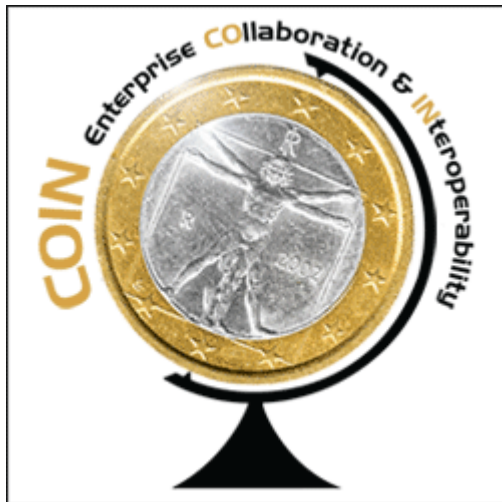




Enterprise COllaboration & INteroperability



COIN

EU FP7 Integrated Project 216256

Duration 1.1.2008 – 31.12.2011

Standard Presentation



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The COIN Vision

COIN VISION:

“By 2020 enterprise collaboration and interoperability services will become an invisible, pervasive and self-adaptive knowledge and business utility at disposal of the European networked enterprises from any industrial sector and domain in order to rapidly set-up, efficiently manage and effectively operate different forms of business collaborations, from the most traditional supply chains to the most advanced and dynamic business ecosystems.”



Background and motivation

Background and motivation

Enterprise Collaboration (EC) and Enterprise Interoperability (EI) have been the two major research catalysts for DG INFSO D4 "Networked Enterprise & Radio Frequency Identification (RFID)", and aggregated tens of projects and hundreds of researchers in their projects clusters initiatives. COIN is rooted in the previous initiatives.

Enterprise Collaboration comes from a business perspective and identifies the process of enterprises - mainly SMEs - to set-up and manage cross-enterprise win-win business relations in response to business opportunities.

Enterprise Interoperability originates by the ICT world and identifies a capability of enterprise software and applications to exchange information and to mutually understand the information exchanged at the level of data, applications, processes and enterprise models involved.



The COIN Metaphore

COIN promoters believe that EC and EI are different concepts which cannot be merged or confused but that they are so interdependent and simultaneously present in every networked enterprise, that they can be really considered as the **two sides of the same COIN**.

COIN MOTTO: “Enterprise Interoperability and Enterprise Collaboration are the two sides of the same COIN”

The SIDE A of the COIN:	Enterprise Collaboration
The SIDE B of the COIN:	Enterprise Interoperability
The Metal of the COIN:	Service Platform
The Value of the COIN:	Software as a Service Utility
The Market of the COIN:	Manufacturing Enterprises



COIN A Side: Enterprise Collaboration

The COIN Project develops services for European SMEs enterprise aggregation, synchronization and co-operation in response to the more and more demanding and complex business opportunities coming from the global market.

- Existing solutions from previous EU FP6 project and other sources will be used as starting point (EC services baseline).
- On top of a developed common baseline, the project has further develop EC innovative services for
 - Collaborative Product Development,
 - Production Planning,
 - Collaborative Project Management,
 - Collaborative Human Interaction.
- Such services will be easily configurable to meet different collaboration requirements, from the most static supply chains where optimization and efficiency are of key importance, till to the most dynamic business ecosystems where evolutionary behaviour of the business system, including sudden disappearing and re-appearing of business entities, has to be modelled and supported.



