

LCA4bio

Harmonised Life Cycle Assessment methods for sustainable and circular **BIO**based systems

Webinar - LCA framework developments of bio-based materials: how to integrate them in new EU projects?



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PROJECT KEY INFORMATION



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Topic ID: HORIZON-CL6-2023-ZEROPOLLUTION-01-4: **Environmental sustainability and circularity criteria for industrial bio-based systems**

ID: **101135371**

Project starting date: **1 January 2024**

Project end date: **31 December 2026**

Project duration: **36 months**

7 Work Packages

Total budget: **€ 3,464,061**

10 Partners

Coordinated by:  **contactica**
innovation

Kick-off meeting in Madrid, 18th of January 2024

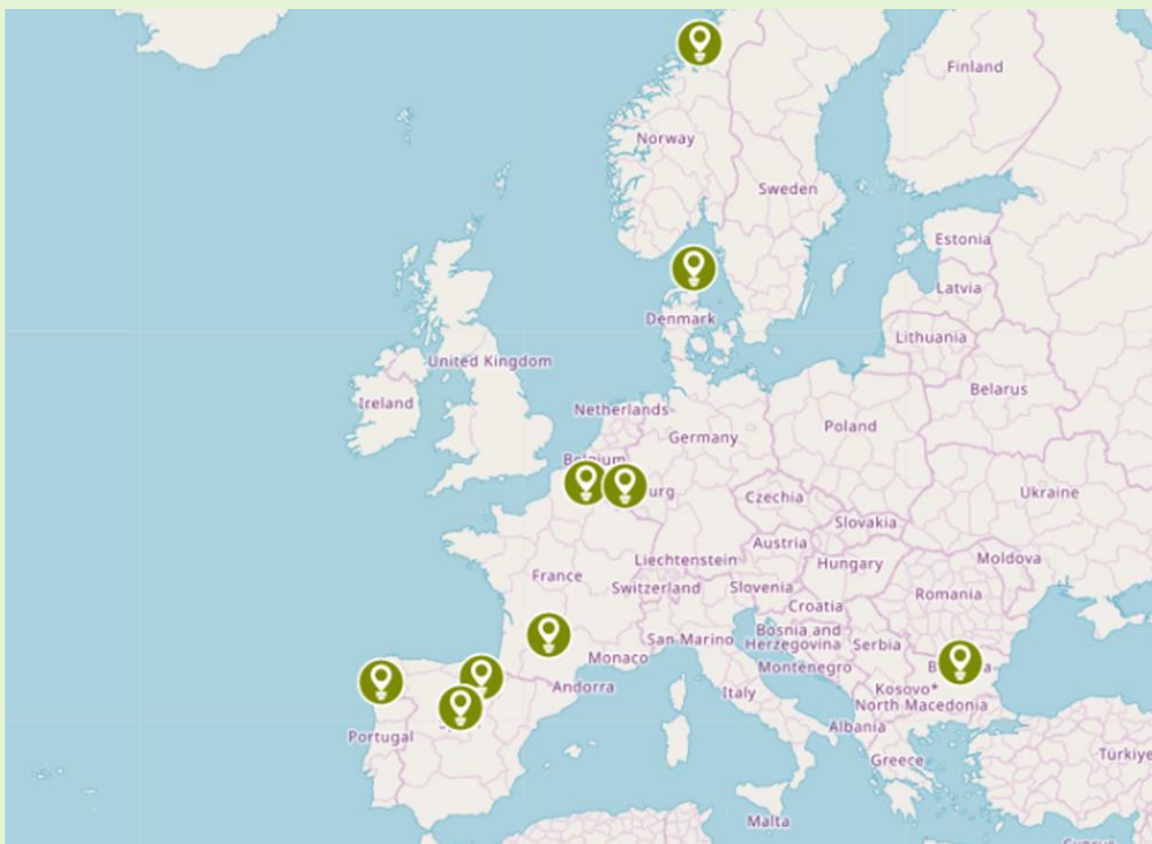




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CONSORTIUM



10 Partners:

- 2 Universities (AAU, NTNU)
- 3 Research Centres (LIST, INSA, CESEFOR)
- 2 SMEs (CTA, GO-UP)
- 1 Certification Scheme (PEFC)
- 1 Industry (SONAE)
- 1 Industrial Cluster (B4C).

