



## WP7: Knowledge exchange and industrial validation

Review September 2011

Josef Noll (Movation), major contributions from  
CWIN, SE, UNIROMA1, MGEP, UNIGE, SESM

ARTEMIS Call 2009 – SP6100204



# Objective of WP7

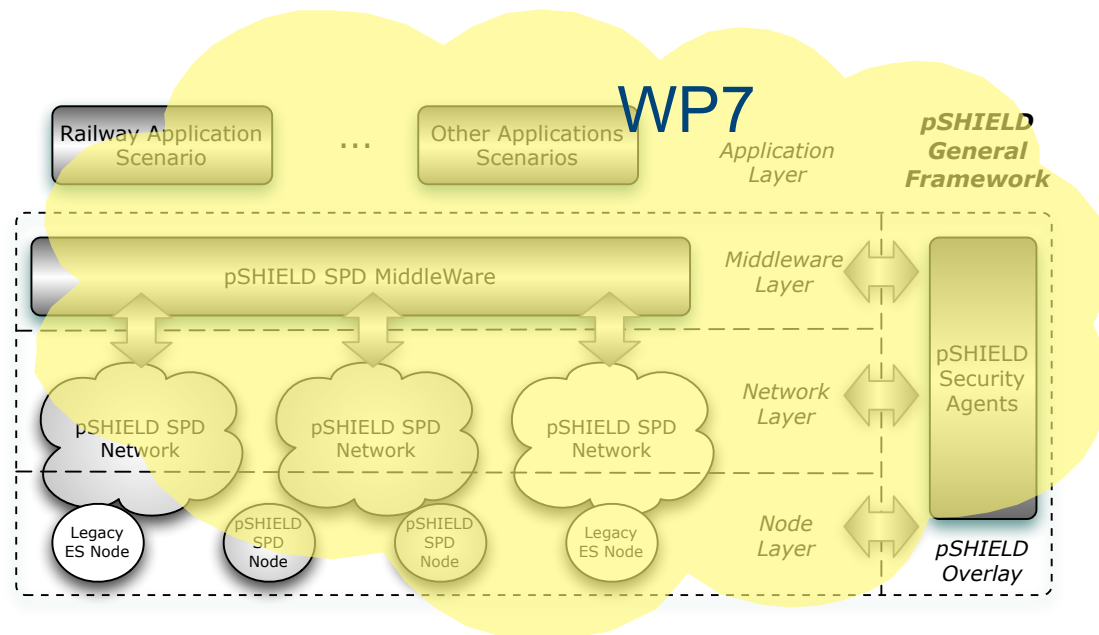
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- **Dissemination** (*Task 7.1; Task Leader: SESM, Partners: ASTS, ATHENA, CS, CWIN, ESI, MAS, MGEP, THYIA*)
- **Exploitation of results** (*Task 7.2; Task Leader: CWIN, Partners: ASTS, CS, ED, SCOM, THYIA*)

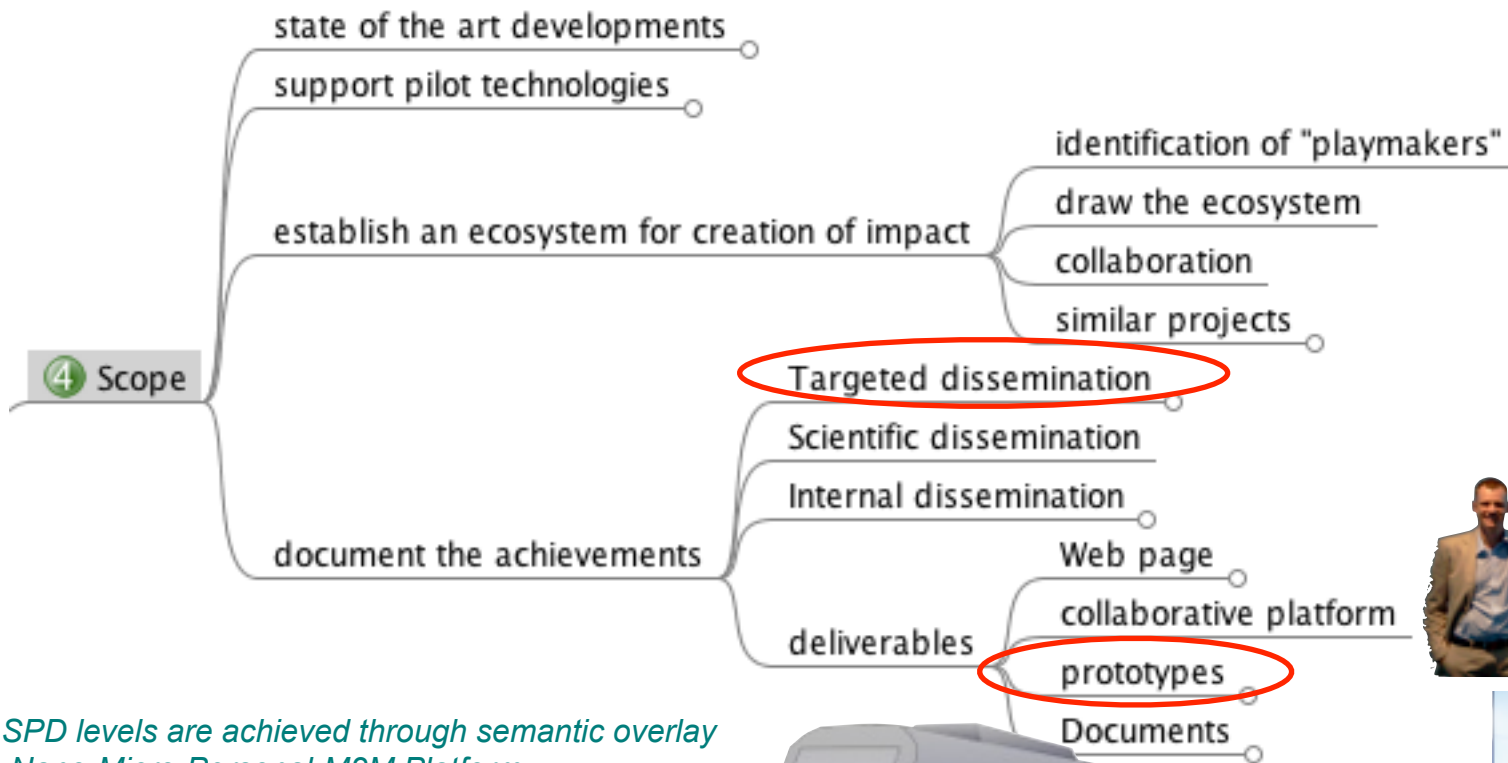
*The industrial dissemination & exploitation activities play essential role, in ARTEMIS perspective, in the validation of research results in industrial sector*

