

KnowledgeWeb Outreach to Industry



Alain Léger (FT R&D)

KnowledgeWeb Kick-off

Madrid, 3-4 February 2004

Day2 - Ontology-based Applications (9:30 – 16:00)

9:30 – 10:00

Activity1.1 Applications Needs

Alain Léger FT

10:00 – 10:30

Activity 1.2 Technology Selection

Mustafa Jarar, VUB

11:00 – 11:30

Activity 1.3 Technology Recommendations

Mustafa Jarar , VUB

11:30 – 12:00

Activity 1.4 Promotion of Ontology technology

Rubén Lara, UIBK

12:00 – 12:30

Activity 1.5 Cross network cooperation

Rubèn Lara, UIBK

14:30 – 15:00

Activity 1.6 Semantic Portal

Oscar Corcho, UPM

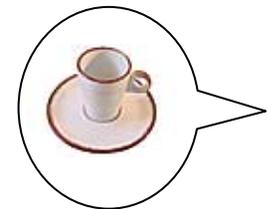
15:00 – 16:00

Discussion

Alain Léger FT, Robert Meersman VUB

16:00

Meeting Close





O2I Tasks dependencies



Task 1

Application Needs

- Prototypical Use Cases
- Knowledge processes
- Knowledge components

Task 2

Evaluation of Technology

- Utility of Ontology tools
- Interoperability of tools
- Ontology content

Task 3

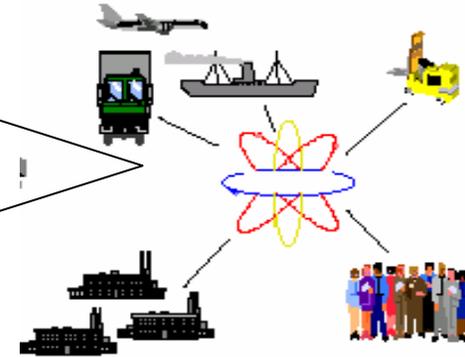
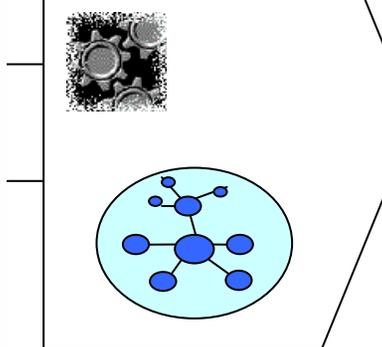
Recommannations to deploy

- Best Practices
- Ontology repository
- OntoMetadata standards
- Onto outreach authority

Industry Board



The Automated reasoning Web



Task 4 **Promotion** – Technology RoadMaps, Success stories, Technology show cases

Task 5 **Cross-Network cooperation** – partners, joint education, program activities

