

Annual review ROME 2012



Management

September 1st 2011 – August 31st 2012

WP2 main results

The following activities were carried on during the first year:

- definition of the SPD requirements and specifications of each layer, as well as of the overall system on the basis of the four application scenarios;
- definition of proper SPD metrics to assess the achieved SPD level of each layer, as well as of the overall system;
- definition of nSHIELD system architecture. Identification of the SPD layers functionalities, their intra and inter layer interfaces and relationships.

Outcome – D2.1 Preliminary System Requirements, D2.2 Preliminary System Requirements and Specifications, D2.3 Preliminary System Architecture, D2.4 Reference System Architecture Design, D2.5 Preliminary Metrics Specification

Criticalities:

D2,2 was postponed because the majority of the partners considered D2.2 unacceptable since all the requirements in it were not properly justified. This delay caused delays in D2.4 and D2.5 since the documents are linked together. The recovery plan was established and all deliverables submitted by M12. The documents have specific requirements for each scenario

At M12 the work packages activities are back on track and no criticality is expected

WP3 Progress: 54%

WP3

The activities of the first year of the project have been focused on three main topics at node level:

- assessment of SPD technologies at node level,
- adoption of SPD technologies in the vertical scenarios,
- design and development activities.

Outcome - D3.1 “SPD node technologies assessment”

Criticalities:

- absence of National Agreement signed
- overlapping of pSHIELD and nSHIELD that, when the same team is involved in both projects, doesn't allow to participate actively to both projects.

At M12 the work packages activities are back on track and no criticality is expected

WP3 Progress: 27%

WP4

The main objective of SPD Network is to provide Trusted and Dependable Connectivity to Embedded Systems through the implementation of a reconfigurable radio system capable:

- of maintaining awareness of the operating scenario,
- of detecting possible threats and countermeasures.
- of smart-managing the crypto Keys in order to handle security in lightweight devices and in highly dynamical reconfigurable networks.

Outcome – D4.1 “SPD Network Technology Assessment”

Criticalities:

- absence of National Agreement signed
- overlapping of pSHIELD and nSHIELD that, when the same team is involved in both projects, doesn't allow to participate actively to both projects.

At M12 the work packages activities are on track and no criticality is expected

WP4 Progress: 31%

WP5

The following points have been discussed and addressed:

- Identification and assessment of SPD technologies needed to reach SHIELD goals
- Solid redefinition of the semantic approach
- Significant restructuring of the security agent
- Alignment with requirements and architecture for different scenarios.

Outcome – D5.1 “Middleware Technologies assessment”

Criticalities:

The activity of middleware and overlay requirements redefinition was necessary to avoid difficulties met during pSHIELD project development (WP6 development impact). Contribution from new partners to armonized with existing core team.

At M12 the work packages activities are on track and no criticality is expected

WP5 Progress: 25%

WP6

The work package has not started yet, though partners are discussing the «core nSHIELD platform» with respect to requirements and use cases

The discussions in the first year focused on how to turn «measurable security» into a platform, and how to define the core of the platform and the interfaces towards application specific extensions.

Outcome – No deliverable planned for the first year

Criticalities:

- No criticalities met

WP6 starts M13

WP6 Progress: 0%

WP7

The work package has formally not started, though partners have been actively contributing to the requirements.

The identified use cases cover a wide variety of applications for «measurable security». Two of the use cases «Railway» and «UAV» clearly address the complexity of System of Systems, while the «facial recognition» addresses the embedded systems, and «Social mobility» the privacy related issues.

Outcome – No deliverable planned for the first year

Criticalities:

- No criticalities met

WP7 starts M18

WP7 Progress: 1%

WP8

Dissemination

This task aims at disseminating the project results and at influencing new standards. Dissemination activities consist in the publication of all important results in well-known conferences and journals.

