

Editorial

By Prof. Jean-Paul Bourrieres, INTEROP-VLab President

**2013, a Strategic year for INTEROP-VLab!**

Clearly, Year 2012 has seen an acceleration of INTEROP-VLab's activity.

The involvement in international projects has increased, three projects being running among which MSEE-IP (Manufacturing Service Ecosystem) is definitely a key one. I-VLab's policy to facilitate the presence of its partners in project consortia is becoming successful.

On the science front, at the instigation of the Scientific Committee, seven Taskforces have addressed key interoperability-related topics and five Thematic Groups have been working in relevant application domains (e-Health, Crisis management, Transport / logistics, EI Management, Manufacturing Enterprise Interoperability). In addition, Community Groups were launched to facilitate the crystallization of I-VLab's community in specific themes addressed by running projects, e.g. the Community Group "Modelling Enterprise Service & Products" was created to achieve further developments of MSEE's results and disseminate them in and out INTEROP-VLab.

An important joint action has been the preparation of the FITMAN (Future Internet Technologies for MANufacturing) proposal answering the FI PPP (Future Internet Public Private Partnership) call, involving 7 poles associated to the project beside large companies. For now, the project was selected by the European Commission and is in negotiation. We are waiting with a great interest for the starting-up in April 2013.

Meanwhile, the Education Committee, the Standardisation Committee and the Platform Group have maintained their efforts to increase the impact of Enterprise Interoperability research and Associated Domains on the socio-economical world. The IESA International Conference on Interoperability for Enterprise Systems and Applications, the sixth issue of which took place in Valencia (Spain) on 22-23 March 2012 will be followed by IESA'14 in Albi (France) on 25-28 March 2014. This conference successfully contributes to the dissemination of scientific advances worldwide.

Created in 2007 on the assets of FP6-INTEROP-NoE, INTEROP-VLab has seen an extension and consolidation period during which its activity and fame have considerably grown. Though the size of the network (56 Partners co-ordinated in 9 poles) has now stabilized, a stronger involvement in international projects allows to envisage a higher turn-over in the partnership, as new projects lead new organizations to join the network.

A new phase in INTEROP-VLab's development will open in 2013, with a new impetus given by a new Board to be elected during the next General Assembly (Brussels, July 4th, 2013). The strategic orientations of INTEROP-VLab will be updated on this occasion.

Bon Voyage to INTEROP-VLab!

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IWEI 2013

Enschede,
The Netherlands
March 27-28, 2013

**International IFIP Working Conference
on Enterprise Interoperability
Information, Services and Processes
for the Interoperable Economy and
Society**

Organised by IFIP Working Group 5.8 on Enterprise Interoperability
In cooperation with INTEROP-VLab

Program and online registration available at www.iwei.eu

Report on I-ESA 12



I-ESA'12, the **International Conference on Interoperability for Enterprise Systems and Applications** was held on 20- 23 March 2012. It was organized by the University Polytechnic of Valencia and INTEROP-VLab, sponsored by the International Federation for Information Processing (IFIP) and the International Federation of Automatic Control (IFAC).

I-ESA'12 was the sixth Conference after the five previous successful experiences: Genève (2005), Bordeaux (2006), Madeira (2007), Berlin (2008) and Coventry (2010), and a special edition in Beijing (2009) that has already established itself as a key event in Europe in the field of Enterprise Interoperability and an excellent opportunity to present the leading research on this field and exchange experiences.

Participants in I-ESA'12: 127 from 24 countries.

Papers Doctoral Symposium: 10 / Papers Workshops: 58 / Papers Conference: 40

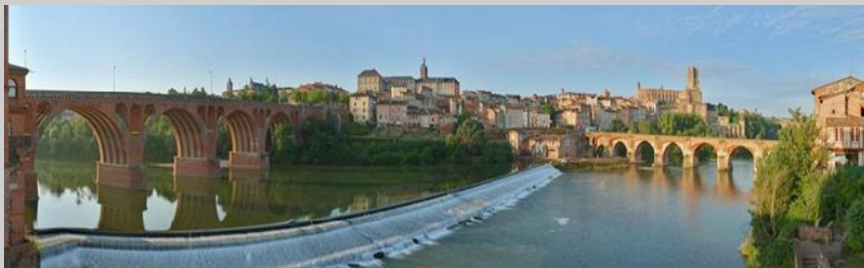
You can download the full report [here](#).