Task 6 **Portal** - Ontologies, first prototype, maintenance KW and SWSA

**WP 1.1: Industrial application needs
(Started, Led by France Telecom)**

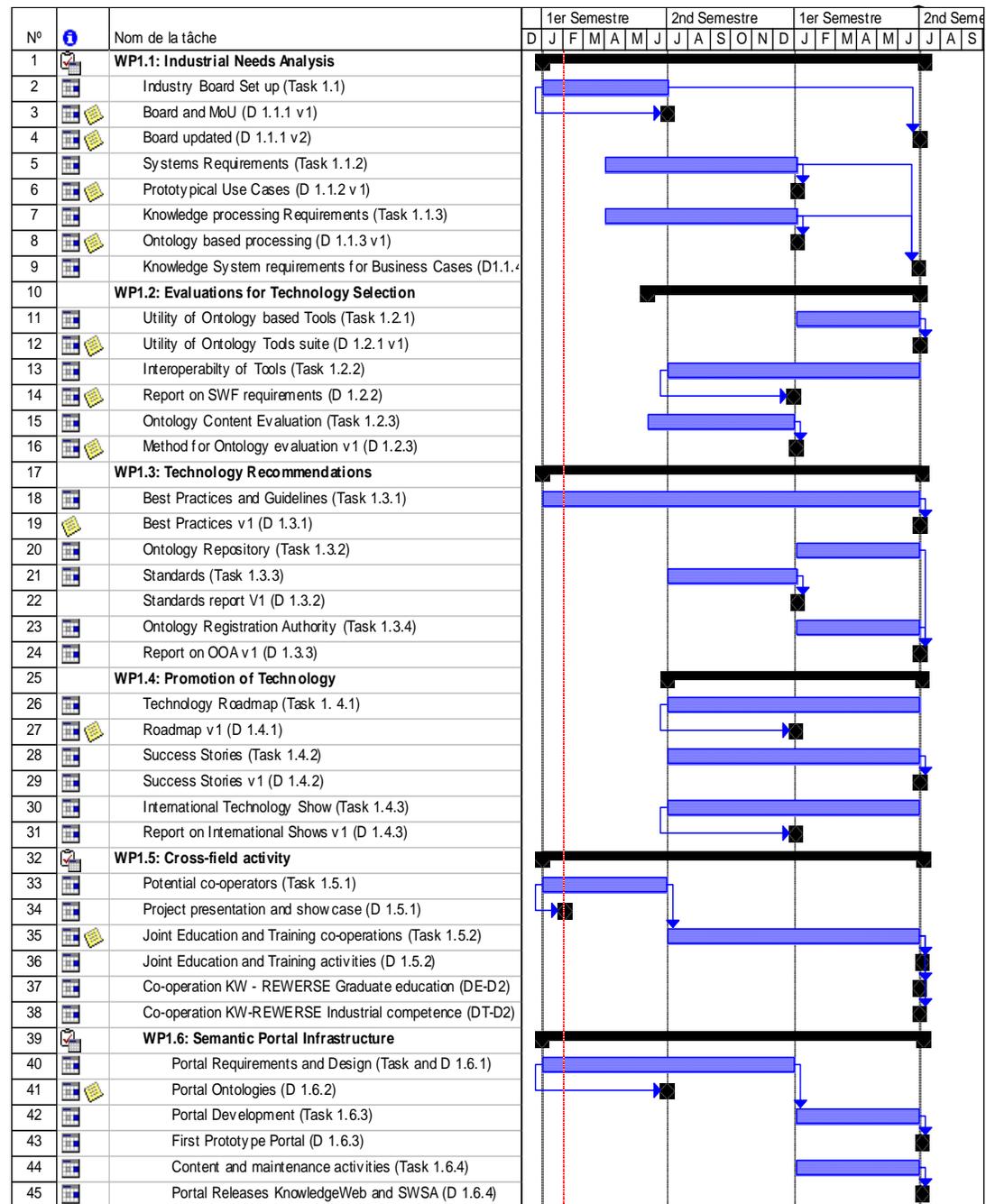
**WP1.2: Evaluation for technology selection
(Start in 6, Led by Vrije Univ Brussel)**

