



# BioReCer

Biological Resources Certifications Schemes



# The BioReCer ICT Tool

Digital solutions for a Bio-based future - Empowering industry and consumers – Webinar - 8 April 2025

EGM

## Current situation

- Biological residues and other waste are rarely processed in an environmentally friendly way. These by-products are seen as burdens.
- Current certification systems do not sufficiently address the specific needs of biological resources.

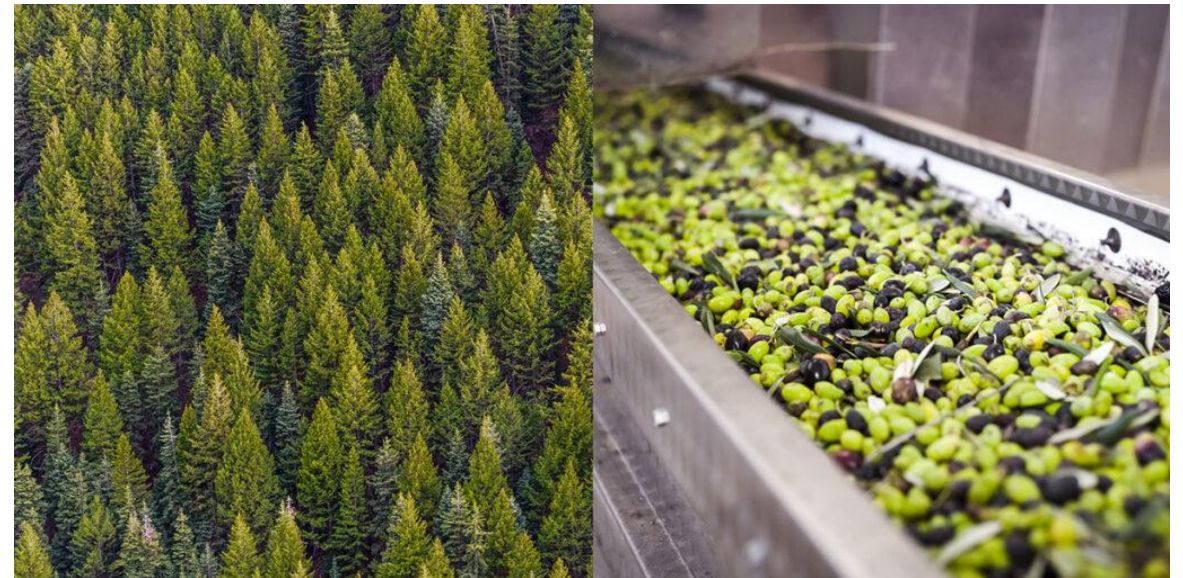


Image: <https://biorecer.eu>

# Challenges Related to Using Waste as Raw Materials

- Seasonality of harvests (e.g., agricultural waste).
- Potential presence of harmful compounds, such as heavy metals and pathogens.
- Climate and weather sensitivity, leading to uncertainties.
- Low social acceptance.

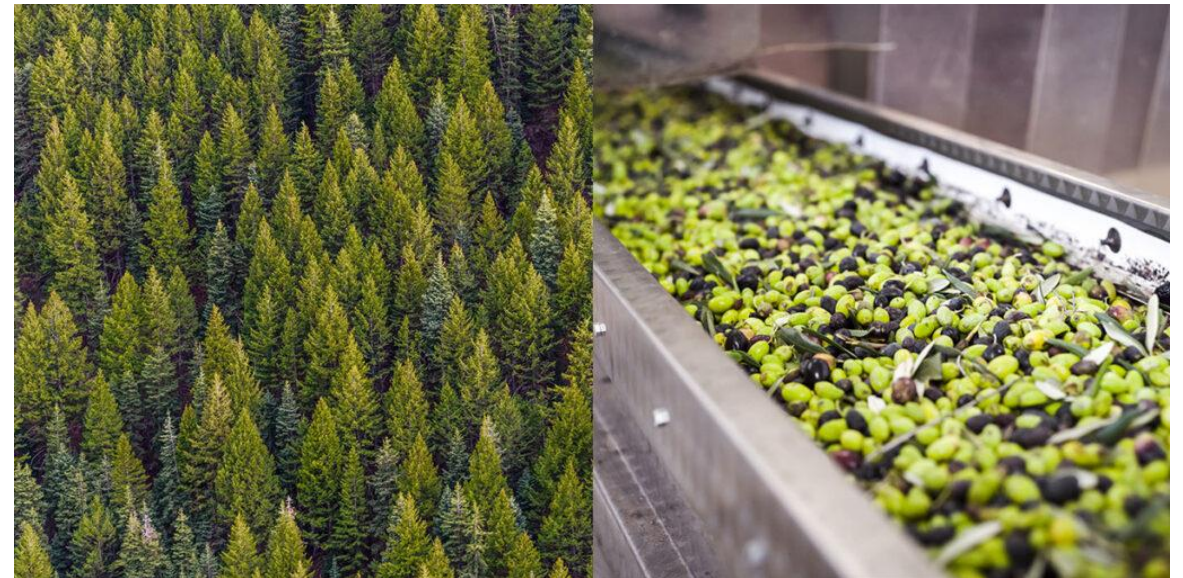


Image: <https://biorecer.eu>

# Project Objectives

- Increase transparency in bio-based value chains by providing information on environmental performance.
- Track biological raw materials to optimize supply chain processes, comply with health and safety standards, assess environmental impacts, and promote biological raw materials in the market.
- Enhance social acceptance of bio-based products.
- Reduce greenhouse gas emissions and water pollution.
- Replace fossil resources with alternative biological resources.

