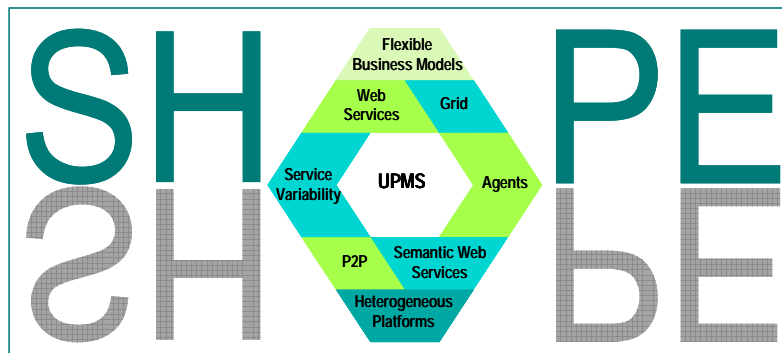


Service and Software Architectures, Infrastructures and Engineering
Collaborative Project
Semantically-enabled Heterogeneous Service Architecture and Platforms Engineering
Acronym
SHAPE
Project No
216408



Deliverable D6.4

Standardisation and dissemination revised plan and report

Work Package 6

Leading partner: University of Innsbruck

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0.6	Revision Standardisation	Arne J. Berre
0.7	Revision Standardisation	Andrey Sadovykh
1.0	Final editing	Federico M. Facca

Executive Summary

This report presents Deliverable 6.2 “Standardisation and dissemination revised plan and report” of the SHAPE project, including the results of tasks T6.2 and T6.3 as defined in the Description of Work.

This deliverable summarizes the dissemination and standardisation activities carried out in the reporting period and outlines the works that will be carried out in the context of the SHAPE project in the following period. Initial plans can be found in D6.2, in this deliverable we mostly focus on its evolution for project year 2. We start by giving an overall summary of dissemination and standardisation strategies according to the project vision and its expected impact and results. Then we start reporting dissemination activities for year 1 and dissemination plans for the future. The discussion on dissemination is followed by an overview of standardisation activities and the relative future plans. Finally we draw some conclusion on the work done so far and on the upcoming activities.

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1 SHAPE Dissemination and Standardisation Strategy

In this section we shortly introduce the overall project objectives and the expected results in term of impacts, thus defining the context for the dissemination and standardization activities analyzed in further details in the following sections.

SHAPE aims to extend service-oriented architecture (SOA) with semantics and heterogeneous infrastructures (Web services, agents, Semantic Web Services, P2P and grid) under a unified service-oriented approach. The core objective is to support the development and realization of enterprise systems based on such a unified service-oriented approach. To achieve this, SHAPE will develop and test a model-driven engineering (MDE) tool-supported methodology for designing and implementing flexible business models and parameterised services on a Semantically-enabled Heterogeneous service Architecture (SHA) through model-driven engineering (MDE) approaches and standardisation of these results.

SHA (Semantically-enabled Heterogeneous service Architectures) extends SOA (Service-oriented Architectures) with semantics and support for heterogeneous architectural styles, including Web Services, Agents, SESA (Semantically-enabled Service Architectures), P2P, Grid and Components, under a unified service-oriented approach, to form a new and better basis for meeting the business requirements of enterprise wide systems.

The aim of this deliverable is to establish a strategy to plan and coordinate the dissemination and Standardisation activities.

The dissemination strategy is developed taking care of different aspects that represent the principal SHAPE targets and it is based on the following main profiles:

- *End users* like Software Engineers will adopt the SHAPE results in their central methodology groups and disseminate them internally to their operational divisions, leading to products and services produced with higher productivity and less risks.
- *Tool providers* will integrate their existing products with the SHAPE framework, enhancing and also build new products based on the open source results from SHAPE.
- *Universities and research institutes* will integrate SHAPE results in their software engineering courses which will place the MDE approach as a well-established method of software development for SOA in the education of Europe's next generation of software engineers, and raise their profiles in the areas of software and systems modelling. This will impact the subjects of work in basic research, contributions in standards communities and technology transfer to industrial partners.

The analysis of these different targets and their correlated needs, allows to plan a differentiated communication strategy in order to reach the overall impact objectives. Moreover, it aims to optimise the dissemination effort with respect to the different main users categories (scientific community, industry –and societal) and to the use of the most suitable dissemination channels.

The overall dissemination effort is based on the same set of dissemination processes with the aim of having a coherent set of suggestions/ results from the main dissemination streams.

In this sense Standardisation activities cover a fundamental role specially to disseminate results to industries, which are much more willing to invest on standardize and consolidated technologies that enables them to easily interoperate and share knowledge with partners. Standardisation is a process that certifies the relevance and the impact of the results of a project. That is why SHAPE is making of Standardisation activities a primary task within the project.

In the next sections we discuss in details dissemination and Standardisation activities. In particular Section 2 reports dissemination activities occurred in the past 12 months, Section 3 presents a plan for dissemination activities for the next project year, Section 4 reports Standardisation activities conducted in the first year of project. In Section 5 we outline a plan for Standardisation activities in the next year.

Finally in Section 6 we draw some conclusion on the impact so far achieved through dissemination and Standardisation activities and possible future impacts in the next year thanks to the project results that are going to be delivered in the first year.

2 Dissemination Report

In the first year of project, in line with initial dissemination plan, we activated a set of dissemination channels in order to raise interests towards SHAPE project and to publically expose to the individuated profiles the results achieved.