**WP1.3: Technology recommendations
(Started, Led by Vrije Univ Brussel)**

**WP1.4: Promotion of ontology technologies
(Start in 6, Led by Univ of Innsbruck)**

**WP 1.5: Cross-network cooperation
(Started, Led Univ of Innsbruck)**

**WP 1.6: Semantic portal infrastructure
(Started, Led by Univ Politécnica de Madrid)**

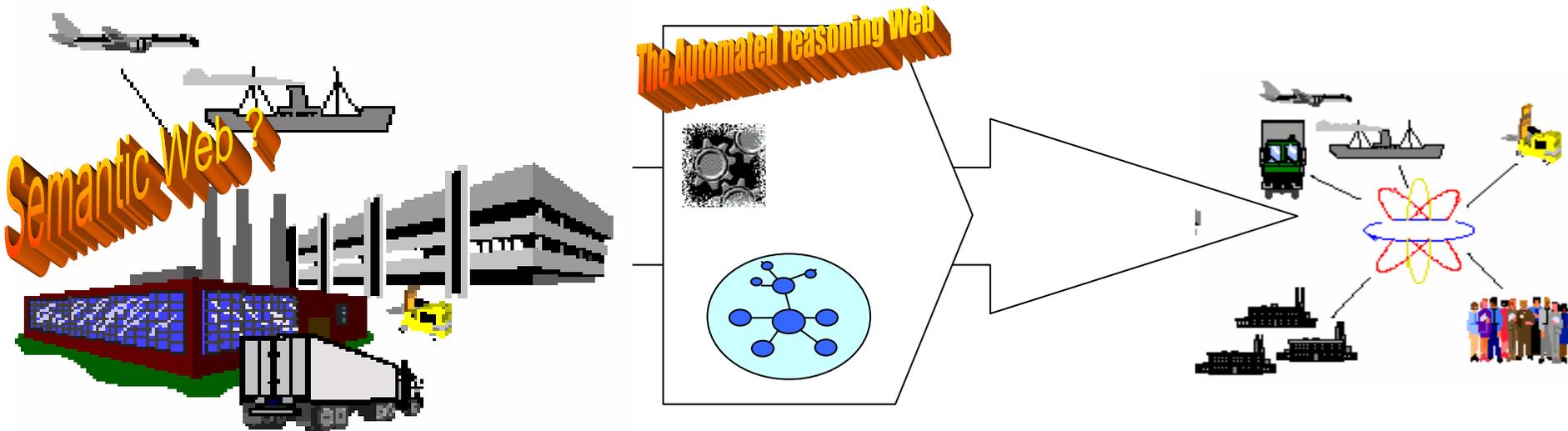




Plan



- Objectives
- Tasks and Planning
- Industrial Network
- Business scenarios
- Executive summary and Next



- To establish an **industrial board** benefactors and MoU
- To **explicit Business needs scenarios** in business and industry
- To **identify problems** in industry and Business that can be **successfully treated by SemWeb**
- To **identify the Knowledge components and processing mechanisms** Application needs
- To **show value in Top Best business** areas of ontology-based applications



Main Task 1.1 Milestones



1 - Industrial Board

- Industrial sectors benefactors census
- Categorization (using, be-using, would-benefit)
- MoU signed

2 - System Requirements

- Prototypical Use Cases
- Typology of Ontology processing
- Knowledge Components Architecture

3 - Industrial Board 2

- Partners Consolidation
- Business areas
- Top Best Applications



D1.1.1



D1.1.2



D1.1.3



D1.1.4



D1.1.1 Rev1

January 2004

June 2004

January 2005

June 2005

4 - Concrete transfert results

- Solutions
- Evaluations
- Further directions

**Knowledgeweb
The End**

June 2005

2nd Phase

36 months

48 months

- **Task 1: Establishment of an industrial Board**
 - Industry board members list, clustering and organizational charter (MoU)
- **Task 2: System Requirements Analysis**
 - Prototypical Business Use Cases and migration needs
- **Task 3: Knowledge processing requirements analysis**
 - Knowledge processing needs and architectural components
- **Task 4: Self Assessment**

N°	Nom de la tâche	1er Semestre					2nd Semestre					1er Semestre					2nd Semestre				
		D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
1	WP1.1: Industrial Needs Analysis	[Gantt chart showing task dependencies and durations across the semester grid]																			
2	Industry Board Set up (Task 1.1)	[Task bar from start of 1st semester to end of 1st semester]																			
3	Board and MoU (D 1.1.1 v1)	[Task bar from start of 1st semester to end of 1st semester]																			
4	Board updated (D 1.1.1 v2)	[Task bar from start of 1st semester to end of 1st semester]																			
5	Systems Requirements (Task 1.1.2)	[Task bar from start of 2nd semester to end of 2nd semester]																			
6	Prototypical Use Cases (D 1.1.2 v1)	[Task bar from start of 2nd semester to end of 2nd semester]																			
7	Knowledge processing Requirements (Task 1.1.3)	[Task bar from start of 2nd semester to end of 2nd semester]																			
8	Ontology based processing (D 1.1.3 v1)	[Task bar from start of 2nd semester to end of 2nd semester]																			
9	Knowledge System requirements for Business Cases (D 1.1.4)	[Task bar from start of 2nd semester to end of 2nd semester]																			

Task 1.1 Effort

Institution	Effort
France Telecom	7
FU berlin	5
University of Trento	6
Vrije Universiteit Brussel	8
Total	26



