



# Knowledge Web

Outreach to Industry

4th Meeting, Trento

Thursday 9 - Friday 10 September 2004

## Venue:

Trento, Università economica

## Attendees

Name	Organization	Changes in coordinates
1. Alain Léger	FT R&D	<a href="mailto:alain.leger@rd.francetelecom.com">alain.leger@rd.francetelecom.com</a>
2. Mustafa Jarrar (WP 1.2, WP 1.3)	VUB	<a href="mailto:mjarrar@vub.ac.be">mjarrar@vub.ac.be</a>
3. Malgorzata Mochol (WP 1.1, WP 1.3)	FUBerlin	<a href="mailto:mochol@inf.fu-berlin.de">mochol@inf.fu-berlin.de</a>
4. Ellen Schulten (WP 1.4)	UIBK/DERI	<a href="mailto:Ellen.schulten@deri.ie">Ellen.schulten@deri.ie</a>
5. Roberta Cuel (WP 1.3)	UniTrento	<a href="mailto:cuel@sci.univr.it">cuel@sci.univr.it</a>
6. Matteo Bonifacio	Uni Trento	<a href="mailto:bonifacio@itc.it">bonifacio@itc.it</a>
7. Luigi Lancieri (WP 1.3)	FT R&D	<a href="mailto:Luigi.lancieri@francetelecom.com">Luigi.lancieri@francetelecom.com</a>
8. François Paulus (WP 1.1)	FT R&D (Industry Board)	<a href="mailto:François.Paulus@francetelecom.com">François.Paulus@francetelecom.com</a>
9. M. Carmen Suarez (WP 1.6)	UPM	<a href="mailto:mcsuarez@delicias.dia.fi.upm.es">mcsuarez@delicias.dia.fi.upm.es</a>
10. Bertrand Braunschweig	IFP (Industry Board)	<a href="mailto:Bertrand.Braunschweig@ifp.fr">Bertrand.Braunschweig@ifp.fr</a>
11. Paul Warren	BT (Industry Board)	<a href="mailto:paul.w.warren@bt.com">paul.w.warren@bt.com</a>
12. Raúl García Castro (WP 1.6)	UPM	<a href="mailto:rgarcia@fi.upm.es">rgarcia@fi.upm.es</a>
13. Mari Carmen Suárez-Figueroa (WP 1.6)	UPM	<a href="mailto:mcsuarez@delicias.dia.fi.upm.es">mcsuarez@delicias.dia.fi.upm.es</a>
14. Alessandra Molani	TSF (Industry Board)	<a href="mailto:molani@itc.it">molani@itc.it</a>
15. Anna Trifonova	Uni Trento	<a href="mailto:foxy@dit.unitn.it">foxy@dit.unitn.it</a>
16. Chiara Zini	Uni Trento	<a href="mailto:c.zini@economia.unitn.it">c.zini@economia.unitn.it</a>
17. Mirko Grosselle	Uni Trento	<a href="mailto:mirko.grosselle@dit.unitn.it">mirko.grosselle@dit.unitn.it</a>
18. Pavel Shvaiko (WP 1.1)	Uni Trento	<a href="mailto:pavel@dit.unitn.it">pavel@dit.unitn.it</a>
19. Fausto Giunchiglia	Uni Trento	<a href="mailto:fausto@dit.unitn.it">fausto@dit.unitn.it</a>
20. Jens Hartmann	AIFB	<a href="mailto:hartmann@aifb.uni-karlsruhe.de">hartmann@aifb.uni-karlsruhe.de</a>

## Use Cases from Industry Board

### British Telecom (Paul Warren)

#### Semantic Web for Business: Case Studies from SEKT

- helping newly-appointed judges: content intermediation (Isoco)
- helping IT consultants: processes (Siemens)
- a corporate digital library: semantic enhanced library search facilities (BT)

#### Summary:

##### Knowledge management

- knowledge sharing vs. knowledge sourcing
- look for vertical integration

##### Future challenges

- interpersonal information management
- inter-operation between equals, e.g. telcos
- managing knowledge in industrial consortia, e.g. supply chain, project collaboration
- on top : personalized info-push systems for mobiles

## Institut Français du Pétrole (Bertrand Braunschweig)

Missions and domains of activity: R&D exploration and reservoir engineering, Drilling production, Refining petro-chemical, Engines energy (Oil, Gaz, Sustainable development), Transfert and dissemination of knowledge, Industrial development

- Renew and diversify world Oil and Gas resources
- Reduce the impact of oil and gas industry on the environment

### IFP Needs

Support software interoperability by semantic annotations

- automatically generated connectors for DB and software components
- automatic software discovery
- support intelligent workflow management

Corporate knowledge memory

- Quality assurance and Project management practice

### Conclusions

- IFP application domain is a potentially rich domain for semantic web technology
- IFP wants to be involved in the development of the ontologies (they are key to IFP activities!)
- IFP is strongly interested to work closely with KnowledgeWeb
- IFP will be proactive on this subject in the near future

## Trentitalia TSF (Alessandra Molani)

### Objective:

Our goal was to investigate (and eventually propose how to improve) the knowledge management situation within the organization.

### Application fields:

DKM, Community of Practice

### Methodology:

Interviews to organization's members

belonging to different functions, offices, departments...

belonging to different levels (top mgmt, middle mgmt, bottom line)

Interview methodology: Story Telling

## Future Semantic Web technology development

### - Proactive P2P recommender

A possible semantic oriented improvement could deal with a system's functionality able to automatically suggest users possible relevant sources and contents on the base of a semantic similarities

### - Semantic convergence of local contexts

Another crucial aspect deals with users' and communities' contexts and categorization structures.

These are characterized by some features like being not a priori defined, and being not stable: they are in fact expected to modify according to new needs.

This is true also for the shared community context, but while single users are in charge for their local contexts modifications, nobody can manage autonomously the central context modifications. Such a process has to be managed as a negotiation dynamics aiming to a convergent structure. From a technological point of view, this means to offer a functionality able to semi-automatically support the process of building a common structure, starting from a set of different ones.

### - Social aspects

A third interesting aspect deals with the emergence of new communities in UTMR. Besides the existing communities, other groups can be expected, and UTMR has to have the tools to not only point out these new emerging communities, but also to enlighten eventual relationships with the existing ones. The idea is to exploit tools able to monitorate social dynamics and then point out similar people and potential new groups. From a technological point of view, this means a functionality able to support users in recognizing relevant users according to social parameters (like trust role, competence,...)

## France Telecom (François Paulus)

Presentation of two "photos oriented" use cases.

The first called "Souvenirs of a weekend in Brittany" focused on capabilities to correctly manage personal photos.

The use case exploits content annotations capabilities of digital camera and mobile phones in order to enhance

publication of personal photos. These use case needs among other things meta-data extraction and management, semantic meta-data fusion, automated annotation, etc.

The second one, called "Organization of a weekend in Brittany" showed how to constitute "personalized tourism offers" instead of common "packaged offers". The main idea is to make full use of semantic web technology (brokering, mediations, discovery, composition, orchestration and invocation) in order to exploit dynamically content, service providers and personalized data such photos.

A more precise description of these two use cases is available inside deliverable D1.1.2.

## Main Resolutions

1. **MoU will be agreed by the EPMB (September 17).** It will be slightly revised and proposed to the Legal entity of KW representative contractor (UIBK) for final legal endorsement. Then it will be sent for signature to the first Industry members (Guus Schrieber will act as the KW representative for the "Early Access Policy")
2. The **Use Cases and Scenarios** are now a key O2I output for feeding many O2I and Research activity. An interim version with few scenarios has been delivered to KW especially Research. In Trento **4 Industry Board** members presented their **Business needs. O2I managers will contribute and follow closely this actively. F2F meetings with Industry have started.**
3. Building of the network will continue under the leadership of the O2I managers
4. Contacting and inviting industrial parties **is shared between the O2I partners.** Client industry is given more focus but push-technology partners are also welcomed but careful examination of the KW network benefits should be clear. **All O2I partners are strongly invited to contact their personal / regional industry contacts.**
5. **The Web site and especially the Industry Area has been designed to be close to the Industry needs and to help recruiting more industry partners. (To be further tested with industry)**
6. **Knowledge processing needs vs Use Cases have been presented by University of Trento. (D1.1.3 intialized)**
7. **Benchmarking.** Evaluation of tools is done in close cooperation with the Research. However benchmarking in O2I must be carried out in the context of Business Cases in order to provide useful guidelines and best practices.
8. **Interoperability of tools:** identification of tool components and identification requirements for interoperability is still under study.
9. **Ontology content evaluation:** A clear description of methods for ontology evaluation is expected in October 2004.
10. **Best Practices: Leveraging with W3C** to be clarified. Questionnaires and F2F meetings to be organized.
11. **Ontology Repository and Standards:** adapting and extending the OntoRoadMap as the first prototype of ontology repository, this repository will be part of the KWeb portal. A report on the main set of ontology metadata has been presented.
12. **Ontology Outreach Authority:** write a short report on the OOA goals and requirements; this report will be presented in the next meeting and then it will be sent to the industry board for feedback. Person-month allocated to this task is very optimistic. The decision is to be taken after finishing D1.3.3: reduce the goals or allocate more person-month.
13. **KW Portal:** Portal in operation and maintained by UPM <http://kw.dia.fi.upm.es/O2I/>. "Business oriented" access to O2I related contents to be open soon
14. **Promotion:** 1st Technology show detailed report D 1.4.3 (M6) DONE. Applications (not tools!) and success stories repository D 1.4.2, on going effort. Technology roadmap D 1.1.1 v1 (M12) underway
15. **Cooperation with the NoE Reverse on the technology transfer and Education is excellent.**
16. **Cooperation with other NoE:** Technology transfer Started 5 May DONE (minutes circulated), Industry competence centers analysis underway, Industry co-organized events (scheduled in October 2005, Munich), Industry adapted courses (to be coordinated with Education area), Industry and Education areas joint coordination **but Research not in (?)**
17. **Industrial Workshops and Conferences:** Knowledgeweb O2I meeting with Industry board (specific needs or PMB event). Best promotional vectors (Advices expected from Industrial Board. Technology show and industry tracks SIGIR'04, ISWC'04, ESWS'05 ...
18. **An O2I ad-hoc editing meeting should be held 17-19 November 2004 in Berlin**
19. The chairmen FT and VUB thanks the O2I participants for their **lively contributions and the fruitful meeting**
20. **The attendees warmly thanks our Italian hosts for the exceptional setting provided for the meeting**

## WP 1.1 Industry Board and Applications needs (Alain Léger)

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Present/Absent: All wp1.1 partners represented

### Task: Board of industrial partners (D 1.1.1)

A sectorial organization of the whole O2I domain is proposed and a first tentative distribution of declared interested parties has been shown. In first place client industry partners have been elected.

As the letter of invitation is approved all partners are invited to make proposals in relation to their national/personal industry relations.

Even if the contract asks for a numerical target each year (50-100-150-200 partners) the quality of the partnership should not be underestimated. So, the selection and the good balance between Technology push and Technology-pul (client) industry partners should be pursued.

### Task: MoU and operational charter (D 1.1.1)

The KW contract says: "A charter of working rules should be agreed between the partners"

So a first initial draft has been initialized by France Telecom legal department and has been distributed.

Discussions took place on that signed contract on working rules between KW and Industry parties, on the real benefits of having such procedure in place. The O2I was not in position to take final decision.

EPMB decided to go on with the MoU that will be signed by Guus Schreiber on behalf of the KW consortium.

### Task: Systems Requirements (D 1.1.2)

FuB made a presentation on the structure of the deliverable. FuB made a presentation on an example for a Job Seeker scenario. Use Cases will be initiated from the Ontoweb SIG4 available Business Cases and from F2F meeting with each industry partner. To conduct the F2F meeting a template will be provided soon by FuB.

FuB has all the UML suite.

The completion of this task is due end of 2004. However, it is considered that the outcome of this work is on the critical path for other tasks (in O2I and in Research). An intermediate version will be delivered in June 2004, with few well chosen and well documented Use Cases.

### Task: Knowledge processing requirements (D1.1.3)

Ad-hoc discussions took place for clarification of the expected outcome of this task.

University of Trento agreed to be the leader of the task.

### O2I Portal:

FT made a proposal (prototype delivered to UPM on a CD-Rom) for a more attractive and "catchy" Industry window

## WP 1.2 Evaluations (Mustafa Jarrar)

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<http://www.starlab.vub.ac.be/staff/mustafa/Kweb/WP12/>

Date: 9/9/2004

### Present:

Alain Léger(FT), Mustafa Jarrar(VUB), Malgorzata Mochol(FUBerlin), Roberta Cuel(UniTrento), Pavel Shvaiko(UniTrento) François Paulus(FT), Luigi Lancieri(FT), Angel Lopez-Cima(UPM), Raul Garcia-Castro(UPM), M-Carmen Suarez(UPM), Jens Hartmann(AIFB), Ellen Schulten (UIBK/DERI), Bertrand Braunschweig (IFP), Paul Warren (BT), Alessandra Molani(TSF)

Absent: VUM, L3S, INRIA

### Progress:

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**-Task-1:** Utility of ontology-based tools (led by UniTn): An ad hoc meeting on benchmarking has been organized. This meeting is aimed with integrating all benchmarking activities in KWeb (WP1.2, WP2.1, WP2.2, etc.) #Action-point:# WP2.1 (Raul) agreed to send their benchmarking method (towards scalability and performance of ontology tools) to WP1.2 (Roberta), deadline: 3/10/2004. #Action-point:# WP1.2 (Roberta) agreed to test this method against 2 ontology tools, and to send feedback to WP2.1 (Raul), deadline 30/10/2004.

**-Task-2:** Interoperability of tools and services (led by L3S): no progress (the leader is absent)

**-Task-3:** Ontology content evaluation and usability (led by UKARL): A classification of the existing methods to ontology content evaluation was presented by Mustafa Jarrar. A preliminary structure of D1.2.3 was presented by

Jenes Hartmann. It has been decided that D1.2.3 will be a synthesis of the existing approaches to ontology content evaluation. #Action-point:# The first draft of D.1.2.3 should be ready by November 15.

Next meeting: (To be confirmed)

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Date: 18-19 November

Location: Berlin

Local organizer: FUBerlin. Malgorzata Mochol (mochol@inf.fu-berlin.de)

Agenda: to be sent later.

## WP 1.3 Recommendations (Mustafa Jarrar)

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<http://www.starlab.vub.ac.be/staff/mustafa/Kweb/WP13/>

Date: 9/9/2004

Present:

Alain Léger(FT), Mustafa Jarrar(VUB), Malgorzata Mochol(FUBerlin), Roberta Cuel(UniTrento), Pavel Shvaiko(UniTrento) François Paulus(FT), Luigi Lancieri(FT),

Angel Lopez-Cima(UPM), Raul Garcia-Castro(UPM), M-Carmen Suarez(UPM), Jens Hartmann(AIFB), Ellen Schulten (UIBK/DERI), Bertrand Braunschweig (IFP),

Paul Warren (BT), Alessandra Molani(TSF).

Absent:

USFD, VU (for the 3rd time),

**Progress:**

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**-Task-1:** Best Practices and Guidelines (led by FT): A questionnaire for collecting best practices from the users and developers of SW applications is being developed by Luigi Lancieri. This questionnaire will be developed and distributed in three iterations. #Action-point:# The first draft of the questionnaire will be ready by November 15 and it will be presented in the next O2I meeting. #Action-point:# The set of questions (in the first iteration) will be collected and approved by (12 selected SW researchers and industry partners), and it will be tested by 5 users.

**-Task-2:** Ontology repository and Task-3 Standards(led by UPM): An extended version of the OntoRoadMap (ontology metadata) was presented by M. Carmen Suarez-Figueroa. New metadata elements were proposed during the meeting. The final set of metadata elements will be proposed for standardization. #Action-point: # The structure of D1.3.2 will be prepared and circulated to the WP members before 19/9/2004. #Action-point: # The first draft of D1.3.2 will be ready before 10/11/2004 (before the next meeting).

**-Task-4:** Ontology Outreach Authority (led by VUB). The general goals of OOA have been discussed and agreed. The requirements for setting up OOA (D1.3.4) are under development. FUBerlin agreed to contribute to D1.3.4. #Action-point:# The first draft of D1.3.4 will be ready before the end of this year.

Next meeting: (To be confirmed)

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Date: 18-19 November

Location: Berlin

Local organizer: FUBerlin. Malgorzata Mochol (mochol@inf.fu-berlin.de)

Agenda: to be sent later.