## Deliverables:

- D7.1.1 Web Site (M2) *Public*
- D7.1.2 Dissemination Report (M19) *Public*
- D7.2.1 Exploitation Plan (M19) *Public*



- from scope to impact



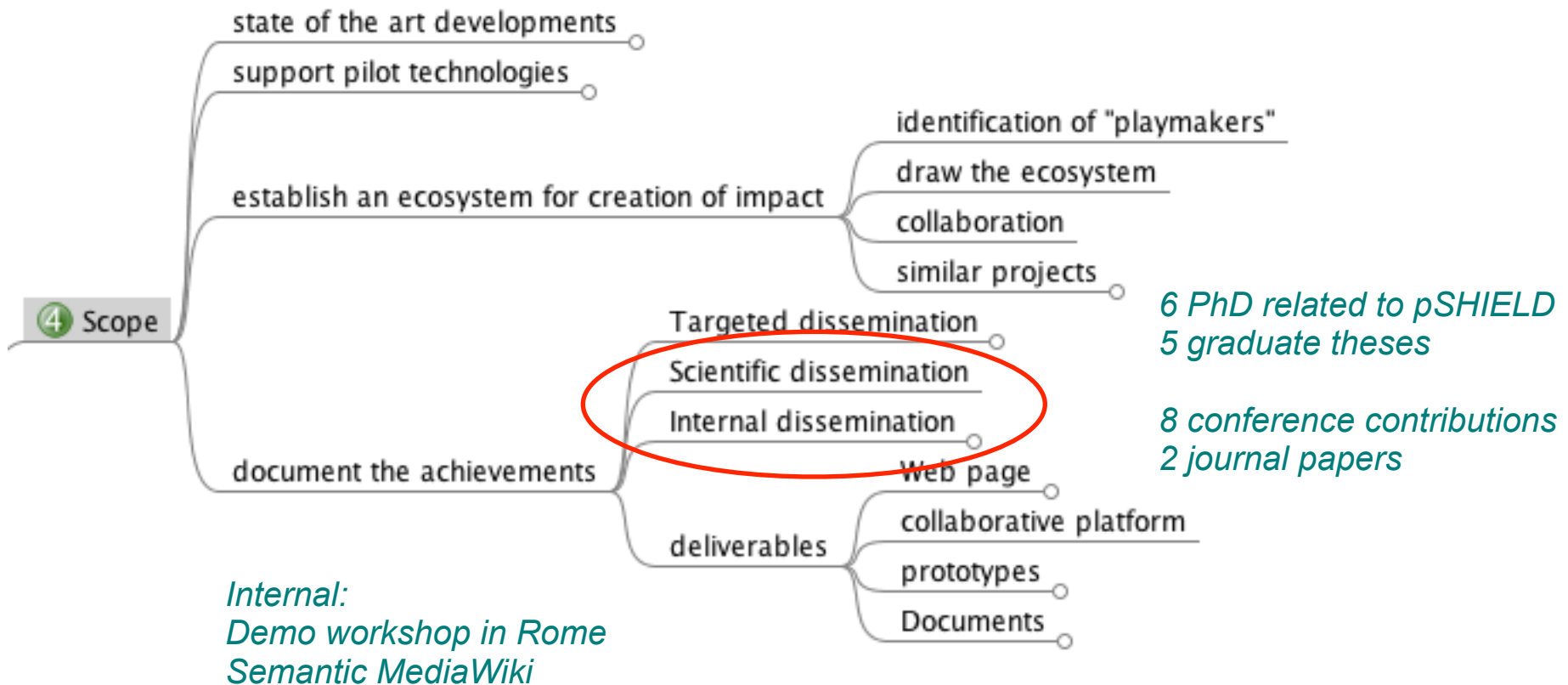
*Telecom,  
Hardware,  
Energy  
Applications*



*SPD levels are achieved through semantic overlay  
Nano-Micro-Personal-M2M Platform  
Monitoring trains with WSNs  
FPGA Power Node Prototype  
Cognitive Radio Node Prototype*



- scientific dissemination



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## Upcoming

This page provides an overview over upcoming meetings and phone conferences.

| ☒                        | ☒ Date                   |
|--------------------------|--------------------------|
| WP3 25 Feb 2011          | 25 February 2011<br>1229 |
| WP5 25 Feb 2011          | 25 February 2011         |
| ProjAssembly 15 Feb 2011 | 15 February 2011<br>999  |
| WPall 8 Feb 2011         | 8 February 2011<br>1099  |
| WPall 20 Jan 2010        | 20 January 2011<br>1099  |
| ... further results      |                          |



| ☒                        | ☒ Date                           | ☒ Place  | ☒ Title         |
|--------------------------|----------------------------------|----------|-----------------|
| MidTerm Review Mar2011   | 22 March 2011                    | Brussel  | Review          |
| PSHIELD Brussels Mar2011 | 21 March 2011<br>22 March 2011   | Brussels | Project meeting |
| PSHIELD Oslo Oct2010     | 5 October 2010<br>6 October 2010 | Kjeller  | Project meeting |

## WP2 - SPD metrics, requirements and system design

The objectives of WP2 are:

- The definition of the SPD requirements and specifications of each layer, as well as of the overall system on the basis of the application scenario;
- The definition of proper SPD metrics to assess the achieved SPD level of each layer, as well as of the overall system;
- The definition of SHIELD system architecture, identification of the SPD layers functionalities, their intra and inter layer interfaces and relationships

