

**D7.8** 

# Roadmap for STAR4BBS' outputs exploitation



























www.star4bbs.eu info@star4bbs.eu

@STAR4BBS











## **D7.8**

## Roadmap for STAR4BBS' outputs exploitation

#### **DELIVERABLE TYPE**

Report

#### MONTH AND DATE OF DELIVERABLE

M34, 06/30/2025

**WORK PACKAGE** 

**LEADER** 

WP7

UNITELMA

**DISSEMINATION LEVEL** 

**AUTHORS** 

Public

Enrica Imbert Ana Gabriela Encino-Munoz

**Programme** 

**Grant Agreement** 

Start

**Duration** 

HORIZON **EUROPE** 

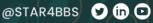
101060588

Sept.2022

36

Months











## **Contributors**

NAME	ORGANISATION
Enrica Imbert	UNITELMA
Ana Gabriela Encino-Munoz	UNITELMA

## **Peer Reviews**

NAME	ORGANISATION
Ilaria Bientinesi	APRE
Luana Ladu	TUB
Nikola Matovic	TUB

## **Revision History**

VERSION	ORGANISATION	REVIEWER	MODIFICATIONS
0.1	20/06/2025	UNITELMA	First Draft
0.2	21/06/2025	APRE	MODIFICATIONS
0.3	26/06/2025	TUB	MODIFICATIONS
1.0	30/06/2025	UNITELMA	Final Version

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.





## **Index of Contents**

Ex	ecutive Sum	mary	7
1	Introductio	on	8
2	KER's Final	Identification and Description	10
	2.1	Identification of KERs and target specific audiences	11
	2.2	KERs Description	12
	A.	Monitoring System	14
	B.	Concept of the STAR4BBS Monitoring System for Standardisation Activities	es16
	C.	Knowledge Outputs	17
	D.	Best Practices and recommendations	20
	E.	Capacity-building Activities	20
3	Strategy fo	r Exploitation: Assuring the success of KERs	21
	3.1	Undertaken and Future Actions for Key Exploitable Results	21
	A.	Monitoring System	21
	B.	Concept of the STAR4BBS Monitoring System for Standardisation Activities	es .24
	C.	Knowledge Outputs	24
	D.	Best Practices and Recommendations	27
	E.	Capacity-building activities	28
	3.2	KERs and the achievement of KPIs	29
4	Intellectua	l Property Rights Management Overview	31
	4.1	STAR4BBS IPR Management Objectives	31
	4.2	BIOBASEDCERT Cluster IP Management	32
5	Conclusion	IS	35
6	References	5	36
7	Appendix		37





Table 1. Overview of STAR4BBS' KPIs relevant for exploitation	10
Table 3. List of Scientific Publications	19
Table 4. Indicators Inventory Databases	24
Table 5. STAR4BBS publications on scientific journals and their metrics	
Table 6. Status of KPIs	29
Table 7. STAR4BBS's Identified foreground IPs	32
Table 8. IPs of Joint Assets	33
Table 9. Summary of BIOBASEDCERT Co-ownership Agreement	
Index of Figures	
Figure 1. Roadmap for exploitation and its links with the project's tasks	8
Figure 2. STAR4BBS selected KERs	12





#### Partners short names

TUB Technische Universitat Berlin

UNITELMA Università degli studi di Roma UnitelmaSapienza

**UNI** Ente Italiano di Normazione

AUA Geoponiko Panepistimion Athinon

**USC** Universidad de Santiago de Compostela

APRE Agenzia per la Promozione della Ricerca Europea

NOVA Institut for politische und Okologische Innovation GMBH

BB Better Biomass

BAM Bundesanstalt fuer Materialforschung und Pruefung
RSB Roundtable on Sustainable Biomaterials Association

**ISEAL** Iseal Alliance

#### **Abbreviations**

BMT BIOBASEDCERT Monitoring Tool

**CA** Consortium Agreement

CSA Coordination and Support Action
CSLs Certification Schemes and Labels

GA Grant Agreement
IP Intellectual Property

IPR Intellectual Property RightsKER Key Exploitable ResultKPI Key Performance Indicators

**WP** Work Package





## **Executive Summary**

The Roadmap for STAR4BBS' outputs exploitation presents the project's main outputs and their current exploitation. By sharing the project's results with key stakeholders through the implementation of tailored tools, the Roadmap also has the aim of ensuring the access to mentioned outputs after the end of the project, supporting their further replication and use. Therefore, this document also serves as a post-project exploitation guide for all the key assets.

Since STAR4BBS is a Coordination and Support action, the Roadmap is centred on leveraging knowledge, capacity building and recommendations through open access tools, publications and databases, standardisation activities and policy-related actions.

The process that has led to the development of the Roadmap is based, on the one hand, on an intense coordination activity within the consortium, especially with partners involved in communication and dissemination activities. This approach has resulted in the selection and implementation of the STAR4BBS Key Exploitable Results (KERs). On the other hand, the close collaboration carried out simultaneously with sister projects of the BIOBASEDCERT cluster culminated in the establishment of joint KERs. This collaborative effort is in line with recommendations from the EC Horizon Results Booster.

For a successful implementation of an exploitation strategy, the correct management of Intellectual Property Rights (IPR) is essential. For this reason, STAR4BBS Consortium has placed great attention to incorporate IPR management rules into the Roadmap for Exploitation, assuring an effective long-term sustainability of the project results also after its conclusion. Correspondingly, this Roadmap complies with IP principles established by the Consortium Agreement and the Data Management Plan of the STAR4BBS Project (D8.4), as well as the Co-ownership Agreement developed within the BIOBASEDCERT Cluster.





Exploitation encompasses various forms of leveraging the results of a project including: (i) use of the results into subsequent research activities; (ii) development, creation, or marketing of a product or process; (iii) creating or providing a service; and (iv) use of the results in standardisation processes or other relevant scenarios, such as policy development or educational initiatives (European Commission, 2025; IP Helpdesk, 2022). The "Roadmap for STAR4BBS' outputs exploitation" (from now on Roadmap for exploitation), presented in this deliverable, is focused on leveraging the project's results to support further research, standardisation efforts and policy-related actions to provide advancement in the field.<sup>1</sup>

Specifically, the Roadmap for exploitation represents a further development of D7.1 (Strategy for dissemination, exploitation and communication) in which preliminary Key exploitable results (KERs) were identified, and it is built on the connections with key related tasks and associated outputs of the STAR4BBS project. Figure 1 provides an overall picture of the whole process that has been undertaken, which includes actions related to STAR4BBS but also joint activities with the other two sister projects awarded from the funding devoted to the "ZEROPOLLUTION-01-07 call (International and EU sustainability certification schemes for bio-based systems), i.e. the HARMONITOR (Harmonisation and monitoring platform for certification schemes and labels to advance the sustainability of bio-based systems), and SUSTCERT4BIOBASED (Sustainability Certification for Biobased Systems)<sup>2</sup>.

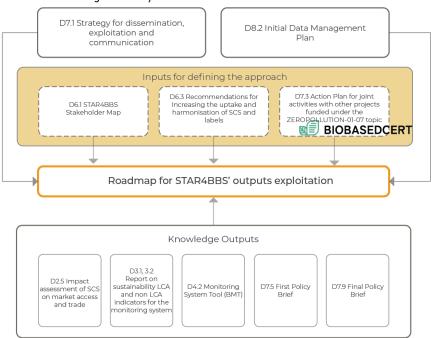


Figure 1. Roadmap for exploitation and its links with the project's tasks

-

<sup>&</sup>lt;sup>1</sup> As a Coordination and Support Action, the STAR4BBs project does not pursue the production of commercial goods or services.