COIN Side A: main innovations

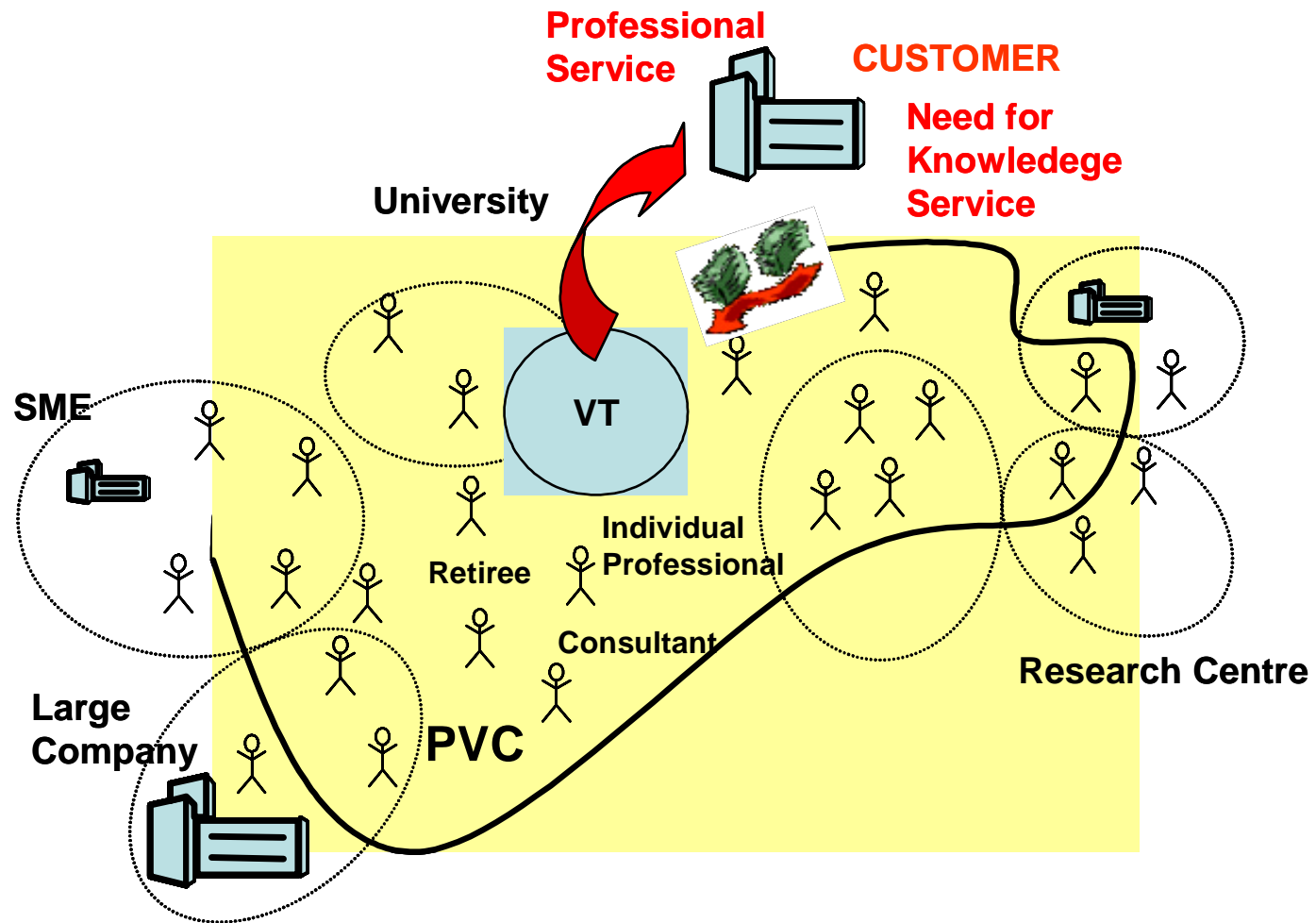
- **The COIN Collaboration Space**

- To allow **Endogenous** generation of Business Opportunities (LivingLabs & Open Innovation)
- To support **Product Design, Production Planning, Project Mgmt**
- To enable **Co-operativity** of Enterprise Applications (groups as users)
- To support **Web 2.0** and participative services (Enterprise 2.0)
- To involve also the Customers in the whole life-cycle of **Virtual Organizations (VOs)**:
 - ✓ **VO preparation** (get the enterprises prepared to form VOs)
 - ✓ **VO creation** (select partners and competencies)
 - ✓ **VO operations & mgmt** (performance indicators definition-governance)
 - ✓ **VO dissolution** (inheritance and knowledge transfer)



COIN Side A: future outlook

The Innovation Knowledge Ecosystem





COIN B Side: Enterprise Interoperability

Enterprise Interoperability is the ability of two or more systems or components to exchange information and to use the information that has been exchanged.

- The COIN Project provides a foundation for Enterprise Interoperability Services based on the principles of existing interoperability frameworks (e.g. in the e-government, e-business and enterprise architectures domains) and results from previous projects to be integrated with the new COIN Service platform.
- The work started with the consolidation of the results from previous EU FP6 Enterprise Interoperability projects and other sources like de-facto and de-jure standards. Existing services have been harmonized into a set of baseline Enterprise Interoperability-services.
- On top of a developed common baseline, the project has further develop innovative services for
 - Information Interoperability Services,
 - Knowledge Interoperability Services,
 - Business Interoperability Services



