditing of social topics (SA-R-GA-1-V1.3 Certification and Auditing Rules) 1.3 CB MANAGEMENT SYSTEM RULES Management of impartiality and conflict of interest 1.3.41 The CB shall have a written conflict of interest and impartiality management procedure that includes various requirements. Such as: • A written declaration • A conflict-of-interest disclosure policy • Auditor will not audit the same Certificate Holder for more than 2 consecutive years • Certification agreement Several requirements indicated for formulation of a defined certification agreement. They have listed them out as steps such as: • The CB shall include a provision allowing it to terminate the certification agreement in the event its authorization is suspended or cancelled. • The CB shall include a clause where it may stop the audit process in the event the applicant or certificate holder does not collaborate with the audit as required in the certification rules. • The CB shall include a provision for resolution of disputes related to certification decisions and related matters. In the event a CH disputes a certification decision or related matter, it must agree to first follow the CB's grievance procedure, and in the event that the disagreement continues, the CH must then submit the dispute to the Rainforest Alliance grievance procedure. The CH must agree that it will only take legal action against the Rainforest Alliance upon the final disposition of its dispute through the CB and the Rainforest Alliance grievance procedures.

Auditing and Certification	Rainforest alliance 2020 Certification and Auditing Rules documents methodology
	1.2 CERTIFICATION OPTIONS
	Additional rules for multi-site and multi-farm certification
	    4. VERIFICATION OF CONFORMITY
	    5. VERIFICATION METHOD-CB AUDIT
	• 2.15 Follow up audit
	2.16 Certification decision process

D4.1 - Literature review and inventory of certification schemes and labels requirements

	2.4 SAMPLING Annex AR2: Minimum requirements for document sampling All applicable policies to be checked and records such as purchase/sales contracts, MS Staff and training as well as the CH risk assessment, maps, approvals and sanctions. 2.13 Draft report and checklist The audit report consists of audit findings, evidence, list of member farms, data about workers, interviews and meeting logs. Surprise audits to be conducted on at least 10% of the Certificate Holders and the Certification Body will bear these costs.
Stakeholder Consultation	AR 4.2 Stakeholder consultation Requirement to perform a SC in Farm Standard audits that have risk of child and forced labour or very high risk of non-conformance for freedom of association.
Corruption mechanism	Ethical certification to prevent fraud and corruption (V1.2 Rules for certification bodies) Fraud is defined as "a knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment." They have requirement for CB to develop a "corporate culture of honesty and integrity" and prevent fraud that includes bribery, corruption, deliberate omission, usurpation and gifts/favours. It requires the creation of a public statement and documented mechanisms to detect fraud for parties to report anonymously. Fairtrade International and Fairtrade Textile Standard
	Sustainable Biomass Program (SBP)
General Requirements	Standard 3 outlines the requirements for Certification Bodies (CBs) to establish and manage their SBP certification activities. The CB must hold SBP accreditation according to ISO 17065 and implement the relevant requirements of Standard 3. This includes the scope of accreditation for SBP Standards 1, 2, and 4 related to feedstock sourcing and Chain of Custody. It is also recommended that the CB holds accreditation from Forest Stewardship Council® (FSC®) and/or Programme for the Endorsement of Forest Certification (PEFC). The CB is responsible for ensuring that auditors possess the necessary qualifications for evaluating compliance with the respective SBP Standards. Auditors evaluating Standards 1 and 2 and related documents should have tertiary education in a relevant discipline and professional experience, or secondary education and additional years of experience. Auditors evaluating Standard 6 must have at least two years of experience in biomass or biofuel life-cycle assessment and a strong understanding of the evaluation's scope. Active auditors must successfully complete SBP-approved training courses to maintain their competence, particularly after any revisions to SBP Standards. The CB should have a process for selecting and appointing an evaluation team, including a team leader and technical experts as needed. This process should consider the required competence to achieve evaluation objectives and ensure impartiality, following the relevant requirements of ISO 19011. The evaluation team assigned to assess compliance with SBP Standards should possess the necessary combined knowledge and experience. This includes expertise in land use criteria for evaluating Standards 1 and 2,

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	familiarity with GHG criteria and life-cycle assessment for evaluating Standard 6, and proficiency in CoC criteria for assessing Standard 4. The evaluation team for Standards 1 and 2, and/or related documents, should also have a comprehensive understanding of the local context of the Supply Base. This includes knowledge of ecological and social values, applicable laws and regulations, business management practices, supplier operations, the local forest resource, and appropriate language skills. At least one team member should have a minimum of three years of full-time experience in the forestry sector within the Supply Base region for these evaluations.
	Impartiality
	The SBP certification scheme comprises six Standards used for assessing and certifying Organizations. Accredited Certification Bodies (CBs) carry out these assessments independently. The development and revision of these Standards followed a rigorous process aligned with the ISEAL Standard-Setting Code of Good Practice, incorporating regulatory requirements, voluntary certification standards, and stakeholder input to ensure credibility.
	To uphold confidentiality and impartiality, auditors and technical experts involved in evaluations must have a written agreement with the CB. This agreement covers confidentiality, impartiality, and disclosure of any existing or prior relationships with the Organizations being evaluated. Impartiality requirements are integrated into the evaluation team selection process to ensure the chosen individuals are unbiased and objective. When subcontracting services, the CB must establish legally enforceable agreements with subcontractors. These agreements encompass confidentiality, conflict of interest identification and avoidance.
	The certification decision-making entity, designated by the CB, must adhere to rules that guarantee impartiality. These rules reinforce the fairness and objectivity of the certification decision-making process.
Auditing and Certification	SBP Standard 3: Requirements for Certification Bodies
	SBP Standard 3 outlines the requirements for conformity assessment of organizations against the SBP Standards, in addition to the ISO 17065 requirements. The certification body (CB) must ensure that auditors and technical experts have a comprehensive understanding of evaluation processes, certification requirements, and other relevant aspects. Access to up-to-date documented procedures and relevant information related to certification activities should be provided.
	During the planning of evaluations, the CB is responsible for furnishing applicants with all necessary information regarding the certification process and SBP certification requirements. Additionally, the CB must inform applicants about the normative requirements applicable to their evaluation.
	The CB must have documented procedures to determine the evaluation time required for each client's complete and effective evaluation of their scope of certification. These procedures include considerations for minimum requirements, on-site evaluation duration specifications, and minimum durations.
	In cases where the evaluation covers multiple certification schemes or different legal entities under common ownership being assessed simultaneously, the evaluation planning should allocate sufficient on-site time for each entity and system to ensure confidence in the SBP certification. When the SBP scope includes storage, logistics, and/or port facilities, the CB must categorize the sites and justify the sampling

methodology in the Public Summary Report. If risk ratings and/or RMMs need evaluation at the FMU and/or supplier level, the CB must calculate the sample using a provided formula. A documented sampling procedure considering intensity, scale, and risk is required.

For new applicants, the CB must conduct an initial evaluation on-site before issuing a certificate to the organization.

The CB makes certification decisions based on the evaluation of an organization's conformance with relevant SBP certification requirements. Non-conformances are identified and evaluated to determine whether they are minor or major. All identified non-conformances must be recorded in the evaluation report or associated checklists. Effective corrective actions are required for each non-conformance within specified timeframes. If non-conformances, particularly when combined with others, result in a fundamental failure to meet relevant requirements within the scope of evaluation, they are considered major. The CB may only issue or re-issue a certificate when all identified non-conformances (both major and minor) are closed. The presence of five or more major non-conformances during surveillance or re-evaluation will result in immediate certificate suspension.

Reporting activities include completing Public Summary Reports and updates in the Audit Portal. The CB must maintain accurate and complete records, including peer review comments and CB responses, which are available for evaluation by the Accreditation Body.

Prior to certification decisions, the draft evaluation report undergoes a formal peer review process for initial and re-evaluations, extensions of the SBE scope, and evaluations of suspended certificates with an SBE. The CB's evaluation report is reviewed by an independent Peer Reviewer selected from the approved list on the SBP website. The requirements for the peer review process are detailed in Standard 3.

The certification decision is based on evidence presented in the evaluation report, including corrective actions, peer review conclusions, and other relevant information. CBs should make and communicate certification decisions to the client within one month after the closing meeting of the evaluation.

SBP certificates have a maximum validity period of five (5) years. Requirements for certified organization certificates include specifications for the content of certificate information and permission to convey certain information.

Surveillance evaluations, conducted at least annually, monitor the client's continued conformance with certification requirements. A minimum of four on-site surveillance evaluations take place before the certificate expires.

Remote evaluations are applicable to operations that don't physically possess SBP-certified feedstock or biomass, label, alter, store, or re-package the products. The CB must have a procedure to determine whether surveillance evaluations against Standard 4, 5, and/or 6 are conducted remotely or on-site.

Waiving surveillance evaluations is possible in situations where no biomass has been produced, labelled, or sold with an SBP-claim since the last evaluation. CBs are limited to waiving a maximum of two consecutive surveillance evaluations.

Termination, scope revision, suspension, or withdrawal of certification are decided by independent individuals who review surveillance activities. If a suspension is not lifted within 12 months, the CB terminates the certificate.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	Complaints and appeals are handled by the CB to seek timely resolutions. Complaints are only accepted if they directly relate to allegations of non-conformance with SBP requirements.
Stakeholder Consultation	Irrespective of the presence of an *SBE* and for initial *evaluations* and *re-evaluations*, the *CB* shall provide the following information to SBP, at least one month prior to the start of the *evaluation*, for posting to the SBP website: the name and location of the entity to be assessed, scheduled dates of the evaluations and contact details for both the company and the CB (to facilitate comments from stakeholders to the CB). The *CB* shall review available *stakeholder* comments for evidence of conformance or potential *non-conformance* with relevant requirements before the *evaluation* takes place, in addition to other available sources of information. Information gathering shall include any information provided by SBP, the *Stakeholder Engagement Plan* from the Client, and actively collected *stakeholder* comments linked to specific questions and *risks* identified in the *SBE*. The results of the information gathering shall inform the *evaluation* topics, intensity and sample sites.
Corruption mechanism	Not found

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

9.3 Appendix - Transparency and Impartiality

CSLs	Transparency	Impartiality
Aquaculture Stewardship Council (ASC)	Principle 3 of the ASC farm standard covers social impacts. For instance, transparent contracts ensure that employees clearly understand the terms and conditions of their employment and contributes to transparency and accountability at a workplace level (ASC International, 2023b). The assessment procedure for ASC certification is independent, done by accredited certifiers, and allows for a high level of stakeholder engagement. Each farm audit is announced on the website in advance and all stakeholders — including the community, the public, NGOs and many others— are encouraged to submit information and data online at multiple points in the certification process. The auditor will hold site visits and solicit participants for public meetings near the audit sites and other locations as appropriate. The draft audit report can be viewed for 15 working days prior to the close of the process and anyone can raise an objection—which the CAB must consider prior to making a final decision— if so desired. The final report including non-conformities and corrective actions are also on the ASC website (ASC International, 2023e).	To guarantee impartiality the assessment of audits is done by independent third-party certifiers. The ASC is the standard holder, but it has no part to play in the certification process. It follows a third-party verification system— this type of certification is recognised around the world as the highest level of assessment— and all those seeking to become certified must be audited by qualified, external, independent assessors known as conformity assessment bodies (CABs) who operate with impartiality (ASC International, 2023e). It is simply not possible to buy ASC certification. Not only does the ASC not perform the audit, all fees for the audit process are agreed with the CAB and paid directly to the auditors. The ASC does not receive any money for any aspects of the audit or any pre-audit process a farm may choose to undertake. They only receive income from certificate holders in the form of a percentage of total sales of certified product sold with the ASC logo. The use of the logo is optional and it not a requirement of becoming ASC certified (ASC International, 2023a).
Better Cotton	The Better Cotton Claims Framework enables Members to make credible and positive claims about Better Cotton. It allows for flexible communications and aims to enable members to articulate a compelling story that is meaningful to them and their customers (Better Cotton, 2021).	They have a conflict of interest declaration, and appeal processes are designed under the Better Cotton Assurance Model: for example, the panel in charge of assurance is selected based on the impartiality criteria among other (Better Cotton, 2023a).
Bioplastic Feedstock Alliance (BFA)	BFA guiding principle is to be credible and transparent. Their level screenings assess the extent to which transparency is addressed at various levels based on the February 2022 Methodology for the Assessment of Bioplastic Feedstocks (Simon et al., 2022).	Since it is not a standard or a certification scheme but rather a scientific group that foster research on bioplastics, impartiality is not directly addressed in their content. Although, the members of the alliance are questionable in terms of sustainability claims (Nestlé, P&G, PEPSICO, etc.) (Bioplastic Feedstock Alliance, n.d).

HARMONITOR

Bonsucro	Increased use of digital technologies, such as blockchain, will improve transparency and visibility along supply chains and enable better identification and communication around sustainability and impact (Bonsucro, 2021). Bonsucro and the technology company, SupplyShift, launched Sugar Mapping, a platform to track and monitor their suppliers' social and environmental practices at mill and farm levels (Ferreira et al., 2021).	There is <u>a specific way to complain to certification bodies</u>, although this is not explained in detail on the Bonsucro website. Each auditor has different procedure which might eventually undermine impartiality. Policies on complaint resolutions are also available based on the standard map (Bonsucro, 2023).
BREEAM	<u>BREEAM's</u> transparency, robustness and rigour validates sustainability claims, supports data-driven solutions and provides assurance for disclosures and reporting requirements. Our vision is to provide built environment stakeholders with the information they need to develop and operate better performing assets. By utilising robust science, third-party assurance and flexible frameworks across the entire built environment lifecycle, BREEAM will support asset investors, owners and operators by unlocking valuable insights to inform decision making and achieve their sustainability and ESG goals (BRE Group, 2023a)	Our Assessors and APs are the professionals at the core of <u>BREEAM's community</u> and success. BREEAM professionals are built environment sustainability experts, they represent BREEAM within the market, gather valuable data and deliver quality assessments and insights, they drive sustainability solutions and provide insightful feedback and insights to continue to development of BREEAM (BRE Group, 2023b) Operate with transparency and record and report all complaints and prosecutions and associated corrective actions from the Framework Standard for Responsible Sourcing BES 6001: Issue 4.0 (BRE Global Limited, 2022).
Cradle to Cradle Certified	Cradle to Cradle Certified Product Standard development process is based on transparency, openness, and inclusiveness. Transparency (together with stakeholder engagement) is part of the social requirements to achieve the certification (Cradle to Cradle Innovation Institute, 2021).	Grievance Mechanisms: A mechanism is in place by which employees, customers, suppliers, and other stakeholders may safely report negative effects of business activities and operations and other social fairness concerns to the company to obtain redress for those impacts. This mechanism should have a non-retaliation policy, address the risks of negative impacts on people, be able to address concerns promptly in an understandable and transparent process for stakeholders, provide feedback to those concerned without risking retribution and includes accountability strategies (Cradle to Cradle Innovation Institute, 2021).

D4.1 - Literature review and inventory of certification schemes and labels requirements

EU Ecolabel - Paper	According to the ITC Standards Map certification and verification decisions are not publicly available (Standards Map, n.d.). <u>The Commission Decision for graphic paper and tissue paper/products</u> has specific requirements for information that should be included in the EU Ecolabel for which a declaration of compliance also needs to be submitted (European Commission, 2019). There is also <u>a whole manual</u> on how to use the logo of the EU Ecolabel appropriately, the specifications vary per type of paper (European Commission & EU Ecolabel Helpdesk, 2022).	The general <u>EU Ecolabel regulation</u> sets some impartiality requirements for competent bodies such as "Competent bodies shall ensure that the activities of their subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of their conformity assessment activities" or "The impartiality of the competent bodies, of their top level management and of the assessment personnel shall be guaranteed. The remuneration of the top-level management and assessment personnel of a competent body shall not depend on the number of assessments carried out or on the results of those assessments." (European Parliament & Council of the European Union, 2010). According to the ITC Standards Map complaints resolutions and disputes as well as complaint policies are publicly available (Standards Map, n.d.).
EU Ecolabel - Textiles	Each criteria contains detailed verification requirements which require the applicant to compile declarations, documentation, analyses, test reports and other evidence relating to the product(s) and their supply chain (European Commission, 2014). The validity of the license is based on verification upon application and, where specified under criterion 13, product testing which shall be submitted to competent bodies for verification. Changes in suppliers and production sites pertaining to licensed products shall be notified to competent bodies, together with supporting information to verify ongoing compliance with the license conditions (European Commission, 2014). However, according to the ITC Standards Map certification and verification decisions are not publicly available (Standards Map, n.d.). For the future, under the Ecodesign for Sustainable Products Regulation, the Commission proposes a transparency obligation requiring large companies to publicly disclose the number of products they discard and destroy, including textiles, and their further treatment in terms of preparing for reuse, recycling, incineration or landfilling (European Commission, 2022).	Independent verifiers or documentary evidence based on the auditing of cut/make/trim production sites (European Commission, 2014). The general <u>EU Ecolabel regulation</u> sets some impartiality requirements for competent bodies such as "Competent bodies shall ensure that the activities of their subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of their conformity assessment activities" or "The impartiality of the competent bodies, of their top level management and of the assessment personnel shall be guaranteed. The remuneration of the top-level management and assessment personnel of a competent body shall not depend on the number of assessments carried out or on the results of those assessments." (European Parliament & Council of the European Union, 2010). According to the ITC Standards Map complaints resolutions and disputes as well as complaint policies are not publicly available (Standards Map, n.d.).

Fairtrade International	Data has the potential to improve insights and allow people to take responsible action, whether farmers, shoppers or businesses. Prioritizes transparency and traceability, while making sure that producers have ownership of their own information first and foremost – what we call 'fair data' (Fairtrade International, 2022). Traceability means knowing the path a product has taken from farm to shelf, while transparency refers to insights into the conditions under which it was grown and traded. Our systems are carefully built and administered to support insights, balance privacy, and to overcome unequal access to market information that has historically disadvantaged small-scale producers. For instance, producer organizations have begun to store information about their Fairtrade Premium investments and impact in our FairInsight platform, which also allows them to efficiently share this information with their commercial partners. Meanwhile, we continue to develop FairLens as a data warehouse that provides sales and other supply chain information to stakeholders (Fairtrade International, 2022).	Maintaining the independence, consistency and impartiality of the certification and licensing processes on a global scale is part of our commitment to transparency and the integrity of Fairtrade (Fairtrade International, n.d.-a). Our assurance system includes a set of rules for how certification and licensing must be done, a way to check compliance with the rules, and a committee with representation of all our stakeholders that decides if the certifiers and licensing bodies continue to meet Fairtrade's expectations. Our assurance system was designed following **the requirements of ISEAL's Assurance Code** and builds on the requirements of **ISO17065**. Additionally, FLOCERT, the main independent certifier for Fairtrade, is accredited against ISO17065 by the German national Accreditation Body DakkS. An oversight committee is in place to define the assurance systems and oversee the performance of certifiers and licensing bodies. However, Fairtrade allows for exceptions on the standards and has a public exception policy although the yearly report deliberately talks about omissions and errors (Fairtrade International, n.d.-a).
Fairtrade International Textile Standard	Sharing audit results with workers (your company shares audit results with workers through trade union/elected worker representatives (or CC members) following each audit in a way that workers understand these results. Time is allowed for trade union/elected worker representatives to be able to understand the audit report and to inform and explain the final results to all workers. This takes place during working time, and it is ensured that workers do not lose income) and accepting audits (Your company accepts announced and unannounced audits of your premises, including all certified production units, and also contractually requires subcontracted premises to accept audits of their premises. You provide all necessary information in relation to Fairtrade Standards as requested by the certification body) (Fairtrade International, 2021).	The assurance model for the new Fairtrade Textile Standard addresses the weakness in certification with the following measures: • improving the competencies of auditors, including identification of fraud • strengthening the participation of worker in the process • identifying the root cause of non-compliances so these can be addressed, especially when they are related to the buying practices of brand owners, • maintaining a high level of scrutiny in terms of audit frequency and duration, including unannounced audits increase transparency in the overall process (Fairtrade International, 2016).

