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EuroVO-AIDA

Euro-VO Astronomical Infrastructure for Data Access

COMBINATION OF COLLABORATIVE PROJECT AND COORDINATION ACTION AND SUPPORT ACTION

RESEARCH INFRASTRUCTURE

INFRA-2007-1.2.1 - SCIENTIFIC DIGITAL REPOSITORIES

D2.1 Preliminary Project Plan

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CNRS

Final version

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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1. PROJECT OBJECTIVES

The objective of the EuroVO-AIDA project is to lead the transition of the European VObs to operations. EuroVO-AIDA integrates Networking Activities, Service Activities and Joint Research Activities to perform all the aspects of work needed during this transition (items appearing in *italics* correspond to projects milestones as described in Section 8):

- 1 - Construction of a community of science users, and the gathering of their needs. Several Networking Activities will act with this aim, the *Science Advisory Committee* for general scientific oversight of the project, *scientific workshops* for the dissemination of good practice and the gathering of science requirements, also *community dissemination* in conferences and on web pages. Service Activities will also contribute to this objective, with two *Announcement of Opportunities for science programs* to trigger advanced science usage of the freely available VObs data services, the production of *on-line tutorials* for community dissemination, *data access tools development* in response to community needs, and all the *preparatory work for the Science Workshops*
- 2 - Large scale deployment of IVOA protocols and standards by the astronomical data repositories. One *Data Centre workshop* will be organized for the sharing of good practice on the implementation of the VObs framework and the gathering of feedback from implementation. Service Activities will also concur to this objective, with the implementation of a *European Registry of VObs-enabled resources* and of *registry curation tools*, *provision of on-line tutorials* for community dissemination, *adjustments of VObs tools* from data providers feedback, and all the *preparatory work for the Data Centre Workshop*
- 3 - Maintenance and development of the VObs technical infrastructure. The Joint Research Activities will provide the *research work needed for assessing and prototyping the required evolution of the VObs interoperability standards*, taking into account feedback from implementation by data providers and from science usage, and *for evaluating the potential of new technologies*. These tasks have two sets of milestones: the EuroVO-AIDA Technology Forums, gathering the three JRAs for work planning and technology exchange, and the biannual *IVOA Interoperability meetings* where the IVOA standards are discussed
- 4 - Service activities for *higher education and the general public*
- 5 - *Possible liaison with other scientific domains or with other communities* which develop generic frameworks and tools will be explored.

