DI2.2: Integration with external projects (M42)

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ABSTRACT:	This report is the deliverable DI2.2 updated with new elements at M42 and provides the main elements of the Collaboration and Integration activities of PROMISE with selected external, both EU and non-EU funded projects.

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1 Purpose of this report

The purpose of this deliverable is to provide a report on the activities about collaboration and integration between PROMISE and selected external projects, performed under TI2.2 of PROMISE (DoW for the period M36-M42). These activities have been already identified and described in the "Integration Policy Paper" of PROMISE delivered at M12 as part of the deliverables DI2.1 to DI2.4, as they were defined in the DoW for the period M1-M12.

It is worthwhile to note that in the second version of the DoW, for the period M13-M30, Tasks TI2.2 and TI2.3, covering collaboration with external EU and non-EU projects separately, are combined in one task TI2.2. We believe that this offers a simpler approach to perform the corresponding activities without compromising the amount or the quality of the work to be done and reported.

As a consequence of the above decision, deliverables defined as DI2.2 and DI2.3 in the first version of the DoW (M1-M18) are combined in one deliverable DI2.2 in the subsequent versions including this one.

2 Introduction

2.1 Objectives of WP I2

Objectives of the work in WP I2 is to harmonise the developments that are carried out in PROMISE and in the other external integrated projects and work together in the field of harmonisation of research efforts.

The following integration dimensions have been identified as follows, corresponding to related activities described in the new DoW for the period M13-M30:

- Internal, among the Research, Application, Innovation and Training activities of the project
- External, between PROMISE and identified external EU and non-EU funded projects with activities in areas covered by the PROMISE plans.
- IMS, among the PROMISE FP6 and the other regional projects of the PROMISE IMS program.

The following tasks (DoW M13-M30) have been defined to perform, manage and control the activities identified above:

− **Task TI2.1: Integration of RC, IC & AC cluster activities**

The goal is to guarantee that the progress of the work in research activities is harmonised with the progress of the work in that demonstration activities.

− **Task TI2.2: Integration with external projects**

The goal is to work together with identified PROMISE external projects and harmonise the efforts in the common objectives, mainly with regard dissemination, training and standardisation.

- **Task TI2.3: Integration in the IMS PROMISE project**

In this task, the coordination activities between the FP6 PROMISE activities and the IMS PROMISE project will be followed and managed. 9-monthly IMS PROMISE workshops will be organised, where all involved IMS regional projects will present their results, exchange experiences, and harmonise plans, particularly in the domain of standardisation.

2.2 Relevance to the PROMISE "Integration Policy Paper"

In the PROMISE Integration Policy Paper delivered at M12, five integration directions have been identified and associated Policies developed by replying to three fundamental questions:

- "**WHY**" we develop this policy?
- "**WHAT**" is covered in this policy?
- "**HOW**" are we going to implement this policy ?

The present report reflects activities along the following Integration Dimensions #2 and #3: External with non-EU and EU PROMISE.

2.2.1 Dimension 2: With external non-EU projects

2.2.1.1 Why we want this collaboration?

2.2.1.1.1 Because this is included in our DoW.

2.2.1.1.2 Because this kind of collaboration is part of the general objectives of the RTD policy of the EC as it was communicated during various events and opportunities.

2.2.1.1.3 Because we want to learn from their experience and relevant developments.

2.2.1.2 What are our objectives in this collaboration?

2.2.1.2.1 To learn from the experience and relevant developments in other projects.

2.2.1.2.2 To offer appropriate PROMISE elements as test case for other projects and receive appropriate feedback.

2.2.1.3 How to achieve the above objectives?

2.2.1.3.1 Create and keep communication channels through the PROMISE PMB.

2.2.1.3.2 Use the Project Collaboration Agreement

2.2.1.3.3 **Agree on a common Memorandum of Understanding that contains a list of common objectives and activities and governs a bilateral collaboration between PROMISE and another project.**

2.2.2 Dimension 3: With external EU projects

2.2.2.1 Why we want this collaboration?

2.2.2.1.1 **Because this is included in our DoW.**

2.2.2.1.2 **Because this kind of collaboration is part of the general objectives of the RTD policy of the EC as it was communicated during various events and opportunities.**

2.2.2.1.3 **Because we want to learn from their experience and relevant developments:**

2.2.2.1.4 **Because we may have some extra support in our standardization activities.**

2.2.2.1.5 **Because we may have extra visibility through commonly organized workshops.**