### Deliverables in WP2

| ID     | Title                                  | Due date | Lead partner | Dissemination level |
|--------|--|----------|--------------|---------------------|
| D2.1.1 | System Requirements and Specifications | M03      | THYIA        | Public              |
| D2.2.1 | Preliminary SPD metrics specifications | M06      | ESI          | Public              |
| D2.2.2 | SPD metrics specifications             | M10      | THYIA        | Restricted          |
| D2.3.1 | Preliminary system architecture design | M06      | THYIA        | Restricted          |
| D2.3.2 | System architecture design             | M10      | THYIA        | Restricted          |

### Partners in WP2

- T2.1 (Lead partner THYIA, Partner SESM, CS, CWIN, ED, ETH, THYIA)
- T2.2 (Partner ASTS, ATHENA, CS, ED, ESI, ETH, THYIA)
- T2.3 (Partner SESM, ATHENA, CS, CWIN, ED, ETH, THYIA)

### Tasks in WP2

- T2.1 (**Multi-technology requirements & specification**, Lead partner THYIA, Partner SESM, CS, CWIN, ED, ETH, THYIA, Objective This task will identify the requirements and describe the specifications of the overall SHIELD system. For each SPD technology, for each layer, a formal set of high level, architectural, interface and performance requirements will be identified. This task will be influenced by the application scenario. This scenario will be taken as a reference for defining the SPD requirements of each architectural layer (even though the conceived architecture will be able to support any ES scenario). Requirements and specification will be also influenced by the liaisons activated in WP1. An iterative approach will be adopted. A preliminary set of requirements and specification will be provided at the early beginning of the project. The preliminary outcome of this task will be used by WP3, WP4 and WP5 to develop potential prototypes and by WP6 to validate them. The requirements and specification will be refined on the basis of the results of the validation phase and on the detailed description of the application scenarios from Task 6.4.)
- T2.2 (**Multi-technology SPD metrics**, Partner ASTS, ATHENA, CS, ED, ESI, ETH, THYIA, Objective The main result of this task will be the . As a matter of fact, for the SPD needs, metrics are required for the measurement of security, dependability, reliability, trust and reputation, availability, privacy, anonymity and traceability, for all the levels (node, network communication, middleware, applications). The proposed metrics will be also based on the scenario identified in Task 6.4. Task 2.2 aims at developing the basis for system interoperability on all levels (node, network and middleware). In order to pursue such aim, another result of this task shall be metrics and standards for the interoperability of nodes and systems, which shall be part of the future standardization for such systems. As an influence on legislative issues might be possible, special reports may extend the task deliveries in case of detection of such issues. A further result of this task will be the formal description of SPD requirements and specifications. In this respect, they will be derived from the inputs of all the technical work packages (WP3, WP4 and WP5) and, since a significant part of these requirements may overlap or conflict with each other due to their multiple origins, an efficient coordination will be fundamental. The final result will be a coherent and clear description of the SPD metrics specifications, acceptable by all partners. Within the project, this task builds the basis for all subsequent steps by providing some standard metrics for the integration and test of the specific components/subsystem which are implemented for demonstration purposes. As for Task 2.1, this task will provide a preliminary description of SPD metrics to influence the prototype development in WP3, WP4, WP5, to start the SPD lifecycle activities in WP6 and to provide support to the validation phase. After the integration of the preliminary prototypes a refinement of the SPD metrics will be done accounting the application scenario.)
- T2.3 (**Multi-technology architectural design**, Partner SESM, ATHENA, CS, CWIN, ED, ETH, THYIA, Objective R&D for embedded security, intended as a system issue that must be solved at all abstraction levels (protocols, algorithms, architecture), will lead, in the framework of this task, to a coherent, composable and modular architecture for a flexible distribution of SPD information and functionalities between different ESs while supporting security and dependability characteristics. This task aims, at the one hand, to explore the minimum set of interdependencies between applications and architectures in an efficient way and to systematically classify those with respect to SPD. On the other hand, it aims to produce a composable architecture which will include most critical elements, thus covering most of the SPD requirements for all the applications. This approach is expected to produce a multi-layered architecture, where each layer consists of several hardware and software SPD modules (components), since it is imperative to take into account the need for composable security, privacy and dependability. The resulting architecture has to be reconfigurable, offline, meaning that mechanisms should be provided to the designer for enabling/disabling nodes in order to tailor the overall system to his needs. Furthermore, fault diagnosis and fault recovery have to be addressed both in hardware and software layers. Intra-layer and inter-layer interfaces should be defined in the system architecture to ensure the correct communication among the different SPD modules.)

#### Vocabulary Import

|                          |               |          |                 |
|--------------------------|---------------|----------|-----------------|
| PSHIELD Brussels Mar2011 | 21 March 2011 | Brussels | Project meeting |
|--------------------------|---------------|----------|-----------------|

#### knowledge repair

|                      |                |         |                 |
|----------------------|----------------|---------|-----------------|
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|                      | 5 October 2010 | Kjeller | Project meeting |
|                      | 6 October 2010 |         |                 |

#### Category Statistics

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## pSHIELD Dissemination

pSHIELD has dissemination activities towards the three main areas

- Targeted Industrial Dissemination
- Workshops and Exhibitions
- Industrial publications
- Scientific dissemination

### Targeted Industrial Dissemination

- pSHIELD collaboration meeting between OWIN, TelenorObject, JIBV (the Norwegian National Rail Administration) and SINTEF, May 12 2010.

### Upcoming

- 5. April 2011, Presentation of "Security, Privacy and Dependability" of embedded systems to the National Hospital "Rikshospitalet". The goal of this meeting is to elaborate the applicability of pSHIELD integrated sensors for eHealth purposes, together with Telenor Objects.



- 29. April 2011, Prototypical implementation of pSHIELD embedded platform with Telenor Objects integration on a train of the National Rail Authority (Jernbaneverket). This prototypical implementation will be used to demonstrate the interworking of sensors onboard the train with the Telecom M2M platform of Telenor Objects.



### Workshops and Exhibitions

- Przemyslaw Osocha (SES), Yen Pham (OWIN), "p.S.H.I.E.L.D.-pilot embedded Systems architecturE for multi-Layer Dependable solutions", ARTEMIS Spring Event at Embedded World 2011, 1-3 March 2011, Nuremberg, Germany
- Przemyslaw Osocha (SES), Yen Pham (OWIN), "Demonstrating Security, Privacy and Dependability for Sensors to Systems", ARTEMIS IA Co-summit 2010 Project Exhibition, 26-27 October 2010, Ghent, Belgium
- "pSHIELD and security in embedded systems", Internal Seminar, Critical Software, Coimbra, Portugal, 08 October 2010

### Industrial publications

- Giuseppe Marufi, Fabrizio de Seta, "pSHIELD for Embedded System Security", EDink 37 (Eisag Datamat Company Magazine), Rome, 2010.