The Industrial Board

D 1.1.1

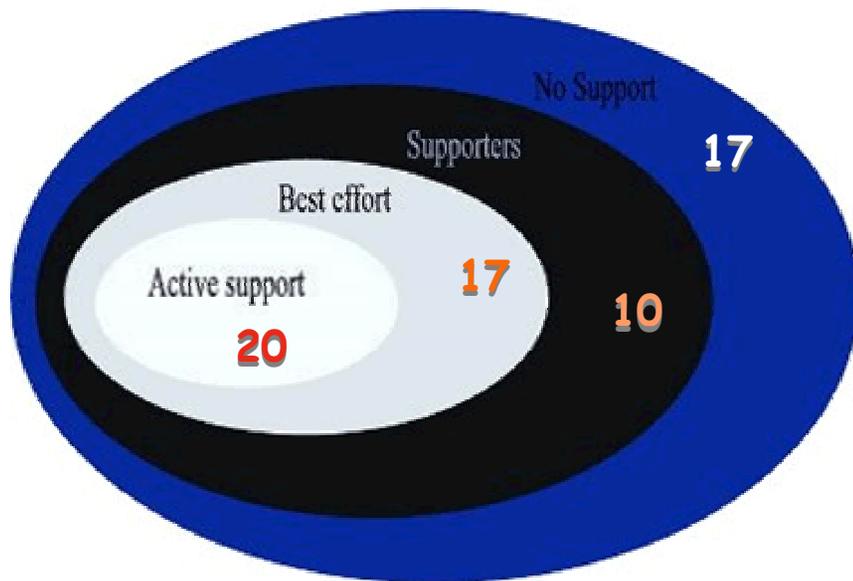


Ontoweb Industrial partners activation 07 July 2002

Direct Phone interviews conducted with key respondents at director level

Regular activations since January 2003

Must be reviewed and extended for KnowledgeWeb



Ontoweb SIG4 Key Results

1. Concrete Use Case scenarios
2. Lessons learned
3. Best practices and guidelines
4. Support from IT and services
5. Contributions to workshops

Industrial Partners (Ontoweb core team)