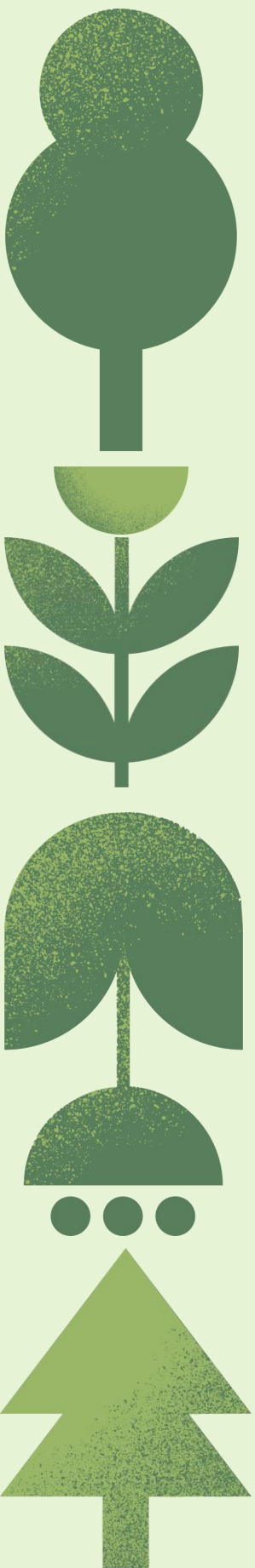


MAIN OBJECTIVE

PROJECT MANAGEMENT AND
MONITORING (WP1)

LCA4bio

Develop and validate a new set of improved, harmonized, precise, reliable and applicable **assessment methodologies** to properly evaluate **environmental impacts and circularity in biobased systems**, that can be applied in certification schemes, thus enabling the international trade of this type of products and development of new **prospective life cycle assessment methodologies**

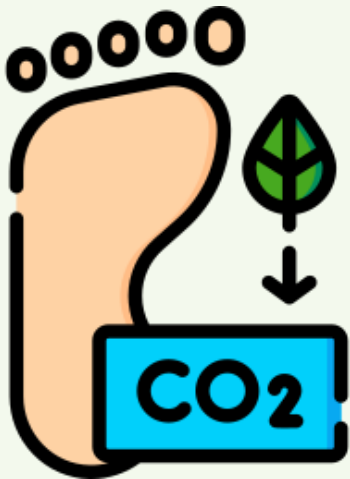


METHODOLOGY

OBJECTIVE

1

Improved methodology for environmental sustainability and circularity assessment of Bio-based Systems (WP2)



Development of a harmonized approach for dynamic carbon footprint (dynamic LCIA)



Improvement of circularity assessment methodology for BbS identifying circular strategies



