

Overview of the ICP4Life project



An Integrated Collaborative Platform for Managing the Product- Service Engineering Lifecycle

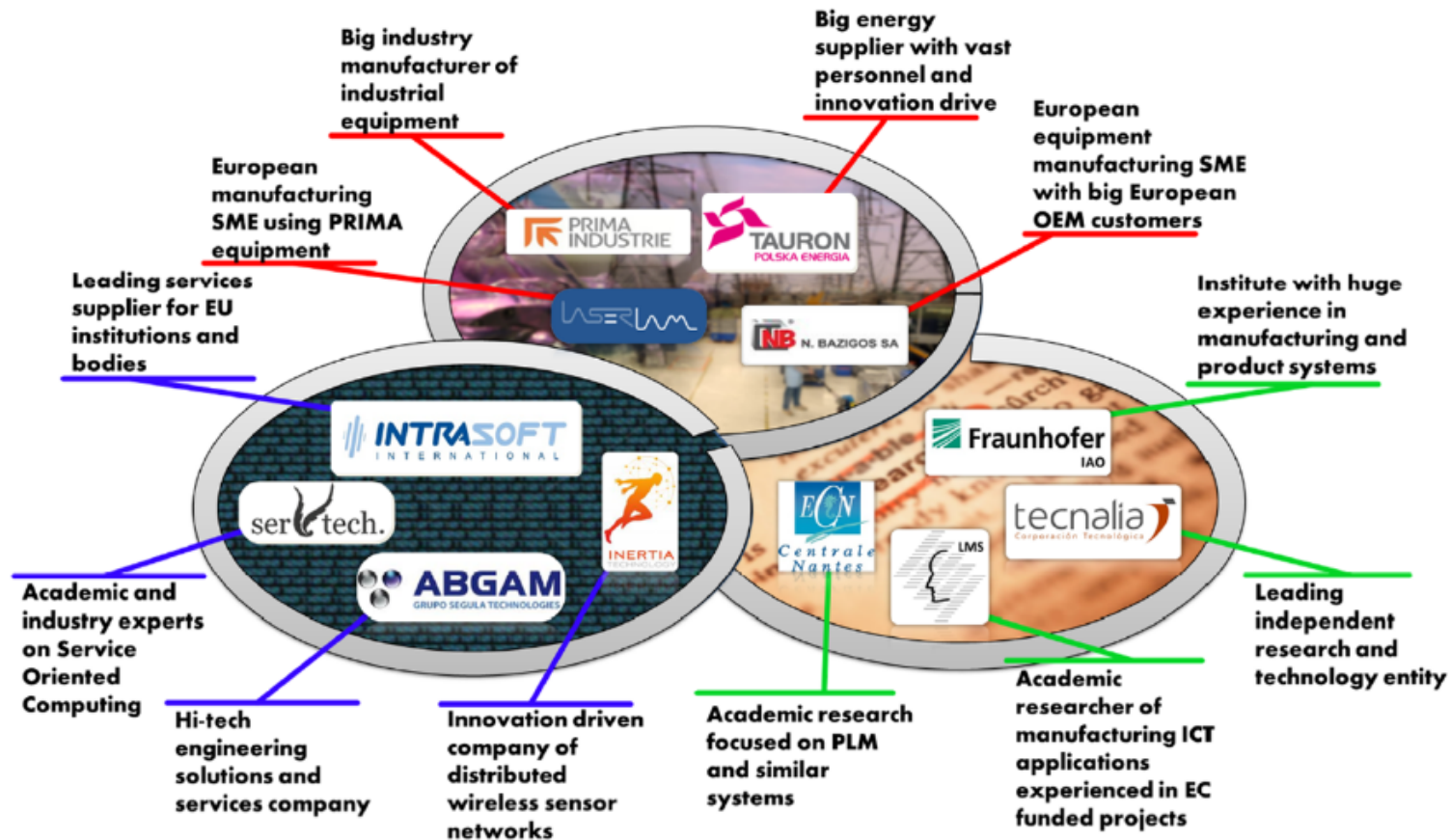
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Tecnalia Research and Innovation