Institut
Integrierte Publikations-
und Informationssysteme



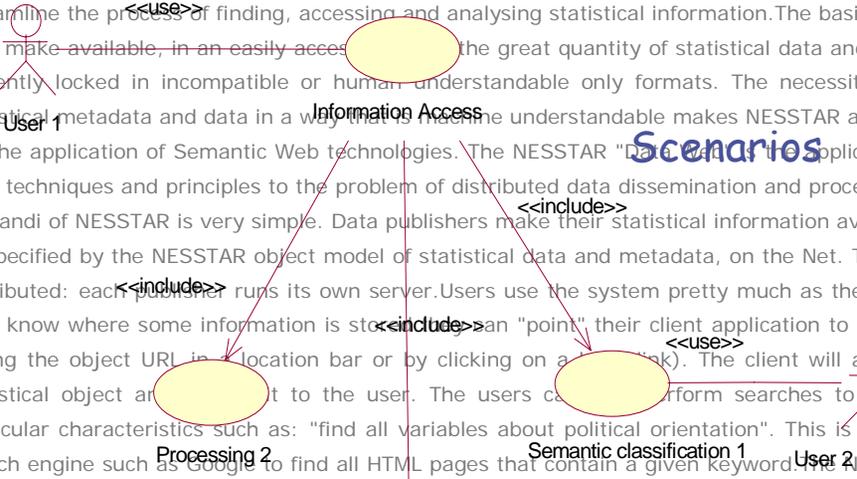


System Requirements

D 1.1.2



NESSTAR : NESSTAR	
<p>Abstract: NESSTAR is a Semantic Web application (SWA) for statistical data and metadata that aims to streamline the process of finding, accessing and analysing statistical information. The basic aim of NESSTAR is to make available, in an easily accessible format, the great quantity of statistical data and metadata that is currently locked in incompatible or human-understandable only formats. The necessity of representing statistical metadata and data in a way that is more understandable makes NESSTAR a perfect candidate for the application of Semantic Web technologies. The NESSTAR "Data Access" scenario is the application of Semantic Web techniques and principles to the problem of distributed data dissemination and processing. The mod operandi of NESSTAR is very simple. Data publishers make their statistical information available as objects as specified by the NESSTAR object model of statistical data and metadata, on the Net. The system is fully distributed: each publisher runs its own server. Users use the system pretty much as they use the Web: they know where some information is stored and they "point" their client application to it (for example typing the object URL in the location bar or by clicking on a "link"). The client will access the remote statistical object and return it to the user. The users can also perform searches to find objects with particular characteristics such as: "find all variables about political orientation". This is similar to using search engine such as Google to find all HTML pages that contain a given keyword. The NESSTAR system built on top of a lightweight Web and object-oriented middleware, the "Nesstar Object Oriented Middleware" (NEOOM). NEOOM is close to current Web and Semantic Web standards, in particular RDF, RDF Schema, HTML and HTTP.</p>	
<p>Keywords: Statistical Data and Metadata, Web, Semantic Web, Web Services, J2EE and RDF</p>	
<p>Added value : Nesstar brings the advantages of the Web (unlimited scalability and extensibility, simplicity and high integration) to the statistical information domain. Nesstar is based on an extensible and distributed object-oriented model (ontology). The model provides a precise definition of the information and functionality provided by the system. The metamodel, based on RDF Schema, provides distributed extensibility (the model can be extended independently by different publishers while still maintaining a high degree of compatibility).</p>	
<p>Guidelines: The methodology employed in the definition of the Nesstar ontology is briefly described in: NESSTAR: A Semantic Web Application for Statistical Data and Metadata. Presented at the Real World RDF and Semantic Web Applications Workshop, WWW2002 Conference, May 2002</p>	
<p>Showcase: Mockup Slides Articles Demo</p>	
<p>Contact: details</p>	<p>NESSTAR http://www.nesstar.org/ http://www.nesstar.org/sdk</p>

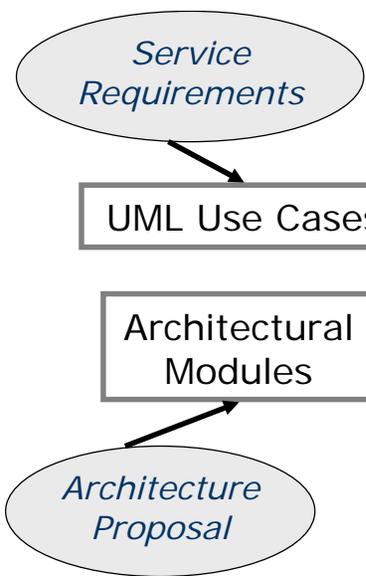


>50 Business Cases

Prototypical Use Cases

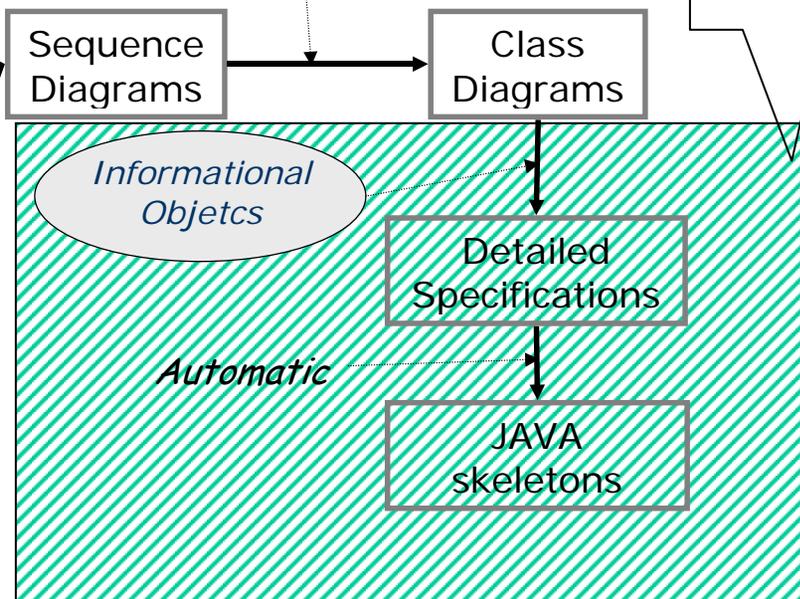


Task 1.1.2



Task 1.1.4

Task 1.1.3



Implementation Specific

Outside KnowledgeWeb Tasks

SIG4 ONTOWEB



OntoWeb

Ontology-based information exchange for
knowledge management and electronic commerce