Standardization

The standardization task is a key component to increase the impact in the SPD sector. Close interaction with standardization groups to monitor ongoing activities and the preparation of documents and proposals for standardization groups are planned. The focus is to deliver missing scientific profound input to extend existing standardization for new intelligent SPD applications.

Outcome – D8.1 Web Site, D8.2 Dissemination Plan, D8.3 Standardization Plan

An amendment of D8.4 “nSHIELD Operational Manual v1” changed the name of the document in “Build Secure Embedded Systems with nSHIELD v1” and the delivery date which will be M13

Criticalities:

- No criticalities met

WP7 Progress: 14%

Liaison

The consortium is establishing – professional and dissemination – partnerships with similar projects and initiatives to work the project's way into relevant scientific circles.

Collaboration is foreseen with other EU-funded projects. For example SEARCH-LAB plans to evaluate possible synergies with ANIKETOS and Ansaldo STS with PROTECTRAIL and SECURED. Internal projects are explored for synergies for example Selex is tightening up collaboration with the project OMNIA.

Movation is founding partner of the Norwegian Internet of Things Value Network which collects major players like Sintef, Telenor, Standards Norway and the major Universities.

The cooperation above are just few examples of cooperation with other projects. The deliverable D1.3 reports the complete liaison activity plan in which all nSHIELD partners are involved.

Changes in the consortium

- Selex Communications and Elsag Datamat joined in Selex Elsag
- NOOM left the project. Formal communication was given on July 2012 via email.
- ESIS left the project. Formal communication was given on July 2012 via email.
- Alfatrol asked to the project. Formal communication with financial figures will be given after the 1st Annual Review of the project

Project Management

- Web site: www.newshield.eu
- Phone calls have been used to communicate directly between partners and on the project level.
- Physical meetings were held during the first year
- Call Conference were used to manage work packages.
- Collaborative Tool and Document Repository are available at address: <http://nshield.unik.no>
Wiki is the tool to exchange documents, communication between partners and track actions at the project level.
- Email and the nSHIELD wiki are the main tool to communicate between partners.

Actions, Meetings and Phone conferences

[edit]

- ▶ Meeting
- ▶ Partner
- ▶ User
- ▶ Workpackage

Open ActionItems:

[edit]

- AI:All deliverables shall have a deliverable owner001 (2012-02-10 for WP leaders Luigi.Trono AI: All deliverables shall have a deliverable owner)
- AI:Company profile and WP presentation001 (2011-10-19 for ALL AI: Company profile and WP presentation)
- AI:Fill-in A3 Form for those with national agreement001 (2012-01-15 for ALL partner responsables AI: Fill-in A3 Form for those with national agreement)
- AI:Identify delayed deliverables and propose action001 (2012-02-15 for Luigi.Trono AI: Identify delayed deliverables and propose action)
- AI:Sign Consortium Agreement001 (2011-11-15 for ALL Luigi.Trono AI: Sign Consortium Agreement)
- AI:email lists aliases from wiki 001 (2012-02-15 for Josef.Noll AI: email lists aliases from wiki)

⚠ Please add action items through [Special:FormEdit/ActionItem](#)

Project Management

Screen shot from wiki which shows actions for partners:

([http://nshield.unik.no/wiki/Project Meeting Budapest, Sept. 2012](http://nshield.unik.no/wiki/Project_Meeting_Budapest,_Sept._2012)):

ID	Event	Responsible	Topic	Due date
1	Action	Josef Noll, MOV	Discuss and present methods to be applied for the scenarios at Review Meeting: semantic-driven methods vs. Formal methods.	28.09.2012
2	Action	Luigi Trono, SE	Do voting regarding how to progress with D2.2 not in good shape. Renato Baldelli (SE) presented proposed modifications. Cause: the document did not pass internal review. Partners present evaluated current (rev.C) D2.2 to need improvement in content and quality	
3	Vote	All	All partners present agree on working on a new version of the D2.2 according to the ideas presented by SE (no objections raised)	11.09.2012
4	Action	SE	Supply up-to-date document revision for D2.2 as a starting point for editing	13.09.2012

