



InnovaWood GA – Poster session

30 / March / 2017

PSYMBIOSYS Product-Service sYMBIotic SYStems















Call: H2020-FoF5-2014 - Innovative product-service design using manufacturing intelligence (RIA)
Duration: 36 months (01/02/15 - 31/01/18)
Project Partners: 12
Budget: 5,996,303.75



VISION

By 2020, manufacturing value chains will be organised in symbiotic collaboration forms which, thanks to the full availability and adoption of advanced manufacturing intelligence technologies, will dramatically reduce the barriers which currently prevent EU Manufacturing Industries to take the lead of next generation STEEP sustainable product-service solutions.



POLIMI	TXT e-solutions SPA	BIBA	FRAUNHOFER
			
NTUA	IBM-Israel	FINCONS SPA	INNOVALIA
			
INTEROP-VLab	NECO	FTI	AIDIMA
			

PSYMBIOSYS Product-Service sYMBIOTic SYStems



OBJECTIVES

- Symbiotic design-manufacturing multi-directional collaboration
- Symbiotic product-service lifecycles concurrent engineering
- Symbiotic knowledge-sentiment harmonic innovation
- Symbiotic service oriented – event driven secure IT infrastructure
- Symbiotic business-innovation strategy
- Integrate state of the art IT platforms and tools for manufacturing intelligence
- Provide innovation and impact strategy to EU product-service manufacturing industries

PSYMBIOSYS Product-Service sYMBIOtic SYStems

4 use cases: Cutting tools(Neco), Video surveillance(FTI), Textile (Piacenza), and

Furniture Use Case (Aidimme): Office furniture Product-Service bundle



HUMAN **Human Manufacturing Workplace**



Call: H2020-IND-CE-2016-17 - Industry 2020 in the Circular Economy (RIA)
Duration: 36 months (01/10/16 - 30/09/19)
Project Partners: 12
Budget: € 3.9 millions

VISION

The vision of HUMAN is create a healthy workplace and increase the competitiveness of the manufacturing firms, the creation of an optimal environment for human automation integration and cooperation that harnesses and supports the workers' capabilities is needed.

HUMAN aims to define and demonstrate workplaces where automation and human workers operate in harmony in order to improve the productivity, quality, performance of the factory as well as the worker satisfaction and safety.

HUMAN Human Manufacturing Workplace



OBJECTIVES

HuMan has as ultimate goal to develop and maintain adaptive workplaces that ensure excellent human-automation cooperation keeping high levels of productivity and quality combined with product customization capability.

In line with this, HUMAN needs to achieve the following objectives:

- Improving the **integration** of humans with their workplace
- Enhancing the monitoring and **wellbeing** of **human** automation co-operation
- Stimulating and advancing **human-automation interaction** and co-operation for optimal performance and achievement of complex tasks
- Establishing **adaptable workplaces** and tasks to human cognitive and physical skills

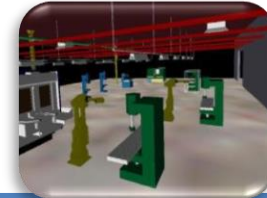
Technologies USED



AR environment to implement the production instructions assistance. Workers are able to learn or be reminded of the tasks involved improving the training and the productivity at shopfloor.



Exoskeleton to monitor some key physiological aspects of the worker, such as warning workers when wrong postures are adopted, detecting physiological variables in order to detect inconvenient situations and correct them, etc. Also assist them lifting weights



Virtual modelling of the factory to monitor production performance at shopfloor according to values retrieved from virtual representation. System aims to detect incidences and correct them while measuring the overall performance of the production plant, detecting weak points and providing a key tool to support the decision making when adjusting specific production parameters at shopfloor.



Three USE CASES



Aerospace



Furniture



Automation
manufacturing



NIMBLE

Collaborative Network for Industry, Manufacturing, Business and Logistics in Europe



Call: H2020-IND-CE-2016-17 - Industry 2020 in the Circular Economy (RIA)

Duration: 36 months (01/10/16 - 30/09/19)

Project Partners: 17

Budget: € 7,994,750.00



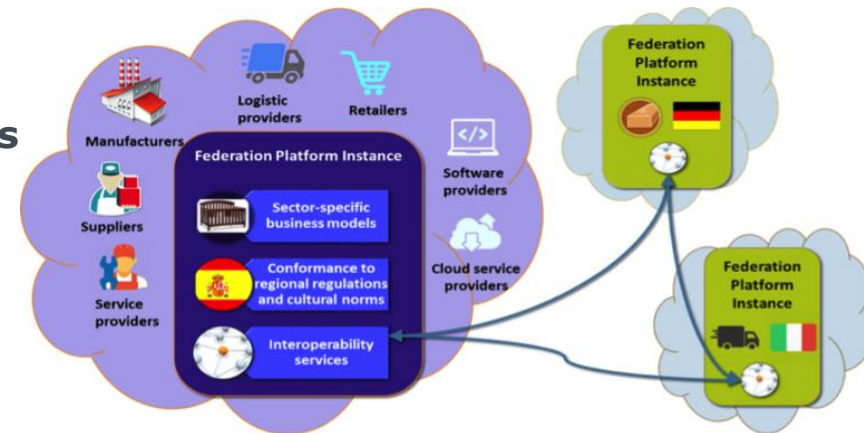
VISION

To provide a federated interoperable eco-system of medium-sized platforms that provide B2B connectivity for the 99% of European SMEs that would profit from Internet platforms

NIMBLE supports companies who are in danger of “missing the boat” regarding technological change, enabling businesses to embrace new technology for product innovation and improving the range of ready-made and easy-to-use B2B services that can be use by SMEs when interacting with each other and with customers.



