



D8.3.4 ADVENTURE Workshop I Report

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This report provides a detailed description of the First ADVENTURE Workshop that was organized along with the FAIM 2013 conference (June 26-28), at Porto, Portugal on 28th June, 2013. It highlights the overall goals of the workshop and the outcomes from it.



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Table of Contents

Executive Summary.....	5
1. Introduction.....	6
1.1 ADVENTURE Project Aims.....	6
1.2 Deliverable Purpose, Scope and Context.....	6
1.3 Document Status.....	6
1.4 Target Audience.....	7
1.5 Abbreviations and General Terms.....	7
1.6 Document Structure.....	7
2. First ADVENTURE Workshop: Introduction.....	8
2.1 FAIM'13.....	8
2.2 Rational Behind to Choose FAIM 2013 as the Venue for 1 st ADVENTURE Workshop.....	9
3. FAIM 2013 and First ADVENTURE Workshop.....	11
3.1 Conference Tracks.....	11
3.2 ADVENTURE Participants within the FAIM 2013.....	11
3.3 First ADVENTURE Workshop Details.....	11
3.4 Workshop Agenda.....	12
3.5 Business Talks from Keynote Speaker and Two SMEs.....	13
3.5.1 Keynote Speaker Professor Lihui Wang.....	13
3.5.2 Science Meets Business Talks: Critical Manufacturing.....	14
3.5.3 Science Meets Business Talks: Furniture, Wood, Packaging and Related Industries Technological Institute.....	14
3.6 Overall Workshop Outcomes.....	14
3.7 Workshop's Panel Attendees.....	14
3.8 Feedbacks from Individual Panel Members.....	15
4. ADVENTURE Workshop: Feedback.....	16
5. Second ADVENTURE Workshop (I-ESA 2014).....	17
6. ADVENTURE Workshop: Presented Papers.....	18
7. Conclusions.....	21

List of Figures

Figure 1: FAIM 2013 Web portal.....	9
Figure 2: ADVENTURE 1 st Workshop at Porto, Portugal.....	12
Figure 3: ADVENTURE 1 st Workshop's attendees	12

List of Tables

Table 1: First ADVENTURE Workshop Agenda	13
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Executive Summary

This deliverable provides information for the 1st ADVENTURE Workshop as part of the scientific dissemination activities that has been carried out from M12 to M24 of the ADVENTURE project. The workshop has taken place at Porto, Portugal on 28th June 2013, associated with the FAIM 2013 Conference (26-28th June). All the respective dissemination activities such as scientific discussion, presentations of scientific papers and overall project outcomes are elaborated within the scope of this deliverable.

1. Introduction

ADVENTURE – ADaptive Virtual ENTerprise manufactURING Environment – is a project funded in the Seventh Framework Programme by the European Commission. ADVENTURE creates a framework that enhances the collaboration between suppliers, manufacturers and customers for industrial products and services. Within this deliverable overall scientific dissemination activities are presented.

1.1 ADVENTURE Project Aims

The framework proposed by ADVENTURE provides mechanisms and tools that facilitate the creation and operation of manufacturing processes in a modular way. ADVENTURE combines the power of individual factories to achieve complex manufacturing processes. It provides tools for partner-finding, process creation, process optimization, information exchange as well as real-time monitoring combined with the tracking of goods and linking them to cloud services.

There have already been several research projects that address the combination of different independent manufacturers to so-called virtual factories. Most of these research projects focus primarily on the business-side in general and on aspects like partner-finding and factory-building processes in special. However, no proven tools or technologies exist in the market that provides the creation of virtual factories applying end-to-end integrated Information and Communication Technology (ICT). ADVENTURE is aiming to provide such tools and processes that will help to facilitate information exchange between factories and move beyond the boundaries of the individual enterprises involved. The collaborative manufacturing process will be optimised by enabling the integration of factory selection, forecasting, monitoring, and collaboration during runtime.

ADVENTURE builds on concepts and methods of Service-oriented Computing and benefits from the advancements in this field. The monitoring and governance of the collaborative processes will be supported by technologies from the Internet of Things such as wireless sensors. Existing tools and services that can be integrated will be considered during the development of the platform for ADVENTURE.

