

Happy 1st birthday, SUSTRACK!

1ST NEWSLETTER

Funded by the European Commission as a Coordination and Support Action (CSA) and led by the UnitelmaSapienza University of Rome, the three-year SUSTRACK project aims at supporting the identification of policy priorities and recommendations for designing a sustainable track towards circular bio-based systems, and has now reached its first year of activities.

Discover the results achieved and the work done in the first year of the project, in order to support the circular bioeconomy transition!

Are you a stakeholder involved or interested in plastics, construction, textile, and chemical sectors? Join SUSTRACK INSPIRE Conference to dive deep into SUSTRACK results and have your say on what is really important for promoting a sustainable transition!



SUSTRACK is organising the INSPIRE Conference, which will be held online on November, 16th, 2023, from 09:00 to 16:00 CEST, to explore the forward-looking pathways for a sustainable transition from linear fossil-based economy to circular bio-based economy, involving a multistakeholder panel discussion.

Why does your participation matter?

- To engage in riveting discussions around the objectives of the European Green Deal.
- To collaborate and network with other frontrunners in the field.
- To lend your voice and insights to shape impactful policies.

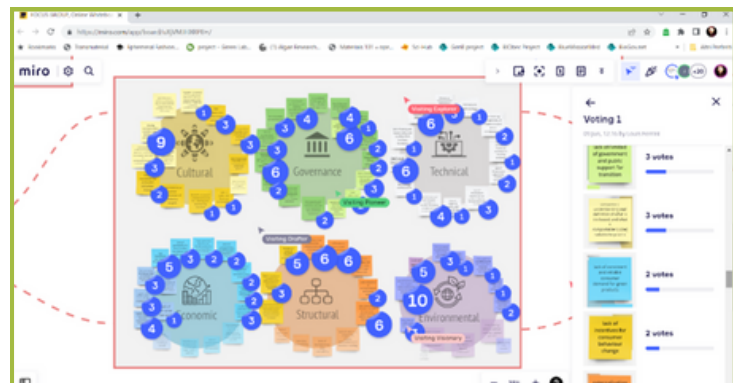
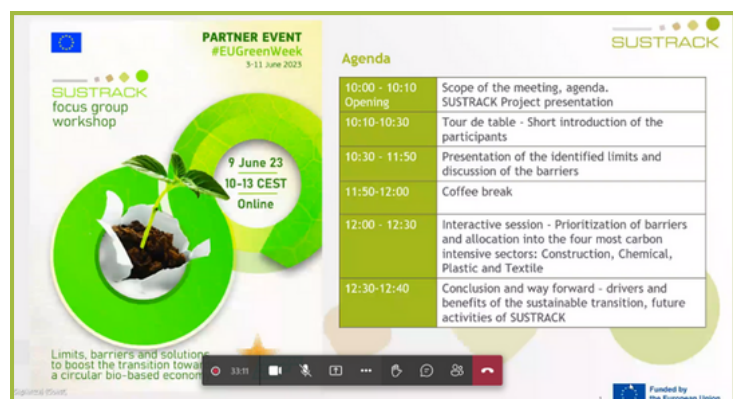
Get more information and register [here!](#)

Limits, barriers and solutions to boost the transition towards a circular bio-based economy

SUSTRACK conducted an analysis based on desk research with a focus on four carbon-intensive sectors (construction, fine chemicals, plastics, and textiles) and delivered its results on the environmental, economic, social and cultural limitations of the linear, fossil-based economy, as well as barriers and potential improvements associated with the transition towards a circular bio-based economy.

The main results of the study included:

- Identification of the limits of the current linear economy, classified into 3 main dimensions: Environmental, Economic, Socio-Cultural;
- Identification of 193 barriers along the value chain, which hinder the transition to a circular low-carbon bio-based economy, classified into 6 dimensions: cultural, economic, environmental, governance, structural, and technical;
- Identification of gaps to be addressed for overcoming the aforementioned barriers;
- Identification of multiple positive impacts that the transition can bring, including economic, environmental, and social benefits.