2. BENEFICIARIES

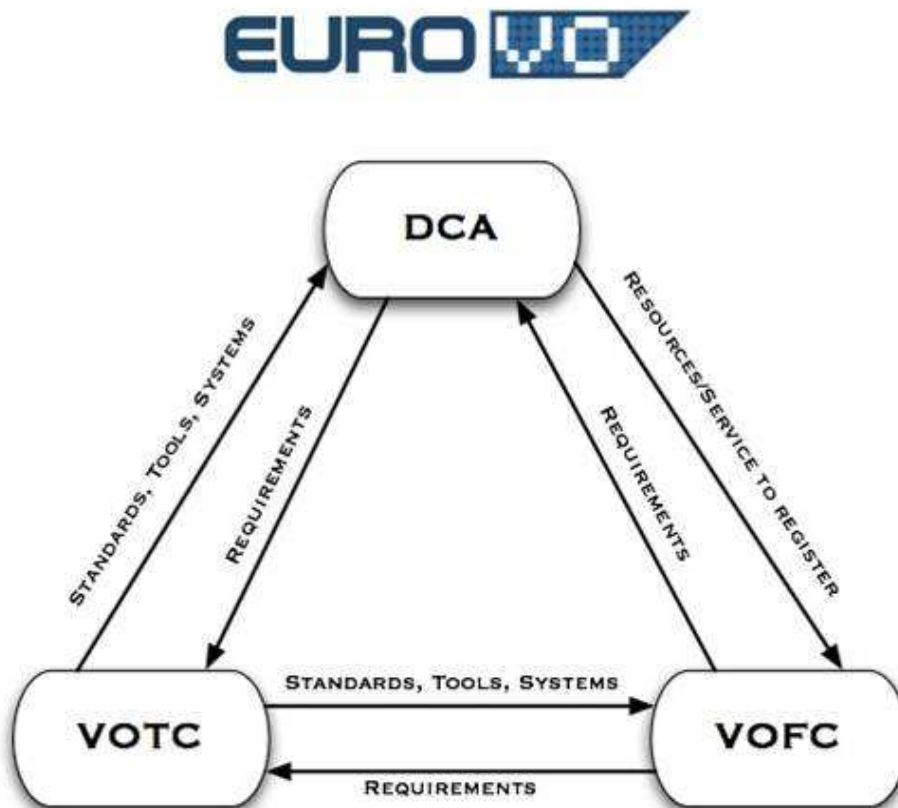
Beneficiary Number	Beneficiary name	Beneficiary short name	Country	Date enter project	Date exit project
1 (coordinator)	Centre National de la Recherche Scientifique	CNRS	France	Month 1 (Feb. 2008)	Month 30 (July 2010)
2	European Space Agency	ESA	France	Month 1 (Feb. 2008)	Month 30 (July 2010)
3	European Organization for Astronomical Research in the Southern Hemisphere	ESO	Germany	Month 1 (Feb. 2008)	Month 30 (July 2010)
4	Istituto Nazionale di Astrofisica	INAF	Italy	Month 1 (Feb. 2008)	Month 30 (July 2010)
5	Instituto Nacional de Técnica Aeroespacial Esteban Terradas	INTA	Spain	Month 1 (Feb. 2008)	Month 30 (July 2010)
6	Rijksuniversiteit Groningen	RUG	The Netherlands	Month 1 (Feb. 2008)	Month 30 (July 2010)
7	The University of Edinburgh	UEDIN	United Kingdom	Month 1 (Feb. 2008)	Month 30 (July 2010)
8	Ruprecht-Karls-Universität Heidelberg	UHEI	Germany	Month 1 (Feb. 2008)	Month 30 (July 2010)

3. PROJECT MANAGEMENT

European VObs activities are focussed through the European Virtual Observatory (Euro-VO) consortium, which has 8 member organizations, comprising European intergovernmental (ESO, ESA) and national research organizations and VObs initiatives. It consists of three interacting elements, addressing the different strands of work described in Section 1:

- **Euro-VO Data Centre Alliance (DCA)**: a network of the European data centres, which populates the system with data, provides the physical storage and computational fabrics, and using VObs technologies, publishes data, metadata and services to the Euro-VO
- **Euro-VO Technology Centre (VOTC)**, a distributed organization, coordinating a set of research and development projects on the advancement of VObs technology, systems and tools
- **Euro-VO Facility Centre (VOFC)**, which provides the Euro-VO with a persistent, centralized registry for resources, standards and certification mechanisms, as well as community support for VObs technology take-up and dissemination and scientific program support using VObs technologies and resources. The VOFC provides a “public face” to the Euro-VO

Figure 1: The Euro-VO project



The **EuroVO-AIDA coordinator** is Françoise GENOVA (CDS, Observatoire Astronomique de Strasbourg). She is responsible for all communication with Commission on contractual matters. The **EuroVO-AIDA Project Manager** (EuroVO-AIDA PM, CNRS) is Mathias DEPRETZ. He manages the EuroVO-DCA project activities. The **EuroVO-AIDA Project Scientist** is Paolo PADOVANI. He has been nominated by the Board during its kick-off meeting on March 17th, 2008.

