



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

Presentazione finale del progetto europeo ICP4LIFE

29 Gennaio 2019

Presso PRIMA INDUSTRIE SpA, Headquarter

Strada Torino-Pianezza 36, Collegno (TO)

<i>Time</i>	<i>Item</i>	<i>Referent (name of the Company)</i>
08.30 – 09.00	Welcome to the Workshop and coffee	PRIMA
09.00 – 09.30	PRIMA INDUSTRIE Presentation of the company and tech center	PRIMA
09.30 -12.15	ICP4life DEMO	Consortium
09.30 – 10.00	<i>ICP4life project</i>	<i>PRIMA and LMS</i>
10.00 – 10.30	<i>ICP4life platform and modules</i>	<i>INTRASOFT</i>
10.30 – 11.30	<i>ICP4life Prima case</i> <ul style="list-style-type: none">• <i>Machine Health Monitoring</i>• <i>Machine Performance Optimization</i>• <i>Product Data Report</i>• <i>Machine Data Analysis & Reporting</i>• <i>PSS Laser Process Quality Control</i>	<i>INERTIA, LMS, INTRASOFT, TECNALIA, PRIMA</i>
11.30 – 11.45	<i>Questions and Comments</i>	<i>All</i>
11.45- 12.15	<i>Further Exploitation path</i>	<i>SEGULA</i>
12.15 - 12.30	Conclusion	



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

SCHEDA DEL PROGETTO

Project name :

ICP4Life

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

Short description:

The ICP4Life project proposes an integrated, collaborative platform for the **design, development and support of product-service systems**. A **Platform As a Service** conceived also as sustainable and easy to use tool for SMEs.

The ICP4Life project addresses the current needs of today's manufacturers, providing faster design of modular equipment and components, the seamless collaboration of engineers across a wider network of companies as well as within a single company with disperse engineering offices and production sites and the reuse of knowledge regarding both products, services and processes, for new products or the configuration of existing lines.

By integrating three different modules (ICP4Life Designer, Customizer, Planner) to be used as single components or as integrated in a unique solution, **ICP4life covers the whole lifecycle of the product-service**, to measure and control the entire environmental impact of a product, through relevant services.

ICP4LIFE SOLUTION:

ICP4Life proposes an integrated, collaborative platform for the design, development and support of Product-Service Systems (PSSs) for SMEs, equipment manufacturers and energy suppliers in order to maximize the impact in the European industry.

In this new era of personalized solutions, collaboration, servitization and digitalization, industrial companies have to provide more than products, having the customer in the loop.

PSS are not just the addition of some services in some products. As such new designing, planning and customization methodologies are needed and presented here. The **ICP4Life Platform Demonstration** will introduce the three main interactive components of the platform, called Designer- Planner-Customizer. Following the steps of ICP4Life methodology, the demo will show the creation of a Product-Service Systems by using the design, the customization and the production planning phases.

ICP4LIFE DEMO :

During the event a demo with the focus on the "Manufacturer solution" (case 1) will be performed:

CASE 1: Process and health monitoring of manufacturing equipment Services Demonstration. In this demo the following will be presented using a PC:

- **Machine Health Monitoring:** Evaluation of machine health through vibration sensing. This service checks a machine for urgent and non-urgent maintenance needs.
- **Machine performance optimization:** Optimizing the process performance using machine natural frequency test. This service periodically detects the natural frequency of a moving part of the machine and feeds this as a parameter to the motor controllers
- **Product Data Report:** Providing visualization of the collecting data. Visualize production and energy consumption parameters.



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- **Machine Data Analysis:** Gathers information from Machine and Sensors. Analyzes data and identifies trends in one and multiple machines. Provides reports, and warnings comparing information to thresholds.
- **Laser Process Quality:** Use of an optical system in order to verify the beam centering referred to the nozzle hole and the wear state of the nozzle in terms of process quality

CASE 2: Remote maintenance assistance Service Demonstration for the preventive and unscheduled maintenance of manufacturing equipment. This demo will be presented using a Tablet for a mold maintenance case.

CASE 3: Energy Services Demonstration. This demo will be presented using a PC showing the functionalities of each role inside the platform (ESCO, Customer). **With the vision to create an ecosystem with their customers ESCOs provide the following services:**

- **Energy Demand Management:** Management of Energy demand through the creation of an ecosystem with the customers. ESCO able to know when what and why energy is consumed. Interaction with customers in order to shift energy peak.
- **Power Interruption Planner:** Helps minimizing the impact of electricity interruptions by providing direct communication between provider and customer.