



COIN Newsletter

Word from the editor

You are viewing the eighth and final issue of the biannual COIN newsletter. This biannual newsletter provides news on the COIN project and its members and information about project related events progress and results.

In this newsletter we will provide news on COIN project finalisation in terms of presenting the COIN Book, the COIN Final Conference and the COIN Winter School. We will, however, begin with the words of our Project Officer Cristina Martinez. In addition to this, we have collected information about COIN related events at the end of the newsletter.

Yours sincerely,
Editor-in-chief

2/11

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In this issue

Word from the editor	1
Word from the Project Officer	1
COIN Book	2
COIN Final Conference	2
COIN Winter School	3
Past COIN events	3

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 traditionally supply chains to the most advanced and dynamic business ecosystems."

The mission of the COIN IP is to study, design, develop and prototype an open, self-adaptive, generic ICT integrated solution to support the above 2020 vision, starting from notable existing research results in the field of Enterprise Interoperability and Enterprise Collaboration.

COIN has been awarded financial support by the European Commission through the contract No. 216256 in the EU FP7 area of "ICT in support of the networked enterprise"; work programme "ICT-2007-1.3 Enterprise Interoperability"

More about COIN at www.coin-ip.eu

The COIN Integrated Project: a flagship project of the Future Internet Enterprise Systems domain

The Future Internet Enterprise Systems (FI_{ES}) Cluster¹ was launched in 2009 by the Networked Enterprise and RFID unit of the Information Society and Media Directorate-General as a follow-up to the work already accomplished in the domain of networked businesses. This innovative domain was considered necessary given the upcoming challenges for our European enterprises in the Future Internet era, in a context of increased globalization and competition. The Cluster inherited the very rich advancements of three research domains previously supported by the unit: Enterprise Interoperability, Enterprise Collaboration and Digital Ecosystems, but the domain has never lost its scope on the usage and integration of ICT by enterprises. Encouraging disruptive innovation, its mission remains to orient research priorities towards new business approaches and business values supported by Information and Communication Technology, where the Internet is the business ecosystem.

After the first FP7 call for proposals, COIN became the flagship project of the FI_{ES} Cluster and one of its most ambitious, complex and wide-ranging projects. As the full name of the project Collaboration and Interoperability for Network Enterprise may suggest, its primary objective was to aggregate two separated areas – Enterprise Collaboration and Enterprise Interoperability - developed by the precursors of the FI_{ES} Cluster. COIN rightfully observed that the two must be put together in order to have a coherent and efficient approach on the technology needed by our businesses. In this endeavour, the COIN partners gathered valuable research results from several EU funded projects that focused, however, solely on one of the two domains (see, for instance, the European ATHENA, INTEROP, ABILITIES, SATINE and TRUSTCOM projects on Enterprise Interoperability and the ECOLEAD, DBE, E4 or ECOSPACE projects on Enterprise Collaboration).

One of COIN's most ambitious objectives is the provision of a universal service infrastructure capability based on the concept of the Interoperability Service Utility (ISU),² a concept of high importance for the FI_{ES} community. The ISU, already announced by the Enterprise Interoperability Research Roadmap version 4.0,³ is destined to be a 'utility-like' interoperable technology capability that can be "invoked on-the-fly by enterprises in support of their business activities". The implementation of the ISU should play a key role in granting easy access for small businesses to the business ecosystem it supports, in line [>>]

¹ http://cordis.europa.eu/fp7/ict/enet/ei_en.html and <http://www.fines-cluster.eu>

² The first Grand Challenge of the Enterprise Interoperability Research Roadmap [European Commission, 2006 and 2008]

³ ftp://ftp.cordis.europa.eu/pub/ist/docs/directorate_d/ebusiness/ei-roadmap-final_en.pdf

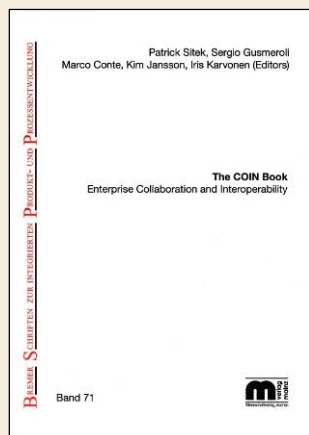
with the priorities for SMEs outlined in the Digital Agenda for Europe⁴ and in the Innovation Union⁵ Europe 2020 Flagship Initiatives. In this sense, COIN's potential achievements are of tremendous value, tracing the lines for further developments that the European Commission fully encourages.