In particular, the following channels where activated:

- We produced a set of promotional materials, including a SHAPE flyer and a SHAPE poster to present SHAPE during conferences, workshops, fairs and other relevant events (See Section 2.1).
- We established a project web site exposing to the public information about the project, progress and results (See Section 2.2)
- We presented the project and its results in a set of related thematic events, workshops and conferences (See Section 2.3).
- We disseminated SHAPE results in journals, scientific and industrial periodicals (See Section 2.4).
- We participated into related events organised by the EC (See Section 2.5).
- Establish and/or communicate with relevant user groups (See Section 2.6).
- Establishment of close links with other FP7 projects (See Section 2.7).

2.1 Promotional Material

Currently the promotional material developed for SHAPE includes a poster (Figure 1) and a factsheet (Figures 2 and 3).

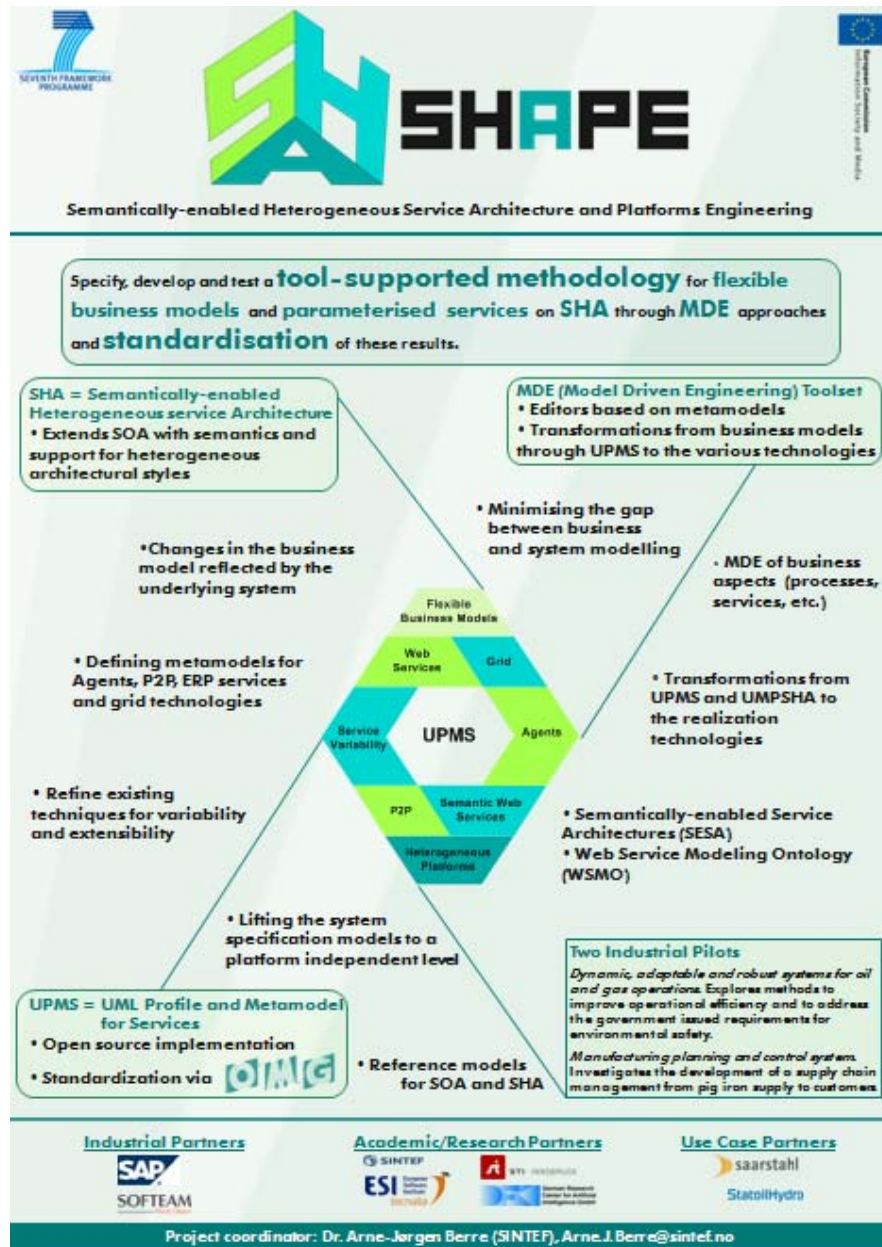


Figure 1. SHAPE Project Poster.



Semantically-enabled Heterogeneous service Architecture and Platforms Engineering

The objective of the SHAPE project is to support the development and realization of enterprise systems based on a Semantically-enabled Heterogeneous service architecture (SHA). SHA extends Service Oriented Architecture (SOA) with semantics and heterogeneous infrastructures with a unified service oriented approach. SHAPE will provide an open source implementation of the UPMS SoaML service modeling standard from OMG.

At a Glance

Project:
SHAPE - Semantically-enabled Heterogeneous service Architecture and Platforms Engineering

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Duration: 30 months from 1.12.07

Total cost: 57.8 Euro

Programme: Theme 3.2 Service and Software Architectures, Infrastructures and Engineering.

Further information:
www.shape-project.eu
www.soaml.org

Project objective

The main objective of SHAPE is to specify, develop and test a tool-supported methodology for designing and implementing flexible business models and parameterised services on a Semantically-enabled Heterogeneous service Architecture (SHA) through model-driven engineering (MDE) approaches and standardisation of these results as extensions to the UPMS (UML Profile and Metamodel for Services) SoaML, Service oriented Architecture Modeling Language, as an OMG standard.