2.2.2.2 What are our objectives in this collaboration?

2.2.2.2.1 **Common dissemination workshops**

2.2.2.2.2 **Common sessions in recognized international conferences-**

2.2.2.2.3 **To participate in common standardization activities. To learn from the experience and relevant developments in other EU projects:**

2.2.2.2.4 **To offer appropriate PROMISE elements as test case for other projects.**

2.2.2.2.5 **To develop common dissemination activities.**

2.2.2.3 How to achieve the above objectives?

2.2.2.3.1 **Create and keep communication channels through the PROMISE PMB.**

2.2.2.3.2 **Use the Project Collaboration Agreement**

2.2.2.3.3 **Agree on a common Memorandum of Understanding that contains a list of common objectives and activities and governs a bilateral collaboration between PROMISE and another project.**

The present deliverable DI2.2 reports on activities performed under above TI2.2 in our effort to fulfil the objectives described in 2.2.1 and 2.2.2 above.

3   Activities of TI2.2

The goal is to work together with identified PROMISE external projects and harmonise the efforts in the common objectives, mainly with regard to standardisation, training and dissemination.

In the past period our work was directed along the following lines:
- Identification of external projects that offer potential for collaboration.
- Identification of contact persons and assignment of a contact person in PROMISE.
- Organisation of common meetings/workshops.
- Reporting of conclusions including identification of possible actions of collaboration.

Following up activities generated in the above framework and reported in the previous versions of this deliverable PROMISE developed contacts with the following projects that have a number of common identified interests. These projects are: BRIDGE, DYNAMITE and SMMART.

4   Achievements at M42

4.1   Integration activities with other projects

At this final period of the project, it took place one integration activity between PROMISE and two of its collaborating external projects: BRIDGE and DYNAMITE:

This activity was a common Training Workshop organized on 18-20 February 2008, in conjunction with the final IMS PROMISE workshop.

The workshop was organised members of the DYNAMITE (Dynamic Decision in Maintenance), PROMISE (Product Lifecycle Management and Information Tracking using Smart Embedded Systems) and the BRIDGE (Building Radio frequency IDentification solutions for the Global Environment) projects as well as representatives from the IMS (Intelligent Manufacturing Systems) consortium with international partners of PROMISE from Japan, Australia, USA and South Korea.
Participants discussed advances in wireless sensing, tracking and smart information processing technologies for Product, Asset and Maintenance Lifecycle Management and looked into the latest developments and achievements of the three organising FP6 projects.
The discussions focused on commonalities across the various projects and comparisons on emerging technologies across various stages of development.

BRIDGE was represented by the University of Cambridge, British Telecom and SAP, *PROMISE* by Ecole Polytechnique Fédérale de Lausanne, InMediasP, INDYON, ITIA, Politecnico di Milano, University of Bremen, and *DYNAMITE* by Centro Ricerche FIAT, Växjö University, University of Manchester, Martechnic, Université Henri Poincaré, Zenon Automation Technologies, Prisma Electronics, and RC Athena.

Participants expressed that the workshop provided an ideal platform for discussion, training and networking. Given the success, it is planned to repeat the workshop on an annual basis as the projects continue to progress.

The program of this workshop is included in the Appendix of this document.

5 Conclusions on Integration with External project at M36: achievements and lessons learned.

With the evolution of developments in PROMISE, three domains of integration are of particular interest for the involved parties: Standardisation, Dissemination and Training.

Along those lines, corresponding integrating activities and events took place with success and to the benefit of all involved projects and participants.

6 APPENDIX

Advances in wireless sensing, tracking and smart information processing technologies for Product, Asset and Maintenance Lifecycle Management

Training Workshop

6.1.1.1.1.1 Organised by the following EU FP6 IPs:

BRIDGE **DYNAMITE** **PROMISE**

February 18-20, 2008

EPFL

Lausanne, Switzerland

BRIDGE (Building Radio frequency IDentification solutions for the Global Environment) is an Integrated Project to research, develop and implement tools to enable the deployment of RFID and EPCglobal Network applications. The project will develop easy-to-use technological solutions for the European business community including SMEs, ensuring a basis for collaborative systems for efficient, effective and secure supply chains.
http://www.bridge-project.eu/