However, the numerous and ambitious objectives of COIN could not have been credible if they were an easy task to accomplish. It is our experience that projects aiming at building service platforms are bound to be confronted to serious obstacles. Furthermore, a project of the length (four years), size (twenty-nine partners) and complexity (seven sub-projects) of COIN meets even more unsteady grounds in conducting its research, having to deal with a continuous redefinition of the questions and needs it was trying to answer to. Moreover, the achievements of the COIN project, as well as the results of the FInES domain, are and will always be "work in progress". A work that can be a source of inspiration for all of us, interested in the evolution of applied technology. A work made of blood, sweat and tears reaching out to other communities.

*Cristina Martinez,
Head of Future Internet Enterprise Systems cluster*

Extracted from the COIN Book, for more information see <http://www.coin-ip.eu/news-events/news/the-coin-book>

COIN Book



In order to support the scientific publication level, foster and allow the scientific recognition of COIN novel concepts and approaches and improve the dissemination process by collecting all these relevant information and achievement within a single dedicated initiative, the COIN project has launched the COIN Book.

The COIN Book was first officially presented at the Future Internet Symposium 2011 in Vienna, at the COIN final conference.

The book has also already been announced at the 2011 edition of the Conference for Concurrent Enterprising (ICE 2011) that was held in Aachen, Germany. Some of the book authors were invited to present and anticipate their contribution on a dedicated session on 21 June to give the audience an idea of the final work and prepare the ground for the official launch.

The COIN Book can be acquired from www.verlag-mainz.de or downloaded as PDF from the [COIN Portal](#).

⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:REV1:EN:HTML>

⁵ http://ec.europa.eu/research/innovation-union/pdf/innovation-unioncommunication_en.pdf#view=fit&pagemode=none

COIN Final Conference

COIN Final Conference was co-located with *The Future Internet Symposium 2011* (FIS2011) and successfully held in Vienna on November 8-9, 2011.

FIS2011 is an intermediate event aiming to bridge the future alignment of the FIS with European Future Internet Assembly. In future, the FIS should become the premier scientific event at the FIA for the presentation of project-independent, scientific contributions to the area of the Future Internet and future networks.

The goal of the Future Internet Symposium was to bring together scientists and engineers from academia and industry and from three main disciplines in the area of *Future Internet* and future networks research (Future Internet architectures and protocols; semantic technologies; and Internet of services, things and content) to exchange and discuss their ideas, views and research results towards a consolidated, converged and sustainable view on the Future Internet respectively future networks.

COIN Final Conference

In the context of the *2020 vision*, COIN has developed an advanced integrated solution, made of a secure Generic Service Platform, providing the European Industry with Enterprise Interoperability (EI) and Collaboration (EC) services, under innovative business models inspired by the SaaS-U paradigm (Software as a Service-Utility).



Figure 1 – The COIN Final Conference at FIS 2011.

The COIN EI/EC services are devoted to support the life-cycle of business-oriented collaborations from their preparation, to their formation, to their operations and management till to their dissolution. Moreover, COIN EC services will support the development of some Future Internet enterprise applications, namely collaborative product development, production planning and project management.

The conference was organised in 2 sessions with technical and business focus:

- *Interoperability and Collaboration IT Services for Enterprises* was led by Sergio Gusmeroli from TXT e-Solutions, and [>>]

- *Interoperability and Collaboration Business Cases for Enterprises* was led by *Man-Sze Li* from IC Focus.