SHA – Semantically-enabled Heterogeneous service Architecture

SHA extends SOA (Service-oriented Architecture) with semantics and support for heterogeneous architectural styles, including Web Services, Agents, SESA (Semantically-enabled Service Architectures), ERP services, P2P, Grid and Components, under a unified service-oriented approach, to form a new and better basis for meeting the business requirements of enterprise wide systems.

UPMS – UML Profile and Metamodel for Services

The SHAPE project is actively involved in the standardisation of UPMS SoaML in OMG (Object Management Group) and will provide an

Figure 2. SHAPE Project Factsheet, Page 1

open source implementation of the UPMS SoaML standard using the Eclipse platform.

SHAPE AND UPMSHA

The SHAPE project will provide MDE tools and -platform for SHA systems, based on UPMS (UML Profile and Metamodel for Services) and the UPMSHA (UML Profile and Metamodel for Semantically-enabled Heterogeneous service Architectures) that will be extended from that.

REFERENCE MODELS FOR SOA AND SHA

The OASIS standard reference model for SOA will be extended with concepts to include the technologies included in SHA.

FLEXIBLE BUSINESS MODELS

SHAPE embraces the modelling of business aspects (processes, services etc) as a constituent part of the MDE approach, allowing for changing the models of the business and having SHAPE support development of a new or changed system to support the new business model.

SEMANTIC WEB SERVICES

An initial focus on web services and JEE will be extended with support for semantic web services, based on WSMO (Web Services Modeling Ontology) and the concept of SESA – (Semantically-enabled Service Architectures) – that also will be related to the other metamodels and technologies.

SERVICE VARIABILITY

In SHAPE we aim to refine existing concepts and techniques for variability and extensibility to support the development of service-oriented architectures. In particular, we will investigate how existing concepts can be applied to services and service interfaces.

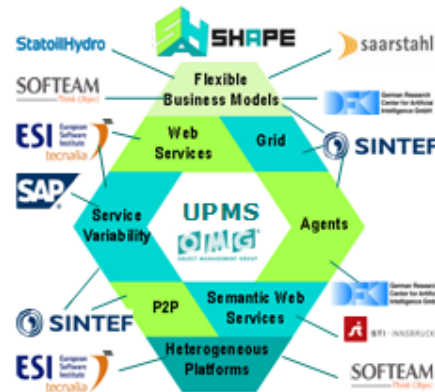
AGENT, P2P AND GRID TECHNOLOGIES

SHAPE will define metamodels for Agent, P2P Components, ERP services, and Grid technologies, and provide transformations from UPMS and UPMSHA to these realisations technologies.

METAMODELS AND METHODOLOGY FOR SOA AND SHA

The SHAPE project will provide open source models for the emerging UPMS standard for SOA service modeling, and extensions to this for SHA. The use of these will be supported with a methodology for SOA and SHA.

Project SHAPE – January 2009



MDE TOOLSET FOR SOA AND SHA

The MDE (Model Driven Engineering) toolset will be based on the baseline from the MODELPLEX IST project and the Eclipse environment. It will include editors based on the metamodels and transformations from business models through UPMS to the various technologies.

TWO INDUSTRIAL PILOTS

The SHAPE project will derive user requirements and validate results on two industrial user pilots. One pilot is in the Oil&Gas sector by StatoilHydro and one pilot is in the Steel industry sector by Saarstahl.

The SHAPE project will promote a new development paradigm with a higher degree of involvement of joint user and development communities through minimising the gap between business and system modelling, in particular by lifting the system specification models to a higher platform independent level.

SOAML – SERVICE ORIENTED ARCHITECTURE MODELING LANGUAGE

The SHAPE project is coordinating the SoaML team submission to the OMG UPMS standard, and also provides access the related UML profile and metamodel available for various tools, for others to use, improve on and extend on. See www.soaml.org

Figure 3. SHAPE Project Factsheet, Page 2.

2.2 Web Site

The SHAPE Web Site is accessible at: <http://www.shape-project.eu>

In order to raise public awareness and to provide a common communication platform for the partners, the official SHAPE web portal has been launched at project Kick-Off. The central part of the website provides a public view onto the project and its progress. Its main menu is divided into the following parts:

- An overview about the main project objectives and goals.
- Consortium and contact information.
- A section for work package providing descriptions for each work package
- A section for project results, providing an overview on the progress and milestones reached by supplying the documents intended for the public.
- Publications and links that will provide further project material to the public audience.
- A download section for downloading tools that will be developed in the project.
- A blog section providing announcements of events such as conferences, workshops and meetings that are related to or hosted in the course of the SHAPE project.

In addition to the public part an internal section provides the project partners with a lightweight document and website management platform. It features the management of binary resources, such as publication drafts, meeting minutes, work plans, etc. The initial structure divides the content into separate sections for each work package, containing predefined subsections for deliverables, publications, items for public relations and other content - this is accompanied by the possibility to create further subdirectories within the system.

Essentially, the document management environment features facilities for uploading and browsing documents, version tracking of publication drafts and lightweight meta-data annotations.

All the people involved with the project have been provided with personal accounts to trace individual activities whereas the work package leaders are offered additional administrative features for modifying the dynamic content of the website's public sections. It is possible to conveniently publish deliverables and publications stored within the internal system directly on the main page as well as to create entries on events and links.

