



How to prepare a successful proposal

Tips and tricks from a Company

Atanas Kiryakov
Head of Ontotext Lab, Sirma Group Corp.

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Presentation Outline

- Introduction of Sirma and Ontotext
- Experience in FP5 and FP6
 - Statistics and Proposal Preparation Hints
 - A project lifecycle from FP5
 - The Consortium Agreements
- Project overviews:
 - SWWS
 - DIP
 - Infrawebs
 - SUPER
- Conclusions

What is Sirma?

- **Established in 1992** as a Bulgarian-Canadian AI Lab
- Currently it is a **group of diverse IT businesses**
 - More than 10 companies and business units (incl. Ontotext)
- **Offices:**
 - Sofia, Kazanlak, Plovdiv, Varna, Rousse – Bulgaria
 - Montreal, Ottawa – Canada
 - Sao Paulo – Brazil
 - Santa Rosa – USA
- **Top-3 software house in Bulgaria**, above 200 employees
- 1999 EIST prize winner
- ISO 9001:2000 certified



Ontotext Positioning

- **Ontotext is an Semantic (Web (Service)) Technology Lab**
 - It is part of Sirma Group, the team is located in Sofia and Varna
- Unique coverage of research/technology areas, including:
 - **Semantic Databases:** Reasoning, Ontology management
 - **Semantic Search:** Text-mining (IE), Information Retrieval (IR)
 - **Semantic Web Services and BPM:** WS annotation, discovery, etc.
 - **Web Mining:** focused crawling
 - **Knowledge fusion:** identity resolution, record linkage
- **Core business:** research and core technology development
 - Complemented by services and business ventures
 - Joint ventures: Innovantage and Namerimi

Ontotext Positioning (II)

- **Applications in:**
 - Semantic Web
 - Data Integration
 - Knowledge Management, Content Management
 - Business Intelligence, Media Research
 - Life Sciences
 - Enterprise Application Integration
 - Business Process Management
- Aside from the scientific matters, most of the Ontotext fellows are **professional software developers**

Semantic Web Technology Developer

Ontotext is a leading Semantic Web technology developer:

- the developer of the **KIM semantic annotation platform**
 - the most popular semantic annotation system
- the lead developer of the **wsmo4j** semantic web services API and the **WSMO Studio** service development environment
 - WSMO is the leading framework in the semantic web services area
- the developer of **OWLIM semantic repository**
 - the fastest and most scalable OWL engine

Ontotext is a major contributor to several open-source projects:

- **GATE** - the most popular text-mining platform
- **Sesame** - the most popular framework for semantic repositories

Ontotext Facts

- **Founded: year 2000**; part of Sirma Group
- Staff: **26 employees** (average age ~28 years)
- Over **70 person-years invested** in research and product development
- **Google 1st place**: “semantic annotation”, “semantic repository”
- Google 1st page: “wsmo” (3 results), “sa-wsdl” (4 results)
- Scientific **publications: 40**
- **Projects: 11** (6 research, 5 industrial)
- **Products: 5**
- **Partners: 20** with intensive direct cooperation; over 80 in total
- Number of server **CPU cores: 36**; (~2 per engineer)

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Extensive Involvement in Research Projects

Ontotext is part of **outstanding European research** projects:

- On-To-Knowledge, SWWS, DIP, SEKT, PrestoSpace, SUPER, etc.
- **100 MEuro** is the total budget of the FP5/6 projects of Ontotext
 - For all the partners in the projects
 - This is about 1/3rd of EC's funding in semantics in the naughties
- Sirma is the **most successful Bulgarian company** in FP6
- Ontotext is part of two integrated projects, qualified for funding in the 1st call of **FP7**:
 - LARKC: web-scale reasoning
 - soa4all: SOA for the masses through Semantic Web technology

Ontotext Participation in FP5/FP6

- Participated in almost **40 proposals**:
 - We were active contributors to about half of them
 - Got invited to the others, often in the “last minute”
- **4 projects in FP5**:
 - Two RTDs; a Strategic Roadmap; a Thematic Network
 - Rather diverse wrt size of the projects and our participation
- **11 projects in FP6**:
 - 4 IPs, 6 STREPs, 1 SSA;
 - Total budget of the projects we participate in: 84M EURO
- **Typical role**:
 - A technology provider, focusing on core technology and infrastructure
 - Taking implementation and integration tasks within the projects

Participation in IST Proposals

Successful proposal preparation:

- 2-6 man/months of work
- 100-150 pages description of work
- At least one preliminary meeting of the consortium
- Another meeting for “negotiation” with the EC
- You get used to the process after the first 3 projects

In the negotiation phase you might be requested to provide financial reports for the last 2-3 years:

- If the company is not very big, a bank reference might be requested as well
- SMEs usually look unstable

Proposal Experience

- The successful proposals start at least **3 months** before submission:
 - Have the essential idea already on paper
 - The core participants gathered
 - Agreed distribution of labor
- There should be a **strong leader**:
 - Usually it is a university with a leading position in the field
 - The coordinating person should be a respectable senior researcher
- The core team should be dedicated to the proposal success

Proposal Experience (II)

- Good proposals require dedication:
 - The preparation can consume **3-4 man-months!**
 - Even more for IPs
- There should be a “**proposal preparation meeting**”
 - We do not have a single successful proposal without a preparation meeting 1-2 months before submission
- 50% of the well-written **well-targeted proposals succeed**
 - Do not get bind to your proposals – some times it is just not the right time or not the right consortium
 - But also, don't be afraid of 1:20 funding rates
 - Most of the proposals are just not prepared well

Sample life cycle from FP5

- On-To-Knowledge (OTK) was **our first FP5 project**
 - a very high-profile RTD project in FP5
- We **joined a running project**
 - IST-2001-VIII.1.6 “Enabling RTD cooperation with NAS”
- Met the coordinator at a scientific conference
 - Already had some research, publications and tools in the area
 - Went to the informal leader in the scientific community:
 - Hello Mr. X, my name is Y, I represent a software company Z from Bulgaria. We do this and that in areas A and B. Are you interested to discuss on a possible collaboration?
 - Yes, let’s meet for a coffee tomorrow 8:30 in hotel H

Sample life cycle from FP5 (II)

- OTK project start: **Dec 1999**
- Start thinking of proposal to join OTK: **Dec 2000**
- Proposal submission: **March 2001**
- Positive evaluation: **July 2001**
- Negotiations: **Aug 2001** (one summer holiday less)
- Contract signature: **22.Dec.2001**
 - Backdated to **1.Nov.2001**
- Project end: **Sept 2002**
- Final review: **12.Oct.2002**

Sample life cycle from FP5 (III)

- Number of business trips before the official start: **3-4**
- Financial schedule:
 - First cash in: **Feb 2003** (14 months after the start)
 - Getting the final contribution: **Jan 2004** (13 months after the end)
 - Time from conceive to first payment: **27 months**
 - Time from start of real work to first payment: **12 months**
 - Part of the delays were due to guarantee-related discussions
- **In FP6 it runs faster**, with less formal requirements

Consortium Agreements

- There are two important documents for a project:
 - Contract between the consortium and EC
 - Contract between the members of the consortium (Consortium Agreement, CA)
- CA can be different. Read them!!!
 - It is often that the coordinator takes one form somewhere and adapts it
 - They are often inconsistent ... the researchers tend to overrate their capability to understand a 30-page contract, discuss and aggregate changes from 10 partners within, say, 5-10 person days of effort

Consortium Agreement Contents

- Distribution and management of IPR, including
 - Access to pre-existing know-how, software, etc
 - Exploitation of the outcomes of the project
- Financials: the distribution of the EC contribution
 - Schema for pre-financing/advance payment
 - Retention funds
- Project management, conflict resolution:
 - “General assembly” (think of Parliament)
 - “Project management board” (PMB, think of government)
 - Other boards/committees (Technical, Exploitation, etc)