The increased degree of flexibility provided through ADVENTURE will benefit SMEs especially as it helps them to react quickly to changes and to participate in larger, cross-organizational manufacturing processes. Furthermore, ADVENTURE will help manufacturers in assessing the environmental friendliness of actual manufacturing processes and resulting products and services. Other objectives of ADVENTURE include research in areas such as service-based manufacturing processes, adaptive process management, process compliance, and end-to-end-integration of ICT solutions.

1.2 Deliverable Purpose, Scope and Context

The purpose of this document is to report all the scientific and dissemination activities that have been performed with respect to the 1st ADVENTURE Workshop. These activities include publications, presentations and other dissemination events.

1.3 Document Status

This document is listed in the DOW as ‘public’ as the workshop reports may be used by external parties as a base for getting insights about the dissemination of ADVENTURE.

D8.3.4-ADVENTURE-Workshop-I-Report.docx	Author: UVA and Partners	Print Date:2013-09-20	Page:6/ 21
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1.4 Target Audience

As a public deliverable, it could be useful for the wider scientific, industrial and Future Internet Enterprise Systems (FINES) Cluster participants and other similar projects.

1.5 Abbreviations and General Terms

A definition of general, common terms and roles related to the realization of ADVENTURE, as well as a list of abbreviations is available in the supplementary document "Supplement: Abbreviations and General Terms" which is provided in addition to this deliverable.

Further information can be found at: <http://www.fp7-adventure.eu/glossary>.

1.6 Document Structure

This deliverable is broken down into the following sections:

Section 1: Provides an introduction to the deliverable, outlining its purpose, scope, context, status, audience and the structure of the deliverable.

Section 2: Describes the 1st ADVENTURE Workshop which was organised within the scope of the FAIM 2013 conference. A rationale behind choosing the FAIM 2013 conference for ADEVENTURE 1st Workshop is also explained in this section.

Section 3: Outlines the concrete details of the Workshop such as the agenda, overall Workshop's outcomes, as well as feedback provided by the Workshop's keynote speaker, panel members, science meets business talks, etc.

Section 4: Summarises the generic feedback from the Workshop.

Section 5: Briefly outlines the plans and schedule for the 2nd ADVENTURE Workshop.

Section 6: Highlights the presented scientific papers with titles, references and abstracts.

Section 7: Concludes the deliverable.

2. First ADVENTURE Workshop: Introduction

Co-hosted with the FAIM 2013, the 1st ADVENTURE workshop took place on Friday 28th June 2013, at Porto, Portugal.

The workshop offered the opportunity to:

- Generate awareness of ADVENTURE within the collaborative business communities
- Present the prototype software components of ADVENTURE to potential end users
- Seek feedback on the ADVENTURE approach from different target groups
- Encourage a wider uptake of ADVENTURE

The workshop was held just after midway through ADVENTURE, after all research and design deliverables had been completed and technical development work was underway. The timing of the workshop was well suited in terms of the finalisation of important activities such as the definition of the project's vision and technical architecture, specification of both functional and technical requirements, completion of first prototypes of project components. At this point in the project, solid foundations had been laid out in the form of the aforementioned deliverables and ADVENTURE was able to present a clear picture as to how a "plug-and-play" factory design challenge was actually being solved widening and covering a more diverse range of topics, more people would be encouraged to attend the workshop.

Both ADVENTURE and other participants gained several clear advantages from this workshop, such as:

- Establishing valuable and strong relationships with other projects, standards bodies, etc.
- Sharing ideas and/or knowledge with other collaborating projects, that can be a valuable aid to the project's future activities
- By demonstrating how the concept of "plug-and-play" virtual factory management could be applied to enhance a wide range of business processes, a more varied and lively discussion on business collaboration was provoked

With the objective to bring variety and interest, several outstanding experts in the specific fields (e.g. Professor Lihui Wang from Sustainable Manufacturing) were also invited to participate in the workshop, along with the project participants. The end results from ADVENTURE project, which have been presented in this workshop in practical way, could be applied to solve a wide range of business problems associated with the collaborative business domain.