COIN Side B: main innovations

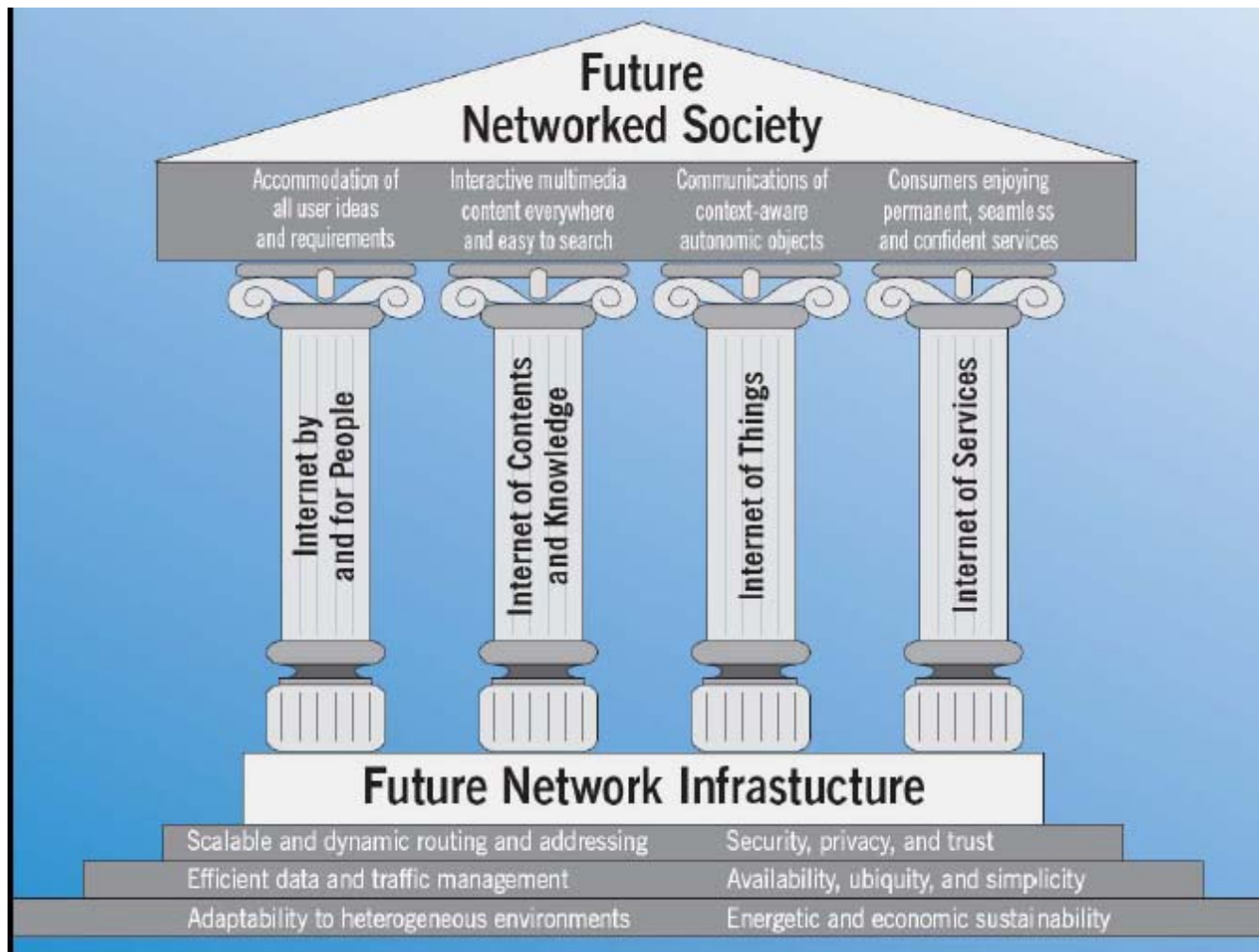
The COIN Interoperability Space

- To address **Information, Knowledge and Business** interoperability
- To support the **Federated** interoperability approach
- To integrate **Model- and Semantic- driven** interoperability methods
- To enable **Knowledge Profiles** semantic mediation
- To synchronize and optimize **Collaboration Business Processes**
- To go beyond state-of-the-art 1:1 transactions:
 - ✓ Supporting **1:1 negotiations** (e.g. supplier-customer)
 - ✓ Enabling **1:n relations** (e.g. tender-bidders)
 - ✓ Allowing **n:m agreements** (e.g. sellers-buyers)



COIN Side B: future outlook

- **The FInES (Future Internet Enterprise Systems)**



The Cross ETP
Vision on the
Future Internet

European
Technology
Platforms



COIN Metal: a Generic Service Platform

The COIN Project develops a pervasive, adaptive service platform to host Baseline and Innovative COIN services for Enterprise Collaboration and Enterprise Interoperability.

The services will be available under innovative on-demand, utility-oriented SaaS-U business model for European enterprise (mainly SMEs).

- Based on several well proven results from semantic web, semantic web service, semantic-enabled service-oriented architecture, together with some trust, security dependability results and peer-to-peer evolutionary and intelligent systems, the project will further develop a powerful baseline service platform with many distinctive features and peculiar characteristics to make it suitable for collaboration and interoperability among European enterprises.



COIN Metal: a Generic Service Platform

The **COIN System** is made of two interconnected parts:

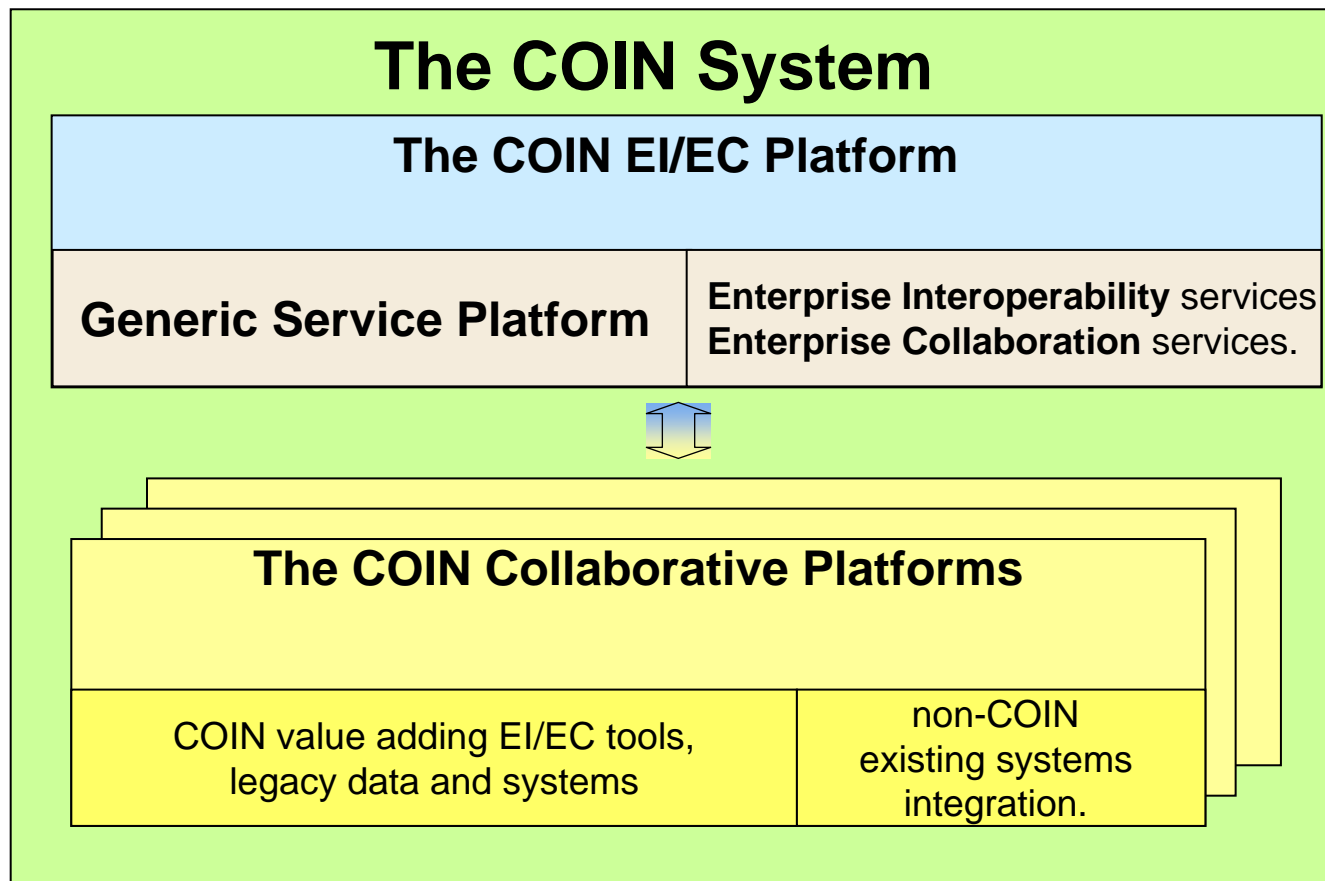
- The **COIN EI/EC Platform**
- The **COIN Collaborative Platforms**

The COIN EI/EC Platform is a COIN open source **Generic Service Platform** able to search, discover, compose, rank, monitoring, expose, integrate and mash-up in a secure and adaptive way **Enterprise Interoperability** and **Enterprise Collaboration** services. The Platform is extended with facilities for pervasive business registries and repositories, trust and security gateways, reasoning and negotiation services.

The COIN Collaborative Platforms are of different types according to collaboration forms: **Supply Chains, Collaborative Networks** or **Business Ecosystems**, focusing on **Knowledge** or **Business**. The platforms hosts value adding services coming from COIN development and also non-COIN existing systems integration.



COIN Metal: a Generic Service Platform





COIN Value: the SaaS-U Model, ISU

The COIN project will support the establishment of business models for interoperability service utilities that will match current market condition and completion.

The Information Technology vision of Software as a Service (SaaS) will find its implementation in the field of interoperability among collaborative enterprises, supporting the various collaborative business forms, from supply chains to business ecosystems, and becoming for them like a utility, a commodity, the so-called Interoperability Service Utility (ISU).

The COIN project will develop an original business model based on the SaaS-U (Software as a Service-Utility) paradigm where the open-source COIN service platform will be able to integrate both free-of-charge and chargeable, open and proprietary services depending on the case and business policies.



COIN Value: the SaaS-U Model, A Framework to help map SaaS Business Models

	← Traditional	Pure Play →
Licensing	Ownership / Perpetual License 	Subscription based Usage based Transaction based Value based Fixed fee Hybrid "\$0.0"
Location	On-Premise 	Internet "Cloud"
Management	Corporate IT 	SLA
Delivery	Packaged Product 	Server based computing / thin client Hosted client computing Web-based apps Java apps
Software Development Model	Develop and Release Long feedback cycle	Frequent releases and upgrades Mix and match from an app menu The perpetual beta
Addressable Market (& Marketing)	Tier 1 Enterprises Honey Pots 	Long Tail One-to-many (Tenancy)



