

Our Mission

ARGONAUT tackles key uncertainties in the bio-based products sector by developing an **advanced digital tool (JASON) that maps production options, optimises resource use, and assesses environmental impacts.**

By collecting and analysing diverse data on bio-product systems, it empowers informed and sustainable decision-making.

Challenges so far...

- The **complex nature** of bio-based materials
- **Uncertainty** regarding essential economic, environmental, social and regulatory aspects
- **Barriers for SMEs** in adding bio-based products to their value chains
- The **data-intensive and often costly nature** of Life Cycle Assessments (LCAs)

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ARGONAUT



Leading the Way for Bio-Based Innovation

AI-powered environmental impact assessment for a circular economy

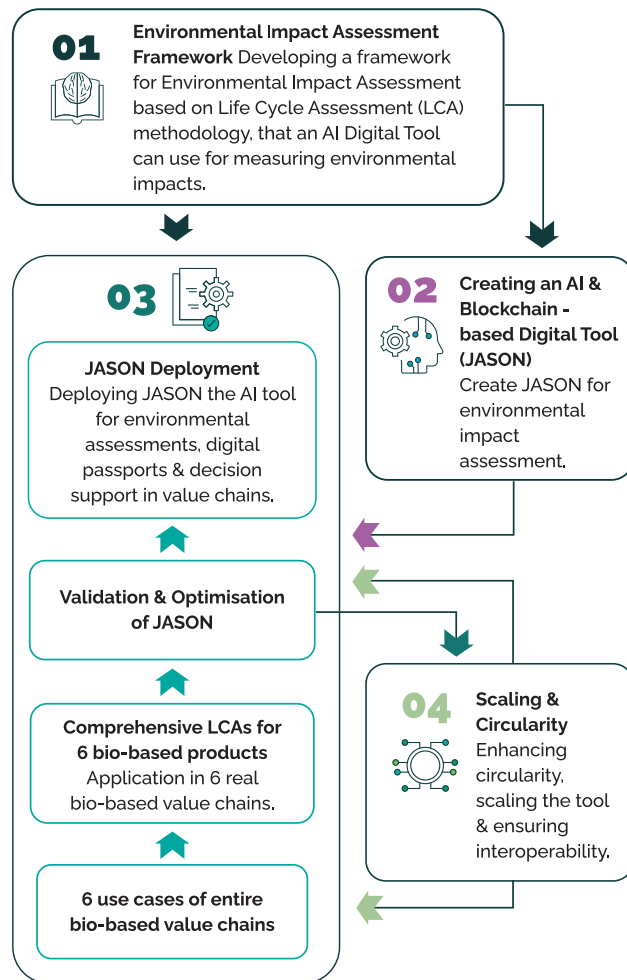


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ARGONAUT

as a game changer

ARGONAUT will transparently showcase the environmental footprint of bio-products by developing an intuitive and user-friendly AI-powered environmental impact assessment tool and dedicated Digital Passports of such bio-products.



How do we lead the way for a circular economy?

Develop JASON to accurately assess the environmental impacts of bio-based products across their entire value chain.

- **Validate, enhance, and optimise** JASON across six value chains using the Life Cycle Assessment (LCA) methodology.
- **Develop** a digital passport system for bio-based products, leveraging blockchain technology for secure and transparent tracking.
- **Contribute** to the digitalisation of life cycle information for bio-based products, enabling their inclusion in the European Dataspace for Smart Circular Applications.
- **Enhance** the social readiness and acceptability of climate-friendly bio-based products.

Expected Results

- **AI Digital Tool (JASON)**
Develop and deploy the Joint Analytical System for Optimisation of environmental impact assessment AI Tool.
- **Digital Bio-Product Passport (DBP)**
1 fully functional DBP system developed with at least 6 tags assigned.
- **Policy Toolkit**
designed to influence and shape policies for the bio-product sector.
- **FLEECE**
a showcasing library that highlights the eco-conscious and sustainable nature of products and practices adopted.
- **Full Conventional LCAs**
of 6 established bio-based product value chains covering the environmental and climate impact at every stage.
- **Business & Governance Models**
to foster the development of bio-based alternatives and support the transition to a sustainable industrial paradigm.
- **Federated data space**
allowing edge, on-premise and cloud-based systems to share data in a structured way.
- **Educational and Awareness Campaign**
to inform stakeholders about the project and its outcomes.