2.1 FAIM'13

The International Conference on Flexible Automation and Intelligent Manufacturing (**FAIM**) which began in 1991, is the leading international forum to disseminate, to all branches of automation and manufacturing, information on the most recent and relevant research, theories and practices.

The 23rd FAIM 2013 was held in Porto (Portugal) from 26-28 June. The conference linked researchers and practitioners in the area from all around the world. The focus of the FAIM'13 conference was to discuss the theme: **The Challenge of Sustaining Global Competitive Manufacturing Systems**.

For more information visit the conference website: <http://www.faim2013.org>.

The website as designed for the FAIM 2013 can be found in Figure 1.



Figure 1: FAIM 2013 Web portal

The conference was organised by INESC TEC and PRODUTECH and sponsored by the European Commission under the Seventh Framework Programme. The ADVENTURE project has also played a prominent role in organising and sponsoring this conference. FAIM is now renowned as a forum where industry and academia can meet and exchange visions, ideas, research and industrial experiences, dealing with a wealth of virtual manufacturing research subjects for business, enterprise applications and software.

2.2 Rational Behind to Choose FAIM 2013 as the Venue for 1st ADVENTURE Workshop

Special sessions at FAIM '13 addressed Smart Manufacturing processes, where interoperability issues among industries, mostly small to medium sized enterprises (SMEs) are critical. Smart Manufacturing defines an integrated, knowledge-based, data-rich enterprise in which all business activities are determined and executed proactively with application of the best possible information and a wide range of performance metrics. Industry has begun gathering information and manufacturing intelligence by investing in highly automated and IT-driven production systems and technologies. Indeed, implementation of smart processes requires information in a distributed, ubiquitous and collaborative fashion for it to be shared and processed at every level in the company. An example of such a smart collaborative model is embraced within the ADVENTURE architectural framework which is considered to be the backbone of a Virtual Factory (VF) processes. These sessions welcomed contributions concerning relevant process models and data processing technologies in support of smart and collaborative manufacturing solutions.

The concept of Virtual Factory is a very important element in modern/smart manufacturing plants, with applications in diverse traditional and non-traditional areas. This 1st ADVENTURE workshop was particularly focused on new areas of VF applications and

new methods to interact with collaborative business processes. The workshop provided a forum to discuss ideas, present recent research results and future perspectives in the area of VF processes.

The 1st ADVENTURE workshop welcomed papers in the following areas:

- Modelling of dynamic business environments
- Collaborative business processes
- Smart manufacturing
- Cloud-based data management systems
- Performance assessment in collaborative manufacturing
- VF information system
- Business process monitoring and management

Within the above context it seemed very relevant to merge the FAIM'13 conference with ADVENTURE 1st Workshop. This relevance widely showcases the current ADVENTURE project outcomes, as well as the integration of intelligent manufacturing with the project domain.

Five research papers were presented from ADVENTURE partners, at the FAIM 2013 conference, which were directly related to ADVENTURE's results and very much relevant to the theme of the conference. These papers mainly focused on the issues of performance management, interoperability of data provisioning and discovery, process monitoring and cloud-based data storage in VF environment. Abstracts of the papers are presented in Section 6 of this report.

3. FAIM 2013 and First ADVENTURE Workshop

3.1 Conference Tracks

Within the FAIM 2013 conference there were four tracks where researchers were encouraged to submit their relevant works. Each of the tracks had several sub-tracks. These tracks were related with the basic theme of the ADVENTURE project and were as follows:

- Track A – Product, Process and Factory Integrated Design
- Track B – Manufacturing Technologies and Intelligent Systems
- Track C – Manufacturing Operations Management and Optimisation
- Track D – Manufacturing Networks and MicroFactories

3.2 ADVENTURE Participants within the FAIM 2013

Professor Américo Azevedo, from INESC TEC, Portugal was one of the chairpersons of the conference who participated from the ADVENTURE project. Other project participants such as Ahm Shamsuzzoha from the Univeristy of Vaasa, Finland and Ana Barros from INESC TEC, Portugal were members of the conference scientific committee.

