

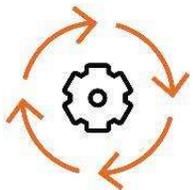
Product Sustainability

Targeting at least compliance, aiming at maximizing positive impacts from your products.

 ARCADIS



Product sustainability requires to address multiple dimensions to ensure effectiveness and credibility.



Product lifecycle

Going beyond your production line

Because the social and environmental impacts of your products on society occur along the whole value chain of your product, from extraction to end of life.

Circular economy

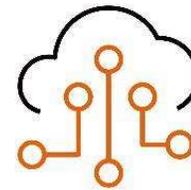


Safe and Sustainable Design

Re-think your product

You know your product better than anyone else. The question is rather to check whether the product is still fit for its application and whether alternative design can be developed to improve its environmental and social lifecycle performance.

LCA & Collaboration

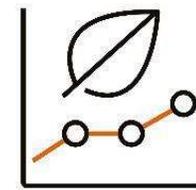


Product data management

Ensure more traceability and transparency

Data management of your own product lines but also related to the production inputs and outputs, lifecycle impacts is crucial for design, performance management and reporting. It is also a question of compliance with evolving regulations.

Data management & digitalisation



Performance management

Track and report about environmental and social performance

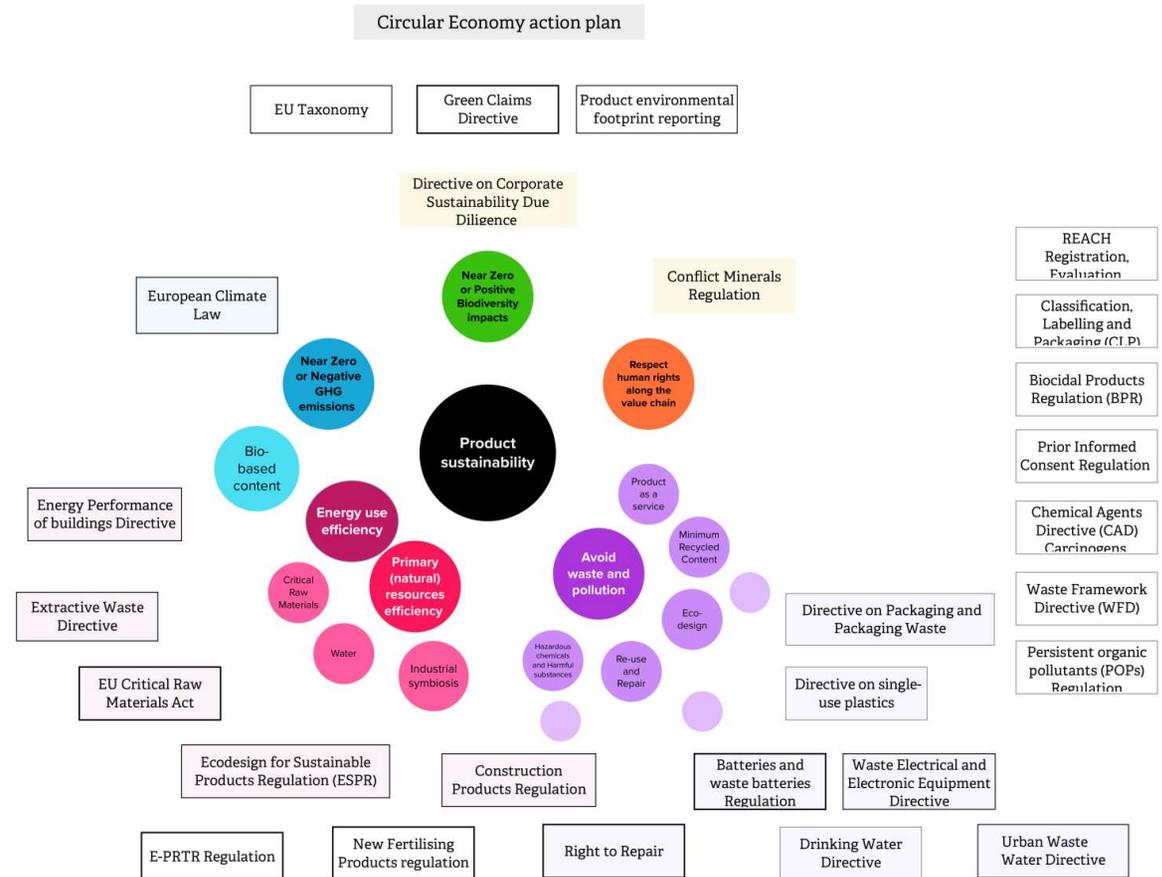
Ensure you identify the relevant and significant KPIs for your product value chain, prioritise, define metrics and targets.