Some pictures from the focus group workshop

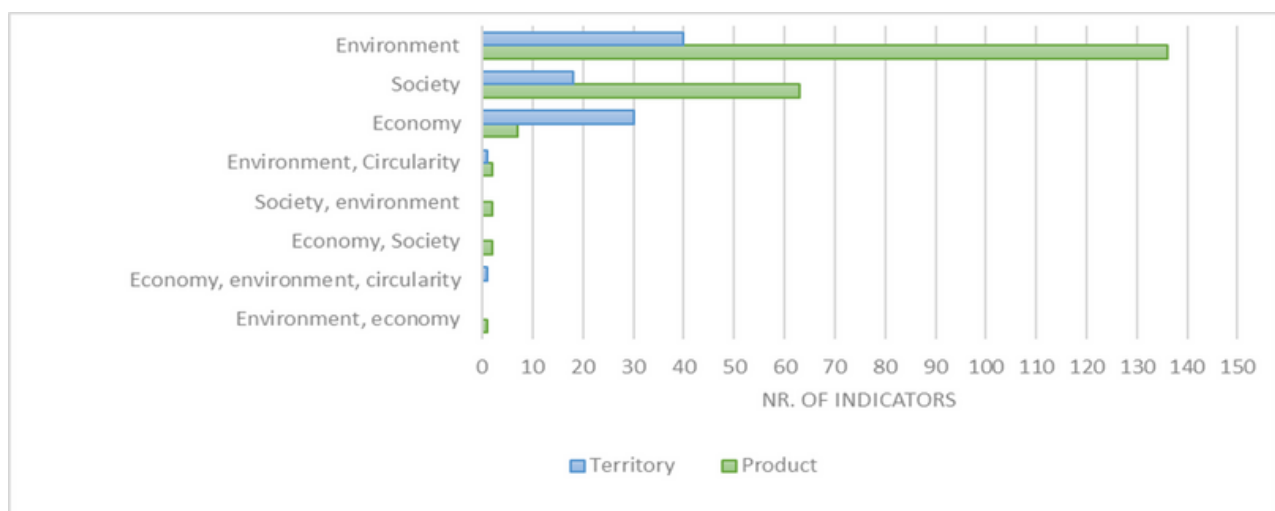
In order to validate and supplement the results obtained from this extensive literature review, a co-creation focus group was organized on the 9th of June 2023 in the occasion of the European Green Week, complemented by 20 expert interviews. This multi-stakeholder consultation involved experts representing the quadruple helix as well as the four studied sectors.

As a consequent step, a survey is currently being designed and will be launched soon, in order to obtain a pre-prioritised list of the barriers to be used for upcoming project activities and to build a final set of guidelines and policy recommendations to be shared at European level with relevant stakeholders and policymakers.

If you are interested in exploring in depth these results and you want to contribute in shaping the future European policies, take part into the survey as soon as it will be launched and participate to the upcoming SUSTRACK Inspire conference!

How the transition to circular bio-based systems can be monitored and evaluated?

To review the existing knowledge for monitoring and evaluating the transition to circular bio-based systems, SUSTRACK consulted more than 130 sources, including scientific articles and reports and identified major gaps across indicators and methods generally used to monitor and evaluate the bioeconomy across the three major policy-level analysis: micro-level (products/processes/companies), meso-level (city/regions) and macro-level (World, Europe or countries).



Number of indicators identified across sustainable pillars and type of policy application

The indicators identified in the reviewed literature are unequally distributed among the various societal objectives and sub-topics and policy-level applications. In particular, **environmental sustainability topics are addressed the most** – across both product and territorial level analyses, **followed by economic and social sustainability aspects**. However, **environmental indicators appear** to be in a somewhat **less mature state than socioeconomic indicators**, which are generally provided on a regular basis in standard statistics. Another pending key methodological challenge is the well-known “attribution issue”. This refers to **how to clearly attribute the measurement of the indicators to the production and use of biomass** and it represents one of the major limitations to correctly model bioeconomy at the meso- and/or macro-level. The results also underline the **need for a more comprehensive assessment of economic sustainability**. Common **economic indicators are not thought to inform on sustainability issues** and a thriving bio-based business model may present trade-offs with other sustainability objectives. In this context, one-way forward to soundly assess bioeconomy might be the **integration of externalities through monetisation**. The **suitability of the identified indicators** for policy formulation **will be verified through the analysis of some selected case studies representing the four targeted sectors** (details in this article!). Moreover, once validated, the prioritized indicators will be used to create an ad hoc monitoring framework for decision makers.