I-ESA 2014

7th International Conference on Interoperability for Enterprise Systems and Applications

March 25-28, 2014, Albi-Carmaux (near Toulouse, France)

Organized by Ecole des Mines Albi-Carmaux and INTEROP-VLab



Celebration of the 5th anniversary of INTEROP-VLab, by K. Popplewell

INTEROP-VLab was inaugurated in March 2007 so five years on, in March 2012 special fifth anniversary meeting was convened at the end of the I-ESA 2012 conference in Valencia. Here is a summary of some of the main points. Although the meeting is in some respects a celebration of the successful first five years of the association, it was also a working meeting, looking forward to the next 5(0) years, and the ways in which it can meet its partners needs. After a welcome from INTEROP-VLab President, Jean-Paul Bourrières, the chairs of the three standing Committees briefly presented their work.

For the Scientific Committee, Ricardo Goncalves reported its main activities, in advising on the strategic development of the scientific activities in I-VLab, included:

- elaboration and analysis of the Enterprise Interoperability (EI) topics and associated domains (Enterprise System Applications and Application of Future Internet) of highest priority for the I-VLab partners,
- compilation of a list of PhD students and their research topics, including their thesis title and abstract among the I-VLab partners, and
- identification of the complete list of projects ongoing in EI and Associated domains.



Ricardo Goncalves (Uninova, PT) Scientific committee chairman

Raul Poler reported on the activities of the Education committee in developing and managing the associations education activities:

- preparation of Marie Curie proposals to develop a reference master in EI, the creation of vocational courses and the development of the I-VLab e-learning platform,
- development of Wikipedia articles on EI, and
- development of new e-learning tutorials for PhD students.



Raul Poler (Univ. Polytech. of Valencia, SP), Education committee chairman



Martin Zelm (I-VLab, DFI e.V., GE), Standardisation Group chairman

The Standardisation Activities presented by Martin Zelm included:

- promotion of EI standardisation results via workshops and conferences,
- cooperation with R&D Projects and EI initiatives,
- coordination of the Standards Task Force in the FinES Cluster, and
- participation in Standard Development Organization (SDO) working groups.

These brief presentations were followed by 3 parallel knowledge café sessions aimed at collecting ideas from the partners on the ways in which I-VLab can serve their needs in the future.

The session on “Future Science, Education and Standardisation” emphasised the need for focus on knowledge transfer activities, perhaps through the generation of a matrix of problems, company needs and potential EI solutions. Nevertheless I-VLab must continue as an enabler of future research, with the definition of a science base for EI forming the reference base, and a body of knowledge available to, for example, research students. There is also a need for a clear view of standards in EI.

The session on the “Future of Task Forces and Thematic Groups” recognised a need for some rationalisation here, as some of these groups have overlapping interests, whilst others have become inactive. There are problems in animating groups, arising to some extent out the absence of any direct means of funding activities. Discussion of possible motivations included the generation of project proposals based on group interests and the publication of group research in journals and conferences.

The remaining session on “New perspectives for Future Activity” was very wide ranging, including outward facing activities, engagement with members and partners, engagement with industry. The results were very valuable and the Board of Directors continues to address the issues raised.

The final wrap-up plenary of the meeting was brief – the knowledge cafés did not really want to stop talking. The topic chairs reported quickly on the main topics of discussion. And of course there was a real celebration party in the evening, which all enjoyed. The arrangements for the meeting, as with all the arrangements for the I-ESA conference were superbly managed by the team at Valencia Polytechnic University of Valencia, to whom we offer our sincere thanks.

The Scientific activities in INTEROP-VLab, by R. Goncalves

The role of the Scientific Committee is to advise on the strategic development of the scientific activities in I-VLab. During the last year, the scientific activities of INTEROP-VLab have been focused on the implementation of several actions.

The first action aims to collect and put available to the community the state of the art on Enterprise Interoperability (EI) and associated domains. A “White document” organized in the main EI research themes is in preparation, by collecting relevant documents (especially research papers) that can enable an easy access to the actual research and development worldwide practices.

This is an ongoing activity of INTEROP-VLab, that will put focus during 2013, with the update of the I-VLab repository for reference papers with the state of the art for EI. The possibility to provide an indexing mechanism with researchers profile, keywords and abstract will be analyzed to support indexing and searching, in connection with the I-V KMap which is a Knowledge Management System provided by I-VLab (more information [here](#)).