Network of industrial partners involved on Web Semantic

SIG4 - Ontoweb	The OntoWeb Special Interest Group on Industrial Applications offers an international forum for the exchange of ideas, practical experiences, and advances in research on the industry and business applications of ontology and Semantic Web technology . The overall main goal is to stimulate the technology transfer to concrete business cases .	more info
>> Objective		Papers
players	In particular, we aim at the following:	events
Industrial network List of industrial partners	<ul style="list-style-type: none"> To demonstrate to industry how ontologies can be applied to particular problems in Knowledge Management, e-Commerce, e-Business and Enterprise Integration, and identifying problems in industry that can be addressed in scientific research. To distribute results and stimulate applications in all areas, with special emphasis on Web-based applications, electronic commerce, and information integration. To stimulate and support the transfer of research on the Semantic Web from academia to industry. To develop guidelines to Industrial and Commercial Applications. To show successful scenarios of introduction of ontology and Semantic Web applications in business and industry. To identify methodology and criteria for benchmarking of ontology-based applications. 	Meetings Workshops
topics		related initiatives
Successful stories Guidelines Benchmarking		Ontoweb SIG 1 SIG 2 SIG 3 SIG 5
join us		contact
<p>Join and influence a growing community of ontology-system developers and users!</p> <p>Kindly send us your case study AND promote your company as well!</p> <p>complete the form</p>	<p>We are open for further industrial members that provide substantial contributions to the OntoWeb either by developing leading technology or by providing best-practice cases and interesting applications. Based on the attractiveness of our research topic and the exponential growth rates in areas such as Internet and WWW we expect a large group of additional industrial members. We will also aim on forming a strong backing from industry that supports us in our review work on standardisation efforts. With this web site, Ontoweb consortium illustrates concrete Web Semantic applications and/or projects led by industrial partners in a very large set of domains ; Enterprise Portals and Knowledge Management, E-Commerce, Information Retrieval, Portal and web communities, Supply Chain, etc.</p>	Contacts Mailing list
		<p>Insbruck 16-18 Dec. 2002 - the next project board meeting will take place on Insbruck</p>

- **Network of industrial partners (from Ontoweb SIG4 60 registered)**
 - **Needs to share the one-to-one contact** (phone, mail, physical, letter) to get agree
 - Involved in transfer: Contributions to deliverables and conferences industry track
 - **Needs to review and extend and qualify the current network structure**
 - **Needs to identify key partners and get them involved !**



- **Industrial Board MoU (D 1.1.1)**
 - **To be drafted (structure and legal)** FT has the ability to draft document
 - **Operational charter** to be discussed in Madrid
 - **Organization** to be discussed in Madrid



- **Systems Requirements (D 1.1.2)**
 - **Must be initiated From Ontoweb Concrete business cases (~50)**
 - **Needs to organize selected ad-hoc Face to Face meetings with industry partner**
 - **Describe prototypical Use Cases UML style could be used** (actors, sequences, classes)
 - **Intermediate version of Use Cases should be delivered Month 6 to Research**

