

S2Biom Project Grant Agreement n°608622

D10.17a

**Policy Brief: New supply & demand data on biomass
use for energy, fuels & organic chemicals in Europe**

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About S2Biom project

The S2Biom project - Delivery of sustainable supply of non-food biomass to support a “resource-efficient” Bioeconomy in Europe - supports the sustainable delivery of non-food biomass feedstock at local, regional and pan European level through developing strategies, and roadmaps that will be informed by a “computerized and easy to use” toolset (and respective databases) with updated harmonized datasets at local, regional, national and pan European level for EU28, western Balkans, Turkey and Ukraine. Further information about the project and the partners involved are available under www.s2biom.eu.

Project coordinator



Scientific coordinator



Project partners



About this document

This report corresponds to 'D10.17 Policy briefs'. It has been prepared by:

Imperial College London
14 Prince's Gardens, South Kensington, London, SW7 1NA
Dr Calliope Panoutsou, Ms Asha Sigh, Dr Gareth Brown
E-mail: c.panoutsou@imperial.ac.uk
Phone: + 44 755 734 1846

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Bioeconomy requires a systemic perspective but systems are complex and collaboration essential

To improve understanding and evidence for policy, industry and markets work with large datasets and common metrics across the biomass value chains should address:

- validity, accuracy of data
- cost and price information
- market demand projections across energy, fuels and biobased materials, and
- interactions with regional and local actors (clusters, networks, industries) through case studies

S2Biom (www.s2biom.eu) is a European funded project aiming to improve evidence on the availability, cost supply, technologies and framework conditions (sustainability, policy, financing) for lignocellulosic non-food biomass in Europe¹ by 2030. Within the project framework, a Vision statement for an expanded role of sustainable non-food biomass supply and delivery in the European biobased economy, is prepared.

The work planned includes also a series of dedicated policy briefs to ensure effective dissemination of the project results to policy and decision makers at European, national and regional level. These are regarded as important, since the project intends to provide support for the development and implementation of future policies on sustainable supply of non-food biomass. The information presented in this policy brief outlines the approach and improvements in current datasets in the sector.

S2Biom contribution to knowledge

a. Large datasets in databases:

- Facilitate the formation and comparability of comprehensive databases populated with consistent datasets on:
 - Lignocellulosic biomass cost supply;
 - Conversion technologies;
 - Policies and support mechanisms

b. Harmonised methodologies to assess biobased economy (cross sector)

- Transparency in data collection- harmonised protocols
- Cross sector integrated frameworks addressing all bioeconomy sectors for: Life Cycle Analysis, Sustainability Criteria & Indicators Economic & energy modelling and Policy

c. S2Biom toolset- improve (feedstocks- geography) IT capacity for biomass cost supply & logistics for a wide range of feedstocks in a large geographic area with high resolution.

d. Bridging policy/ regulatory framework with local capacity and investment opportunities to develop action and investment plans in selected cases.

¹ EU28, Western Balkans, Moldova, Ukraine, Turkey

e. Developing a Vision, Strategies, regional implementation plans (EU28 & EnC) & an R&D roadmap

Data and methodological approaches

- Focus on lignocellulosic biomass feedstocks
- Regional coverage includes EU28, Western Balkans, Moldova, Ukraine and Turkey
- Common metrics for resource efficiency across biomass value chains
- Policy landscapes- beyond energy & fuels, including agriculture, forestry, environment, economy, enterprise, etc.
- Integrated policies to mobilise resource efficient domestic biomass 'value chains'

New data generated within S2Biom

- Atlas of sustainable non-food lignocellulosic biomass estimates for EU27 and Western Balkans, Ukraine, Moldova and Turkey (NUTS3).
- S2Biom toolset- improve (feedstocks- geography) IT capacity for biomass cost supply & logistics for a wide range of feedstocks in a large geographic area with high resolution.
- Market analysis for biobased products.
- Vision for lignocellulosic biomass supply to 2030.

Methodological approaches developed within S2Biom

- A method and tool with indicators to match biomass feedstocks with the most suitable conversion technologies, considering the pyramid of end use applications (materials, chemicals, fuels, energy).
- Harmonized sustainability requirements for bioeconomy value chains, including guidelines for methodologies to determine sustainability performance and environmental footprint methods for non-food biomass supply chains.
- Optimal design and evaluation of biomass delivery chains and networks at national and Pan-European scale
- Case studies covering biomass supply, logistics, demand and policy analysis

Future research should be based on integration, common metrics and system analysis

- Focus on the European indigenous biomass capacities in the regions and work on a multi actor engagement approach to:
 - Refine and validate data (supply, demand and cost/ prices) for renewable raw materials at the implementation level (clusters).
 - Improve evidence for policy, financing and standardisation through exemplar case studies at regional level to capture both data but most importantly the key factors/ metrics which are expected to shape cost, resource and energy efficiency once the biorefinery value chains reach maturity level.
- Build capacity at implementation level with the participation of local actors.