Besides that, an I-VLab repository for PhD thesis (concluded and ongoing) is in preparation. This will complement the work already developed during 2012, resulting in a database of relevant PhD thesis in the EI domain. The objective of this repository is to provide all finished thesis in the EI domain, and also an updated information about ongoing PhD work (including information of Student, Supervisor, Title, Keywords, Abstract, Main contributions, Main open research challenges, etc.).

Still from the perspective of promoting and sharing the research in EI, the setup of a Scientific Journal has been discussed and it is expected to be launched during 2013.

Last but not least, the I-ESA Conference on “Interoperability for Enterprise Systems and Applications” will be hosted in Albi-Carmaux (France), during the last week of March 2014 (between March 25th and 28th). The preparation has already started. The Call for Papers and workshops will be launched beginning of Spring 2013.

The standardisation activities in INTEROP-VLab, by M. Zelm

The activities in the domain of standardisation is quite high in INTEROP-VLab.

Development of standards

El Framework: Work on Part 2 of the upcoming standard CEN/ISO 11354 titled Maturity Model for assessing Enterprise Interoperability. We recall that this standard was created in the frame of INTEROP-NoE. The present discussion is focussed on metrics to measure interoperability with a maturity assessment matrix. This specification is intended for employment in real enterprise environments. Responsible David Chen, University Bordeaux 1, convener CEN TC 310/WG1.

Reference Ontologies: ISO TC184/SC4 Industrial Data Integrated Ontologies and Models (IDIOM) has recognised the need for work of this type. A workgroup has been initiated to establish a reference ontology serving as a base for a number of ISO standards about manufacturing management data. Responsible Bob Young, Loughborough University.

Service Modelling: The Value Delivery Modeling Language (VDML), developed in the FP7 project NEFFICS, (www.neffics.eu) is exploring the key concepts of value innovation starting from the Internet as a universal business system. VDML has been submitted for standardisation to the OMG, contact point A. Berre, SINTEF.

Workshops

I-ESA 12: Two workshops titled “Standards improving Enterprise Interoperability benefits for a service oriented Future Internet” and “Standardisation Management” to promote standardisation were held on March 21, 2012. Discussions at the workshops indicate that standardisation needs more visibility and recognition compared to research. Developing new standards must be better synchronised with research and start earlier in the project life cycle. The papers have been published under the title “Enterprise Interoperability, I-ESA Workshop Proceedings” by ISTE/WILEY (www.iste.co.uk).

I-VLab General Assembly (June 2012): One workshop to review and discuss the activities of the standardisation group was held on June 27, 2012 during the GA in Brussels. Presentation slides can be found [here](#).

FInES Cluster

I-VLab (Martin Zelm) is coordinating the Task Force for Standards and Standardisation in the FInES Cluster. Resulting from this effort, a TF Report has been completed in July 2012.

The report is focussing on new standards developments in Semantic Enterprise Interoperability, the Internet of Things and Cloud Computing and is reflecting several discussions and comments from inside and outside.

This Standardisation TF Report, together with other reports will be available in the 2012 Cluster Book entitled ‘Roots and Wings’. The publication presents the latest developments fostered by the FInES Cluster and offers a synthesis of the activities over the last two years.

Standardisation in the MSEE project – Manufacturing Service Ecosystem (www.msee-ip.eu)

In the MSEE, a workpackage is dedicated to ‘Access and contribution to standards’ in order to contribute to the development of Service oriented Manufacturing Standards in MSEE.

The main present results are an internal survey of competence and interest in standardisation activities, as well as new requirements & state of the art. Via an online a questionnaire the partners show a need to develop standards in the MSEE domain.

The results of the survey provide valuable comments about the areas where to develop new standards. In addition, we have investigated, in cooperation with the project partners, the state of the art, by selecting and analysing upcoming standards in the chosen MSEE domains, namely in Enterprise Services, Enterprise Interoperability and Internet Technologies.