Set-up a governance that ensures adequate performance management.

ESG

Product sustainability compliance

Arcadis can support you ensuring compliance in a complex and changing regulatory environment.



Arcadis' expertise and tools can help you assess your product environmental performance.

What we offer:



Scope definition is a key success factor. We support you in understanding what you need, your target, and how to achieve it.



Data gathering is a challenge for everyone. We support you in understanding what you need to collect and how.



Making credible **reporting** (incl. claims) and setting-up an effective **action plan** is crucial. We support you in assessing relevancy and significance as well as compliance.

How we do it :

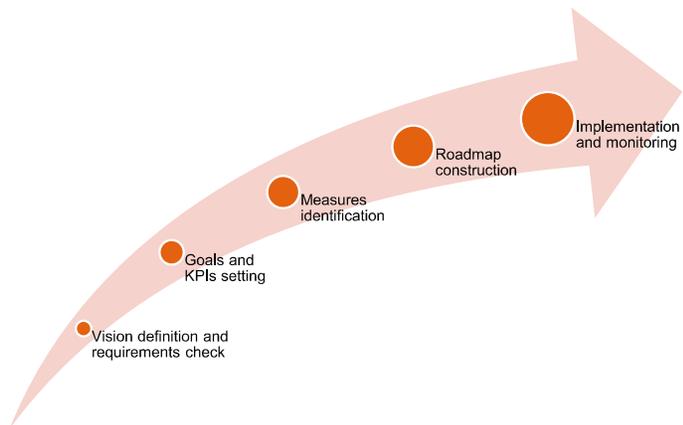
- In-depth LCAs vs. screening LCAs
- Product Environmental Footprint (PEF)
- Activity-based Footprinting (ABF)
- Environmental Product Declaration (EPD)
- Reviewed and verified LCAs for external use
- Following ISO 14040/44:2006 / PEF / EN 15804

Our tools assessment tools and databases :

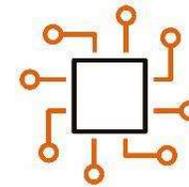
Arcadis will support you in roadmap definition and implementation.

What we offer :

- Product environmental assessment and reporting
- Supply chain due diligence
- Roadmap co-construction for product improvement
- Circular Economy strategy definition and implementation



How we do it :