Check

- **1 September 2011: Project started**
- **19 October 2011: Kick Off meeting**
- **30 November 2011: Negotiation concluded**
- **December 2011: Josef Noll (Movation) signed the Joint Undertaking Grant Agreement.**
 - A «Final» Official Technical Annex is available in wiki. However some changes need to be done on it
- **Partners who have their National Grant Agreement signed: In order to receive the funds, A3 Form has to be signed in three copies.**
- **3 February 2012: Reviewed the Amendments proposed from the Consortium. Some of them were approved, however, they have to be approved from the JU Officer.**
- **31 December 2011: pSHIELD “officially” concluded on 14 February 2012**
- **Feb 2012: SESM moves 4 MM from the task #7.2 "Voice/Facial Recognition" to the task #7.3 "Dependable Avionic Systems".**
SESM will have 16MM on the 7.2 task. Any objections? To include in the next TA Amendments list.
- **April 2012: Some issues on WP2 deliverable (THYIA - SE). Status D2,1 and 2,2 not known.**
- **April 2012: All ARTEMIS-IA non-members signed their own DoA. The ARTEMIS-IA Supplementary Agreement (ASA), Art. 5**
which states: “C members in a project have to contribute the variable fee for the non-paying non-members” **is N/A.**
- **April 2012: The software used by the Commission to check the plagiarism ration of a document is Viper. Shall we use it?**
- **May 2012: All the documentation for MIUR is completed and submitted.**
nSHIELD could be presented to the next CTS (middle of May).
- **May 2012: ESIS is leaving the project. Their effort is 16 MM (WP6-WP7).**
- **May 2012: issue on Standardisation deliverable**

Plan

- **First Official Review will be in October 2012**

- To be able to get there in good shape with the project, the following treatments are required:

- **Status Report – Every 2 weeks:**

- Status and progress from the last report

- Actual Plan

- Issues

- **Estimated effort report once a month**

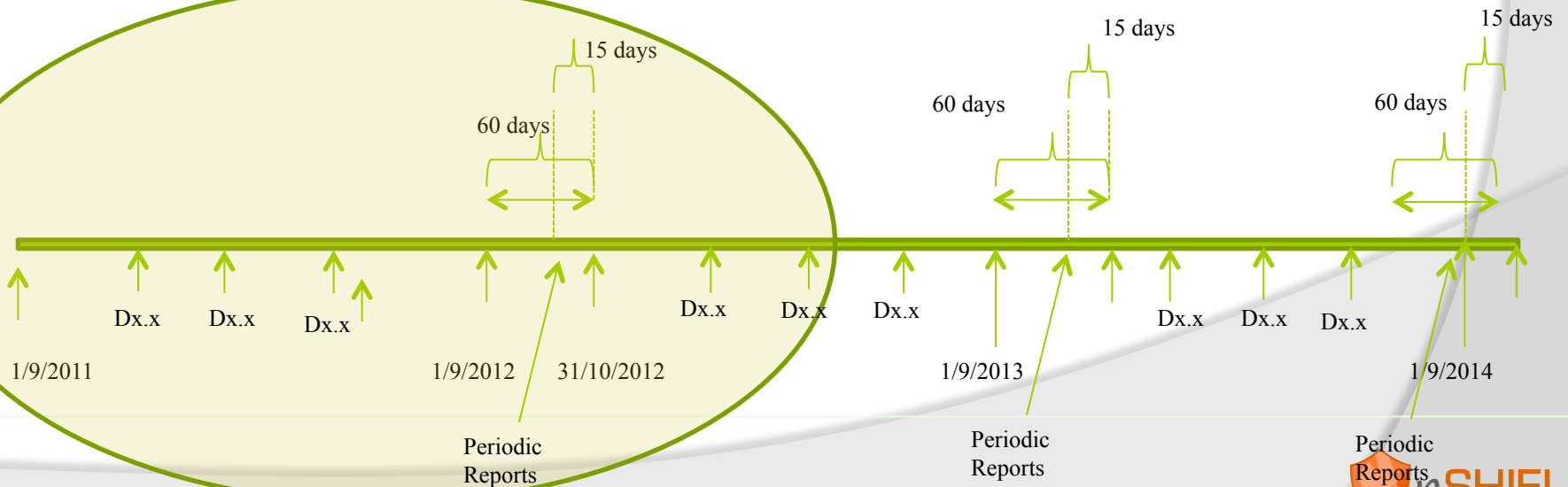
- **Financial report every 3 months**

WP Leaders

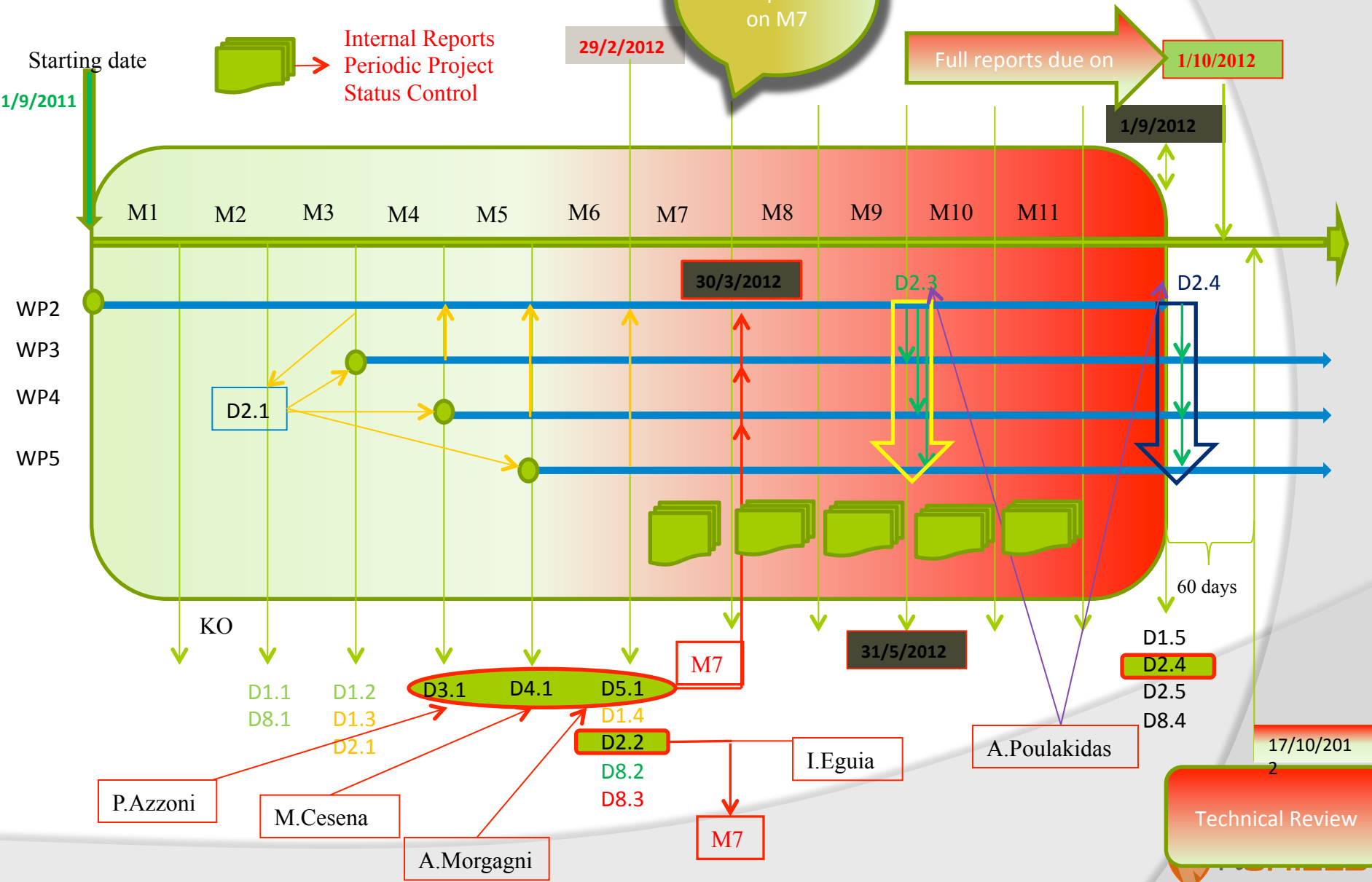
WP Leaders

All Partners

- **Considering we are slightly late with the progress of the work, we have to work harder to arrive at the Official Review for fully satisfying the Reviewer and the Officer. Here below the nSHIELD timeline project:**



Act



Act

Action on D2.2 (Requirements document)

The D2.2 was finalized on M7. The document was well defined in terms of requirements, however it needed some improvements regarding the feasibility of the requirements not clearly specified. This problem was met at the first pSHIELD review and to avoid the same situation the WP2 Leader, the Technical Manager, the Coordinator and the Partners involved in this task, decided to go for a new structure of the deliverable. This decision was taken via phone conference on June 2012 and it was made official to all Partners at the meeting in Budapest on September 2012. Many partners had to put additional effort to work on the D2.2.