The Education activities in INTEROP-VLab, by R. Poler

The main goal of the I-VLab Education Committee is to promote the education on the Enterprise Interoperability (EI) domain. To achieve this goal several activities have been performed in order to spread the knowledge about Enterprise Interoperability at different levels:

- An International Master in Enterprise Interoperability at University level has been designed, providing a set of Reference Courses related to the basic knowledge about the Interoperability of Enterprise Systems and Applications research domain classified in three areas: Enterprise Modelling, Ontology, Architectures and Platforms and Interoperability. And a set of Optional Courses related with specific domains related with EI. The IM-EI was launched in 2007 at the Stockholm University and the Polytechnic University of Valencia and currently the Education Committee is working on an Erasmus Mundus proposal.
- The Enterprise Interoperability ITN (EI-ITN) has been elaborated for submission to the PEOPLE Marie-Curie Initial Training Network programme. The objective of the EI-ITN project is to develop a PhDs Training Programme to support the development of the research on EI and to associate Research/Education Establishment with Industry in order to improve the understanding of Industrial problematic.
- Some Enterprise Interoperability Vocational Courses directed to professionals have been identified taking into account the industry needs. The Education Committee is working on the preparation of proposals to the Marie Curie Industry-Academia Partnerships and Pathways (IAPP) calls.
- The I-VLab e-Learning Platform (<http://elearning.interop-vlab.eu/>) contains several Tutorials and Web Courses related with the Enterprise Interoperability Domain, and offers 1 Year Free Access to their PhD or Master Students of disciplines related with Enterprise Interoperability to the I-VLab Universities.
- The Enterprise Interoperability Wikipedia articles have the purpose of disseminating the acquired knowledge on EI by the partners of I-VLab in several research projects. An example can be seen at http://en.wikipedia.org/wiki/Model_Driven_Interoperability.

List of Education Committee members viewable [here](#).

Strong evolution of the activities of INTEROP-VLab by G. Doumeingts and C. Lieu

The activities of INTEROP-VLab have strongly increased in the last years. We recall that I-VLab must support its partners in the development of Enterprise Interoperability and the Associated Domains as ESA (Enterprises Systems Applications: ERP, PLM,...) and Applications of Future Internet (AFI). The final goal is to improve the Economic sustainability of the Enterprises by developing through these IT domains of Applications the Business Innovation .

To reach this objective, first I-VLab has established its visibility at the European level. The creation of five Task Forces to develop the research and the seven Thematics Groups to customized these results by domain has contributed to develop this visibility (see the list on the [website](#)).

Now a new step has been crossed: the participation of INTEROP-VLab in European Projects in support to its partners. The project is always created by the partners and I-VLab brings some specific competences more transversal as dissemination, elaboration of Requirements, Performance Indicators using Enterprise Modelling or Service Modelling research results.

Another step is the transfer of the European Research Results toward the Regions of Europe through its partners. A new type of Groups is in creation: Community Groups (CGs). A CG is a set of partners interested by one result of EC project and who want to continue the development of this result after the end of the project. The first CG in creation is round the concepts of Service Modelling for Virtual Manufacturing Enterprise (VME) and for Manufacturing Services Ecosystem (MSE), results of the MSEE Project. I-VLab offer to support the continuation.

The INTEROP-VLab platform (www.interop-vlab.eu) will be completely redesigned in the middle of 2013, in order to present the role of INTEROP-VLab and all the activities available to the partners, to the research community and to the industry actors linked to our domain. The platform will be the unique gate to find all the documentation in EI and associated domains.

ONGOING PROJECT

**MSEE “Manufacturing Service Ecosystem”**

FP7 284860 – Integrated Project - 36 months duration – start date: October 2011 – 19 partners coming from 9 countries

The MSEE project aims to create a new Virtual Factory Industrial Models, where service orientation and collaborative innovation will support a new renaissance of Europe in the global manufacturing context.

The MSEE outcomes are:

1. A complete set of Servitization Projects Templates to be configured for any kind of Domain and Sector
2. An innovative Servitization Maturity Model for driving EU Manufacturing Enterprise towards advanced forms of servitization
3. A Service Lifecycle Management Toolbox to model the various aspects of an enterprise during its servitization
4. A collaborative Innovation Ecosystem Platform to stimulate creativity and co-create service innovation through collaboration
5. An innovative set of Enterprise Applications as a Service to support the operation of advanced product-related services in an ecosystem
6. A FI-inspired IT system architecture to link the FoF ICT vision of Smart-Digital-Virtual factory with the Future Internet Core Platform
7. Four distinct but interlinked Pilots and Experimentations of the Manufacturing Service Ecosystem concept and IT infrastructure

More information on the project website: www.msee-ip.eu

NEW RESEARCH PROJECTS

TELL ME “Technology Enhanced Learning Livinglab for Manufacturing Environments”

FP7 318329 – Integrated Project – 36 months duration – start date: November 2012 – 14 partners coming from 8 countries

The TELL ME project aims to:

- Develop a cross-enterprise methodology and IT platforms for continuous education and training that allows to blend training methods and available resources with lifelong learning and Living Lab (LL) participative co-creation aspects,
- Identify and measures the economic and non-economic benefits at individual, organisation and business ecosystems levels,
- Trial it at industrial manufacturing workplaces attended by blue collar workers belonging to SMEs.