COIN Value: the SaaS-U Model

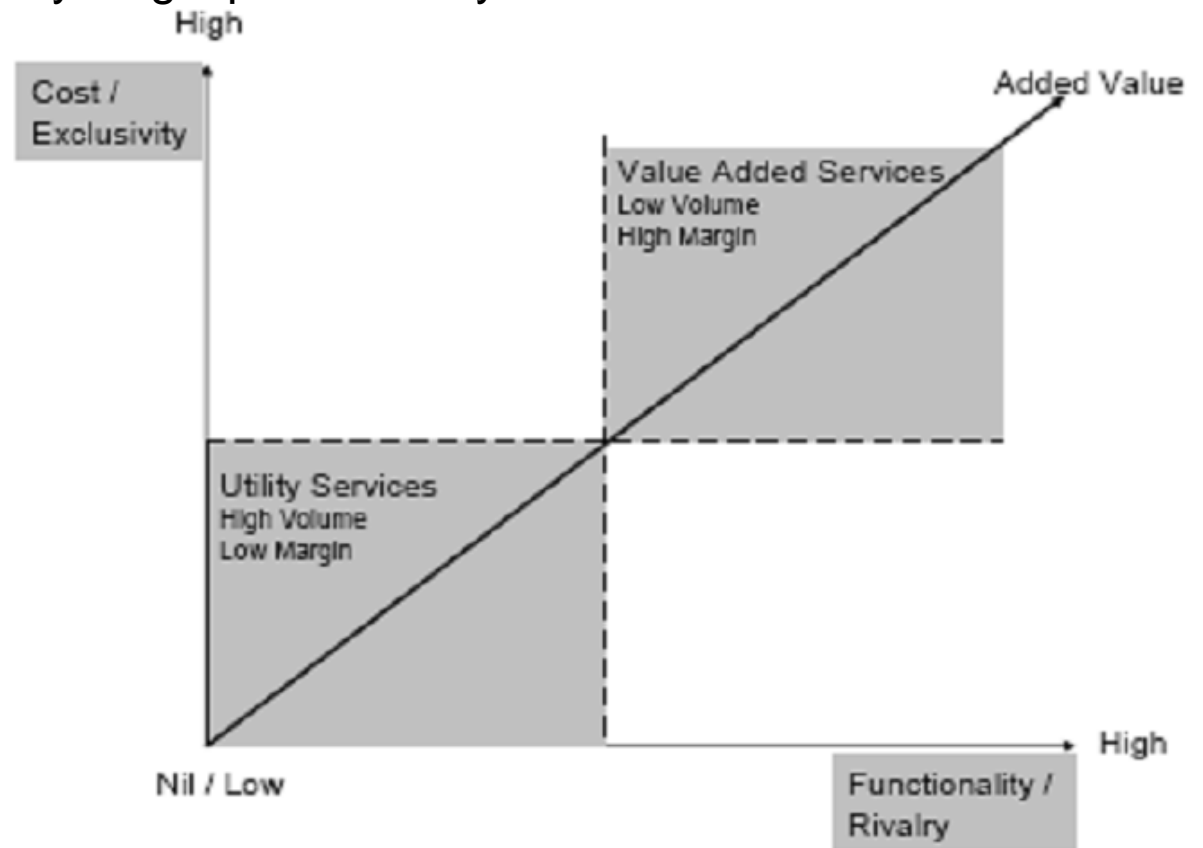
From SaaS to SaaS-U

Interoperability will be a **utility-like** capability for enterprises, a capability that is:

- Available at (very) low cost
- Accessible in principle by all enterprises (universal or near-universal access)
- “Guaranteed” to a certain extent & at a certain level in accordance with a set of common rules
- Not controlled or owned by any single private entity