# Validation of methodologies in four case studies



Fish Cannery Industry (Spain)



Urban waste (Italy)



Agricultural waste (Greece)



Residues from the forest industry (Sweden)

<https://biorecer.eu/project>

# Consortium

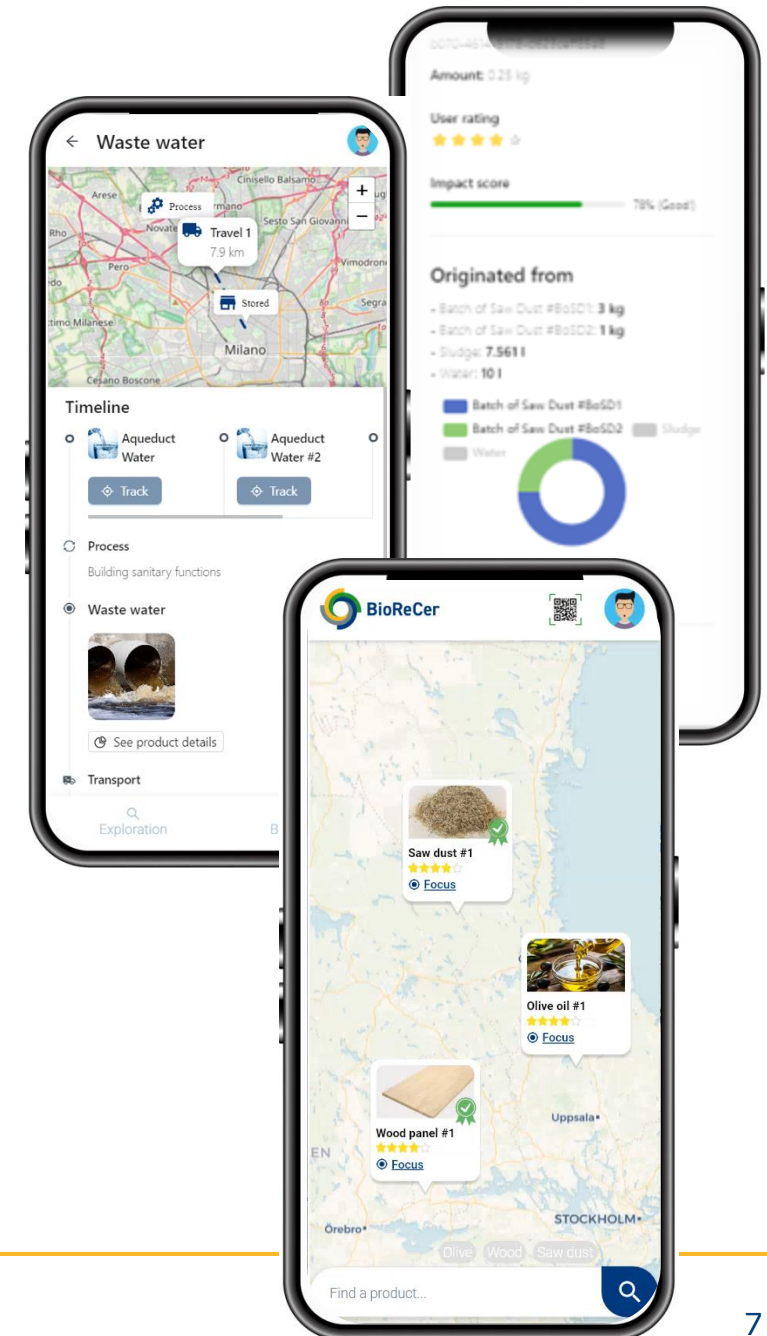


CETAQUA  
WATER TECHNOLOGY CENTRE



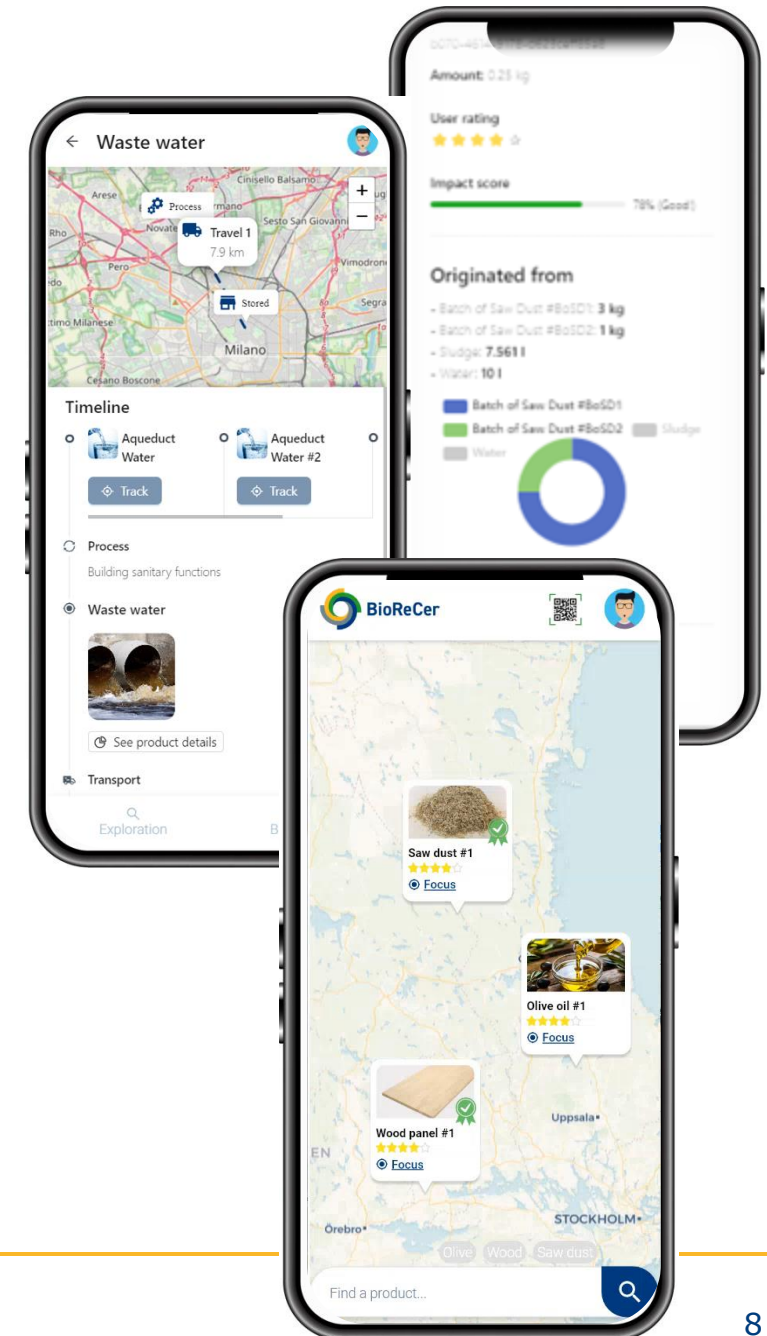
# The BioReCer ICT Tool

- A data platform, and a web application to support the project's needs and help reach its goals.
- An infrastructure based on Stellio context broker (NGSI-LD standard)
- A « mobile first » application designed for various users with different needs and expectations :
  - Certification bodies
  - Bio-producers
  - Bio-industry
- Still work in progress



