MSEE

Manufacturing SErvice Ecosystem

MSEE

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Coordinator: TXT e-solutions S.p.A.

Partners

(Industry)

TXT e-solutions S.p.A. (IT) – Coordinator
Engineering (IT)
Hardis Group (FR)
Softeco Sismat (IT)
SAP AG (DE)
Singularlogic Anonymos Etairia Pliroforiakon Systimation & Efarmagon Pliroforikis (GR)

(Research)

BIBA - Bremer Institut fuer Produktion und Logistik GmbH (DE)
Fundacion TECNALIA Research & Innovation (ES)
Laboratoire Virtuel Europeen dans le domaine de l'Interoperabilite des entreprises (BE)
Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung E.V. (DE)
Politecnico di Milano (IT)
Uninova - Intituto de desenvolvimento de novas tecnologias (P)
Deutsche Institute fur Textil- und Faserforschung Denkendorf (DE)
Universite de Bordeaux I (F)
Universitaet Innsbruck (AT)

(Use Cases)

DOUËLOU NV (BE)
PHILIPS Consumer Lifestyle B.V. (NL)
IBARMIA Innovatek, S.L. (ES)
INDESIT Company S.P.A. (IT)

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ICT PSP – ICT POLICY SUPPORT PROGRAMME

SEVENTH FRAMEWORK PROGRAMME

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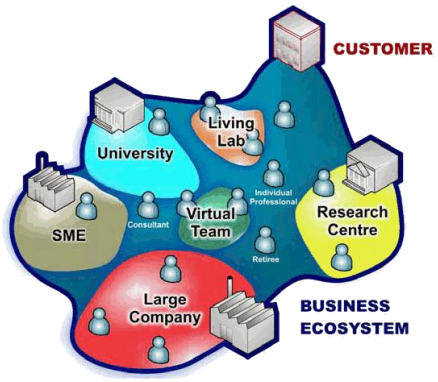
OVERVIEW

The MSEE 2015 Vision stems upon two complementary pillars, which have characterized the last 10 years of research about Virtual Organizations, Factories and Enterprises: **Service Oriented Architectures (SOA) and Digital Business Ecosystems (DBE).**

SOAs have de facto revolutionized information systems, providing software engineers with powerful methodologies and tools for decomposing complex systems into autonomous components, with the final aim to support enterprise vital processes and workflows, by simple orchestrations and compositions in the hand of business specialists. Research in **SSME (Service Science, Management and Engineering)** domain has identified in service innovation one of the most promising hypes in our globalised society, disseminated its principles and developed roadmaps to organizations, mostly public bodies and tertiary service providers.

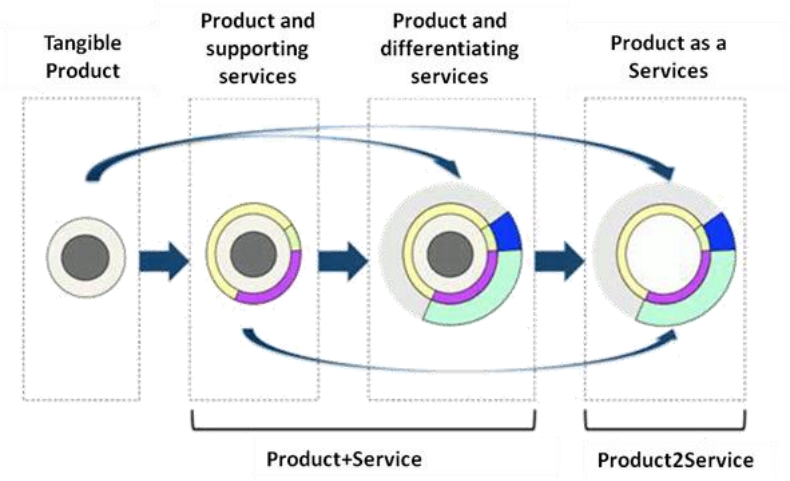


The **first Grand Challenge** for MSEE project is **to make SSME evolve towards Manufacturing Systems and Factories of the Future**, i.e. from a methodological viewpoint to adapt, modify, extend SSME concepts so that they could be applicable to traditionally product-oriented enterprises; from an implementation viewpoint to instantiate Future Internet service oriented architectures and platforms for global manufacturing service systems.
DBEs have created new perspectives for enterprise collaboration, overcoming the rigid and hierarchical models of traditional supply chains and opening the door towards Open Innovation and Living Labs models. Such models are now broadly applied with good results to the most creative phases of the product life cycle and with particular focus on consumer goods and small series production, but almost never in traditional production domains.

The **second Grand Challenge** for MSEE project is **to transform current manufacturing hierarchical supply chains into manufacturing open ecosystems**, i.e. on the one side to define and implement business processes and policies to support collaborative innovation in a secure industrial environment; on the other side to define a new collaborative architecture for Enterprise Software and Applications, to support business-IT interaction and distributed decision making in virtual factories and enterprises.

OBJECTIVES

The transition from product-centric offerings to a value-proposition based on product-service bundles (servitization) is a hard challenge for European manufacturing enterprises. The MSEE project aims at designing and developing an integrated IT System, which will support this servitization process through IT tools, specifically developed.



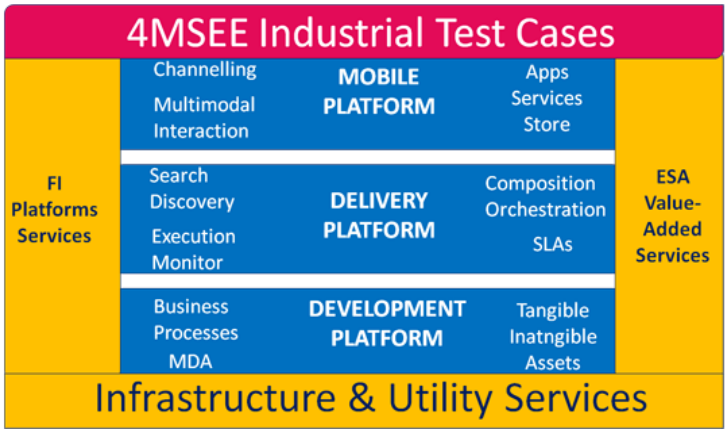
Enterprises will pass from a product centric scenario to Product2Service and Product+Service scenarios.

The Product2Service scenarios are sharply decoupling manufacturing of goods and selling of services, where in most cases physical goods remains the property of the manufacturer and are considered as investment, while revenues come uniquely from the services.

The **Product+Service** scenarios are less radical in principle, as they foresee the simultaneous offering of physical products extended with proper tailored services.

The MSEE IT system will support enterprises to form open innovation ecosystems and to deliver innovative services to their customers going through all phases of the service lifecycle exploiting suitable methodologies and tools.

TECHNOLOGY



The MSEE IT system is composed by three main platforms that will be validated in four Industrial test cases involving MSEE end-users namely Indesit, Philips, Bivolino and Ibarmia.

The Development Platform will support the users to design and develop innovative services, the Delivery platform will support the enterprises to deliver the services to their customers and the Mobile Platform will extend the other two platforms addressing mobile devices.

The MSEE IT platform will be built on state of the art technologies, will be standard compliant to promote enterprise interoperability and will rely on Future Internet (FI) Platforms Services (Internet of Content, Internet of People, Internet of Things) and on Enterprise System Value Added services.