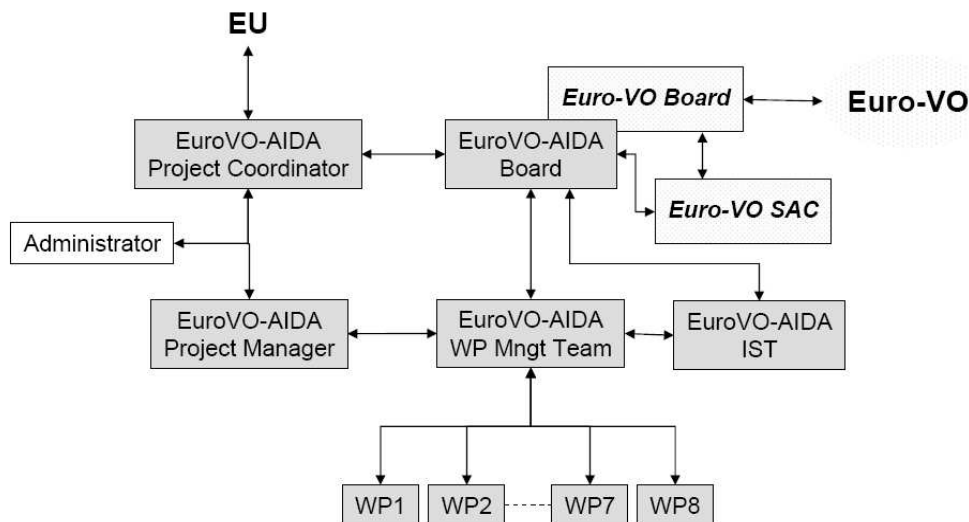
The **EuroVO-AIDA Board** is composed of named investigators from each partner (a similar group of people acting as Euro-VO Board). It is chaired by Françoise GENOVA. Its purpose is project oversight – its setup, financial monitoring, resolution of issues between partners, and overall scientific and technical policies. It brings national projects and agencies issues, programs and requirements to the attention of the project. It coordinates the EuroVO-AIDA activities and defines the project work plan, with input from the partners and from the Work Package Management Team (EuroVO-AIDA WPMT) described below. If new national VObs projects join the Euro-VO for the duration of EuroVO-AIDA, they will be invited to attend the Board meetings. The full Board meets annually to oversee the global status of the project. The Board appoints the EuroVO-AIDA WPMT. The EuroVO-AIDA Project Manager, the Science Advisory Committee Secretary and the IST chair (see below) are invited to the Board meetings.

The EuroVO-AIDA project Science Advisory Committee (SAC) is the **Euro-VO Science Advisory Committee** (Euro-VO SAC), chaired by Timo PRUSTI (ESA). The Euro-VO SAC charter and membership can be found at: <http://www.euro-vo.org/pub/fc/sac.html>.

Board members:

CNRS	Françoise GENOVA (Chair)	INTA	Enrique SOLANO
ESA	Christophe ARVISET	RUG	Edwin VALENTIJN
ESO	Paolo PADOVANI	UEDIN	Andy LAWRENCE
INAF	Riccardo SMAREGLIA	UHEI	Joachim WAMBSGANSS

Figure 2: EuroVO-AIDA organization chart



*The EuroVO-AIDA Project Coordinator chairs the EuroVO-AIDA Board
 The EuroVO-AIDA Project Manager chairs of the EuroVO-AIDA WPMT*

The **EuroVO-AIDA Work Package Management Team** (WPMT) is a panel appointed by the EuroVO-AIDA Board. It acts as the project technical management body. It is chaired by the EuroVO-AIDA Project Manager, who reports on its activities to the EuroVO-AIDA Board. The WPMT is composed of the Work Package leads, and of one representative of the partners which do not lead a Work Package, to ensure optimal circulation of information. The WPMT meets every six months, receives and discusses reports from the EuroVO-AIDA PM, from the Work Packages and from the partners, assesses the project activities and produces a review report. At the end of the first project yearly cycle, it proposes the EuroVO-AIDA work plan for the following cycle.