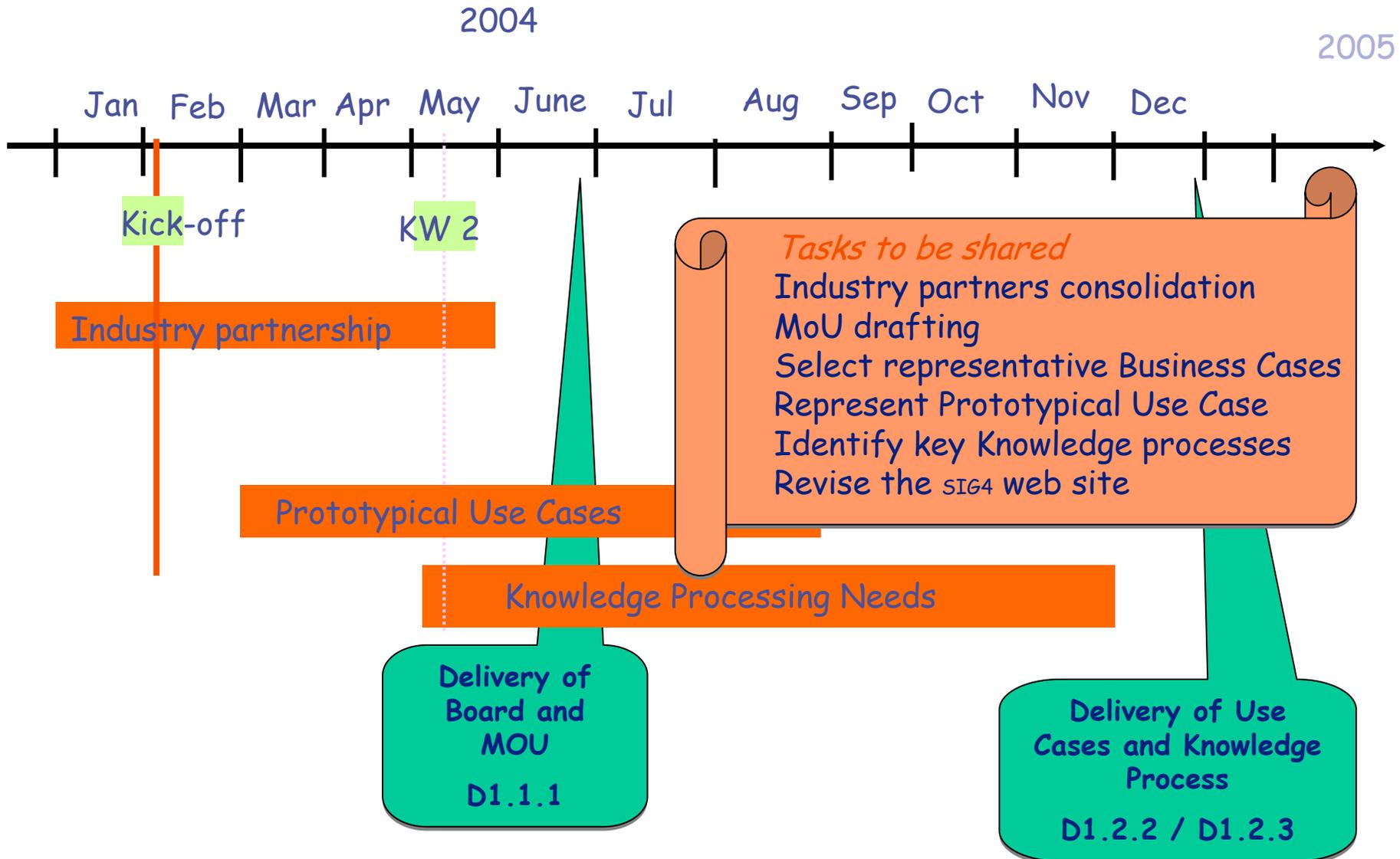


- **O2I Task 1.1.1 Web site**
 - **In an interim phase OntoWeb SIG4 site** <http://sig4.ago.fr>
 - **Will be completed to include the current main tasks achievements**
 - **Easiest solution for site maintenance**



Next steps

Task 1.1.1. Planning and sub-tasks



- O2I Detailed workplan and resp. in O2I /Tasks
 - First steps should be agreed globally on 4/02
 - **O2I Ad-hoc meeting proposal Paris 4-5 March** (FT Hosting)
- Building of the network (M1-M6 D1.1.1 v1)
 - Presentation text for invitation to be industrial members (FT, ...)
 - Coordination: FT, VUB
- Drafting the MoU (M1-M6 D1.1.1)
 - Coordination: FT legal department can take the lead
- Starting drafting the Prototypical Use Cases (M4-M12 D1.1.2)
 - From Ontoweb sig4 business cases and new inputs
 - In informal text and in UML (actors scenarios)
 - Coordination:
- Knowledge processes (M4-M12 D1.1.3)
 - Knowledge processes and components would start emerging from UC
 - In informal text and in UML (sequence diagrams)
 - Coordination:
- Others : Business Cases knowledge components (M6-M18 D1.1.4)
 - Following task
 - Coordination: