

SODIUM

Service Oriented Development In a Unified fraMework

FP6-004559

**Presentation in the context of the
Launching Event of the FP6 Projects on Software
Technologies & Distributed Systems
Brussels, November 4th 2004**

SODIUM Main Objective



To support the standards-based **unified discovery** and
composition of heterogeneous p2p, grid and web **services**

*and thus to promote their wide utilization and the broad
adoption of service-oriented technology*

by providing a solution for

**Service-Oriented Development In a Unified fraMework
(SODIUM)**

comprising of **models, languages** and **open source**
corresponding **middleware**

SODIUM Consortium



- Athens Technology Center S.A. (ATC) – GREECE
- National and Kapodistrian University of Athens (NKUA) – GREECE
- Stiftelsen for industriell og teknisk forskning ved NTH (SINTEF)-NORWAY
- Information and Communication Group, Institute for Information Systems, (ETHz) – SWITZERLAND
- Locus AS - NORWAY
- S.C. MEDISYSTEM HOSPITAL S.A – ROMANIA

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SODIUM Scientific & Technical Objectives



Development of middleware platform for:

- The **Unified**, Open and Standards-based **Discovery** and Visual **Composition** of **heterogeneous e-services**

Specification of:

- A Generic Service Model
- Languages for Unified Discovery and Composition
- A Methodology for Service Composition

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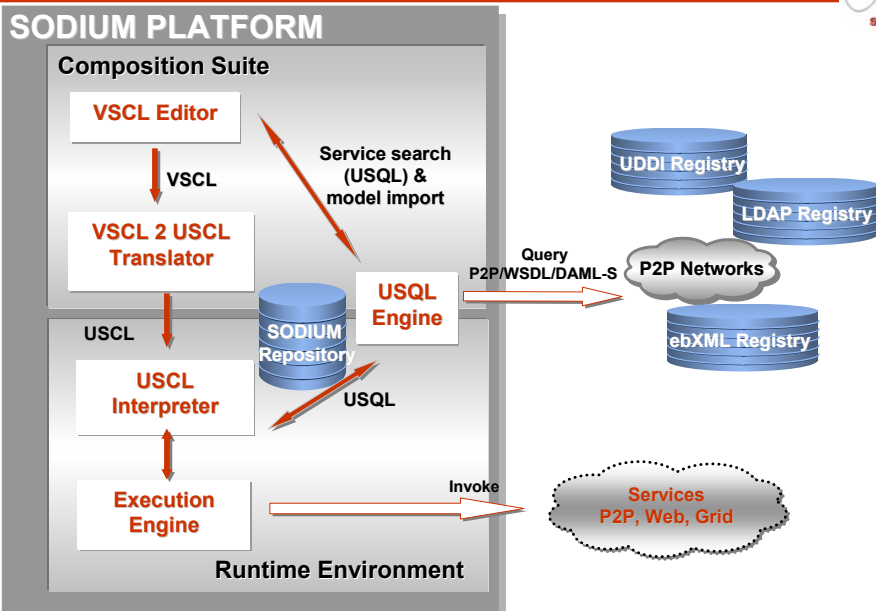
SODIUM Languages



- **Visual Service Composition Language (VSCL)**
 - for designing service composition graphs at multiple levels of detail
- **Unified Service Query Language (USQL)**
 - to cater for the discovery of different types of services (web services, p2p and grid) and to accommodate different service description techniques
- **Unified Service Composition Language (USCL)**
 - to facilitate the invocation and composition of multiple types of services

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SODIUM Architecture



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SODIUM Service Model and Methodology



- **Generic Service Model**

- incorporating all required characteristics for describing any type of service i.e. interface, functional, non-functional, Quality of Service (QoS) and behavioral characteristics

- **Unified Service Composition Methodology**

- Providing specific guidance for composing service-oriented applications by reusing any type of service
- Including Guidelines for using the SODIUM platform

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SODIUM Pilot Applications



- **Healthcare (Romania)**

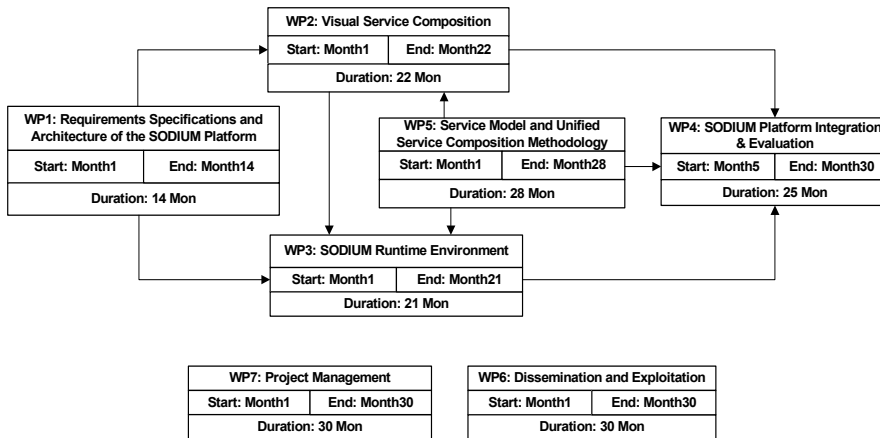
- User : EUROCLINIC (MEDISYSTEM)
- Covers the day-to-day activities supported by a medical environment that facilitates access to medical services

- **Crisis Management (Norway)**

- User : LOCUS
- Supports the rapid and accurate access to heterogeneous services and information necessary for the management of crisis situations

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SODIUM Workplan

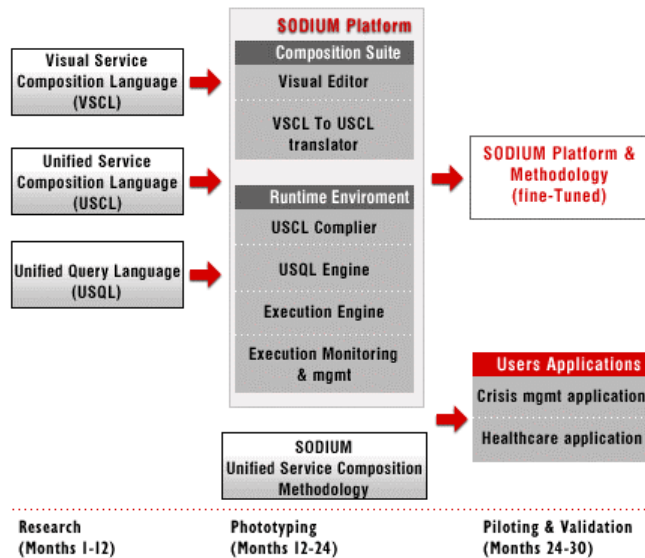


Project start : July 2004

Duration : 30 months

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SODIUM Roadmap of results



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Potential Synergies with other projects



- Organise Joint Events and Activities, e.g. workshops, technical meetings, publications, as well as complementary research plans in the areas of:
 - Service-oriented enterprise integration
 - Service-oriented architectures
 - Service-oriented development and methodologies based on MDA
 - Semantic and QoS-based publication, discovery, composition and invocation of heterogeneous e-services
 - Dynamic service composition
 - Service level agreements and e-contracting
 - Ontologies
 - Standardisation Activities
 - etc

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For more on SODIUM please visit our web site :

<http://www.atc.gr/sodium>

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