# Key features

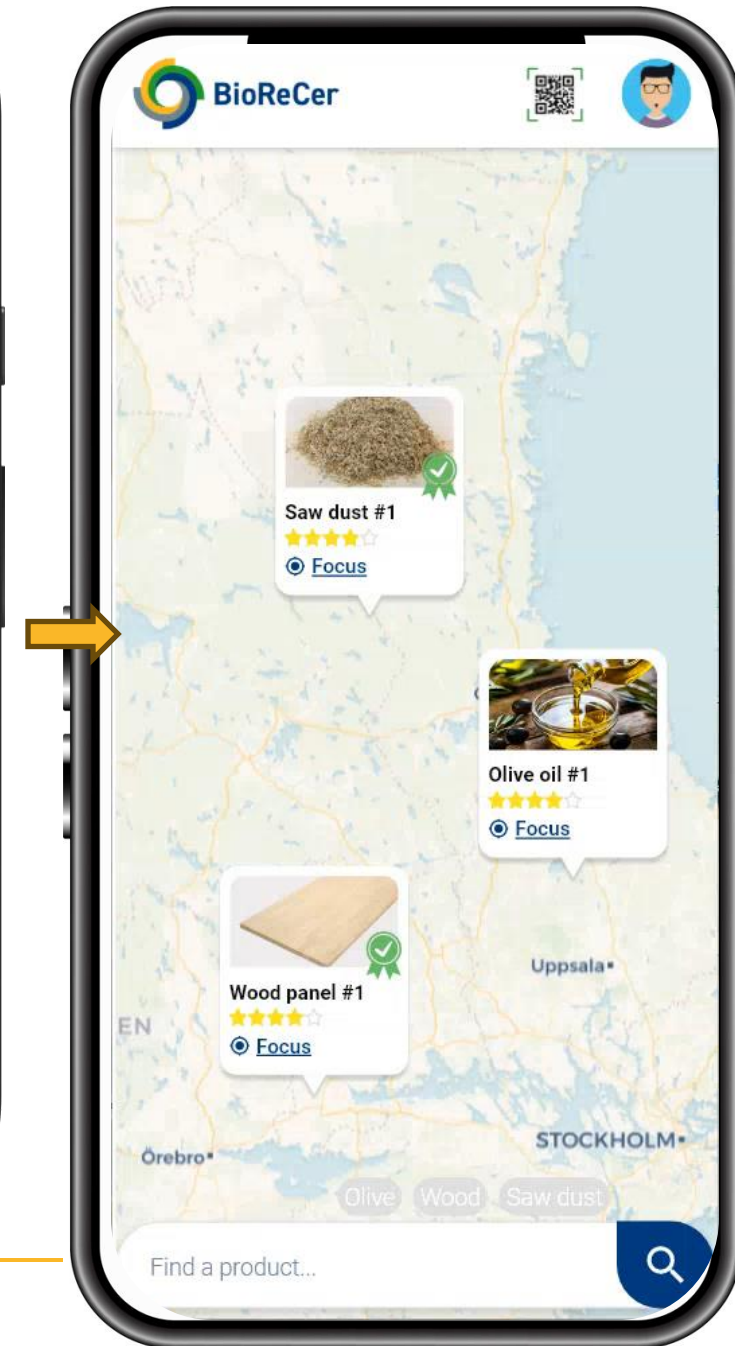
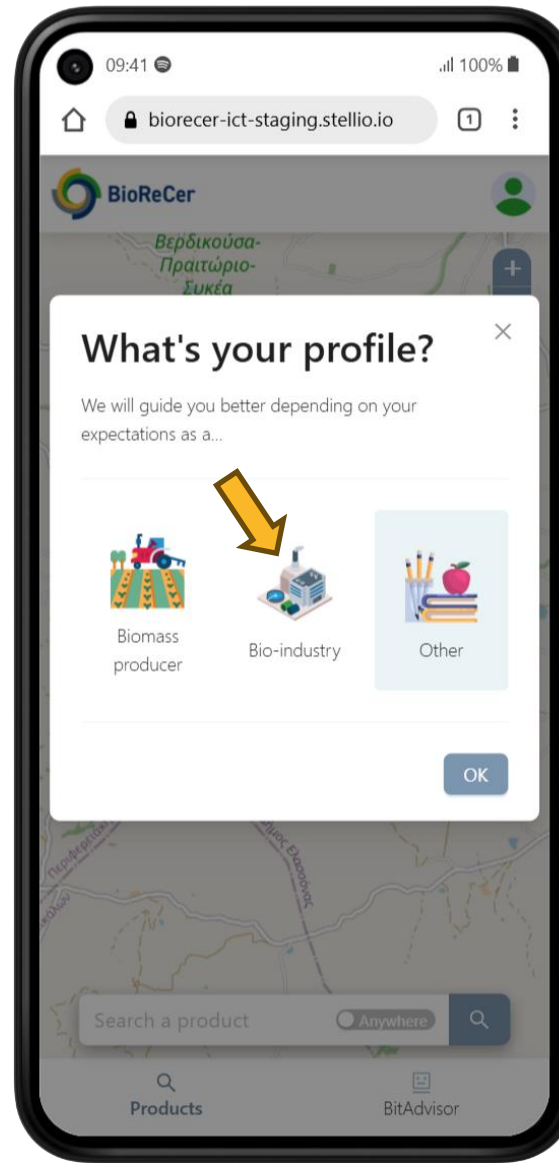
- Find products nearby and search by keywords.
- Visualize and explore the supply chain.
- Digital product tracking throughout its lifecycle.
- Dedicated product pages with detailed information.
  - Environmental impact score / circularity indicators for products
  - Access to a marketplace for bio-based resources
- Blockchain integration for secure and reliable data recording.
- Company's self sustainability and circularity assessment with basic and advanced requirements





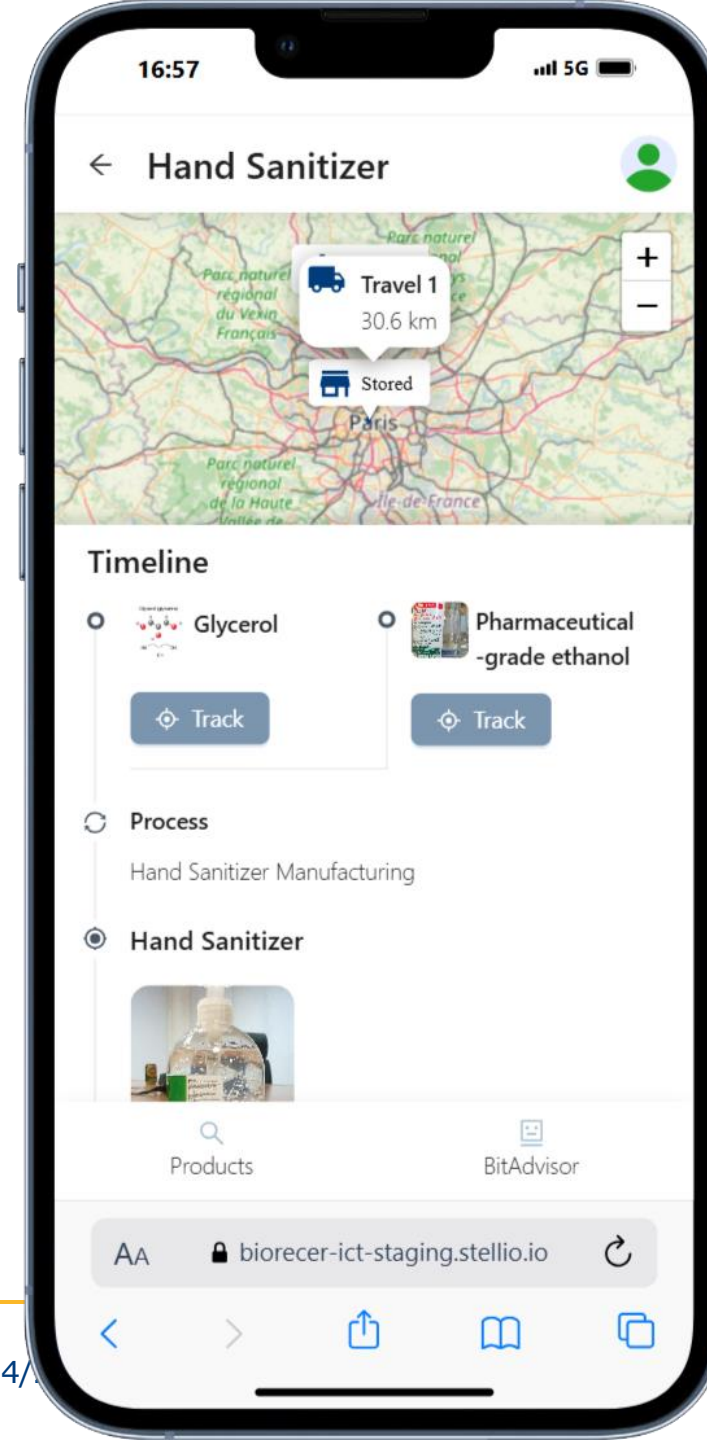
# Key features

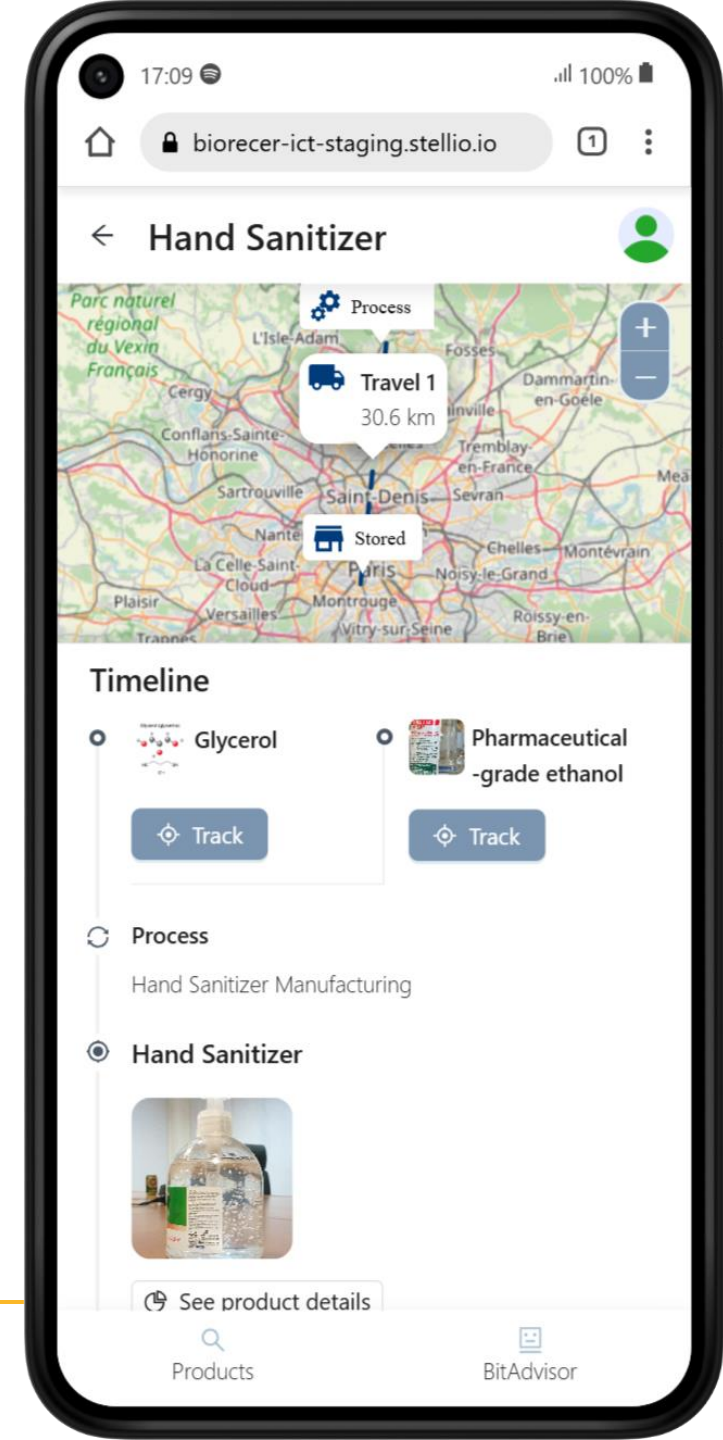
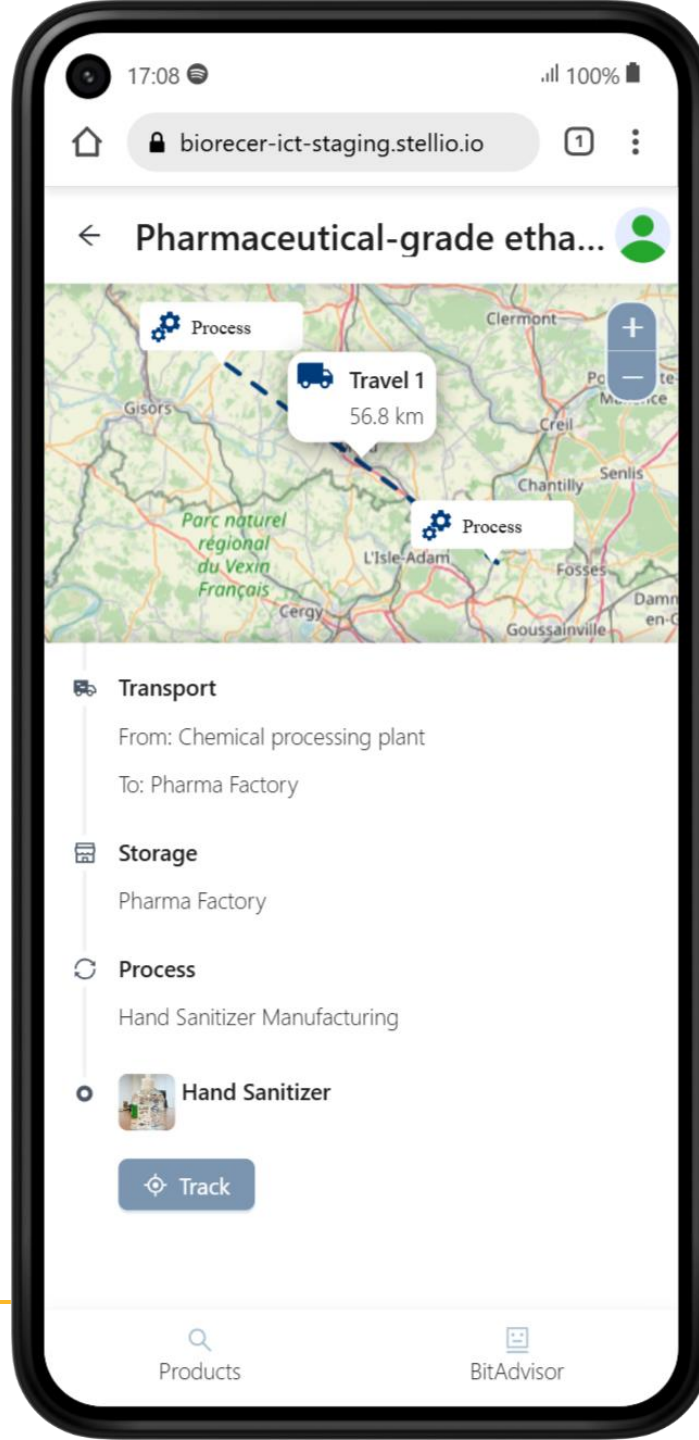
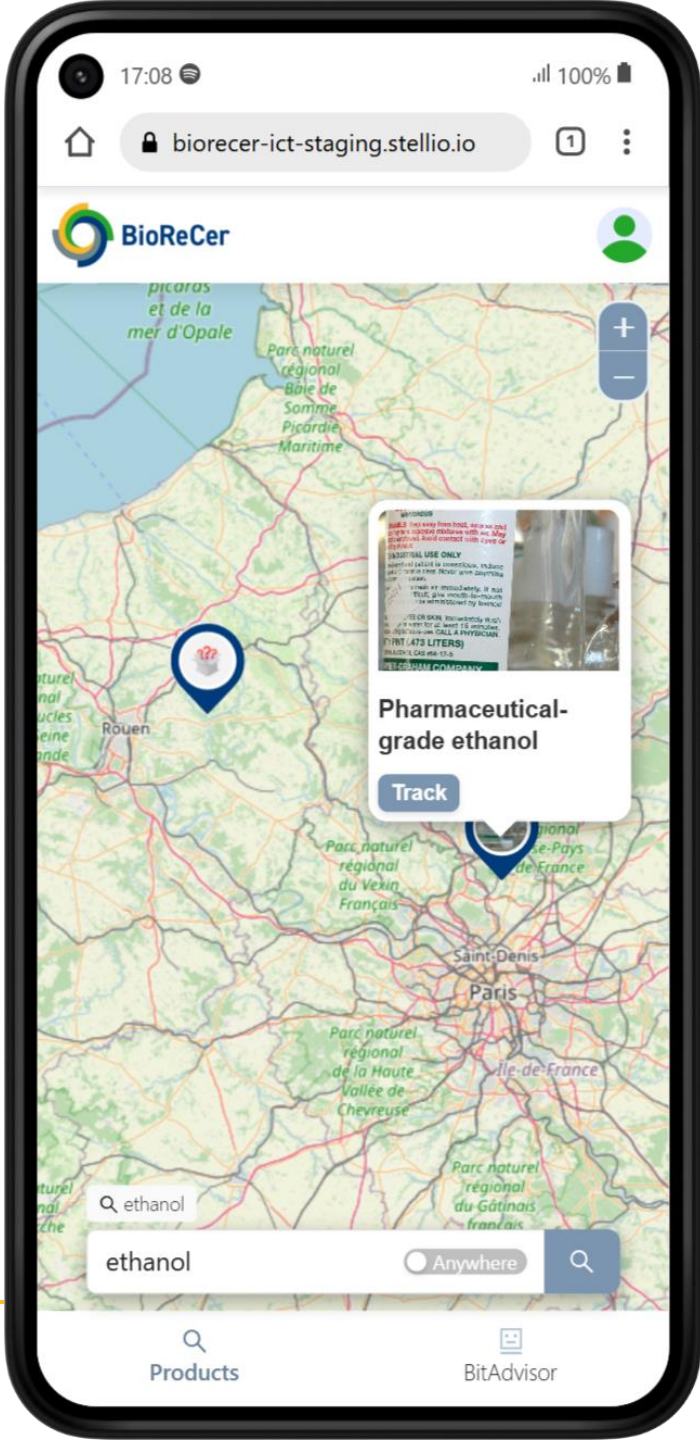
- Find products nearby and search by keywords.
- Environmental impact score for products.



## Key features

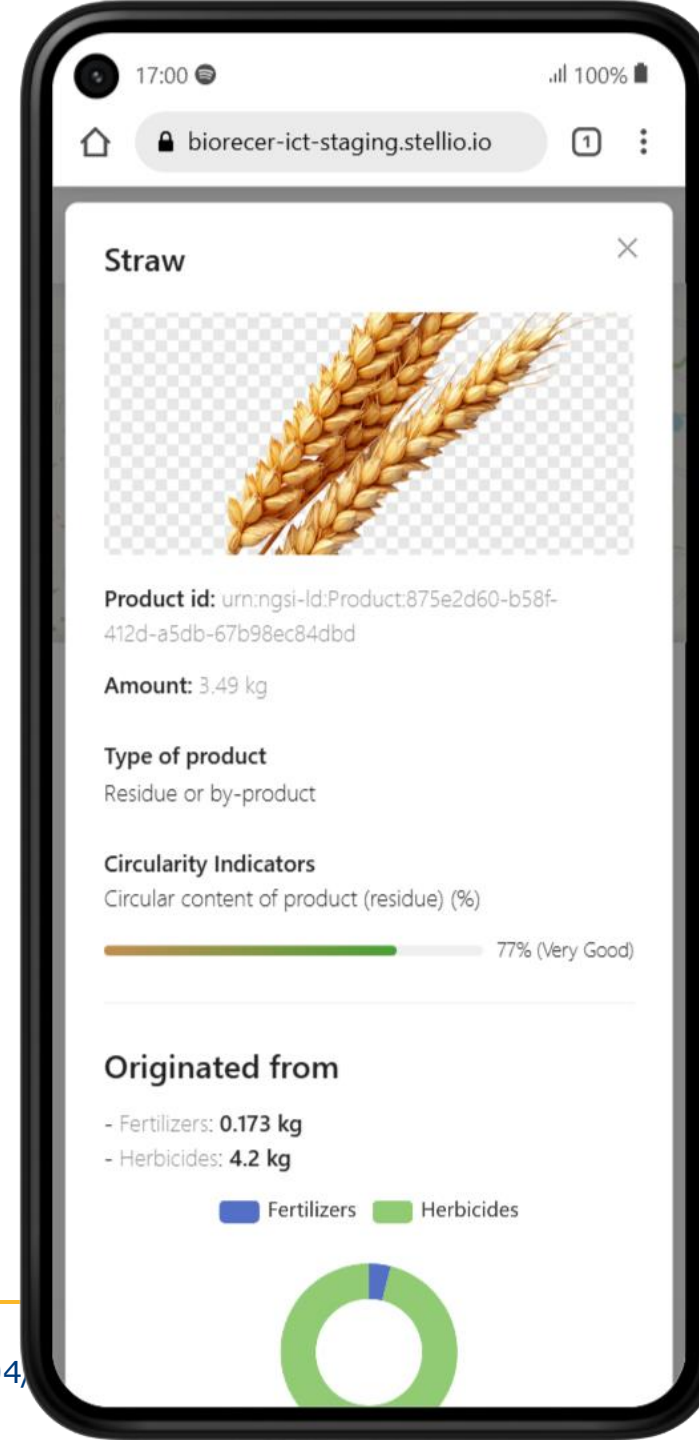
- Visualize and explore the value and supply chain.
- Digital product tracking throughout its lifecycle.





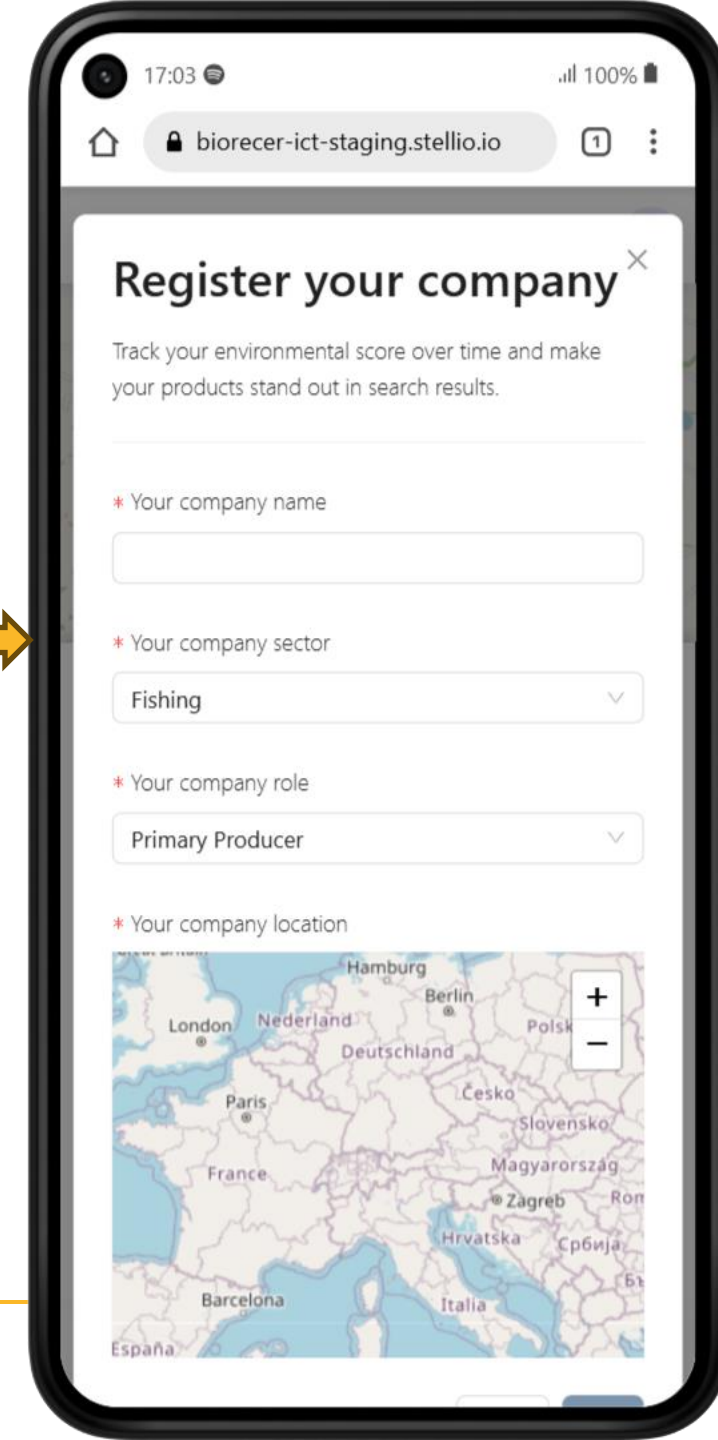
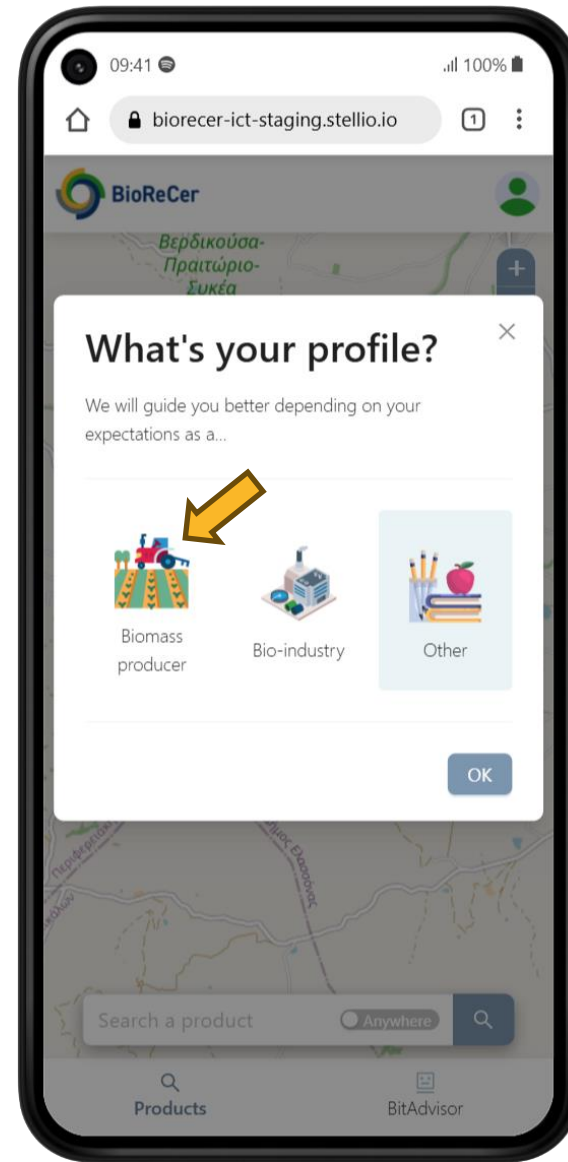
## Key features

- Dedicated product pages with detailed information.
- With a list of available Circularity Indicators
- Products of origins
- Carbon footprints

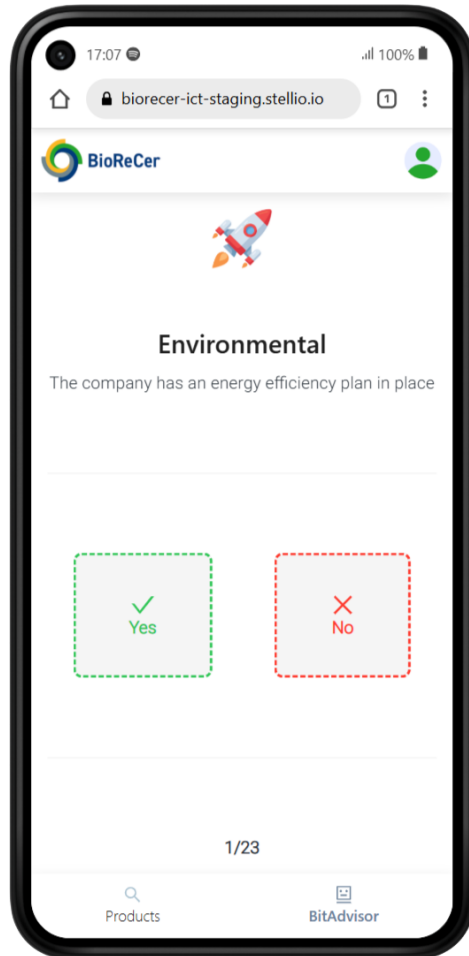


# The BitAdvisor

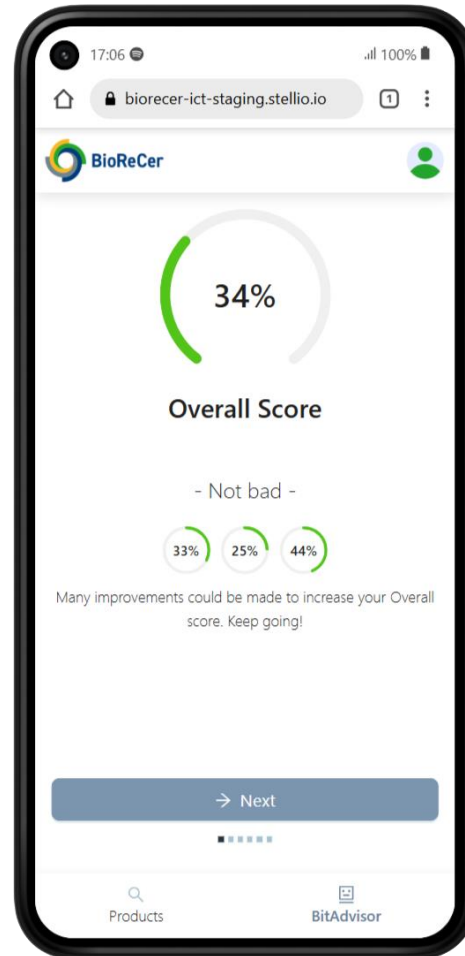
- Sector-specific decision-making support system for bioresources.
- Self-assessment for businesses to evaluate their compliance with certification requirements.
- Recommendations and guidelines to improve certification scores.
- Bioresource search based on performance scores.