The internal environment has been originally developed by UIBK and offers the necessary stability, security, speed and maintainability of the application. Additionally, database backups are being performed periodically.

2.3 Promotional and Dissemination Events

The following table includes all the events where SHAPE project was disseminated.

Table 1. Dissemination Events.

Title of the Event	Date, Location	Web Site	Mean of Dissemination
Semantic Days 2008	21 – 23 April, Stavanger, Norway	http://www.posccaesar.org/en-GB/PortalObject/2803/POSCCaesar.aspx	Promotional Material, Co-located Consortium Meeting
Modeling, Design, and Analysis for Service-oriented Architecture Workshop 2008	17 September 2008, Munich, Germany	http://events.sti2.at/mda4soa2008/	Topic Related Workshop Organization. Project Presentation.
European Semantic Technology Conference	24-26 September 2008, Vienna, Austria	http://www.estc2008.com/	Promotional Material

2.4 Papers

The following list includes all the papers disseminating SHAPE project results:

1. Christian Hahn, Stefan Nesbigall, Stefan Warwas, Ingo Zinnikus, Matthias Klusch, Klaus Fischer. Model-driven Approach to the Integration of Multiagent Systems and Semantic Web Services at MDA4SOA workshop, EDOC 2008.
2. Christian Hahn, Ismar Slomic. Agent-based Extensions for the UML Profile and Metamodel for Service-oriented architectures at MDA4SOA workshop, EDOC 2008.
3. Hahn, C.; Nesbigall, S.; Warwas, S.; Zinnikus, I.; Fischer K.; Klusch, M. (2008): Model-driven Approach to the Integration of Multiagent Systems and Semantic Web Services. Proceedings of International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, IEEE CS Press.
4. Srdjan Komazec, Omair Shafiq, Federico M. Facca, Michal Zaremba, Mick Kerrigan (2008): Semantic Web Services as Foundation for Enterprise Interoperability. Proceedings of the 14th International Conference on Concurrent Enterprising, Lisbon, Portugal, June 2008.
5. Federico M. Facca, Srdjan Komazec, Michal Zaremba (2008): Towards a Semantic Enabled Middleware for Publish/Subscribe Applications Workshop on Middleware for the Semantic Web: Enabling a Web of Knowledge and Services, Second IEEE International Conference on Semantic Computing Santa Clara, CA, USA - August 4-7, 2008
6. D. Roman and M. Kifer. Semantic Web Service Choreography: Contracting and Enactment. In Proceedings of the 7th International Semantic Web Conference (ISWC) 2008, Springer LNCS, October 2008, Karlsruhe, Germany.

2.5 EC Events

SHAPE representatives took part to the following EC organized events:

- Future Internet Assembly, FIA, Bled ,31 March – 2 April, 2008 – SHAPE project supporting the Future Internet Bled declaration
- Internet of Services 2008. Collaboration Meeting for FP6 & FP7 projects, Brussels, 22-23 September 2008
- NESSI NEXOF RA, 20-21 October 2008, SoaML input to the Service Declaration group, and further contribution and participation to this group
- ICT 2008, Lyon, 25-27 November 2008, Presentation of SHAPE results in Software & Services NESSI session
- Future Internet Assembly, FIA, Madrid, 9-10 December and ServiceWave'2008, 10-12 December, – Presentation of SHAPE results in Software & Services session

2.6 Communication with Relevant user groups

SHAPE partners started to disseminate results achieved to potential end users of SHAPE standards and toolkits.

In particular SAP internally presented the SHAPE project to the management board and started transfer of knowledge to a SAP team working on an internal project on service variability.

ESI introduced the SHAPE Project in the 3rd INES Assembly in Mallorca, Spain. The INES Platform (<http://www.ines.org.es/index.php>) is community driven initiative to increase the competitiveness of the Spanish industry in the information and communication technologies domain. More than 170 people attended to this 3rd assembly that was held in Mallorca from 9 to 11 of July. In the context of this assembly the SHAPE project was introduced in a parallel track with more than 50 attendees. The presentation was focussed in the project and specially in the standardisation activities of the project results.

2.7 Established FP7 liaisons

A Liaison was successfully established with COIN EU project (<http://www.coin-ip.eu>) thanks to the involvement of common partners (SINTEF, DKFI, UIBK, ESI) in the two projects. In particular SHAPE vision and expected results have been presented to the COIN consortium. The purpose is to enable COIN to reuse and build upon SHAPE results.

3 Dissemination Plan

In the next year, in line with the steps taken till now, we plan to further disseminate SHAPE results by:

- Updating the promotional materials
- Update the project web site with public information about the project, progress and results
- Presentation of the project and its results at related thematic events, workshops and conferences
- Publications in journals, scientific and industrial periodicals
- Participation in related events organised by the EC
- Establish and/or communicate with relevant user groups
- Strength established liaisons with other FP7 projects and establish new ones

The project partners will disseminate and exploit the results from the projects in the following ways.

3.1 Papers

Public research results from the project have been or will be published in conferences, workshops, international journals, and magazines.

The tables in the annex list potential workshops and conferences, journal, and magazines which will be targeted by the project.