COIN SaaS-U Challenges

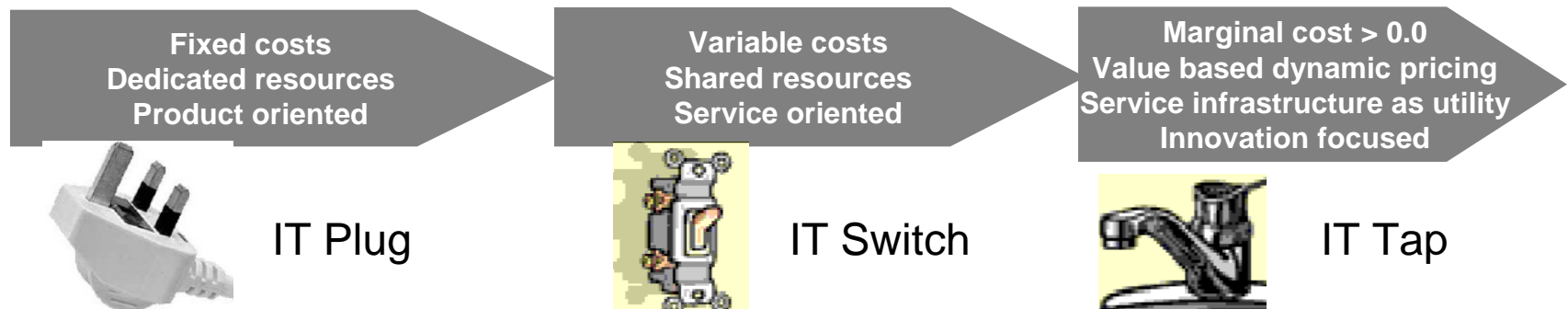
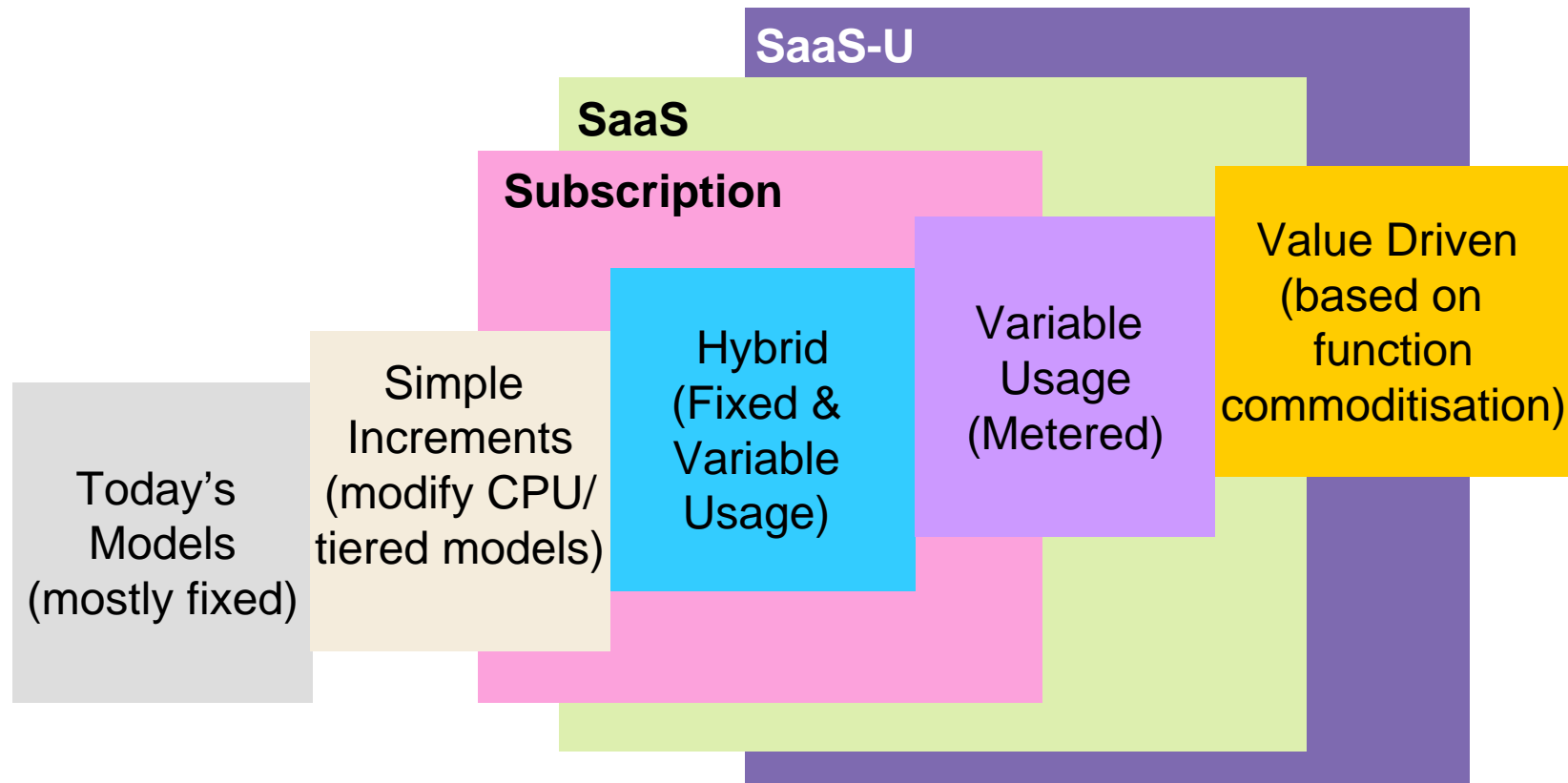
- Study and design new business models for SMEs
- Identify and develop a Value Proposition for SaaS-U
- Demonstrate how SaaS-U could be very beneficial for Enterprise Innovation





COIN Value: the SaaS-U Model

A tentative Roadmap towards SaaS-U





COIN Market: the COIN End-Users

End-user partner	Sector, activity	Size, organizational form	Geographical distribution
ISOIN	<ul style="list-style-type: none"> • Aeronautics • Manufacturing • Product development 	<ul style="list-style-type: none"> • SMEs • Network of companies 	<ul style="list-style-type: none"> • Regional • Andalusia, Spain
POYRY	<ul style="list-style-type: none"> • Process industries • Plant engineering • Plant operations support 	<ul style="list-style-type: none"> • Large company (6400 employees) • Large network of collaborating companies 	<ul style="list-style-type: none"> • Global • Offices in 45 countries
IVSZ	<ul style="list-style-type: none"> • ICT • Application of ICT in manufacturing • Standardization 	<ul style="list-style-type: none"> • Association of ICT companies 	<ul style="list-style-type: none"> • National • Hungary
VEN	<ul style="list-style-type: none"> • Several sectors • Health care (case in COIN) • Environment • Engineering, etc. 	<ul style="list-style-type: none"> • SMEs, universities, institutions • Group of organizations • Both public and private organizations 	<ul style="list-style-type: none"> • Regional • Yorkshire, UK
FILAS	<ul style="list-style-type: none"> • Regional development • Innovation • Aeronautics sector 	<ul style="list-style-type: none"> • Development agency • SMEs in collaboration network 	<ul style="list-style-type: none"> • Regional • Lazio, Italy
ACS	<ul style="list-style-type: none"> • Automotive • Manufacturing 	<ul style="list-style-type: none"> • SMEs • Cluster of companies 	<ul style="list-style-type: none"> • National • Slovenia



COIN Community

The COIN Community is composed by a set of external organizations, willing to commit themselves in supporting the project dissemination activities and in identifying potential exploitation opportunities.

