Vision

A novel methodology and a comprehensive ICT solution to support industries in the areas of collaborative design of product-services and production processes, using Ambient Intelligence (AmI) technology, lean and eco-design principles and applying Life Cycle Assessment techniques, will be provided to allow for effective extensions of products of manufacturers in different sectors and for enhancement of the products-services and their production processes in the direction of eco-innovation.

Consortium

www.tecnalia.com
www.lean.org.pl
www.uninova.pt
www.utcluj.ro
www.salford.ac.uk
www.opengroup.org
www.electrolux.it
www.volkswagen.de
www.ona-electroerosion.com
www.desma.de
www.alberdi.com
www.semantic-systems.com

ProSECo

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

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Project Background

Manufacturing industry nowadays needs to move towards a new concept of Meta Product, extending their products with different novel, personalised and context sensitive product and customer support services. Meta Products integrate Product Extension Services (PES) needed in wide range of applications, as in e.g. services to support adaptation of the product design to personal needs to, among others, be able to cost effectively provide these services to customers distributed world-wide.

The ProSEco project will result in a set of ICT tools and methodologies which enable the collaborative building of new eco-innovative product-services or Meta Products, which integrate highly personalised innovative functions with minimal environment footprint impact along the overall Life Cycle.

Project Realisation

The approach will be driven by four application scenarios (Business Cases) in the areas of automotive, home appliances and automation equipment.

1. Personalised support to drivers to optimise energy use (classical, hybrid and electrical cars)
2. Services to support remote condition based maintenance of household appliances
3. Services for personalised design and manufacturing of new shoes
4. Lean – based design of eco – driven services around machines

Targeted Results

1. Collaborative Eco-Innovating Design Methodology
   - A set of engineering tools
     - Knowledge Management and base
     - Collaboration tools
     - Simulation of Meta Products
     - Context modelling tool
     - Eco-design rules and metrics using Life Cycle Assessment (LCA) techniques
     - Security tools
     - Configuration tools
     - Tools for definition/design of Aml solutions
     - Customer and supplier behaviour (data mining)
     - Product/process evolution

2. Configurable Service Broker based on Cloud Manufacturing approach
3. Meta-product process development Platform
4. A set of core generic services
   - Ambient Intelligence (Aml) based monitoring
   - Context Monitoring Services
   - Knowledge Provision Services for customer
   - Environmental (impact) monitoring and optimisation services
5. Product Extension Services (PES) deployment platform

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