<sup>&</sup>lt;sup>2</sup> The EU call "ZEROPOLLUTION-01-07: International and EU sustainability certification schemes for biobased systems" funded three projects, i.e. the STAR4BBS (Sustainability Transition Assessment Rules for BioBased Systems), HARMONITOR (Harmonisation and monitoring platform for certification schemes and labels to advance the sustainability of bio-based systems), and SUSTCERT4BIOBASED (Sustainability Certification for Biobased Systems).



The three sister projects joined their forces in 2023 forming the BIOBASEDCERT cluster - to coordinate their activities, pool resources, and build on each other's strengths, while avoiding duplication, maximising impact, and reducing stakeholder fatigue. Final goal is to deliver more robust and aligned outputs. Therefor, the implementation of the Roadmap for exploitation of the KERs being identified as shared among the projects, above all the BIOBASEDCERT Monitoring System (BMT), has been carried out through a strong collaboration with partners of the Cluster.

The Roadmap for exploitation also sets the guidelines in terms of outputs' protection including the IPR and agreements to support the exploitation activities and establishes the correct procedures for exploiting results within the consortium, the BIOBASEDCERT Cluster and third parties.

The deliverable is structured as follows: section 2 shows the process for the selection of the KERs describing specifically each one of them and their associated target audiences, section 3 presents the already implemented exploitation actions and future plans for the sustainability of assets' exploitation after the project completion. Section 4 describes the Intellectual Property Rights principles considered within the STAR4BBS project and the rules for the BIOBASEDCERT Cluster joint assets. Finally, section 5 presents main conclusions of the Roadmap.



## 2 KER's Final Identification and Description

As a first step, the link between Key Performance Indicators (KPIs) and Key Exploitable Results (KERs) has been established. This approach is central for ensuring both the immediate and long-term strategic impact of STAR4BBS since KPIs serve as measurable benchmarks that track the project's progress while KERs represent the tangible outcomes or innovations that can be further exploited by relevant stakeholders. In this respect, KPIs help track the reach and engagement of activities undertaken supporting the validation of KERs' impacts and uptake. Therefore, the STAR4BBS Roadmap for exploitation relies on and contributes to the project's Key Performance Indicators (KPIs) (Table 1) and consists of:

- i. Identification of Key Exploitable Results (KER) (partially based on D7.1) and targeting of specific audiences that will benefit from these results (derived from the stakeholder categories identified by D.6.1)
- ii. Definition of each KER strategy and partners' roles
- iii. Implementation of tools to enhance the use of KERs

Table 1. Overview of STAR4BBS' KPIs relevant for exploitation

KPI	Expected results	
Outcome 1: Bio-based value chains transparency in is enhanced through B2B labels of biological feedstoc products		
Existing B2B labels and new initiatives rely on the STAR4BBS outputs to improve, design, or harmonize their traceability systems	≥3 of the 20 top ranked B2B labels	
Commitments of SCS to (and subsequently take concrete steps to) increase harmonization, through changes to their standards and processes and/or through mutual recognition processes	≥3 of the 20 top ranked SCS	
Existing SCS and new initiatives rely on the STAR4BBS outputs to improve their schemes/labels or to design new one (including deciding if it is truly needed)	≥10 SCS and committed to use the BMT	
Trade, Business & Industry associations use STAR4BBS research and monitoring system to explain the value transparency to members, supporting them in choice of B2B labels	≥ 3 industrial sectors associations interested to use it	
New legislation or updates to existing legislative in order to support and encourage adoption of robust B2B labels and traceability systems by EU-based businesses	250 stakeholders engaged	
Outcome 2: Harmonization of existing international and EU SCS and the monitoring system and indicators of their effectiveness and robustness		



The STAR4BBS proposed indicators become the standard reference for certification schemes, researchers, business analysts and policymakers when discussing and analysing SCS for biological feedstocks, bio-based materials and products	Start preparation of 1 fast track standard; ≥ 10 best practices; ≥ 3 briefing notes; ≥ 250 stakeholders
Scientific publications	At least 8
Webinars and training courses for companies	At least 3

The scientific publications and the webinars and training courses have been added to the table since, although they are part of the dissemination strategy (D7.1), they also become relevant exploitable outputs as they are already being leveraged through specific platforms.

#### 2.1 Identification of KERs and target specific audiences

The starting point, as mentioned above, is represented by D7.1 "Strategy for dissemination, exploitation and communication" in which the main project's goals and their link to exploitation activities were preliminary defined. D7.1 identified the potential KERs based on the project's KPI but also on further application suggested by the consortium. Overall, it included the following KERs:

- Monitoring System BMT<sup>3</sup> (to increase the robustness and effectiveness of SCS and labels related to bio-based feedstocks, materials and products)
- Transfer the concept of STAR4BBS Monitoring System to standardisation outputs
- Examination of trade flows and impact assessment of CSLs on market access
- Analysis of indicators covering environmental, social, economic and circular aspects

Subsequently, this preliminary identification of KERs was widened. An updated table including the list of KERs, the suggestion of potential additional outputs and their strategy (e.g. presentation of policy recommendations, use of publications, use of other platforms) was developed by UNITELMA. The list was shared with partners during the General Assembly held on the 19th and 20th September 2024 in Athens. Specifically, a 1-hour co-creation activity has been carried out on the first day of the Assembly to discuss the contents of the table, with the overall aim of selecting the final KERs and associated actions.

The co-creation activity consisted of gathering feedback through an exercise in which different alternatives for the proposed actions' exploitation were explored, first by task owners and later integrated with ideas by other members of the consortium. This activity helped to share insights and facilitate the discussion around which outputs could be exploited and how the strategy could reach key stakeholders.

\_

<sup>&</sup>lt;sup>3</sup> It should be noted that the D7.1 makes reference to the monitoring system and not yet to the BMT since the BIOBASEDCERT Cluster was not yet established.



After this exercise, the final list of KERs (Figure 2) was created and shared with the consortium to gather additional feedback on the pre-defined strategies, establishing also the timelines for the development of each product. Finally, by organising bilateral meetings with partners responsible for each KER, UNITELMA refined the strategies to support the connection with specific stakeholders to reach the right audience for each of them and generate the most appropriate output.

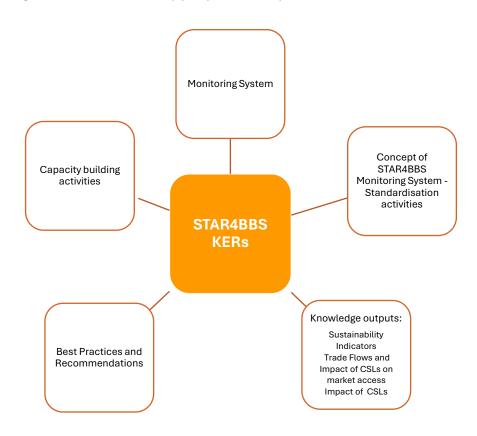


Figure 2. STAR4BBS selected KERs

#### 2.2 KERs Description

Table 2 presents the summary of the final KERs, their origin (e.g. whether it was a project's KPI) the tool or platform to be used for showcasing the assets, and their specific target audience. Indeed, the identification of the different tools or platforms considers the variety of potentially interested stakeholders. Hence, actions undertaken and/or initiated assure the participation of several actors including policymakers, CSLs owners, businesses, industry clusters, consumer associations, NGOs, academia and researchers.