DYNAMITE (Dynamic Decisions in Maintenance) will deliver a blend of leading-edge communications and sensor technology, combined with state-of-the-art diagnostic and prognostic techniques, which will advance the capabilities of European industry in maintenance. The monitoring of machines and processes for predictive maintenance and control is crucial for sustainable and competitive industry in Europe. DYNAMITE will create an infrastructure for mobile monitoring technology and create new devices which will make major advances in capability for decision systems incorporating sensors and algorithms. The key features include wireless telemetry, intelligent local history in smart tags, and on-line instrumentation.
http://osiris.sunderland.ac.uk/%7Ecs0aad/DYNAMITE/Index.htm

PROMISE (Product Lifecycle Management and Information Tracking using Smart Embedded Systems) develops methodologies and technologies that allow closing existing product information gaps using Product Embedded Information Devices (PEID) such us RFID tags. These technologies offer the following business proposition to the Product Lifecycle stakeholders: to create value by capturing and transforming data to information to knowledge "on the fly" at all phases of the product lifecycle and thus improve product and service quality, efficiency and sustainability.
http://www.promise-plm.com

Workshop Program Committee:

Alexandra Brintrup, BRIDGE project	ab702@cam.ac.uk
Christos Emmanouilidis, DYNAMITE project	christosem@ceti.gr
Dimitris Kiritsis, PROMISE project	dimitris.kiritsis@epfl.ch

19.02.2008		
Time	**Topic**	**Speaker**
08:30-09:00	Registration	
09:00 - 09:30	Dynamite Demonstrators 1: VPN Connection to TELMA Platform	Benoit Iung and Eric Levrat Université Henri Poincaré/CRAN
09:30 - 10:15	Dynamite Training Module 1: Maritime Industry Needs and online Lubrication Sensing Technologies for Condition Monitoring'	Erkki Jantunen and Jari Halme VTT Jim Bellew Martechnic
10:15 - 10:45	Break	
10:45 - 12:15	Dynamite Training Module 2: Strategies for Cost-effectiveness: Impact of maintenance in a FIAT plant	Basim Al-Najjar Växjö University Julien Mascolo CRF FIAT
12:15 - 13:30	Lunch	
13:30-15:00	DYNAMITE Training Module 3 & Demo: Wireless multi-sensing & data collection	Samir Mekid and R.Pietruszkiewicz University of Manchester
15:00-15:30	DYNAMITE Demonstrators 2: Ubiquitous Asset Identification, Data Collection and Maintenance Scheduling	Serafim Katsikas & Christos Giordamlis Prisma Electronics Patrik Karlsson Zenon Automation Technologies Christos Emmanouilidis RC Athena/CETI
15:30 - 16:00	Break - Interactive Session (Dynamite Demonstrators 2)	
16:00 - 16:30	PROMISE Concepts 1: PLM Business needs	Lion Benjamins PROMISE-INNOVATION
16:30 - 17:00	PROMISE Concepts 2: BOL - MOL - EOL	Hong-Bae Jun EPFL
17:00 - 17:45	PROMISE Technologies 1: PEID	David Potter INDYON Damith Ranasinghe University of Cambridge
17:45 - 18:30	PROMISE Technologies 2: Data Services (Middleware)	Falk Brauer SAP
20:00 - 22:30	Dinner - Hotel Alpha Palmiers	

20.02.2008		
Time	**Topic**	**Speaker**
08:30-09:00	Registration	
09:00 - 09:45	PROMISE Technologies 3: PDKM	Altug Metin InMediasP
09:45 -10:30	PROMISE Technologies 4: DSS	Andrea Matta POLIMI
10:30 - 11:00	Break	
11:00 - 11:30	PROMISE Demonstrators 1: EOL @ CAT	Robertino Solanas BIBA
11:30 - 12:00	PROMISE Demonstrators 2: MOL @ CRF	Rosanna Fornasiero ITIA
12:00 - 13:30	Lunch	
13:30 - 14:00	BRIDGE Training Module 1: Hardware	Damith Ranasinghe University of Cambridge
14:30 - 15:00	BRIDGE Training Module 2: Serial level lookup	Mark Harrison University of Cambridge
15:00 - 15:30	BRIDGE Training Module 3: Security Framework	Andrea Soppera British Telecom
15:30 - 16:00	Break	
16:00 - 16:30	BRIDGE Training Module 4: Manufacturing	Alexandra Brintrup University of Cambridge
16:30 - 17:00	BRIDGE Training Module 5: Anti-counterfeiting	Jasser Al-Kassab SAP
17:00-17:30	Wrap-up / Evaluation of the workshop	