Session 1: Interoperability and Collaboration IT Services for Enterprises

The COIN technical heritage is very significant and important. The COIN Vision and Motto are opening new scenarios for Enterprise Software Applications incumbents and also for new PPP models.

The Generic Service Platform (GSP) federation is an anticipation of the Future Internet PPP Core Platform Generic Enablers. GSP could be seen to contribute Enterprise Interoperability information, including services & knowledge, to these enablers. This information, mostly in its federated form, is becoming a necessity for enterprises and needs to be considered a public good for growth.

Enterprise Collaboration is a way to achieve more open innovation at all levels – including product, service, market, and business model innovation.

Session 2: Interoperability and Collaboration Business Cases for Enterprises

The COIN business research has assessed the business viability and future prospects for the Interoperability Service Utility (ISU) – one of the Grand Challenges from the first version of the research roadmap of the FInES Cluster. COIN has also assessed an instantiation ("SaaS-U") of the ISU in a number of business domains together with business pilots correlating to different levels of enterprise maturity. Utility services are in principle economically viable in ICT.



Figure 2 – Session 2 was concluded by an open discussion to debate the prospect of EC/EI operational services from an industrial perspective.

While the ISU has disruptive potential, market forces might foreclose its openness. Under these circumstances, the potential benefits and effects of innovation for enterprises would be much harder to materialise, and severely curtailed. Utility service infrastructures are a critical enabler for emerging and new business ecosystems. A key research question is the innovation potential of market systems and new modes of exchange and

their impacts on next-generation enterprise systems at the level of the firm and enterprise networks.

The presentations from both of the sessions have been made available to download through [COIN Portal](#).

COIN-EEU Final Conference

COIN-EEU (*COIN for Enlarged European Union*) Final Conference was also taking place within Vienna Future Internet Symposium, on 7th November 2011 afternoon. Among the themes the conference

- Presented objectives and results of the COIN in the Enlarged European Union, namely first-hand experience and lessons learnt from the pilot and business cases supported;
- Collected ICT RTD related ideas from EEU Organizations, with a view of supporting their transformation in successful project proposal, especially in view of Call 8 for ICT.

COIN Winter School

The *Winter School on Knowledge Technologies for Complex Business Environments* took place between November 28 and December 2, 2011 at the Faculty of Mechanical Engineering in Ljubljana, Slovenia.

Organized by *COIN FP7 Integrated Project* and *Planet-Data FP7 Network of Excellence*, the school was aiming to bring together students, scholars and researchers from industry in order to foster collaboration and interoperability with innovative services and project large-scale data management in business environments. The main topics of the winter school were:

- Interoperability and collaboration models and solutions,
- Enterprise interoperability and collaboration services,
- Innovative knowledge and semantically powered technologies,
- Knowledge process and context modelling,
- Pro-active knowledge tools,
- Large scale analytics and reasoning tools,
- Business cases and real case studies.

The winter school was also streamed live through Internet. For more information, visit <http://ct3.ijs.si/coin-planetdata-school-2011/>.

Past COIN events

IFAC 18th World Congress 2011 invited session on Next Generation Networked Enterprises Models and Toolkits

Milano, Italy, 28 August - 2 September, 2011

The IFAC World Congress is the forum of excellence for the exploration of the frontiers in control science and technology, attended by a worldwide audience of scientists and engineers from academia and industry. It offers the most up-to-date and complete view of control [\[>>\]](#)

techniques, with the widest coverage of application fields.

12th IFIP Working Conference on Virtual Enterprises (PRO-VE 2011)

São Paulo, Brazil, 17-19 October, 2011

PRO-VE, as the most focused scientific / technical conference in the area of Collaborative Networks, offers a major opportunity for the presentation and discussion of both latest research developments and industrial practice case studies. Following the IFIP international mission, the PRO-VE conference offers a forum for collaboration among different regions of the world.