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

Forest Stewardship Council (FSC)

A commitment to the principles of FSC should be made publicly available by the interested organization (FSC, 2023).

Transparency is required in principle 8 about monitoring and assessment (FSC, 2023). The results of such process should be made publicly available. A whole report about monitoring and reporting contains a short chapter on transparency and public information (FSC, 2022). This publicly available information encompasses:

- A contact point for submission of any comments, questions, or complaints about M&E activities.
- A description of the current scope and boundaries of the M&E system, and if appropriate, the plan for expansion.
- An explanation of the scheme's strategies intended outcomes and impacts, and the most significant unintended effects.
- A list of all indicators being used in the M&E system.
- Links to the most relevant independent impact evaluations and their associated results.
- Results from internal outcome evaluations.

Moreover, the chain of custody system requires transparent flow of information in each stage of the production chain (FSC, 2021). Transparency is also required from certification bodies which shall disclose information publicly about: a) information about the certification body's scope of FSC accreditation; b) a description of the sources of funding and general information on the fees charged to clients; c) a list of bodies providing outsourced services to the certification body for FSC accredited certification programs; d) a description of the rights and duties of clients, including requirements, restrictions or limitations on the use of the certification body's name and FSC trademarks and on the ways of referring to the certification granted; e) information about procedures for handling complaints and appeals; f) a link to the FSC certification database (info.fsc.org); g) a link to the FSC normative documents for certification, according to the certification body's accreditation scope.

FSC requires the certified organization to prevent/resolve disputes over statutory/customary law out of court through stakeholder engagement if possible (FSC, 2023). Moreover, it requires a public commitment to not offer or receive bribes and compliance with anti-corruption measures/laws. There is a procedure for Processing Complaints in the FSC® Certification Scheme (FSC, 2014) that indicates dispute resolution systems and how to deal with complaints which never mentions the word impartiality. Instead, it mentions fairness once. Issues regarding the disclosure of the identity of the person making complaints might arise and the fact that for instance lodging complaints might be written in FSC languages excludes a segment of the population from filing one.

In the General requirements for FSC accredited certification bodies (FSC, 2015) a whole paragraph about impartiality is laid out, which requires the certification body to ensure impartiality beyond financial or commercial pressures by declaring conflicts of interest and risks to the certification body's impartiality. Moreover, a committee for safeguarding impartiality is in place. Other aspects of impartiality include financing, liability, non-discriminatory conditions, confidentiality and complaints and appeals (FSC, 2015).

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

GlobalG.A.P.	The benchmarking process includes a documentary desk review, a peer review and on-site assessments of certification systems applying for it. GLOBALG.A.P. believe this process to be transparent in the sense that identifies differences between GLOBALG.A.P. and other certification systems making stakeholders aware of them (GLOBALG.A.P., 2022). Benchmarking recognition should also be communicated transparently to stakeholders and made available in the GLOBALG.A.P. database.	Impartiality is mentioned as a requirement of the benchmarking process, for instance that certification bodies notify GLOBALG.A.P. and the certified body in case of management or ownership changes (GLOBALG.AP., 2022). GLOBALG.A.P. has a Certification Integrity Program (CIPRO) to assess periodically the performance of the certified schemes and eventually sanction them in case of scarce performance in an impartial way by following the sanctioning procedures also with the help of an Integrity Surveillance Committee (ISC). The code of conduct and confidentiality also addresses conflict of interests, lack of independence and interest management for benchmarking reviewers and assessors, and benchmarking committee members. In cases of appeal, other members of the benchmarking committee should conduct an impartial investigation for the secretariat. There is also a Brand Integrity Program (BIPRO) which detects any improper use of the GLOBALG.A.P. brand logo as well as any financial and contractual issues, non-authorized certification bodies and fraudulent certification based on the online certificate validation tool (GLOBALG.A.P., n.d.-a).
Green Gold Label (GGL)	The certification body shall be responsible, through legally enforceable commitments, for the management of all information obtained or created while carrying out certification activities (GGL, 2021). Except for information that the participant makes publicly available, or when agreed between the certification body and the participant (e.g., for the purpose of responding to complaints), all other information is considered proprietary information and shall be regarded as confidential. The certification body shall inform the participant, in advance, of the information it intends to place in the public domain.	No Green Gold Label Foundation staff is involved with, or responsible for, any part of the tasks and responsibilities that Control Union Certifications has as a GGL accredited Certification Body. This includes Green Gold Label Foundation staff not being involved or responsible for the following Certification Body activities: • Carrying out GGL audits as a Lead Auditor or as part of an audit team • Technical review of GGL audits and reports • Taking certification decisions relevant to the issuance, re-issuance, suspension or termination of any GGL certificate • Management of the GGL audit scheme This ensures that there is a clear separation between the role of scheme owner (Green Gold Label Foundation) and Certification Body conducting audits for the scheme and avoids any potential conflict of interests (GGL, n.d.). Impartiality and independency of auditors, the Advisory Council and certifiers is listed as a requirement in the certification regulation (GGL, 2021). There is also a complaints system in place in which the decision resolving the complaint or appeal shall be made by, or reviewed and approved by, person(s) not involved in the evaluation related to the complaint or appeal.

D4.1 - Literature review and inventory of certification schemes and labels requirements

ISCC EU & ISCC PLUS

Economic operator that wishes to be certified under ISCC must follow registration procedures and meet requirements outlined in the ISCC EU 102 System document (ISCC System GmbH, 2021a). Certification Bodies must meet the requirements and qualifications outlined in the ISCC EU 103 Requirements for Certification Bodies and Auditors to become recognised by the ISCC (ISCC System GmbH, 2021b).

List of publicly available information about ISCC explicitly includes a list of Certification Bodies and System Users ISCC shall publish the certificates on the website in a timely manner after monitoring the certification documents provided internally. ISCC updates the certificate information on the ISCC website every workday and ensures that information on withdrawn or suspended certificates is published without delay.

Upon a successful certification audit, a CB must compile a Summary Audit Report that are based on the ISCC audit procedures that must be used for audits. Summary Audit Reports are published on the ISCC website alongside the respective certificates.

Other type of information that should be disclosed transparently by ISCC includes: ISCC System documents, including fees and the ISCC Terms of Use, and the guidelines for audits (audit procedures), in the latest applicable version (with version number and date); an archive of the ISCC System Updates informing about adjustments and clarifications of ISCC requirements; Instructions for System Users on how to participate in the system; Information on the governance structure of ISCC, including details on the relevant bodies, ownership structure, and composition and experience of the Board of Directors; ISCC contact details; Options for stakeholders to give feedback about the standard and developments of the standard (public consultation); Contact form to submit complaints and description of the process for dealing with complaints and appeals; A list of all Certification Bodies cooperating with ISCC that are permitted to conduct ISCC audits, including contact details, the body responsible for accreditation or the entity or national public authority responsible for the recognition and monitoring of the Certification Body; A

Prior to any ISCC audit, the certification history of the System User must be evaluated by the Certification Body (CB). The CB and its auditors must be impartial and free of conflicts of interest.

Recognition by a competent national authority or ISO/IEC 17065 or ISO/IEC 17021 accreditation is a prerequisite for CB to cooperate with ISCC. Processes for setting up and conducting audits should be in line with the principles of relevant ISO standards document (ISCC System GmbH, 2021a).

ISCC has established a conflict resolution process to ensure that conflicts are handled in a consistent, impartial, non-discriminatory, user friendly, timely and effective manner. The conflict resolution process aims to ensure the integrity and reliability of the ISCC Certification Systems. Conflicts should always be solved at the lowest possible level and with direct participation of the parties involved in and affected by the conflict. Prior to initiating the ISCC conflict resolution process, affected parties should seek to resolve the conflict through direct dialogue. If dialogue between the parties involved does not resolve the conflict, the conflict resolution process as specified in this chapter can be instigated. ISCC's conflict resolution process consists of the two levels complaints and appeals. A complaint describes an expression of dissatisfaction with decisions or other activities of ISCC or an indication of non-compliance of System Users and CBs or other persons involved in an ISCC certification system with ISCC requirements or of a failure to follow ISCC policies and operating procedures. An appeal is a request for reconsideration of a decision made by ISCC based on a complaint.

If the complainant wishes to remain anonymous throughout the entire conflict resolution process, the complainant must request this when submitting the complaint and must give a good reason for this. If anonymity is granted by ISCC, all parties involved in the conflict resolution process will ensure that the identity of the complainant will not be disclosed throughout the process. Except from legal obligations to disclose information to authorities or courts, ISCC will not share any specific information regarding a conflict with any party not involved in the conflict resolution process while the investigation is ongoing. Accepted complaints will be analysed, investigated and decided on impartially and unbiased by ISCC management on a case-by-case basis. Unaccepted complaints can be appealed to. For this an arbitration system can be used.

Non-conformities and sanctions are also determined in the governance structure (ISCC System GmbH, 2021a). In particular, an integrity

	list of certified ISCC System Users, the scope of certification, information about the status of the certification (valid, expired, suspended or withdrawn) and copies of the certificates and Summary Audit Reports as issued by the Certification Bodies; A list of ISCC System Users being excluded from ISCC certification due to serious non-compliances with ISCC and the period of the exclusion; List of other voluntary schemes recognised under ISCC; Documentation of ISCC stakeholder meetings and other events including the annual ISCC Global Sustainability Conference; Documentation of ISCC participation in external events; Announcement of all ISCC Trainings and events; Regular newsletters and social media feeds informing all stakeholders about the latest ISCC activities and opportunities to get involved with ISCC.	program was designed to assess compliance and facilitate verification of claims.
Marine Stewardship Council (MSC)	Principle 3 covers the management system for which objectives of the fishery management policy need to be explicitly in line with the MSC standards (principle 1 and 2). Moreover, the decision-making needs to respond to serious/important/all issues identified in relevant research, monitoring, evaluation, and consultation, in a transparent, timely, and adaptive manner, and take account of the wider implications of decisions (MSC, 2022). A requirement for this is formal reporting to all interested stakeholders provides comprehensive information on fishery performance and management actions. However, this is only required at the SG100 level. Monitoring and performance evaluation are also conducted at different levels, ranging from some to key and all parts of the management system to occasional/regular internal/external review (MSC, 2022). A requirement of the chain of custody is to provide a transparent approach so that the CoC is considered credible by stakeholders (MSC, 2023). Interesting is the Transparency International CPI for the country considered that needs to be above 41 to be considered credible and score more points in the certification system.	The standards also set an approach to disputes which varies across SG. It is interesting to notice the differences between the different scoring systems (acceptance of court challenges, attempts to solve these challenges, or avoiding these legal disputes by rapidly implementing judicial decisions) (MSC, 2022). There is a MSC Complaints Procedure that sets that the investigator of a complaint cannot be a party whom the complaint was raised against and can be independent from MSC (to avoid for conflicts) (MSC, 2020).

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

PEFC International (Programme for the Endorsement of Forest Certification)

Standard 6.1 on Management requires that a summary of the management plan, appropriate to the scope and scale of forest management, shall be publicly available and shall include information on the general objectives and forest management principles (may exclude confidential and personal information) (PEFC, 2018). The standard requires that the organisation's management system shall include documented information required by the standard and determined by the organisation as being necessary for the effectiveness of the sustainable forest management system. The standard requires that the documented information is relevant, and updated as appropriate, to the activities of the organisation. A leadership commitment shall also be publicly available.

Record keeping is a requirement for CoC, including records of internal audits, reviews, non-conformities and corrective actions, complaints and their resolutions and the Due Diligence system (PEFC, 2020).

Credible certification requires certification decisions to be impartial, independent and competent. This means that standard setting, certification and accreditation must be completely separate in order to eliminate the risk of conflicts of interest and ensure the highest level of competency:

Standard setting, the process of defining certification requirements in collaboration with stakeholders, is undertaken by PEFC or regional and national forest certification systems.

Certification, the process of checking whether a forest manager or company fulfils the certification requirements, is carried out by a certification body.

Accreditation, the process of assessing the competence of the certification body, is carried out by an accreditation body with membership within the International Accreditation Forum (IAF) or an IAF regional accreditation group.

Entities wishing to obtain PEFC certification are required to demonstrate their conformity with PEFC endorsed standards. If compliance is demonstrated, the certification body issues a certificate valid up to five years, after which operators must become re-certified.

Additional checks are done through annual surveillance audits to proactively verify on-going compliance with our requirements. Only if practices and operations continually meet the requirements of PEFC endorsed standards do entities earn the right to make "PEFC-certified" claims and use the PEFC label.

PEFC is aware that, as with any programme or activity, there may be issues of nonconformity or non- compliance from time to time.

Complaints against certified entities are dealt with by the respective complaints and appeals procedures put in place by certification bodies. Issues that remain unresolved at this level should be raised with the respective complaints and appeals mechanisms of national accreditation bodies and thereafter - as a third level of appeal - with the IAF (PEFC, 2018).

HARMONITOR

REDcert, REDcert[2]	There is a whole section on Measures to ensure transparency and scheme integrity as well as prevent misuse and fraud in the scope and basic requirement for REDcertEU (2021). Transparency is addressed at the scheme representation, scheme membership, scheme administration and scheme participation level. Transparency is assured through information sharing of tools and information materials. For scheme members binding, verifiable, and transparent contracts are stipulated, which can be reinforced with legal means. Moreover, a database is in place to collect all the reporting documents (inspections, sanctions, market data, etc.) also required by EU Directives, as well as the certificates issued by RED. Transparency is also addressed in terms of language and translations, certified operators and certificates.	Part of the REDcertEU also reflects on scheme integrity and prevention of misuse and fraud specifically for certification bodies and scheme participants. Reporting requirements include modality and frequency of inspections, transparency in the application of non-compliance methods. There is a system in place to avoid "scheme hopping". Complaint management system and sanction systems (reprimand, warning, warning with contractual penalty, contractual fine of 30,000, and termination of the contract or damage payment) are also in place under the Schemes principles for Integrity Management (REDcertEU, 2021b). There is also a document "Scheme principles for neutral inspections" (REDcert, 2021).
Round Table on Responsible Soy Association (RTRS)	Producers need to have access to information, which enables them to know what the law requires them to do. Examples include having a register of laws, or access to relevant advice on legislation. Legal compliance should be verified through checking publicly available data on compliance where available (RTRS, 2022). Communication channels for complaints and grievances need to use local languages and appropriate means (e.g., Internet is not an appropriate mechanism for communication with communities that have no access to it). 4.1.5 A summary of the social and environmental assessment report shall be made available upon request.	Large producers shall have systems and a written policy in place to manage bribery risks in their organizations by mapping risks and training personnel (RTRS, 2022). In the case of disputed use rights; a comprehensive, participatory and documented community rights assessment is carried out. Where rights have been relinquished by traditional land users there is documented evidence that the affected communities are compensated subject to their free, prior, informed and documented consent.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Roundtable on Sustainable Biomaterials (RSB)

Principle 1 of legality: A legal register or equivalent system with all relevant applicable international, national and regional laws and regulations, and a register containing all evidence of legal compliance (e.g., permits, licenses, evidence of lease, concessions, etc.) and a system ensuring that auxiliary conditions are met (RSB, 2016). Documentation necessary to inform stakeholder positions shall be made freely available to stakeholders in a timely, open, transparent and accessible manner through distribution channels appropriate to the local conditions in accordance with the RSB Impact Assessment Guidelines. Management documents shall be publicly available, except where this is prevented by commercial confidentiality, of a proprietary nature or where disclosure of information would result in negative environmental or social outcomes.	Principle of legality: A system that ensures that all forms of bribery, conflicts of business interest and fraudulent practices are prohibited, including a written policy by the management and appropriate staff training (RBS, 2016). The grievance mechanism shall be a documented system for dealing with complaints and grievances, and which has the following characteristics: - The mechanism is communicated and made easily accessible to directly affected local communities. - Any grievances shall be acknowledged and dealt with in a timely manner. - The dispute-resolution mechanism shall be based on negotiation between affected parties and decisions shall be made on consensus. - Records of all grievances are kept, including how they were dealt with and the outcome of the process. Existing land rights and land-use rights, both formal and informal, shall be assessed, documented, and established. The right to use land for the operations shall be established only when these rights are determined. Free, Prior, and Informed Consent shall form the basis for all negotiated agreements for any compensation, acquisition, or voluntary relinquishment of rights by land users or owners for operations. Compensation for voluntary relinquishment and/or acquisition shall include appropriate balancing measures needed to preserve the ability of the persons concerned to sustain their livelihoods in an autonomous and dignified manner. Independent, qualified land valuation specialists shall be used for valuing all land and asset values.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Roundtable on Sustainable Palm Oil (RSPO)

The following documents shall be publicly available on the websites of the CB and/or the RSPO:

1. A summary report of a certification audit (Initial Certification, Surveillance or Recertification). The summary report shall exclude any information that is commercially confidential or whose disclosure would result in negative environmental or social outcomes. The report is made available on the RSPO's website in English, together with the certificate.
2. CB's procedures for complaints and grievances, including resolution mechanisms, on the CB's website.
3. The registry of all certified organisations, which shall include details of the scope of each certificate, on the RSPO and CB's websites.
4. The public notifications and NPP reports on the RSPO's website (RSPO, 2020).

Among the principles of RSPO is also Behave ethically and transparently which is measured by information and public availability (language and accessibility to stakeholders), communication and consultation (track records and documentation of procedures) and commitment to ethical conduct (recruitment, contracts, and compliance monitoring) (RSPO, 2018).

The RSPO certification systems for principles & criteria and RSPO independent smallholder standard talks about impartiality and conflict of interest related to: engagement with CBs, inclusion in CBs of companies associated with RSPO or working in the palm oil industry, tracking and records of potential conflicts of interest by CBs, independent committees in charge of reviewing impartiality procedures, time limitations in terms of relations of CBs with auditors and organizations being assessed and extra technical advice or resolution of complaints (RSPO, 2020).

Operate legally and respect rights is a principle on which RSPO bases its operations and well as respecting communities and human rights (2018). The latter encompasses a grievance system that is mutually agreed by all the affected parties that ensures anonymity without risk of reprisal or intimidation. Besides third-party mediators can be employed to support the process or act as observers, especially in the case of illiterate parties.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

SAI Platform - Farm Sustainability	SAI Platform aims to ensure maximum accountability between Commit- tees and Workstreams as well as to members and key stakeholders through meeting pre-readings, minutes, record keeping, annual reports, and normative documents (SAI Platform, 2021a). The Code of Conduct also requires members of the platform to not make any misleading or unsubstantiated claims and are encouraged to report annually on the progress of their agricultural activities (SAI Platform, 2020).	A complaint committee ensures competent and impartial handling of FSA-related complaints and grievances against SAI Platform or its service agents (Verification Bodies, Benchmarking Consultants) (SAI Platform, 2021a). The ComCo will exist of individuals who will make independent judgements based on their competences and experience, and without taking the interest of their employer into account. All Committee and Workstream members will act within the scope of the SAI Platform Anti-Trust Statement and the SAI Platform Code of Conduct. Review farm activities to assess and confirm compliance (SAI Platform, 2021b). Avoid working with organisations who do not act in compliance with the law. Remain up to date on legislative changes and take steps to remain compliant as requirements change. Ensure awareness of and compliance with applicable international conventions. Promotion of proprietary solutions is considered conflict of interest (SAI Platform, 2020).