The COIN Community is characterised by the interaction of the following key actors:

- **Community Coordinator** (ESoCE-Net),
- **VPC Moderators** (some of the COIN partners), interested in activating specific activities to support complement their own task;
- **VPC Angels**, who are individuals not belonging to COIN project's beneficiary organizations, recognised as experts at international level in the fields of Enterprise Interoperability and Enterprise Collaboration, suitable for leading and inspiring COIN VPC activities on the basis of topics jointly identified with the COIN team
- **VPC Members**, who are individuals who joined the VPC by a web registration procedure, contributing to support tasks identified by the Angels (i.e. COIN White and Positioning papers, peer reviews of deliverables, organisation of COIN related events and so on).
- **Multipliers**, which are organizations that expressed their official commitment to contribute to COIN activities in terms of contribution to impact and of adoption of COIN results.

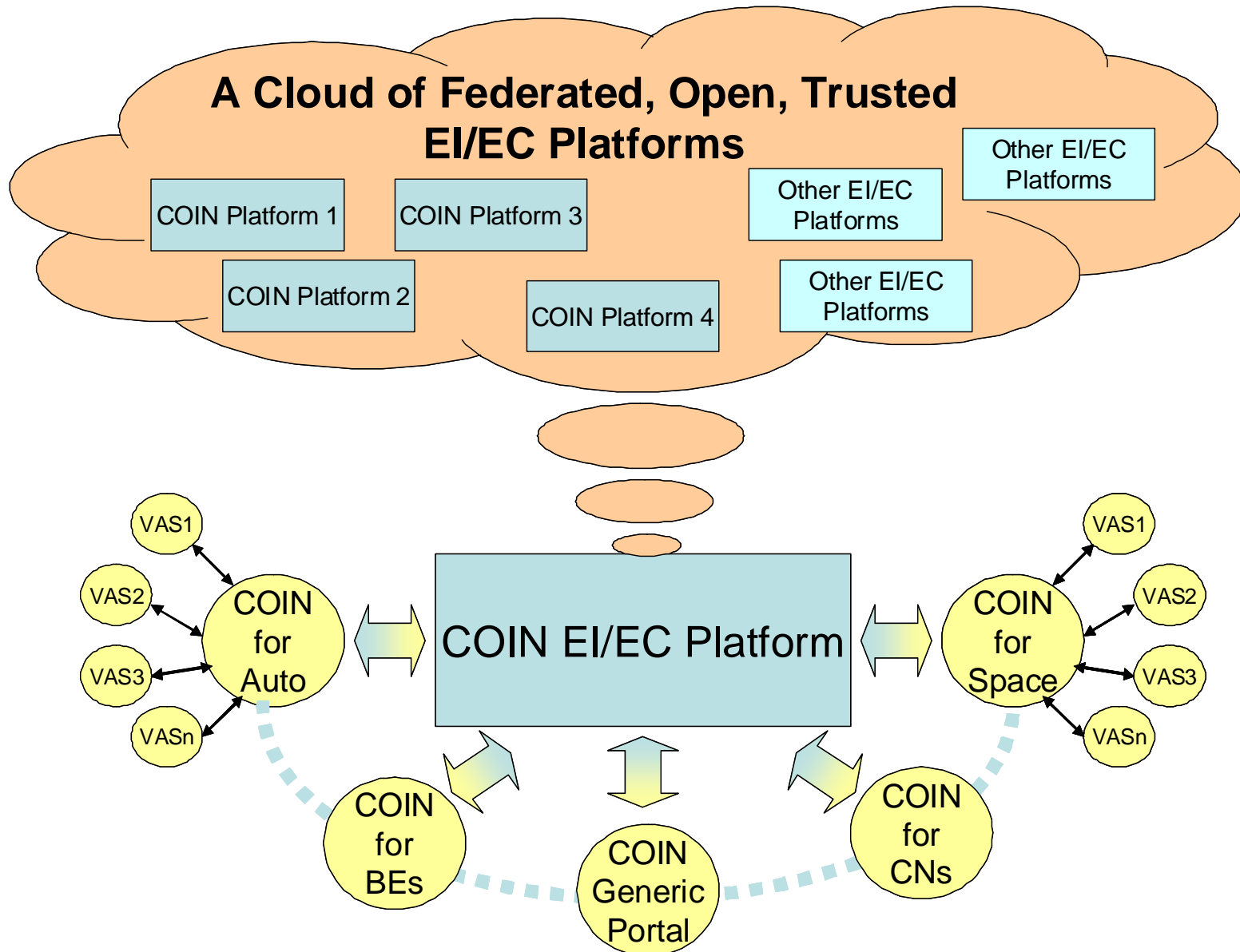


Benefits for Multipliers

- To be supported by the COIN team in the organisation of dissemination initiatives;
- To access COIN confidential documents, mainly relevant to implementation and operative issues
- To receive dedicated training aimed to facilitate COIN results implementation and exploitation;
- To get financial and non financial support for the launch of additional COIN pilots.