The new D2.2 was finalized on September 2012.

Del. no.	Deliverable name	WP no.	Nature	Dissemination level	Delivery date (proj. onth)	Responsible
D1.1	Collaborative tools and document repository	1	O	PP	2	L.Trono
D8.1	Web Site	8	O	PU	2	R.Uribeetxeberria
D1.2	Quality Control Guidelines	1	R	PP	3	L.Trono
D1.3	Liaisons Plan	1	R	PP	3	L.Trono
D2.1	Preliminary System Requirements	2	R	CO	3	S.Drakul
D3.1	SPD node technologies assessment	3	R	CO	4	P.Azzoni
D4.1	SPD network technologies assessment	4	R	CO	5	M.Cesena
D5.1	SPD middleware and overlay technologies assessment	5	R	CO	6	A.Morgagni
D1.4	Periodic Management Report 1	1	R	PP	6	L.Trono
D2.2	Preliminary System Requirements and Specifications	2	R	PU	6	S.Drakul
D8.2	Dissemination Plan	8	R	PP	6	R.Uribeetxeberria
D8.3	Standardization Plan	8	R	PP	6	L.Trono
D2.3	Preliminary system architecture design	2	R	CO	9	A.Poulakidas
D1.5	Periodic Annual Report 1	1	R	PP	12	I.Trono
D2.4	Reference system architecture design	2	R	PU	12	A.Poulakidas
D2.5	Preliminary SPD Metrics specifications	2	R	CO	12	I.Eguia
D8.4	nSHIELD Operational Manual v1	8	R	PU	12	R.Uribeetxeberria

M1

M2

R = Report,
P = Prototype,
D = Demonstrator,
O = Other

PU = Public
PP = Restricted to other programme participants (including the JU).
RE = Restricted to a group specified by the consortium (including the JU).
CO = Confidential, only for members of the consortium (including the JU).

Why delays?

Some deliverable has been delivered with delay. However this delay is not impacting the project. A recovery plan was established and shown in Brussels and the first internal review (Feb 15th 2012). All the partners agreed and no objections were raised.

Additional reasons for this delay are:

- Project started on September the 1st 2011 and almost all the partners couldn't work on the project because their NGA was not signed from their National Authorities.
- the D2.1-D2.2-D3.1-D4.1 and D5.1 required more effort from partners. The GANTT in the TA, for this reason, shows dates not realistic for the first 6 months.
- The pSHIELD project extension delayed some input needed in nSHIELD.
- Two partners left the project, while one new partner asked to join.