D4.1 - Literature review and inventory of certification schemes and labels requirements

| Sustainable Agriculture Network (SAN) | Among the goals of the strategic plan are:
- Systematically collect production and operational data to assist farmers in sustainable farm investment via insights about production and business performance.
Target: 10 projects using the iHub for systematic data collection
- Develop new and/or optimize existing tools and methodologies to support sustainably sourced commodities and supply chain transparency.
Target: A newly developed or optimized methodology or tool (SAN, 2019).
Operations review and update the SEMS regularly to accurately reflect the reality of their operations, workforce, and productive systems (SAN, 2021b).
Operations document and keep records of all training activities, including information about:
– training topic;
– number of women and men trained; and
– attestation of each worker that s/he participated in the training.
For harvest and post-harvest management: Operations document all processing processes conducted within their scope, including: the personnel in charge of the processing activities and description of the processing activities; a process diagram or flow chart; a map or croquis of their processing facilities; and facilities.
Operations keep records of all hired workers, including basic information (worker's name, gender, hire date, and age), working conditions (job type or description of tasks, number of regular working hours per period, and their gross and net pay for regularly worked hours, or the agreed pay rate), and labour agreement (signed or marked by the worker). | Operations keep records of all hired workers, including basic information (worker's name, gender, hire date, and age), working conditions (job type or description of tasks, number of regular working hours per period, and their gross and net pay for regularly worked hours, or the agreed pay rate), and labour agreement (signed or marked by the worker) (SAN, 2021). |

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Sustainable Biomass Program (SBP)

Transparency is one of the main values of the SBP. For example, when evaluation the feedstock risks of non-compliance, Biomass Producers (BP) should report on stakeholder consultation and provide a public summary of the assessment (SBP, 2022). Transparency along the supply chain is a main impact that the SBP certification wants to achieve (the sustainability characteristics, including energy and carbon data, of the biomass). This is fostered by sharing information with stakeholders and provide opportunities for them to engage with that information. The theory of change of SBP also includes data and information for responsible choices.

To deliver assurance, which increases both the impartiality and robustness of the SBP certification scheme. Our approach means that SBP has no direct involvement in the certification decision-making process.

We require independent Certification Bodies (CBs) to become accredited and subsequently approved by SBP before they can offer SBP certification services to prospective Certificate Holders (CHs). Since 2016, the SBP assurance program has been outsourced to our assurance partner, Assurance Services International (ASI), a specialist assurance and accreditation body in the field of voluntary social and environmental standards.

As the manager of the assurance program, ASI is responsible for the accreditation of CBs. Once accredited, CBs carry out conformity assessments of Biomass Producers', Traders' and End-users' management systems through audit and field verification. Such assessment assures that all CHs meet the requirements of our Standards. CBs also ensure that stakeholders' views are taken into account. ASI monitors all CBs through regular assessment, based on the ASI Surveillance and Sampling Procedure, to ensure that the auditing processes and procedures meet expectations, are consistent across all accredited CBs and that quality thresholds are met. Due to the COVID-19 pandemic, many assessments were carried out remotely by ASI or with the use of a local facilitator and the ASI assessor remote. All head office assessments and half of the witness assessments were carried out remotely.

Since managing the SBP assurance program, ASI has successfully accredited five CBs (SBP, 2022).

Another way to assure impartiality is the equal weight given to both civil society and commercial interests. This is reflected for example in the standards committee which is co-chaired by representatives of both fields.

D4.1 - Literature review and inventory of certification schemes and labels requirements

9.4 Appendix - Collaboration and Stakeholder Engagement

CSLs	Collaboration	Stakeholder Engagement
Aquaculture Stewardship Council (ASC)	<u>Representatives</u> from the private and public sector—including academia, NGO's, and the industry — serve on the ASC Board of Trustees. The Technical Advisory Group support the Board of Trustees providing technical expertise from a range of aquaculture systems as well as knowledge of managing issues ASC Standards seeks to minimise. The TAG is further supported by Technical Working Groups (TWG) and Ad-hoc Advisory Groups (AAG), that provide the TAG with recommendations on specific technical developments. Besides this multi-stakeholder collaboration ASC is completely independent and is committed to transparency in all operational matters (ASC International, 2023d).	<u>The ASC standards were initiated through the Aquaculture Dialogue</u>: an open and transparent process with all meetings open to the public and held in various locations around the world and all meeting notes and information was posted to the internet. The process resulted in standards for one or a range of major aquaculture species groups that are science-based, performance-based and metrics-based and able to be applied globally to aquaculture production systems, covering many types, locations and scales of aquaculture operations (ASC International, 2022). At ASC, at least two rounds of consultations are held when developing **new standards** – but that's not all. They're also used for reviewing or updating current standards. They even form part of **every single farm** certification. Part of the audit process is a period of public consultation where anyone can have their say on the farm (ASC International, 2023c). Trust is hugely important to ASC – it is because of the trust in our label that consumers and retailers seek it out, which rewards certified farmers and encourages more to follow suit. Without meaningful engagement, this trust is hard to build. One way to ensure engagement is through public consultations – taking the time to invite opinions and suggestions from all interested stakeholders (ASC International, 2022).

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Better Cotton	<u>Network of close to 60 field-level partners in 26 countries</u>, including farm workers, sharecroppers and all those connected with the growing of cotton, as well as more than 2.2 million licensed Better Cotton Farmers. Partners could be any of the following: • National or regional producer organisations like ABRAPA in Brazil, APROCA in Mali and Cotton Australia. • Governments and governmental bodies involved with their cotton industries, like The Cotton and Oilseeds Institute of Mozambique. • Initiatives that grow, promote and sell Better Cotton like Turkey's IPUD and Cotton Made in Africa, managed by Aid by Trade Foundation. They can be not-for-profit organisations, government bodies, private companies or even private sector foundations. What they have in common is proven expertise and deep experience in helping farming communities develop the skills and knowledge they need to raise yields sustainably – helping them to protect and restore the environment, while improving their livelihoods (Better Cotton, 2022).	There is <u>a rigorous endorsement process</u> for organisations who want to become Programme Partners to ensure that they are aligned with the Better Cotton mission. We regularly review Programme Partners' performance and provide guidance as they train and support Better Cotton Farmers and farming communities. Better Cotton operates a comprehensive train-the-trainer programme for Programme Partners on how to implement sustainable farming practices and grow Better Cotton. We encourage and foster learning between Programme Partners through the sharing of best practices (Better Cotton, 2023b).
Bioplastic Feedstock Alliance (BFA)	The BFA provides a community for scientists, companies, policy-makers, nongovernmental organizations (NGOs), and others to explore the risks and opportunities of biobased and biodegradable plastic. Through research, collaboration, and education, the group strives to guide the sourcing of feedstocks for biobased plastic in order to establish a sustainable flow of materials, creating lasting value for present and future generations (Simon et al., 2022).	The BFA Guiding Principles for governance state that it is necessary to actively engage a diverse set of stakeholders who are affected by biobased plastic production. All the survey level screenings on different aspects such as food security, legal procedures, local and indigenous communities, etc. include stakeholder engagement aspects regarding FPIC, consultation, participation (Simon et al., 2022).

D4.1 - Literature review and inventory of certification schemes and labels requirements

Bonsucro

Strategies are developed in collaboration with external consultants, Change Agency, and a Steering Committee drawn from the Board and the executive leadership. Interesting remarks about collaboration and competition at the same time with other certification schemes. Working collaboratively with farmers, millers, traders, end users, civil society, government, and other sustainability initiatives to scale sustainability across the sector and landscapes. Collaboration is central to our identity as a multi-stakeholder initiative with a global membership drawn from all parts of the sugarcane sector with an interest in sustainability. Our success as a standard and as a platform requires us to convene, learn and share with like-minded organisations (Bonsucro, 2021).	Bonsucro offers different Value Propositions for different member and stakeholder groups (farmers, mills, traders, end users, donors & funders, civil society, governments), aligned to their respective interests, locations and ambitions. Stakeholder consultation is used, and stakeholder demands are considered (for example for the Production Standard Revision). Multi-stakeholder initiatives are mentioned often. Where possible, we will look to leverage the connections of Bonsucro member companies, and to align our policy influencing agenda and actions with other compatible organisations – particularly within ISEAL – to improve access and effectiveness. This will mean engaging new audiences - particularly policymakers and the financial sector – and ramping up our partnering activity with industry bodies, international organisations, academic institutions and campaigning groups. We will prioritise audiences by type, role and footprint as we re-develop our Theory of Change – with particular focus on investors and asset managers with an active interest in ESG and who are receptive to our specialist sector expertise and convening activity on critical issues such as climate or human rights (Bonsucro, 2021).

D4.1 - Literature review and inventory of certification schemes and labels requirements

BREEAM

On their website you can find specific pages that explain different types of collaborations. Moreover, they also had a Constructing Excelled Performance Measurement forum in 2020 focused on measuring collaboration based on six critical success factors: Early involvement, Selection by Long-Term Value, Aligned Commercial Arrangements, Common Processes and Tools, Performance Measurement, Long Term Relationships which can be summarized in Common Vision and Leadership, Collaborative Processes and Tools and Collaborative Culture and Behaviours (Katepaul, 2021).

Working together, Constructing Excellence and BRE SmartSite have produced an online performance measurement and productivity software tool: SmartSite KPIs. It has been developed in collaboration with and under the strategic direction of Constructing Excellence's cross-industry membership.

The software enables an organisation to input their project benchmark performance data and compare this against the rest of the construction industry using the established and nationally recognised Constructing Excellence construction KPIs.

SmartSite KPIs is a modern digital tool using recognised methodology for benchmarking the performance of your projects and organisation. It provides users with evidence of performance when compared to the rest of the industry. The software enables systematic operational improvement by measuring business critical success factors (Ashikhmina & Ashikhmina, 2022).

BREEAM partners with our National Scheme Operators (NSOs) and other organisations to help deliver and promote improved asset performance.

National Scheme Operators (NSOs) are organisations which operate adapted, country specific BREEAM products under licence from BRE Global Ltd. The products are adapted to local conditions, translated into the local language, and aligned with the country's building regulations.

NSO's support the local adaptation and adoption of BREEAM through:

- Local knowledge: information and understanding of the industry that can only be obtained by being present in a territory.
- Market presence: an established, well-respected company with good standing in the sustainability and construction industries.
- Local stakeholder engagement: a network of contacts within the industry that can advise on the development and direction of BREEAM.

Currently working on the development of the BREEAM platform that will provide access to all tools for stakeholders (BRE Group, 2023b).

D4.1 - Literature review and inventory of certification schemes and labels requirements

Cradle to Cradle Certified	Collaboration to solve social issues: Collaboration must be with a multi-stakeholder program or consortium working on a common goal to comprehensively address a social issue. The applicant must actively participate for the full certification period. The initiative selected must: 1. Support implementation of the company's social strategy and policy. 2. Aim to drive progress within an industry or across multiple industries. 3. Ensure that ground rules for the partnership allow for adequate voice for all participants. 4. Include ongoing assessment of partnership impact (Cradle to Cradle Innovation Institute, 2021).	Among the different requirements for social standards, aspects of direct and indirect stakeholder engagement include investment in social impact, fostering a culture of social fairness during recruitment, training, remuneration, performance evaluation, and incentive structures, and demonstrating commitment and support for establishing and maintaining a culture whereby employees and business partners are able to achieve high levels of social performance (Cradle to Cradle Innovation Institute, 2021).
EU Ecolabel - Paper	Could not find specific mentions of collaboration, although it is indirectly mentioned that the assessing competent bodies have to collaborate closely with the EU Ecolabel applicants (European Commission, 2020). Considering that the effects of the certification have consequences for a range of fields (forest conservation, circular economy, recycling) collaboration among different partners is crucial to achieve the certification.	Training is specifically mentioned in the Commission Decision (EU) 2020/1803 by "all relevant members of staff participating in the day-to-day operation of the production site shall be given the knowledge necessary to ensure that the Ecolabel requirements are fulfilled and continuously improved" (European Commission, 2020).
EU Ecolabel - Textiles	A collaborative tool has been used to co-create transition pathways with stakeholders in the textile industry for designing the Strategy for Sustainable and Circular Textiles in 2022. Furthermore, the Commission will provide support through joint initiatives and projects to step up collaborations between all relevant actors, notably customs and market surveillance authorities, industry and testing laboratories in the textiles ecosystem, with capacity building under the Single Market Programme, ensuring the use of digital tools for market surveillance and setting uniform conditions and frequency of checks for certain products (European Commission, 2022).	Corporate Social Responsibility: Compliance of the applicants' selected cut/make/trim suppliers with the defined ILO standards (European Commission, 2014). The EU has been discussion a Strategy for Sustainable and Circular Textiles in 2022 and started a process od co-creation with stakeholders to strengthen the current eco-labelling mechanisms for textiles (European Commission, 2022).. Moreover, the Commission will, in the context of the Transition Pathway, engage with stakeholders to facilitate the scaling up of resource-efficient manufacturing processes, reuse, repair and other new circular business models in the textiles sector (European Commission, 2022).

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Fairtrade International	"Radical collaboration powers deep impact" is one of the three key tenets for the global 2021-2025 strategy of Fairtrade. For example, new ways of collaborating and tapping into expertise across the Fairtrade system, including centres of excellence in climate change, advocacy, and human rights and environmental due diligence. In 2021, we strengthened collaboration to develop data solutions for producers, commercial partners, and internal analysis. Fourteen Board members and 107 staff members from the three regional Fairtrade producer networks gained new skills in good governance, agile methodologies, financial management, value chain development and many other areas, so they can increase the impact of Fairtrade programmes and services. Financial support from the European Union has made possible many activities to strengthen our system and build support for fair trade globally through partnerships and advocacy (Fairtrade International, 2022).In late 2021, we launched a partnership with IDH sustainable trade initiative based on their salary matrix, a web-based tool that uses wage data to show the gap to the relevant region-specific living wage benchmark. With the ability of Fairtrade's independent certifier, FLOCERT, to verify wage payments, several retailers are collaborating with Fairtrade to pay a 'living wage differential' in proportion to the volumes they source, to pay their share of closing the living wage gap.

More than 150 collaboration programmes up to date (Fairtrade International, 2022). | The tools and reports made by Fairtrade International are often aimed at a wide variety of stakeholders with the intent of supporting and guiding them (Fairtrade International, 2022). The Fairtrade certified producer organizations tend to be more transparent and engage more widely with stakeholders. Compared to their non-certified counter-parts, Fairtrade producers have more financial resources and capacity to carry out democratic processes, thanks in part to the way they manage the Fairtrade Premium (Mauthofer and Santos, 2022). |
| **Fairtrade International Textile Standard** | Collaboration though the supply chain is mentioned as part of the bigger Fairtrade Textile Programme which mentions business, suppliers and factories, but also NGO's, complaint committees and trade unions to support workers' rights, and recognition of other standards such as SA 8000 (Fairtrade International, n.d-b). | The standard is designed for the intent of empower workers & small producers and foster sustainable livelihoods through among the others with good governance (Fairtrade International, 2021). To do this workers awareness about labour rights and Fairtrade, training on labour legislation and negotiation, skill development, women focused training and capacity building, equity and crèche facilities are requirements to achieve the certification (Fairtrade International, 2021). |

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

◇◇◇ HARMONITOR

Forest Stewardship Council (FSC)	FSC stresses collaboration with indigenous communities and other stakeholders for the achievement of proper management of the forest (FSC, 2023). Moreover, the principles set by FSC need to be used in conjunction with local, national, and international laws. Collaboration within the different departments of FSC is steered, for example Technology and Information Units (TIU) collaborate with supply chain and IT systems to ensure that monitoring, evaluation and learning is handled properly specifically in the case of disputes resolution (FSC, 2022). Collaborations with external researchers are also undertaken, having a designed platform for it which is the FSC Research Portal (FSC, 2022).	Engagement with local communities is mentioned quite often in the FSC standards. Principle 7 of the general principles and standards of FSC focuses on management planning and distinguishes between affected and interested stakeholders (FSC, 2023). The certified organization shall conduct and report on affected stakeholder engagement. Stakeholders are also explicitly mentioned in principle 9 about High Conservation Values to assess firstly the value of a certain area, then to co-develop management strategies and finally to monitor the effects of the adopted practice (FSC, 2023). Aspects of fair compensation and grievance mechanisms are also mentioned. Training to ensure staff competence as well as focus on workers' livelihood is mentioned in the CoC (FSC, 2021).
GlobalG.A.P.	GLOBALG.A.P. is one of the world's leading systems for Good Agricultural Practices certification, with more than 20 years of experience. It is a member-driven organization with over 50 international and globally operating strong retailers and food service providers, more than 200 producer and supplier companies, and over 150 associate members, along with a food value-chain member base (GLOBALG.A.P., n.d.-b). Examples of collaborations include: GLOBALG.A.P. TOUR a platform for the local food chain industry to connect with local and global stakeholders, localg.a.p., the capacity building program to gradually achieve GLOBALG.A.P. certification, and Farm Assurer mentorship supporting Farm Assurers in the assessment and implementation of GLOBALG.A.P.	Applicant schemes are required to deliver normative documents to GLOBALG.A.P. whose drafting should include participation or review by technically competent representatives of stakeholders and be subject to public consultation (GLOBALG.A.P., 2022). Moreover, the benchmarking process of GLOBALG.A.P. was developed together with stakeholders (technical committees, focus groups, and open public discussion) (GLOBALG.A.P., n.d.-d). GLOBALG.A.P. is market-driven – members set incentives for producers to adopt good agricultural practices. GLOBALG.A.P supports producers in meeting the requirements of their future customers to improve market integration in a two-way inclusion: bottom-up through incentives, as producers need to want to be included, and top-down by making services and tools available to empower people (GLOBALG.A.P., n.d.-c).
Green Gold Label (GGL)	Not much information on collaboration can be found on the GGL website and documents, besides the governance structure.	Stakeholder consultation is conducted when major changes to the GGL scheme happen (specifically related to requirements in a standard). Moreover, interested parties can provide feedback trough the GGL website (GGL, 2021).