Table 2. STAR4BBS KERs and key features

	KER	Origin	Tool or Platform	Key users / Target audiences
A	Monitoring System	STAR4BBS KPI	<u> </u>	Standards setting, labelling and certification owners
			(BMT)	Policymakers



				Businesses, industry clusters and other associations (e.g.
				associations (e.g. consumer)
			A2	Standards setting,
			BIOBASEDCERT	labelling and
			Web-based tool	certification owners
				Policymakers
				Businesses, industry
				clusters and other
				associations (e.g.
				consumer)
В	Concept of	STAR4BBS	Fast-track	Policymakers
	STAR4BBS	KPI	standard	
	monitoring			
	system for standardisation			Standards setting,
	activities			labelling and
				certification owners
				Businesses, industry
				clusters and other
				associations (e.g.
				consumer)
С	Knowledge			
	outputs			
	lancame	CTAD/DDC	2 Caiasatiria	Dallas as allassa'
C1	Inventory of Sustainability	STAR4BBS KPI	2 Scientific Publications	Policy and business analysts and
	Indicators	KPI		researchers
	maidators		(see Table 3, no. 2 and 10)	researchers
		A 1 12:	Databases with	Dolloy and business
		Additional	the list of	Policy and business analysts and
		exploitation output	indicators	researchers
		σαιραί	available	
			through Zenodo Platform	
			(See Table 4)	
	1		i	



C2	Examination of Trade flows -	Additional exploitation	1 White paper	Policy and business analysts and
	Impact	output		researchers
	assessment of			
	CSLs on market access	Additional exploitation output	1 Brochure	Policy and business analysts and researchers
C3	Impact and contribution of existing CSLs labels	STAR4BBS KPI	1 Scientific Publications (see Table 3, no. 3)	Business analysts and researchers
		Additional exploitation output	Evidensia Platform	Business analysts and researchers
D	Best practices and recommendations	STAR4BBS KPI	Policy briefs	Policymakers
			Audience-	Business sector
			specific briefing notes	Other target groups
			Inputs for the	Policymakers
			new EU Bioeconomy Strategy	EU regulatory bodies
E	Capacity- building Activities	STAR4BBS KPI	Online training courses	Businesses, industry clusters and other associations (e.g. consumer)

#### A. Monitoring System

One of the central outputs of the Cluster is the BIOBASEDCERT Monitoring Tool (BMT). Faced with an array of sustainability certification schemes and business-to-business labels (CSLs) in the industrial biobased sector, the projects recognized the need for a shared, harmonized evaluation platform. Pooling their diverse expertise, each project led one of the three levels of which the BMT is composed, i.e. system, content and outcomes.



For their development, there was a representation from all three projects and in this way technical knowledge and expertise were synergized and built upon.

#### A1. BIOBASEDCERT Monitoring Tool (BMT)

#### **Asset Description**

Launched with a draft in February 2024 and refined through stakeholder engagement and pilot testing with prominent CSLs (e.g., FSC, RSB, Nordic Swan), the BMT provides structured indicators and interpretive layers to measure CSLs' alignment with EU sustainability goals, facilitating transparency, harmonization, and continuous improvement for policymakers and certification bodies alike.

The decision of joining efforts to create this tool increases the possibility of continued use of the BMT after the end of the three projects. All information regarding the structure and applicability of the BMT is publicly available through the Joint Deliverable for HORIZON–CL6-2021-ZEROPOLLUTION-01-07: BIOBASEDCERT Monitoring Tool (BMT)<sup>4</sup>

#### **Targeted Stakeholders**

The direct audience of the BMT is represented by **policymakers** and **CSLs owners**. For policymakers, the tool provides a framework to assess the contributions of CSLs to sustainability goals and also for evaluating potential of CSLs and accompanying standards to contribute to the objectives and sustainability targets prioritised in relevant EU Regulations, Directives and other policy initiatives. For CSLs owners, the BMT can incentivise an upgrading process by identifying potential areas for improvement. Moreover, it is worth noting that this tool can also be useful to other types of stakeholders including, for example, NGOs, business owners and industry and consumer associations. For this reason, the exploitation strategy (see section 3) for this output is centred also on these latter actors.

To sum up, the use of BMT enables improved understanding of how different certification schemes measure up in terms of sustainability performance; evidence-based guidance for policy formulation and updates; and support for market actors seeking credible and impactful certification tools aligned with EU green transition goals.

#### A2. BIOBASEDCERT Web-based Tool

#### **Asset Description**

The web-based tool has been created to facilitate the use of the BIOBASEDCERT Monitoring Tool as a self-assessment instrument, enabling certification schemes owners to assess whether their schemes are aligned with the indicators included in the tool. It represents an important extension of the applicability of the BMT beyond the duration of STAR4BBS. Offered through the STAR4BBS website as an open source, freely available, and user-friendly software, the tool allows its users to independently undertake an assessment of a specific certification scheme or ecolabel by benchmarking its

<sup>&</sup>lt;sup>4</sup> The Joint Deliverable on the BIOBASEDCERT Monitoring Tool (BMT) was submitted as an updated D4.2 Monitoring system tool by the STAR4BBS project in M34.



requirements against the BMT indicators. Specifically, it allows to generate comprehensive evaluations of CSLS by taking into account the following structure: system level (focused on governance structures and operational robustness of the CSLs); content level (evaluating the sustainability and circularity requirements of the CSLs standards for operators seeking certification); and, outcome level (analysing through evidence how CSLs demonstrate progress toward sustainability goals).

In summary, the web-based tool is conceptualised around the following principles:

- Multi-dimensional assessment: Including the three levels (system, content and outcome level) and diverse value chain actors (biomass producer, industrial processor and final product manufacturer).
- Login and storage functions: Providing the option for users to create an account that allows to save their assessments
- User-friendly interface: Offering an easy and consistent navigation and clear instructions on how to use it.
- Free access: No fee or payment is required for using the tool.

## B. Concept of the STAR4BBS Monitoring System for Standardisation Activities

#### **Asset Description**

As described in the introduction, standardisation activities represent a tool to potentialize the use of project outputs and facilitate their adoption. Indeed, as outlined by the literature, standards can be seen as an important tool for leveraging research outputs to bring innovation to other sectors (i.e. market, policymaking) (Gottinger et al., 2023; Majer et a., 2018). Within the specific context of the complex meta-sector represented by the bioeconomy, standards have been, so far, essential mechanisms to demonstrate sustainability for both businesses and consumers (Vogelpohl, 2023)

A CEN Workshop Agreement (CWA) is a pre-standardisation collaborative, consensus-based document developed by stakeholders in a workshop setting, outside of technical committees, intended to address standardisation gaps or emerging technologies, representing a flexible tool for developing and validating specifications (European Committee for Standardization, 2025). This action was selected as the most appropriate standardisation activity for the STAR4BBS project outputs since it is designed for areas of rapid innovation where formal standards may not apply yet and it is a voluntary mechanism offering a wide range of advantages such as: sharing best practices to broad audiences, making research knowledge publicly available, establishing a preliminary assessment before the development of an European Norm (EN) and, a rapid development compared to traditional standardisation methods, thereby enhancing its suitability for industries and projects that work under short timeframes.



Therefore, in collaboration with the Italian Standardisation Body (UNI), the STAR4BBS consortium has initiated the process for the creation of a fast-track prestandard around the concept of the monitoring system (BMT).

#### **Targeted Stakeholders**

- **CEN** working groups
- **Industry** and **policy networks** including the European Bioeconomy Alliance, ECOSYSTEX, and standardisation-focused forums

#### C. Knowledge Outputs

The STAR4BBS outputs developed through the different project tasks provided valuable resources that have been effectively utilized as KERs. Below, four main knowledge assets are presented: the inventory of sustainability indicators (C1), the examination of trade flows and impact assessment of CSLs on market access (C2) and the impact of CSLs (C3).