### Scientific dissemination

- Mohammad M. R. Chowdhury, Josef Noll, "Securing Critical Infrastructure: A Semantically Enhanced Sensor Based Approach", 2nd International Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronic System Technology, WIRELESS VITAE 2011, Chennai, India, Feb. 28-Mar. 03.
- Yen N. T. Pham, "Sensor Integration into Heterogeneous Service Platform and Domain Adaptation", **Master Thesis**, University of Oslo, December 20, 2010.
- Sarfraz Alam, Mohammad M. R. Chowdhury, Josef Noll, "An Event-driven Sensor Virtualization Approach for Internet of Things", poster, VERDIKT conference, Oslo, 1.-2. November 2010

### knowledge repair

- Category Statistics
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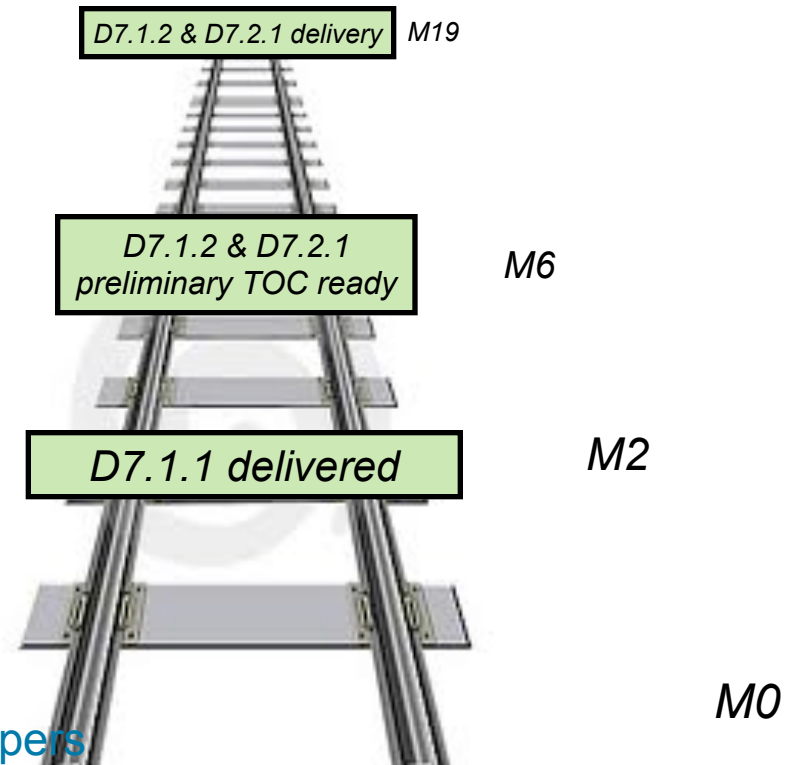
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| PSHIELD Oslo Oct2010 | 5 October 2010 | Kjeller | Project meeting |
|                      | 6 October 2010 |         |                 |

***The industrial dissemination & exploitation activities play essential role, in ARTEMIS perspective, in the validation of research results in industrial sector***

***WP7 emphasizes industrial dissemination & exploitation activities***

Excellent results for

- targeting dissemination
  - industrial eco-system established
  - contacts established
- pilot prototypes
  - five prototypes established
  - focus on various aspects
- scientific dissemination
  - 6 PhD, 5 graduate, 8 conf, 2 journal papers
- internal dissemination
  - workshops and Semantic MediaWiki






# Additional slides



&

Status of D7.1.2 & D7.2.1



# Pilot SHIELD

pilot embedded Systems  
archItecturE for multi-Layer Dependable solutions



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## Welcome to pSHIELD web site

pSHIELD is a pilot project which is a reduced R&D project addressing the core concepts of SHIELD, participated by the core/key partners and extended to a new group of partners coming from Norway and Portugal. The pilot is foreseen to be a pioneer investigation to be enhanced with R&D activities that will be proposed in the future ARTEMIS Calls. pSHIELD wants to investigate and validate a reduced but still consistent and coherent set of innovative concepts behind the SHIELD project, in a restricted scenario with a rearranged consortium tailored on the pilot's scope.