Activities from M13 are not affected from any additional delay. The plan described in the Technical Annex can be considered valid and do not need to change at the moment (M12).

PM status table per WP & Partner (M1-M6)

Contract N. 269317 Acronym: nSHIELD Period: 01.09.2011 - 29.02.2012		MAS	ASTS	AT	ATHENA	SE	TECNALIA	ESIS	ETH	HAI	ISL	ISD	SG	MGEP	NOOM	S-LAB	SESM	SICS	T2D	TELC	THYA	TUC	UNIGE	UNIUD	UNIROMA1
Workpackage 1:	Actual WP total:	0,00	0,00	1,50	0,00	3,00	1,00	0,00	0,10	0,50	1,20	0,00	6,25	0,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,40
Project Management	Planned WP total:	0,00	2,00	9,00	3,00	23,00	5,00	0,00	1,00	15,00	10,00	2,00	40,00	3,00	0,00	0,00	0,00	0,00	0,00	0,00	13,00	4,00	0,00	3,00	3,00
	%	0	0	17%	0	13%	20%	0	10%	3%	12%	0	16%	17%	0	0	0	0	0	0	0	0	0	0	13%
Workpackage 2:	Actual WP total:	0,00	1,19	1,50	0,00	6,00	6,50	0,00	1,00	3,00	0,00	0,00	4,15	0,00	0,00	3,00	0,00	2,00	1,56	0,00	0,00	4,00	0,00	3,00	0,00
SPD Metric, requirements and system design	Planned WP total:	0,00	9,00	8,00	6,00	13,00	12,00	0,00	2,00	22,00	0,00	0,00	10,00	0,00	0,00	10,00	0,00	6,00	10,00	0,00	20,00	10,00	0,00	3,00	0,00
	%	0	13%	19%	0	46%	54%	0	50%	14%	0	0	42%	0	0	30%	0	33%	16%	0	0	40%	0	100%	0
Workpackage 3:	Actual WP total:	0,00	0,00	1,80	1,00	1,00	3,00	0,00	6,00	0,00	0,00	0,00	1,90	0,00	0,00	0,00	0,00	4,00	0,00	0,20	0,00	1,00	4,50	0,00	0,00
SPD Node	Planned WP total:	0,00	0,00	22,00	8,00	8,00	6,00	0,00	25,00	4,00	0,00	58,00	16,00	0,00	0,00	12,00	15,00	20,00	26,00	6,00	30,00	37,00	30,00	12,00	0,00
	%	0	0	8%	13%	13%	50%	0	24%	0	0	0	12%	0	0	0	0	20%	0	3%	0	3%	15%	0	0
Workpackage 4:	Actual WP total:	0,00	0,00	0,00	0,00	6,00	0,00	0,00	0,00	0,50	3,00	0,00	0,80	1,80	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2,50	0,00	0,00
SPD Network	Planned WP total:	0,00	0,00	0,00	10,00	84,00	14,00	0,00	0,00	15,00	34,00	0,00	10,00	20,00	0,00	0,00	0,00	0,00	0,00	0,00	12,00	14,00	25,00	12,00	0,00
	%	0	0	0	0	7%	0	0	0	3%	9%	0	8%	9%	0	0	0	0	0	0	0	0	10%	0	0
Workpackage 5:	Actual WP total:	0,00	0,00	0,00	0,00	3,50	0,00	0,00	0,00	0,00	1,00	0,00	0,40	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,00	0,00	0,00	3,20
SPD Middleware & Overlay	Planned WP total:	0,00	0,00	0,00	14,00	43,00	20,00	0,00	0,00	27,00	18,00	0,00	10,00	8,00	0,00	14,00	0,00	0,00	0,00	0,00	19,00	18,00	0,00	0,00	41,00
	%	0	0	0	0	8%	0	0	0	0	6%	0	4%	0	0	0	0	0	0	0	0	6%	0	0	8%
Workpackage 6:	Actual WP total:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Platform integration, validation & demonstration	Planned WP total:	7,00	6,00	19,00	21,00	26,00	15,00	4,00	3,00	32,00	24,00	6,00	10,00	3,00	1,00	29,00	0,00	0,00	0,00	0,00	12,00	0,00	0,00	6,00	4,00
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Workpackage 7:	Actual WP total:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
SPD Applications	Planned WP total:	8,00	16,00	2,00	0,00	10,00	8,00	8,00	18,00	23,00	0,00	6,00	30,00	0,00	5,00	24,00	16,00	0,00	0,00	3,00	32,00	9,00	5,00	0,00	0,00
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Workpackage 8:	Actual WP total:	0,00	0,00	0,60	0,00	0,00	0,50	0,00	0,10	0,00	0,80	0,00	1,10	1,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Knowledge exchange and industrial validation	Planned WP total:	3,00	3,00	4,00	4,00	3,00	8,00	1,00	1,00	6,00	14,00	0,00	10,00	11,00	0,00	5,00	0,00	0,00	0,00	0,00	5,00	5,00	0,00	0,00	0,00
	%	0	0	15%	0	0	6%	0	10%	0	6%	0	11%	14%	0	0	0	0	0	0	0	0	0	0	0
Total Project PM	Actual total:	0,00	1,19	5,40	1,00	19,50	11,00	0,00	7,20	4,00	6,00	0,00	14,60	3,80	0,00	3,00	0,00	6,00	1,56	0,20	0,00	6,00	7,00	3,00	3,60
	Planned total:	18,00	36,00	64,00	66,00	210,00	88,00	13,00	50,00	144,00	100,00	72,00	136,00	45,00	6,00	94,00	31,00	26,00	36,00	9,00	143,00	97,00	60,00	36,00	48,00
	%	0	3%	8%	2%	9%	13%	0	14%	3%	6%	0	11%	8%	0	3%	0	23%	4%	2%	0	6%	12%	8%	8%