#### C1. Inventory of Sustainability indicators

#### **Asset Description**

The first asset stems from WP3 tasks and it consists of an inventory that includes indicators based on the Life Cycle Assessment (LCA) methodology and indicators derived from other methodological approaches. In addition to provide inputs for the monitoring system, the inventory constitutes a valuable asset that can be used by researchers and policymakers as a reference framework to obtain a broad landscape on sustainability aspects.

The inventory of indicators includes the following categories:

- Environmental LCA indicators
- Economic LCA indicators
- Social LCA indicators
- Additional Indicators:
  - System Indicators (e.g. standard setting, assurance, traceability, scheme management)
  - Circularity indicators
  - o Additional (Non-LCA) Environmental indicators
  - Additional (Non-LCA) Economic indicators (e.g. economic & technical risks; innovation and development)
  - o Social indicators (e.g. consumer satisfaction; local development)

#### **Targeted Stakeholders**

The inventory is targeted at:

 Researchers and academic institutions seeking harmonised sustainability metrics;



- Certification bodies and standard setters aiming to refine or benchmark their CSLs;
- Policy makers and regulators developing criteria for sustainability claims or directives;
- **Bio-based industry actors** and **sustainability consultants** looking to integrate credible indicators into corporate reporting or product design.

#### C2. Examination of trade flows and impact assessment of CSLs on market access

The knowledge derived from the analysis on the trade flows and impact assessment of CSLs on market access is the basis for the development of two exploitation assets. The consortium decision of transforming these results into exploitable outputs is motivated by the fact that information on the topic is still scarce despite its significance for sustainable biobased value chains. Therefore, these assets include findings from the trade flow assessment; highlights from the certified vs. non-certified biobased materials and products evaluation; and, the results from the impact assessment of CSLs on market access and trade.

#### **Targeted Stakeholders**

- Policy makers and regulators interested in the role and impact of sustainability standards in bio-based international trade
- **Business analysts** and **researchers** working on topics to fostering sustainable trade practices
- **Industry Stakeholders** aiming at integrating sustainable practices in their commercial international trade activities.

#### C3. Impact and contribution of existing CSLs

#### **Asset Description**

Results on the impact and contribution of existing CSLs have been published on the Evidensia Platform. The use of specialised knowledge-sharing platforms is indeed critical for an effective exploitation of research outputs as they facilitate the connection between researchers and key stakeholders -including policymakers, business and industry representatives, thereby enhancing the societal and market impact of research and promoting its transfer.

Evidensia is an initiative coordinated by the International Social and Environmental Accreditation and Labelling (ISEAL), together with other important partners such as the World Wide Fund for Nature (WWF) and the Rainforest Alliance. It is a open-access platform for research focused on the impacts of various supply chain initiatives and tools. Specifically, the platform aims at delivering high-quality, reliable evidence and insights on sustainability impacts by offering easy access to credible studies and enhancing their interpretation through interactive tools. By disseminating findings through Evidensia, the STAR4BBS project benefits from increased visibility and greater potential for impact.



To conclude, it should be noted that, as knowledge outputs can also become exploitable assets through their use and citations, STAR4BBS has also worked towards the production of various scientific articles (see Table 3) following an open-access principle and the use of repositories that allow their access under Creative Common Public Domain (CC 0) and in line with the FAIR principles (findable, accessible, interoperable, and reusable) in accordance with STAR4BBS Data Management Plan (D8.2). Moreover, if the publication contained datasets, they have been also made publicly available following the same guidelines.

Table 3. List of Scientific Publications

No.	Title	Identifier
1	How to Measure the Robustness and Effectiveness of Certification Schemes and Labels in Ensuring the Sustainability of Bio-based Products	https://doi.org/10.1016/j.jenvman.2025.126240
2	Key governance and sustainability indicators for certification systems: Bridging certification and policy frameworks in the bioeconomy	https://doi.org/10.1016/j.spc.2025.03.017
3	The Impact of Sustainability Certification Schemes and Labels on Greenhouse Gas Emissions: A Systematic Evidence Map	https://doi.org/10.3390/su17020792
4	Review of potential and prospective strategies for the valorization of coffee grounds within the framework of a sustainable and circular bioeconomy	https://doi.org/10.1016/j.indcrop.2023.117504
5	Biorefineries as a driver for sustainability: Key aspects, actual development and future prospects	https://doi.org/10.1016/j.jclepro.2023.137925
6	Process modeling, environmental and economic sustainability of the valorization of whey and eucalyptus residues for resveratrol biosynthesis	https://doi.org/10.1016/j.wasman.2023.10.030
7	Environmental and techno- economic assessment on the valorization of vine-side streams to produce resveratrol	https://doi.org/10.1016/j.jclepro.2023.139622
8	Advancing the European energy transition based on environmental, economic and social justice	https://doi.org/10.1016/j.spc.2023.10.013
9	Boosting the transition to biorefineries in compliance with sustainability and circularity criteria	https://doi.org/10.1016/j.jece.2024.113361
10	Monitoring the bioeconomy: Value chains under the framework of life cycle assessment indicators	https://doi.org/10.1016/j.clcb.2024.100072





The stakeholders addressed by this asset include **researchers**, **policy analysts**, **CSLs owners**, and **private sector actors** seeking evidence on the performance and value of sustainability certifications.

#### D. Best Practices and recommendations

#### **Asset Description**

This asset is a consolidated set of best practices and strategic recommendations derived from all STAR4BBS work packages, enriched through stakeholder engagement activities such as co-creation workshops, interviews, and validation sessions. The recommendations are structured by stakeholder group to ensure a tailored guidance and optimal uptake including business sector, policymakers and and other target groups collaboration on harmonisation.

#### **Targeted Stakeholders**

- For **business sector**: Focus on how to identify and effectively deploy certification schemes and labels, facilitating their transition toward more sustainable business models.
- For **policymakers**: Provide recommendations to remove potential barriers and promote the adoption of robust certification schemes and labels by industries.
- Other **target groups collaborating on harmonisation**: Encourage harmonisation efforts across different schemes and labels, emphasizing the benefits of such activities.

#### E. Capacity-building Activities

#### **Asset Description**

Exploitation of project outputs can also involve capacity-building activities such as trainings to equip professionals, general public and other relevant stakeholders with knowledge or skills to make the best use of the project results. For this reason, the STAR4BBS project has included this asset as a part of the exploitable materials by generating a set of training sessions developed for general public but, in particular, for the industry and the business sectors in order to create awareness of the importance of CSLs and their central role in terms of EU regulations.

More specifically, the topics for these training workshops were defined for addressing the more actual and debated issues regarding policy and regulatory frameworks linked to the biobased industry including:

- Standards and R&I projects in the bio-based industries
- Voluntary Sustainability Standards and the Corporate Sustainability Reporting Directive (CSRD).
- EU legislation and greenwashing and how standards and support can support the bio-based industry.

#### **Targeted Stakeholders**

Targeted stakeholders included **industry professionals**, **business associations**, **standardisation bodies**, and the **broader public** interested in bio-based innovations.



## 3 Strategy for Exploitation: Assuring the success of KERs

This section presents the activities carried out for the exploitation of the KERs described above. Therefore, it encompasses a detailed description of the already taken actions and those that are under development. Moreover, additional measures and long-term plans for reinforcing the sustainability of the project after its completion are presented.