If you are interested in exploring in depth these results and make your voice heard, join the upcoming [SUSTRACK Inspire conference!](#)

Case studies selection

To select the case studies that will be instrumental for the future work of SUSTRACK project, a 4-step methodology was adopted.

Step 1: Making a broad list of selection criteria

Step 2: Creating a long list of candidate case studies

Step 3: Conducting a multi-criteria analysis to identify the most appropriate case studies

Step 4: Defining the scope and baseline situation of each selected case study



Step 1: Selection criteria list

In total 10 case studies (Table 1) and 9 reserves (Table 2) were selected from the four targeted sectors: (a) the construction sector (requiring, e.g., a shift from concrete to sustainable renewable alternatives); (b) the textile sector (requiring, e.g., a shift from fossil-based to bio-based fibres); (c) the (fine) chemical sector (requiring, e.g., a transition to renewable carbon sources and biorefineries); and (d) the plastics sector (requiring, e.g., a shift from fossil-based to bio-based polymers).

Sector	Case study
Construction	Cross-laminated timber
Construction	Biochar as an additive in concrete
Construction	Hemp insulation
Textile	Recycled carded wool from Prato, Italy
Textile	Man-made cellulosic fibres, like Lyocell
Textile	Latxa sheep wool from the Basque Country of Spain
Chemical	Chemicals from waste
Chemical	Bio-MEG, bio-MPG, and renewable functional fillers from wood
Plastics	Polylactic acid (PLA)
Plastics	Polypropylene from used cooking oil

Overview of selected case studies (Table 1)

Sector	Case study
Construction	Mycelium-based architectural products
Construction	Bio-polyurethane for flooring
Textile	Mycelium-based leather alternatives
Textile	Casein-based fibres from discarded milk
Chemical	Bio-solvents
Chemical	CHEMPORT Europe
Plastics	Mycelium packaging
Plastics	Casein-based biopolymers from discarded milk
Plastics	Bio-based polyethylene terephthalate (bio-PET)

Overview of case studies kept in reserve (Table 2)

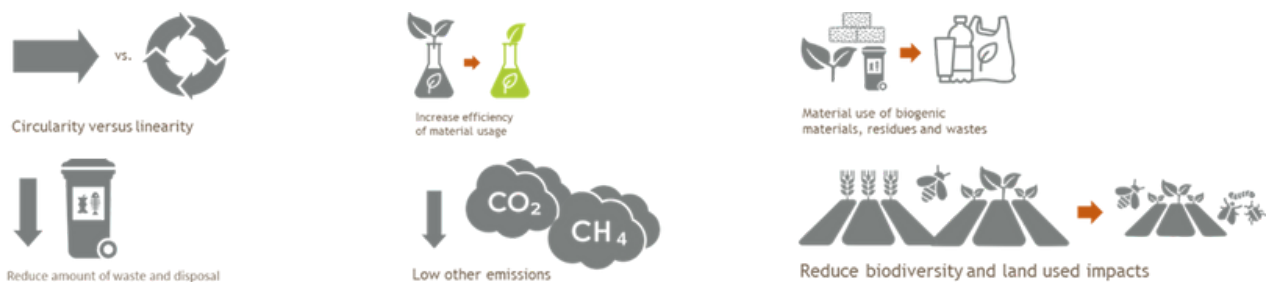
The case studies will be used in different project related activities, including: the identification of barriers to the transition to a circular bio-based economy; the testing and validation of the monitoring tool; the selection of policy actions to overcome barriers identified in each sector.

If you are interested in diving deep in these results and have your say as representative of the four sectors, join the upcoming [Sustrack Inspire conference!](#)

Generation of a policy portfolio scenario

One of SUSTRACK goals is to illustrate a portfolio of policies that are important for a transformation to a circular bio-based economy and the analyses of their impacts. The first step to reach this ambitious objective is the generation of policy portfolio scenarios for the targeted sectors of construction, chemicals, plastics and textile. For each sector, the scenarios have **two components: one scenario that shows the status quo of policies** influencing the envisaged circular-bio-based economy, and **one more ambitious policy goal scenario**, that supports a faster transformation of the economy into a circular and bio-based one.