Lifecycle assessment tools
Chemicals database



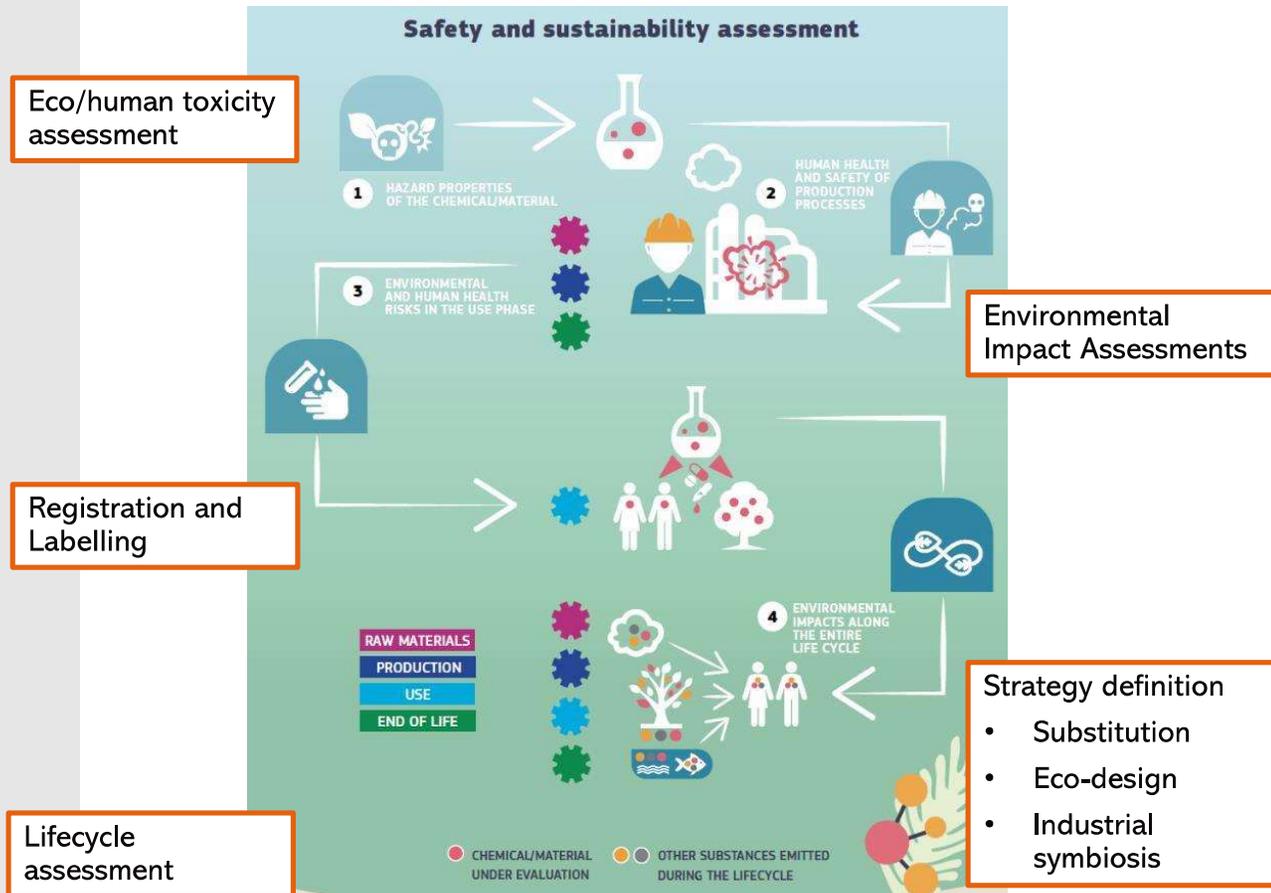
Co-creation and brainstorm workshops



Stakeholder engagement (suppliers, clients, communities, authorities, ...)

Sustainable Products development

Arcadis' competences and services are shaped to support you, not only, in the implementation of your Safe and Sustainable Product assessment, but also in the development of your portfolio strategy.