Consortium Agreement Variations

- Different schema for distribution of pre-financing:
 - getting directly our share of the advance payments (OSAP) – no retentions
 - the coordinator keeps a retention fund of 15% of the first advance payment (you get 85% of OSAP)
 - each six months we get 1/3 of OSAP ... if we had submitted on time and in good shape our deliverables
- Pre-financing is not important for most of the academic partners, but could be critical for SMEs:
 - Projects are usually coordinated by Academic partners
 - The SMEs should know and defend their interests, because the others usually do not care

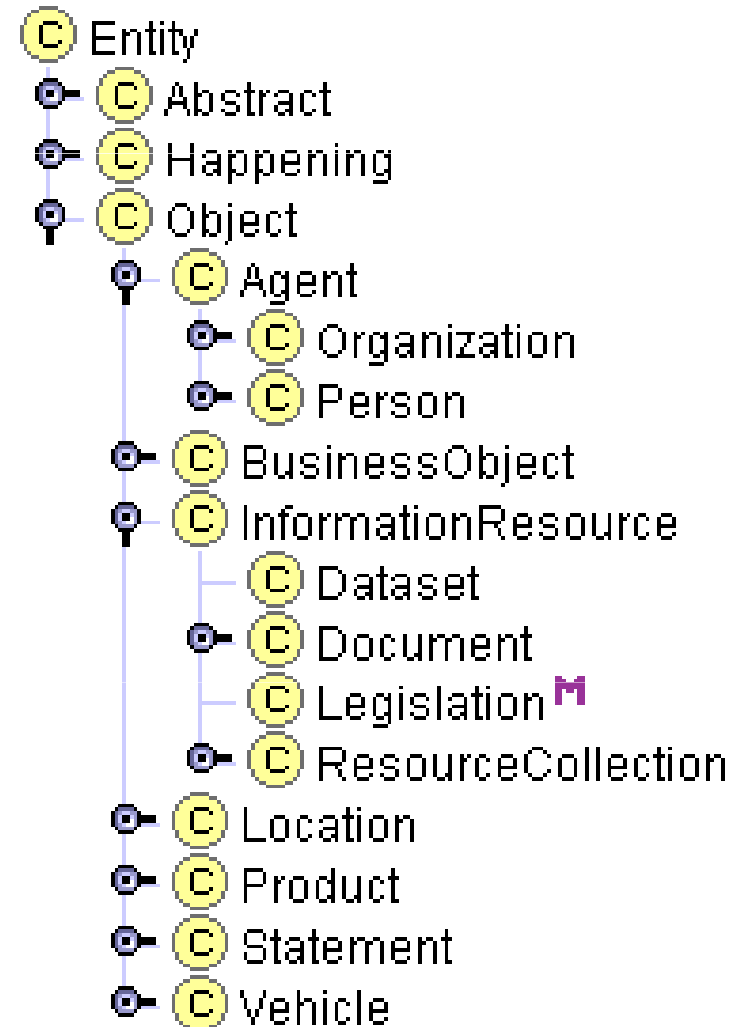
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Ontologies

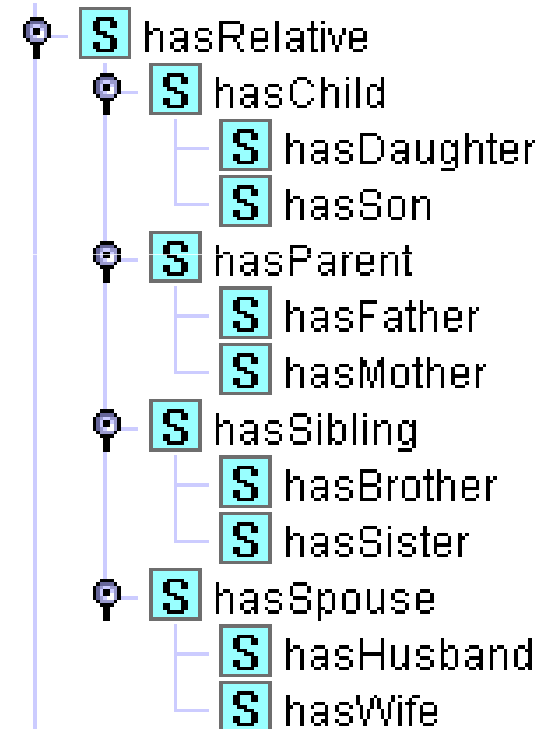
Despite the formal definitions, ontologies are:

- **Conceptual models** or schemata
 - Represented in a formalism which allows
 - Unambiguous “semantic” interpretation
 - Inference
- Can be considered a combination of:
 - **DB schema**
 - XML Schema
 - OO-diagram (e.g. UML)
 - **Subject hierarchy/taxonomy (think of Yahoo)**
 - Business logic rules



Ontologies (II)

- Imagine a DB storing “John is a son of Mary”.
- It will be able to "answer" just:
 - Which are the sons of Mary? Which son is John?
- An ontology with a definition of the family relationships. It could infer that:
 - John is a child of Mary (more general);
 - Mary is a woman;
 - Mary is the mother of John (inverse);
 - Mary is a relative of John (generalized inverse).
- The above facts, would remain "invisible" to a typical DB, which model of the world is limited to data-structures of strings and numbers.



Semantic Web Services

- Semantic service description (using ontologies)
- Facilitate discovery of (semantic) Web Services
- Improve interoperability through mediation between heterogeneous services
- Enable static and dynamic composition of complex Web Services
- Two major initiatives – OWL-S and WSMO
- Web Service Modelling Ontology (WSMO)
 - Ontologies
 - Goals
 - Mediators
 - Web Services

SWWS

- SWWS - Semantic Web enabled Web Services
- Funded under 5th FP
- Type: STREP
- Coordinator: INSTITUT FUER INFORMATIK DER UNIVERSITAET INNSBRUCK
- Partners: 6
- Start, Duration: 1st of Sept 2002; 30 months
- Total Budget: 3,6M Euro
- Financing: 1,99M Euro
- Web site: <http://swws.semanticweb.org>

DIP

- DIP: Data, Information, and Process Integration with Semantic Web Services
- Sent for: IST-Call1
- Type: Integrated Project
- Coordinator: National University of Ireland, Galway
- Partners: 18
- Start, Duration: 1st of Jan 2004; 36 months
- Total Budget: 16.3M Euro
- Financing: 10M Euro
- Web site: <http://dip.semanticweb.org/>

DIP

- **Vision**

- Extend the Semantic Web and Web Service technologies
- Produce new technology infrastructure for SWS
- To make Semantic Web Services become a reality as the new infrastructure for eWork and eCommerce.

