



# **Knowledge Web**

## **Realizing the Semantic Web**

*IST-2004-507482*

### **Activity Report**

**Covering period 01-Jan-2004 to 30-Jun-2004**

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**Acronym:** Knowledge Web

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## **Introduction**

Knowledge Web is now six months underway. The infrastructure of the network has stabilized and the work is progressing smoothly, as will be evident from this report. The network managed to get its feet quickly off the ground during the kickoff meeting in Madrid in early February 2004. The three areas had parallel meetings to schedule the work for the short term.

The industrial area focused on the formation of an Industrial Board and has made considerable progress in this. The efforts led to a proposed amendment of the Consortium Agreement which is now in the process of being signed by all partners. There is a realistic plan for attracting organizations to this board. There is already a sizable list of companies willing to join. In addition, the Industry area has been the area where the Knowledge Web portal was set up. The project has ensured that information from the network is directly accessible from the portal, so the interested outsiders can always get up-to-date information. In the area of “best practices” network researchers have planned to make contributions to the W3C Semantic Web Best Practices and Deployment Working Group. This would help disseminate network results.

The research area shows an intensive collaboration between the network partners in working jointly on the research challenges such as scalability, modularity and language extensions. The network has a critical mass of leading researchers to really have a world-wide impact. Evidence of this can be found in the list of accepted papers for the next International Semantic Web Conference (to be held November 2004 in Hiroshima), where a high portion of the papers is from Knowledge Web partners. An important role of the network will also be to foster research integration by visits of network researchers to other network partners. To this end the area managers ensured that WP 2.6 was restructured in order to stimulate and support such collaborations. In this area there are also contacts with other projects of the SDK cluster. For example, a joint group has been formed to discuss the relationship to upcoming standards, such as those for rules and web services.

The educational area has been active in a multitude of actions targeted at supporting education activities for the semantic web. A prime activity was the organization of the Semantic Web Summer School in Madrid, which was held in July. There were many more people applying for a spot in this school than were available, so the school directors had to come up with a fair selection system. The school was limited in terms of the number of students, because the program includes a fair amount of hands-on work (essential in the SW area). This can only be done in small groups.

Management structures are in place. The EPMB/PMB holds regular teleconferences. The reporting structure has been streamlined to make the production of the material as efficient as possible for both the network participants as well as the administrative staff in Innsbruck. Deliverables are being produced on time in accordance with the network quality-assurance procedures. The network is also starting to discuss the possibilities for being open to new partners.

The network receives a high number of requests for sponsoring. In response, the management board has established a number of guidelines for sponsorship to ensure that sponsorship is really of added value for the network and the dissemination of its results.

So far, it has been a privilege to be the scientific coordinator of this network. I hope and expect it will stay that way.

*Guus Schreiber*

Scientific Coordinator (per 1 March 2004)

## **I. Industry Area**

### **Management**

A global mailing list Knowledge Webweb-o2i@listserv.vub.ac.be for all partners participating in the Outreach to Industry Area has been set up by VUB, a shared O2I document repository is operational on the Knowledge Web portal [http://Knowledge Web.dia.fi.upm.es/O2I/](http://KnowledgeWeb.dia.fi.upm.es/O2I/). A specific and business oriented window for Industry is underway for the Knowledge Web portal.

The main pressing issues to be resolved have been clearly discussed, shared and stated during our plenary meetings in Heraklion (13-14 May 2004). Each partner has a clear understanding of what is expected for the next 6-months-period.

During the first 6 months, the main focus has been put on the Knowledge Web portal, the Industry Board and the Use Cases collection initialization. All main documents (report and summary progress slides) are available on the Knowledge Web portal. A full detailed Gantt chart (MS Project) has been set up for the O2I Area and each WP and task has a clear identified leader and plan.

Main meetings for O2I:

- Kick-off meeting 3-4 February 2004, Madrid
- 1<sup>st</sup> O2I workshop 5 March 2004, Paris
- 2<sup>nd</sup> Knowledge Web plenary meeting 13-14 May 2004, Heraklion
- All EPMB audioconference meetings (Area managers)

Ad-hoc technical meeting is announced and planned

- 2<sup>nd</sup> O2I workshop 9-10 September, Trento

The main deliverables are:

- D1.5.1 (M1) Knowledge Web Project presentation
- D1.1.1 (M6) Industry Board and MoU
- D1.6.2 (M6) Portal prototype ontology development

### **1. Progress, Work Packages**

#### **WP1.1, Industrial Application Needs**

##### **D1.1.1**

Industry letter of invitation "to become a member of the industry board" has been fully operational since 16 April 2004. This invitation has been published on the Knowledge Web web site to arouse the interest of new companies.

**Board of industrial members:** 42 industry potential partners contacted, 23 industry members registered. A sectorial organization of the domain has been enacted and put in operation.

**MoU and operational charter:** To specify the reciprocal right and duties of Knowledge Web and Industry members an operational charter has been drafted and circulated by FT, (Knowledge Web EPMB and O2I 16 April 2004). Then discussions took place in PMB and a revised document has been set out in June 2004 for circulation in PMB and approval at the EPMB on 7 July 2004.

**D1.1.1:** first version sent to WP1.1 members, 21 April 2004

**Final version.** sent to WP 1.1 and Quality controller, 5 July 2004.

#### **D1.1.2**

Application needs: The completion of this task is due at the end of 2004. However, it was considered that the outcome of this work is on the critical path for other tasks (in O2I and in Research). Discussions took place in Heraklion (13-14 May 2004) to start working on that topic earlier. An intermediate version is to be delivered on 15 July 2004, with 6 well documented Use Cases.

#### **D1.1.3**

Knowledge processing requirements started since the Heraklion meeting. A work roadmap has been circulated in WP 1.1 for comments, 14 June 2004

#### **D1.1.4**

Status: not started

### **WP1.2, Evaluation for Technology Selection**

This WP starts month 6 (July 1). Two early meeting were organized to achieve a common understanding of the tasks in this WP. At the Knowledge Web Kick-off meeting (Madrid, 4/2/2004), the general goals of the WP were presented and discussed, and all partners agreed on who leads which task (UniTn leads Task L3S leads Task UKARL leads Task 3, VUB Leads Task 4). At the Knowledge Web plenary meeting in Heraklion (13 May 2004), a roadmap for achieving the goals of the tasks were presented by the tasks leaders, and the main dependencies with other WP where clarified.

### **WP1.3, Technology Recommendations**

**Background:** This WP consists of five tasks. Task 1: Best Practices and Guidelines (led by FT); Task 2: Ontology repository (led by UPM); Task 3: Standards (led by UPM); Task 4: Ontology Outreach Authority (led by VUB); Task 5: Self-assessment (led by VUB). Three deliverables are foreseen in the first 18 months: D1.3.1: Best practices and guidelines for industry [month 1-18]; D1.3.2: Identification of standards on metadata for ontologies [month 1-12]; D1.3.3: Report on requirements of OOA [month 1-18]

#### **Progress and Action Points:**

Task 1: Best Practices and Guidelines including D1.3.1 (led by FT): Luigi Lancieri (FT) presented a preliminary work and basic analysis of Best Practices. #Action-point:# a preliminary report is expected in the next meeting to capture the top best practices from the industry use cases (D1.1.1). Diana Maynard (USFD) presented an ongoing work on best practices and guidelines for automatic metadata creation. #Action point: # further details are expected in the next meeting with the focus on industrial business cases. Malgorzata Mochol (FU Berlin) presented an ontology-based recruitment application as prototypical business case. #Action point:# report on best practices and guidelines for ontology-based recruitment applications is expected in the next meeting.  
- on schedule.

Task 2+3: Ontology repository and Standards including D1.3.2 (led by UPM): M.Carmen Suarez-Figueroa (UPM) presented an investigation on reusing and adapting the OntoRoadMap. She presented the identification of a subset of metadata for describing ontologies using the Reference Ontology. This set of metadata will be proposed for standardization. #Action-point:# adapting and extending the OntoRoadMap as the first

prototype of ontology repository, this repository will be part of the Knowledge Web portal.  
#Action-point:# a report on the main set of ontology metadata is expected in next the meeting.  
- on schedule.

Task 4: Ontology Outreach Authority including D1.3.3 (led by VUB). Mustafa Jarrar (VUB) presented preliminary goals and requirements of OOA. #Action-point:# 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. #Expected-Problem:# Person-month allocated to this task is very optimistic. Decision: the decision is to be taken after finishing D1.3.3: reduce the goals or allocate more person-month.  
- on schedule.

Three meetings took place regarding this WP:

- 1) Knowledge Web Kick-off meeting (Madrid, 4 April 2004), the general goals of the WP were presented and discussed, and all partners agreed on who leads which task. FT leads Task 1 including D1.3.1 [month 1-18]; UPM leads Task 2; UPM leads Task 3 including D1.3.2 [month 1-12]; VUB leads Task 4 including D1.3.1 [month 1-18]; and VUB leads Task 5 (Self-assessment).
- 2) O2I Workshop meeting (Paris, 5 March 2004), partners presented their progress so far. FT and UPM reported their cooperation with W3C on "Best Practices and Deployment". UPM reported their investigations on how and what to reuse from OntoWeb efforts (mainly the OntoRoadMap) on Metadata for ontologies. VUB reported their progress and difficulties on defining the OOA requirements.
- 3) Knowledge Web plenary meeting (Heraklion 13 May 2004), partners presented their progress so far. FT, FU Berlin and USFD presented their work and basic analysis of best practices. Best practices and guidelines for automatic metadata creation and ontology-based recruitment applications were presented. UPM presented an investigation on reusing and adapting the OntoRoadMap (an OntoWeb deliverable) for describing ontologies. It was agreed that the OntoRoadMap will be adopted and extended as the first prototype of ontology repository, this repository will be part of the Knowledge Web portal. VUB presented preliminary goals and requirements of OOA. A short report on the OOA goals and requirements will be presented in the next meeting and then it will be sent to the industry board for feedback.

Next meeting: 9-10 September 2004, Trento

#### **WP1.4, Promotion of Ontology Technologies**

Presentation on Progress and issues WP1.4, 14 May 2004

On 14 May 2004, the WP leader presented a report on progress and issues at the Knowledge Web meeting in Heraklion. Following are the issues that were discussed and the decisions that were made:

##### **D1.4.1 Technology Roadmap**

Status: In order to achieve a concrete roadmap, the deliverable will be built on the Report on International Semantic Technology Roadshow (D1.4.3)



#### **D1.4.2 Business Case and Success stories**

Status: It was suggested to restrict to one Success Story in order to strongly focus on marketing elements as creative layout and industry appealing style. Currently, best practices of reports attractive to the industries are being collected. There is not yet a focus on one business case.

#### **D1.4.3 Report on Technology show**

The first International Semantic Technology Road Show: ESWS'04 was successfully held 12 May 2004, in Crete. The collection of applications and tools will be organized in a categorization matrix. The focus will be on applications rather than tools, since this is more industry related and at the same time avoids overlap with other activities.

Additional identified needs and suggestions:

- links on the portal to the tools and applications
- WIKI like portal for an application repository. Suggested features of such repository: user-driven, with a template for developers of the applications to complete. (Work out categorization matrix for the template)
- ranking system as in W3C WG BPD (see the JAVA portal proposal from UPM)

After the Knowledge Web meeting, the energy was put on realizing the deliverable that was first to be completed (D1.4.3.) Underneath a high level overview of the content and the current status of this deliverable, followed by a short word on the deliverables, D1.4.2 and D1.4.1 are to be expected in a later stage of the project.

D1.4.3 will serve as input to D1.4.1, the Technology Roadmap. A first draft of the deliverable is planned to be ready at the end of August 2004.

Progress: D1.4.3 reports on the First International Semantic Web Technology Road show. This show - a joint activity of ESWS and Knowledge Web - took place on 12-13 May 2004 in Heraklion, Crete. In addition to describing the technologies that were demonstrated, the report presents crucial issues and findings that were identified in the interesting discussions that took place during and after the road show. The report finalizes with two recommendations. Recommendation 1 is the development of a template for the categorization of semantic applications. This template should allow for a swift and generic understanding of semantic tools and applications. Recommendation 2 is a call out to the Knowledge Web partners to explore the possibility to jointly develop a web-based repository for semantic applications. These tentative recommendations could be further explored in D 1.4.2.

Status: D1.4.3 is submitted to the quality controller. The Quality Controller and the WP Leader discussed the content of the deliverable and it was agreed that after minor revisions, that concern the right level of technical content, the final version of the deliverable will be submitted at the end of July 2004.

#### **WP1.5, Cross-Network Cooperation**

This WP has been allocated in the Industrial cluster of Knowledge Web, but it covers activities also in Education and Research cluster of Knowledge Web. Currently, the work has been very good allocated. In the Education cluster, the Education cluster leader – University of Hannover (especially Wolfgang Nejdl, Wolf Siberski and Nicola Henze) is taking care of this issue. In the Research cluster, we are currently under the connecting and discussing with them on how to deal with this issue.



### **D1.5.1 Project presentation and project showcase**

- this has been finished in Month 2

### **D1.5.2 Report on joint education and training activities with cooperating networks**

- this is current in good progress. Some joint events in this year have already been identified and prepared. The plan for next year has been currently discussed and planned, especially with REWERSE.

### **DE-D2 joint deliverable by Knowledge Web and REWERSE**

(Co-operation with Knowledge Web/VISWE on graduate education. The deliverable includes agreements and co-operation plans.)

- The close collaboration between REWERSE and Knowledge Web education cluster has been going on very well. The joint learning system infrastructure has been currently under discussion and will be set up soon by the University of Hannover. 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. Onsite visit between REWERSE and Knowledge Web educational cluster is scheduled in July 2004.

### **DT-D2 joint deliverable by Knowledge Web and REWERSE**

(Cooperation with Knowledge Web and other NoE on industrial competence centres and VISWE. The deliverable reports on possibilities and presents co-operation plans).

- Frequent teleconferences between RW and Knowledge Web industrial cluster are going on as scheduled. Currently, the following consensus has been reached among these two NoEs:

1. Joint cooperation goals
2. Possible exchange of business scenarios
3. Discussion between Knowledge Web and REWERSE on industry competence centres
4. Joint promotion channels and plan for joint events this year and next year
5. Industry board discussion of Knowledge Web and REWERSE

### **Meetings**

- Knowledge Web Kick-Off meeting, February 2004, Madrid. Officially the starting of the workpackage has been kicked off. This workpackage is covering the cross-network collaboration throughout three clusters in Knowledge Web.
- Knowledge Web industrial cluster meeting, March, Paris. Here the plan of WP1.5 has been presented and discussed. We are also involving other discussions with other WPs in industrial cluster. Good communication and collaborations among the WPs in industrial cluster has been established.
- Knowledge Web plenary meeting, May 2004, Crete. Each workpackage has been extensively discussed and feedback has been collected.
- Teleconferences of Industrial cluster of Knowledge Web, July 2004. The main discussion of the collaboration between Knowledge Web and Rewerse has been processed and achieved good results. Now the lists of planned events in coming years have been exchanged. Some join plan for joint collaboration has been scheduled. The cross-reference of each website has been done.

#### Planned events with other networks

- Joint event between Knowledge Web and aceMedia: European Workshop on the Integration of Knowledge Semantic and Digital Media Technologies, 25-26 November, 2004, Royal Statistical Society, London, UK.
- Knowledge Web involved event: 3<sup>rd</sup> International Semantic Web Conference, November 2004, Japan.
- Joint summer school between AgentLinkIII and Knowledge Web: 6th European Agent Systems Summer School, Liverpool, UK, 5 - 9 July 2004.
- Knowledge Web industrial workshop: OTM2004 Industry Program Workshop on business applications of Semantic Web and Grid Computing, Larnaca, Cyprus, 25-29 October, 2004.
- Next Knowledge Web industrial cluster meeting, September 2004, Trento, Italy.

#### Other actives:

- Knowledge Web has submitted a general paper from AgentLinkIII newsletters.
- Knowledge Web will give a presentation or poster in European Workshop on the Integration of Knowledge Semantic and Digital Media Technologies, 25-26 November 2004, Royal Statistical Society, London, UK.

### WP1.6, Semantic Portal Infrastructure

#### Goals

The goal of this WP is to create the software infrastructure underpinning the integration of the activities of the Knowledge Web partners, which includes the following tasks:

- Task 1.6.1: Semantic portal analysis requirements and design
- Task 1.6.2: Semantic portal ontology prototype development
- Task 1.6.3: Semantic portal prototype development
- Task 1.6.4: Semantic portal Unit and Integration and Testing
- Task 1.6.5: Content annotation and management
- Task 1.6.6: Hosting and running the portal
- Task 1.6.7: Hosting and running [www.iswsa.org](http://www.iswsa.org)

#### Detail work started/completed in the reporting period

Since 1 March 2004, the version of the Knowledge Web portal has been running at <http://KnowledgeWeb.dia.fi.upm.es/>. The semantic portal activities performed during the reporting period are:

##### A) Regarding Software,

- UPM has improved the portal functionalities with new forms for introducing data and also for browsing the portal content.
- UPM has improved the usability of the portal by means of the design and implementing a new Knowledge Web main page which is driven by the most frequent user queries.
- UPM has performed maintenance tasks for the Knowledge Web portal.
- UPM has created new functionalities for including a model for allowing views composition and for representing the navigation of users in the portal.
- FT has produced a new page for accessing industrial content inside the portal. UPM has started the integration with the Knowledge Web main portal.

##### B) Regarding ontologies

- UPM has improved the portal ontologies with new concepts, relations and properties.
- UPM and NUIG have started a collaboration to perform the interoperability between the information stored in the Knowledge Web Portal and the information using FOAF [[www.foaf-project.org](http://www.foaf-project.org)].

- UPM has written the deliverable D1.6.2. "Portal Ontologies", which includes a detailed description of the portal ontologies developed, mappings between the Knowledge Web portal ontologies and the OntoWeb portal ontologies, and first draft of the mappings between the Knowledge Web portal ontologies and FOAF.

#### C) Regarding Content

- All partners have populated the ontologies with the personnel working on the project, information about WPs, and also with the information about each organization participating on the project.
- Management information has been introduced on the portal.
- Permissions for accessing the private Knowledge Web portal information were set up.
- Created new functionalities for checking omissions on the portal content according to the description of the portal ontologies.

#### Deliverables

D1.6.2. was delivered for QA to University of Karlsruhe on 25 June 2004. This deliverable presents the results of the conceptualisation phase of the ontologies used by the Knowledge Web Portal (<http://knowledgeweb.semanticweb.org>). The document is structured as follows:

- Section 1 briefly describes the main objectives of the WP1.6.
- Section 2 presents both the main current functionalities of the Knowledge Web portal and the different kind of portal users.
- Section 3 describes the Knowledge Web portal ontologies (Documentation, Event, Organization, Person, and Project). These ontologies reuse and extend the OntoWeb<sup>1</sup> and Esperonto<sup>2</sup> ontologies. This section also presents the methodological approach followed to build Knowledge Web portal ontologies.
- Section 4 includes the mappings between the concepts used by the Knowledge Web portal ontologies and the concepts used by the OntoWeb and Esperonto portal ontologies. The mappings between the FOAF and the Knowledge Web Person ontologies are also presented.

#### Meetings, Workshops and Conferences

- Angel Lopez-Cima and Carmen Suarez-de-Figueroa presented the Knowledge Web portal during the second Knowledge Web meeting in Crete (13 May 2004).
- Angel Lopez-Cima gave the talk "ODESeW v2.0. A framework for developing semantic web portals" in the Open University on Thursday 24 June 2004. [<http://stadium.open.ac.uk/stadia/preview.php?s=29&whichevent=469>]
- Asunción Gómez-Pérez presented the Knowledge Web portal on a UPM-W3C meeting on 30 June 2004 at UPM.

## 2. Deviations

#### Deviations WP1.4

There are currently no major deviations or issues to be reported. Two possible deviations are currently formulated as recommendations or suggestions.

1. The recommendation formulated in D1.4.3 to explore the possibility to jointly develop a web-based repository for semantic applications.
2. The suggestion to restrict D1.4.2 to one business case in order to strongly focus on marketing elements.

These issues still have to be further discussed with the partners in Pillar 1 before any impact can be foreseen.

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<sup>1</sup> <http://www.ontoweb.org/>

<sup>2</sup> <http://esperonto.net/>

### 3. Resources (May-Jun 04 only, for overall consumption please refer to section V)

Project effort for the reporting period (person-months)								
Participant's short name		WP 1.1	WP 1.2	WP 1.3	WP 1.4	WP 1.5	WP 1.6	Total
1	UIBK				0.00	1.00		1.00
2	EPFL							0.00
3	FT	1.83	0.00	1.08	0.00	0.00		2.91
4	FU Berlin	1.10		0.10				1.20
5	FUB					0.20		0.20
6	INRIA		0.00					0.00
7	CERTH					0.10		0.10
8	L3S		0.00			0.00		0.00
9	NUIG				0.40		0.20	0.60
10	OU					0.00	0.00	0.00
11	UPM			0.05		0.11	3.48	3.64
12	UKARL		0.25	0.25		0.50		1.00
13	Liv Univ					0.00		0.00
14	VUM		0.10	0.20	0.20	0.20		0.70
15	USFD			0.34		0.50		0.84
16	UniTn	0.18	0.00					0.18
17	VU			0.00				0.00
18	VUB	0.96	0.00	0.72	0.00			1.68
<b>TOTAL</b>		<b>4.07</b>	<b>0.35</b>	<b>2.74</b>	<b>0.60</b>	<b>2.61</b>	<b>3.68</b>	<b>14.05</b>

### 4. Cumulative

Status of deliverables				
Deliverable	Current status (completed/underway)	On schedule (yes/no)	Original completion date (as in Annex I "Description of Work" + Calendar Date, e.g. "M6 = June 2004")	Actual/planned completion date (Calendar Date, e.g. "15 June 2004")
D1.1.1 v1	completed	-	Jun-04	Jun-04
D1.1.1 v2	not started	-	Jun-05	Jun-05
D1.1.2	underway	yes	Dec-04	Dec-04
D1.1.3	started	yes	Dec-04	Dec-04
D1.1.4	not started	-	Jun-05	Jun-05
D1.2.1	not started	-	Jun-05	Jun-05
D1.2.2	not started	-	Dec-04	Dec-04
D1.2.3	not started	-	Dec-04	Dec-04
D1.3.1	underway	yes	Jun-05	Jun-05
D1.3.2	underway	yes	Dec-04	Dec-04

D1.3.3	underway	yes	Jun-05	Jun-05
D1.4.1	underway	yes	Dec-04	Dec-04
D1.4.2	underway	yes	Jun-05	Jun-05
D1.4.3	underway	yes	Dec-04	Dec-04
D1.5.1	completed	-	Feb-04	Feb-04
D1.5.2	underway	yes	Jun-05	Jun-05
E-D2	underway	yes	Jun-05	Jun-05
T-D2	underway	yes	Jun-05	Jun-05
D1.6.1	started	yes	Dec-04	Dec-04
D1.6.2	complete	yes	Jun-04	Jun-04
D1.6.3	not started	-	Jun-05	Jun-05
D1.6.4	not started	-	Jun-05	Jun-05

Participant's short name	Old Total, carried over from last Report	This period's Total	New TOTAL
UIBK	2.00	1.00	3.00
EPFL	0.00	0.00	0.00
FT	5.07	2.91	7.98
FU Berlin	0.85	1.20	2.05
FUB	0.00	0.20	0.20
INRIA	0.10	0.00	0.10
CERTH	0.00	0.10	0.10
L3S	0.30	0.00	0.30
NUIG	0.70	0.60	1.30
OU	0.00	0.00	0.00
UPM	5.29	3.64	8.93
UKARL	0.50	1.00	1.50
Liv Univ	0.60	0.00	0.60
VUM	1.15	0.70	1.85
USFD	1.68	0.84	2.52
UniTn	1.02	0.18	1.20
VU	0.00	0.00	0.00
VUB	1.54	1.68	3.22
<b>TOTAL</b>	<b>20.80</b>	<b>14.05</b>	<b>34.85</b>

## Appendix

Meeting records and participants lists, conference/workshop proceedings, etc. available on <http://knowledgeweb.semanticweb.org>

## II. Research Area

### Management

All WPs are up and running and are on track. All have had at least one face to face meeting, and all have set up their appropriate collaborative infrastructures of document servers, Wikis and CVS repositories.

All deliverables due at M6 have been delivered and are currently going through the quality assurance process. All are on the Knowledge Web portal.

All but one (WP2.4) of the WPs met at the 2<sup>nd</sup> Joint Knowledge Web Research meeting following the ESWS 1<sup>st</sup> European Semantic Web Symposium, ESWS 2004, in Heraklion, Crete 13-15 May 2004. Around 50 people attended over the three days. The joint meeting was followed by a plenary session. Cross walks between WPs were encouraged and the schedule ensured that individual participants could attend more than one meeting.

WP2.6 has been restructured to act as the Technical Management Board for the Research Area; all WP leaders are now members of the WP2.6

The area managers have emphasized additionality instead of duplication of effort, and have encouraged cross collaboration between WPs, the SDK cluster, the WSMO projects and other activities. The WPs have been encouraged to explicitly identify in their deliverables a formal statement on cross-relationships to other deliverables, both within Knowledge Web and in relevant external projects.

The third Joint Knowledge Web Research Area meeting will be held at the University of Manchester, UK on 27-29 September 2004.

## **1. Progress, Work Packages**

### **WP2.1, Scalability**

#### **Deliverables**

The past two months of the reporting period have largely been dedicated to the writing and finalising of the first deliverable D2.1.1. "State of the art on the scalability of ontology-based technology". According to their commitments during the Amsterdam meeting in the beginning of March, the partners sent their initial parts of the document at the beginning of May. Consequently, the first version of the document was compiled before the WP2.1 face to face meeting in Heraklion on 14 May 2004. During this meeting the document was discussed in detail leading to a restructuring of the modularisation and distribution part. The two other parts, approximation and benchmarking, benefited from the suggestions of the participants. The comments and suggestions were implemented in the following month. Now the deliverable is finalized and currently in the quality assurance process.

It is our strong impression that all partner but especially those which are responsible for the three main parts, i.e. Perry Groot (VU), Luciano Serafini (UniTN), and Raúl Garcia-Castro (UPM), undertook an in-depth and wide-spread analysis of the state of the art.

Now it is time to continue the work on the three main topics of the working package. In this context the EPFL is embedded more deeply in the working package since the EPFL takes over the responsibility for deliverable D2.1.3. "Modularization of ontologies".

#### **Links to other WPs**

During the face to face meeting at Heraklion in May 2004, a strong relationship between modularization and the aims of WP2.2 "Heterogeneity" and WP2.5 "Language extension" was



discovered. This led to a fruitful discussion during that meeting and will be jointly continued in future.

## **WP2.2, Heterogeneity**

### **Deliverables**

The past two months of the reporting period has largely been dedicated to the writing and finalising of the deliverables D2.2.1 (version 1) "Specification of a common framework for characterizing alignment" and D2.2.3 "State of the art on current alignment techniques". Both deliverables have successfully been completed and are currently in the quality assurance process.

The first version of the common framework is taking shape and is already usable for comparing work and developing new work. The state of the art (more than 70 pages) will be a strong basis for continuing work. Both deliverables have been the occasion of strong exchanges from the WP participants. Some work is now ahead of time, i.e. the organisation of first alignment contests and the development of an alignment API.

The WP participants took part in a one day face to face meeting on 15 May 2004, at Heraklion, Crete.

**Links to other external projects, international developments and standardization efforts**  
contacts with Sekt and DIP (SDK) on mediation have been developed.

### **Events**

Participants continued face to face discussions by also attending:

- ESWS2004, Heraklion, May 2004.
- Knowledge Representation 2004, KR2004, June 2004, Whistler, British Columbia, Canada has gathered several people from the WP
- First International Workshop on Formal Biomedical Knowledge Representation Collocated with KR 2004, 1 June 2004.
- Semantic web summer school, June-July 2004, Aussois

The WP has also organised:

- SIMIS workshop at ECAI2004, August 2004, Valencia
- Ontology Alignment Contest at the EON workshop at ISWC2004, November 2004, Hiroshima
- Meaning negotiation workshop at ISWC2004, November 2004, Hiroshima

## **WP2.3, Dynamics**

### **Deliverables**

During the past two months of the reporting period work has continued on D2.3.1 and D2.3.2. Both have been outlined and structured; first drafts of D 2.3.2 have been completed. For D 2.3.1, "Specification of a methodology for ontology syntactic and semantic versioning", due M12, a RDF-diff-program was developed by NUIG as first experimental basis for RDF-based versioning. A new promising approach to ontology versioning has been developed. Based on the structural versioning of RDF-graphs it has the potential to allow for the integrative versioning of ontologies expressed in different ontology languages (RDFS, OWL variants, RDF-based F-Logic notation under development in WSMO) and RDF-based data and data models (FOAF, VCard, etc.). The semantic versioning in this approach will be defined for each particular ontology language or model. A publication of the approach will follow soon. For demonstrating the feasibility of our approach and for experimenting with the mapping between



structural changes in the RDF graph and the semantic changes in the ontology some basic technical implementations are necessary.

Therefore we have implemented as first step an algorithm for calculating the structural difference between two RDF graphs in Java. In order to have a convenient experimental environment and to support the collaboration with other activities in the SDK-cluster we currently wrap this Java code into an eclipse ([www.eclipse.org](http://www.eclipse.org)) plug-in.

Content of D2.3.2 was further developed by UIBK, with new contributions from UniTn. The WP had a one day face to face meeting in Heraklion where organizational questions and partner contributions were clarified. Integrating the Wiki-page results and further partner input, the outlines for the first two deliverables were developed and discussed. Partners declared their contributions to particular chapters. Partners sent first contributions and a detailed work plan was developed.

Beside the work for the first two deliverables LivUni has started to work on a "Report on negotiation/argumentation techniques among agents complying with different ontologies" (due M24).

Questionnaires for evolution requirements for Knowledge Web Portal will be aligned with the empirical work for DIP project and therefore send approximately four weeks later then planned in the intermediate report.

## **WP2.4, Semantic Web Services**

The detailed work plan of the Semantic Web Services WP as agreed during the Amsterdam meeting in March remains on track. The WP remains focused on supporting the research efforts in bringing Semantic Web Services to its full maturity.

### **Deliverables**

Until the end of reporting period (end of June 2004), the internal deliverable D1 - to survey on the state of the art of current Semantic Web Services initiatives and analysis of current initiatives to identify semantic needs not covered within existing research efforts - has been finished and is now being reviewed by an external reviewer. Once the comments provided by the reviewer are incorporated into the main document, the deliverable will be uploaded into Knowledge Web portal.

The structure of three deliverables D2.4.1, D2.4.2 and D2.4.3, which are due M12, has been already proposed.

### **Links to other WPs**

WP2.4 has provided an input in form of three use cases for other WP: for Scalability, Heterogeneity and Dynamics. One meeting has been reported, which was held in Lausanne where NUIG, UIBK and EPFL agreed on the structure and initial content of D2.4.2 "Definition of semantics for Web Services discovery and composition".

### **Links to other external projects, international developments and standardization efforts**

NUIG and UIBK continue their active participation in the Web Services Modelling Ontology (WSMO) and Web Services Modelling Execution (WSMX) working groups, which almost directly cover the work carried by other WPs of the Knowledge Web project. Other partners of the WP have yet to contribute to WSMO/WSMX initiatives.

## **WP2.5, Semantic Web Language Extensions**

### **Deliverables**

The WP had a well attended, lively and productive one day face to face meeting in Heraklion. The meeting focused on the content of D2.5.1 "Specification of coordination of rule and ontology languages", and work in this reporting period has largely been dedicated to the completion of this work. The deliverable has been completed, uploaded to the Knowledge Web Portal, and is currently in the quality assurance process. The deliverable is a substantial piece of work that provides an unified framework in which the existing (and future) proposals of integrating different sorts of rule based language with the OWL DL Web ontology language can be compared. All the WP participants contributed. Work has now commenced on D2.5.2 "Report on query language design and standardization" due M12.

### **Links to other WPs**

Use case yet to be provided by WP2.4. During the Crete meeting a strong relationship between modularization in WP2.1 and the aims of WP2.5 was discovered. This led to fruitful discussions that will be jointly continued in future. Current objectives are to work with other members of the consortium to identify requirements for extensions to the existing layered architecture of semantic web languages.

### **Links to other external projects, international developments and standardization efforts**

WP leaders took part in the SDK meeting in Lausanne on the 14 June 2004.

### **Events**

Participants continued face to face discussions by also attending:

- ESWS2004, May 2004, Heraklion, Crete.
- KR2004 Whistler, June 2004, British Columbia, Canada,
- International Workshop on Description Logics - DL2004, June 2004, Whistler, British Columbia, Canada

## **WP2.6, Towards a Virtual Research Centre**

### **Deliverables**

Coordination of research area is up-and-running. The WP2.6 has been restructured to ensure that representatives of all the WP leaders are members of the WP2.6. A half day face to face meeting of representatives took place at Heraklion in May. First proposal for the Exchange of Researchers programme has been made D2.6.2a "T-REX: Topic-oriented Researcher EXchange in Knowledge Web". The proposal is available on the Knowledge Web portal. The proposal will be refined and updated according to the feedback of Knowledge Web partners.

A number of high-quality events have already been organized or are up-coming; see the following list:

### **Events**

MSW2004, <http://km.aifb.uni-karlsruhe.de/ws/msw2004> Mining for and from the Semantic Web International Workshop located at the 10th International ACM SIGKDD Conference on Knowledge Discovery and Data Mining KDD 2004, 22 August 2004, Seattle, WA, USA

SWSDN2004, <http://km.aifb.uni-karlsruhe.de/ws/swsdn2004> Semantic Web Services and Dynamic Networks Workshop located at the 34th annual meeting of the German Association for Informatics (GI) "Informatik 2004 - Informatik verbindet", 24 September 2004, University of Ulm

EON2004, <http://km.aifb.uni-karlsruhe.de/ws/eon2004> Evaluation of Ontology-based Tools  
3rd International Workshop located at the 3rd International Semantic Web Conference ISWC 2004, 8 November 2004 (Workshop day), Hiroshima Prince Hotel, Hiroshima, Japan

ONS2004, <http://km.aifb.uni-karlsruhe.de/ws/ons2004> Ontologies for Networked Systems  
1st International Workshop located at the 5th International Conference on Web Information Systems Engineering WISE 2004, 22 November 2004 (Workshop day) Brisbane, Australia

Workshop on Ontology Learning and Population: Towards Evaluation of Text-based Methods in the Semantic web and Knowledge Discovery Life Cycle, located at 16<sup>th</sup> European Conference on Artificial Intelligence (ECAI-2004), 22-24 August 2004 (Workshop days) Valencia, Spain

Workshop on application of Semantic Web technologies to Web Communities, located at 16<sup>th</sup> European Conference on Artificial Intelligence (ECAI-2004) 22-24 August 2004 (Workshop days), Valencia, Spain

International Workshop on Semantic Intelligent Middleware for the Web and the Grid, located at 16<sup>th</sup> European Conference on Artificial Intelligence (ECAI-2004), 22-24 August 2004 (Workshop days), Valencia, Spain

MSW2004: Mining for and from the Semantic Web, located at the 10<sup>th</sup> International ACM SIGKDD Conference on Knowledge Discovery and data Mining KDD 2004, 22 August 2004, Seattle, WA, USA, <http://km.aifb.uni-karlsruhe.de/ws/msw2004/>

Relevant meetings attended:

2004-05-09/15 ESWS2004 & Knowledge Web meeting, Heraklion, Crete

2004-06-06 Global Grid Forum 11 Semantic Grid Applications Workshop Hilton Hawaiian Village Beach Resort & Spa, Honolulu, USA

## 2. Deviations

WP2.2 had problems recruiting Quality Controllers. However, the issue has been successfully resolved.

WP2.3: Questionnaires for evolution requirements for Knowledge Web Portal will be aligned with the empirical work for DIP project and therefore sent approximately four weeks later than planned in the intermediate report.

WP2.6: the D2.6 "Report on budget allocation" was reassigned as a responsibility of the Knowledge Web coordinating partner and part of the deliverable portfolio of the management area rather than the research area. This was agreed to by the Project Management Board at a meeting in Heraklion, May 2004.

## 3. Resources (May-Jun 04 only, for overall consumption please refer to section V)

Project effort for the reporting period (person-months)							
Participant's short name	WP 2.1	WP 2.2	WP 2.3	WP 2.4	WP 2.5	WP 2.6	Total
1 UIBK			0.50	1.50			2.00
2 EPFL	0.40	0.30		1.30			2.00
3 FT						0.00	0.00
4 FU Berlin				1.50		0.00	1.50

5	FUB		0.50	0.00		0.80	0.00	1.30
6	INRIA	0.00	4.00	0.10		0.25	0.10	4.45
7	CERTH	0.10	0.10	0.10		0.20		0.50
8	L3S	0.20				0.20		0.40
9	NUIG		0.00	1.20	2.00			3.20
10	OU							0.00
11	UPM	1.34	0.24	0.05			0.00	1.63
12	UKARL	0.50	0.25	0.50			0.25	1.50
13	LivUni			0.00	0.00			0.00
14	VUM	0.40	0.10		0.20	2.00	0.30	3.00
15	USFD		0.16	0.08				0.24
16	UniTn	0.25	2.70		0.20		0.00	3.15
17	VU	1.30	0.30	0.30		0.10		2.00
18	VUB	0.48	0.24				0.24	0.96
	<b>TOTAL</b>	<b>4.97</b>	<b>8.89</b>	<b>2.83</b>	<b>6.70</b>	<b>3.55</b>	<b>0.89</b>	<b>27.83</b>

#### 4. Cumulative

Status of deliverables				
Deliverable	Current status (completed/ underway)	On schedule (yes/no)	Original completion date (as in Annex I "Description of Work" + Calendar Date, e.g. "M6 = June 2004")	Actual/planned completion date (Calendar Date, e.g. "15 June 2004")
D 2.1.1	completed	-	Jun-04	30-Jun-04
D 2.1.2	underway	yes	Dec-04	15-Dec-04
D 2.1.3	underway	yes	Jun-05	15-Jun-05
D 2.1.4	underway	yes	Dec-04	15-Dec-04
D 2.2.1 v1	completed	-	Jun-04	
D 2.2.1 v2	underway	yes	Dec-04	21-Jun-04
D 2.2.2	underway	yes	Dec-04	13-Dec-04
D 2.2.3	completed	-	Jun-04	07-Jun-04
D 2.2.4	not started	-	Jun-05	13-Jun-05
D 2.3.1	underway	yes	Dec-04	10-Oct-04
D 2.3.2	underway	yes	Dec-04	10-Oct-04
D 2.4.1	underway	yes	Dec-04	30-Oct-04
D 2.4.2	underway	yes	Dec-04	30-Oct-04
D 2.4.3	underway	yes	Dec-04	30-Oct-04
D 2.4.4	underway	yes	Jun-05	30-April-05
D 2.5.1	completed	-	Jun-04	11-Jun-04
D 2.5.2	underway	yes	Dec-04	31-Dec-04
D 2.6.1	underway	yes	Dec-04	17-Dec-04
D 2.6.2	underway	yes	Dec-04	12-Dec-04
D 2.6.3	underway	yes	Dec-04	12-Dec-04

<b>D 2.6.4</b>	underway	yes	Jun-05	30-Jun-05
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Participant's short name	Old Total, carried over from last Report	This period's Total	New TOTAL
UIBK	4.50	2.00	<b>6.50</b>
EPFL	4.30	2.00	<b>6.30</b>
FT	0.00	0.00	<b>0.00</b>
FU Berlin	1.50	1.50	<b>3.00</b>
FUB	0.55	1.30	<b>1.85</b>
INRIA	5.70	4.45	<b>10.15</b>
CERTH	0.30	0.50	<b>0.80</b>
L3S	0.20	0.40	<b>0.60</b>
NUIG	3.10	3.20	<b>6.30</b>
OU	0.00	0.00	<b>0.00</b>
UPM	1.86	1.63	<b>3.49</b>
UKARL	1.75	1.50	<b>3.25</b>
LivUni	0.30	0.00	<b>0.30</b>
VUM	5.50	3.00	<b>8.50</b>
USDF	0.48	0.24	<b>0.72</b>
UniTn	3.88	3.15	<b>7.03</b>
VU	1.10	2.00	<b>3.10</b>
VUB	0.44	0.96	<b>1.40</b>
<b>TOTAL</b>	<b>35.46</b>	<b>27.83</b>	<b>63.29</b>

## Appendix

Meeting records and participants lists, conference/workshop proceedings, etc. available on <http://knowledgeweb.semanticweb.org>

## III. Education Area

### Management

In the first six months of the KnowledgeWeb NoE, the educational outreach packages (WPs 3.1, 3.2, 3.3) have engaged in a number of activities. Note that although work has been nominally distributed among the packages, in fact, these activities are very much a joint effort.

The requirements analysis for the foundation of and negotiations about the Virtual Institute for Semantic Web Education has been carried out. This took the form of a questionnaire sent to

NoE participants to determine which of four scenarios would be most applicable to their planned contribution to the VISWE. Of the four scenarios (repository, MSc, professional, PhD/Community-of-Practice) the MSc was the most favoured, although much interest was also shown in the PhD/CoP scenario. All scenarios require repositories of learning resources to become available.

As a result a repository using EducaNext platform has been set up by L3S. Offers of material had already been elicited. These were categorized and an indexing scheme will be produced for the EducaNext repository. This will be populated by the participants who offered material.

The University of Trento is involved in negotiations about the setting up of a Europe-wide MSc.

Since the EducaNext metadata scheme is standards compliant this will be used for repository markup. It also forms the basis for the work on a more complete domain ontology which will support the use of the Magpie Semantic Browser as a means of navigating repository material. Work has also progressed on a new version of Magpie in preparation for the initial prototype of the Semantic Platform at month 18. We are also looking at possible semantic and non-semantic support for communities of practice in line with the interest shown in these.

As an important part of the outreach we have organized the Second Summer School in Ontological Engineering and the Semantic Web, which took place 18-24th July in Cercedilla, Spain. This school is at the same time an educational outreach event for mostly PhD students, a place for communities of practice to be nurtured and a test-bed for ideas on what the VISWE could offer.

In summary, the work in the education area is progressing well with no major setbacks and no obvious obstacles ahead.

### **Progress, Work Packages**

The Educational Area meeting at the second Knowledge Web meeting has been coordinated. The meeting has been attended by many WP3 partners. Presentations and minutes are available on the Educational Area workspace BSCW < <http://projekte.learninglab.uni-hannover.de/bscw/bscw.cgi/0/38606>>

### **WP3.1, Foundations for Virtual Institute for Semantic Web Education (VISWE)**

L3S, UniTn, FU Berlin and other partners have enhanced the scenarios as requirements analyses for VISWE. Based on these scenarios and requirements analyses, L3S has contacted the NoE REVERSE (Jan Maluszynski, Norbert Eislinger, and Grigoris Antoniou) in order to agree on specific points of cooperation regarding VISWE. FU Berlin has contributed tasks and goals for the scenario for professionals and made contact with the KnowledgeWeb Industry WP participants to begin a synergy of work between WP Industry and WP Education. L3S prepared slides for the meeting in Crete and prepared the first version of the first 6 months deliverable.

### **WP3.2, Educational Content and Event Provision**

USFD has been working on producing material for a course on HLT technologies for the Semantic Web. INRIA has been focusing on a prototype of annotation interface for learning objects [http://ubaye.inria.fr:8080/biblio\\_test/](http://ubaye.inria.fr:8080/biblio_test/) and on an ontology for annotating learning



resources. ITI-CERTH has prepared, adapted and offers the following short course: "Knowledge Assisted Multimedia Content Analysis Using Semantic Web Technologies" as PowerPoint presentation together with background papers. FU Berlin contributed information about the Semantic Web Information Day, and has drawn up concrete plans for a support network for PhD students in Berlin and the surrounding region.

UPM and OU organized the second summer school on Ontological Engineering and the Semantic Web to be held in Cercedilla from 19-24 July 2004. The work performed are mainly related to: 1. Administrative, management and logistic issues: identification cards, invoices for the students, organization of the meeting rooms, social event, buses, etc. 2. Hardware and Software support, including installation of the software to be used during the summer school 3. Summer school web site 4. Financial issues: Checking payments done for the students. 5. Preparation of a tutorial on Ontological engineering 6. Writing a mini-project

L3S got responses to the learning material questionnaire from 12 partners, comprising 26 learning units. These responses have been evaluated, and a summary for the WP3 meeting in Heraklion has been prepared.

### WP3.3, Semantic Delivery Platform

UniTn has prepared prerequisites for future tasks related to WP3.3, i.e. getting material about Semantic Web Browsers and doing tests on them. L3S has conducted and finished negotiations with EducaNext and ARIADNE regarding licenses for their LMSs. An EducaNext and an ARIADNE server where the learning units will be provided have been installed and is maintained. OU and L3S has started populating EducaNext with actual resources. As part of the work on D3.3.1, its LOM compliant metadata scheme has been selected. Reports have been written on these two activities. Negotiations with the EducaNext consortium continue.

### Other work

Work continues on producing a new architecture for the Magpie semantic browser (OU). FUB worked on (a) the analysis of past and current experiences in Europe in the creation of joint MSc programmes; (b) the creation in parallel of two different kinds of European Masters: the E.M. on Computational Logics (under the auspices of the Compulog NoE) in the form of a double degree, and the E.M. on Language and Communication Technologies in the form of a diploma supplement; and (c) the preparation of a concrete legal proposal based on the two experiences in (b), including the draft legal document for the needed agreement to implement a distributed MSc.

## 2. Deviations

There have not been any significant managerial and administrative issues or deviations.

## 3. Resources (May-Jun 04 only, for overall consumption please refer to section V)

Project effort for the reporting period (person-months)				
Participant's short name	WP 3.1	WP 3.2	WP 3.3	TOTAL



1	UIBK				0.00
2	EPFL				0.00
3	FT				0.00
4	FU Berlin	0.20	0.20		0.40
5	FUB	0.10	0.30		0.40
6	INRIA		1.90		1.90
7	CERTH	0.00	0.00		0.00
8	L3S	1.00	1.50	1.50	4.00
9	NUIG	0.00			0.00
10	OU	0.25	0.25	2.00	2.50
11	UPM	0.00	2.29		2.29
12	UKARL	0.25	0.25		0.50
13	LivUni		0.00		0.00
14	VUM		0.20		0.20
15	USFD		0.08		0.08
16	UniTn	0.03		0.00	0.03
17	VU		0.20		0.20
18	VUB	0.24			0.24
	<b>TOTAL</b>	<b>2.07</b>	<b>7.17</b>	<b>3.50</b>	<b>12.74</b>

#### 4. Cumulative

Status of deliverables				
Deliverable	Current status (completed/ underway)	On schedule (yes/no)	Original completion date (as in Annex I "Description of Work" + Calendar Date, e.g. "M6 = June 2004")	Actual/planned completion date (Calendar Date, e.g. "15 June 2004")
D3.1.1	completed	yes	Jun-04	30-Jun-04
D3.1.2	underway	yes	Dec-04	15-Dec-04
D3.1.3	not started	-	Jun-05	15-Jun-05
D3.2.1 v1	completed	yes	Jun-04	30-Jun-04
D3.2.1 v2	not started	-	Jun-05	15-Jun-05
D3.2.2	underway	yes	Dec-04	15-Dec-04
D3.2.3	underway	yes	Jun-04	15-Jun-04
D3.2.4	underway	yes	Jun-05	15-Jun-05
D3.2.5	not started	-	Jun-05	15-Jun-05
D3.2.6	underway	yes	Jun-05	15-Jun-05
D3.3.1	completed	yes	Jun-04	30-Jun-04
D3.3.2 v 1	completed	yes	Jun-04	30-Jun-04
D3.3.2 v2	not started	-	Dec-04	15-Dec04
D3.3.3	underway	yes	Jun-05	15-Jun-05

<b>D3.3.4</b>	underway	yes	Dec-04	15-Dec-04
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Participant's short name	Old Total, carried over from last Report	This period's Total	New TOTAL
UIBK	0.00	0.00	0.00
EPFL	0.00	0.00	0.00
FT	0.00	0.00	0.00
FU Berlin	0.85	0.40	1.25
FUB	0.44	0.40	0.84
INRIA	3.00	1.90	4.90
CERTH	0.00	0.00	0.00
L3S	5.10	4.00	9.10
NUIG	0.30	0.00	0.30
OU	7.50	2.50	10.00
UPM	0.00	2.29	2.29
UKARL	0.50	0.50	1.00
LivUni	0.10	0.00	0.10
VUM	0.20	0.20	0.40
USDF	0.08	0.08	0.16
UniTr	0.08	0.03	0.11
VU	0.00	0.20	0.20
VUB	0.22	0.24	0.46
<b>TOTAL</b>	<b>17.87</b>	<b>12.74</b>	<b>31.11</b>

## Appendix

Meeting records and participants lists, conference/workshop proceedings, etc. available on <http://knowledgeweb.semanticweb.org>

## IV. Management Area

### Management

Following the constitution of the EPMB and the PMB during the Knowledge Web Kick-off meeting in Madrid, these two bodies put several central requirements of the Consortium Agreement and Annex I into action. The establishment of an External Advisory Board was pushed forward and finalized. Currently, we are in the process of establishing an Industry Board. In regard to this, an Amendment to the Consortium Agreement was drafted and is being discussed which ensures that the NoE will adhere to the principles of openness and return on investment while protecting its intellectual property rights from exploitation.

As Knowledge Web is an open forum and has the mission to spread excellence outside the boundaries of its core membership, procedures for evaluation of new membership applications, quality assurance, event sponsoring, monitoring of consortium spending and researcher exchange were defined. Official documents detailing the above mentioned procedures have been made public on the Knowledge Web portal to provide the expected transparency and outreach activities of the NoE.

Also during the first six months, various administrative decisions were taken to ensure the smooth running of the management of the project as a whole. Mailing lists have been established to be used for specific information to avoid multiple postings and missed information. A procedure for an effective production of required documents has been implemented.

Telephone conferences take place on a regular basis, a Knowledge Web Plenary and a PMB face-to-face meeting were held on 13-14 May 2004 in Crete. There were no deviations from the work plan and plans for the next 12 months include a Knowledge Web-All meeting which will presumably take place at the end of 2004, in Brussels. The next Knowledge Web Plenary Meeting is going to take place in May 2005 in Crete.

## **1. Progress, Work Packages**

### **WP4.1, Operational Management**

The procedure for the compilation of the 2-monthly Management Report is working successfully. Pending official approval by the PMB, the procedure will be put on the Knowledge Web portal.

The following documents have been made public on the official Knowledge Web portal:

List of Quality Assessors/Quality Controllers - Quality Management Procedure

[http://KnowledgeWeb.dia.fi.upm.es/semanticportal/home.jsp?content=quality\\_management\\_procedure.html](http://KnowledgeWeb.dia.fi.upm.es/semanticportal/home.jsp?content=quality_management_procedure.html)

Criteria for event sponsoring - Rules for event support

[http://KnowledgeWeb.dia.fi.upm.es/semanticportal/home.jsp?content=Rules\\_for\\_Event\\_Support.html](http://KnowledgeWeb.dia.fi.upm.es/semanticportal/home.jsp?content=Rules_for_Event_Support.html)

Knowledge Web Membership application - How to join Knowledge Web

<http://KnowledgeWeb.dia.fi.upm.es/semanticportal/home.jsp?content=joining.html>

JPA first 18 months - Detailed Programme of Activities

<http://KnowledgeWeb.dia.fi.upm.es/semanticportal/servlet/download?ontology=Documentation+Ontology&concept=Additional+Documentation&instanceSet=KnowledgeWeb&instance=KnowledgeWeb+Detailed+Programme+of+Activities&attribute=Online+PDF+Version&value=Detailed+programme+of+activities.pdf>

An External Advisory Board (EAB) has been formed. Possible candidates have been identified and approached by the network director. Pending official confirmation, the EAB will consist of the following people: Jim Hendler, Mari Georges, Riichiro Mizoguchi.

Criteria for Funding of Industry Partners are being discussed.

#### **D4.1.1 EC reporting**

Progress: The 2-monthly Management Report January/February 2004 was officially accepted by the PO and will be made public on the Knowledge web portal. The 2-monthly Management Report March/April 2004 was completed according to the contract. A Word and Web version has been submitted to the Project Officer, both electronically and by post. Pending official approval by the PO, the report will be made public on the Knowledge Web portal. Information for the compilation of the Activity Report, covering the period January-February 2004, has been gathered and processed. The preparation of the report has been coordinated.

#### **D4.1.2 Report on Audit regime**

Status: Report on Audit regime is due in M12.

#### **D4.1.3 Public Report**

Status: Public Report is due in M12.

Progress: The information gathered for the compilation of the 2-monthly Management Reports will be archived and later used in the generation of the annual Public Report.

### **WP4.2, Financial Management**

In order to ensure compliance with spending requirements as requested in Annex III, Article III2.2: “ The *Commission* shall pay the *Community* financial contribution in respect of a completed period provided that the following conditions are fulfilled:

- ...

- that the eligible costs, incurred in implementing the joint programme of activities for the period, calculated in accordance with Part B of the Annex II, are at least equal to the *Community* financial contribution for that period.”, an internal cost-monitoring tool (quarterly submitted internal cost statements from each Knowledge web participant) was established and implemented. The first set of internal cost statements has been gathered and analyzed. Thereupon, the consortium was informed that underspending did not take place during the first quarter of the year 2004.

#### **D4.2.1 Financial and accounting report**

Status: The Financial Report is due in M12.

Progress: In order to monitor the spending of the Knowledge Web consortium, each participant is required to provide the project coordinator with a quarterly cost statement (April/May/June). All cost statements will be gathered by 16 July 2004 and then analyzed. The consortium will be informed accordingly on the overall financial situation.

### **WP4.3, Technical Management**

#### **D4.3.1 Technical report**

Status: Technical Report is due in M12.

Progress: The main work has, so far, consisted in reporting work completed in the network and coordination within Knowledge Web as well as between Knowledge Web and other projects, such as SDK meetings and coordination with DIP and SEKT. WP4.3 participants have additionally contributed to PMB and area meetings and activities, wrote management, progress and activity reports.

#### **WP4.4, Legal and Knowledge Management**

##### **D4.4.1 Consortium Agreement**

Status: There were no changes in the Consortium Agreement.

##### **D4.4.2**

Status: Setting up of legal entities is due in month 12 or upon necessity.

Progress: The process of gathering information regarding the setting up of legal entities has been started.

#### **WP4.5, Society and Gender Issues**

Progress: no progress reported

##### **D4.5.1**

Status: Report on Gender Action Plan is due in M12.

##### **D4.5.2**

Status: Report on Public Engagement Activities is due in M18.

#### **WP 4.6, Self-Assessment, Risk Analysis and Market Watch**

##### **D4.6.1**

Status: Report on self-assessment, risk analysis and market watch is due in M12.

Progress: Information regarding risk analysis and market situation has been gathered.

#### **Management Meetings and Phoneconferences**

- Knowledge Web Kick-off Meeting, 3-4 February 2004, Madrid, Spain
- 1<sup>st</sup> PMB face-to-face meeting, 3 February 2004, Madrid, Spain
- 1<sup>st</sup> EPMB face-to-face meeting, 3 February 2004, Madrid, Spain
- Knowledge Web Plenary Meeting, 13-14 May 2004, Heraklion, Crete
- PMB face-to-face meeting, 13 May 2004, Heraklion, Crete
- 1<sup>st</sup> EPMB phoneconference, 24 February 2004
- 1<sup>st</sup> PMB phoneconference, 18 March 2004
- 2<sup>nd</sup> PMB phoneconference, 22 April 2004

- 3<sup>rd</sup> PMB phoneconference, 13 May 2004
- 2<sup>nd</sup> EPMB phoneconference, 17 June 2004

planned:

- 4<sup>th</sup> PMB phoneconference, 17 September 2004

## 2. Deviations

There have not been any significant managerial and administrative issues or deviations.

## 3. Resources (May-Jun 04 only, for overall consumption please refer to section V)

Project effort for the reporting period (person-months)							
Participant's short name	WP 4.1.	WP 4.2	WP 4.3	WP 4.4	WP 4.5	WP 4.6	TOTAL
UIBK	1.00	0.50	0.75	0.50		0.25	3.00
EFPL							0.00
FT							0.00
FU Berlin							0.00
FUB							0.00
INRIA	0.20		0.10	0.25			0.55
CERTH							0.00
L3S			0.20				0.20
NUIG							0.00
OU			0.00	0.00			0.00
UPM	0.23		0.00		0.00		0.23
UKARL			0.25				0.25
LivUni							0.00
VUM			0.20		0.00		0.20
USFD							0.00
UniTn							0.00
VU			0.40				0.40
VUB			0.24				0.24
<b>TOTAL</b>	<b>1.43</b>	<b>0.50</b>	<b>2.14</b>	<b>0.75</b>	<b>0.00</b>	<b>0.25</b>	<b>5.07</b>

### Note

Regarding the reported man\*months figures of Vrije University (VU), there has been a slight deviation in Management Report Nr.2 . According to an VU representative, the correct figures are:

- WP4.3                      0.20  
- **Total**                      **0.20**

These

figures will be taken in account in table 4. **Cumulative.**

#### 4. Cumulative

Status of deliverables				
Deliverable	Current status (completed/ underway)	On schedule (yes/no)	Original completion date (as in Annex I "Description of Work" + Calendar Date, e.g. "M6 = June 2004")	Actual/planned completion date (Calendar Date, e.g. "15 June 2004")
<b>Fact sheet</b>	completed	-	M1	31-Jan-04
<b>D4.1.1</b>	underway	yes	M12	31-Dec-04
<b>D4.1.2</b>	underway	yes	M12	31-Dec-04
<b>D4.1.3</b>	underway	yes	M12	31-Dec-04
<b>D4.2.1</b>	underway	yes	M12	31-Dec-04
<b>D4.3.1</b>	underway	yes	M12	31-Dec-04
<b>D4.4.1</b>	completed	-	M-1	31-Dec-03
<b>D4.4.2</b>	underway	yes	M12	31-Dec-04
<b>D4.5.1</b>	not started	-	M12	31-Dec-04
<b>D4.5.2</b>	not started	-	M18	30-Jun-05
<b>D4.6.1</b>	underway	yes	M12	31-Dec-04

Participant's short name	Old Total, carried over from last Report	This period's Total	New TOTAL
UIBK	6.00	3.00	9.00
EFPL	0.00	0.00	0.00
FT	0.00	0.00	0.00
FU Berlin	0.00	0.00	0.00
FUB	0.00	0.00	0.00
INRIA	0.90	0.55	1.45
CERTH	0.00	0.00	0.00
L3S	0.10	0.20	0.30
NUIG	0.00	0.00	0.00
OU	0.00	0.00	0.00
UPM	1.59	0.23	1.82
UKARL	0.25	0.25	0.50
Liv Uni	0.00	0.00	0.00
VUM	0.40	0.20	0.60
USFD	0.00	0.00	0.00
UniTr	0.00	0.00	0.00
VU	0.20	0.40	0.60
VUB	0.21	0.24	0.45
<b>TOTAL</b>	<b>9.45</b>	<b>4.67</b>	<b>14.12</b>





## **Appendix**

Meeting records and participants lists, conference/workshop proceedings, etc.:  
Available on <http://knowledgeweb.semanticweb.org>



Knowledge Web		WP1.2										
Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/Jun 05	spent so far
1	UIBK											
2	EPFL											
3	FT	6.00	2.00	0.00	0.53	0.00						0.53
4	FU Berlin											
5	FUB											
6	INRIA	4.00	1.00	0.10	0.00	0.00						0.10
7	CERTH											
8	L3S	9.00	4.00	0.00	0.10	0.00						0.10
9	NUIG											
10	OU											
11	UPM											
12	UKARL	5.00	2.00	0.00	0.50	0.25						0.75
13	Liv Univ											
14	VUM	5.00	2.00	0.15	0.30	0.10						0.55
15	USFD											
16	UniTn	5.00	2.00	0.00	0.26	0.00						0.26
17	VU											
18	VUB	8.00	3.00	0.00	0.00	0.00						0.00
	<b>Total</b>	<b>42.00</b>	<b>16.00</b>	<b>0.25</b>	<b>1.69</b>	<b>0.35</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.29</b>

Knowledge Web		WP1.3										
Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/Jun 05	spent so far
1	UIBK											
2	EPFL											
3	FT	5.00	2.00	0.85	1.53	1.08						3.46
4	FU Berlin	4.00	1.00	0.10	0.15	0.10						0.35
5	FUB											
6	INRIA											
7	CERTH											
8	L3S											
9	NUIG											
10	OU											
11	UPM	4.00	2.00	0.02	0.03	0.05						0.10
12	UKARL	4.00	1.00	0.00	0.00	0.25						0.25
13	Liv Univ											
14	VUM			0.20		0.20						0.40
15	USFD	4.00	2.00	0.34	0.34	0.34						1.02
16	UniTn											
17	VU	5.00	2.00	0.00	0.00	0.00						0.00
18	VUB	8.00	3.00	0.33	0.33	0.72						1.38
	<b>Total</b>	<b>34.00</b>	<b>13.00</b>	<b>1.84</b>	<b>2.38</b>	<b>2.74</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6.96</b>

Knowledge Web		WP1.4											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/Jun 05	spent so far
1	UIBK	10.00	4.00	0.50	0.50	0.00							1.00
2	EPFL												
3	FT	4.00	2.00	0.00	0.00	0.00							0.00
4	FU Berlin												
5	FUB												
6	INRIA												
7	CERTH												
8	L3S												
9	NUIG	5.00	2.00	0.00	0.30	0.40							0.70
10	OU												
11	UPM												
12	UKARL												
13	Liv Univ												
14	VUM	4.00	1.00	0.10	0.20	0.20							0.50
15	USFD												
16	UniTn												
17	VU												
18	VUB	10.00	2.00	0.00	0.00	0.00							0.00
	Total	33.00	11.00	0.60	1.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	2.20

Knowledge Web		WP1.5											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/Jun 05	spent so far
1	UIBK	15.00	9.00	0.50	0.50	1.00							2.00
2	EPFL												
3	FT	4.00	1.00	0.00	0.00	0.00							0.00
4	FU Berlin												
5	FUB	6.00	2.00	0.00	0.00	0.20							0.20
6	INRIA												
7	CERTH	4.00	1.00	0.00	0.00	0.10							0.10
8	L3S	4.00	1.00	0.00	0.20	0.00							0.20
9	NUIG	3.00	0.00	0.00	0.00	n.a.							
10	OU	4.00	1.00	0.00	0.00	0.00							0.00
11	UPM			0.15	0.06	0.11							0.32
12	UKARL	8.00	3.00	0.00	0.00	0.50							0.50
13	Liv Univ	8.00	3.00	0.50	0.10	0.00							0.60
14	VUM	4.00	1.00	0.00	0.20	0.20							0.40
15	USFD	10.00	4.00	0.50	0.50	0.50							1.50
16	UniTn												
17	VU												
18	VUB												
	Total	70.00	26.00	1.65	1.56	2.61	0.00	0.00	0.00	0.00	0.00	0.00	5.82

Knowledge Web		WP1.6										
Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/Jun 05	spent so far
1	UIBK											
2	EPFL											
3	FT											
4	FU Berlin											
5	FUB											
6	INRIA											
7	CERTH											
8	L3S											
9	NUIG	10.00	4.00	0.00	0.40	0.20						0.60
10	OU	4.00	1.00	0.00	0.00	0.00						0.00
11	UPM	18.00	7.00	1.50	3.53	3.48						8.51
12	UKARL											
13	Liv Univ											
14	VUM											
15	USFD											
16	UniTn											
17	VU											
18	VUB											
<b>Total</b>		<b>32.00</b>	<b>12.00</b>	<b>1.50</b>	<b>3.93</b>	<b>3.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>9.11</b>



## 2. Research Area

Knowledge Web		WP2.1											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/Jun 05	spent so far
1	UIBK												
2	EPFL	10.00	4.00	0.00	0.90	0.40							1.30
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA	6.00	1.00	0.10	0.00	0.00							0.10
7	CERTH	4.00	1.00	0.00	0.05	0.10							0.15
8	L3S	5.00	2.00	0.00	0.10	0.20							0.30
9	NUIG												
10	OU												
11	UPM	8.00	3.00	0.44	0.91	1.34							2.69
12	UKARL	8.00	4.00	0.00	0.50	0.50							1.00
13	Liv Univ												
14	VUM	8.00	3.00	0.20	0.40	0.40							1.00
15	USFD												
16	UniTn	6.00	1.00	0.00	0.14	0.25							0.39
17	VU	18.00	8.00	0.50	0.50	1.30							2.30
18	VUB	4.00	2.00	0.00	0.22	0.48							0.70
Total		77.00	29.00	1.24	3.72	4.97	0.00	0.00	0.00	0.00	0.00	0.00	9.93

Knowledge Web		WP2.2											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/Jun 05	spent so far
1	UIBK												
2	EPFL	9.00	3.00	0.00	0.70	0.30							1.00
3	FT												
4	FU Berlin												
5	FUB	5.00	2.00	0.00	0.22	0.50							0.72
6	INRIA	32.00	14.00	3.00	1.65	4.00							8.65
7	CERTH	4.00	1.00	0.00	0.10	0.10							0.20
8	L3S												
9	NUIG	8.00	3.00	0.00	0.10	0.00							0.10
10	OU												
11	UPM	8.00	2.00	0.01	0.09	0.24							0.34
12	UKARL	4.00	1.00	0.00	0.00	0.25							0.25
13	Liv Univ												
14	VUM	5.00	2.00	0.00	0.20	0.10							0.30
15	USFD	5.00	1.00	0.16	0.16	0.16							0.48
16	UniTn	10.00	4.00	0.00	3.54	2.70							6.24
17	VU	8.00	2.00	0.00	0.10	0.30							0.40
18	VUB	4.00	1.00	0.00	0.11	0.24							0.35
Total		102.00	36.00	3.17	6.97	8.89	0.00	0.00	0.00	0.00	0.00	0.00	19.03

Knowledge Web		WP2.3											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/Jun 05	spent so far
1	UIBK	12.00	6.00	0.50	0.50	0.50							1.50
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB	4.00	1.00	0.00	0.11	0.00							0.11
6	INRIA	6.00	1.00	0.10	0.30	0.10							0.50
7	CERTH	4.00	1.00	0.00	0.05	0.10							0.15
8	L3S												
9	NUIG	12.00	6.00	1.00	1.10	1.20							3.30
10	OU												
11	UPM	8.00	3.00	0.16	0.25	0.05							0.46
12	UKARL	10.00	4.00	0.00	0.00	0.50							0.50
13	Liv Univ	9.00	2.00	0.00	0.10	0.00							0.10
14	VUM												
15	USFD	5.00	1.00	0.08	0.08	0.08							0.24
16	UniTn												
17	VU	8.00	2.00	0.00	0.00	0.30							0.30
18	VUB												
Total		78.00	27.00	1.84	2.49	2.83	0.00	0.00	0.00	0.00	0.00	0.00	7.16

Knowledge Web		WP2.4											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/June 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/June 05	spent so far
1	UIBK	36.00	16.00	2.00	1.50	1.50							5.00
2	EPFL	30.00	12.00	0.00	2.70	1.30							4.00
3	FT												
4	FU Berlin	8.00	3.00	0.50	0.70	1.50							2.70
5	FUB												
6	INRIA												
7	CERTH												
8	L3S												
9	NUIG	24.00	10.00	0.40	0.50	2.00							2.90
10	OU												
11	UPM												
12	UKARL												
13	Liv Univ	9.00	4.00	0.00	0.20	0.00							0.20
14	VUM	6.00	2.00	0.00	0.30	0.20							0.50
15	USFD												
16	UniTn	6.00	2.00	0.00	0.13	0.20							0.33
17	VU												
18	VUB												
Total		119.00	49.00	2.90	6.03	6.70	0.00	0.00	0.00	0.00	0.00	0.00	15.63

Knowledge Web		WP2.5											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Fe b 04	March/Ap r 04	May/Jun 04	July/Aug 04	Sep/Oc t 04	Nov/Dec 04	Jan/Fe b 05	March/April 05	May/Jun 05	spent so far
1	UIBK												
2	EPFL	4.00		0.00									
3	FT												
4	FU Berlin												
5	FUB	4.00	1.00	0.00	0.11	0.80							0.91
6	INRIA	6.00	1.00	0.10	0.25	0.25							0.60
7	CERTH	4.00	2.00	0.00	0.10	0.20							0.30
8	L3S	5.00	1.00	0.00	0.10	0.20							0.30
9	NUIG												
10	OU												
11	UPM												
12	UKARL												
13	Liv Univ												
14	VUM	20.00	8.00	2.00	2.00	2.00							6.00
15	USFD												
16	UniTn												
17	VU	4.00	1.00	0.00	0.00	0.10							0.10
18	VUB												
	Total	47.00	14.00	2.10	2.56	3.55							8.21

Knowledge Web		WP2.6											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/Jun 05	spent so far
1	UIBK												
2	EPFL												
3	FT	5.00	2.00	0.00	0.00	0.00							0.00
4	FU Berlin	4.00	2.00	0.25	0.05	0.00							0.30
5	FUB	4.00	1.00	0.00	0.11	0.00							0.11
6	INRIA	4.00	1.00	0.10	0.10	0.10							0.30
7	CERTH												
8	L3S												
9	NUIG												
10	OU												
11	UPM	4.00	1.00	0.00	0.00	0.00							0.00
12	UKARL	8.00	3.00	0.25	1.00	0.25							1.50
13	Liv Univ												
14	VUM			0.10	0.30	0.30							0.70
15	USFD												
16	UniTn	5.00	2.00	0.00	0.07	0.00							0.07
17	VU												
18	VUB	4.00	1.00	0.00	0.11	0.24							0.35
Total		38.00	13.00	0.70	1.74	0.89	0.00	0.00	0.00	0.00	0.00	0.00	3.33

### 3. Education Area

Knowledge Web		WP3.1											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Fe b 04	March/Ap r 04	May/Jun 04	July/Aug 04	Sep/Oc t 04	Nov/Dec 04	Jan/Fe b 05	March/April 05	May/June 05	spent so far
1	UIBK												
2	EPFL												
3	FT												
4	FU Berlin	4.00	1.00	0.25	0.25	0.20							0.70
5	FUB	4.00	1.00	0.00	0.11	0.10							0.21
6	INRIA												
7	CERTH	4.00	1.00	0.00	0.00	0.00							0.00
8	L3S	10.00	4.00	1.50	0.30	1.00							2.80
9	NUIG	6.00	1.00	0.20	0.10	0.00							0.30
10	OU	4.00	1.00	0.25	0.50	0.25							1.00
11	UPM	5.00	1.00	0.00	0.00	0.00							0.00
12	UKARL	4.00	1.00	0.00	0.50	0.25							0.75
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn	4.00	1.00	0.00	0.04	0.03							0.07
17	VU												
18	VUB	5.00	1.00	0.11	0.11	0.24							0.46
	Total	50.00	13.00	2.31	1.91	2.07	0.00	0.00	0.00	0.00	0.00	0.00	6.29





Knowledge Web		WP3.2											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/June 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/Apr 05	May/June 05	spent so far
1	UIBK												
2	EPFL												
3	FT												
4	FU Berlin	6.00	3.00	0.25	0.10	0.20							0.55
5	FUB	8.00	3.00	0.00	0.33	0.30							0.63
6	INRIA	4.00	1.00	1.50	1.50	1.90							4.90
7	CERTH	4.00	1.00	0.00	0.00	0.00							0.00
8	L3S	12.00	5.00	1.50	0.40	1.50							3.40
9	NUIG												
10	OU	6.00	2.00	0.25	0.50	0.25							1.00
11	UPM	5.00	1.00	0.00	0.00	2.29							2.29
12	UKARL	8.00	3.00	0.00	0.00	0.25							0.25
13	Liv Univ	4.00	2.00	0.00	0.10	0.00							0.10
14	VUM	4.00	1.00	0.00	0.20	0.20							0.40
15	USFD	6.00	1.00	0.00	0.08	0.08							0.16
16	UniTn												
17	VU	8.00	2.00	0.00	0.00	0.20							0.20
18	VUB												
Total		75.00	25.00	3.50	3.21	7.17	0.00	0.00	0.00	0.00	0.00	0.00	13.88

Knowledge Web		WP3.3											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/June 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	March/April 05	May/June 05	spent so far
1	UIBK												
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA												
7	CERTH												
8	L3S	15.00	6.00	1.00	0.40	1.50							2.90
9	NUIG												
10	OU	34.00	12.00	3.00	3.00	2.00							8.00
11	UPM												
12	UKARL												
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn	8.00	3.00	0.00	0.04	0.00							0.04
17	VU												
18	VUB												
Total		57.00	21.00	4.00	3.44	3.50	0.00	0.00	0.00	0.00	0.00	0.00	10.94

#### 4. Management Area



Knowledge Web		WP4.1											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK	20.00	8.00	1.00	1.00	1.00							3.00
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA	3.00	1.00	0.30	0.20	0.20							0.70
7	CERTH												
8	L3S												
9	NUIG												
10	OU												
11	UPM	3.00	1.00	1.00	0.59	0.23							1.82
12	UKARL												
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn												
17	VU												
18	VUB												
	Total	26.00	10.00	2.30	1.79	1.43	0.00	0.00	0.00	0.00	0.00	0.00	5.52

Knowledge Web		WP4.2											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK	12.00	4.00	0.50	0.50	0.50							1.50
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA												
7	CERTH												
8	L3S												
9	NUIG												
10	OU												
11	UPM												
12	UKARL												
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn												
17	VU												
18	VUB												
	Total	12.00	4.00	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	1.50

Knowledge Web		WP4.3											
	Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK	18.00	7.00	0.75	0.75	0.75							2.25
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA	4.00	1.00	0.30	0.10	0.10							0.50
7	CERTH												
8	L3S	5.00	1.00	0.00	0.10	0.20							0.30
9	NUIG												
10	OU	4.00	1.00	0.00	0.25	0.00							0.25
11	UPM	4.00	1.00	0.00	0.00	0.00							0.00
12	UKARL	4.00	1.00	0.25	0.00	0.25							0.50
13	Liv Univ												
14	VUM	5.00	1.00	0.00	0.20	0.20							0.40
15	USFD												
16	UniTn												
17	VU	4.00	1.00	0.00	0.20	0.40							0.60
18	VUB	4.00	1.00	0.10	0.11	0.24							0.45
	<b>Total</b>	<b>52.00</b>	<b>15.00</b>	<b>1.40</b>	<b>1.71</b>	<b>2.14</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5.25</b>

Knowledge Web		WP4.4											
Participant's short name		full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK	12.00	4.00	0.50	0.50	0.50							1.50
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA					0.25							0.25
7	CERTH												
8	L3S												
9	NUIG												
10	OU	4.00	2.00	0.00	0.00	0.00							0.00
11	UPM												
12	UKARL												
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn												
17	VU												
18	VUB												
	Total	16.00	6.00	0.50	0.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	1.75

Knowledge Web		WP4.5										
Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK											
2	EPFL											
3	FT											
4	FU Berlin											
5	FUB											
6	INRIA											
7	CERTH											
8	L3S											
9	NUIG											
10	OU											
11	UPM	6.00	2.00	0.00	0.00	0.00						0.00
12	UKARL											
13	Liv Univ											
14	VUM	4.00	1.00	0.00	0.20	0.00						0.20
15	USFD											
16	UniTn											
17	VU											
18	VUB											
Total		10.00	3.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20

Knowledge Web		WP4.6											
	Participant's short name	full duration m*m	first 18 months m*m	Jan/Feb 04	March/Apr 04	May/Jun 04	July/Aug 04	Sep/Oct 04	Nov/Dec 04	Jan/Feb 05	Mar/Apr 05	May/Jun 05	spent so far
1	UIBK	8.00	3.00	0.25	0.25	0.25							0.75
2	EPFL												
3	FT												
4	FU Berlin												
5	FUB												
6	INRIA	1.00	0.00										
7	CERTH												
8	L3S												
9	NUIG												
10	OU												
11	UPM	1.00	0.00										
12	UKARL												
13	Liv Univ												
14	VUM												
15	USFD												
16	UniTn												
17	VU												
18	VUB												
	<b>Total</b>	<b>10.00</b>	<b>3.00</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.75</b>