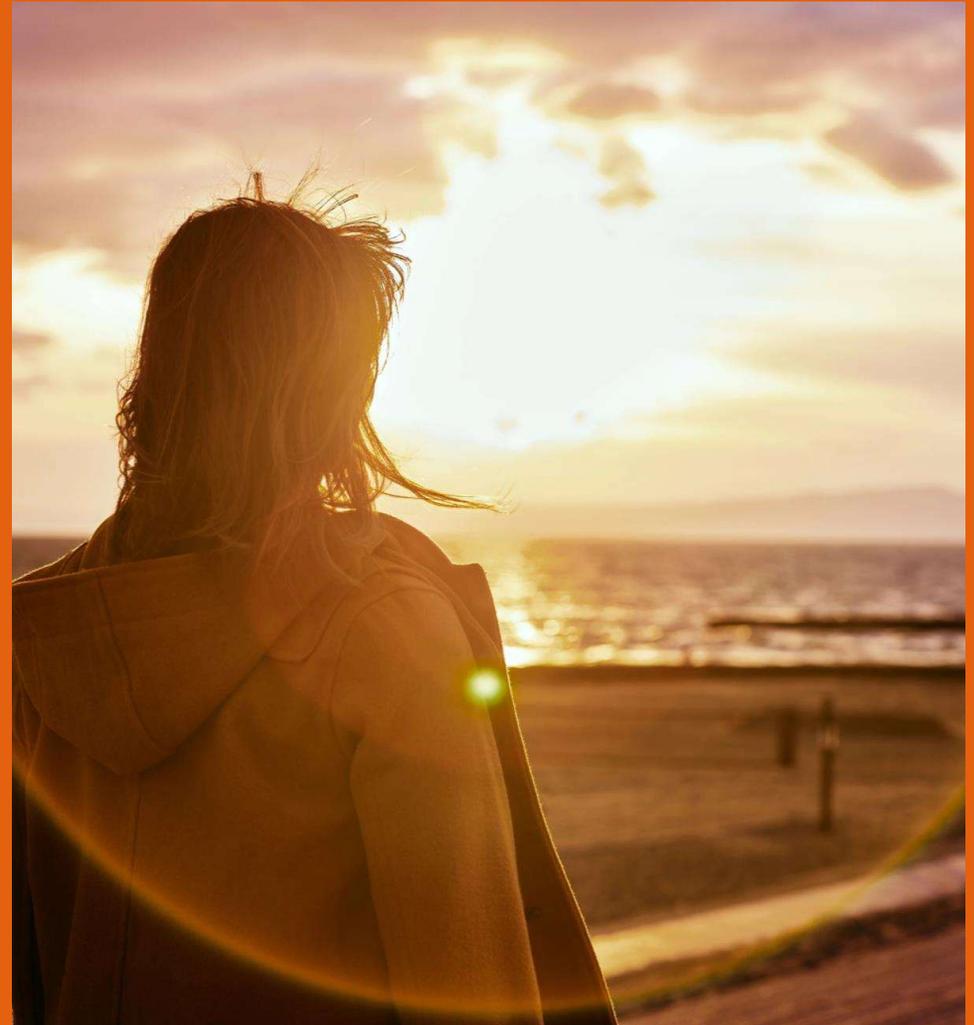


European Commission, Directorate-General for Research and Innovation, *Safe and sustainable by design chemicals and materials: a European assessment framework*, Publications Office of the European Union, 2022, <https://data.europa.eu/doi/10.2777/86120>