3.2 Open source

Various open source implementations and tools will be developed in the context of the project, and will be given access to them through the web-site. SHAPE has chosen an Open Source development strategy in order to provide a base infrastructure that will be reliable, stable, flexible, low cost and with a good support. Making our base infrastructure Open Source is the best choice to make it of durable quality. Moreover, having this base infrastructure Open Source will bring a large community and then will facilitate future introduction of new contributors (users, tool providers and academia); furthermore, SHAPE will be able to easily reuse MODELWARE and MODELPLEX Open Source components and integrate its own results into the already running Eclipse community. The choice of Eclipse has been driven by this consideration. Eclipse is already a successful Open Source project. It has in excess of 1 million of downloads and it has a very large community. An interesting aspect with the SHAPE MDE focus on standard models and metamodels is support for a move in the direction from Open source to Open models. Based on the development of Open Source reference implementations of UPMS and UPMSHA, the SHAPE project might provide valuable input to the NESSI NEXOF plans for an open source framework around services.

3.3 Workshops

Workshops will be organized through the course of the project at relevant international conferences to disseminate the SHAPE results and gather interest from both the industry and research communities.

In particular SHAPE consortium partners plan to organize the 4th edition of the *Modeling, Design, and Analysis for Service-oriented Architecture Workshop* in 2009. Location and date are not yet finalized.

3.4 Training

The university partners will enrich their courses with results from the project, as well as present the results of the project in tutorials organized in conjunction with international conferences. The open source implementation of the various tools will be used in advanced teaching activities. The work of the project will be disseminated also through seminars, student projects and theses (Diploma, BSc, MSc, PhD). The industrial partners will enrich their tradeshows and technical seminars for their existing and prospective customers with results from the project.

3.5 Dissemination to Other European Projects

The following EU funded projects are relevant to the SHAPE project, and a cooperation/dissemination with these projects is planned during the SHAPE project:

- COIN (COllaboration and INteroperability for networked enterprises)¹
 - o ESI will work in the introduction of innovative services in the platform that will make use of the UPMS approach as a way to improve the interoperability of enterprise systems. In this sense, we plan to integrate the transformations developed in SHAPE in the COIN platform. First steps toward collaboration are already being undertaken.
- Service Web 3.0²
- SOA4All: A Web of billions of Services³

The interactions with the above projects will take the form of face to face discussions, mailing lists discussions, phone conferences, meetings, etc.

¹ <http://www.coin-ip.eu>

² <http://www.serviceweb30.eu/>

³ <http://www.soa4all.org/>

4 Standardisation Report

During the first year SHAPE project already undertake several Standardisation initiatives aiming at making SHAPE related technologies a standard. In the next paragraphs we discuss them in details.

4.1 OMG standards – UPMS/SoaML

The main standardisation focus of the SHAPE project is the OMG standardisation of UPMS where the SHAPE project by Arne J. Berre has led the SoaML submission team. This has been done through participation in the 4 yearly OMG meetings and by holding a teleconference for the submission team once per week.

This has resulted in multiple revised submission of the SoaML proposal for UPMS, with versions per May 2008, September 2008 and November 2008.

The latest version was adopted by OMG for finalisation in a Finalisation Task Force (FTF) during the OMG meeting in December 2008. The FTF will also be lead by Arne J. Berre

The latest version of the SoaML submission can be found here:

<http://www.omg.org/cgi-bin/doc?ad/08-11-01.pdf>

The SHAPE team has specifically worked to extend the scope of SoaML beyond pure SOA concerns, by adding elements related to other domains such as Agent modeling, connection to Business modeling concerns (BPM, Enterprise Architecture, Business Motivation Metamodel) or Ontologies definition. The Shape team has worked to consolidate and validate the standard, by improving the metamodel, implementing it, working on the profile definition and implementing it notably under the Objecteering commercial tool. This profile has been used under different concerns from business modeling perspective, by exchanging its XMI format with other SHAPE tools.

The SoaML and SHAPE work has brought concerns relating the UML standard: this has led to issues to be managed by the UML RTF (where several SHAPE members are involved), and to forecasts for a new major UML release, which will be envisaged through an RFI (Request for Information) process.

During the last year the OMG standardization workgroup had weekly teleconferences (52 times).

Table 2. OMG SoaML Events in 2008.

Date	Place	SHAPE Partners Involved
10-14/03/2008	Washington, USA	SINTEF, ESI, SOFTEAM
23-27/06/2008	Ottawa, Canada	SINTEF, ESI, SOFTEAM
22-26/09/2008	Orlando, USA	SINTEF, ESI, SOFTEAM
8-12/12/2008	Santa Clara, USA	SINTEF, ESI, SOFTEAM

4.2 OASIS and OpenGroup standards

In the context of the work on SoaML we are also working with OASIS and the Open Group on harmonisation of the concepts and models for service modelling between different standards. This is in particular related to the ongoing work on the OASIS Reference architecture for SOA, and the Open Group SOA ontology.

5 Standardisation Plan

5.1 General overview

The SHAPE project will provide metamodels, tool support, methodology and use cases on the Semantically-enabled Heterogeneous Service Architecture and Platforms Engineering domain. SHAPE is involved in Standardisation efforts within the OMG, and follows other Standardisation bodies, in order to be as much aligned as possible with the state of the art, the standards, and the most common practices and to bring innovations on top of this.

As we will see, “standards” is not a monolithic bloc, on which we can just add new features. Standards are moving, new standards are under construction and the combination of standards need a strong effort in selecting a consistent subset. One of the expected benefits of standards is interoperability. SHAPE will enforce to provide interoperable solutions in order to let the SHAPE tools be interconnected with commercial tools build on the concerned standards.