Horizon 2020



Participants

ICP4Life



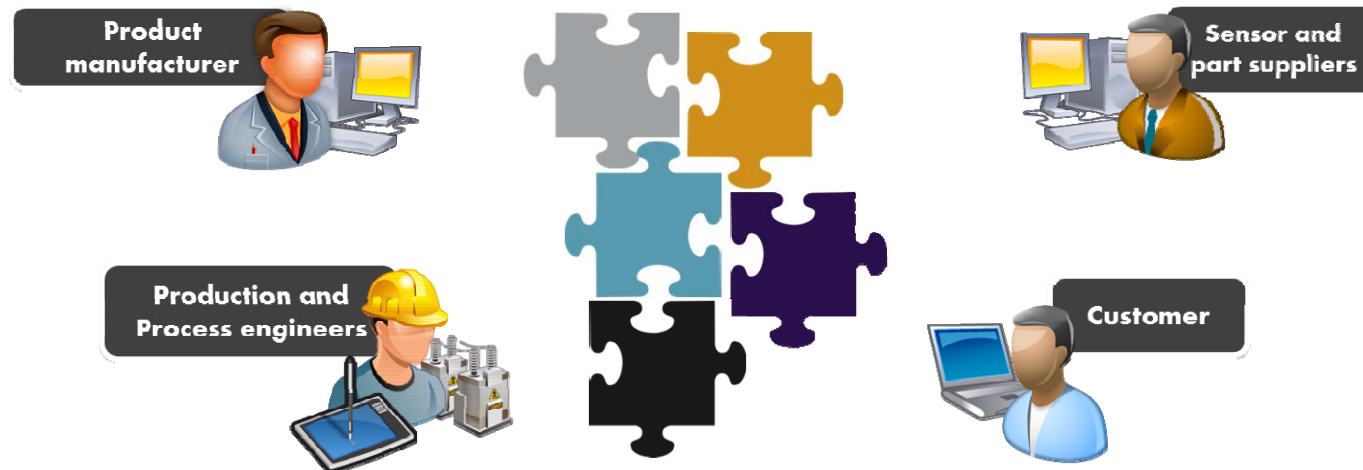
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- Problem Statement
- ICP4Life Approach
- ICP4Life Components
- Integrated ICP4Life Scenario vision
- ICP4Life Use Cases

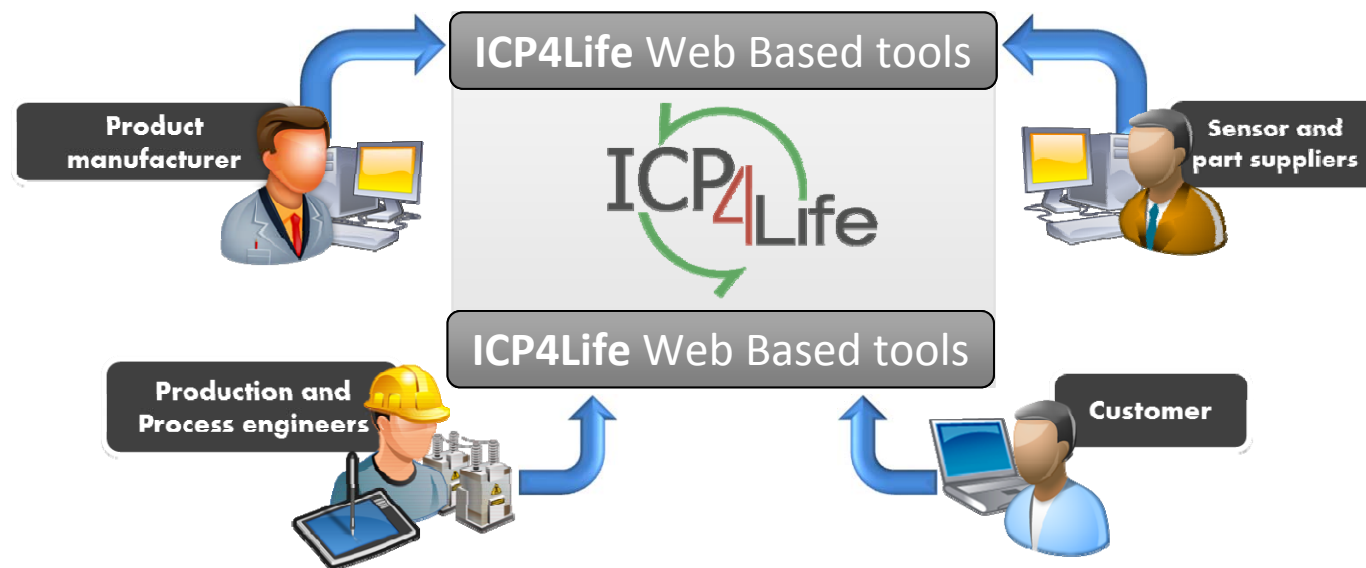


In today's product-services design and implementation systems:

- Low customizable product offer from manufacturers
- No support for dynamic **customer integration** into the **design-customization** phases of a product
- No support for collaboration between service **engineers**, product designers and the extended **supply network**