WPMT members:

PM	Mathias DEPRETZ (WP1 and Chair)	INTA	Raúl GUTIERREZ
CNRS	Françoise GENOVA (WP2 & WP8)	RUG	Andrey BELIKOV
ESA	Pedro OSUNA (WP3 & WP7)	UEDIN	Keith NODDLE (WP6)
ESO	Evanthia HATZIMINAOGLOU (WP4)	UHEI	Markus DEMLEITNER
INAF	Massimo RAMELLA (WP5)		

The **EuroVO-AIDA Internal Science Team** (IST) is a panel appointed by the EuroVO-AIDA Board, composed of scientists from the partner teams. The 4 Euro-VO Scientists – (Facility Centre / ESA and ESO, Data Centre Alliance, Technology Centre) are invited to attend the IST activities in the case they are not nominated as IST members. The IST role is complementary to the high level scientific oversight by the SAC: it acts at the EuroVO-AIDA project level as support of the Board, WPMT and all Work Packages during the project as required. The IST will hold two meetings (kick-off and conclusions), and teleconference discussions as required, in particular if IST advice is sought from one of the project Work Packages. The IST reports on its activities to the EuroVO-AIDA Board, which nominates its chairperson. The chairperson is invited to attend the Board meetings.

IST members:

CNRS	Mark ALLEN	INTA	Eduardo MARTIN
ESA	Pedro OSUNA	RUG	Gijs VERDOES KLEIJN
ESO	Paolo PADOVANI (Chair)	UEDIN	Nicholas WALTON
INAF	Giuseppe LONGO	UHEI	Markus DEMLEITNER

4. IMPLEMENTATION PLAN

4.1. General description

The project structure is distributed into types of activities: Networking Activities (NA) Services Activities (SA) and Joint Research Activities (JRA). Each Work Package is under the responsibility of one partner.

WP1-NA1	Management (CNRS)
WP2-NA2	Strategy, co-operation and dissemination (CNRS), with 5 tasks: <ul style="list-style-type: none"> ▪ Strategy definition ▪ Workshops ▪ Community dissemination ▪ International co-operation on the definition of IVOA standards ▪ Liaison with other communities
WP3-SA1	Service Activities in support of deployment of IVOA protocols and standards (ESA)
WP4-SA2	Service Activities in support of provision of VObs-enabled services to the science community (ESO)
WP5-SA3	Service Activities for higher education and outreach (INAF)
WP6-JRA1	Evolution of VObs interoperability standards (UEDIN)
WP7-JRA2	Data Access Protocols and Data Models (ESA)
WP8-JRA3	Assessment of emerging technologies (CNRS)

EuroVO-AIDA activities relevant to Networking Activities are all the tasks dealing with co-operation inside the project and with relevant communities, dissemination of knowledge, including the spreading of good practice, and the collaborative aspects of the development of interoperability standards. **WP1** contains all activities relevant to the **EuroVO-AIDA project management**. The other Networking Activities are grouped into **WP2 - Strategy, co-operation and dissemination**, which co-ordinates the different networking aspects of the project, which are strongly inter-dependant.

EuroVO-AIDA plans to provide several specific services to the different communities relevant to the VObs:

- **WP3 – SA1 - Service activities in support of deployment of IVOA protocols and standards** address the needs of the European VObs data provider community.
- **WP4 – SA2 – Service activities in support of provision of VObs-enabled services to the science community** address the needs of the European astronomical scientific community.
- **WP5 – SA3 – Service activities for education and outreach** address the provision of services to higher education.

The Joint Research Activities (JRAs) of EuroVO-AIDA aim at completing work required for key parts of the Virtual Observatory technical infrastructure, taking into account feedback from implementation and from usage by the science community as gathered by the relevant Networking and Service Activities:

WP6 - JRA1 - Evolution of VObs interoperability standards: Interoperability Standards are the core of the VObs. They require international debate, but also considerable technical development, and testing in the context of prototype implementations.

WP7 - JRA2 - Data Access Protocols and Data Models: We have separated out these areas from JRA1, as they are of crucial importance for the future of Euro-VO, likely to evolve significantly from the data centre implementation and science usage feedback, and of particular relevance to the Scientific Digital Repositories endeavour.

WP8 - JRA3 - Assessment of emerging technologies: The technical infrastructure for the VObs cannot stay still, as it relies on a background of telecommunication networks, the Web, and e-Science and Grid technology. As new technologies emerge, we must assess them, test them with prototype deployments, and plan how to utilise them within Euro-VO.