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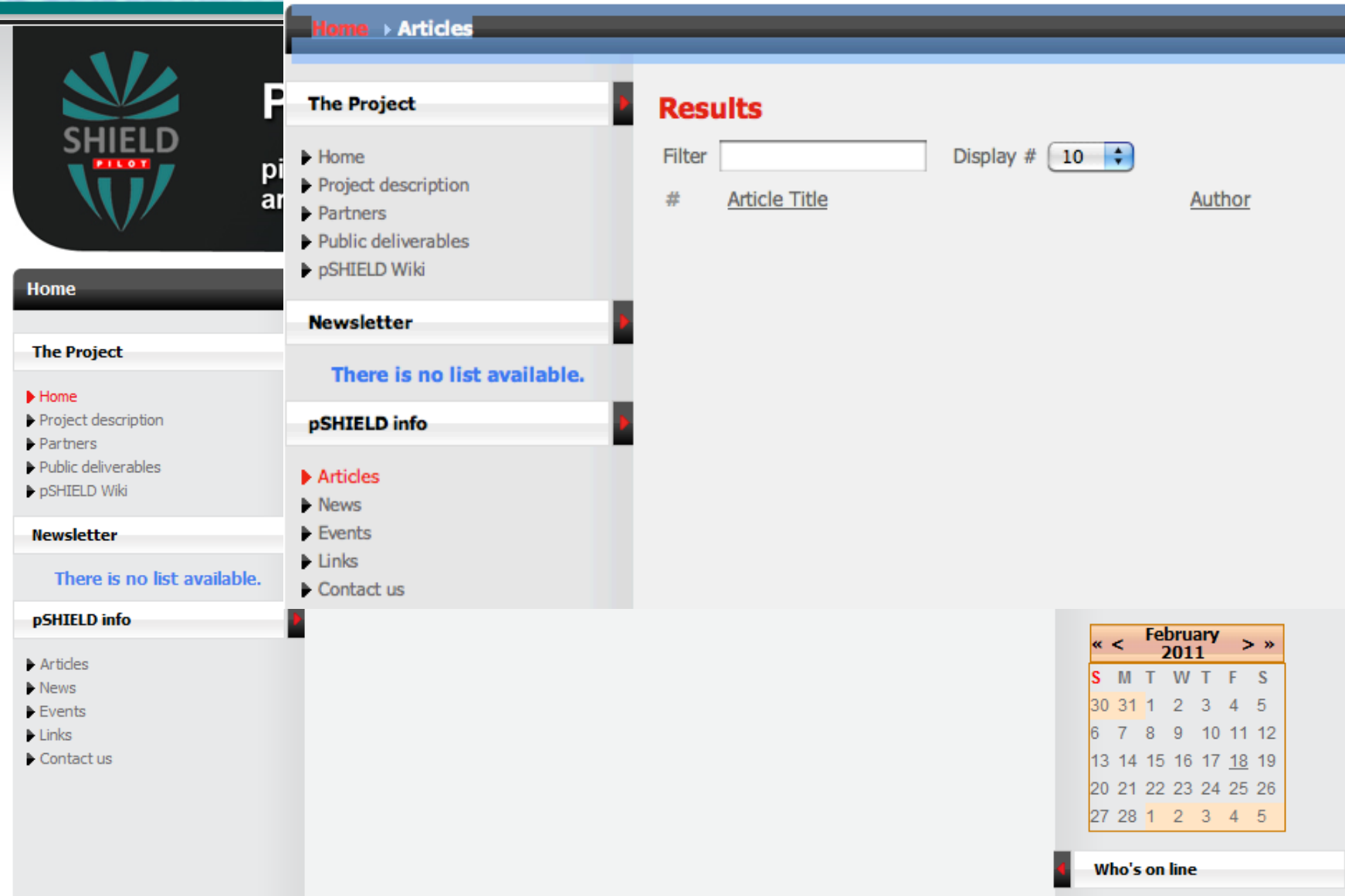
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**Who's on line**

The screenshot displays the pSHIELD website interface. At the top left is the SHIELD PILOT logo. The main header features the text "Pilot SHIELD" and "pilot embedded Systems architecture for multi-LA". A navigation menu on the left includes "Home", "Project description", "Partners", "Public deliverables", and "pSHIELD Wiki". A central banner reads "Welcome to pSHIELD" and provides a brief description of the project. A "Read project description" link is highlighted with a callout. On the right, an "Articles" page is shown with a search filter, a "Display # 10" dropdown, and a table with columns for "#", "Article Title", "Author", and "Hits". Below the articles section is an "Events Calendar" for February 2011 and a "Who's on line" section.

# Pilot SHIELD

pilot embedded Systems architecture for multi-LA

## Welcome to pSHIELD

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## Events

### Rome meeting 9-10 Nov 2010

Events

Written by Administrator

Welcome to the pSHIELD consortium meeting "The midway"

pSHIELD project Consortium Meeting is planned from 9 Nov to 10 Nov 2010 at Elsag Datamat premises in Rome, Italy. This is meeting in the middle of project time. The time and place was agreed by Consortium during last meeting in Oslo.

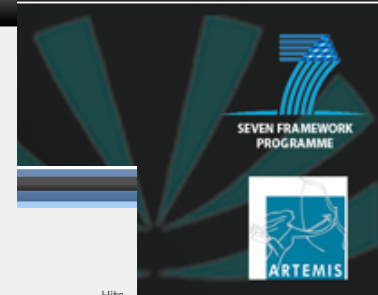
The plan is to start at 12am on 9. Nov., and finish at 3pm on 10. Nov. 2010.

The venue address is:

**Elsag Datamat SpA**  
**Via Laurentina, 760**  
**00143 Roma (Italy)**

The following link shows the exact location on the map:  
<http://tinyurl.com/edatamat>

To get to venue, due to traffic jams in the city, the best way is to take from Roma Termini rail station the Metro line "B" to the last station Laurentina,



Hits

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**SEVEN FRAMEWORK PROGRAMME**

**ARTEMIS**

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The following link shows the <http://tinyurl.com/edatamat>

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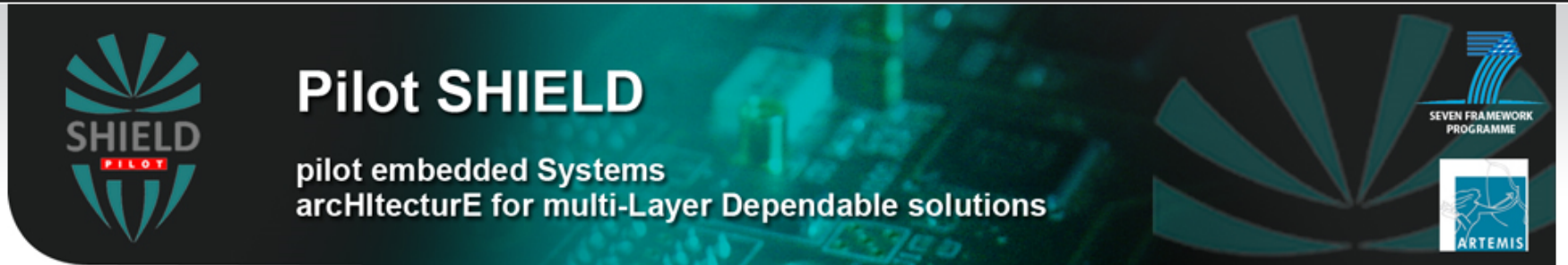
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**Welcome to pSHIELD web site**

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# Project description

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## General description

pSHIELD is a pilot project co-funded by the ARTEMIS JOINT UNDERTAKING (Sub-programme SP6) focused on the research of SPD (Security, Privacy, Dependability) in the context of Embedded Systems.

The SHIELD consortium proposes a pilot project (pSHIELD) which is a reduced R&D project addressing the core concepts of SHIELD, participated by the core/key partners and extended to a new group of partners coming from Norway and Portugal.