This section presents the SHAPE objectives in terms of Standardisation strategy. It aims at promoting and coordinating partners' submissions to the various standardisation bodies such as:

- OMG (Object Management Group) with participations in various standardisations tasks (UML, MDA™ User Group, etc.).
- Eclipse Foundation, related with interoperability and open source issues for tools. It is well known for its Eclipse integrated development environment.
- ISO (International Standardisation Organization). It is a network of national standards institutes from 146 countries working in partnership with international organizations, governments, industries and consumer representatives.
- INCOSE (International Council on Systems Engineering), related with system engineering. It was founded in 1990 and is a non-profit organization. Its main goal is to foster the definition, understanding, and practice of world class systems engineering in industry, academia, and government.
- W3C Consortium (World Wide Web Consortium). It was created in October 1994 to lead the World Wide Web to its full potential by developing common protocols that promote its evolution and ensure its interoperability for e.g. Web-Services and XML standards.
- OASIS (Organization for the Advancement of Structured Information Standards) is a non profit, international consortium that drives the development, convergence, and adoption of e-business standards.

The definition of a standardisation strategy objective consists in identifying each of the relevant standardisation bodies, the active partners in each of the standardisation bodies and a coordinated strategy to act. The execution of a standardisation strategy objective consists of carrying out the standardisation activities by coordinating the submissions and agreeing on voting mainly through a synchronization of actor's positions and roadmaps.

Quite a large number of standards are related to the SHAPE work. The Shape research activities are involving the following fields:

- Modeling and meta-modeling,
- SOA,
- Semantic Web Services,
- Ontologies,
- Methodologies,

- Business modelling : Business Process modelling, Enterprise Architecture,
- Agents,

For each of these fields, we can quote several standards, which themselves have connections to other standards. Therefore, we get as a result quite a large number of interconnected standards.

The Figure below summarizes the main standards that are related to the SHAPE research.

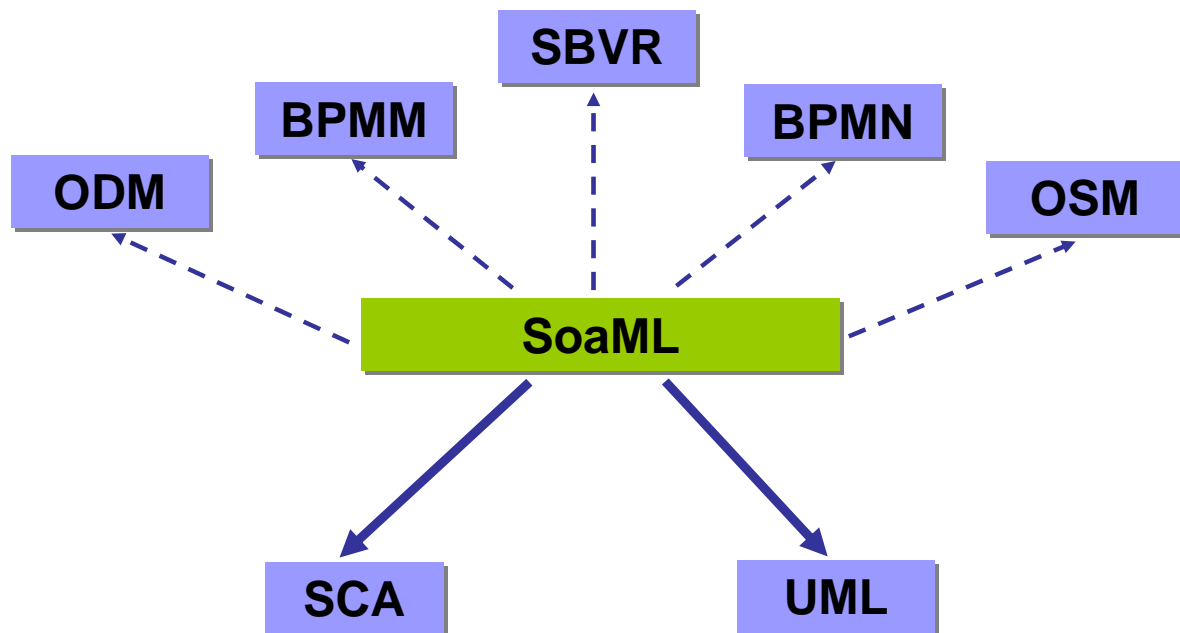


Figure 4. UMPS/SOA PRO related standards.

At the center of the Figure, UPMS/SoaML is an ongoing work that will provide a UML profile for modelling services. The SHAPE project is deeply involved in this standard which is the main standard related to SHAPE. This standard by itself is connected to other standards : UML is the foundation on which UPMS/SoaML is built. SCA is a reference architecture for services, on which UPMS/SoaML takes many references.

The standards on top of UPMS concern mainly the elements that are defined before the architecture definition. The reference to them is mainly concerned by a search for continuity in the system development lifecycle.

All these standards are using metamodels and therefore implicitly rely on MOF/XML technologies.

In **Error! Reference source not found.**, we see how UPMS relates to other techniques, which imply the usage of the related standards.

For the next year, the plan is to continue the lead of the SoaML standardisation in OMG, and the associated harmonisation with OASIS, the Open Group. We will also continue the contribution to NESSI NEXOF and integrate parts of the results from this work also into the standards. The initial task in 2009 will be to harmonise the different definitions of the service concepts among the various standardisation organisations.