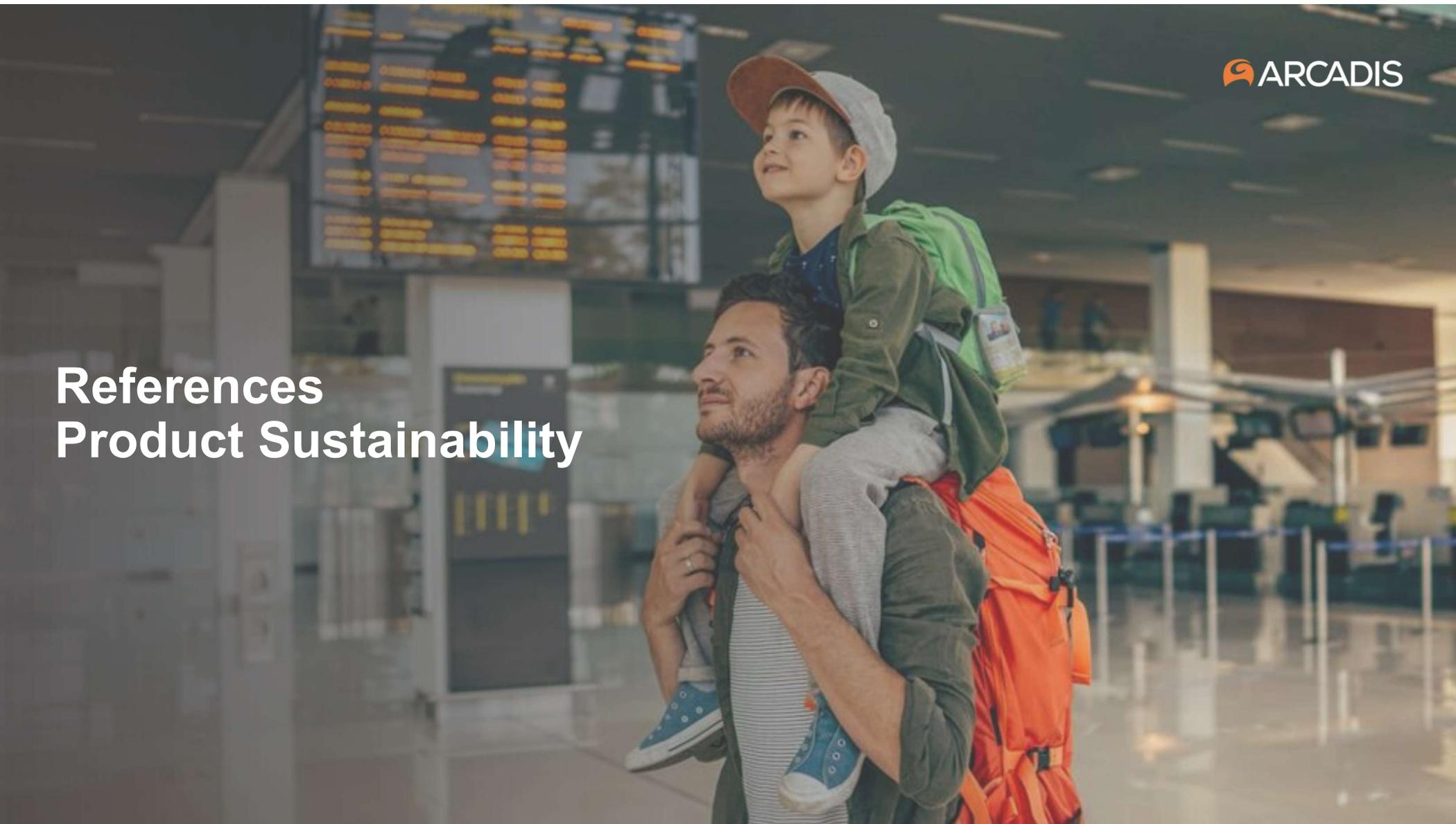
Product sustainability leadership

What Arcadis aims at...

We are the right partner to maximize positive impacts from your products.



References Product Sustainability



Industrial symbiosis analysis

International Copper Alliance (ICA)

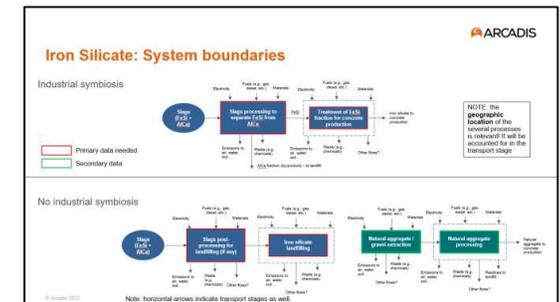
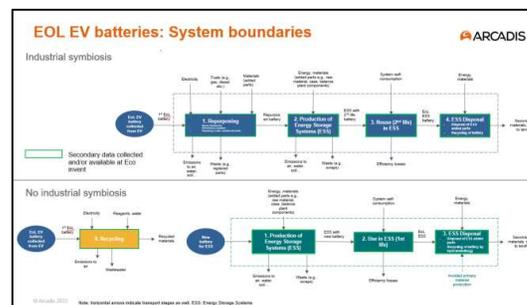
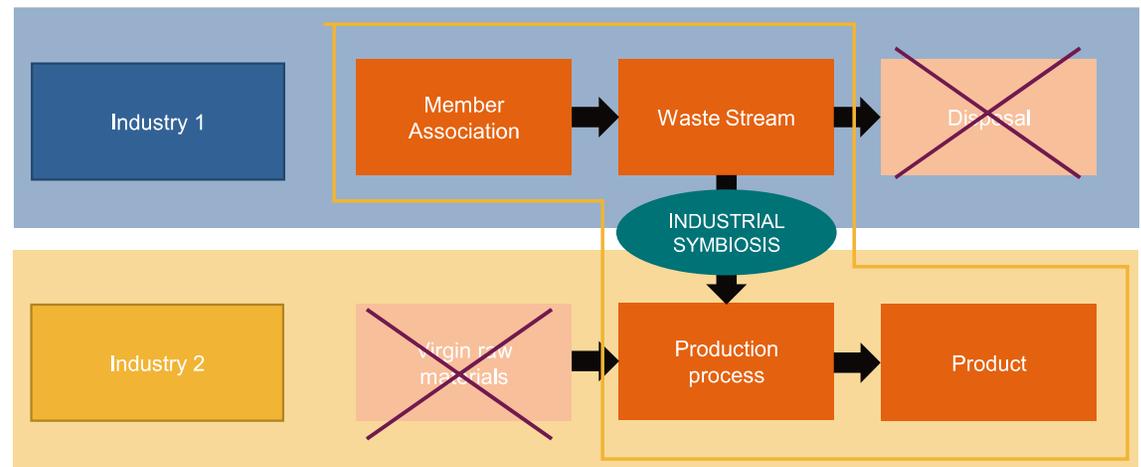
Client challenge

Evaluate potential opportunities of industrial symbiosis for waste streams generated by its members.

Evaluate and quantify benefits in environmental and financial terms for 2 cases

Solutions

- Research on the topic of industrial symbiosis in the copper sector (drivers / barriers / success stories / policies)
- Present to the association the potential opportunities identified
- LCA study on two opportunities to evaluate their environmental benefits
 - End of Life Vehicles EV batteries in energy storage applications
 - Iron silicate replacing aggregates
- Market analysis of the two opportunities to evaluate the economic feasibility (market size estimation and cost analysis)



Roadmap towards circular business model

TSO - Europe

Client challenge

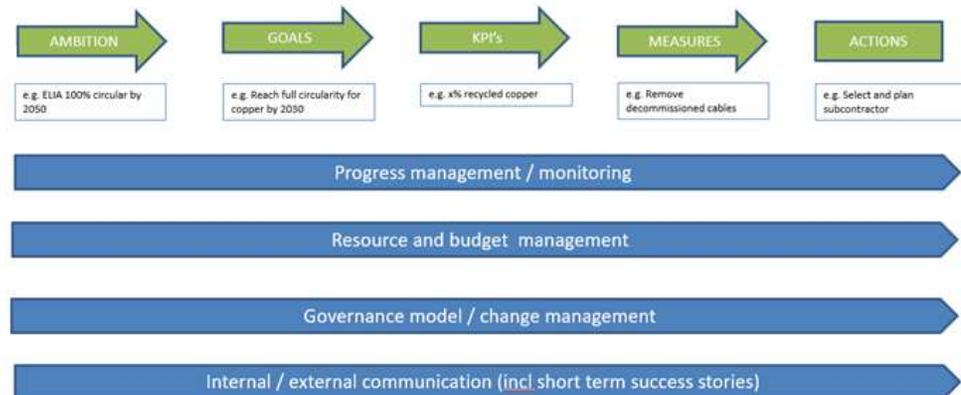
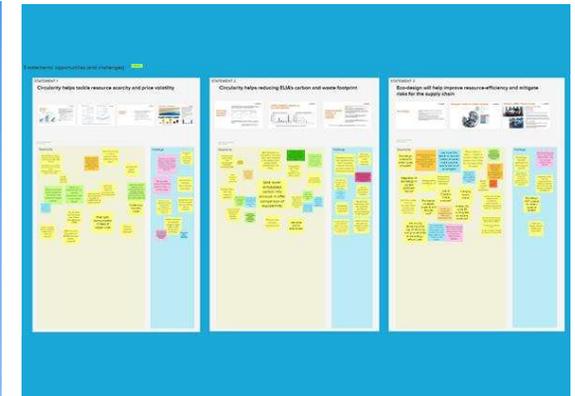
Understand what circular economy would mean for this sector.