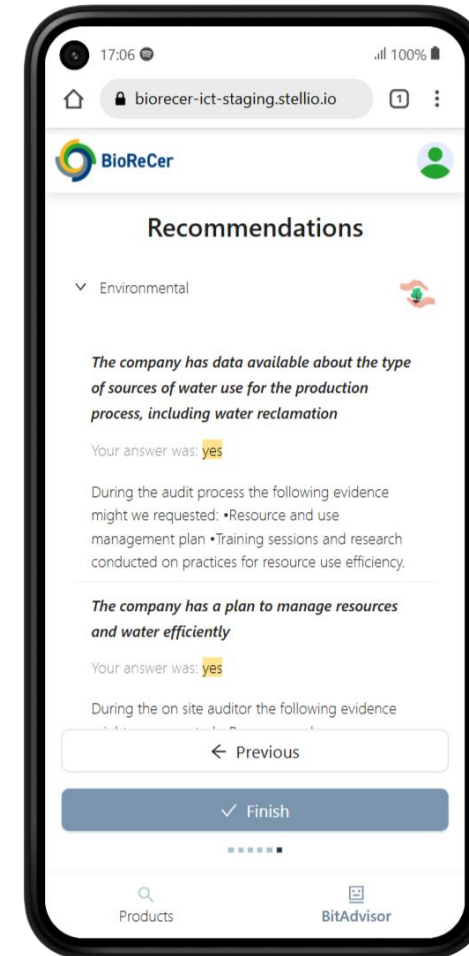
### Questions



### Scores output: overall compliance, by pillars, sector averages

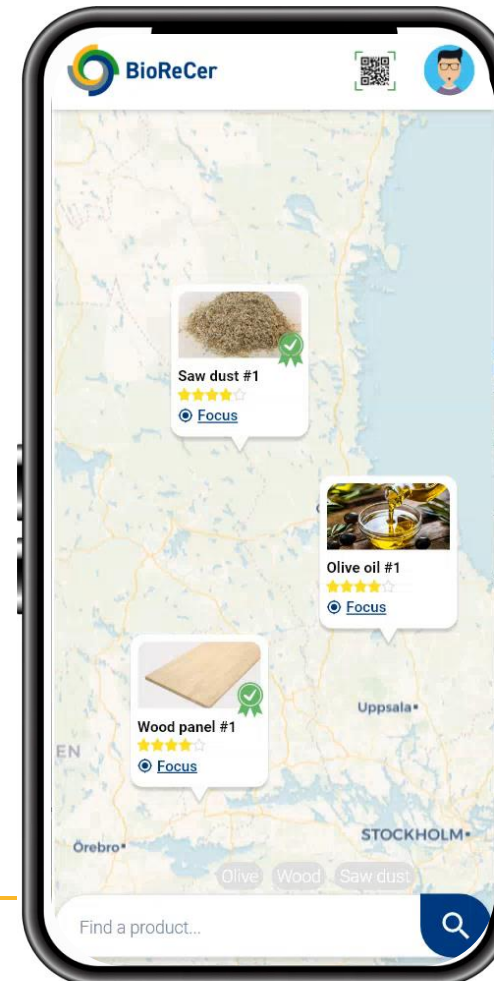


### Guidelines on how to improve the score



# Product selection recommendations

- Highlight products on map based on several factors:
  - Industry score
  - Distance from the user's location
  - Carbon footprint of its generation
  - Energy requirements



## Demo

<https://biorecer-ict-staging.stellio.io/>

**(Work in progress)**

Feedback / Comments:  
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## Coming next

- The certification body view
  - Find companies with the best industry scores
  - Find mapped Bio-Based standards and mapped certification schemes

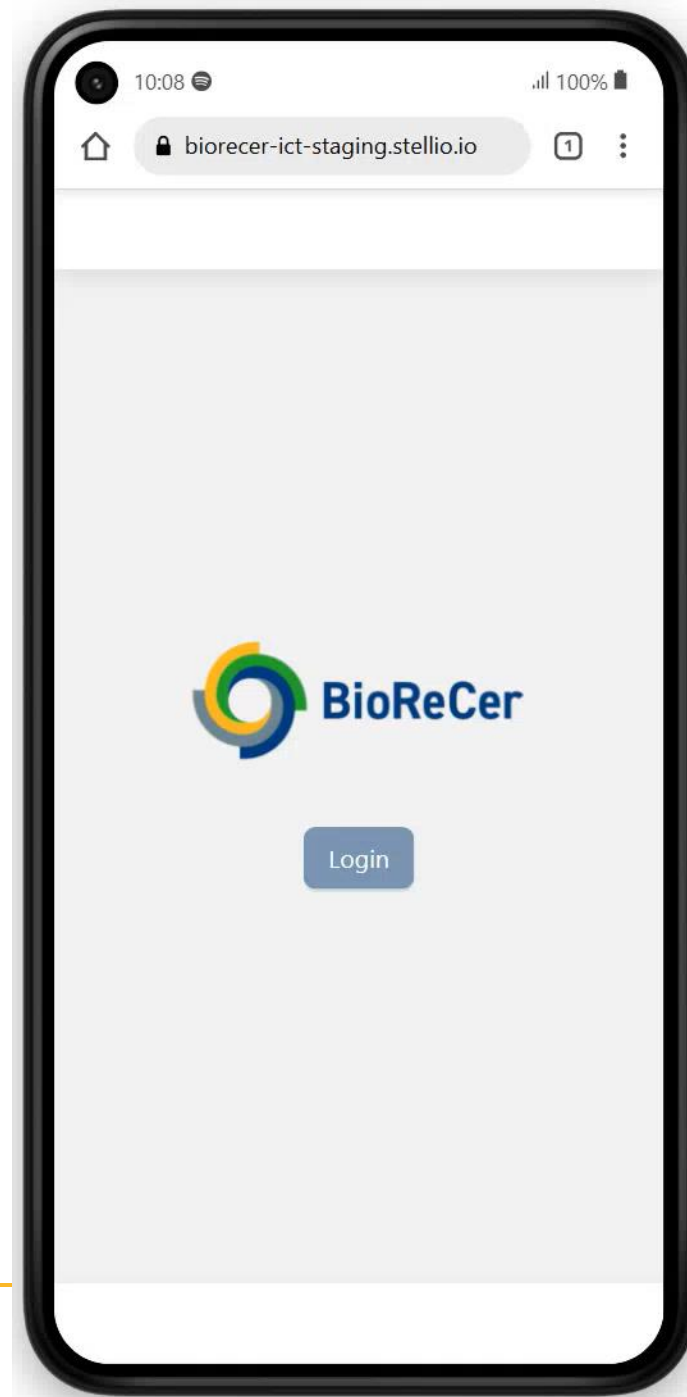


# Demo

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# Thank you!