3.3 First ADVENTURE Workshop Details

In this First ADVENTURE workshop, there were 53 registered attendees from all over the world, from both academia and industry. As the workshop was integrated with the FAIM 2013 conference, more than 20% of the participants were not registered. The main focus of the workshop was to present how the ADVENTURE project can be helpful and can be used as a guiding/motivational tool for the forming and operating of collaborative VF business environments. Figure 2 and Figure 3 display photos of the workshop's audience.



Figure 2: ADVENTURE 1st Workshop at Porto, Portugal



Figure 3: ADVENTURE 1st Workshop's attendees

3.4 Workshop Agenda

The workshop agenda is presented in Table 1 below.

Table 1: First ADVENTURE Workshop Agenda

ADVENTURE 1ST WORKSHOP Agenda		
09:00	Opening Notes	Americo Azevedo (INESC Porto)
09:10	Keynote Session	Keynote Speaker: Prof. Lihui Wang
10:00 10:15 10:17 10:30	Adventure Project presentation (15min) Marketing Video ADVENTURE Scenario presentation (from the viewpoint of a user) Science meets business talks (does ADVENTURE fit in real business problems? Strengths and weaknesses of ADVENTURE) 2 presentations from business (supply chain/lean manufacturing, furniture forum)	Dieter Schuller Dieter Schuller Tiago Gomes Augusto Vilarinho (Crit- ical manufacturing) – Supply chain / Lean manufacturing), Maria Jose Nunez - Furniture forum)
11:00	Coffee Break and Networking	
11:30	ADVENTURE Panel (Topic: what's the impact of adven- ture in SMEs? Do you see adventure in your business in the next 5 years?) Panel: John Whalley, Frank Arlt, Elizabeth Vokurka, Maria Jose Nunyez, Paolo Zanenga and Sven Abels	Moderation: Gash Bhullar
12:30	ADVENTURE Live Demo	All
12:45	Wrap Up	All
13:00	Lunch Time	
14:00	Wrap Up and next steps	All

3.5 Business Talks from Keynote Speaker and Two SMEs

3.5.1 Keynote Speaker Professor Lihui Wang

In the workshop, Professor Lihui Wang from the KTH Royal Institute of Technology, Sweden, delivered a key note speech titled “Challenges for Better Sustainable Manufacturing”. In his speech, Professor Wang focused on different aspects of sustainable manufacturing such as a definition of sustainable manufacturing, how manufacturing paradigm shifted from a mass production strategy to sustainable manufacturing, typical drivers of sustainability, future trends in sustainable manufacturing, how to measure suitability, and other topics.

Professor Wang also discussed the relationship between the ADVENTURE project and manufacturing sustainability. He outlined the basic themes of ADVENTURE and explained how ADVENTURE can be useful for European SMEs to provide increased productivity, to lower their ecological footprint and energy consumption and to increase quality, that are ultimately beneficial for achieving higher customer satisfaction.

3.5.2 Science Meets Business Talks: Critical Manufacturing

Critical Manufacturing is an information technology and consultancy company operating from Portugal. This company provides its products and services to the manufacturing industry with a high level of expertise in this field.

Engineer Augusto Vilarinho, Business Development Manager at Critical Manufacturing S.A, Portugal, presented his company's current business portfolio and explained how the company foresees the application of ADVENTURE concepts and tools in a real world business environment. Moreover, he also discussed how ADVENTURE could be integrated with existing and highly adopted legacy systems within the industry, taking into account the ADVENTURE architecture and integration capabilities.

3.5.3 Science Meets Business Talks: Furniture, Wood, Packaging and Related Industries Technological Institute

Ms. Maria Jose Nunyez from Furniture, Wood, Packaging and Related Industries Technological Institute, Spain stressed in her speech on the importance of getting and sharing information in real time among all partner companies involved in a specific product manufacturing. She mentioned that this real-time information contributes to problem solving within collaborative business environments. In her talk, Ms. Nunyez also shared her expectations towards ADVENTURE to offer more visibility and better monitoring of the manufacturing processes, configuration of the virtual factory network and integration of the partner companies within the collaborative value chain.