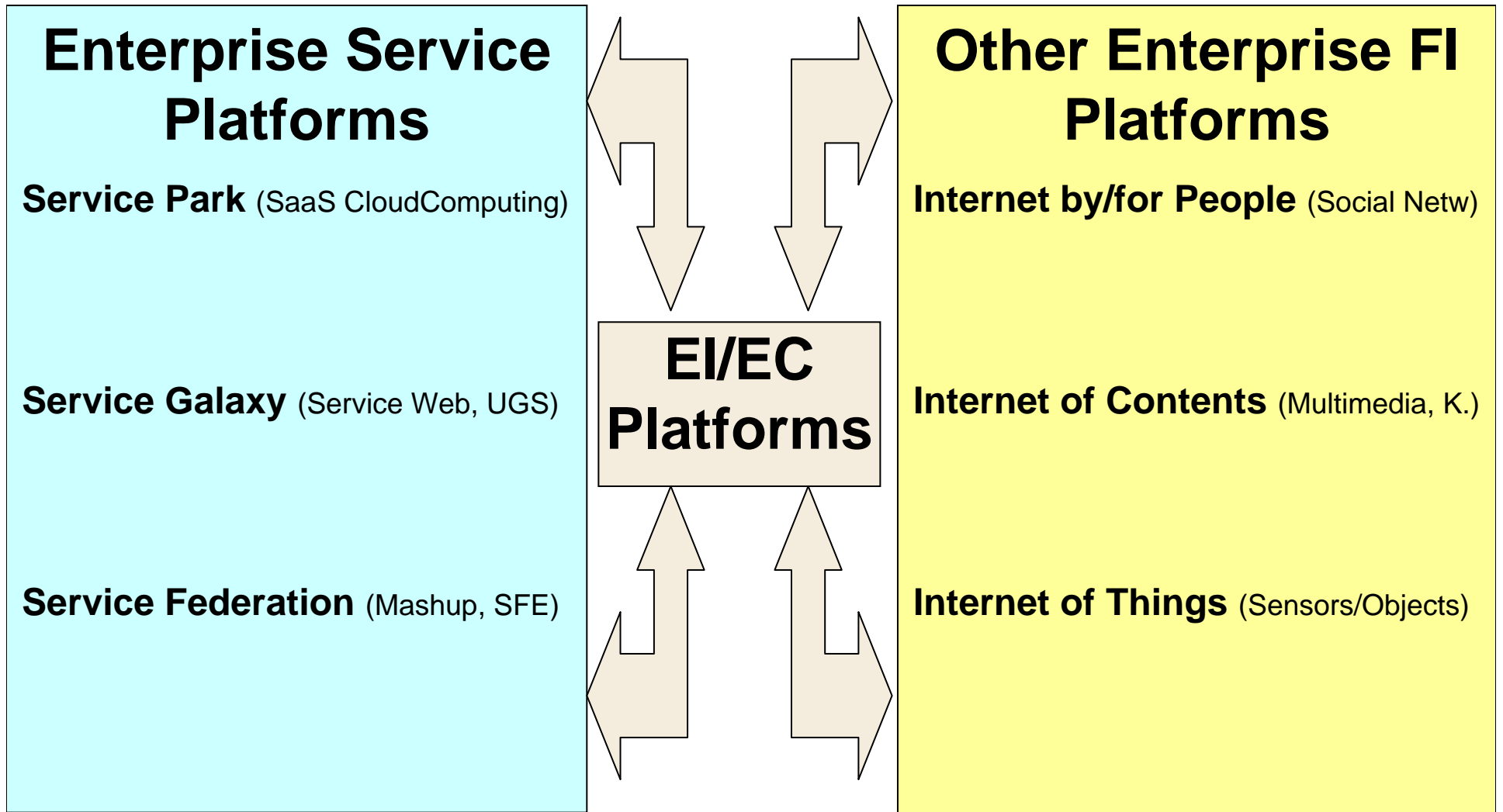


COIN Platforms in the Future Internet



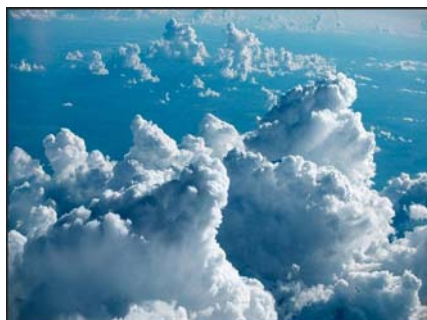


EI/EC Platforms in the FI





EI/EC Platforms in the IoS



Service Parks

Service Federations

Service Galaxies



The COIN Funnel Research Model





The COIN Consortium

Industrial Partners



IC FOCUS



SIEMENS

Academic & Research Partners



BIBA



Jožef Stefan Institute, Ljubljana, Slovenia

User Partners

IND



ISOIN

Filas



Finanziaria laziale di sviluppo





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