An integrated collaborative platform for the design, development and support of product-service systems bringing together equipment manufacturers, energy suppliers and SMEs



ICP4Life Components

DESIGNER

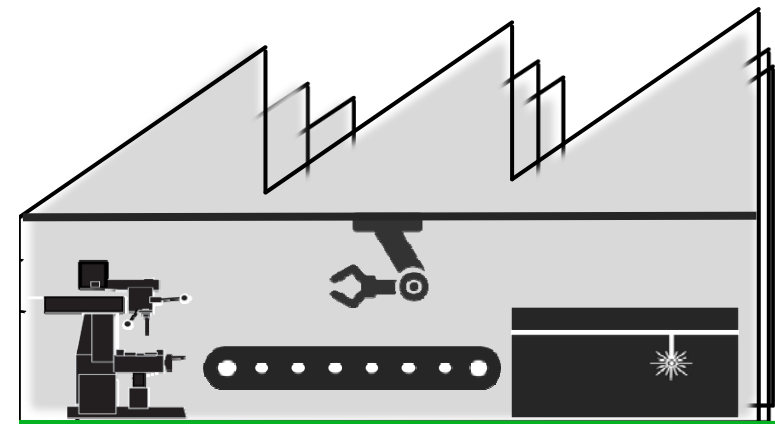
Collaborative web-based application for the creation and management of product-service systems by engineers and designers.

CUSTOMIZER

Product-Service configuration tool for customers, enabling the easy and intuitive formation of Products and Services.

PLANNER

Collaborative web-based tool for efficient, adaptive and responsive planning and decision making phases, for managing the dynamic operation of the plants .



Energy Supplier

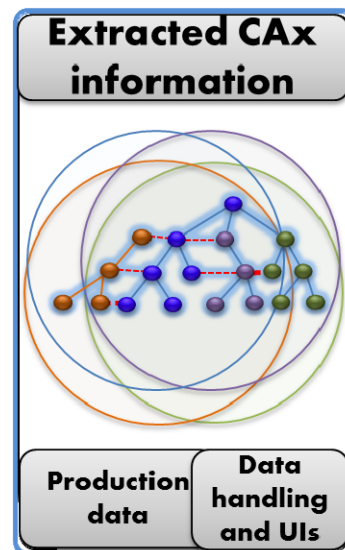
Equipment
Manufacturer



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ICP4Life Designer

- Help designers create Product-Service System patterns to be offered to customers
- Select the appropriate Product-Service System configuration considering a number of defined constraints and customer needs



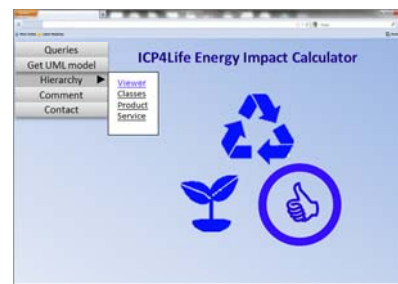
ICP4Life Customizer

- Assistance to customers in product-service configuration through a Product-oriented Configuration Language
- Generation of web-based applications for handling product-service data



ICP4Life Planner

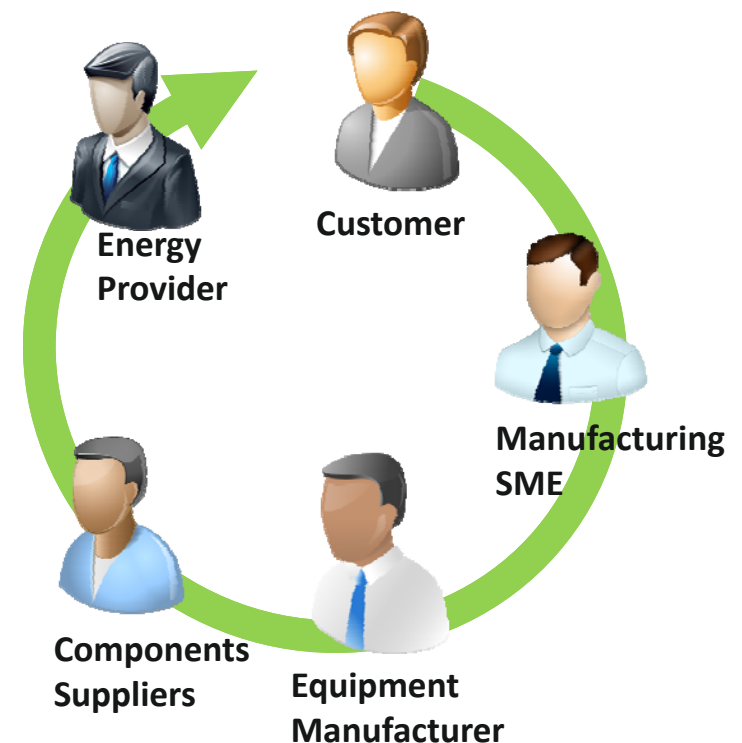
- Responsible for organising the manufacturing process behind the realisation of the Product-Services
- Semi-automatic design and reconfiguration of production systems through simulation for the whole supply chain
- Identification of the most efficient production solutions in terms of time, cost and environmental impact