3.6 Overall Workshop Outcomes

During the workshop there was extensive discussion on how to tackle the needs of SMEs within the manufacturing domain. Major SMEs needs that were identified, were to increase visibility, to include descriptions of suppliers, to enable the monitoring of complete supply chains, to enable manufacturing processes dynamically, and other topics. The key enablers for enhanced collaboration were also identified as the integration of ERP/ICT systems and the ability to integrate different data sources and types.

In the workshop, other motivational needs of SMEs regarding trustworthiness, security and contractual agreements were also elaborated. It was harnessed in the form of questionnaires such as how to trust all the SMEs suppliers, how securely information can be available from multiple partners and how to support required negotiation, contracts and agreements. It was also concerned how ADVENTURE would be helpful when the production volume is small with custom tailored products and needs to be quick for adaptation, although standard product catalogues exist.

There were several motivational discussions about the implementation of the ADVENTURE project. It was discussed that ADVENTURE addresses the right challenges and makes important contributions for overall business collaboration. It facilitates the integration of ERP/ICT systems and offers increased visibility among SMEs.

3.7 Workshop's Panel Attendees

In this workshop, 5 members from the ADVENTURE advisory board attended along with all the project partners. A separate panel discussion was orchestrated within the scope of this workshop, where ADVENTURE advisory members participated along with Dr. Sven Abels from Ascora GmbH, Technical Manager of the ADVENTURE project. Participants' names and their affiliations of the workshop panel are listed below:

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- Elizabeth Vokurka, Chief Executive, Imaginary Plane, United Kingdom
- Maria Jose Nunyez, IT Director, AIDIMA – Furniture, Wood, Packaging and Related Industries Technological Institute, Spain
- Paolo Zanenga, President of Diotima Society, Italy
- John Whalley, CEO, Aerospace Wales Forum, United Kingdom
- Frank Arlt, Virtual Simulation Engineer, OPEL AG, Germany
- Sven Abels, CEO, ASCORA GmbH, Germany

The panel was moderated by Gash Bhullar from TANet and the approach and format of the discussion was a question and answer session between the moderator and the panel members. The objective of this workshop panel discussion was to draw out the opinion of the panel members towards the development of the ADVENTURE project and how such development impacts on different sectors in the industrial arena. The audience also participated actively by follow up questions to the responses of the panel.

3.8 Feedbacks from Individual Panel Members

Based on the workshop discussions, panel members provided valuable feedback which is discussed briefly here.

Mr John Whalley from Wales Aerospace Forum asked several questions about the implementation aspects of ADVENTURE. For instance he asked ‘What is the market for ADVENTURE?’ and ‘How to get companies to collaborate?’ He also stated the challenges to get the companies work together and SMEs limitations to respond quickly to production in small volumes.

Frank Arlt from OPEL AG, mentioned in his talk the demographic changes that result in an aging workforce and where various OEMs (original equipment manufacturers) operations are performed by suppliers. He also stated how ADVENTURE will handle a situation where there are standard products from a catalogue for customers and at the same time there are also demands for individually tailored goods.

Elizabeth Vokurka from Imaginary Plane Limited expressed her concern on information access from collaborative partners in the business network, like ADVENTURE. In her talk, she addressed the needs of IPR (Intellectual Property Right) and information security within ADVENTURE. She also mentioned how ADVENTURE is used to select new partners and how to measure the trust levels of those partners/suppliers.

Sven Abels from Ascora, explained the Cloud-based data storage capability that provides access to all collaborative parties within ADVENTURE. He also mentioned that ADVENTURE advocates a collaboration platform that directly integrates partners ERP/ICT system.

Paolo Zanenga from Diotima Society, urged to motivate a new way of thinking among companies for the required collaborative environment. He expressed his concern about the continuous changes among enterprise models that might affect the theme of business collaboration as a whole.