NIMBLE Collaborative Network for Industry, Manufacturing, Business and Logistics in Europe



OBJECTIVES

The ultimate goal of NIMBLE is to develop a federated, multi-sided and cloud services-based business ecosystem that supports:

- B2B collaboration for industry, manufacturers, business and logistics
- ICT-based innovation of products and evolution of traditional models
- Federated, competitive yet interoperable instances of the platform

In line with this, NIMBLE needs to achieve the following objectives:

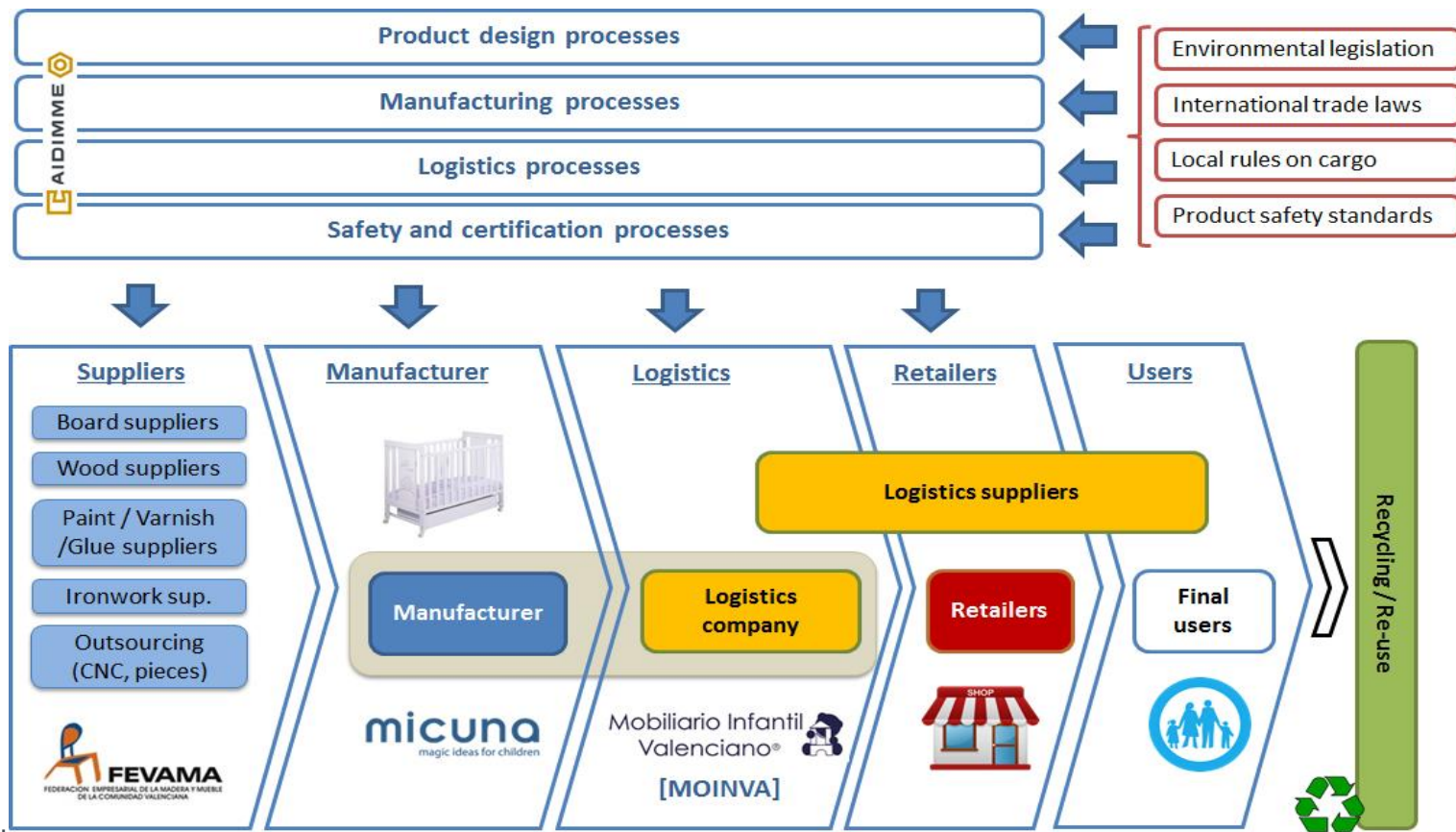
- create a platform ecosystem to **attract early adopters**
- ensure **ease of entry** and initial **ease of use** with quick rewards
- **grow platform usage** by showing the benefits and by adding services where the need arises (release early, release often)
- **master the usage** of the platform step-by-step to evolve business cooperation
- ensure **trust, security and privacy** from the earliest steps to master-level

NIMBLE

Collaborative Network for Industry, Manufacturing, Business and Logistics in Europe

4 use cases: White Goods(Whirlpool), Wood Buildings(Lindbäcks), Textile (Piacenza), and

Furniture Use Case (Micuna): Childcare furniture use case to enter export markets and fulfil national normative and regulations





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