Derive a set of life cycle impact assessment methods for BbS

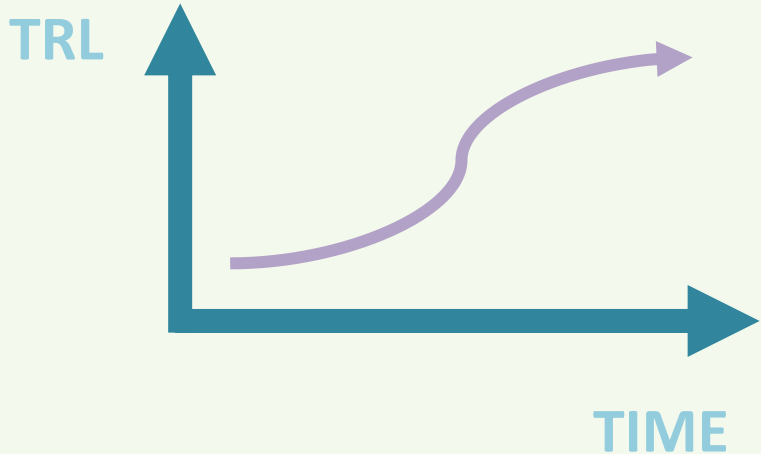


METHODOLOGY

OBJECTIVE

2

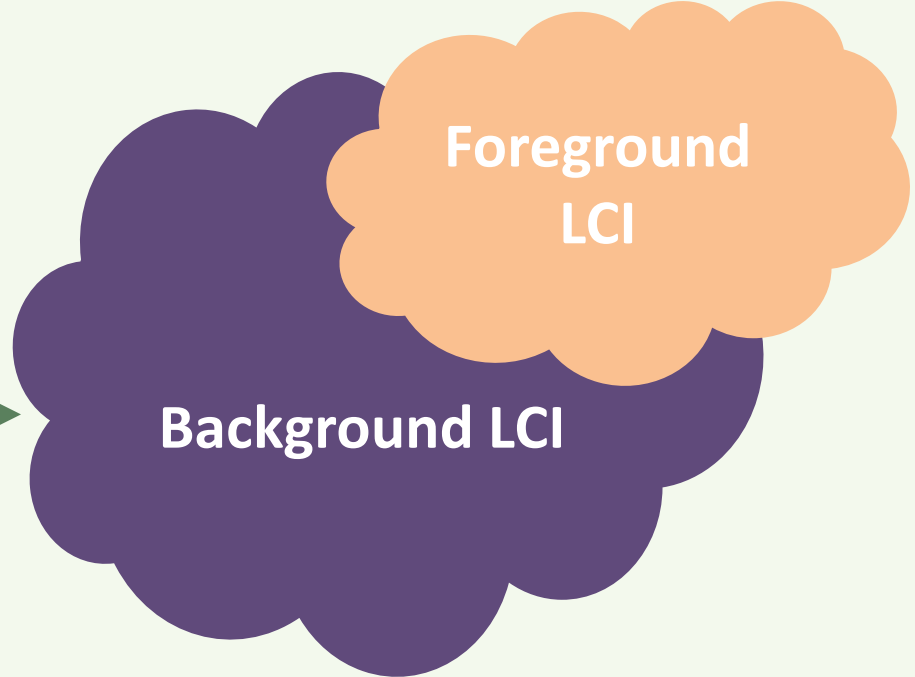
Improve prospective LCA methodologies to assess low-TRL BbS (WP3)



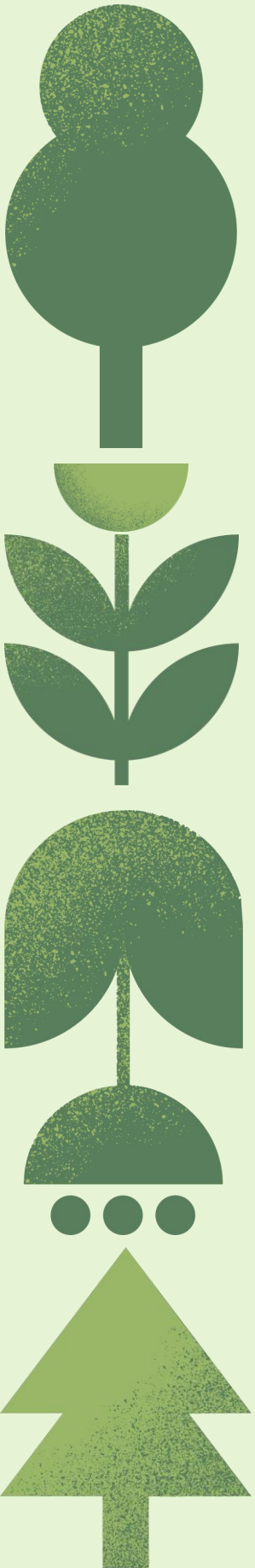
Review of “prospective” LCA approaches to harmonize methods for foreground and background modelling