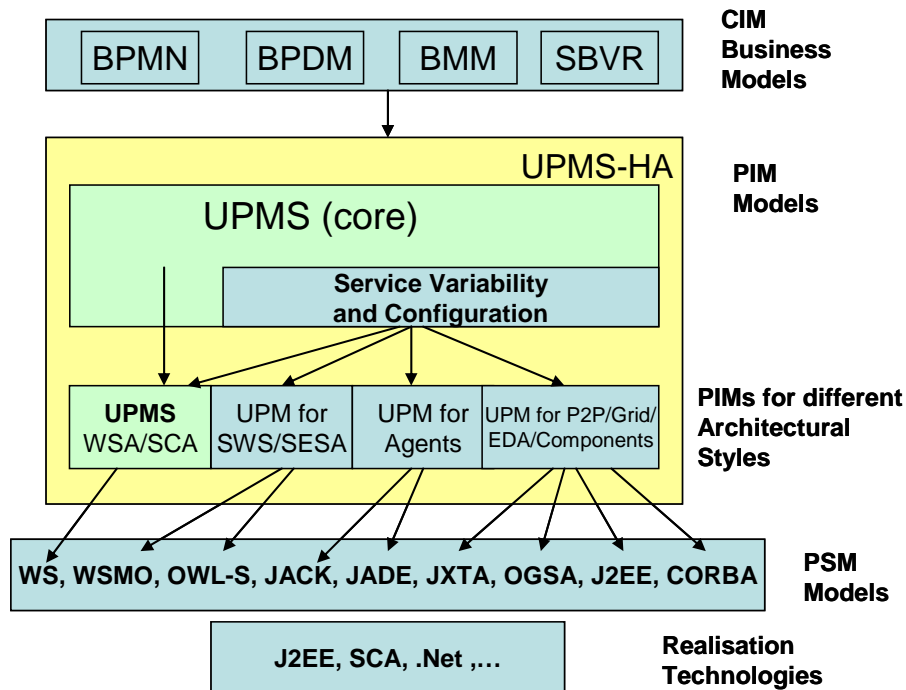


Figure 5. UPMS (core) and UPMS-HA – connection to technologies and domains.

5.2 OMG Variability Modeling RFP

We are discussing with various groups in OMG interested in variability modelling for UML, about future standardisation plans for variability modelling in general, and service variability in particular.

5.3 OMG AMP (Agent Metamodel and Profile) RFP

For the extensions of UPMS towards heterogeneous architectures (UPMS-HA), we have initiated a new RFP for Agent Metamodel and Profile (AMP) within OMG. This will also include extensions for P2P, Grid/Cloud and semantic technologies.

This Request for Proposal solicits submissions for an Agent Metamodel and Profile (AMP). Essentially, the AMP RFP requests a metamodel and profile for extending UML with capabilities applicable to agents and agent-based software. Submissions developed in response to this RFP will achieve the following: Clarify semantics concerned with modeling agents. Establish Agent modeling best practices utilizing OMG technologies. Develop a MOF-compliant agent metamodel to be used either standalone or via extending the existing UML metamodel with agent modeling capabilities. Enable agent model interchange between tools via XML. Optionally facilitate modeling of Peer-to-Peer, Grid and Cloud computing, and other technologies in terms of a collection of Agents. It is expected that responses to this RFP will make good use of agent modeling capabilities already supported by the OMG.

Table 3. The OMG schedule for AMP.

Schedule		
Event	Date	Notes
RFP Issued	September 26, 2008	<i>Relevant documents:</i> ad/08-09-05 (Agent Metamodel and Profile (AMP) RFP)
LOI Deadline	February 16, 2009	
Initial Submission Deadline	May 25, 2009	
Voting List Deadline	July 27, 2009	
Revised Submission Deadline	November 9, 2009	

5.4 OMG UPMS – SoaML FTF

The FTF work for SoaML will continue during the regular OMG meetings and through weekly teleconferences led by the SHAPE project.

Table 4. The OMG schedule for the SoaML UPMS Finalisation Task Force (FTF).

Schedule		
Event	Date	Notes
Alpha specification		ad/2008-11-01, ad/2008-11-03, ad/2008-11-04, errata ad/2008-12-18 <i>Relevant documents:</i> ad/08-12-18 (UPMS (SOA-Pro) RFP revised submission Errata) ad/08-11-03 (UPMS XMI Document for SoaML UML Profile)
Voting List Deadline	December 12, 2008	
Beta 1 specification available	January 30, 2009	
FTF comments due	August 30, 2009	
FTF Recommendation and Report deadline	November 15, 2009	

5.5 Future Development of UML - Request For Information

The purpose of this RFI is to acquire feedback from UML tool suppliers, users, academic researchers and others about their perception of opportunities, problems, and limitations with the UML specification and their wishes and priorities for addressing these issues. Responders are requested to describe their specific interest in UML e.g. vendor, user, researcher, including whatever details of their business are appropriate in order to illuminate their wishes and priorities. The results of this RFI will be used to help plan the future evolution of UML.

SHAPE participants will respond to this RFI in order to influence the definition of an RFP for UML evolutions, and to improve the efficiency of soaML and other standards relying on UML.

RFI issued: Dec 10, 2008
 RFI responses due: August 17, 2009
 Review of RFI responses: September 16, 2009 (OMG meeting in San Antonio).

6 Conclusions

In this deliverable we reported the dissemination and standardisation activities of the first year of project. The core dissemination activities consisted of: publications in journals, conferences, and workshops and organization of workshops. The SHAPE Standardisation activities in the first year focused on the standardization of SoaML in the OMG. In this deliverable we also provided an updated plan for dissemination and standardization activities to be undertaken in the next reporting period.