The pilot is foreseen to be a pioneer investigation to be enhanced with R&D activities that will be proposed in the future ARTEMIS Calls.

pSHIELD wants to investigate and validate a reduced but still consistent and coherent set of innovative concepts behind the SHIELD project, in a restricted scenario with a rearranged consortium tailored on the pilot's scope.

In the following the original SHIELD abstract is reported, quoting the most relevant parts that will be covered by the pilot

The SHIELD project aims at addressing Security, Privacy and Dependability (SPD) in the context of Embedded Systems (ESs) as "built in" rather than as "add-on" functionalities, proposing and perceiving with this strategy the first step toward SPD certification for future ES.

The leading concept is to **demonstrate composability** of SPD technologies. Starting from current SPD solutions in ESs, the project will develop **new technologies** and consolidate the available ones in a solid basement that will become the reference milestone for a new generation of "SPD-ready" ESs. SHIELD will approach SPD at 4 different levels: node, network, middleware and overlay. For





password?

### Calendar

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## General description

pSHIELD is a pilot project co-funded by the ARTEMIS JOINT UNDERTAKING (Sub-programme SP6) focused on the research of SPD (Security, Privacy, Dependability) in the context of Embedded Systems.

The SHIELD consortium proposes a pilot project (pSHIELD) which is a reduced R&D project addressing the core concepts of SHIELD, participated by the core/key partners and extended to a new group of partners coming from Norway and Portugal. The pilot is foreseen to be a pioneer investigation to be enhanced with R&D activities that will be proposed in the future ARTEMIS Calls. pSHIELD wants to investigate and validate a reduced but still consistent and coherent set of innovative concepts behind the SHIELD project, in a restricted scenario with a rearranged consortium tailored on the pilot's scope.

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**Newsletter**

There is no list available.

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SHIELD W

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- [Eurotech \(IT\)](#)
- [Hellenic Aerospace Industry \(GR\)](#)
- [Integrated Systems Development \(GR\)](#)
- [Selex Communications \(IT\)](#)
- [THYIA Tehnologije \(SL\)](#)
- [Tecnologie nelle Reti e nei Sistemi TRS \(IT\)](#)

## Research Centres (3)

- [Movation AS \(NO\)](#)
- [European Software Institute \(ES\)](#)
- [Center for Wireless Innovation \(NO\)](#)

## Universities (3)

- [Mondragon Goi Eskola Politeknikoa \(ES\)](#)
- [Università "Sapienza" di Roma \(IT\)](#)
- [Università di Genova \(IT\)](#)





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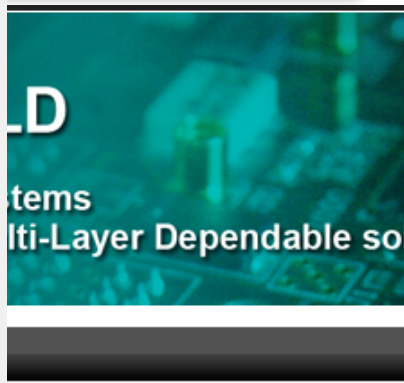
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SHIELD web site

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Newsletter

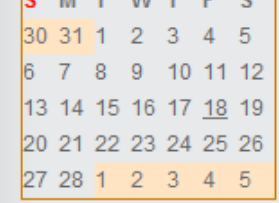
There is no list available.

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  - Eurotech (IT)
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# Upcoming

This page provides an overview over upcoming meetings and phone conferences

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| WP5 25 Feb 2011          | 25 February 2011         |
| ProjAssembly 15 Feb 2011 | 15 February 2011<br>999  |
| W Pall 8 Feb 2011        | 8 February 2011<br>1099  |
| W Pall 20 Jan 2010       | 20 January 2011<br>1099  |
| ... further results      |                          |



| ☒                        | Date                             | Place    | Title           |
|--------------------------|----------------------------------|----------|-----------------|
| MidTerm Review Mar2011   | 22 March 2011                    | Brussel  | Review          |
| PSHIELD Brussels Mar2011 | 21 March 2011<br>22 March 2011   | Brussels | Project meeting |
| PSHIELD Oslo Oct2010     | 5 October 2010<br>6 October 2010 | Kjeller  | Project meeting |



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**Upcoming**

This page provides an overview over upcoming meetings and phone conference

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| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | WP5 25 Feb 2011          |
|                                     |                                     | 25 February 2011 999     |
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|                                     |                                     | 20 January 2011 1099     |
|                                     |                                     | ... further results      |

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**Industrial Partners (12)**

**Who's on line**

- Public information, news and promotion  
pSHIELD Web: <http://www.pshield.eu>
- Semantic Media Wiki for collaboration and day-to-day work (D1.1.1)  
<http://pshield.unik.no>
- Document Repository for clean document exchange (D1.1.1)  
<http://bscw.juartermis-pshield.eu/>
-

## Target audience

- Industry community
- Research and scientific community
- Wider public



## Target audience

- Industry community
- Research and scientific community
- Wider public

## Dissemination channels

- Channels to industry audience
  - Targeted meetings, seminars & demonstration
  - Events, exhibitions & fairs
  - Websites, magazines and newsletters
- Channels to scientific community
  - Scientific publications and presentation
- Channels to public audience
  - Websites; brochures, articles to newspaper etc.

- Targeted industrial dissemination
  - Meeting with relevant industries
  - Demonstrating the proof-of-concept together with partner industries
    - Participation to industrial exhibition
- Scientific dissemination
  - Articles to Journal
  - Articles to conference proceedings
  - Presentation at workshops/seminars
- Participation to relevant national and international exhibitions

*Targeted Industrial Dissemination*  
*Scientific Dissemination*  
*Workshops and Exhibitions*  
*Industrial Publications*

## Targeted Industrial Dissemination

### Industrial Contacts

From the Norwegian side, the main focus is on bringing pSHIELD sensors to the market. These ones foster interoperability as e.g. ETSI TS102.690 "Functional architecture for the cooperation of the pSHIELD partners Movation and CWIN is established and CWIN concentrates on the extensions of the platform towards sensor description and integration.