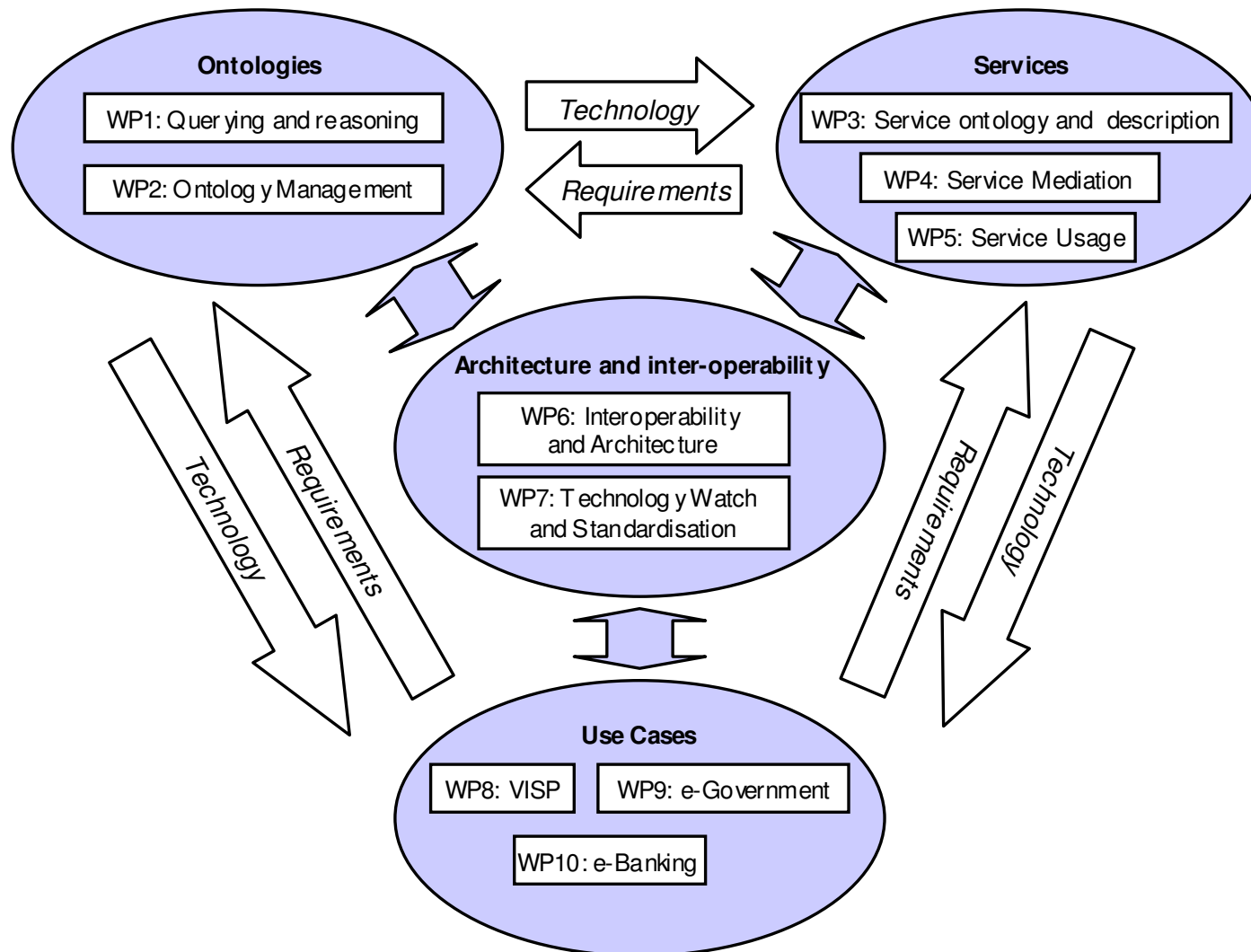
- **Partners**

- 6 Universities and 12 Companies from 10 Countries
- **DERI Galway, EPFL (Lausanne), University of Innsbruck (Austria), British Telecommunications PLC (UK), ILOG (France), SAP AG, FZI (Karlsruhe), The Open University (UK), Vrije Universiteit (Brussels), iSOCO (Madrid), Inubit (Berlin), Unicorn Solutions (Israel), Bankinter (Spain), Essex County Council (UK), Berlecon Research (Berlin), Ontotext (Bulgaria)**