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

ISCC EU & ISCC PLUS	Partnerships explicitly mentioned in their website are: aireg – Aviation Initiative for Renewable Energy in Germany, Food Security Standard (FSS), Forum for Sustainable Palm Oil (FONAP), Sustainability Assurance & Innovation Alliance (SUSTAIN), Sustainable Cotton Challenge 2025, Tropical Forest Alliance (TFA), UN Global Compact (ISCC System, n.d.-b). International associations, corporations, research institutions and NGOs from around the world have been involved in the development of ISCC in order to meet high demands regarding social and ecological sustainability as well as to ensure high practicality and cost effectiveness. 250+ stakeholders developed ISCC, ISCC Association with currently 200+ members, continuous stakeholder dialogue with 100+ events, regional and technical stakeholder committees in Europe, Asia/Pacific, North America and South America Compact (ISCC System, n.d.-a).	ISCC guarantees adherence with the multi-stakeholder process, which includes all types of companies from all sectors and from across the entire supply chain that ISCC is active in, Non-Governmental Organisations (NGOs), scientific institutions, research and other organisations, representatives from the public sector or individuals who are involved with ISCC and who support its goals (ISCC System GmbH, 2021a). General assembly include representatives of Biomass Producers and Processors, Trade, Logistics and other System Users and NGOs, Social Sector, Science and Research, Public Sector. The board is made by 2 representatives of each stakeholder group to ensure equal representation. Stakeholders can be engaged in ISCC in different ways: by becoming members in the ISCC Association, by participating in Stakeholder Committees, the regional stakeholder dialogue and Working Groups, or by giving feedback to ISCC through public consultation, via email, over the telephone or in person. Certification Bodies are also considered important stakeholders which cannot become members of ISCC due to conflict of interest but can participate in committees, working groups and events (ISCC System GmbH, 2021a). Training programs are another way of getting involved with ISCC.
Marine Stewardship Council (MSC)	The fishery is subject to an effective management system that respects local, national, and international laws and standards, and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable (MSC, 2022). Other documents on which the MSC Fisheries Standard is based are the UN FAO Code of Conduct, The Global Sustainable Seafood Initiative, ISEAL, International Standards Organisation (17011, 17065, 19011) and the World Trade Organization Technical barriers to trade agreement (MSC, n.d.). Moreover, fishery assessment reports are peer-reviewed by independent scientists from the Peer Review College.	In Principle 3, there is a requirement for consultation, roles and responsibilities (MSC, 2022). With international consultation with stakeholders, the MSC has developed standards for sustainable fishing and seafood traceability. The CoC requires all the relevant personnel to understand and apply the standards and for these interviews shall be conducted by auditors with them (MSC, 2023). Trainings for auditors are also a requirement. To facilitate stakeholder involvement, a fishery assessment against the MSC Fisheries Standard includes: - an early announcement of assessments to give stakeholders time to participate - mandatory opportunities for stakeholder input to assessments - a stage where CABs are required to actively seek out, consider and respond to stakeholder input - a requirement that every stage in an individual fishery assessment process is made public on the MSC Track a Fishery website. - an objection and complaints procedure so stakeholders who have an issue with the way an assessment has been carried out can raise official objections or complaints (MSC, n.d.).

PEFC International (Programme for the Endorsement of Forest Certification)	PEFC chain of custody is based on ISO and EU principles, regulations, and requirements (PEFC, 2020). The requirements for Sustainable Forest Management are based on ILO Conventions, ISO standards, United Nations Declarations on Human Rights and Indigenous Rights and the Stockholm Convention (PEFC, 2018).	The Requirements for Sustainable Forest Management have been developed using an open, transparent, consultative and consensus-based process and including a broad range of stakeholders (PEFC, 2018). 6.3.4.4 The standard requires that the organisation is committed to equal opportunities, non-discrimination and freedom from workplace harassment. Gender equality shall be promoted. **7.2.1** The standard requires that forest managers, contractors, employees and forest owners shall be provided with sufficient information and kept up-to-date through continuous training in relation to sustainable forest management, as a precondition for all management planning and practices described in this benchmark. PEFC offers a wide variety of opportunities and channels to ensure that everyone interested can be involved and stay up-to-date. These may include: Participation in a standard setting working group. Working groups are the most powerful institution in the process as participants are responsible for the core of the revision work; Expert Forums, open to the public, to inform the working group; Regular updates, published on the PEFC website and disseminated through our newsletter and social media channels, keep everyone informed; Stakeholder conferences and dialogues may offer further opportunities to contribute to the process; The enquiry draft is subject to a 60-day global public consultation.
REDcert, REDcert²	REDcert² certification is based on the requirements of the REDcert-EU scheme and the criteria of SAI (Sustainable Agriculture Initiative). REDcert² is one of the few sustainability certification schemes that can be applied to all phases - from the farmer to supply and trade. REDcert² has been awarded the highest SAI benchmark result "Gold" for the agricultural phase in many European countries and the scheme meets the "Silver" level in many other countries (Kahn, n.d.).	REDcertEU needs to report on stakeholder involvement particularly as regards the consultation indigenous and local communities prior to decision making during the drafting and reviewing of the scheme as well as during inspections and the response to their contributions (REDcert-EU, 2021). Other ways of stakeholder involvement are technical support and trainings at different levels (employees of schemes participants, inspectors, or on specific aspects of the certification, e.g., GHG) (Kahn, n.d.-b).

HARMONITOR

Round Table on Responsible Soy Association (RTRS)	References: ILO Convention 155 on Occupational Safety and Health; ILO Convention 184 on Safety and Health in Agriculture; ILO Recommendation 192 on Safety and Health in Agriculture. Collaboration with institutions that carry out certification activities is specifically referred to for restoring native vegetation. Among the organizations with whom RTRS collaborated: the EU, the UK, Germany, United Nations Economic Commission for Europe (UNECE), Collaborative Soy Initiative (CSI), and universities as well (RTRS, 2021).	Multi-stakeholder development process, which involved representatives from the three RTRS membership constituencies, and included several public consultation periods (RTRS, 2022). Moreover, there is a policy in place that shows the farm's commitment to not engage in, support, or tolerate any form of discrimination. Whenever possible, there is collaboration with training programs for the local population (including, for example, indigenous peoples). Stakeholder consultations should also be conducted to inform social and environmental assessments of the organization that wants to be certified.
Roundtable on Sustainable Biomaterials (RSB)	The principles and criteria mention ILO conventions (ILO 111, ILO 184), respect for areas of high conservation values (IUCN, UNESCO, Ramsar Convention, Natura 2000), WHO indications and FAO guidelines on pesticide use (RSB, 2016).	The Roundtable on Sustainable Biomaterials (RSB) is a global, multi stakeholder independent organisation (RSB, 2017). Free, Prior & Informed Consent (FPIC) shall form the basis for the process to be followed during all stakeholder consultation (all locally affected stakeholders, local leaders, representatives of community and indigenous people groups and all relevant stakeholders), which shall be gender sensitive and result in consensus-driven negotiated agreements (RSB, 2016). Participatory methodologies described in the RSB Impact Assessment shall be used to ensure meaningful stakeholder engagement. Special attention shall be made to ensure that women, youth, elders, indigenous and vulnerable people can participate meaningfully in meetings and negotiations. Where the need is identified by the impact assessment facilitator, there shall be informal workshops to build local understanding in the community of the processes that may impact them directly to aid meaningful engagement. Training and capacity building should also be offered to workers according to principles and criteria.

D4.1 - Literature review and inventory of certification schemes and labels requirements

Roundtable on Sustainable Palm Oil (RSPO)	RSPO is a global, multi-stake holder initiative on sustainable palm oil production and use. Members of the RSPO and participants in its activities come from many different backgrounds, including plantation companies, manufacturers and retailers of oil palm products, environmental and social non-governmental organisations (NGOs), and from many countries that produce or use oil palm products (RSPO, 2020). The RSPO is a full member of the ISEAL Alliance, the global membership organisation for sustainability standards. Collaboration with local governments and other palm oil certification schemes (ISPO) has also been endorsed to facilitate the integration of smallholders in the scheme (RSPO, 2023).	Stakeholder consultations are part of the certification procedure: "The CB's procedures for certification audit shall include a requirement to gather evidence from relevant stakeholders, designed to ensure that all relevant issues concerning compliance with the RSPO P&C are identified. Relevant stakeholders include but are not limited to statutory bodies, indigenous peoples, local communities (including women representatives, displaced communities), workers and workers' organisations (including migrant workers), smallholders, and local and national NGOs. A summary of this evidence shall be incorporated into the public summary report of the certification assessment" (RSPO, 2020). A crucial way of engagement is FPIC especially when new plantations are planned (RSPO, 2018). A comprehensive process should be in place, including full respect for legal and customary rights to the territories, lands and resources via local communities' own representative institutions, with all the relevant information and documents made available, with option of resourced access to independent advice through a documented, long-term and two-way process of consultation and negotiation. Smallholders' inclusion is also reflected in clear contracts, capacity building, and support (RSPO, 2018).
SAI Platform - Farm Sustainability	Work with local communities to promote regional initiatives and implement management systems that are adapted to local conditions (SAI Platform, 2021b). Collaborate with organisations in the region to develop and implement living wage and income frameworks. Provide access to financial support and investments, directly or through partnerships with organisations and companies (SAI Platform, 2021b).	Ensure awareness and protection of endangered species, by training farmer, workers and the local community (SAI Platform, 2021b). Ensure activities provide, where possible, economic benefits to local communities, such as education and training, infrastructure development, support for young and diverse farmers, and catchment approach to environmental challenges. Ensure all applicable legal requirements are understood by farmers as well as farm workers. Provide training to farmers and workers on the full range of applicable legislation. Ensure there is no discrimination based on ethnic groups, national origin, religion, disability, gender, sexual orientation, worker organisations or political affiliation.

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

Sustainable Agriculture Network (SAN)	Signature projects want to support businesses, governments, NGOs, communities and other stakeholders in the sustainability agenda (SAN, 2021a). Collaboration is at the core of SAN, as part of the strategic goal is the expansion and of the global collaborative network (SAN, 2019). Based as well on ILO conventions (87, 98, 29, 105, 138, 182, 100, 111) (SAN, 2021b).	A signature project called TerraViva introduces an integrated landscape governance model that uses participatory approaches and multi-stakeholder platforms to identify a desired future for the landscape through a common territorial agenda (SAN, 2021a). When required by applicable legislation or when operations' activities have negative impacts on the land or resource use rights or collective interest of the communities, operations conduct a Free, Prior and Informed Consent (FPIC) process with local communities as part of the ESIA, to ensure that there is full consent and fair compensation for any loss of access to land or resources (SAN, 2021b). Operations implement training activities for management and workers to enable the correct and safe conduction out of their tasks. Operations inform and sensitize workers and local communities about biodiversity conservation and protection efforts and their importance. Equality and non-discrimination are also addressed.
Sustainable Biomass Program (SBP)	Feedstock definition based on Forest Stewardship Council (FSC®), the Programme for the Endorsement of Forest Certification (PEFCTM), and those schemes recognised by PEFC, such as the Sustainable Forestry Initiative (SFI®),and is based on the biomass sustainability criteria of European countries, in particular, Belgium, Denmark, the Netherlands and the United Kingdom (SBP, 2022). Trainings and events are also seen as a form of collaboration. These include auditor trainings, an audit portal training, biomass workshop series, and other side events. Moreover, formal recognition by governments of SBP was also achieved making this scheme compliant with national agreements, regulations, and legislation (SBP, 2022).	Engage fully with all stakeholders in an open and transparent way by offering a number of routes for engagement, including public consultations, opportunities to get engaged in Standards Development Process, including direct involvement in the Working Group arrangements, workshops and one-to-one discussions with topic experts (SBP, 2022). SBP adopts a multi-stakeholder approach and stakeholder mapping was used to redefine the objectives of SBP. Inclusivity is also a part of the values of SBP, although it is clear how this is achieved.

D4.1 - Literature review and inventory of certification schemes and labels requirements

9.5 Appendix - Measurable progress and continuous improvement

Name of CSL	Measurable progress	Continuous Improvement
ASC-MSC Seaweed Standard	As cited from the **ASC-MSC Seaweed (Algae) Standard:** **Scale and cumulative impacts** 3.7 The impacts of the production unit/s on the target stock/s selected for inclusion in the UoA shall be assessed under Principle 1. ◉ 3.7.1 All sources of seed coming from natural stocks used in the production unit shall be assessed under Principle 1. ◉ 3.8 The impacts of the production unit/s on the structure, productivity, function and diversity of the ecosystem, including habitat and associated dependent and ecologically related species, shall be assessed under Principle 2. ◉ **Assessment tree structure** 6.1 The assessment tree structure includes the Performance Indicators (PIs) and scoring issues, as specified at the minimum and target levels, for each of the five Principles that comprise the Standard. Scoring and conditions 6.6 The UoA shall be assessed against the PIs set in the final assessment tree. 6.7 Each PI is composed of one or more scoring issues, which are the single parts of the assessment tree that shall be assessed and scored. 6.8 Each scoring issue shall be assessed at one or both of the following scoring levels (levels, thereinafter): ◉ a. Minimum level. b. Target level. 6.9 One or more auditable and verifiable conditions for continuing certification shall be set if the UoA does not meet the target level but meets the minimum level for any individual PI (see CAR Section 17.12 for further details). 6.10 One or more critical conditions shall be set if the UoA does not meet the minimum level (see CAR Section 17.13 for further details). 6.11 A UoA shall not be awarded certification if any PI is not met at the minimum level. 6.12 A UoA shall not be awarded certification if it has more than the	As cited from the **MSC-ASC Joint Seaweed Standard Settings Procedure** **7. ASC and MSC guiding principles for standard setting** 7.1 Improvement – The standard is reviewed, and if necessary revised, every five years, at a minimum. This allows the MSC and ASC to incorporate learning from stakeholders' feedback and from the Monitoring & Evaluation (M&E) program. Performance levels will be adjusted over time to reflect new science and improved management practices. 7.2 Relevance – Seaweeds play a key role in the aquatic ecosystem. With global seaweed production increasing along with demand for certification of the seaweed industry, the ASC and MSC recognise the importance of having a standard that rewards those producing seaweed sustainably, minimising effects on aquatic ecosystems as well as providing a benchmark for improvement. The standard will be updated where there is improved scientific understanding, with widespread scientific support, to demonstrate that a change in the performance requirement is necessary to achieve the intentions of our Principles and Indicators, and there is improved fishery and farm management best practice, with growing support in industry management and policy circles, that is accepted as being required and appropriate to achieve the relevant FAO Codes of Conduct, and by implication our Principles and Indicators. The standard should be objectively verifiable. The standard's requirements are formulated in a way that facilitates consistent interpretation and verification. 7.3 Rigour – The standard is based on performance outcomes from implementing operations that represent the sector's best practices across different regions. Principles: High-level goals that once achieved would contribute to achieving the defined outcome; Performance Indicators: Issues against which performance can be measured to in a specific area; Scoring Guideposts: Specific performance levels to be reached which will determine if the desired impact will be achieved. **8. Standard setting process** 8.1 Assess needs for new standard or review/revision of existing one Input: - Existing standard; - Issue Log (on existing/non-existing standard); - Monitoring and Evaluation data on existing standard performance Output: Identified and justified needs for new standard or for early or regular review/revision of existing one. Coordinated by: MSC Secretariat

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

⊗⊗ HARMONITOR

	number of conditions allowed in each Principle given in Table 4.	
Better Cotton	- <u>Impact Targets of Better Cotton Initiative</u> - <u>Impact Reports of Better Cotton Initiative</u> - <u>Better Cotton's page on demonstrating results and impact</u>	- As part of Better Cotton's own commitment to continuous improvement, and in line with ISEAL requirements, Better Cotton carries out regular reviews and revisions of the P&C. This helps to ensure the standard remains relevant, effective, and incorporates key developments in sustainable cotton production. The maximum time period between revisions does not exceed five years. (https://bettercotton.org/what-we-do/defining-better-our-standard/) - As cited from **Better Cotton Initiative Standard Setting and Revision Procedure BCI-PRO-01 (V2-0) EN:** 4. Decision to develop or revise a BCI standard 4.5 A review process shall consider a standard's continued relevance, effectiveness, and whether external circumstances have changed to the point where change is required. 5.2 Drafting Standards 5.2.3 In defining the content of a standard, consideration shall be given to regulatory requirements, market needs as well as scientific and technological developments. 5.2.4 Standards shall be structured to allow for monitoring and evaluation of progress toward achieving the standard's objectives. 5.3.3 Through a stakeholder mapping process, the BCI Secretariat shall identify individuals or groups that are likely to affect or be affected by BCI activities covered by the normative document scope. 5.3.4 The BCI Secretariat shall proactively seek contribution from under-represented stakeholders or disadvantaged groups, using various means, including but not limited face-to face meetings, emails, workshops or asking support from facilitators who have direct contact with stakeholders. 5.3.5 The BCI Secretariat shall encourage organisations that have developed related standards to participate 5.3.6 Any proposed draft of a standard shall include at least two rounds of public consultation. The second round shall be required if substantive changes have been made since the first draft.
Bioplastic Feedstock Alliance (BFA)	As cited from the **FAQ document of BFA** The Bioplastic Feedstock Alliance is not a standard-setting organization or nor is it developing a sustainability standard. This multi-stakeholder initiative is collaborating to bring better understanding to some of the complex issues that this industry faces. As a part of that work, the BFA will review and assess existing tools, standards and certifications that can be utilized for better management systems on the ground. In order to explore how a feedstock in a specific region measures up to the definition of an optimal biobased plastic	As cited from **the website of BFA**: The goals of BFA are: To ensure that bioplastic purchasers and producers are asking the important questions that ultimately drive the entire industry toward sourcing decisions that do better, resulting in better environmental and social outcomes, including: o Evaluate potential bioplastic feedstocks using state-of-the-art science o Build consensus on the improvements offered by bioplastics o Support bioplastic purchasers in asking the important questions and getting the right answers o Drive more sustainable sourcing throughout the industry o Create better environmental and social outcomes As cited from the **FAQ document of BFA** BFA seeks to evaluate the diversity of potential bioplastic feedstocks using state of the art science to ensure a common

239

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

◇◇◇ HARMONITOR

	feedstock (defined by five components, explored in the box below), the BFA has identified the following 13 indicators (see Table 1). Each indicator is explored in detail in the Survey Level Screening portion of the methodology. The 13 indicators cover environmental and social aspects. To accommodate the variability in data availability, the assessment tool has two tiers: Executive Level Screening and Survey Level Screening. The methodology is intended to be directional and also includes guidance for further assessment past Survey Level Screening. The first tier requires the least amount of information and may be used to screen out feedstocks that are not viable at a high level, while the second tier requires more in-depth analysis. Each tier of the methodology requires a certain amount of information to be available, and in some cases expert input may be useful. The BFA has identified the risk level for a final decision based exclusively on assessment at each tier. See Table 2, which explains the differences between each tier of the methodology.	understanding of current and potential future sustainability improvements that each may offer. We will continuously monitor their development against our expectations for improvement and help drive positive change at scale This multi-stakeholder initiative is collaborating to bring better understanding to some of the complex issues that this industry faces. As a part of that work, the BFA will review and assess existing tools, standards and certifications that can be utilized for better management systems on the ground.
Bonsucro	Information regarding monitoring and evaluation as well as impact assessment and learning is outlined in **the Bonsucro Monitoring and Evaluation page** and **Bonsucro Monitoring, Evaluation and Learning Framework** document	**As cited from Bonsucro Monitoring and Evaluation** Bonsucro's Strategic Plan 2021-2026 builds on the achievements and progress of recent years, blends experience with new approaches, where we need to do better, and sets an agenda for continuous improvement and greater impact. To ensure continuous improvement, Bonsucro has a development plan for the system, including plans to develop tools and processes, and improve visibility and accessibility for stakeholders. Every year, Bonsucro publishes its Outcome Report to provide stakeholders with a view on key improvements achieved by the sustainable sugarcane sector, made of operators which participate in the Bonsucro platform and/or achieve Bonsucro certification. It is based on analyses carried out by the Bonsucro secretariat using different sources of data. The report seeks to assess key indicators to provide an evaluation of the performance of the organisation in delivering impact, and to identify the measurable outcomes achieved by operators.