#### 3.1 Undertaken and Future Actions for Key Exploitable Results

#### A. Monitoring System

#### A1. BIOBASEDCERT Monitoring Tool (BMT)

Given that BMT targets a broad range of stakeholders, several steps have been undertaken to reach the different actors.

#### Policymaking

Several actions have been implemented to maintain continuous communication with policymakers. The following events were organised within the context of policymaking to ensure the continued impact of the BMT, its integration into EU-level policy discussions and regulatory assessments involving Directorates-General and standardisation bodies:

- Event "Shaping the Future of Sustainability Certification in the EU Bioeconomy": Held on 4<sup>th</sup> December 2024 in Brussels, focused on presenting to policymakers the BMT and its potential to benchmark voluntary schemes, foster circularity and support EU sustainability goals.
- BIOBASEDCERT Roundtable meeting "The use and applicability of the BIOBASEDCERT Monitoring Tool (BMT)": Held on 2<sup>nd</sup> April 2025 in an online format, it featured presentation of the developed BMT and its three levels, followed be explanation of its implementation and planned next steps, ending with the revised ISEAL benchmarking guide presented by ISEAL representative.
- BIOBASEDCERT Cluster Final Conference Session I: Exploring the applicability of the BMT as a Co-regulation Instrument: Held on 13<sup>th</sup> May 2025, the session centred on discussing the potential of the tool to work as a coregulatory instrument within EU legislative frameworks linked to bio-based products.
- The 29th EURAS Annual Standardisation Conference "Empowering Standardisation Through Education": Held on 18-20<sup>th</sup> June 2025 in Madrid, the conference hosted poster session where the paper on Enhancing Robustness in Voluntary Sustainability Standards: Translating Research into Standardization Practices and Policies was presented and possibilities of pre-standardization in the form of CEN Workshop Agreement were discussed.
- Inputs to the Bioeconomy Strategy: The BIOBASEDCERT Cluster submitted a position paper as part of the public consultation for the revision of the EU Bioeconomy Strategy. The paper outlines, among others, recommendations that can support policymaking processes.





During the development and testing phases of the BMT as well as in other activities involving CSLs representatives, strong interest was shown by schemes' owners in using the tool. Several schemes committed to participate in the testing phase of the webbased tool and to further use the assessment result of their schemes to evaluate the need of their improvement and/or potential updates.

Moreover, the establishment of a dedicated platform and Roundtable for CSLs and other relevant stakeholders was established in July 2024, with the support of the cluster. Roundtable's primary objective is to bring together CSLs representatives to facilitate discussions on the relevance of certification, share experiences, address common challenges, identify strengths and explore opportunities for improvement. Some organisations that are part of this initiative are, among others, Sustainable Biomass Programme (SBP), RSB, ISCC, FSC, PEFC, Better Biomass, REDcert<sup>2</sup>, Nordic Swan and DIN Certco. Discussions between CSLs are informed and enriched by the work conducted during the development of the BMT. A committee formed by BIOBASEDCERT Cluster members is currently responsible for the organisation of meetings and events. Following the establishment of the working group, five meetings were held up to May, 2025. Moreover, with the recognition of its benefits, members of the Roundtable have expressed a clear interest in its continuation beyond the project's conclusion and its members are actively working on the establishment of an organisational framework, including a new secretariat to ensure the Roundtable's longterm sustainability.

#### Industry associations and business sector

The monitoring tool has also been shared in forums targeting the industrial and business sector. Indeed, one of the project's KPIs of the project was to engage at least three different industrial associations in demonstrating the value of transparency to their members through the use of the BMT. In this regard, the STAR4BBS project has successfully engaged already three industrial clusters that have formally expressed their commitment (through letters of intent) to promote the use of the tool within their networks.

Although activities inside the STAR4BBS project are numerous in terms of stakeholders' engagement<sup>5</sup>, those that were considered the most important as a platform for exploitation are described below. These events had as a main objective the presentation of the BMT to stakeholders previously identified as potential users. Therefore, these events served as a first exploitation step by transferring the BMT structure and functions.

• **Side Event** within the frame of the European Biomass Conference and Exhibition (EUBCE) entitled "Monitoring Sustainability Certification Schemes and Labels for Bio-based Products" held on June 26, 2024 in Marseille, France organised by the

\_

<sup>&</sup>lt;sup>5</sup> A detailed description of these activities will be presented in D7.2 STAR4BBS Report on Dissemination, Communication and networking activities.



BIOBASEDCERT cluster. This event had the objective of presenting an overview of the BMT, featuring also a roundtable discussion with relevant panellists representing different organisations including CSLs representatives, international NGOs (UN Trade and Development and UN Forum on Sustainability Standards), European Commission's Science and Knowledge service (JRC), industry associations (Bioenergy Europe) as well as academic institutions. This event explored the integration of CSLs into regulatory frameworks and the development of effective monitoring mechanisms

• Digital Solutions for a Bio-Based Future – Empowering Industry and Consumers **Seminar** carried out on the 8th April 2025 and organised by 3-CO and BioReCer Projects, in which an insightful discussion on the future of digital technologies in the bioeconomy, hosted also the presentation of the BMT and its objectives.

The ISEAL Alliance has stated that outputs related to the BMT, particularly the indicators of the system level have provided important insights for the update of their new ISEAL Code of Good Practice for Sustainability Systems (the ISEAL Code). Some of the indicators served as an inspiration to strengthen core components of a sustainability system, especially the ones related to assurance, standard-setting, and governance.

Finally, to guarantee the BMT's availability beyond the project's duration, the tool will be hosted for at least three years in the STAR4BBS website. Moreover, continuous outreach through the STAR4BBS website and social media is projected as part of the sustainability plan.

#### A2. BIOBASEDCERT Web-based Tool

The development stage of the web-based tool has been completed, and it is currently in the testing phase. It is projected that it will be fully functional and operating online by the conclusion of the project (M36). Specifically, it will be hosted on a dedicated new section inside the STAR4BBS project website to conduct self-assessment by certification schemes and labels (CSLs). Features such as the automated report generation (including spider diagrams and color-coded dashboards) will enhance the usability of the tool.

In the near term, the tool will be maintained, including technical upkeep, basic user support, and iterative improvements based on user feedback. Where feasible, updates may include enhancements to benchmarking modules aligned with evolving sustainability frameworks and stakeholder needs. The idea is to make the BMT a living tool that evolves with input from the community and serves ongoing policy and market needs for transparency and robustness in sustainability certification.

Notably, the abovementioned industry clusters, engaged in the use of the BMT, have also committed to share the functionalities of this practical tool with their members. In addition, to support the integration of the tool into policy frameworks, the recommendation of its use has been also incorporated into the Positioning Paper "Input into the Public Consultation on the new EU Bioeconomy Strategy" submitted by the BIOBASEDCERT Cluster.

An online kick-off meeting will be organized for officially launching the web-based version of the tool at the end of August 2025. This event will be recorded and kept as a



source for other users that are interested in exploiting the web-based tool after the date of the event.

## B. Concept of the STAR4BBS Monitoring System for Standardisation Activities

The process for the fast-track pre-standard requires a series of steps including: preparation of the proposal, formal kick-off meeting, preparation of the CWA draft, open consultation and publication. It is expected that the process will be finalised in the first year after project completion, but this fully depends on the funding opportunities available after the project ends. The already undertaken actions to achieve the establishment of this are: the preparation of the Workshop proposal, including the identification of CEN/WS key roles, stakeholders and resource planning. Moreover, a general timeline has been established considering ten months for the full development of the CWA. After the project's completion, the first two months will be dedicated to finalise the proposal submission and open commenting on the draft project plan. For the second stage (third to ninth month) the kick-off meeting, as well as the CWA development and approval by the Workshop participants and finally, the third stage (tenth month) the CWA will be published and ready to use. After its publication, this CWA will be valid for three years freely accessible for its consultation and use.