Three use cases will experiment the TELL ME solutions: for Helicopter maintenance, Textile quality inspection and Furniture for shipbuilding.

More information on the project website: www.tellme-ip.eu

FITMAN “Future Internet Technologies for MANufacturing industry”

FP7 604674 – Collaborative project – 24 months duration - The project is in negotiation phase and the kick-off is expected in April 2013.

FITMAN aims to provide the FI PPP Core Platform with a set of industry-led use case trials in the manufacturing domain, built on top of suitable FI-WARE Generic Enablers, this way contributing to the social-technological-economical-environmental-political objectives included in the “ICT for Manufacturing” and “Future Internet Enterprise Systems” EU research roadmaps.

The ultimate goal is to support business innovation and to create new jobs for EU Manufacturing Industry, by renovating business processes and enterprise applications in Smart, Digital and Virtual Factories of the Future.

Seven INTEROP-VLab Member Poles (twelve partners) are involved in the project. They will contribute to develop “Smart-Digital-Virtual Factories” of the Future Experimentation Sites around Europe (Germany, UK, France, Italy, Spain, Portugal) and test-bed applications in several Manufacturing Sectors (automotive, aeronautics, white goods, furniture, textile/clothing, LED lighting, plastic, construction, machinery for wood, manufacturing assets management).

The cooperation with China

INTEROP-VLab has been invited by the French Embassy to participate in the “EU-China Research and Innovation Collaboration Week”, held in Beijing from 14 to 16 November 2012. Cathy Lieu (I-VLab Assistant Manager), on behalf of Guy Doumeingts (I-VLab General Manager), and Prof. Xiaofei Xu (Harbin Institute of Technology, I-VLab China Pole) represented I-VLab during this event.

The “first EU-China Joint Labs Workshop” was hosted by the Italian Embassy and organised by the EU Delegation in Beijing with the support of the French and Dutch Embassies. The objectives of the meeting was to bring together European and Chinese industrialists and innovation experts to exchange views and explore areas for future cooperation and on how to promote a stronger European dimension through better interaction among joint labs.

It was a good opportunity to present I-VLab as an example of sustainable cooperation between Europe and China. Through the I-VLab China Pole, I-VLab will continue to consolidate its partnership with China.

Full article [here](#)

More information about EU-China Research and Innovation Collaboration Week [here](#)

Website of the Delegation of the European Union to China: http://eeas.europa.eu/delegations/china/index_en.htm



1st EU Member States-China Joint Lab Workshop (Beijing, Nov. 14th, 2012)

In the center of the picture: Vice Minister Cao Jianlin, Deputy Director-General Rudolf Strohmeier, Philippe Vialatte (Head of S&T EU delegation Beijing) and Philippe Martineau (Deputy Counsellor, S&T department, French Embassy in China)

Upcoming events

- **IWEI 2013**, International IFIP Working Conference on Enterprise Interoperability (March 27th -28th, 2013, Enschede, The Netherlands) - [more](#)
- **Future Internet Assembly** “FIA Dublin 2013” (May 8th -10th, 2013, Dublin, Ireland) - [more](#)
- Internet of Things “**IoT week 2013**” (June 16th -20th, 2013, Helsinki, Finland) - [more](#)
- **ICE and IEEE International Conference** in Technology and Innovation Management, “Responsible Innovation and Entrepreneurship” (June 24th -26th, 2013, the Hague, The Netherlands) - [more](#)
- **INTEROP-VLab General Assembly** and working meetings (July 2nd -5th, 2013, Brussels, Belgium)
- **ICT 2013** (November 6th -8th, 2013, Vilnius, Lithuania) - [more](#)
- **I-ESA'14**, 7th International Conference on Interoperability for Enterprise Systems and Applications (March 25th – 28th, 2014, Albi-Carmaux, France)

Find more information on the I-VLab Platform www.interop-vlab.eu

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