- pSHIELD collaboration meeting between CWIN, Telenor Objects, JBV (

### Upcoming

- 5. April 2011, Presentation of "Security, Privacy and Dependability" of embedded systems to the National Hospital "Rikshospitalet". The goal of this meeting is to elaborate the applicability of pSHIELD integrated sensors for eHealth purposes, together with Telenor Objects.



- 29. April 2011, Prototypical implementation of pSHIELD embedded platform with Telenor Objects integration on a train of the National Rail Authority (Jernbaneverket). This prototypical implementation will be used to demonstrate the interworking of sensors onboard the train with the Telecom M2M platform "Shepherd" of Telenor Objects.



JBV Measurement locomotive (left) and use case for "Shepherd" platform of Telenor Objects (right)

## Workshops and Exhibitions

- Przemyslaw Osocha (SESM), Yen Pham (CWIN), "p.S.H.I.E.L.D.-pilot embedded Systems architecture for multi-Layer Dependable solutions", ARTEMIS Spring Event at Embedded World 2011, 1-3 March 2011, Nuremberg, Germany
- Przemyslaw Osocha (SESM), Yen Pham (CWIN), "Demonstrating Security, Privacy and Dependability for Sensors to Systems", ARTEMIS IA Co-summit 2010 Project Exhibition, 26-27 October 2010, Ghent, Belgium
- "pSHIELD and security in embedded systems", Internal Seminar, Critical Software, Coimbra, Portugal, 08 October 2010

## Industrial publications

- Giuseppe Maruffi, Fabrizio de Seta, "pSHIELD for Embedded System Security", EDink 37 (Eisag Datamat Company Magazine), Rome, 2010.

## Scientific dissemination

- Mohammad M. R. Chowdhury, Josef Noll, "Securing Critical Infrastructure: A Semantically Enhanced Sensor Based Approach", 2nd International Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronic System Technology, WIRELESS VITAE 2011, Chennai, India, Feb. 29-Mar. 03.
- Yen N. T. Pham, "Sensor Integration into Heterogeneous Service Platform and Domain Adaptation", **Master Thesis**, University of Oslo, December 20, 2010.
- Safraz Alam, Mohammad M. R. Chowdhury, Josef Noll, "An Event-driven Sensor Virtualization Approach for Internet of Things", poster, VERDIKT conference, Oslo, 1.-2. November 2010, media:PosterVerdikt.pdf

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UNIVERSITY OF OSLO  
Department of Informatics

Sensors Integration  
into Heterogeneous  
Services Platform  
and Domain  
Adaptation

Yen N. T. Pham

December 20, 2010



### Demonstrating Security, Privacy and Dependability for Sensors to Systems

"Interoperability in security and safety is a breakthrough in innovation"

Abstract: Wireless Mobile June 2010, Applied

SHIELD Architecture

Use Case: Interoperable Real Information System (IRIS)

SHIELD

### Sensazi: An Event-driven Sensor Virtualization Approach for Internet of Things

Sarfraz Alam, Josef Noll, M. M. R. Chowdhury  
University Graduate Center, Espoo, Norway  
sarfraz\_jnoll\_mohammad@utu.fi

Sensazi as a Service

High Level Architecture

Use Case: Green School Monitors

Test Bed

Proof of concept implementation goal

Future Work

SHIELD

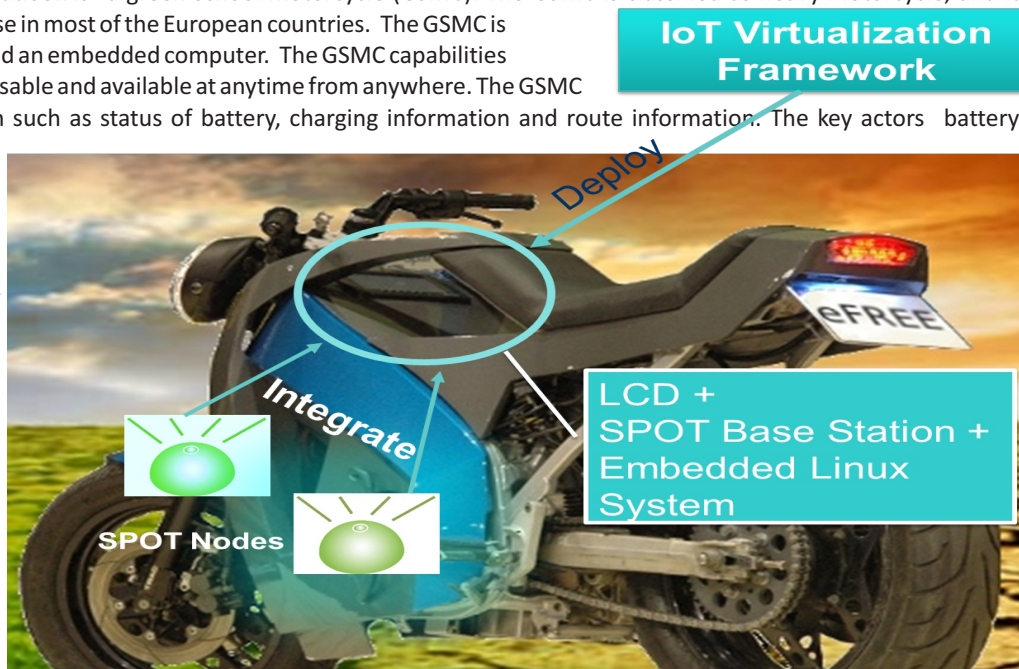
- Competence building
- Identification of new possible application scenarios
- Demonstrating impact on various other industrial uses

## Use Case: Green School Motorcycle

The use case of reference for this outlook is a green school motorcycle (GSMC). The GSMC is classified as heavy motorcycle, and it requires a standard motorcycle license in most of the European countries. The GSMC is equipped with a 3G/GPRS modem and an embedded computer. The GSMC capabilities make it uniquely identifiable, addressable and available at anytime from anywhere. The GSMC holds different type of information such as status of battery, charging information and route information. The key actors battery manufacturer, (iii) charging outlet providers, (iv) energy grid company, and (v) friends.

## Test Bed

- **Embedded System:** EPIA Nano-ITX embedded board
- **Operating System:** Ubuntu embedded Linux
- **Sensor Platform:** Sun SPOT, IQRF



## Targeted Industrial Dissemination

[edit]

### Industrial Contacts

[edit]

From the Norwegian side, the main focus is on bringing pSHIELD sensors into a standardised machine-to-machine (M2M) and machine-to-business (M2B) environment.