The main theme of PRO-VE'11 – Adaptation and Value Creating Collaborative Networks – focused on crucial aspects to empower Collaborative Networks as a main actor of change in society.

eChallenges 2011

Florence, Italy, 26-28 October 2011

The twenty-first in a series of Annual Conferences supported by the European Commission, which regularly attracts delegates from leading commercial, government and research organisations around the world to share knowledge and experience, lessons learnt and good practice in the areas of eInfrastructures, ICT for Networked Enterprise & RFID, eGovernment & eDemocracy, eHealth, Collaborative Working Environments, Living Labs, Digital Libraries and Cultural Heritage, Technology Enhanced Learning, Intelligent Content & Semantics, High Performance Computing Applications, Security and Identity Management and Mobility.

The goal of e-2011 was to stimulate rapid take-up of Research and Technology Development (RTD) results by industry and in particular SMEs, and help open up the European Research Area (ERA) to the rest of the world.

20th Anniversary of the cooperation between China and Europe in ICT for Enterprise

Beijing, China, 20 October, 2011

The workshop originates by a COIN dissemination initiative aiming at studying and analysing the technological, business and policy challenges and barriers characterising the EI/EC market in China.

This dissemination initiative encompasses the appointment of a COIN Angel (Prof. Xu Xiaofei, Harbin Institute of Technology HIT) who is playing the role of catalyst for a qualified pool of experts to study and debate the EI/EC domain in China and to trying to answer the question whether COIN EI/EC research outcomes could find a significant adoption in the Chinese socio-economic and technological context in the near future.

In the framework of the 20th anniversary of the cooperation between China and Europe in ICT for Enterprise introduced by Prof Xu and Prof. Doumeings, the COIN workshop was be organized in three distinct phases:

- *A presentation of COIN and its main results in the field of EI/EC.* Dr. Claudia Guglielmina (COIN Coordinator, TXT) introduced the vision, mission and objectives of the project; Dr. Sergio Gusmeroli (COIN Technical Coordinator, TXT) described the most relevant technical outcomes of the project; and Prof. Klaus Dieter Thoben (COIN Member, BIBA) addressed how the EI/EC services could support open innovation in enterprises;
- *A presentation of Chinese initiatives and EI/EC position statements.* Prof. XU Xiaofei and Mr. LIU Xiaofeng (HIT) will present the White Paper “Enterprise Interoperability and Collaboration in China: Barriers and Challenges”, Prof. CUI Degang (AVIC & BUAA) will address the challenge of Product-Service Innovation in the Aeronautic Industry, Dr. NIE Lanshun (HIT) will present R&D initiatives in China in the domain of Cloud Manufacturing, Prof. LIU Shijun (SDU) will identify the enabling role of SaaS for Enterprise Collaboration;
- *A round table*, where challenges and barriers for the full adoption of EI/EC solutions in China will be discussed. On the basis of previous interventions, experts invited by Interop VLAB and its Chinese pole were moderated by COIN representatives to discuss the adoption of advanced EI/EC solutions in China. Moreover, audience was invited to put questions and to actively participate to the debate. As an initial stimulus the three COIN key questions will be discussed by the experts and customized / localized for the Chinese context.

During all the COIN workshop sessions but especially in the final roundtable, the following key questions about Enterprise Interoperability and Collaboration in Networked Enterprises were debated:

Technology question: are the EI and EC services an integral part of the FI Core Platform Generic Enablers for FINES, or, in other words, could we consider the FI as the Universal Business System for Enterprises?