#### C. Knowledge Outputs

#### C1. Inventory of Sustainability indicators

This indicators inventory has been uploaded to Zenodo platform in the STAR4BBS Community to be shared as open-access materials. This inventory consists of five databases (see Table 4).

Table 4. Indicators Inventory Databases

Title	Identifier
Environmental pillar – LCA indicators	10.5281/zenodo.13970556
Social pillar - LCA indicators	10.5281/zenodo.13981489
Economic pillar dataset - LCA indicators	10.5281/zenodo.13981460
Additional Indicators - Content Level Matrix	10.5281/zenodo.12771638
Additional Indicators - System Level Matrix	10.5281/zenodo.13837255

It is worth noting that, the worked carried out under these activities was also published in a scientific journal as an open-access publication creating another route for facilitating the use of this data. This is shown by the fact that this publication has been already consulted and cited (See Table 5).



In the long term, this information can contribute to improving transparency in sustainability evaluations, increasing harmonisation across different schemes, and facilitating a better alignment with EU sustainability legislation (e.g. CSRD, ESPR, Green Claims).

#### C2. Examination of trade flows and impact assessment of CSLs on market access

The strategy for this output comprises two assets. The first one consists of a compact brochure presenting the key insights on the impact of sustainability CSLs on market access and trade through a visually engaging material, using elements wherever appropriate to enhance clarity and accessibility. The second asset is a white paper for specialised audiences. This work will expand on the brochure's content and aims for its submission to specialised platforms such as Evidensia<sup>6</sup>. Both outputs are under preparation and are expected to be finalised between late August and October 2025, shortly after the project's completion. The submission of the white paper to Evidensia platform will be done afterwards.

Moreover, the strategy for reaching the targeted stakeholders includes the publication of both materials via high-visibility channels including:

- Renewable Carbon News (up to 600,000 visits/month)
- nova-Institute LinkedIn (10,000+ industry-focused contacts)
- Renewable Carbon Newsletter

Both assets will be also hosted on the STAR4BBS website to assure their availability after project's end.

#### C3. Impact and contribution of existing CSLs – Evidensia Platform

To date, a publication derived from Task 1.4: Assessing the impacts of existing sustainability certification schemes (SCS) and labels, titled "The Impact of Sustainability Certification Schemes and Labels on Greenhouse Gas Emissions: A Systematic Evidence Map," has been included on the Evidensia platform. This achievement not only enhances the publication's reach but also integrates it into Evidensia's visual summaries and topic-specific analysis tools. Specifically, the publication is more accessible to specialised audiences via a robust search engine that enables users to explore key dimensions of the study—such as major findings, geographic focus, and alignment with Sustainable Development Goals (SDGs)—all within an open-access framework.

#### **Exploitation of Scientific Publications**

Regarding the publications presented in Section 2, it is worth noting that they have already accomplished a wide number of visualisations and citations, showing that effectiveness of opening them through different platforms. Table 5 shows the publications and the metrics associated with their current exploitation.

-

<sup>&</sup>lt;sup>6</sup> Section C3 contains a detailed description of Evidensia Platform

<sup>&</sup>lt;sup>7</sup> Available at: www.evidensia.eco/resources/873287/the-impact-of-sustainability-certification-schemes-and-labels-on-greenhouse-gas-emissions-a-systematic-evidence-map/



Table 5. STAR4BBS publications on scientific journals and their metrics

Publication	Date	Platform	Views	Downloads
Key governance and sustainability indicators for certification systems: Bridging certification and policy frameworks in the bioeconomy	March 2025	Zenodo	6	2 1 citation*
The Impact of Sustainability Certification Schemes and Labels on Greenhouse Gas Emissions: A Systematic Evidence Map	January 2025	Zenodo	23 1938 views on the Sustainability Journal website	27
Review of potential and prospective strategies for the valorization of coffee grounds within the framework of a sustainable and circular bioeconomy	September 2023	Zenodo	74	83 14 citations*
Biorefineries as a driver for sustainability: Key aspects, actual development and future prospects	July 2023	Zenodo	310	211 60 citations*
Process modeling, environmental and economic sustainability of the valorization of whey and eucalyptus residues for	October 2023	Zenodo	79	57 12 citations*



resveratrol biosynthesis				
Environmental	December	Zenodo	78	51
and techno-	2023	Zeriodo	70	7 citations*
economic	2023			/ Citations
assessment on				
the valorization				
of vine-side				
streams to				
produce				
resveratrol				
Advancing the	November	Zenodo	82	60
European	2023			30 citations*
energy transition				
based on				
environmental,				
economic and				
social justice	7 000 /	- 1	F (	
Boosting the	June 2024	Zenodo	54	46
transition to biorefineries in				2 citations*
compliance with				
sustainability				
and circularity				
criteria				
Monitoring the	January 2024	Zenodo	63	50
bioeconomy:	<i>y</i> = - = :			18 citations*
Value chains				
under the				
framework of life				
cycle				
assessment				
indicators				

<sup>\*</sup>Citation: the indicated numbers rely on Google Scholar metrics Updated on 17<sup>th</sup> June 2025

Benefits linked to exploitation of these assets include improved access to reliable, peer-reviewed findings on the actual impacts of CSLs; strengthened evidence-based decision-making in the development and selection of certification tools; and increased potential for research uptake and alignment with global sustainability policy goals.

#### D. Best Practices and Recommendations

In order to maximise the utility of the Best Practices and Recommendations derived from the STAR4BBS results, several actions have been implemented:

- Integration into the Policy Briefs: The outputs of this work informed the Final Policy Brief developed by the cluster publicly available through the Joint Deliverable for HORIZON-CL6-2021-ZEROPOLLUTION-01-07: "Final Policy Brief of the BIOBASEDCERT Project Cluster".
- Presentation of the Best Practices and Recommendations in forums attended by relevant stakeholders including:
  - o **BioInvest IT -** co-organised with the Italian Bioeconomy Cluster SPRING, held on the 26<sup>th</sup> March 2025 at UNITELMA's premises. A set of best Practices



and recommendations for the industrial sector were presented to business and industrial representatives.

- o **BIOBASEDCERT Final Conference** held on 13th and 14th May, 2025 in Brussels.<sup>8</sup> Working sessions integrated a set of topic-specific recommendations that were shared with policymakers after the event.
- o **Participation on consultation of the EU Bioeconomy Strategy:** A position paper has been submitted by the BIOBASEDCERT Cluster to participate in the public consultation for the update of the new EU Bioeconomy Strategy. A set of recommendations have been provided aiming at overcoming the barriers identified through the cluster's work and leveraging key opportunities to foster a competitive, circular, and regenerative bioeconomy.