Movation is member of ETSI

and Artemisia, and through these ones foster interoperability as e.g. ETSI TS102.690 "Functional architecture for an M2M platform". Movation has the main focus on bringing pSHIELD results to the sensor and Telecom industry in Norway. A close cooperation of the pSHIELD partners Movation and CWIN is established with Telenor Objects, resulting in the first implementation of a mobile IoT platform foreseen for demonstrations with the Norwegian Rail Authorities. CWIN concentrates on the extensions of the platform towards sensor description and access, both based on semantic technologies.

Norwegian Contact:  
Josef Noll  
email: josef.noll@movation.no

Contributors:

CWI

MOVATION

Jernbaneverket

telenor objects

and/or friends.

**Test Bed**

- Embedded System: EPiA Nano ITX embedded board
- Operating System: Ubuntu embedded Linux
- Sensor Platform: Sun SPOT, IGBT

**Proof-of-concept Implementation Goal**

- Handling sensors for critical infrastructures
- Addressing interoperability between JBV sensor and Telenor Object management platform
- Linking Sensor data while preserving privacy

**Future Work**

- Includes the development of IoT framework services micro-formats for advertising on social network sites.
- A real-time performance analysis of the proposed framework

- pSHIELD collaboration meeting between CWIN, Telenor Objects, JBV (the Norwegian National Rail Administration) and SINTEF, May 12 2010.

# Performed and planned industrial dissemination



[edit]

2012

## Upcoming

- 5. April 2011, Presentation of "Security, Privacy and Dependability" of embedded systems to the National Hospital "Rikshospitalet". The goal of this meeting is to elaborate the applicability of pSHIELD integrated sensors for eHealth purposes, together with Telenor Objects.

BLI PASIENT | HELSEPERSONELL | OM OSS | AKTUELT | LEDIGE STILLINGER | FORSKNING | KONTAKT OSS | MI



nettstedet er under gradvis utfasing. For informasjon om ny organisasjonsstruktur, oppmøte- og henvisningsadresser, se [www.rh.no](http://www.rh.no)

- 29. April 2011, Prototypical implementation of pSHIELD embedded platform with Telenor Objects integration on a train of the National Rail Authority (Jernbaneverket). This prototypical implementation will be used to demonstrate the interworking of sensors onboard the train with the Telecom M2M platform "Shepherd" of Telenor Objects.



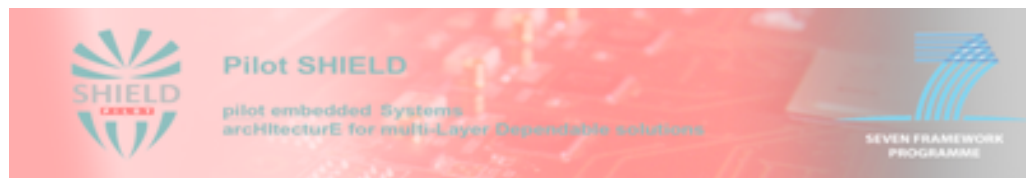
JBV

Measurement locomotive (left) and use case for "Shepherd" platform of Telenor Objects (right)

# D7.1.2: Dissemination Report (progress status)

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- expected: M12
  - Activities well under way
  - Preliminary TOC & responsibilities in place
  - Report outline (~5%)
- Table of contents (rev\_v0.2)
  - Dissemination strategy
    - Objectives
    - Planned activities
    - Target audience
    - Channel
  - Analysis of performed activities
    - Scientific
    - Standardization
    - Industrial
    - Public



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# D7.2.1: Exploitation Plan (progress status)

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- Planned: M12
  - Activities well under way
  - Preliminary TOC & responsibilities in place
  - Report outline (~5%)
- Table of contents (rev\_v0.2)
  - Exploitable Outcomes
  - Business Potential
  - Potential Application Scenarios & Demonstration
  - Exploitation Strategy



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| 7.2      | Partners' expertise.....                                      | 9        |
| 7.3      | Partners' exploitation ideas .....                            | 9        |
| 7.4      | Promotion plans .....   | 9        |
| <b>8</b> | <b>Conclusions</b> .....                                      | <b>9</b> |

- Three dedicated Web spaces for users
  - Public information, news and promotion
  - Document Repository for clean document exchange within the project
    - A page in place to collect all the dissemination & exploitation activities of the project
  - Semantic Media Wiki for collaboration, visualization and day-to-day work
- Ongoing dissemination activities
  - Targeted Dissemination - 1
  - Workshops, Exhibitions - 3
  - Industrial Publications - 1
  - Scientific Dissemination - 3
- Exploitation activities
  - Meeting with industries (JBV, Telenor Object) for planning how to exploit results
- Deliverables as planned
  - Final of D7.1.1 delivered (Milestone M1)
  - D7.1.2 and D7.2.1: preliminary TOC & some responsibilities in plac

- Scientific contribution plans
  - **Potential Journals:** e.g. International Journal of Software Engineering & Knowledge Engineering; IEEE Transactions on Software Engineering; ACM Transactions on Software Engineering Methodology; EEE Software
  - **Potential conferences:** e.g. International Conference on Software Engineering and Data Engineering (SEDE) - **DL 17. April, 2011**, International Conference on Software Engineering (ICSE) - **DL 29. Sep. 2011**, International Conference on Software Engineering and Knowledge Engineering (SEKE), SafeComp 2011, Eurocrypt
- Planned exploitation activities
  - **Industry:** Several targeted exploitation activities planned in April (5 & 29) together with industries
  - **Standardization:** Together with Telenor Objects contribution to ETSI standards (i.e. ETSI 102. 690)
    - to open for semantic extensions

- D7.1.2 & D7.2.1 planned for M12
- Work to prepare D7.1.2 & D7.2.1
  - Provide meeting plan (e.g. Ph.C.) for D7.1.2 & D7.2.1 preparation (through wiki)
    - Finalizing the TOC together with involved partners (done)
    - Finalizing the responsibilities of contributions & time plan for providing contributions by each partner (Oct2011)
    - Documentation & finalizing drafts (M18)