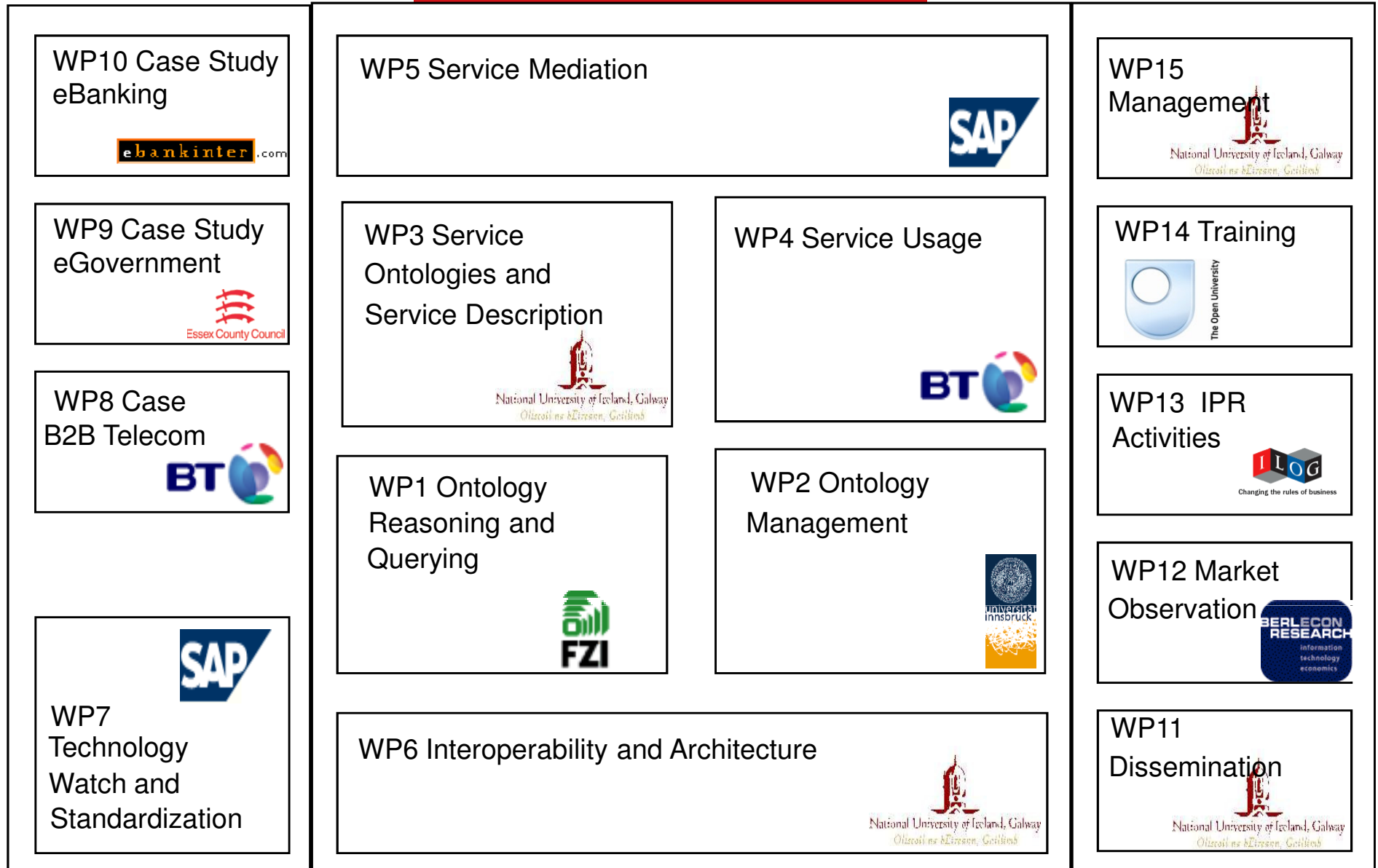
DIP

- **Main Results**
 - Open-source based Semantic Web Service Architecture (WSMO/WSMX) made public on a world-wide basis
 - Standard proposal through SWSI, W3C and / or OASIS
 - Practical and exploitable tools for the DIP partners on a large scale
- Real use-case implementations in different sectors
 - **B2B in Telecoms** - Demonstrates the added value of Semantic Web Services in B2B applications required and used in the Telecom Industry
 - **E-Government** - The delivery of more comprehensive and user-friendly services to citizens by multiple agencies at three different levels (Government, National, County)
 - **e-Banking** Provide clients with integrated banking services e.g. account querying, financial transactions, as well as other value added services e.g. house mortgages, share trading and mobile phone banking