D4.1 - Literature review and inventory of certification schemes and labels requirements

BREEAM	As cited from **BES 6001 – Framework Standard for Responsible Sourcing** - The organisation shall provide for external verification that the data and information that it communicates to stakeholders fulfils its stated purpose and is accurate. This shall be undertaken by an independent, competent third party who is not involved in the organisation's BES 6001 certification assessment.	- To ensure our products and services reflect the evolving market needs, we recently invited all customers and stakeholders to participate in the BREEAM V7 consultation and our NZC survey. This invaluable input will help ensure that BREEAM and our other products and services continue to reflect the latest and most rigorous science. (https://bregroup.com/breeam-news/version-7-public-consultation-2023/) - BRE carries out independent research to create products, standards and qualifications that make sure buildings, homes and communities are safe and sustainable. (https://bregroup.com/news-insights/reports/)
Cradle to Cradle Certified	As cited from **Cradle to Cradle Certified Version 4.0 Product Standard** **3.3 Measurable Improvement** Measurable improvement is one of the general requirements of Cradle-to-Cradle. Cradle to Cradle Certified set different level of tiers for its users which informs the possible level of achievement within each of the standard's five key requirement categories: Bronze, Silver, Gold, and Platinum. Intended Outcome(s) What a product is made of and how it is made is measurably improved until the product achieves at least the gold level requirements in all five Cradle to Cradle Certified key categories. While the Gold level reflects high Cradle to Cradle Certified 12 ® Product Standard Version 4.0 achievement, reaching the Platinum level in all categories is the ultimate goal. At recertification, demonstrate that at least one measurable improvement has been made in at least one of the five program categories since the prior certification. The measurable improvement required is in addition to any actions already required in individual program categories (e.g., progress on strategies and optimization plans).	As cited from **Cradle to Cradle Certified Version 4.0 Product Standard** **3.5 Standard Development** The Cradle to Cradle Certified Product Standard is updated through continuous improvement, which involves a regular development cycle for comprehensive revisions to the standard. There are two basic types of development of the Cradle to Cradle Certified Product Standard: 1. Implementation and Maintenance of the Current Version - Implementation and Maintenance of the Current Version includes the following types of improvements: • Correction, clarification, and interpretation of the language in existing standard requirements and supporting documents, • Creation of modified compliance paths for existing requirements in order to meet the needs of new product types that would otherwise be unable to utilize the standard, and • Updates to the standard requirements through the modification, removal, or addition of a limited number of requirements. 2. Development of the Next Version Development of the Next Version is the comprehensive improvement phase of standard development through a periodic evaluation and revision process. This phase includes multiple avenues for stakeholder input and final approval by the C2CPII Standards Steering Committee and C2CPII Board of Directors.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

EU Ecolabel - Paper	**Measurable and marketable:** For businesses, displaying 'the flower' logo on their products and in their promotional materials has a measurable impact on returns, especially when targets (on circularity, emissions, waste…) are integrated into a company's sustainability strategy. **Ecolabel facts and figures:** Since September 2022, the overall number of awarded licences* and products continued to increase as the vast majority of EU Ecolabel product groups have witnessed an increase in both the number of awarded licences and products. This shows a continued interest in green products from businesses, citizens and retailers.	The European Commission sets EU Ecolabel criteria for different categories of products to minimise their environmental impacts over their entire lifecycle, while guaranteeing their high quality. Because each product category is different, the criteria are tailored to address their unique characteristics. All criteria are developed in consultation with key stakeholders, including consumer associations and experts in the relevant field. They are periodically revised by the EU Ecolabelling Board (EUEB), which takes into account technical innovations or market changes to ensure they are up to date, robust, and trustworthy. (https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/product-groups-and-criteria_en)
EU Ecolabel - Textiles	Not Available.	
Fairtrade International	- An interactive version of **Fairtrade International Theory of Change** - As cited from **Fairtrade Textile Standard** 1.1.1 Mission statement and performance indicators Dev In order to demonstrate commitment to Fairtrade, your company's mission statement or policy includes: • measures on how continuous improvement of social and sustainable production practices are implemented in your company; • a statement on your commitment to achieve the aims and values of Fairtrade; • how workers are informed about commitment to Fairtrade; • Fairtrade goals which are included in measurable key performance indicators for the	- **As cited from SOP Development of Fairtrade Standards** Standards & Pricing (S&P) within Fairtrade International is responsible for developing (i.e. preparing, reviewing, amending, adapting) and revising Fairtrade Standards. During the research stage of a project, input from stakeholders, internal sources and external sources is collected. Once a draft standard has been prepared, a formal consultation exercise with the previously identified stakeholders begins. Usually, S&P will undertake a review of all standards at least every five years. - Fairtrade commissions and encourages research to explore some of the prickly questions that are fundamental to changing how trade works. We use research and collect data to inform our work, enhance our standards and pricing system, and promote innovative solutions to the structural challenges that hurt farmers and workers in global supply chains. (https://www.fairtrade.net/impact/overview) - Fairtrade standards are set in accordance with the ISEAL Code of Good Practice on Standard Setting. This process involves wide consultation with stakeholders. Decisions about Fairtrade standards are made by the Fairtrade International Standards Committee. (https://www.fairtrade.net/standard/how-we-set-standards)

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	CEO and senior management of your company. Chapter 4 of the Fairtrade Textile Standard defines Environmental Responsibility	
Fairtrade International	Not Available.	
Forest Stewardship Council (FSC)	As cited from the **Impact page of FSC**: - FSC Impact Dashboard shows a compilation of independent scientific studies about the effect of FSC-certification across the world's forest. For the Impact Dashboard, we decided to focus our selection on studies comparing forests and their values in FSC-certified and uncertified forests. These are the most relevant research papers to allow FSC staff and stakeholders to learn from the effects of FSC-certification. - FSC has been collecting and analysing a wide range of scientific studies about FSC over the years as part of monitoring and evaluation activities. To increase internal and external access to the relevant information they contain, we have decided to collate single results from scientific studies to provide a comprehensive but easily accessible list of evidence of the outcomes of FSC-certification. - FSC supports independent research that investigates the effectiveness of its	**- FSC Monitoring And Evaluation Public Report 2022** In 2022, the main highlights of the M&E program for fostering institutional learning have been: • The publication of the Global Strategy 2021 data report. The interactive dashboard was shared with FSC staff and members and contains more than 50 data visualizations covering the different main strategies, goals and intended outcomes of FSC Global Strategy. This is the first time that FSC reports on high-level strategic progress using data and appears has a new and important way for the organization to learn about its actions and progress. - The FSC Global Strategy enables the collaborative co-creation of solutions that respond to emerging challenges and opportunities. The FSC General Assembly is FSC's premier decision-making body. Here members representing environmental, social, and economic interests, come together every three years to set the organization's direction. How Do We Determine our Values and Global Strategy? We do this by convening our members and other partners from diverse interests to set global benchmarks for forest stewardship that deliver significant results for the forests and the people that depend on them. How we do this is outlined in the FSC Global Strategy 2021–2026. Our work is governed by the FSC Statutes; documents that set the foundation on which FSC is built. They are updated every three years, through motions proposed by FSC members at the

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	system by providing researchers with access to relevant information (e.g., where to find FSC-related policies, identification of key stakeholders for interviews) and creates dialogue between individuals and groups.	organization's General Assembly. (https://fsc.org/en/global-strategy)
GlobalG.A.P.	Our **Theory of Change version 1** sets out the strategies we use to achieve our goals and contribute to our vision of safe, socially and environmentally responsible farming worldwide.

In order to effectively harness the increasing volume of data that we receive, and to gain a better understanding of our activities and their impact around the world, we are currently in the process of developing a Monitoring and Evaluation (M&E) System. Following internal development, the M&E System will be subject to public consultation before its launch, dated for early 2024. (https://www.globalgap.org/uk_en/what-we-do/our-impact/)

As part of efforts to increase sustainability within good agricultural practices, GLOBALG.A.P. is to introduce an Impact-Driven Approach to sustainability in our standards. This consists of collecting data from growers on input consumption, processing the data, and transforming it into information which has a variety of uses. (https://www.globalgap.org/uk_en/what- | - We are strongly committed to ensuring consistent delivery and implementation of our standards worldwide. Feedback mechanisms are included in standard development and serve the ongoing improvement of the GLOBALG.A.P. System in all its aspects.
We are committed to understanding the latest developments in agriculture as well as aquaculture and to adapting our standards accordingly so that stakeholders are able to comply in a harmonized manner at an international level.
We promote transparency and integrity throughout the entire standard-setting process. Criteria must be clear and avoid any misinterpretations (this concerns the official English version as well as the respective translations). Criteria must be verified for their credibility and ability to be audited by accredited third-party certification bodies. (https ://www.globalgap.org/uk_en/what-we-do/globalg.a.p.-certification/standard-setting/)

- **Standard Setting document**
GlobalG.A.P Standards are reviewed on a periodic basis and revised in a timely manner. |

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Green Gold Label (GGL)	we-do/the-gg-system/Impact-Driven-Approach/)	
	Chain of Custody criteria document Principle 10 Greenhouse gases and energy balance calculation and savings Criteria 10.1 A greenhouse gas and energy balance calculation must be carried out and maintained according to GGL 1a. instruction document (GHG) **GGL 1a. Instruction document** Greenhouse Gasses Calculations The aim of this document is to provide lean, simple, accurate and open (with clear reference to all the values used and the origin) GHG calculations which data complies to the requirements of the Biograce II tool, and shall be reported in the Biograce II tool. The next participant in the chain shall use the previous and partial GHG calculations as input for their BioGrace-II Excel tool calculation Unless stated otherwise, the calculation is done with data collected over an annual period. Reporting shall include an explanation and source reference.	- Green Gold Label encourages interested parties and stakeholders to share feedback and comments on the GGL Scheme, including its standards and supporting documents. (https://greengoldlabel.com/feedback-and-comments/)

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

ISCC EU & ISCC PLUS	- **ISCC Impact Reports** are published online and accessible through the website of ISCC - **Chapter 13 ISCC EU 102 Governance** document outlines information regarding ISCC Impact Assessment	- As cited from the **ISCC EU 102 Governance document chapter 8 Quality and Risk management** The quality and risk management in the ISCC framework contributes to this continuous improvement process. It aims to ensure consistency in all activities related to ISCC, especially with regards to the practical implementation and the secure and credible verification of compliance with the ISCC System. The principles for quality management apply to ISCC management and all of ISCC's operations. Core features of ISCC's quality and risk management are: o The ISCC Integrity Programme: Ensures a consistent and objective audit and certification process by CBs cooperating with ISCC worldwide. It enables closer monitoring of the CBs' verification activities and is based on an ongoing assessment process that is part of the continuous improvement of the ISCC System. o Benchmarking processes: ISCC regularly participates in benchmarking processes comparing different systems for sustainability certification. ISCC uses the results of those processes and the feedback provided to learn and improve continuously. o ISCC multi-stakeholder dialogue: The development of ISCC is based on an open multi-stakeholder process. Aspects of the multistakeholder dialogue include the ISCC Association, regular Stakeholder Committees and meetings with cooperating CBs. The extensive stakeholder dialogue under ISCC enables the identification, evaluation and implementation of stakeholder requirements, region-specific solutions and risk prevention measures o Regular participation in sustainability conferences: ISCC participates in international conferences. In addition, ISCC tilized the annual "ISCC Global Sustainability Conference". At the conferences ISCC and its latest developments are presented. During conferences ISCC also receives valuable feedback which is relevant for the continuous improvement of the system. o ISCC Training Programme: ISCC has developed a specific training programme for auditors, CBs, System Users and other interested stakeholders covering various topics within ISCC. The trainings are used to guarantee consistent audit processes, to update participants on the latest requirements and also to receive feedback and provide opportunities for discussions. o Requirements for CBs and feedback mechanisms: CBs cooperating with ISCC must have an adequate quality management system in place, reflecting the relevant aspects of ISCC appropriately. The specific requirements for CBs are specified in the ISCC EU System Document 103 "Requirements for Certification Bodies and Auditors". ISCC hold regular meetings with representatives of CBs. The aim of those meetings is to exchange practical feedback and experiences from the application of ISCC, to discuss best practices, to identify potential risks to the system and to facilitate improvements of the system. In addition, CBs regularly participate in ISCC stakeholder events and provide feedback to ISCC directly via email and phone. o > Discussions with authorities: ISCC is a reliable partner for the competent legislative bodies and offers an instrument which ensures compliance with the legal requirements for the sustainability of biomass, biofuels and bioliquids in Europe. Dialogue and discussions with the authorities provide feedback

D4.1 - Literature review and inventory of certification schemes and labels requirements

PEFC International (Programme for the Endorsement of Forest Certification)		and valuable information which are also used for continuously improving the system o > Quality management by System Users: System Users must comply with the principles for quality management and should aim to continuously improve upon processes related to ISCC. o Customer and stakeholder service: System Users and stakeholders of ISCC can always contact and engage with ISCC directly via email or telephone ("ISCC helpdesk") to submit questions, complaints, concerns and general feedback. Customer focus and prompt feedback are core features of ISCC.
	Strategic Pathway 2: Demonstrate sustainability impact 2.1. PEFC demonstrates the environmental, social, and economic impact of sustainable forestry. In 2030, key stakeholders recognise the environmental, social and economic impact of PEFC certification and our contribution to the development of sustainable forest management as a major tool on safeguarding the world's forests. 9. Performance evaluation (requirement for performance evaluation including monitoring and evaluation) - The standard requires that monitoring of forest resources and evaluation of their management, including ecological, social and economic effects, shall be periodically performed, and results fed back into the planning process. - The standard requires that health and vitality of forests shall be periodically monitored, especially key biotic and abiotic factors that potentially affect health and vitality of forest ecosystems, such as pests, diseases, overgrazing	- **Standard Setting document:** **8. Periodic review of standards** The standard(s)/normative document(s) shall be reviewed at intervals that do not exceed a five-year period. The review shall be based on consideration of feedback received during the standard's implementation and a gap analysis. If necessary, a stakeholder consultation shall be organized to obtain further feedback and input. - **PEFC ST1003:2018 – Sustainable forest management** **10.2 Continual improvement** The standard requires that the suitability, adequacy and effectiveness of the sustainable forest management system and the sustainable management of the forest shall be continuously improved. Every standard goes through a detailed and rigorous development process and is reviewed after five years at the latest, and revised if necessary. When developing or revising a standard, we make sure that stakeholders are invited to participate. This means that there is a representation of diverse stakeholders, so no single interest can dominate, and that the process is consensus-driven, open and transparent. - **Strategic Pathway 3: Provide Innovation** Goal: PEFC provides innovative, cost-effective solutions responding to diversified needs of the members, market, and society. 3.3 Innovation in the PEFC system We will continuously improve the system by measuring and

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	and overstocking, fire, and damage caused by climatic factors, air pollutants or by forest management operations. - The standard requires that where it is the responsibility of the forest owner/manager and included in forest management, the use of non-wood forest products, including hunting and fishing, shall be regulated, monitored and controlled. 9.1.4 The standard requires that working conditions shall be regularly monitored and adapted as necessary.	monitoring the impacts of our technical documents and, importantly, by ensuring our stakeholders can give feedback and participate in their continued development.
REDcert, REDcert²	See ITC Standards Map No detailed information was found in regard to the impact measurement and reporting	As cited from the **Organisational structure of REDcert:** The company focuses on the following activities: • development, evaluation and modification of scheme requirements to comply with legal and operational specifications Information regarding how the certification evolves as well as the company focus can be found on the website of REDcert
Round Table on Responsible Soy Association (RTRS)	- **RTRS Monitoring and Evaluation System Procedure v1.0** provides information regarding monitoring data collection, analysis, and reporting, as well as parties responsible for the system - **RTRS Theory of Change v1.0** outlines the long-, mid-, and short- term goals of RTRS as well as potential challenges and outcomes	- As an ISEAL Community Member, RTRS is working to continually improve its system and takes part in ISEAL's learning, collaboration, and innovation activities. (https://responsiblesoy.org/management?lang=en#beyond2020) - RTRS is working on the Monitoring and Evaluation System (M&E) that will allow to measure the expected changes, and at the same time to know and improve the RTRS system. (https://responsiblesoy.org/impacto?lang=en#pilares) - RTRS Standard: The standard will be reviewed not less than once every five years and not more than once every three years unless exceptions are identified or unless the RTRS Executive Board or General Assembly determines otherwise.
Roundtable on Sustainable Biomaterials (RSB)	As cited from the **Measuring Our Impact page of RSB:** The RSB monitors its performance by processing data collected among its certified operators through a set of "outcome indicators", which cover the environmental, social and economic issues and the context in which operators work. The measured impacts are compared to the expected results and outcomes, as defined in the initial RSB "Theory of Change", which describes the short-term, mid-term and long-term effects the RSB is expected to drive in terms of contributing to developing a sustainable bio-based economy.	As cited from the **Measuring Our Impact page of RSB:** Results from the M&E system feed into the continuous improvement of the RSB Standards, Policies, Guidance and Tools of the certification system, as well RSB strategies and activities.

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

	The Outcome Evaluation reports are developed by the RSB Secretariat annually and circulated via email to RSB, RSB Members, RSB Participating Operators, RSB Certification Bodies and the RSB Accreditation Body for comments. Based on the stakeholders' comments, the Outcome Evaluation Report as well as the Public System Report will be reviewed by the Secretariat. The data points required for the RSB M&E System are collected through the continuously ongoing certification processes. This data collection method allows the RSB Secretariat to continuously collect actual and third party verified data.	
Roundtable on Sustainable Palm Oil (RSPO)	Our Monitoring and Evaluation (M&E) framework was aligned to the Theory of Change, placing the outputs and outcomes of the RSPO standards in the context of our impact pillars. Data gathered through RSPO certification, and other RSPO systems and procedures, is crucial in defining the progress that has been made, as well as identifying trends and gaps. This process of monitoring and evaluation is supported by research, RSPO commissioned or independently conducted, with the RSPO Research Agenda guiding priority topics for research institutions to assess and examine the impact of RSPO. We are now taking this further. In order to provide a broader, deeper and better narrative of RSPO and its impacts, we are revising our approach to M&E, and redefining how we present our intended impacts. Our Theory of Change is being reviewed for relevance in a changing sustainability landscape to better illustrate how our expected change will be achieved. Our M&E framework has been expanded to Monitoring, Evaluation and Learning (MEL), adding a "learning" function to create feedback loops that set our standards development and assurance systems on a path of continuous improvement. And our impacts have been recalibrated into a new RSPO Impact Framework to better narrate what RSPO has achieved and how much further we have to go. These revisions are expected to be completed in 2023, providing a clearer, more strategic and relevant direction for RSPO to move into the future.	- The Roundtable on Sustainable Palm Oil (RSPO) is initiating its five year review cycle of the 2018 RSPO Principles and Criteria (P&C) and the review of the 2019 RSPO Independent Smallholder Standard. The objective of standards review is to review and streamline the production standard to ensure continued relevance and effectiveness in demonstrating that palm oil produced and sold as RSPO Certified Sustainable Palm Oil (CSPO) is credible and inclusive. To strengthen the credibility of the RSPO certification scheme, this review process strives to address the following key challenges: o Ensuring the comprehensiveness and relevance of RSPO Standards; o Achieving desired impact; o Clarifying interpretations and uncertainties; o Resolving inadequate capacities and resources in the assurance systems; and o Aligning RSPO approaches with other sustainability initiatives. The review process will be guided by the RSPO Standard Operating Procedure for Standard Setting and Review (2020), in line with ISEAL Alliance's requirements and the ISEAL Standard-setting Code of Good Practices V6. (https://rspo.org/as-an-organisation/our-standards/standards-review-2022-2023/T) - RSPO Standards and supporting documents are developed through a comprehensive, consensus-driven and transparent process. This includes RSPO multi-stakeholder members participating within the relevant supporting bodies, feedback from the general public and contributions from interested stakeholders through a public consultation. (https://rspo.org/as-an-organisation/our-standards/development-process/) - **MAPPING OUR PROGRESS** Underpinning this is our Theory of Change (ToC), RSPO's roadmap to assess the progress, performance, and impact of our work. This informs our strategies and drives continuous improvement through learning and adaptive management. The foundation of this is our Monitoring, Evaluation and Learning (MEL) system, which is continuously reviewed, implemented and improved.)