Integrated ICP4Life Scenario vision

ICP4Life

- Connecting all users of the ICP4Life platform in an integrated way
- Creating innovative paths through services that bring together industrial partners, manufacturers and customers in new business models



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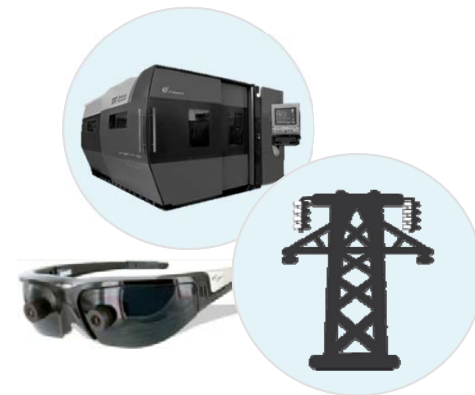
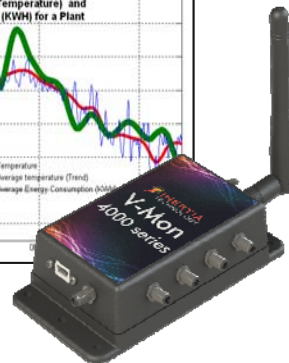
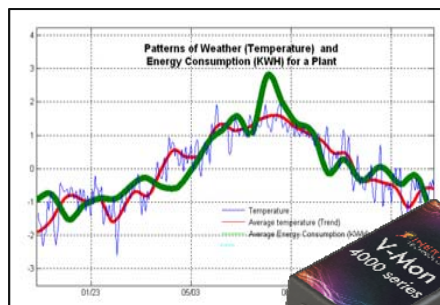
- All modules defined as web services and developed independently by different partners
- Common database to store equipment, customer, PSS design and feedback information
- Accessible for both customers and providers using different interfaces
- Easy to use and transparent for end user



ICP4Life Services

Development and support of different service types for a wide range of applications:

- Sensor-based process monitoring and quality assurance
- Remote process planning
- Energy optimization in industrial environments
- AR-based product and equipment maintenance



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PRIMA use case

ICP4Life Customizer

Customers select the desired product-service characteristics based on production needs

ICP4Life Designer

The requested product-service equipment is configured to offer the most suitable answer

ICP4Life Planner

The supply of the necessary parts and the production of the product- service are configured and planned as well as cost is calculated



Envisioned ICP4life services

As a product-service provider:

- Sensor-based:
 - Process monitoring and process planning optimization
 - Equipment health monitoring
- Assistance for equipment and process configurations for special production requests
- AR-based remote maintenance assistance



Envisioned ICP4life services

As a user:

- Machine design and configuration using feedback from sensors and industrial users
- Machine production using engineering assistance and production planning tools



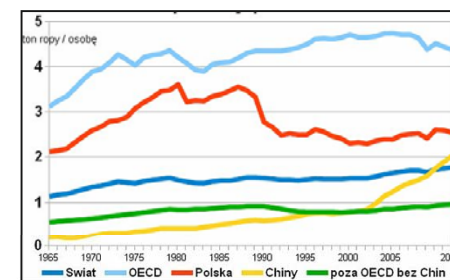
TAURON use case

ICP4Life Planner

With the help of the planner, customer energy consumption patterns will be created; afterwards energy saving services will be offered

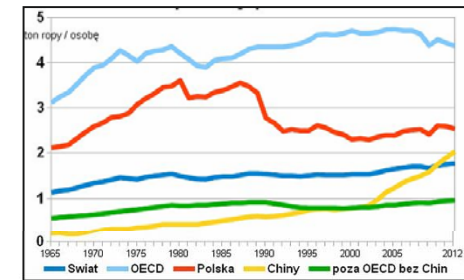
ICP4Life Services

TAURON provides a number of services to industrial users improving their production performance and energy consumption



Envisioned ICP4life services

- Energy demand service for optimization of energy consumption in industrial environments
- Energy supply interruption planning improving maintenance planning for industries
- Advanced environmental impact calculation



THANK YOU!



ICP4Life

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<http://www.icp4life.eu/>