From the project definition of a circular bio-based economy, screening criteria have been derived and, based on these, policy goals of regulation, strategy paper or policy proposal interrelated with a circular bio-based economy were collected and used to develop the scenarios that will be simulated.



The status quo of the circular bio-based economy policies is focusing mainly on the separate collection of the material streams. The aim is to generate a homogenous resource base that could then fuel a future circular bio-based economy. Nevertheless, this is only one aspect. It is now the time to **generate more ambitious policies that address the systemic level of circular bio-based economy and boost the integration of more advanced circular approaches** in different sectors. Both, the status quo and more ambitious goal system formulated in the policy portfolio scenarios are used as goal system for the modelling task as well as to evaluate which policy instruments are necessary to reach the fastest possible transformation to a circular bio-based economy in the targeted sectors in Europe.

If you want to know more about policy scenarios and lend your voice to shape impactful policies for a sustainable transition, join the upcoming [SUSTRACK Inspire conference!](#)

SUSTRACK engaged more than 2300 citizens at European Researchers' Night and Maker Faire in Italy!

In collaboration with other EU-funded projects ([GenB](#), [BlueMissionMed](#)), SUSTRACK partners' [EVA New Media Research](#) and [UnitelmaSapienza](#) University of Rome organised activities to raise awareness and inform the large public about bioeconomy, circular economy, sustainability and impacts assessment with enthusiastic citizens, through an interactive quiz and the "Bottle game" at the European Researchers' Night 2023 (Frascati, Italy) and Maker Faire (Rome, Italy).

Take a closer look at what happened by looking at some photos of the events!



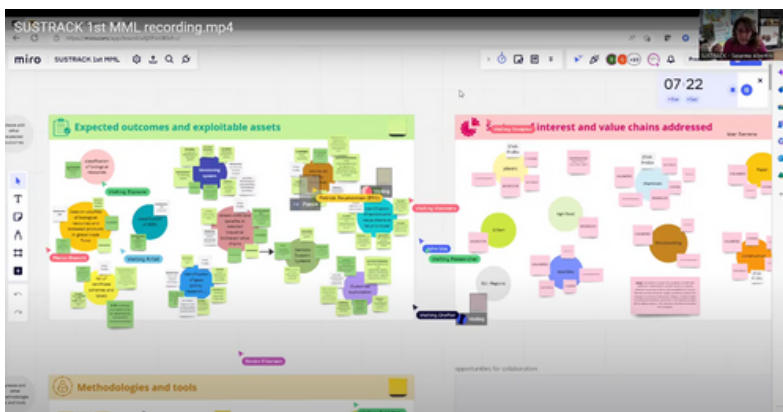
SUSTRACK promotes collaboration with other projects and initiatives in the bioeconomy innovation system: be involved!

SUSTRACK promotes collaborations with relevant EU-funded projects and initiatives, in order to cooperate and maximise the efforts and impacts, increasing the knowledge transfer and sharing, networking, mutual learning, coordination of joint activities and events.

In this context, SUSTRACK organized on the 14th February 2023 the first Mobilization and Mutual Learning (MML) Workshop involving projects in “Standardisation, certification, labelling and monitoring”, in collaboration with EuBioNet. This workshop has been an important stepping stone for the future collaborations among projects with similar focus and facilitated the uptake of exploitable assets stemming from concluded projects by the recently started projects under Horizon Europe. Many opportunities have been identified and will serve as guidance for defining collaboration strategies among projects:

- Establishment of advisory boards with representatives of all projects;
- Collaboration among communication managers;
- Organisation of joint stakeholder engagement activities;
- Facilitation of mutual learning and knowledge exchange among projects;
- Jointly identification exploitation pathways.

Moreover, all projects agreed to become SUSTRACK “Sister Projects”, in order to leverage on each other's website for visibility exchange.



Picture from the 1st MML: finding opportunities for collaboration through an interactive online board

Are you interested in joining SUSTRACK “Sister Projects” network and be involved in its activities? Reach out to us at communication@fvaweb.it and stay tuned for the upcoming events!

Follow us on social media!



Become part of the SUSTRACK project stakeholders' community!