Framework development to generate LCI of up-scaled bio-based technologies for pLCA

Coupling with integrated assessment models (IAMs)



Uncertainty analysis in pLCA

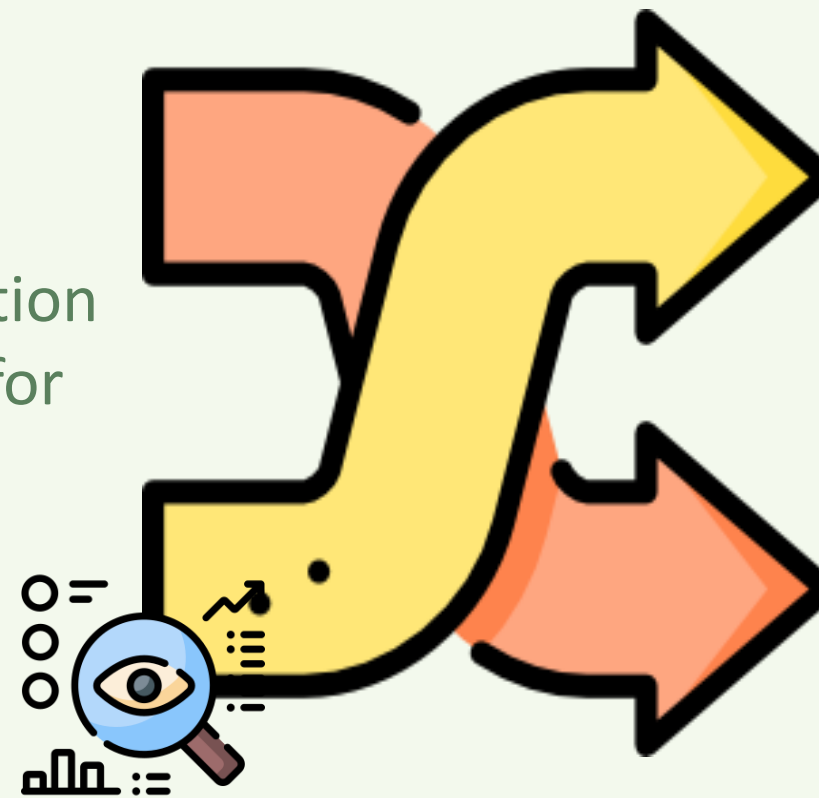


OBJECTIVE

3

Understand potential socio-economic trade-offs, synergies and substitution effects (WP4)

Analysis of the substitution effect methodologies for bio-based products



Analyse trade-offs and synergies between improved environmental performance and economic and social objectives of BbS

Accounting for competition for resources between BbS with adjacent economy sectors in the bioeconomy