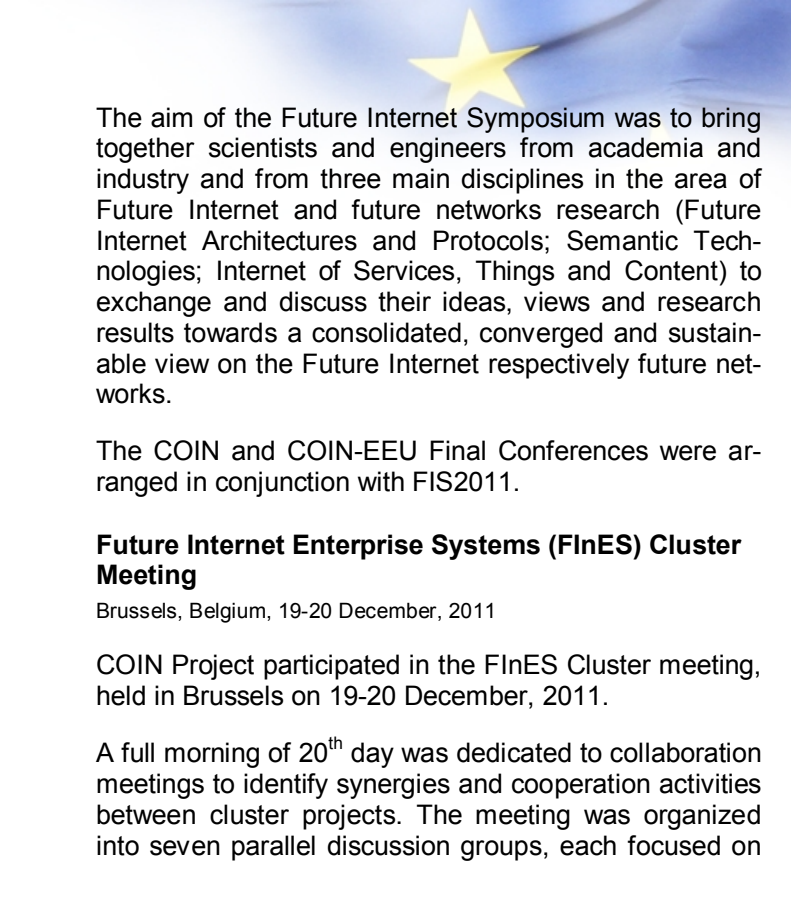
Business question: how to harmonize the user requirement to have a consistent set of EI/EC fundamental utility services available for free in the open Internet as public goods (ISU Interoperability Service Utility) with the legitimate need for profitability and economic sustainability by IT industry?

Policy question: what policy actions could effectively promote openness, equal opportunities and innovation in the field of EI/EC information and services, favour the removal of the Digital Divide and support SMEs joining new business opportunities?

Future Internet Symposium (FIS 2011)

Vienna, Austria, 8-9 November, 2011

The FIS2011 was an intermediate event aiming to bridge the future alignment of the FIS with European Future Internet Assembly. In future, the FIS should become the premier scientific event at the FIA for the presentation of project-independent, scientific contributions to the area of the Future Internet and future networks. [>>]



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The COIN and COIN-EEU Final Conferences were arranged in conjunction with FIS2011.

Future Internet Enterprise Systems (FInES) Cluster Meeting

Brussels, Belgium, 19-20 December, 2011

COIN Project participated in the FInES Cluster meeting, held in Brussels on 19-20 December, 2011.

A full morning of 20th day was dedicated to collaboration meetings to identify synergies and cooperation activities between cluster projects. The meeting was organized into seven parallel discussion groups, each focused on

a scope of subjects determined by the FInES projects expressions of interest and further refined by online discussions among the projects' representatives.

The parallel discussion groups were: Business modeling and service composition, Distributed, adaptive and interoperable virtual enterprises, Knowledge value generation, Future manufacturing, SME Support, From Research to Market, translating innovation into products & services, Technologies, standards, methodologies, engineering and interfaces.

The above discussion groups were aimed at leveraging projects' results and their potential synergies with the achievements of other projects. The collaboration between the projects was strongly encouraged, may it be regarding specific research or application topics, sociotechnical issues or use case particularities. Future collaboration leveraging anticipated projects results is also encouraged. With that in mind, the above discussion groups were loosely defined, leaving much room for creativity and links that would not otherwise be realized. Concrete activities resulting from this exercise are expected and will be reflected in the FInES cluster forthcoming activity plan for 2012.

COIN Newsletter No. 8, December 2011, edited by Mikko Uoti, and contributed by Cristina Martinez and Kim Jansson. Whilst every care has been taken, the publisher does not accept any liability for errors that may have occurred. You can subscribe for this newsletter and find the archive of past editions online at <http://www.coin-ip.eu/>.