Maria Jose Nunyez from AIDIMA, stated her query about how to proof the benefits of ADVENTURE that have to be shown/displayed in quantifiable figures. She also recommended looking for easy solutions that might attract more appeal to the industrial community about ADVENTURE.

4. ADVENTURE Workshop: Feedback

The workshop proved to be a great success and it was as valuable to the ADVENTURE partners as it was to the delegates, providing an opportunity for everyone to see ADVENTURE as a complete project rather than its individual components.

The feedback provided by the panel proved once more ADVENTURE was on the right track in terms of answering the needs of the industry and the concept of VF being the way forward for many sectors including Automotive and Aerospace.

It was clear from the feedback that ADVENTURE could be used within the supply chains of manufacturing companies to improve visibility of their products and enhance communications between the various tiers of the supply chain.

The use of different software systems by SME's was also raised several times during the workshop and it was clear that these SMEs could use the ADVENTURE solution to enhance their potential for receiving business opportunities by becoming members of the ADVENTURE. In addition SME organisations could integrate their processes at a higher level than they currently operated at in terms of access to tools and services that are normally only available to larger companies.

There were clear pointers raised for the next conference and the idea of clustering with other projects to provide a more holistic solution to the manufacturing sector would clearly be an advantage.

5. Second ADVENTURE Workshop (I-ESA 2014)

According to the consortium's decision, the second ADVENTURE workshop will take place in Albi, France as a part of the I-ESA 2014 (<http://iesa2014.mines-albi.fr/>) conference, from 24-28th March, 2014.

The I-ESA conferences have a good track record of attendance and are typically managed by InterOP-VLAB (<http://www.interop-vlab.eu>), which is the International Virtual Laboratory for Enterprise Interoperability. The I-ESA conferences have been held all around Europe and the 2009 conference was held in China.

Locations of previous conferences include:

- I-ESA 2005 in Geneva (CH)
- I-ESA 2006 in Bordeaux (FR)
- I-ESA 2007 in Funchal (PT)
- I-ESA 2008 in Berlin (DE)
- Special I-ESA 2009 in Beijing (CN)
- I-ESA 2010 in Coventry (UK)
- I-ESA 2012 in Valencia (ES)

As a result of the collaboration activities performed under T8.5, a joint workshop with other projects of the ADVENTURE mini-cluster has been proposed. It will be held in such a way that it will be more attractive to the audience, and the impact will be bigger.

The format of the workshop, the participants, and the projects that will join the activity are still not fixed, and this information will be discussed and confirmed at later stages.

For more information on the joint activities, please refer to D8.5.3.

6. ADVENTURE Workshop: Presented Papers

As previously stated, the 1st ADVENTURE workshop was co-hosted with the FAIM 2013. Papers presented there include the following:

Paper Title: Process Performance Assessment in Collaborative Manufacturing Environments: A Role Oriented Approach

Reference: Almeida, A., Ferreira, F., Azevedo, A. and Caldas, A.

Abstract: Due to the increasing globalization process and the current economic situation, the power has shifted from the producer to the costumer, forcing companies to become more aware of the market needs. In order to become more customer-oriented, companies have been enhancing their management capabilities by shifting from a functional oriented approach to a process centred strategy, where core inter-firms processes can be seamlessly monitored and controlled. Since it is not possible to manage a system if its performance cannot be measured continuously during its entire life cycle, it is necessary to explore flexible and agile performance measurement and management systems as they are important tools capable of supporting the achievement of the strategic goals on the operational side. In the recent years several research projects have developed techniques and tools that support the collaboration. However they are restricted to the business level. In order to achieve the goals with the best performance, innovative and appropriate process monitoring and control mechanisms are needed. Consequently, this research provides an innovative solution that facilitates not only the gathering of operational and strategic information but also the assessment of collaborative manufacturing processes behaviour following a fuzzy approach.

Paper Title: Interoperable Data Provisioning and Discovery for Virtual Factories

Reference: Manafov, A., Pavlov, G., Manafov, V. and Pavlova, I.