OBJECTIVE

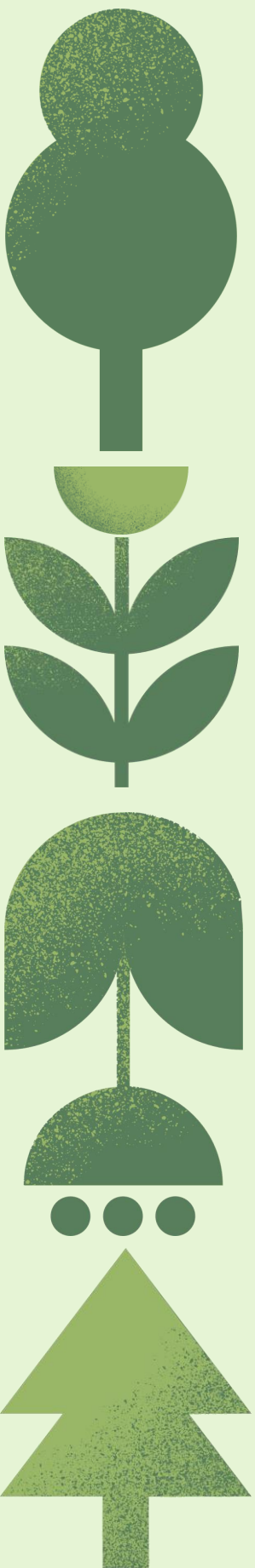
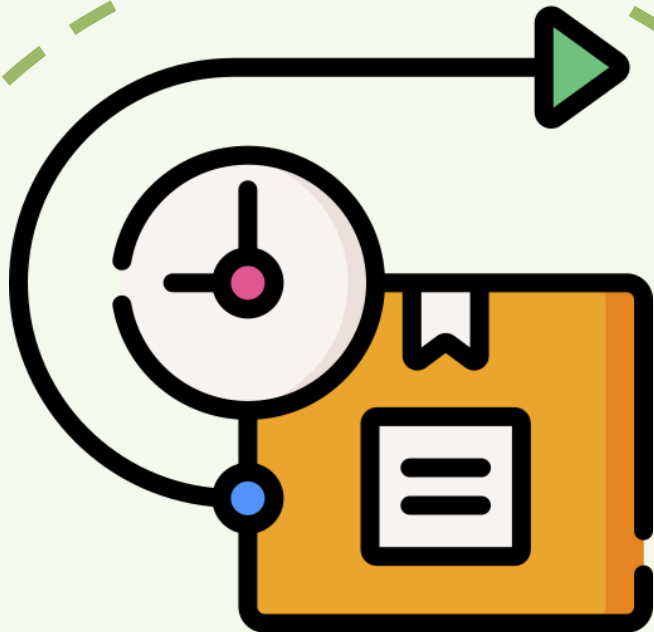
4

Test and validate the methodologies developed in the project (WP5)

Identify the high-TRL best available technologies to be used as benchmarks, for low-TRL methodology testing and validation, and for prospective LCA methodology application

Test the LCA framework on low-TRL case studies

provide guidelines for applying the prospective LCA to low and high TRL BbS



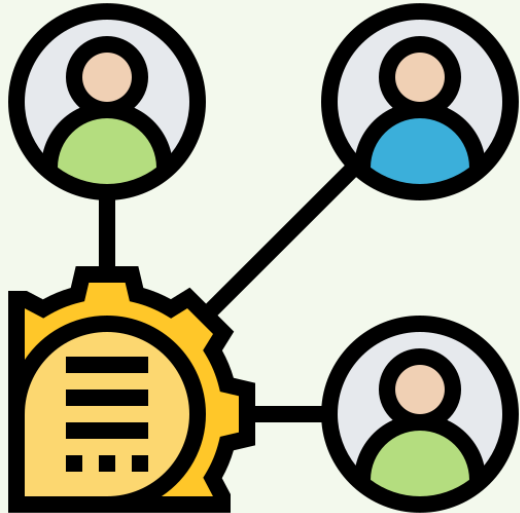
METHODOLOGY

OBJECTIVE

5

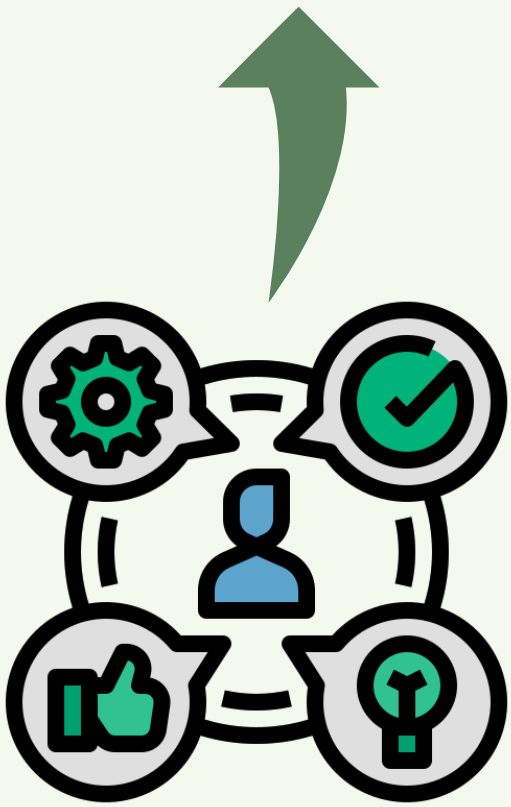
Develop and test LCA methodologies to apply in certification schemes (WP6)