DIP Workpackages



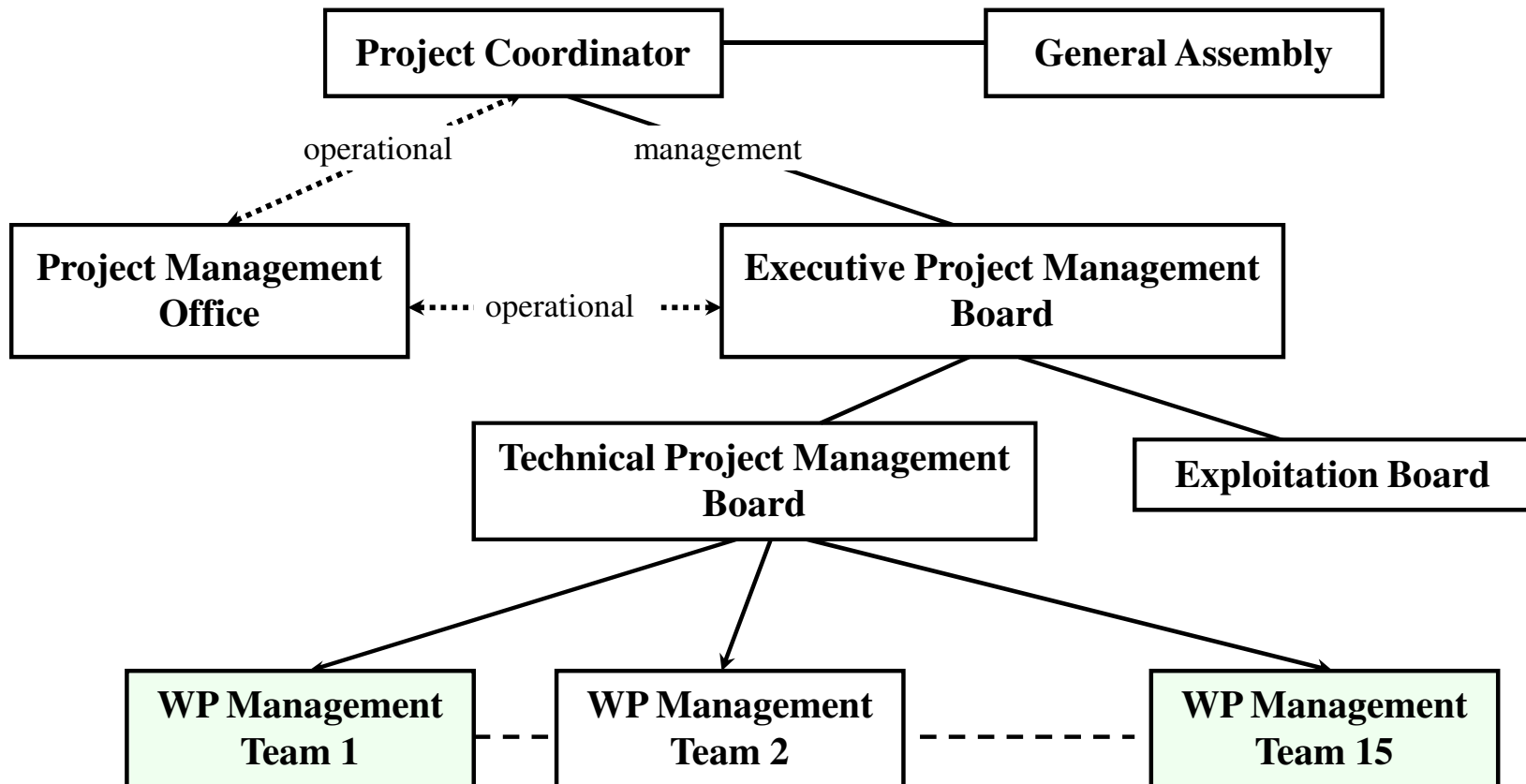
DIP Workplan Structure



DIP Management Structure

Advisory Board

EC (Project Officer)



Ontotext in DIP

- **WSMO Studio** (<http://www.wsmostudio.org/>)
 - Semantic Web Service description development environment
 - Developed within **projects SWWS, DIP, InfraWebs**
 - Based on WSMO (<http://www.wsmo.org>)
 - The core is open source.
- **wsmo4j** (<http://wsmo4j.sourceforge.net>)
 - A WSMO API and a reference implementation
 - for building Semantic Web Services descriptions
 - Used in WSMO Studio, and ORDI (<http://www.omwg.org>)
 - Developed within **project DIP**.