PM status table per WP & Partner (M12)

Contract N. 269317 Acronym: nSHIELD Period: 01.09.2011 - 29.02.2012		MAS	ASTS	AT	ATHENA	SE	TECNALIA	ESIS	ETH	HAI	ISL	ISD	SG	MGEP	NOOM	S-LAB	SESM	SICS	T2D	TELC	THYA	TUC	UNIGE	UNIUD	UNIROMA1
Workpackage 1: Project Management	Actual WP total:	0	2	3,5	0	8	0	0	0,3	2,5	2,4	0	13,13	1	0	0	0	0	0	0	0	0	0	1	1,17
	Planned WP total:	0,00	2,00	9,00	3,00	23,00	5,00	0,00	1,00	15,00	10,00	2,00	40,00	3,00	0,00	0,00	0,00	0,00	0,00	0,00	13,00	4,00	0,00	3,00	3,00
	%	0	100%	39%	0	35%	0	0	30%	17%	24%	0	33%	33%	0	0	0	0	0	0	0	0	0	33%	39%
Workpackage 2: SPD Metric, requirements and system design	Actual WP total:	0	7,18	5,4	2	7,9	12,3	0	1,5	12	0	0	6,46	0	0	6,97	0	4	0,5	0	0	6,3	0	3	0
	Planned WP total:	0,00	9,00	8,00	6,00	13,00	12,00	0,00	2,00	22,00	0,00	0,00	10,00	0,00	0,00	10,00	0,00	6,00	10,00	0,00	20,00	10,00	0,00	3,00	0,00
	%	0	80%	68%	33%	61%	103%	0	75%	55%	0	0	65%	0	0	70%	0	67%	5%	0	0	63%	0	100%	0
Workpackage 3: SPD Node	Actual WP total:	0	0	8,3	2	2	5	0	18	0	0	5	6,34	0	0	4,65	5	0	0	3	0	14,4	11,5	4	0
	Planned WP total:	0,00	0,00	22,00	8,00	8,00	6,00	0,00	25,00	4,00	0,00	58,00	16,00	0,00	0,00	12,00	15,00	20,00	26,00	6,00	30,00	37,00	30,00	12,00	0,00
	%	0	0	38%	25%	25%	83%	0	72%	0	0	9%	40%	0	0	39%	33%	0	0	50%	0	39%	38%	33%	0
Workpackage 4: SPD Network	Actual WP total:	0	0	0	1	24	13	0	0	1	11,5	0	3,64	5,5	0	0	0	0	0	0	0	4,8	9,5	4	0
	Planned WP total:	0,00	0,00	0,00	10,00	84,00	14,00	0,00	0,00	15,00	34,00	0,00	10,00	20,00	0,00	0,00	0,00	0,00	0,00	0,00	12,00	14,00	25,00	12,00	0,00
	%	0	0	0	10%	29%	93%	0	0	7%	34%	0	36%	28%	0	0	0	0	0	0	0	34%	38%	33%	0
Workpackage 5: SPD Middleware & Overlay	Actual WP total:	0	0	0	0	9,7	12,5	0	0	0,5	4,5	0	3,34	0	0	6,03	0	0	0	0	0	6,3	0	0	14,1
	Planned WP total:	0,00	0,00	0,00	14,00	43,00	20,00	0,00	0,00	27,00	18,00	0,00	10,00	8,00	0,00	14,00	0,00	0,00	0,00	0,00	19,00	18,00	0,00	0,00	41,00
	%	0	0	0	0	23%	63%	0	0	2%	25%	0	33%	0	0	43%	0	0	0	0	0	35%	0	0	34%
Workpackage 6: Platform integration, validation & demonstration	Actual WP total:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	Planned WP total:	7,00	6,00	19,00	21,00	26,00	15,00	4,00	3,00	32,00	24,00	6,00	10,00	3,00	1,00	29,00	0,00	0,00	0,00	0,00	12,00	0,00	0,00	6,00	4,00
	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Workpackage 7: SPD Applications	Actual WP total:	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Planned WP total:	8,00	16,00	2,00	0,00	10,00	8,00	8,00	18,00	23,00	0,00	6,00	30,00	0,00	5,00	24,00	16,00	0,00	0,00	3,00	32,00	9,00	5,00	0,00	0,00
	%	25%	0	0	0	0	0	0	0	0	0	0	0	0	20%	0	0	0	0	0	0	0	0	0	0
Workpackage 8: Knowledge exchange and industrial validation	Actual WP total:	0	3	1	0	0	0	0	0,1	0	0,9	0	2,93	3	0	0	0	0	0	0	0	1,1	0	0	0
	Planned WP total:	3,00	3,00	4,00	4,00	3,00	8,00	1,00	1,00	6,00	14,00	0,00	10,00	11,00	0,00	5,00	0,00	0,00	0,00	0,00	5,00	5,00	0,00	0,00	0,00
	%	0	100%	25%	0	0	0	0	10%	0	6%	0	29%	27%	0	0	0	0	0	0	0	22%	0	0	0
Total Project PM	Actual total:	2,00	12,18	18,20	5,00	51,60	42,84	0,00	19,90	16,00	19,30	5,00	35,84	9,50	1,00	17,65	5,00	4,00	0,50	3,00	0,00	32,90	21,00	12,00	15,27
	Planned total:	18,00	36,00	64,00	66,00	210,00	88,00	13,00	50,00	144,00	100,00	72,00	136,00	45,00	6,00	94,00	31,00	26,00	36,00	9,00	143,00	97,00	60,00	36,00	48,00
	%	11%	34%	28%	8%	25%	49%	0	40%	11%	19%	7%	26%	21%	17%	19%	16%	15%	1%	33%	0	34%	35%	33%	32%

The END



Thank You!