Involve different stakeholders in the definition of LCA-based standards for BbS through co-creation workshops and validate the LCA methodologies for different type of stakeholders



Incorporate the BbS LCA standard in existing certification scheme

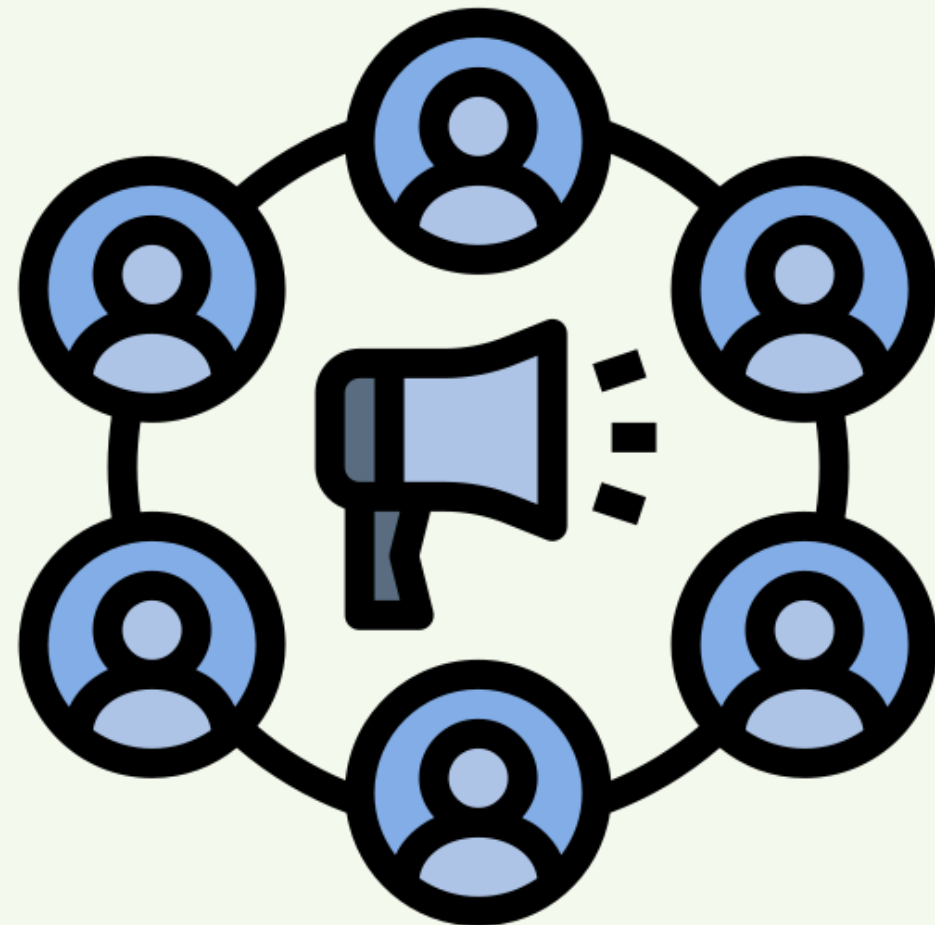
Develop user-friendly tools to perform LCA of bio-based products and test them by engaged stakeholders



OBJECTIVE

6

Design and execute
dissemination, communication and
exploitation strategies (WP7)



- Maximise the impact of the project and its results through communication, dissemination and exploitation activities
- Assess the exploitation potential of the technology to find candidates for acquiring the technology in early stages of the technology commercialization, and to find candidates interested in using partial results (certification schemes, pLCA guidelines, generated data, etc.)
- Clustering activities and cooperation with projects, EU platforms, institutions and regulatory bodies



**THANK YOU VERY
MUCH FOR YOUR
ATTENTION!**



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