

ProSEco- Collaborative Environment for Eco-Design of Product-Services and Production Processes Integrating Highly Personalised Innovative Functions



Eco Tool & Lean-based eco-driven Product Extended Service Methodology contact person

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Eco Tool & Lean-based eco-driven Product Extended Service Methodology



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This solution is developed in the scope of ProSEco project, and is one of the key solutions to support the design and development of new Product Extension Services (PES).

What's the solution for?

This new framework brings together the eco and lean principles for holistic understanding of enterprise sustainability and competitiveness to guide the conceptualization and design of new service solutions to reduce the environmental footprint and the resources consumption especially during the use phase.

Engineering Tool

The Eco-tool supports the Lean-based eco-driven Product Extended Service Methodology by means of the online and collaborative edition of processes and products to build a product system. Afterwards, the tool is able to perform LCA analysis and identify the system hot-spots, that is, the components that most contribute to climate change within the life cycle of the product system.

Core Service

The Environmental Impact Monitoring and Optimization core service allows the impact assessment calculation, following the single score approach provided by "endpoint" impact calculation methods. The eco core services are configured in the design phase.

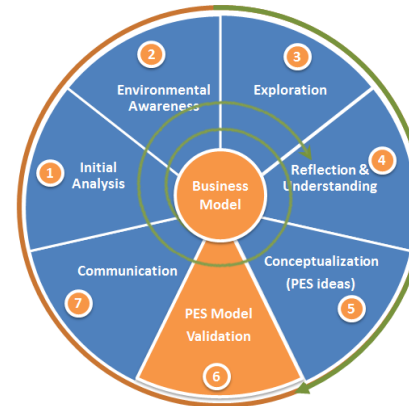
Methodology

The methodology guides the identification of those environmental aspects connected with the product / service along with others like functionality, safety, feasibility, etc. to ideate new product extended services (PES) that will improve the performance of the machines, and as a consequence increase the product lifetime.

This methodology aims to provoke a green awareness in companies, customers and society.

Benefits

This tool, core service and methodology have been applied in ProSEco industrial partners to identify *new product extended services* that are capable to measure performance, efficiency or other critical issues to be able to anticipate or prevent critical issues that directly affect the products.



Eco-driven Product Extended Service methodological process

CHARACTERISTICS OF THE SOLUTION

Eco Tool:

- To perform LCA analysis
- To calculate carbon footprint of the product system
- To identify the environmental hotspots

Core Service:

- To measure the environmental impact of a process.
- To add decision criteria in addition to costs to take more informed decisions

ProSEco eco-driven Product Extended Service Methodology guides the generation of new PES solutions to provide more value to the customer, being competitive and respecting the environment at the same time.