ANNEX I (Relevant Workshops, Conferences, Journals, and Magazines)

Table I.1. Workshops and Conferences.

Name	URL
2008	
Asian Semantic Web Conference 2008	http://www.aswc2008.org/
European Semantic Web Conference 2008	http://www.eswc2008.org/
International Conference on Knowledge Discovery and Data Mining 2008	http://www.kdd2008.com/
International Conference on Service Oriented Computing (ICSOC) 2008	http://www.icsoc.org/
International Semantic Web Conference 2008	http://iswc2008.semanticweb.org/
World Wide Web Conference 2008	http://www2008.org/
International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2008	http://gaips.inesc-id.pt/aamas2008/
International Conference on Advanced Information Systems Engineering (CAiSE) 2008	http://www.lirmm.fr/caise08/
International Conference on Intelligent Agent Technology (IAT) 2008	http://datamining.it.uts.edu.au/wi08/html/iat/
German Conference on Multi-Agent system TEchnologieS (MATES) 2008	http://www.wi2.uni-trier.de/mates08/
Programming Multi-Agent Systems (ProMAS) 2008	http://vsis-www.informatik.uni-hamburg.de/events/ProMAS2008/
Service-Oriented Computing: Agents, Semantics, and Engineering (SOCASE) 2008	http://www.swin.edu.au/hosting/socase2008/
Agent-Oriented Software Engineering (AOSE) 2008	http://grasia.fdi.ucm.es/aose08/
Agent-based Technologies and applications for enterprise interOPERability 2008	http://www-ags.dfki.uni-sb.de/~kuf/atop/
Models 2008	http://www.modelsconference.org/
EC-MDA 2008	http://www.fokus.fraunhofer.de/go/ecmda2008/
ICSE 2008	http://icse08.upb.de/
I-ESA 2008	http://www.aidima.es/iesa2008/
EDOC 2008	http://www.lrz-muenchen.de/~edoc2008/index.html
ICSOFT 2008	http://www.icsoft.org/ICSOFT2008/

2009	
Asian Semantic Web Conference 2009	Link not available so far.
European Semantic Web Conference 2009	http://www.eswc2009.org/
International Conference on Knowledge Discovery and Data Mining 2009	http://www.sigkdd.org/kdd2009/
International Conference on Service Oriented Computing (ICSOC) 2009	http://www.icsoc.org/
International Semantic Web Conference 2009	http://iswc2009.semanticweb.org/
World Wide Web Conference 2009	http://www2009.org/
International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2009	http://www.conferences.hu/AAMAS2009/
International Conference on Advanced Information Systems Engineering (CAiSE) 2009	http://caise09.thenetworkinstitute.eu/
International Conference on Intelligent Agent Technology (IAT) 2009	http://www.wi-iat09.disco.unimib.it/WI09/WIhome.htm
German Conference on Multi-Agent system TEchnologies (MATES) 2009	http://www-ags.dfki.uni-sb.de/~kluschk/mates-series/html/mates_2009.html
Programming Multi-Agent Systems (ProMAS) 2009	http://www.cs.rmit.edu.au/agents/PROMAS2009/
Service-Oriented Computing: Agents, Semantics, and Engineering (SOCASE) 2009	http://www.swin.edu.au/hosting/socase2009/index.html
Agent-Oriented Software Engineering (AOSE) 2009	http://grasia.fdi.ucm.es/aose09/
Agent-based Technologies and applications for enterprise interOPerability 2009	http://www-ags.dfki.uni-sb.de/~kuf/atop/
Models 2009	http://www.modelsconference.org/
EC-MDA 2009	http://ecmda2009.utwente.nl/
ICSE 2009	http://www.cs.uoregon.edu/events/icse2009/home/
I-ESA 2009	http://www.i-esa.org.cn/OncePortal/portal/
EDOC 2009	https://www.se.auckland.ac.nz/conferences/edoc2009/
ICSOFT 2009	http://www.icsoft.org/
DAIS 2009	http://discotec09.di.fc.ul.pt/index.php?title=Dais
ECOOP 2009	http://2009.ecoop.org

Table I.2. Journals.

Name	URL
ACM Transactions on Database Systems	www.acm.org/tods
ACM Transactions on Information Systems	www.acm.org/pubs/tois/
ACM Transactions on Internet Technology	www.acm.org/pubs/periodicals/toit/
ACM Transactions on Software Engineering and Methodology	www.acm.org/pubs/tosem/
Applied Ontology - An Interdisciplinary Journal of Ontological Analysis and Conceptual Modeling	http://www.applied-ontology.org/
IEEE Transactions on Knowledge & Data Engineering	www.computer.org/tkde
IEEE Transactions on Parallel & Distributed Systems	www.computer.org/tpds/
IEEE Transactions on Software Engineering	www.computer.org/tse/
International Journal on Semantic Web and Information Systems	http://www.ijswis.org/
Journal of Web Semantics	http://www.websemanticsjournal.org/
LNCS Journal on Data Semantics	http://www.springeronline.com/sgw/cda/front page/0,10735,5-164-22-142041300,00.html
International Journal of Agent-Oriented Software Engineering (IJAOSE)	http://www.inderscience.com/ijaose/
Internal Journal on Autonomous Agents and Multi-Agent Systems (JAAMAS)	http://www.springer.com/computer/artificial/journal/10458

Table I.3. Magazines.

Name	URL
Communications of the ACM	http://acm.org/cacm/
IEEE Internet Computing	http://www.computer.org/internet