INFRAWEBBS

- INFRAWEBBS
 - Intelligent Framework for Generating Open (Adaptable) Development Platforms for Web-Service Enabled Applications Using Semantic Web Technologies, Distributed Decision Support Units and Multi-Agent-Systems
- Sent for: IST-Call2 (first sent to IST-Call1)
- Type: STREP
- Coordinator: University of App. Science Bochum , Germany
- Partners: 11
- Start, Duration: 1st of Aug 2004; 30 months
- Total Budget: 3.1M Euro
- Financing: 1.9M Euro
- Web site: <http://www.infrawebs.org/>

INFRAWEBBS

- To develop an **ICT framework**, which enables software and service providers (SMEs,...) to generate and establish open, extensible and reconfigurable **development platforms** for Web-Service applications. Established in such a way the open platforms consist of coupled and linked **INFRAWEBBS units**, whereby each unit provides tools and adaptable system components to analyse, design, conjointly compose, and maintain services (SW services) within their whole life cycle. ...:
 - "easy to use" **knowledge brokering** unit,
 - used within a **collaborative workflow** and platform environment for analysis, design and composition of SW services
 - secure and privacy-preserving **run-time and maintenance** tools.

Ontotext in INFRAWEB

- Developing distributed Semantic Web Service Repository and Registry infrastructure
 - Using ORDI
- Contribute to development of Designer and Composer tools, that use case-based reasoning to assist the user
 - WSMO Studio plug-ins
- Contribute to Execution engine development, related to composition execution
- Provide support to all partners in using wsmo4j and in creating plug-ins for WSMO Studio

SUPER

- SUPER: Semantics Utilised for Process management within and between EnteRprises
- Type: Integrated Project
- Coordinator: SAP, Germany
- Partners: 19
- Start, Duration: 1st of April 2006; 36 months
- Total Budget: 16.4M Euro
- Financing: 11M Euro
- Web site: <http://www.ip-super.org/>

SUPER

- Partners:
 - **SAP AG** (Germany), **eTel** (Austria), **IBIS Prof. Thome AG** (Germany), **IBM Research** (Switzerland), **IDS Scheer** (Germany), **Isoco** (Spain), **Leopold-Franzens University Innsbruck** (Austria), **MIP – Politecnico di Milano** (Italy), **National University of Ireland, Galway** (Ireland), **Nexcom** (Bulgaria), **NIWA** (Austria), **Open University** (UK), **Telefonica** (Spain), **The Poznan University of Economics** (Poland), **TU Eindhoven** (Netherlands), **University of Stuttgart** (Germany), **Telekomunikacja Polska** (Polska), **CEFRIEL** (Italy), **Ontotext Lab**, **Sirma** (Bulgaria)
- Major Objectives
 - Raise Business Process Management to the business level, where it belongs, from the IT level where it mostly resides now
 - Put Business Process Management back into the hands of business people
 - Enable Business Process Management to scale up to a new level of complexity
 - This objective requires that BPM is accessible at the level of semantics of business experts

Ontotext in SUPER

- Developing dynamic composition reasoning framework and prototype
- Semantic process modelling environment
- Process execution engine first prototype
- Semantic Web Service based business process API
- Further development of WSMO Studio

- Supporting Nexcom for its case-study
 - Nexcom is the leading Bulgarian “new generation” telecom. provider

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Conclusion

- Ontotext is a globally leading Semantic Technology provider
 - Most of its products have been developed and tested in FP6 projects
- Ontotext is part of most of the major European research projects; the most successful Bulgarian participant in FP6.
 - For 2004-2007 we have secured about 1M EURO EC funding.
- Plans
 - Put accent on commercialization of the results
 - Participate in FP7 to maintain our innovation potential

SME Benefits from FP6

- Ontotext's most **important benefits** from participating in FP6:
 - The **funding for innovations**, of course
 - Making good **partners**: leading research centers and industry players (e.g. HP, SAP, IBM, Software AG, Capgemini, British Telecom, IBM, BBC, RAI,...)
 - You are **forced to cooperate** and know each other's work
 - Maintain **top-class expertise** in the field
 - Produce **liquid IPR**, e.g. tools, which are already recognized by a critical mass of big players in the field
- Those benefits are relevant to any software SME

FP7 Participation Hints for SMEs

- Join consortiums led by experienced partners
- Do not spend time with proposals which are not well managed
- There is no free lunch!
 - Your chances are better if you already have research activity in the field
 - You know the strong partners
 - They know you
 - You have something to offer

Thanks!

Ontotext Lab:
Robust Semantic Technology
... incubated in FP5 and FP6!

?

<http://www.ontotext.com>