## WP 1.4 Promotion (Ellen Schulten)

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- **Deliverable 1: Technology RoadMap (UIBK) D1.4.1 v1 (M12)**
  - Technology Roadmap v1 underway
  - International Semantic Technology Roadshow to be used as concrete milestones

- **Deliverable 2: Business Cases and Success Stories (UIBK)**
  - Applications (not tools) will be accessible on the KW site
  - Success stories will be highlighted on the KW site
- **Deliverable 3: International Technology Show (UIBK)**
  - Report on first International Semantic Technology Road show D 1.4.3 DONE
- **Awareness events**
  - KW O2I meeting with Industry Board
  - Best targets to be discussed with Industry Board
  - Technology show and Industry tracks: e.g. SIGIR'04, ISWC'04, ESWS'05, SEMW'04 ...

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### WP 1.5 main issues (Ying Ding, UIBK)

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- **Task 1: Potential cooperators (UIBK)**
  - Reverse (the closer NoE) and other NoEs, such as: MUSCLE, Aim@Shape, KB2.0 and Agentlink III
- **Task 2: Joint Education and Training cooperations (UIBK)**
  - **Deliverable DE-D2 (M18):**
    - Joint learning system infrastructure to be set up soon by Univ of Hanover
    - Four scenarios for specifying requirements for VISWE has been defined
    - The portal of teaching courses in the domain of Semantic Web has been installed already
    - In July 2004, there is the on-site visit between RW and KW educational cluster
  - **Deliverable DT-D2 (M18):**
    - Joint cooperation goal of KW and RW on Technology transfer task (telecon each month planned)
    - Business scenarios exchange
    - Joint Competence centers to be proposed
    - Joint promotion channel (e.g. joint Industry event next year Munich 2005)
- **Task 3: Programme of activities with each network (UIBK)**
  - Joint Workshop organized by AceMedia (**London, 25-26 Nov 2004**)
  - Progress on Research cluster: link with an Australian network
  - Joint Industry day with AgentLink (Zurich Oct 2004)
  - AgentLink will use KW portal technology to power their semantic portal
  - Joint summer school with AgentLink (Liverpool, 5-9 July)
  - Flyers of future events of next year in KW, or KW with other NoEs will be disseminated
- **Issues**
  - Cross-network activities in research cluster, especially with RW **has NOT been established !!**

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### WP 1.6 main issues (Angel Lopez-Cima, Mari-Carmen Suarez, UPM)

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<http://knowledgeweb.semanticweb.org/>

- **Task 1: Portal Requirements and Design (UPM)**
  - **Delivered D1.6.2: Portal Ontology (Month 6):**
    - Includes the 5 portal ontologies (Documentation, Event, Organization, Person, and Project)
    - Includes the study of the **reuse of the OntoWeb and Esperanto ontologies**
  - **Working on D1.6.1: Portal Requirements and System Design (Month 12):**
    - Includes the **business use cases**
- **Task 2: Portal Development (UPM)**
  - Technology used for : **ODESeW**
  - 5 ontologies for the time being (Time ontology will be added)
  - **FOAF Information:**
    - Mappings between FOAF and KW Person Ontology
    - Galway and UPM are working to include this information in the portal
  - List of **deliverables ordered by delivered and not delivered** in each workpackage
  - **Outreach to Industry Portal** (<http://kw.dia.fi.upm.es/O2I/>)
  - **AgentLink III** is evaluating the KW Portal Technology (ODESeW)

- **Integration of Magpie and KW Portal**
  - UPM is working in an **architecture to integrate semantic information**: OntoWeb and KW integration
- **Task 3: Content and maintenance activities (UPM)**

**O2I Planning**

N°	Nom de la tâche	1er Semestre					2nd Semestre					1er Semestre					2nd S				
		D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
1	<b>WP1.1: Industrial Needs Analysis</b>																				
2	Industry Board Set up (Task 1.1)																				
3	Board and MoU (D 1.1.1 v1)																				
4	Board updated (D 1.1.1 v2)																				
5	Systems Requirements (Task 1.1.2)																				
6	Prototypical Use Cases (D 1.1.2 v1)																				
7	Knowledge processing Requirements (Task 1.1.3)																				
8	Ontology based processing (D 1.1.3 v1)																				
9	Knowledge System requirements for Business Cases (D1.1.4)																				
10	<b>WP1.2: Evaluations for Technology Selection</b>																				
11	Utility of Ontology based Tools (Task 1.2.1)																				
12	Utility of Ontology Tools suite (D 1.2.1 v1)																				
13	Interoperability of Tools (Task 1.2.2)																				
14	Report on SWF requirements (D 1.2.2)																				
15	Ontology Content Evaluation (Task 1.2.3)																				
16	Method for Ontology evaluation v 1 (D 1.2.3)																				
17	<b>WP1.3: Technology Recommendations</b>																				
18	Best Practices and Guidelines (Task 1.3.1)																				
19	Best Practices v1 (D 1.3.1)																				
20	Ontology Repository (Task 1.3.2)																				
21	Standards (Task 1.3.3)																				
22	Standards report V1 (D 1.3.2)																				
23	Ontology Registration Authority (Task 1.3.4)																				
24	Report on OOA v1 (D 1.3.3)																				
25	<b>WP1.4: Promotion of Technology</b>																				
26	Technology Roadmap (Task 1. 4.1)																				
27	Roadmap v1 (D 1.4.1)																				
28	Success Stories (Task 1.4.2)																				
29	Success Stories v1 (D 1.4.2)																				
30	International Technology Show (Task 1.4.3)																				
31	Report on International Shows v1 (D 1.4.3)																				
32	<b>WP1.5: Cross-field activity</b>																				
33	Potential co-operators (Task 1.5.1)																				
34	Project presentation and show case (D 1.5.1)																				
35	Joint Education and Training co-operations (Task 1.5.2)																				
36	Joint Education and Training activities (D 1.5.2)																				
37	Co-operation KW - REVERSE Graduate education (DE-D2)																				
38	Co-operation KW-REVERSE Industrial competence (DT-D2)																				
39	<b>WP1.6: Semantic Portal Infrastructure</b>																				
40	Portal Requirements and Design (Task and D 1.6.1)																				
41	Portal Requirements (D 1.6.1)																				
42	Portal Ontology (D 1.6.2)																				
43	Portal Development (Task 1.6.3)																				
44	First Prototype Portal (D 1.6.3)																				
45	Content and maintenance activities (Task 1.6.4)																				
46	Portal Releases KnowledgeWeb and SWSA (D 1.6.4)																				



## Deliverables planning

<b>Status of deliverables</b>				
<b>Deliverable</b>	<b>Current status (completed / underway)</b>	<b>On schedule (yes/no)</b>	<b>Original completion date</b> <i>(as in Annex I "Description of Work" + Calendar Date, e.g. "M6 = June 2004")</i>	<b>Actual/planned completion date</b> <i>(Calendar Date, e.g. "15 June 2004")</i>
D1.1.1	<b>Completed</b>	Yes	M6 = June 2004	M6 = June 2004
D1.1.2	Started	-	M12 = December 2004	M12 = December 2004
D1.1.3	Started	-	M12 = December 2004	M12 = December 2004
D1.1.4	Not started	-	M18 = June 2005	M18 = June 2005
D1.2.1	Started	-	M18 = June 2005	M18 = June 2005
D1.2.2	Started	-	M12 = December 2004	M12 = December 2004
D1.2.3	Started	-	M12 = December 2004	M12 = December 2004
D1.3.1	Started	-	M18 = June 2005	M18 = June 2005
D1.3.2	Started	-	M12 = December 2004	M12 = December 2004
D1.3.3	Not started	-	M18 = June 2005	M18 = June 2005
D1.4.1	Started	-	M12 = December 2004	M12 = December 2004
D1.4.2	Not started	-	M18 = June 2005	M18 = June 2005
D1.4.3	Started	-	M12 = December 2004	M12 = December 2004
D1.5.1	<b>Completed</b>	Yes	M2 = February 2005	M2 = February 2005
D1.5.2	Started	-	M18 = June 2005	M18 = June 2005
E-D2	Started	-	M18 = June 2005	M18 = June 2005
T-D2	Started	-	M18 = June 2005	M18 = June 2005
D1.6.2	<b>Completed</b>	Yes	M6 = June 2004	M6 = June 2004
D1.6.1	Started	-	M12 = December 2004	M12 = December 2004
D1.6.3	Not started	-	M18 = June 2005	M18 = June 2005
D1.6.4	Not started	-	M18 = June 2005	M18 = June 2005