To maximise its utility, future actions for these assets are: the **publication of the Best Practices and Recommendations as a guidance document** and **hosted on the STAR4BBS website** and, the distribution of this document across networks such as the

- o BIOBASEDCERT Platform<sup>9</sup>
- o **United Nations Industrial Development Organization** (UNIDO) Benchmarking Initiative Working Groups
- o **ECOSYSTEX** Working Group<sup>10</sup>
- o International Accreditation Forum (IAF) Sustainability Working Group<sup>11</sup>
- o Bioeconomy in Transition Research Group<sup>12</sup>

#### E. Capacity-building activities

Regarding the capacity-building activities, three training workshops have been implemented by UNI:

- Standards and R&I Projects for Bio-based Industries 14th December 2023:

  This workshop focused on pathways to explore the world of standardization and understand its key role within Horizon research projects. During the event, the differences between standardization and certification were also illustrated, and speakers taught how to transform R&I results into rapid standard
- Navigating the CSR Directive: Leveraging Voluntary Sustainability Standards and Research to Strengthen Bio-Based Industry Reporting - 14th of March 2025: Organized by STAR4BBS and ENGAGE4BIO, with the support of SUSTCERT4BIOBASED, the session focused on the practical implications of the Corporate Sustainability Reporting Directive (CSRD) for the bio-based sector.
- Navigating the new EU legislations to address greenwashing: how standards and research projects can support the bio-based industry" was the third training session. Organised in collaboration with the SUSTCER4BIOBASED, provided a

 $<sup>^8</sup>$  A detailed description of the event is included in D7.2 STAR4BBS Report on Dissemination, Communication and networking activities.

<sup>&</sup>lt;sup>9</sup> Available at: https://sustcert4biobased.eu/about-us/biobasedcert-group/

<sup>10</sup> Available at: https://www.ecosystex.eu/about

<sup>11</sup> Available at: https://iaf.nu/en/home/

<sup>&</sup>lt;sup>12</sup> Available at: https://www.bioeconomy-in-transition.eu/



practical exploration on the EU's latest legislation on greenwashing, offering insights into how standards and research initiatives are related to the sustainability of the bio-based industries.

These online capacity building activities are available as an open-access recording on the project's website and other platforms (UNI's website) as a way to sustain them over a longer period of time. Their benefits include increased capacity to navigate and apply emerging sustainability requirements, a better understanding of how certification schemes align with EU regulations such as CSRD and ESPR, and the ability to make more informed, strategic decisions regarding product development, reporting, and market positioning in the bioeconomy sector. To further support their exploitation, additional material (e.g. presentations) is available for download.

#### 3.2 KERs and the achievement of KPIs

As presented in the introduction, the Roadmap for Exploitation of STAR4BBS' Outputs relies on the KPIs' of the project. As depicted in the Table 6 most of the KPIs directly linked to the KERs have been achieved.

Table 6. Status of KPIs

VDI.	Eveneted require	Chahus			
KPI	Expected results	Status			
Outcome 1: Bio-based value chains transparency in international and EU trade is enhanced through B2B labels of biological feedstock and bio-based materials an products					
Existing B2B labels and new initiatives rely on the STAR4BBS outputs to improve, design, or harmonize their traceability systems	≥3 of the 20 top ranked B2B labels	Achieved			
Commitments of SCS to (and subsequently take concrete steps to) increase harmonization, through changes to their standards and processes and/or through mutual recognition processes	≥3 of the 20 top ranked SCS	Achieved			
Existing SCS and new initiatives rely on the STAR4BBS outputs to improve their schemes/labels or to design new one (including deciding if it is truly needed)	≥10 SCS and committed to use the BMT	Achieved			
Trade, Business & Industry associations use STAR4BBS research and monitoring system to explain the value transparency to members, supporting them in choice of B2B labels	≥ 3 industrial sectors associations interested to use it	Achieved			



New legislation or updates to existing legislative in order to support and encourage adoption of robust B2B labels and traceability systems by EU-based businesses	250 stakeholders engaged	Achieved (See also D7.2)
Outcome 2: Harmonization of exist monitoring system and indicators of		
The STAR4BBS proposed indicators become the standard reference for certification schemes, researchers, business analysts and policymakers when discussing and analysing SCS for biological feedstocks, bio-based materials and products	Start preparation of 1 fast track standard; ≥ 10 best practices; ≥ 3 briefing notes; ≥ 250 stakeholders	Ongoing
Scientific publications	At least 8	Achieved
Webinars and training courses for companies	At least 3	Achieved



## 4 Intellectual Property Rights Management Overview

This section describes the basic terms for the Intellectual Property Rights (IPR) management<sup>13</sup> in relation to exploitation activities. In addition, as part of the joint outputs developed in collaboration with the projects of the BIOBASEDCERT Cluster, it presents the agreements on Intellectual Property (IP) co-ownership guidelines for jointly-produced assets.

#### 4.1 STAR4BBS IPR Management Objectives

The Roadmap for STAR4BBS' outputs exploitation takes into account the protection of the project's assets, ensuring a proper management of the outputs and promoting, at the same time, a broad access to results by relevant stakeholders, also after project completion.

The Consortium Agreement (CA) together with the Grant Agreement (GA) outline key aspects concerning Intellectual Property Rights (IPR). These documents serve as primary references for addressing IPR-related aspects of the project and provide the ground rules for the present IP management strategy.

The CA sets the framework for successful project implementation and results exploitation including Intellectual Property (IP) management and addresses how IP should be managed within the project's context, assuring a smooth cooperation among project partners. It outlines in detail the strategy and process for managing STAR4BBS IP and created knowledge. In this document, detailed regulations on IP management are established for the background (i.e. data, know-how or information required for the project and developed by any of the partners before the start of it) and the foreground (i.e. applications and maintenance of patents or IPR protection, which is under the responsibility of partners who made any work constituting IP) IPR.

The rules for results ownership are governed by the Grant Agreement (GA)<sup>14</sup>. As stipulated by this document, results are owned by the beneficiary that generates them. However, for results in which two or more partners have jointly contributed to an individual result - due to a continuous collaborative work, the IP of the asset should be jointly owned. For these cases, the owners have therefore agreed on the terms for the joint ownership through a Joint Ownership Agreement. With specific reference to databases, all IP information is included in the Deliverable 8.4 Final Data Management Plan.

During the KERs identification, it was necessary to better define ownership and exploitation rights as well as to determine whether the KERs might require additional IP protection actions, other than those stipulated by the GA and the CA (e.g. joint ownership, access rights or confidentiality needs). As shown by Table 7, KERs have been carefully managed by UNITELMA in accordance with each IP owners' requirements.

-

<sup>&</sup>lt;sup>13</sup> More info can be found also in Deliverable 8.4 Final Data Management Plan

<sup>&</sup>lt;sup>14</sup> Article 16, Annex 5 of the STAR4BBS Grant Agreement





Table 7. STAR4BBS's Identified foreground IPs

KER / IP	Tool or Platform	Main Contributing Partner	Type of Protection	Interest in Further Commercialisation of Results	Conditions to use after the end of the Project
Monitoring System	BIOBASEDCERT Web-based tool	TUB	Creative Com- mons Licence (CC BY-NC-SA)	No	Free to use
Concept of STAR4BBS monitoring system for standardisation activities	Fast-track pre- standard	TUB	Copyright	No	Free to use
Inventory of Sustainability Indicators	Databases with the list of indicators	USC	Copyright	No	Free to use
Examination of Trade flows - Impact	1 White paper	nova-Institut	Copyright	No	Free to use
assessment of CSLs on market access	1 Brochure	nova-Institut	Copyright	No	Free to use
Impact and contribution of existing CSLs labels	Evidensia Platform	ISEAL	Copyright	No	Free to use
Best practices and recommendations	First Policy brief  Recommendation for the private sector during BioInvest IT Event	ALL	None	No	Free to use
Capacity-building Activities	Online training courses	UNI	Copyright	No	Free to use

### 4.2 BIOBASEDCERT Cluster IP Management

The two BIOBASEDCERT Cluster joint assets, i.e. BMT and Final Policy Brief are covered by a co-ownership agreement that has been developed by the cluster for ensuring their post-project exploitation. This agreement has been developed in accordance with the IP principles of the three projects (Table 8) and it establishes shared rights, responsibilities, and future development of the BIOBASEDCERT Monitoring Tool (BMT).





Table 8. IPs of Joint Assets

KER / IP	Tool or Platform	Main Contributing Partner	Type of Protection	Interest in Further Commercialisation of Results	Conditions to use after the end of the Project
Monitoring System	BIOBASEDCERT Monitoring Tool (BMT)	BIOBASEDCERT Cluster	Creative Commons Licence (CC BY-NC-SA)	No	Free to use
Best practices and recommendations	Final Policy brief	BIOBASEDCERT Cluster	Creative Commons Licence (CC BY-NC-SA)	No	Free to use

A summary of the Co-ownership agreement is presented in Table 9. This document establishes equal ownership shares among the three consortia (33% each), with internal allocations based on partners' contributions. Also, it has been agreed that the BMT will be made available under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) license, ensuring open access via the projects' websites and public repositories such as Zenodo. The agreement also provides a joint management structure, including decision-making procedures based on a two-thirds majority. Other commitments address the cost-sharing arrangements and BMT use permissions for non-commercial purposes -subject to prior notification and appropriate attribution.

Moreover, the three projects have also established the planned follow-up actions, including: standardisation processes (STAR4BBS), academic research (HARMONITOR), and promotion with regulatory committees (SUSTCERT4BIOBASED). This documentation will facilitate the long-term exploitation and uptake after projects' conclusion being described above. Appendix A shows the co-ownership agreement in its full version.

Table 9. Summary of BIOBASEDCERT Co-ownership Agreement

Jointly-owned IP	Allocation of shares among joint owners	Terms for post-project ownership, IPR transfer, etc.	IP protection and maintenance responsibilities	IP monitoring and enforcement responsibilities	Governing jurisdiction and dispute resolution
BIOBASEDCERT Monitoring Tool	33% SUSTCERT4BIOBASED (50 % WFBR, 50% ECOS), 33% STAR4BBS (,33% HARMONITOR ()00% UU)	The parties agree to rely on copyrights and specifically CC BY-NC-SA. The Partners shall jointly manage the Assets. Any significant decisions regarding the management of the Assets must be approved by 2/3 majority of the Partners.	(a) All costs resulting from the IP application, protection and monitoring shall be borne by the Partners in proportion to their respective shares of the relevant Result.  (b) Any necessary financial contributions towards the development, maintenance, and protection of the Assets shall be shared based on the division ownership by the Partners.	(a) The Parties that co-own a result may appoint one of them ("Managing Partner") to oversee the protection, filing and prosecution of the relevant Intellectual Property Right. The Managing Partner may prepare, file, and prosecute applications regarding the Intellectual Property Right of the Asset after consulting with the other Partners in good faith. (b) Each Partner shall inform the other Partners promptly of any infringement or suspected or threatened infringement of the Result of which it becomes aware, and the Partners shall promptly consult with each other in good faith with a view to reaching agreement on the action to be taken in respect of the infringement in question. A decision on the action must be approved by 2/3 majority of the Partners.	This Agreement shall be governed by Belgian law. In the event of any dispute related to this Agreement, the Partners shall first seek to negotiate and resolve the dispute amicably under principles of good faith. If an amicable settlement cannot be reached, the dispute shall be referred to professional mediation in accordance with Belgian arbitration rules.  Should negotiation or mediation fail to resolve the dispute, goal proceedings shall be submitted to the jurisdiction of the Belgian courts.
Joint Policy Brief	33% SUSTCERT4BIOBASED ( 50 % WFBR, 50% ECOS), 33% STAR4BBS ( 100% TU Berlin), 33% HARMONITOR (100% SQ Consult)	The parties agree to rely on copyrights and specifically CC BY-NC-SA.	N/A	N/A	N/A

Source: SUSTCERT4BIOBASED Elaboration





It should be noted, finally, that as part of the joint efforts within the BIOBASEDCERT Cluster, the Horizon Results Booster service was used by making a formal request for the joint assets: BMT and the Joint Policy Briefs. The BIOBASEDCERT Cluster benefited from this platform by obtaining helpful recommendations for the management of the co-owned outputs. This information has been incorporated into the co-ownership agreement of the cluster.





#### 5 Conclusions

This deliverable provides a detailed description of the Roadmap for STAR4BBS' outputs exploitation. The document not only describes the already undertaken actions to ensure the exploitation of KERs, but also defines how to guarantee that these key outputs remain accessible, usable and impactful beyond the project's completion.

Building on the preliminary objectives identified in D7.1 "Strategy for dissemination, exploitation and communication," the present deliverable further refines and expands the STAR4BBS Exploitation Strategy, relying on the project's KPIs. To do so, other potential KERs were suggested by the consortium, and a final identification of KERs was developed together with tailored strategies that included targeted stakeholders, like policymakers, CSLs owners, industry actors and researchers. Actions such as the initiation of a Fast-track standard, the production of open access publications (already cited by the literature), policy recommendations and online training courses have so far been implemented.

Notably, the BIOBASEDCERT Monitoring Tool (BMT) and the Final Policy Brief KERs are the product of joint efforts with the other two projects of the BIOBASEDCERT Cluster and their successful exploitation was carried out in coordination and strategic alignment. This implied a collaborative development of IP management for the codeveloped assets.

To ensure long-term exploitation, the consortium continues to contribute to scientific journals, consolidating STAR4BBS position within relevant certification discussions. In addition, strategic partnerships are being maintained as a key action for forthcoming developments and new findings beyond the project's lifecycle. Finally, upcoming deliverables and publications will continue to follow the FAIR guidelines to facilitate their integration into training materials, education programmes and certifications' documentation.





#### 6 References

- European Commission. (2025). *Horizon Europe Programme Guide*. European Commission. https://webgate.ec.europa.eu/funding-tenders-opportunities/pages/viewpage.action?pageId=1867974
- European IP Helpdesk. (2022). Your Guide to Intellectual Property Management in Horizon Europe (2022). <a href="https://intellectual-property-helpdesk.ec.europa.eu/system/files/2023-03/Your%20Guide%20to%20Intellectual%20Property%20Management%20in%20Horizon%20Europe.pdf">https://intellectual-property-helpdesk.ec.europa.eu/system/files/2023-03/Your%20Guide%20to%20Intellectual%20Property%20Management%20in%20Horizon%20Europe.pdf</a>
- European Committee for Standardization. (2025). Description of CEN Workshop Agreement. <a href="https://www.cencenelec.eu/european-standardization/european-standards/types-of-deliverables/">https://www.cencenelec.eu/european-standardization/european-standards/types-of-deliverables/</a>
- Gottinger, A., Ladu, L., & Blind, K. (2023). Standardisation in the context of science and regulation: An analysis of the Bioeconomy. *Environmental Science & Policy*, 147, 188–200. https://doi.org/10.1016/j.envsci.2023.06.013
- Majer, S., Wurster, S., Moosmann, D., Ladu, L., Sumfleth, B., & Thrän, D. (2018). Gaps and research demand for sustainability certification and standardisation in a sustainable bio-based economy in the EU. *Sustainability*, 10(7), 2455.
- Vogelpohl, T. (2023). Understanding the bioeconomy through its instruments: Standardizing sustainability, neoliberalizing bioeconomies? *Sustainability Science*, *18*(2), 583–597.





Appendix A: Co-ownership agreement of BIOBASEDCERT Cluster



Sustainable bio-based systems via effective certification & labelling 📅

## Consortium:



























www.star4bbs.eu info@star4bbs.eu

@STAR4BBS