Increase stakeholder engagement.

Develop a roadmap to include circularity in the business model.

Solutions

- Organisation of a management workshop to introduce the concept of circularity and analyse opportunities
- Definition of circularity and overview of policies that are relevant for the sector
- Exploration and identification of the business case of circular economy applied to the client
- Development of roadmap and support in the implementation
- Evaluation of actions required based on legislative requirements in e.g., EU Taxonomy, CSR, Environmental liability directive



Activity-based footprinting

Medical Device company

Client challenge

Understand the footprint of a test strip manufacturing site.

Guide the company with interpretation of results and definition of sustainability actions to improve sustainable production.

Solutions

- Activity-based footprinting of the site
- Efficient ISO-conform LCA footprint of the value chain of all products produced on site
 - Data gathering
 - Data analysis
 - Evaluation and reporting
 - External verification



Glucose Testing

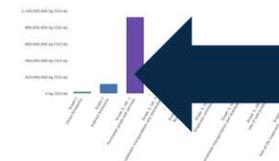


Company & value chain

- GHG reporting (GHG protocol scope 1, 2 & 3)
- Scenario analysis
- Supplier engagement

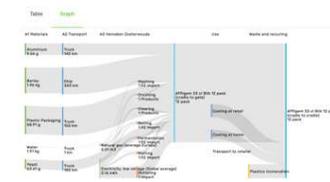


Global warming potential (kg CO₂-eq) per footprint category



Product & Portfolio

- LCA (ISO14040/44)
- EPD (EN15804-A2)
- Portfolio analysis



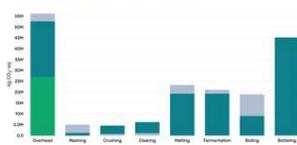
Impact per product - Global warming potential (kg CO₂-eq)



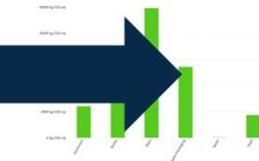
Process & material

- Hotspot analysis
- Scenario analysis

Impact per process - Global warming potential (kg CO₂-eq)



Impact per material - Global warming potential (kg CO₂-eq)



Activity Based Footprinting (SSoT)

Sustainability strategy

Consumer protection association

Client challenge

Develop a definition for their sustainability strategy.

Solutions

- Collaborate with a core group dedicated to the definition of the basis of the strategy through several workshops with key stakeholders
- Define the vision, values, communications, roles, needs, and actions for the association
- Set a direction to move forward with the finalisation of the strategy



Re-use of tertiary packaging *Pharmaceutical company*

Client challenge

“Passive shippers” used to transport “cold drugs” globally requesting a proper waste management system at location of delivery.

Ensure proper reuse of Passive Shipper by implementing return flow and re-use process in collaboration with the pharmaceutical producer. Increase circularity.

Solutions

- Design of return flow and re-use process
- Identify and manage operational changes – reverse logistic flow
- Communicate with suppliers and distribution centers, build business case
- Financial assessment: assess the financial impact of the new process
- Environmental assessment using LCA: comparing different scenarios (number of re-use cycles, % lost in the flow, ...)



Contact us



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