4.2. Project Management

The PM will follow all WP activities in close coordination with the partners in charge. All WPs will report to the WPMT.

The project will last 30 months and will be organized into several phases, a kick-off phase of 3 months, two one-year Cycles, and a final phase of 3 months:

- The kick-off phase is used to establish the project detailed work program, taking in particular into account all the findings of the EuroVO-DCA and VO-TECH projects, and the partners' input on the different aspects of the EuroVO-AIDA activities. WP1 and WP2 will be fully active in this stage, and there will be assessment and preparatory work in the WPs 3-5 Service Activities and WPs 6-8 Joint Research Activities to provide elements for the detailed project plan. The first meeting of the Board has contributed to the project kick-off. At the end of the kick-off phase, WP2 produces the project detailed work program for Cycle 1 (this document)
- Management of the two one-year Cycles: the project activities are assessed by the WPMT every six months; the detailed work program is assessed and adjusted if required at the end of the first yearly Cycle. WPs 2-8 present their activities at each WPMT meeting. They produce respectively a mid-term and a final report. The reports are assessed by the WPMT. At the end of Cycle 1, the WPMT prepares a mid-term report and proposes a plan for future activities to the Board; in parallel, the IST produces a report which is submitted to the Board; the Board adopts the detailed work program for Cycle 2
- During the final phase, the WPMT assesses the WP final reports and prepares the final activity report. The WPs and WPMT prepares elements for the Euro-VO medium term strategic plan. The Board adopts the final products of the project:
 - (1) the Medium Term Strategic Plan for Euro-VO
 - (2) the final document describing the organization of the astronomical Virtual Observatory and possible liaison with other communities

Two important elements for the project management are the management of risk, and self-assessment of performance. The **management of risk** for the EuroVO-AIDA project is via a risk register. The risk register is established and maintained by the EuroVO-AIDA WPMT throughout the project. The list of **performance indicators** is included in Section 9.3.1. It will be maintained by the EuroVO-AIDA WPMT throughout the project.

4.3. Management of risk

The Risk Register defined in the Description of Work has been updated by the Board during its kick-off meeting, which took place in Strasbourg on March 17th, 2008. The updates are indicated in red in the tables.

Risk management of the networking activities

RISK	CONSEQUENCES	REMEDIAL ACTIONS
<p>Risk NA-R1: Different requirements and needs between European and other international partners about IVOA standards</p> <p>Likelihood of occurrence=2 Impact=3 Risk Factor = 6</p>	<p>Through EuroVO-AIDA coordination, European partners will bring to IVOA interoperability meetings European requirements and needs for defining IVOA protocols and standards. If they differ from the ones of other IVOA international partners, the EuroVO-AIDA output may be limited.</p>	<p>EuroVO-AIDA partners represent several of the driving forces within IVOA (together in particular with the USA, Canada and Japan), therefore EuroVO-AIDA partners' requirements and need are very likely taken into account for the definition of the IVOA protocols and standards.</p> <p>Furthermore, through the EuroVO-AIDA project, European partners will now appear as a coordinated "force" which will give even more weight to the European partners' needs and requirements.</p>
<p>Risk NA-R2: Transition between other projects and EuroVO-AIDA</p> <p>Likelihood of occurrence=2 → 1 Impact=3 Risk Factor = 6 → 3</p>	<p>The AIDA project will highly benefit from the outputs of previous FP6 complementary projects like VO-TECH and Euro-VO DCA.</p> <p>The effectiveness of the EuroVO-AIDA project therefore depends somewhat on the successful outputs of these previous projects and on the proper organization of the transition between the projects.</p>	<p>EuroVO-AIDA partners are also quite involved in these previous FP6 complementary projects and therefore are fully aware of the importance of their achievements as inputs to the EuroVO-AIDA project.</p> <p>Furthermore, the transition and knowledge transfer between these projects and EuroVO-AIDA can be organized relatively smoothly by the partners, including some manpower resources transfer, depending of the starting date of the EuroVO-AIDA project.</p> <p>Comment (BOARD1-17/03/2007): The likelihood is lowered from 2 to 1, as this was the aim of the 1st Board meeting and since transition, from VO-TECH and DCA to AIDA, will be taken into account in the Project Plan.</p>

<p>Risk NA-R3: The VObs is not yet well known in the Scientific Community</p> <p>Likelihood of occurrence=2 Impact=3 Risk Factor= 6</p>	<p>Although WP2-3 Community Outreach will make sure that the VObs is well advertised to the Scientific community, some scientists are still not yet convinced of its utility or have a confuse idea of how the VObs could be useful for their science.</p>	<p>EuroVO-AIDA partners should prepare clear on-line science cases examples demonstrating how the VObs can be used for daily astronomy science.</p> <p>Furthermore, list of refereed papers should be given on the project web site, as this will be the best "proof" that the VObs is in use.</p>
<p>Risk NA-R4: Lack of convergence between the scope of the workshops and the real needs of the communities</p> <p>Likelihood of occurrence=1 Impact=3 Risk Factor = 3</p>	<p>If the scope of the technical and scientific workshops is too vague or too general, not in line with the real needs of the VObs technical and scientific communities, there will be few attendances to these workshops and their impact will be limited.</p>	<p>EuroVO-AIDA partners are involved in VObs projects since the early days. They are data providers who want to publish their data holdings into the VObs, and they also have scientists who are doing science with the VObs.</p> <p>Furthermore, through advice from the Euro-VO SAC and the EuroVO-AIDA IST and WPMT, it shall be easy to identify the needs and requirements for such workshops so there is little risk that the scope of these workshops is not adequate.</p>

Risk management of the Service Activities

RISK	CONSEQUENCES	REMEDIAL ACTIONS
<p>Risk SA-R1: Not enough manpower to perform the Service Activities</p> <p>Likelihood of occurrence=3 Impact=3 Risk Factor = 9</p>	<p>Some of the tasks within these Services Activities could require more manpower that what is currently planned.</p> <p>For example, VObs scientists may define VObs Science cases that would require developing a tool that does not exist and there is no real manpower with EuroVO-AIDA to cover such new development.</p> <p>In that case, the output of these EuroVO-AIDA services activities could be limited by the funded and contributed manpower.</p>	<p>Services Activities will then have to be prioritized taking into account inputs from the EuroVO-AIDA Board and the IST to make sure resources are directed first to what is more important.</p> <p>Partners could seek through their own funding to increase their contributed manpower to be able to cope with the extra manpower required.</p>
<p>Risk SA-R2: Quality of the VObs resources in the Euro-VO central registry</p> <p>Likelihood of occurrence=3 Impact=3 Risk Factor = 9</p>	<p>For the time being, the VObs resources put in all IVOA registries are not "checked" so their quality is unsure. If these VObs resources do not work, the VObs applications accessing them will not work well either.</p>	<p>By having a central Euro-VO Registry of VObs resource, it becomes easier to check the validity of these VObs resources. By building a Curation tool for these VObs resources, the quality of the Euro-VO Registry will be improved.</p> <p>Therefore, the central Euro-VO Registry shall ensure VObs application developer can access these valid and working VObs resources.</p>
<p>Risk SA-R3: Lack of interest of the Scientific Community for the VObs</p> <p>Likelihood of occurrence=1 → 2 Impact=4 Risk Factor = 4 → 8</p>	<p>If the Scientific Community does not buy in the VObs and does not use its application, the EuroVO-AIDA project will become quite useless.</p>	<p>Through the Euro-VO SAC and the EuroVO-AIDA IST, the EuroVO-AIDA project will make sure to stay close to the Scientific Community and deliver framework and tools to meet this community's needs.</p> <p>By increasing the outreach and dissemination of the EuroVO-AIDA activities, we can ensure that the VObs is advertised to the Scientific Community and therefore brings added-value and new tools to benefit the Science in Europe.</p> <p>Comment (BOARD1-17/03/2007): The prototype 2007 Euro-VO Research Initiative was not successful. Mitigation actions have been discussed during the first Board meeting.</p>