D4.1 - Literature review and inventory of certification schemes and labels requirements

	(https://rspo.org/our-impact/outcomes-and-impacts/)	
SAI Platform - Farm Sustainability Assessment FSA	The **Outcome Measurement Module** provides guidance on selecting an outcome measurement tool and integrating this your farm sustainability approach. It contains a growing range of available outcome measurement tools that have been assessed by SAI Platform. The focus has been on GHG and Climate Tools so far, based on member priorities. We intend to grow the range of assessed tools for this topic area as well as for other topics like soil, water, and biodiversity over the course of the next few years. Outcome measurement tools will help to monitor and support progress with the **FSA Continuous Improvement Plan**.	- As cited from **Governance Framework document** The purpose of the FSA is to drive relevant and demonstrable continuous improvement of on-farm environmental, social, and economic performance through supply chain collaboration and fostering a common understanding of sustainable agriculture. The development and deployment of the FSA is governed through SAI Platform in accordance with this Governance Framework. The FSA Governance Framework will be reviewed and updated regularly, and at least every two years.
Sustainable Agriculture Network (SAN)	Using its tools and processes, SAN transforms the way business operates. In particular, our Sustainable Agricultural Framework (SAF) tool is an outcome-based agriculture sustainability catalogue of good practices and indicators for achieving, measuring, and demonstrating specific sustainability results. **The Sustainable Agriculture Framework** translates SAN's vision into a practical and science based approach towards sustainable agriculture, that answers both the needs of agricultural and livestock producers and the sustainability expectations of an increasingly demanding global market. The SAN Theory of Change explains how SAN's new focus aims to enable sustainable rural landscapes, characterized by positive-impact	- **Values of SAN**: o Self-Improvement: Learn from their work and seek opportunities to improve it o Innovation: Constantly strive to develop new ways to improve the sustainability of agriculture o Collaboration: We seek today's sustainability challenges with the active contribution of the diverse people and organizations with which we work (https://www.sustainableagriculture.eco/our-mission) - **Collective Impact Orchestration** We monitor execution and expenses to maximize clients' investment and to deliver the expected results We have a program quality review process to drive continuous learning and improvement. All awarded projects and contracts will be subject to the quality review mechanism that includes regularly scheduled meetings. The process aims to ensure the timely delivery and quality of SAN program/project management commitments within budget.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	agriculture, agroecosystems that are resilient to climate change and a better quality of life for rural communities. It provides the basis for establishing specific sustainability goals to guide the transition to a highly productive, economically viable, environmentally friendly, and socially fair agriculture.	
Sustainable Biomass Program (SBP)	- Critical to our communications strategic objective is the wealth of data and information that we collect from our Certificate Holders and which is verified by accredited Certification Bodies. - Analysis of data collected through our Data Transfer System and Audit Portal is communicated through our performance and impact reporting. In the short to medium term, our Monitoring and Evaluation System will enhance the range and quality of indicators reported, providing evidence-based support for the use of biomass.	- As cited from **Theory of Change document**: Our Theory of Change will be reviewed on an annual basis and subject to continual change and improvement, with inputs from our various stakeholders. Stakeholders are welcome to comment on our Theory of Change at any time. - **Our Standards Development Process** has provided us with an opportunity to take an in-depth look at our Standards. In May 2020, we launched our Standards Development Process. The Process was designed to encourage and realise a wide-ranging review, and where necessary revision, of our Standards with full stakeholder participation.

HARMONITOR

9.6 Appendix - Truthfulness and Reliability

CSL	Truthfulness	Reliability
	As cited from **ASC-MSC Seaweed (Algae) Standard** 5 Traceability ◙ 5.1 The UoC shall provide all information necessary to support the CAB's identification of applicable traceability risks and determination of the start of the chain of custody. 5.2 The UoC shall have sufficient systems in place to ensure that seaweed and seaweed products from the UoC are: a. Segregated from any seaweed products not included in the UoA. b. Identified as coming from the UoA. c. Traceable back to the harvesting/culturing facilities of the UoA from the point of first sale. 5.3 The systems in 5.2 must be in place before the UoC sells product as certified or underassessment, and must be implemented throughout the production of any products sold as certified or under-assessment. As cited from **MSC Chain of Custody Requirements** Principle 2 Certified products are identifiable 2.1 Certified products shall be identified as certified at all stages of purchasing, receiving, storage, processing, packing, labelling, selling and delivery. Principle 3 Certified products are segregated Principle 4 Certified products are traceable and volumes are recorded 4.1 The organisation shall have a traceability system that allows: 4.1.1 Any product or batch sold as certified to be traced back from the sales invoice to a certified supplier. 4.1.2 Any products identified as certified upon receipt to be traced forward from point of purchase to point of sale 4.2 Traceability records shall be able to link certified product at every stage between purchase and sale, including receipt, processing, transport, packing, storage, and dispatch. 4.3 Records of certified products shall be accurate, complete, and unaltered.	As cited from **ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements v1.01:** In accordance with the ISEAL Standard Setting Code, the Standard was developed following a participatory process. A joint governance body, the Seaweed Standard Committee, comprising representatives from the ASC and MSC Technical Advisory Groups, Boards, and additional seaweed industry and NGO stakeholders was formed to guide the standard's development. Joint procedures were developed to ensure a robust, credible process. Notably, stakeholder workshops were held in Indonesia, Japan and China. Two 60-day online consultations were held to seek views on drafts of the Standard and associated assessment process. These were supported by webinars, meetings and local outreach to the seaweed industry and affected stakeholders. Academics provided detailed technical input and a workshop was held with Conformity Assessment Bodies (CABs) in London. The ASC-MSC Seaweed (Algae) Certification and Accreditation Requirements specifies the mandatory requirements that Conformity Assessment Bodies (CABs) must follow when carrying out audits of seaweed production units who wish to make a claim that the seaweed product/s they produce are from well-managed and sustainable source/s, as defined by the ASC-MSC Seaweed (Algae) Standard. Part A provides general requirements relating to CABs offering certifications against the ASC-MSC Seaweed (Algae) Standard, while Part B provides specific operational requirements for CABs conducting seaweed production unit audits. The numbering of the sections follows the ISO 17065 approach. 4.4 ISO 19011 4.4.1 The CAB audit personnel shall follow guidance on auditing provided in ISO 19011. 4.5 Compliance with legal requirements 4.5.1 The CAB shall comply with the legal requirements in the countries in which they operate. 4.5.2 Key personnel shall show understanding of applicable legislation and regulations. 4.6 Certification decision-making entity 4.6.1 In addition to the requirements of ISO 17065 clause 7.6, the CAB's decision-making entity shall authorise any changes to the status of certification including changes to conditions.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

ASC-MSC Seaweed Standard

4.4 The organisation shall maintain records that allow quantities of certified products bought and sold (or received and dispatched) to be calculated, with the exception of 4.4.1 below.
4.5 If processing or packing / repacking occurs, records shall allow conversion rates for certified outputs from certified inputs over any given batch or time period to be calculated
4.6 The organisation shall only sell as certified the products covered by its scope of certification.

Record-verification exercises
8.2.9 Auditors shall conduct the following record-verification exercises, relating to certified products (or similar non-certified product):
8.2.9.1 Traceability tests on a batch or batches of product sold or ready for sale
8.2.9.2 Cross-checks of a sample of purchase records with delivery records and w here possible, against the actual product received
8.2.9.3 Input-output reconciliation based on a time-period and/or batch of products

6 Resource requirements
6.1 CAB personnel
6.1.1 The CAB shall: a. Register all auditors working with the ASC-MSC seaweed program with the ASC-MSC and the accreditation body, b. Ensure that all auditors carrying out ASC-MSC seaweed certification audits have demonstrated the required competencies for their role as described in Annex A, c. Ensure that all personnel involved in ASC-MSC seaweed certification services understand the aims and objectives of the ASC-MSC seaweed programme, and d. Ensure that all technical reviewers and certification decision makers are experienced and qualified to evaluate the verification processes, working papers and associated evidence and recommendations made by the assessment/audit team (ISO 17065 clause 7.5).
Maintenance of competency
6.1.2 The CAB shall have a written procedure to confirm annually that every auditor and all CAB personnel involved in the audit are qualified and competent as described in Annex A and registered with the ASC-MSC as required

D4.1 - Literature review and inventory of certification schemes and labels requirements

Better Cotton

- As cited from **the Chain of Custody page of Better Cotton:**
The Better Cotton Chain of Custody (CoC) is the documentation and evidence of Better Cotton as it moves through the supply chain. It ensures that the volume of Better Cotton claimed by Better Cotton Retailer and Brand Members does not exceed the volume of Better Cotton produced by licensed Better Cotton Farmers in any given time period. The current Better Cotton CoC Guidelines incorporate two different chain of custody models: product segregation between the farm and gin and mass balance beyond the gin.
The Better Cotton Platform: As Better Cotton is bought and sold along the supply chain, the associated BCCUs are recorded through the Better Cotton Platform (BCP). The BCP is an online system used only by the Better Cotton Initiative and registered supply chain organisations that buy, sell or source Better Cotton or cotton-containing products as Better Cotton. It enables suppliers and manufacturers to show customers how much Better Cotton lint was sourced through the sale of a physical product.
The Better Cotton Initiative carries out supply chain monitoring and audit activities to help ensure that companies sourcing Better Cotton comply with the relevant Chain of Custody requirements, as set out in the Better Cotton Chain of Custody Guidelines V1.4

- As cited from **the Better Cotton Chain of Custody Standard v1.0**
The Better Cotton Platform (BCP) is a centralised digital tracking system owned by Better Cotton, and used by manufacturers, suppliers, retailers and brands to document and make claims about their Better Cotton sourcing activities and sourced volumes. Use of the BCP is mandatory for all Better Cotton transactions, whether physical or Mass Balance. All organisations using the Better Cotton Platform shall be required to sign the Better Cotton Platform (BCP) Terms and Conditions The organisation shall maintain all applicable records for a minimum of two (2) years.

- **Demonstrating Compliance: the Better Cotton Assurance System**

In order to ensure that farms and farmer groups meet all the core requirements of the Better Cotton Principles and Criteria before they can be licensed to sell Better Cotton, Better Cotton Initiative established a Better Cotton Assurance Programme. It is intended to be a reference manual for Programme Partners, Producers, Better Cotton staff and third-party verifiers to ensure consistent implementation of assurance requirements across all Better Cotton projects.
Better Cotton is ISEAL Code Compliant. That means our system, including our Assurance Programme, has been independently evaluated against ISEAL's Codes of Good Practice.

- From the Better Cotton Assessment Process
Under the Better Cotton assurance model, all Producers2 require a Licensing Assessment before they can receive a three-year licence to sell Better Cotton. Licensing Assessments are field-based visits that assess compliance against Core Indicators in the Better Cotton Principles & Criteria and monitor progress against continuous improvement priorities. Licensing Assessments are carried out: • For Large Farms - by approved third-party verifiers • For Producer Units (PUs) of smallholder farmers or Medium Farms - by either qualified Better Cotton Programme Officers/ Coordinators or approved third-party verifiers
- From the Approval Procedure for Verifiers
Better Cotton's approach to assurance is unique from many other standard systems. It aims to balance credibility with scalability and cost-effectiveness, through combining third-party verifier assessments with other types of assessments. Better Cotton's approach combines third-party visits with licensing assessments by Better Cotton Country Teams, support visits by Implementing Partners (IPs), and regular self-assessments by Producers themselves. Licensing Assessments and Surveillance Assessments are carried out by Better Cotton Country Coordinators and Officers (or Strategic Partners operating on behalf of Better Cotton in partnership countries) and third-party verifiers.

- As cited from **the Approval Procedure for Verifiers document**:
This document describes the qualifications and competencies the Better Cotton is looking for in third-party verifiers and provides guidance to the verification organisations on the application/approval process, performance review, and the process for handling complaints against verifiers.

5.1 Review
Periodic reviews of verifier performance will be

D4.1 - Literature review and inventory of certification schemes and labels requirements

- As cited from **Better Cotton Chain of Custody Guidelines v1.4**
2.2.1 The ginner shall verify that seed cotton purchased as Better Cotton is traceable back to licensed BCI farmers. 2.2.2 The ginner shall maintain accurate and complete documentation of its process for procuring Better Cotton and the flow of Better Cotton from farmers to the gin (including the role of middlemen, markets, storage, transport, etc.).

- With regard to claim, information is stated on the Better Cotton's page **on the claims framework**:

No Member is obliged to make any claims about Better Cotton, however, should they wish to communicate about their commitment, the Claims Framework is the set of guidelines which provides guidance and rules to ensure they can do so in a credible and positive way. Claims are available according to a member's eligibility. The Claims Framework also includes the approval process for making a claim as well as the corrective action plan process and steps taken by Better Cotton when misleading, unauthorised claims are found.

undertaken by Better Cotton, based on feedback from Better Cotton country and assurance staff, partners and the external oversight process. This will include feedback on the quality of the verification visits undertaken in the field and the reports submitted. If necessary due to poor performance, Better Cotton will issue Performance Reviews to verifiers requiring corrective actions before additional visits may be conducted by the verifier.

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

Bioplastic Feedstock Alliance (BFA)

As cited from BFA Position on Biobased Content Claims

The BFA believes that public biobased content claims should be transparent and credible. We agree on the following guidelines when making a claim: Claims should be clear about what physical component has biobased content and should state the percentage of biobased content in that component. Furthermore, claims should only be made on components that have measurable, verifiable biobased content1, and when the biobased content in question is backed by a commitment to pursuing responsible sourcing2. We agree that a reasonable minimum amount of biobased content to make a claim is 20%2 for fast moving consumer goods3 (FMCG), and that it is reasonable for durable goods4 to make a claim on any % of biobased content as long as the claims are transparent and meet the criteria above. All claims should be compliant with national and/or regional regulatory guidance on environmental marketing.

BFA Position on Other Bio Claims

While public biobased content claims should only be made on components that have actual, verifiable biobased content, the BFA accepts the use of approaches like "Book and Claim" and/or "Mass Balance" 5 , where no physical biobased content may be contained in the final product, as long as these approaches are used as a step toward traceable biobased content and a timeline is set for achieving verifiable biobased content. However, claims based on these systems should not claim any % biobased content, should be transparent about this difference, and should comply with national and/or regional guidance on environmental claims. Additionally, the BFA agrees that these systems should be an intermediate step on the path toward a transparent, segregated and responsible biomass supply chain, and should be used as part of a strategy to achieve this goal.

As cited from **BFA Methodology for the Assessment of Bioplastic Feedstock**:

This tool is a decision-making methodology for assessing risk and understanding the trade-offs across various feedstock opportunities. It is not a certification, standard, or method for production management, measurement, or improvement over time. There are, however, many of these management programs in the forms of certifications, roundtables, standards, and best management practices (BMPs) for a number of commonly used feedstocks. For more information on this topic, see the 2019 WWF and ISEAL (the global membership association for credible sustainability standards) discussion paper Credible Assurances at a Landscape Scale, intended to stimulate conversation about what credible assurance and claims around sustainable production processes look like at a landscape scale. The BFA recommends pursuing sustainability certifications that are ISEAL code compliant. ISEAL is a global organization that supports ambitious and transparent sustainability systems. ISEAL code compliance demonstrates successful adherence to ISEAL's Standards Setting, Impacts and Assurance Codes of Good Practice.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Bonsucro

- **Bonsucro's page regarding claims:** The Bonsucro logo promotes sustainability in sugarcane. A benefit of Bonsucro membership is the ability to make claims about sustainability in your sugarcane supply chain and use the Bonsucro logo. We have a selection of logos that you can use on products, websites, banners, sustainability reports. etc.
Our Certified Sustainable Sugarcane seal is designed to help with your consumer messaging. It is exclusively for physical products that contain a minimum is 95% Bonsucro certified sugarcane.
Please note, the type of claims you can make vary depending on your level of involvement – for example whether you are a Bonsucro member, or have obtained certification, or are a partner of Bonsucro. Bonsucro's Claims and Labelling Rules outline the different types of claim available and the rules governing their use.

- **Bonsucro's Claims & Labelling Rules** seek to follow best practice as described in the ISEAL Sustainability Claims Good Practice Guide (2015). Any claim in relation to Bonsucro MUST provide an opportunity for further information by sharing a link to the Bonsucro website: www.bonsucro.com

- **Bonsucro Chain of Custody Standard**
The Chain of Custody (ChoC) Standard relates to the supply of a product, including all stages from feedstock production up to consumption. It's proof that you're sourcing and trading responsibly, allowing you to make sustainability claims about your sugarcane sourcing.
The Chain of Custody Standard ensures monitoring of sustainable/certified volumes, enables traceable information to be transferred to the next supply chain steps, and allows companies to make on-product claims.
The ChOC Standards's main principles:
1. Implement Mass Balance Chain of Custody
2. Validate Bonsucro data
3. Reconcile Bonsucro Data

As cited from **Bonsucro Certification Protocol v6**
1. General
1.1 The Bonsucro Certification Protocol establishes requirements for Certification Bodies (CBs) to enable them to assure the long-term continuity and consistency of the delivery of Bonsucro certification.
21. Audit Documentation
The audit report shall provide a complete, accurate, concise and clear record of the audit in line with ISO 19011:2018 requirements.

- Bonsucro is ISEAL Code Compliant. Our system has been independently evaluated against ISEAL's Codes of Good Practice – a globally-recognised framework for effective, credible sustainability systems. (https://bonsucro.com/production-standard/standards-development-2/)

- Bonsucro is a proud Full Member, which means that we have achieved the highest membership status in ISEAL through demonstrating a high level of compliance with ISEAL's Codes of Good Practice.

D4.1 - Literature review and inventory of certification schemes and labels requirements

	4. Trace Bonsucro Data 5. Identify Data to Clients - From Bonsucro Mass Balance Chain of Custody Standard including Implementation Guidance	
BREEAM	As cited from **BES 6001 – Framework Standard for Responsible Sourcing** 4.3 Supply Chain Management Requirements For each of the following sub-sections, constituent materials shall be traceable to the supplier(s) responsible for: • The extraction of raw materials; or • The provision of recycled/recovered materials; or • The production of by-products; or • The processing of commodity traded materials The % performance rating for each sub-section should be based on any ONE of a number of criteria e.g., volume OR mass OR cost, whichever is most appropriate for the construction product being assessed. This choice must be clearly defined and justified at assessment. Whichever metric is used it must be the same basis for all 4.3 clauses in this standard.	As cited from **BES 6001 – Framework Standard for Responsible Sourcing**: 4.3.1 Quality Management Systems in the Supply Chain 4.3.1.1 A minimum of 70% of the constituent material(s) in the assessed product(s) shall be traceable to supplier(s) with a quality management system(s) certified to ISO 9001 (or equivalent) by an accredited third-party certification body (or Conformity Assessment Body). For SME suppliers, confirmation that a valid Certificate of Factory Production Control which includes in its scope the constituent material and manufacturing location(s) is in place; and that its quality management system follows the fundamentals of ISO 9001, satisfies the requirement for traceability 4.4 Requirements Related to the Management of Sustainable Development External verification The organisation shall provide for external verification that the data and information that it communicates to stakeholders fulfils its stated purpose and is accurate. This shall be undertaken by an independent, competent third party who is not involved in the organisation's BES 6001 certification assessment.

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

Cradle to Cradle Certified

The product's certification level is stated on the Cradle to Cradle certificate, and the certification level, along with a scorecard indicating the level achieved in each of the five categories, is stated in the Cradle to Cradle Certified Products Registry on the C2CPII website (www.c2ccertified.org)

Cradle to Cradle provides a guidelines on trademark use in the Cradle to **Cradle Certified® Products Program Trademark Use Guidelines document**, which is available online.

When using the trademarks Cradle-to-Cradle requires:
1. The use of appropriate mark
2. Identify the certification level every time
3. Identify the version of the standard used to certify the product
4. Make sure the certification marks are clearly tied to the certified product.
5. Always include the trademark ® symbol. The registered trademark symbol serves to identify words and design marks as protected trademarks used under license. Accurate identification of the trademarks ensures they can be protected for the benefit of all certification holders and licensed users.

- The Cradle to Cradle Products Innovation Institute evaluates products for certification through a network of Cradle to Cradle Certified assessment bodies who are recognized by the Institute based on the experience, qualifications, and training of their organization's staff. (https://c2ccertified.org/our-community/assessors)

As cited from The Cradle To Cradle Certified™ Products Program Version 1.3 June 2017
5.2 Oversight of Certification Bodies (CB) and Assessment Bodies (AB)
5.2.4 Operational Oversight: The Certification Scheme Owner shall provide ongoing oversight of CB and AB activities. Guidance, performance audits, and review of assessment practices to ensure uniform application of the standard shall be part of this oversight.
5.2.5 Certification Decision: CBs shall ensure certification decisions are made independently in accordance with the requirements of ISO 17065 and the Certification Manual for Certification Bodies for the Cradle to Cradle Certified Products Program
6 RESPONSIBILITIES OF CERTIFICATION BODIES
6.1.1 Quality Management System: The CB shall develop and maintain a quality system based on ISO 9001, further designed to implement certification evaluations and decisions based on ISO 17065. The C2CPII retains sole discretion in making it a requirement for a CB to have ISO 17065 accreditation. 6.1.2 The CB shall maintain independence and impartiality. 6.1.3 The CB shall not have any business relationship with an AB in which financial or other considerations are involved for the purpose of referring business
6.2 Accreditation
A CB performing conformity audits to the standard shall be accredited by the C2CPII
6.3.3 Evaluation: The CB shall evaluate the Assessment Summary provided by an accredited AB for the product(s) being considered for certification. This evaluation shall conform to ISO 17065 7.4.5 by relying on evaluation results obtained prior to the application for certification. This evaluation shall be conducted in accordance with the Certification Manual for Certification Bodies Operating within the Cradle to Cradle Certified Products Program. The certification shall be issued at the level supported by the evaluation and be effective for a term of two years, with the exception of conditions delineated in section 6.4.

- As cited from Policy for Accrediting Assessment Bodies Operating within the Cradle to Cradle Certified™ Product Certification Scheme Version 1.3
6 ACCREDITATION AUDIT PROCESS The accreditation audit shall be conducted by the scheme owner in accordance with ISO 19011: Guidelines for auditing management systems.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

∞∞ HARMONITOR

EU Ecolabel - Paper	Market surveillance and control of the use of the EU Ecolabel is guaranteed by competent bodies through Article 10 of the Regulation (EC) No 66/2010 on the EU Ecolabel. Moreover, each EU Ecolabel license holder has signed a contract that sets out the terms of use of the label (see ANNEX IV of the Regulation (EC) No 66/2010 for the standard contract covering the terms of use of the EU Ecolabel). Once the contract is in place, the competent body may at any time request the necessary documentation from the licence holder to monitor compliance of the product with the criteria and the conditions of use laid down in the contract. The competent body may also visit the premises of the license holder to ensure that the requirements are met. (https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home/about-eu-ecolabel_en)	- As cited from the page of **EU Ecolabel** EU Ecolabel is an ISO 14024 Type 1 ecolabel, which means it is reliable, multi-criteria and third-party verified. Criteria are set with a lifecycle approach through an open, transparent, multi-stakeholder process. Independently verified: An independent third party ('Competent Body') ensures that products fully comply with the relevant EU Ecolabel criteria. National Competent Bodies are independent and impartial organisations designated by states of the European Economic Area within or outside government ministries. They are responsible for implementing the EU Ecolabel scheme at the national level and should be the first point of contact for any questions from applicants. They receive and assess applications and award the EU Ecolabel to products that meet the criteria set for them. As such, they are responsible for ensuring that the verification process is carried out in a consistent, neutral and reliable manner by a party independent from the operator being verified, based on international, European or national standards and procedures concerning bodies operating product-certification schemes. The Competent Bodies meet regularly at the Competent Body Forum to exchange experiences and ensure a consistent implementation of the scheme in different countries.
EU Ecolabel - Textiles	Not Available.	

D4.1 - Literature review and inventory of certification schemes and labels requirements

Fairtrade International

- From **Fairtrade Trader Standard** requirement 2.1.2
keep records of all entries, processing and sales of Fairtrade products. Records must allow the certification body to trace back from any given Fairtrade output to the Fairtrade inputs.

For documentary traceability requirements 2.1.1 and 2.1.2 in the Fairtrade Trader Standard apply to all manufacturers under this standard.

Additionally, for products with physically traceable Fairtrade cotton, requirements 2.1.3- 2.1.7 in the Fairtrade Trader Standard apply.

- As cited from the Fairtrade page on **integrity in compliance**:
Our assurance system includes a set of rules for how certification and licensing must be done, a way to check compliance with the rules, and a committee with representation of all our stakeholders that decides if the certifiers and licensing bodies continue to meet Fairtrade's expectations.
Our assurance system was designed following the requirements of ISEAL's Assurance Code and builds on the requirements of ISO17065. Additionally, FLOCERT, the main independent certifier for Fairtrade, is accredited against ISO17065 by the German national Accreditation Body DAkkS.
- From
https://files.fairtrade.net/standards/ASSU_Oversight Procedure_EN.pdf
4.1 Evaluator and Assessor approval
Fairtrade International assessors shall meet the qualification and competency criteria as set out in Table 1. Table 1: Assessor qualification and competency criteria
Personal attributes: Able to display the attributes of an auditor as set out in ISO 19011.

- As cited from the **Fairtrade Assurance and Licensing Public System Report**
Assurance Providers that provide certification services to Fairtrade must comply with the Requirements for Assurance Providers (RAPs) and Licensing Bodies that license the FAIRTRADE Certification Marks to third parties must comply with the Requirements for Licensing Bodies (RLBs). Fairtrade uses third party audits and certification as the basis for its assessment methodology. Most audits in the Fairtrade assurance programme are on-site, particularly initial, renewal and unannounced audits are generally on-site audits. Remote audits may be used for surveillance and follow up of non-conformities. The RAPs regulate the variations to the assurance process, e.g., remote auditing under special circumstances for a temporary period if the safety of the auditor cannot be guaranteed.
All personnel involved in assurance, including auditors, must comply with qualification and competency criteria and personal attributes, as defined in the RAPs. Periodic trainings and calibration programme for auditors and other assurance personnel are organised, as well as personnel evaluations. Assurance Providers must verify that the qualifications criteria are met before engaging with personnel involved in assurance and must assess periodically whether competency criteria continue to be met, including on-the-job evaluation.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

| **Fairtrade International Textile Standard** | 2.1.3 Physical segregation of Fairtrade products
You physically segregate Fairtrade products from non-Fairtrade products at all stages of the supply chain.
2.1.4 Identification of products on-site
You are able to identify Fairtrade products as Fairtrade at all stages (e.g. storage, transport, processing, packaging, labelling and handling) as well as in all related records and documents.
2.1.5 Identification of products when sold
When you sell Fairtrade products you clearly identify the product as Fairtrade.
2.1.6 Optional physical traceability
You source Fairtrade cocoa, cane sugar, tea (camellia sinensis) or fruit juice from a Fairtrade trader certified against the physical traceability requirements. These products, when purchased, must be identified as a Fairtrade product with physical traceability
2.1.7 Physical traceability for composite products
If you combine physically and non-physically traceable ingredients in Fairtrade composite products, the Fairtrade physically traceable ingredients must comply with the physical traceability requirements. If for technical reasons this is not possible, you must apply for an exception with the certification body. | |

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Forest Stewardship Council (FSC)

- FSC works closely with ASI and certification bodies on investigations into high-risk supply chains of FSC-certified products. Through this process, FSC verifies that any claims made by certificate holders are accurate and match claims of their trading partners.
We're pioneering new ways of using technology to verify claims made throughout the supply chain, including blockchain and wood identification techniques. (https://fsc.org/en/system-integrity
Integrity investigations)

- The importance of materials compliance checks
we work to protect our reputation and enforce our trademark rights by monitoring trademark compliance and investigating false claims. The information technology tools within FSC's Blockchain Beta program allow for real-time monitoring to help us ensure that certified organisations are selling true, FSC-certified materials. (https://fsc.org/en/blockchain)

- Chain of custody certification is how the Forest Stewardship Council (FSC) verifies that forest-based materials produced according to our rigorous standards are credibly used along the product's path from the forest to becoming finished goods.
The FSC label on a finished product signals that the materials used during production have met the chain of custody requirements at every step in the supply chain, from sourcing to distribution. (https://fsc.org/en/chain-of-custody-certification)

- https://fsc.org/en/system-integrity
the independent certification bodies that provide and manage FSC's forest management and chain of custody certificates have to be accredited by Assurance Services International (ASI), an independent third party.

- From https://connect.fsc.org/document-centre/documents/resource/280
General requirements for FSC accredited certification bodies
This standard specifies the accreditation requirements for all certification bodies operating FSC accredited certification programs. The objective of this standard is to ensure that these programs are managed in a competent, consistent, impartial, transparent, rigorous, reliable and credible manner, thereby facilitating their acceptance on a national and international basis and so furthering international trade and promoting sustainable development. This standard was developed to ensure conformity with applicable requirements of the ISEAL Code of Good Practice for Assuring Compliance with Social and Environmental Standards V1-0 and compatibility with DIN EN ISO/IEC standard 17065:2013-01
Conformity assessment – requirements for bodies certifying products, processes and services.
2.5.4 Internal audits shall be performed at least annually.
2.5.5 Each body providing outsourced services shall be subject to at least one (1) annual audit. At least one (1) on-site audit shall be conducted by the certification body every three (3) years. Furthermore, the internal audit procedure shall specify criteria and conditions (e.g., risk assessment results, internal corrective actions requests, number of clients, complaints

D4.1 - Literature review and inventory of certification schemes and labels requirements

HARMONITOR

GlobalG.A.P.

As cited from **the Chain of Custody page of GlobalG.A.P**

The GLOBALG.A.P. Chain of Custody (CoC) standard ensures that any product bearing a GGN label logo or sold with a GLOBALG.A.P. claim is truly sourced from a GLOBALG.A.P. certified production process. The CoC standard provides this level of security by specifying strict requirements for the proper segregation, handling, and tracing of products in the supply chain. This prevents products originating from GLOBALG.A.P. certified production processes from being substituted or diluted with those from uncertified farms, either in error or for economic gain.

The CoC standard is therefore an essential tool for safeguarding product integrity from farm to retailer, reducing the risk of food fraud and enabling a quick response if problems arise.

CoC at a glance:
• Identifies products originating from GLOBALG.A.P. certified production processes and safeguards this status throughout the entire process, from farm to retailer
• Lays out strict requirements for the handling of products originating from certified production processes, including the proper segregation of products that originate from GLOBALG.A.P. certified production processes from those which do not
• Obligatory for companies that label products with a GLOBALG.A.P. identification number (e.g., GGN, CoC Number) or participate in the GGN label initiative
• Enhances supply chain transparency and product integrity, providing added value and customer reassurance

Regarding the GGN label, information can be found on the following page: https://www.globalgap.org/uk_en/ggn-label/about-the-ggn-label/

- As cited from **the system integrity-CIPRO page**: The Certification Integrity Program (CIPRO) monitors and assesses the performance of all GLOBALG.A.P.-approved certification bodies. It ensures that certification bodies are conducting their audits in line with GLOBALG.A.P guidelines and procedures and verifies that the same criteria and quality standards have been used on a consistent basis.

CIPRO sets into place an ongoing process of quality assurance, improvement transparency. This includes monitoring approved certification bodies, following up reports of excess maximum residue levels, and providing competence in food-crisis management, technical support and training.

- As cited from **the Audit Online Hub** page of GlobalG.A.P.
GLOBALG.A.P.'s Audit Online Hub gathers the necessary inspection/audit information in a modern and efficient way. Creating and sharing digital checklists and inspection/audit reports in different languages are some of the core functionalities of Audit Online Hub. The goal is to simplify the inspection/audit process and to continually improve the GLOBALG.A.P. standards.

Links to essentials information regarding certification bodies (CBs)
- A list of approved CBs
https://www.globalgap.org/uk_en/what-we-do/the-gg-system/certification/Approved-CBs/index.html

-Procedures to become an approved CB
https://www.globalgap.org/uk_en/what-we-do/the-gg-system/certification/Become-an-approved-CB/
- General regulations Part III – Certification Body and Accreditation Rules
https://www.globalgap.org/.content/.galleries/documents/211001_GG_GR_Part-III_V5_4-1-GFS_en.pdf

As cited from the General regulations document: Certification bodies that want to become GLOBALG.A.P. approved must be accredited for ISO/IEC 17065 for the relevant scope and sub-scope.

A GLOBALG.A.P. recognized accreditation body must be a member of the International Accreditation Forum (IAF) and signatory of the part of the Multilateral Agreement (MLA) on Product Certification. This means that the accreditation body (AB) has been subject to a peer evaluation in the product certification field and has received a positive recommendation in its report.

D4.1 - Literature review and inventory of certification schemes and labels requirements

| Green Gold Label (GGL) | **Chain of Custody Standard**
Principle 1 Quality management system
1.3 In order to enable adequate tracking and tracing of the inputs and outputs, the participant shall describe the main processing steps in appropriate detail considering the processes, the information flow and the physical biomass movement within the organisation. Procedures and instructions shall be available for the monitoring of critical control points. 1.4 All process documentation and procedures shall be kept up-to-date.
Principle 4 Control of incoming products
4.8 The participant shall identify the correct proportion of material received with a mix claim from endorsed schemes and allocate this as GGL-Certified and GGLControlled (e.g., 100 metric tonnes of Scheme Y Mix 70% shall be registered as 70mt GGL-Certified and 30mt as GGL-Controlled). 4.9 The participant shall monitor and register the volumes of GGL material supplied (incoming). In case the amount of materials supplied deviates from the amount stated in the statement and invoices, the participant shall verify this deviation with the supplier and record it
Principle 6 Control of processed products
Criteria 6.1 All raw materials and all products, before, during and after the processing must be traced and identified. Where risk of pollution with foreign material (or non GGL Certified/Controlled) or mixing with products polluted with foreign materials are identified, specified and documented | - As cited from **Green Gold Label Certification Regulation v7**
2. GGL Certification Requirements
2.1 The GGL requirements shall be audited by the Certification Body and per applicable GGL standard each principle, criteria and indicator (if applicable) shall be systematically covered and identified as conformity or non-conformity. Non-conformities shall be graded as either major or minor (non-conformity).
3. GGL approved Certification Body (CB)
Approval and general requirements
3.3 The CB must file a request with an accreditation body for ISO 17065 accreditation with GGL scope. The appointed accreditation body must be a member of the European Accreditation (EA) Multilateral Agreement (MLA) for product certification or be a member of the International Accreditation Forum (IAF).
3.8.2 The CB shall develop locally adapted verifiers at criterion or indicator level to ensure local conditions are taken into account when conducting FMU/supply unit audits. Verifiers should be specific and based on national requirements and conditions.
4.6 GGL audits shall be conducted in accordance with ISO19011 requirements and shall at a minimum include the following activities: opening meeting, closing meeting, communications, report writing, grading of non-conformities and post-audit activities.
4.7 An audit report shall be drafted for each GGL audit in accordance with ISO/IEC 17021-1:2015 clause 9.4.8.2. and 9.4.8.3.
Independence and confidentiality
13. Auditors are not allowed to perform work which may potentially affect their independence or impartiality, in particular they may not perform work on guidance and training where this affects the GGL implementation of standards to the participant |

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

ISCC EU & ISCC PLUS	- ISCC Certified Materials are Tracked Along the Supply Chain, see https://www.iscc-system.org/certification/chain-of-custody/mass-balance/ - **ISCC EU203 Traceability and Chain of Custody**: Different chain of custody methods are available for the handling of sustainable materials along the supply chain, including the two methods that are applicable under this standard: Product segregation and mass balance. A third method, known as book & claim is not allowed. Under ISCC, the identification and tracking of the origin, processing history distribution and location of materials can be done "step-by-step" through the entire supply chain. Appropriate information and documentation for incoming and outgoing sustainable material are crucial for fulfilling the traceability and chain of custody requirements under this standard. See 3.3 General Documentation and Information Requirement	

D4.1 - Literature review and inventory of certification schemes and labels requirements

PEFC International (Programme for the Endorsement of Forest Certification)

- Through PEFC certification, we can track the material from these forests, down the supply chain, to the final product that you buy. The mechanism to track the material is called chain of custody certification. Did you know that you can even use the PEFC label to find out more about the company that made the product? If you look under the logo, you will see a string of numbers - type these into our 'Find Certified' database and see what you find! (https://www.pefc.org/what-you-can-do/look-for-the-pefc-label)

- **PEFC Chain of Custody requirements document**
The objective of this standard is to allow organisations to provide accurate and verifiable information that forest and tree based products are sourced from PEFC certified sustainably managed forests, recycled material and PEFC controlled sources.
The usage of claims and relating labels, as a result of implementation of this Chain of Custody standard, is based on ISO 14020. Consideration of recycled material within the chain of custody is based on the requirements of ISO/IEC 14021.
The use of the PEFC trademarks i.e., PEFC logo and labels, chain of custody claims on-product and PEFC initials, shall be in compliance with PEFC ST 2001, PEFC Trademarks Rules – Requirements.
There are three methods to implement the PEFC chain of custody, namely the physical separation method, the percentage method and the credit method. Depending on the nature of material flows and processes, the organisation shall choose the appropriate method.

As cited from the **Assuring compliance page of PEFC**:
Third-party certification
Independent certification bodies (CBs) issue PEFC certificates. They are independent from their clients, and from us. Furthermore, we only work with "PEFC notified" CBs. PEFC notified CBs have the necessary accreditation in place to demonstrate that they work according to PEFC and ISO requirements. This is how we ensure that PEFC certificates are issued by impartial CBs, who follow standardized ISO procedures and use competent auditors that have received regular PEFC training.
Before a certificate is issued to a forest owner or supply chain company, the CB will perform an audit to verify that all PEFC requirements are met. For forest management certification the audit includes stakeholder consultation, and the audit report needs to be publicly available.
During the audit, the CB may find that certain requirements are not met, and they will issue a nonconformity. We require that all nonconformities are solved before a PEFC certificate is granted. During the validity, the CB will visit the certificate holder annually for a surveillance audit to ensure that the PEFC requirements continue to be met.
Accreditation is carried out by an accreditation body (AB).
At PEFC we do not have our own accreditation body. Like with the majority of ISO based certifications, we rely on national ABs under the umbrella of the International Accreditation Forum (IAF).
For chain of custody certification, auditors, reviewers and certification decision makers are required to attend PEFC recognized training in order to qualify, and once they are qualified, every two years and when there is a new issuance of the PEFC Chain of Custody or PEFC Trademarks standards. Through these trainings we can harmonize the certification body personnel's knowledge and keep them up-to-date on PEFC and our standards. This increases the consistency in auditing worldwide.
To ensure that CB and AB are operating sufficiently independent and impartial and they work according to specific procedures, using competent auditors: We only work with CBs and ABs that comply with the applicable ISO requirements. Some key ISO documents are the ISO/IEC 17011 (for accreditation) and the ISO/IEC 17021-1 and ISO/IEC 17065 (for certification).
- As cited from **Certification and Accreditation Procedures**
The auditors shall fulfil general criteria for quality and environmental management systems auditors as defined in ISO 19 011
The applied auditing procedures shall fulfil or be compatible with the requirements of ISO 19011
Accreditation bodies shall be a member of the International Accreditation Forum (IAF) or a member of IAF's special recognition regional groups and

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

	implement procedures described in ISO/IEC 17011:2004(4) and other documents recognised by the above organisations.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

◇◇◇ HARMONITOR

REDcert, REDcert²

- As cited from <u>Guidelines governing the use of the REDcert² logo and the representation of claims for products made from sustainable material flows</u>

The REDcert² logo and the product claims associated with the logo can be displayed on REDcert² bio-based and biomass-balanced certified products and certified recycled products (on-product) or used for advertising, explanatory or other representations related to the REDcert² standard (off-product). Certificate holders who supply bio-based, biomass-balanced certified products or certified recycled products to other certified companies must ensure that the information about the sustainability properties on the delivery slips of the respective products fulfil the REDcert² requirements. This sustainability information determines which advertising claims (on product) can be used on an end product.

The trademarked REDcert² logo and an associated product claim may be used as described in section 3 as long as the user has a valid certificate or a valid contract with REDcert. The following requirements must be met. Product claims with other wording are only acceptable in individual cases after assessment by REDcert.

- As cited from <u>the REDcert EU Scheme principles for integrity management</u>

Systematic monitoring of GHG balances and the GHG savings declared in the sustainability certificates

For the systematic monitoring of GHG balances and the GHG savings declared in the proofs of sustainability, the scheme operator envisages close cooperation with the national authorities.

- <u>REDcert² System principles for biomass production in the food industry, Version 02</u>

As a result, the biomass producer has to keep records of the seeds/planting stock used, the information on variety name, dealer, production area, seeding/planting date and applied quantity of seed/planting stock per area. He should ensure that the

- As cited from the **Scheme principles for neutral inspections document**

2.3 Process and duration of audits

Audits must be carried out in accordance with the requirements of ISO 19011.

The certification body must conduct a complete audit once a year to determine whether the operation still satisfies the requirements for certification.

All evaluations, except where there is 100% compliance, must be transparently explained in the audit report.

5.1 Requirements for certification bodies

5.1.1 Recognition by a national authority or accreditation body

All certification bodies require accreditation pursuant to the principles set out in Article 4 of Regulation (EC) 765/2008, either by the competent authority in the respective country or by a national accreditation body according to ISO/IEC 17065 or alternatively ISO/IEC 17021. Accreditation shall be to the scope of the Renewable Energy Directive (EU) 2018/2001 (RED II), or alternatively for the specific scope of the voluntary scheme. The certification bodies conduct their audits in accordance with the requirements in ISO 19011 (prerequisite for accreditation). Conformity evaluations are carried out in line with the specifications of ISO/ICE Guide 60.

5.1.4 Independence and impartiality Evaluations and decisions may not be affected by personal relationships, financial incentives or other types of influences. The certification bodies and the auditors are independent of the interfaces, operations and suppliers and free of all conflicts of interest and can provide proof of this.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

seed/planting stock can be traced back to the location of the seed/planting propagation. This requirement is satisfied, e.g., for certified seed/planting stock. The selection of the seed/planting stock should be preceded by obtaining information on, e.g., variety resistance/tolerance to common/economically important pests and diseases, soil and crop requirements, fertiliser and water requirements, expected yield, the impacts on adjacent farmland, etc

- **REDCERT EU**
6.2.1 Incoming sustainable biomass
6.2.2 Internal documentation

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Round Table on Responsible Soy Association (RTRS)

- As cited from **the RTRS page on RTRS-certified physical material**

The CoC Standard describes the requirements for the different traceability systems an organization can implement to keep control of RTRS-certified material inventories, either soybeans or soy by-products. It can be applied across the entire supply chain, and it is mandatory for organizations wishing to receive, process and trade RTRS soy. RTRS offers three supply chain models to ensure the traceability of RTRS-certified soy: Country Material Balance, Mass Balance, Segregation

The platform for traceability and recording of RTRS certified material transactions (the "Online Platform") is an online global tool that connects stakeholders in the sustainable value chain. In the case of RTRS Physical flow (Country Material Balance, Mass Balance or Segregation), it provides physical traceability records of physical soy and corn

Information and requirements regarding the use of the logo can be found in the RTRS Use of the Logo & Claims Policy:
https://responsiblesoy.org/wp-content/uploads/2023/03/RTRS-Use-of-the-Logo-Claims-Policy-V4.2-1.pdf

As cited from the **RTRS Chain of Custody standard**

2.4.1 The organization shall maintain complete and up-to-date records covering all applicable requirements of the RTRS Chain of Custody standard. 2.4.2 The organization shall implement a record keeping system for all records and reports, including purchase and sales documents, training records, production records and volume summaries. The record retention period shall be specified by the organization and shall be at least five (5) years.

- As cited from **the RTRS Accreditation and Certification Procedure for Responsible Soy Production document**

II. Scope
This document sets out: (a) The requirements for a certification body to be approved by the RTRS as being a competent body capable of undertaking assessments and issuing certificates of conformance against the RTRS Standard for Responsible Soy Production Version 4.0 & RTRS Standard for Responsible Corn Production Version 1.0 (Accreditation requirements).
(b) The way in which certification shall be carried out by such certification bodies. (Certification requirements). This assurance document will be reviewed not less than once every five years and not more than once every three years unless exceptions are identified or unless the RTRS Executive Board or General Assembly determines otherwise. As part of the review of this document, RTRS will continuously monitor the efficiency of the oversight mechanism and adapt it accordingly.

Accreditation Body (AB) requirements
1.1.4. Only accreditation bodies which have been formally endorsed by RTRS may accredit certification bodies (CB) to carry out compliance assessments and award certificates for RTRS Responsible Soy Production.
1.1.5. The accreditation body shall be operating in accordance with the requirements of ISO 17011:2017 and shall be independent from the Certification Body assessed.
1.1.9. International Accreditation Bodies shall have full membership of the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) and/or fully comply with applicable requirements of ISEAL Assurance Code.
1.1.10. RTRS Secretariat will assess the performance of the assurance system on an annual basis, update the classification of risks and inform the improvements. 1.1.11. The RTRS shall evaluate annually the performance and continued conformity of the Accreditation Body with the following requirements: 1.1.11.1. Audit reports from the Accreditation Bodies shall be sent to RTRS and will be verified. 1.1.11.2. Up-date meetings shall be performed in an annual basis between AB and RTRS.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Roundtable on Sustainable Biomaterials (RSB)

As cited from **the RSB Procedure for Traceability v3.2**

RSB provides five different options for the chain of custody system that shall be put in place: Identity Preserved, Product Segregation, Mass Balance, Content Ratio Accounting and Book & Claim. Information about the chain of custody systems, as well as their requirements for traceability can be found in the RSB Procedure for Traceability.

The aim of this procedure is to ensure that RSB certified operators put in place a robust and transparent chain of custody system that provides traceability for RSB certified material (e.g. biomass, chemical intermediaries, biofuel, advanced product, etc.) acquired from and/or delivered to other operators in the supply chain. This procedure also aims to ensure that sustainability claims based on compliance with RSB standards and procedures only accompany material that is acquired, handled, and forwarded by RSB certified operators according to the requirements included in this procedure.

The operator shall put in place a chain of custody system to track RSB certified material through the processes included in the scope of certification. This system shall meet all the requirements of this procedure.

2. 2. You shall make sure that the product information described in Annex I for incoming RSB Certified Material, based on the information is provided by your supplier (e.g., supplier invoice, transport documentation, other supporting documentation) and keep records of this information.

- As cited from **RSB-PRO-75-001-vers.3.1-General requirements for accreditation bodies**

The intent of this procedure is to ensure that accreditation bodies operating schemes for the accreditation of certification bodies take into account the specific features and requirements of the RSB standards and RSB certification systems and operate in a consistent, reliable and credible manner thereby facilitating their acceptance on a national and international basis.

In order to comply with general requirements for accreditation bodies, accreditation bodies shall demonstrate full compliance with the ISO/IEC 17011:2004 (E) and the procedure detailed below.

8. 2. The accreditation body shall develop and implement detailed audit procedures and related systems and documents based on ISO/IEC 17011:2004 (E), and the RSB standards, and the RSB certification systems. 8. 3. The accreditation body shall plan and conduct its evaluations at the premises of certification bodies and at premises of certification bodies' clients as witness audits, according to the recommendations of the ISO/IAF Accreditation Auditing Practice Group

10. Accreditation evaluation 10. 1. The accreditation body shall evaluate the certification body's competence, including its overall systems and procedures, its staffing levels, competence and experience, and its reporting ability to provide conformity assessment services under the RSB certification systems, at minimum at the following sites:

10. 1. 1. certification body's office, including offices of related bodies 10. 1. 2. participating operators certified for primary production 10. 1. 3. participating operators certified for biomass/biofuels processing and chain of custody tracking.

- As cited from **the RSB-PRO-85-001 - Version 1 – RSB Procedure for Oversight Bodies document**

3. 2. The Oversight Body shall evaluate CB reports and document any nonconformities related to the RSB requirements. The Oversight Body shall assess a sample of the audit reports (see Annex 1 for more details on sampling) created by each CB within the annual audit cycle, as well as associated PO documents that were used to evidence compliance as outlined in H.3.8 of the PRO-70. The Oversight Body should assess (i) whether or not the CB has correctly interpreted the standard requirements when conducting the audit based on the evidence, and (ii) whether the CB has allocated the correct resources to this audit, for example whether audit team allocated to the audit comprised the correct skill set

E. Oversight Body competences

1. 4. The Oversight Body shall follow the principles of Independence, Integrity, Fair presentation, Due professional care and Professional judgement according to ISO 14066: 2014

Roundtable on Sustainable Palm Oil (RSPO)

- Essentials links regarding claims policy and chain of custody: https://rspo.org/as-an-organisation/certification/supply-chains/ - <u>RSPO Rules on Market Communications and Claims 2022</u> document - <u>RSPO Trademark User Guide,</u> - <u>RSPO Supply Chain Certification Standard</u> Chapter 5 General chain of custody requirements for the supply chain	- As cited from **<u>RSPO page regarding certification bodies:</u>** Accredited third party Certification Bodies (CBs) conduct audits to evaluate members' compliance against the RSPO Standards. To ensure that members are competent to undertake credible, consistent audits, the RSPO Certification System requires that only accredited CBs are allowed to provide the RSPO Certification services. CBs that offer RSPO Certification services are accredited by Assurance Services International (ASI). - Annual audits are required to ensure continuous compliance to the RSPO Standard is maintained throughout the certification cycle.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

| **SAI Platform - Farm Sustainability Assessment FSA** | - **FSA Statement and Claims Guidance**
Organisations making general statements about using the FSA should express them in such a way that they do not suggest indicating on-farm or farm group performance levels. This means that the statements need to reflect the intention or the act of using the FSA for engaging farmers and suppliers, assessing on-farm performance and for improving on-farm performance. Companies are encouraged to specify why and how they work with the FSA, and what the scope of this work is.
There are 3 types of FSA Performance Level claims, which follow from the three verification options that the FSA offers: 1. FSA Benchmarking Claim 2. FSA Verified Claim 3. GLOBALG.A.P. FSA Add-on Claim
FSA allows companies to make FSA performance level claims on their website, product websites on social media using the name Farm Sustainability Assessment, indicating bronze, silver, or gold performance levels, displaying the FSA logo. It is not allowed to make on-pack claims using the name and logo of the FSA.
FSA is designed as a business-to-business improvement and verification scheme. FSA does not prescribe what the Chain of Custody should look like. FSA relies on companies to make agreements about the traceability of FSA verified material. Therefore, there is no mechanism to validate the flow of FSA product through the supply chain.
- See 2.9 FSA Performance Level Claims – **FSA Implementation Framework document** | Companies are free to determine their required FSA performance level, if any, and which options are best suited to their supply chains. Farms and Farm Management Groups can make Performance Level Claims to whichever FSA performance level reflects their current performance level. Third Party Verification is required in order for anyone in the supply chain to make external claims regarding the FSA Performance Level of their Farm, Farm Management Group or supply chain.
A Verification Body pursuing FSA audits must have a licence agreement in place with SAI Platform (or an organisation appointed by SAI Platform to manage the Approval Process), confirming the ability and competence of the organisation. Only Verification Bodies that are approved by SAI Platform (or an organisation appointed by SAI Platform to manage the Approval Process) may carry out FSA Verification Audits.
A quality management system must be in place to control the FSA Verification Audits. The Verification Body must be ISO/IEC 17065 accredited for an FSA recognized standard, or must apply for accreditation at the same time as applying for approval to be an FSA VB. The certificate must be issued by an accreditation body that is recognized by GLOBALG.A.P.
Where the Verification Body is part of an organization involved in activities other than audit, the Verification Body must be separate from the other functions.
A Verification Body may not provide paid FSA consultancy services to an organisation for which they provide FSA verification services.
The purpose of the FSA Verification Audit is to validate that the FSA has been implemented correctly, and hence that the result of the FSA Self Assessment is accurate and applicable to the Stand-Alone Farm or the entire Farm Management Group (FMG) |

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

HARMONITOR

Sustainable Agriculture Network (SAN)	- One of the values of SAN is accountability, meaning they strive to deliver on their commitments and are transparent in their reporting. As cited from **the Collective Impact page of SAN** 6. Communication and reporting We use storytelling to complement and enrich what we learn from monitoring, evaluation and learning. We are excited to convey compelling change stories that communicate the human faces of the impactful work our clients and donors finance in the field. We adapt our reporting to branding and format requirements to make sure the material can be effectively used to convey narratives that tell how our partners are advancing sustainable and regenerative agriculture.	The SAN is overseen by a Board of Directors, composed of a maximum of 11 representatives of the members elected by the General Assembly. The Board of Directors approves the annual plans, goals, and strategies of the organization. All awarded projects and contracts will be subject to the quality review mechanism that includes regularly scheduled meetings. The process aims to ensure the timely delivery and quality of SAN program/project management commitments within budget.

D4.1 - Literature review and inventory of certification schemes and labels requirements

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N° 101060133

⬡⬡ HARMONITOR

As cited from **SBP Framework Standard 1: Feedstock Compliance Standard (Version 1.0, 2015)**	As cited from **SBP Standard 3 Requirements for Certification Bodies v2.0**
Sustainable Biomass Program (SBP) 1.1.2 Feedstock can be traced back to the defined Supply Base. Examples of means of verification: - Feedstock inputs, including species and volumes, are consistent with the defined Supply Base - Transport documentation and goods-in records are consistent with the defined Supply Base. 1.1.3 The feedstock input profile is described and categorised by the mix of inputs. Examples of means of verification: - Feedstock input records **SBP Standard 2 Feedstock Verification document:** 2.1 The Organisation shall ensure that all sourced feedstocks can be traced back to the defined Supply Base. To do so, the Organisation shall ensure that the sourcing area is within the defined Supply Base. https://sbpcert.wpenginepowered.com /wp-content/uploads/2023/05/SBP_Standard_4_v2.0_final.pdf 1.12 The Organisation shall maintain accurate, complete, up to date and accessible records and reports covering all applicable SBP requirements applicable to the certificate scope, 1.13 Records shall be retained for a minimum of five (5) years and comply with legal and regulatory requirements. 4.1 The SBP-certified Organisation shall ensure that all transactions of material included in its SBP product group schedule can be traced at least one step upstream and one step downstream from itself, and that all material is accounted for whilst under its legal ownership. 4.5 The Organisation shall ensure that the quantity of physical inputs and outputs are tracked and documented and that only eligible inputs are used in products sold with an SBP claim and within the scope of the certificate. 4.10 For Organisations opting to use a mass balance system for material accounting, the Organisation shall set up and maintain a mass balance account to which additions and	1.1.1 The Certification Body (CB) shall hold SBP accreditation in accordance with ISO 17065. 1.1.3 The CB shall hold at least one of the following accreditations: Forest Stewardship Council® (FSC®), and/or Programme for the Endorsement of Forest Certification (PEFC), and/or Sustainable Forest Initiative® (SFI®) 4.12 The CB shall ensure the satisfactory performance of all personnel involved in the evaluation and other certification activities. There shall be a documented process for monitoring competence and performance of all persons involved. 4.14 The CB shall periodically evaluate the performance of each auditor on-site at an evaluation relevant to the scope of their authorisation. The frequency of on-site evaluations shall be based on need determined from all monitoring information available but shall not exceed three (3) years. 5.2 The CB shall have a legally enforceable agreement for the arrangement(s) it has with each body that provides subcontracted services, which shall include at minimum confidentiality requirements and the identification and avoidance of conflicts of interests. 5.4 The CB shall have a process for the approval and monitoring of all bodies that provide subcontracted services used for certification activities and shall ensure that records of the competence of all personnel involved in certification activities are maintained. 9.4 The CB shall enter all required information in the Audit Portal and maintain it up to date as necessary. 13.1 The CB shall carry out a surveillance evaluation to monitor the Client's continued conformance with applicable certification requirements, at least annually (i.e., every 12 months).

deductions of eligible input for a single physical site shall be recorded.	

9.7 Appendix - CSL inventory for HARMONITOR (long list)

Title of the scheme
Alliance for Water Stewardship (AWS)
Aquaculture Stewardship Council (ASC)
Better Biomass
Better Cotton
Bioplastic Feedstock Alliance (BFA)
Bonsucro
BRCGS Ethical Trade and Responsible Sourcing
BREEAM
Carbon Trust Product Footprint Certification
Cradle to Cradle Certified
EU Ecolabel - Paper
EU Ecolabel - Textiles
EU organic farming logo
Fairtrade International
Fairtrade International Textile Standard
Forest Stewardship Council (FSC)
GlobalG.A.P.
Global Organic Textile Standard (GOTS)
Global Reporting Initiative (GRI)
Global Seafood Alliance (GSA)
Gold Standard
Green Gold Label (GGL)
ISCC EU & ISCC PLUS
Marine Stewardship Council (MSC)
Nature Care Products (NCP) Standard
Naturtextil IVN certified BEST
OK biobased
Pacific Organic Standard
PEFC International (Programme for the Endorsement of Forest Certification)
Rainforest Alliance
Recognised
REDcert, REDcert[2]
Round Table on Responsible Soy Association (RTRS)
Roundtable on Sustainable Biomaterials (RSB)

D4.1 - Literature review and inventory of certification schemes and labels requirements

Roundtable on Sustainable Palm Oil (RSPO)
SAI Platform - Farm Sustainability Assessment FSA
SGE 21
Sustainable Agriculture Network (SAN)
Sustainable Biomass Program (SBP)
Sustainable Forestry Initiative (SFI)
Textile Exchange
Together for Sustainability (TfS)
Verified Carbon Standard (VCS)

D4.1 - Literature review and inventory of certification schemes and labels requirements