Abstract: New generations of collaborative software services supporting Networked Enterprises and Virtual Factories and based on easily accessible communication facilities are developed, in order to foster the globalization of the business. Still, the Interoperability Problem appears to be a bottleneck for their effective functioning. The solution of the problem is of major importance for their wide adoption. The paper provides an insight on how the problem was examined and addressed by the project ADVENTURE Data Provisioning and Discovery services. This work is part of the FP7 EU project ADVENTURE (ADaptive Virtual ENterprise ManufacTURING Environment)."

Paper Title: Business process monitoring and management in virtual enterprise through interactive user interface layer

Reference: Shamsuzzoha, A., Ferreira, F., Azevedo, A. and Helo, P.

Abstract: This research provides mechanisms that facilitate to monitor and manage of Virtual Enterprise (VE) collaborative business processes in an efficient and effective way. First, it shows a self-contained process monitoring tool specification that contains the following main functionalities: events capturing from a

workflow engine, business activity monitoring, process analytics and monitoring rules definition and evaluation. An interactive user interface layer in the form of dashboard is then highlighted within the scope of this research with the objective to monitor the VE operational processes. The dashboard will be the integration platform for a set of components that allow the establishment and operation of VE successfully. This platform enables a seamless integration of business processes and provides an end-to-end ICT solution among the VE member organizations. The work presented in this paper is developed within the scope of the European Commission NMP priority of the Seventh RTD Framework Programme for the ADVENTURE (ADaptive Virtual ENterprise ManufacTURING Environment) project.

Paper Title: Designing of cloud-based virtual factory information system

Reference: Hao, Y., Shamsuzzoha, A. and Helo, P.

Abstract: In the manufacturing industry, customers' requirements vary all the time, a way that to increase capacity and add capabilities of factories without investing in new infrastructure becomes essential. An advanced information management system to share valuable information and knowledge among collaborative factories is demanded. The concept of "Cloud" can encompass subscription-based or pay-per-use service that, in real time over the Internet, extends factories existing capabilities. Cloud Storage can be used to share data in a flexible manner. With such perspective, a cloud-based Virtual Factory Information System (CloudVFIS) design is proposed in this research. This new system will provide a concrete tool for SMEs (Small and Medium Enterprises) to realize the integration of factories based on the idea of Virtual Factory. In this paper, the CloudVFIS architectural framework and the cloud storage in manufacturing management are illustrated.

Paper Title: Enabling Virtual Manufacturing Enterprises with Cloud Computing – An Analysis of Criteria for the Selection of Database as a Service Offers

Reference: Hans, R., Dahlen, D., Zöller, S., Schuller, D. and Lampe, U.

Abstract: In our globalized world, small- and medium-sized enterprises in the manufacturing domain face a highly competitive environment. They are subject to various challenges, such as very short product life cycles and a strong price competition with companies from low-cost countries. To remain competitive in such an environment, new forms of collaborations, like Virtual Manufacturing Enterprises, are required. An essential part of virtual organisations is data provisioning. Thereby, data from various sources like factories' ERP systems or data provided by sensors need to be processed and stored. In this context, data storage is a crucial architectural element that influences both functional aspects and competitive aspects, especially costs, of Virtual Manufacturing Enterprises. For realizing Virtual Manufacturing Enterprises with low up-front investments, the application of new technologies, such as Cloud Computing, is required. For storage of information in databases, Database as a Service offers from the Cloud can be exploited. However, since there is a huge amount of providers acting on a non-transparent market, it is difficult to find appropriate "Database as a Service" offerings. To overcome this problem, we provide a criteria catalogue for the selection of providers and their services. Further, we show how different offers, which at the first glance look very simi-

lar, could cause very different expenses. With our work, we simplify the selection and evaluation of Cloud storage providers and provide an evaluation of current Cloud storage service offers.

7. Conclusions

This deliverable provides information on the 1st ADVENTURE workshop as held in Porto on 28th June, 2013, as a part of FAIM 2013 conference. This workshop report is mainly focused on how the ADVENTURE project can be helpful and be used as a guiding/motivational tool for European SMEs to form and operate VF business environments. The project's feedbacks from several European SMEs are also highlighted within the scope of this report which was collected during this workshop.