Risk management of the Joint Research Activities

RISK	CONSEQUENCES	REMEDIAL ACTIONS
<p>Risk JRA-R1: Not enough manpower to perform the Joint Research Activities</p> <p>Likelihood of occurrence=3 Impact=3 Risk Factor = 9</p>	<p>By their nature, most of the tasks within these JRAs could require more manpower, or more tasks could be performed if more manpower would be available.</p> <p>In that case, the output of these EuroVO-AIDA joint research activities could be limited by the funded and contributed manpower.</p>	<p>Joint Research Activities will then have to be prioritized taking into inputs from the EuroVO-AIDA Board and the IST to make sure resources are directed first to what is more important.</p> <p>Partners could seek through their own funding to increase their contributed manpower to be able to cope with the extra manpower required.</p> <p>Partners could also seek through further FP7 calls the way to increase the manpower for these joint research activities specially to coordinate closer with other communities.</p>
<p>Risk JRA-R2: Different needs and requirements amongst EuroVO-AIDA partners wrt IVOA protocols and standards</p> <p>Likelihood of occurrence=2 Impact=2 Risk Factor = 4</p>	<p>EuroVO-AIDA partners may have different needs, requirements and priorities in defining IVOA protocols and standards. That may lead to difficulties in coordinating the JRA activities amongst the partners and to bring consolidated inputs to the IVOA working groups.</p>	<p>First, it is important to notice that the diversity brought by the partners is also to be seen as an important asset of the project. Partners bring different views, requirements and priorities which makes the European added value when they are brought together and coordinated.</p> <p>Through regular meetings (Technology Forums), this diversity and this synergy will be discussed in order to coordinate it at European level before presenting it to other international IVOA partners.</p> <p>If needed, with advice from the Euro-VO SAC which gives external scientific oversight and from the EuroVO-AIDA IST which provides a closer regular scientific interaction, through decision by the EuroVO-EuroVO-AIDA Board, priorities could be set to use JRA resources optimally.</p>

5. WORK PACKAGES SUMMARY

Networking Activities

WP No	WP title	Type of activity	Lead participant No	Lead participant short name	Person-months	Start month	End month
WP1	NA1 - Management	Management	1	CNRS	9 (+23)	1 (Feb. 2008)	30 (July 2010)
WP2	NA2 - Strategy, co-operation and dissemination	Coordination	1	CNRS	93	1 (Feb. 2008)	30 (July 2010)
	TOTAL				102		

Service Activities

WP No	WP title	Type of activity	Lead participant No	Lead participant short name	Person-months	Start month	End month
WP3	Service activities in support of deployment of IVOA protocols and standards	Service	2	ESA	20	4 (May 2008)	27 (April 2010)
WP4	Service activities in support of provision of VObs-enabled services to the science community	Service	3	ESO	43	4 (May 2008)	27 (April 2010)
WP5	Service activities for higher education and outreach	Service	4	INAF	27	4 (May 2008)	27 (April 2010)
	TOTAL				90		

Joint Research Activities

WP No	WP title	Type of activity	Lead participant No	Lead participant short name	Person-months	Start month	End month
WP6	JRA1 - Evolution of VObs interoperability standards	Joint Research Activity	7	UEDIN	47	4 (May 2008)	27 (April 2010)
WP7	JRA2 - Data Access protocols and Data Models	Joint Research Activity	2	ESA	29	4 (May 2008)	27 (April 2010)
WP8	JRA3 - Assessment of emerging technologies	Joint Research Activity	1	CNRS	37	4 (May 2008)	27 (April 2010)
	TOTAL				113		

6. GRAPHICAL PRESENTATION OF THE WORK PACKAGES

6.1. EuroVO-AIDA Kick-off phase

N°	Index WBS	Task Name	Durée	2008					
				T4	T1	T2	T3	T4	
1	1	AIDA Kick-off Phase	3 mois	01/02	AIDA-K	30/04			
2	1.1	WP1, WP2 activities	3 mois	01/02					
3	1.2	AIDA Board meeting : Project Kick-off	0 jour			17/03			
4	1.3	AIDA IST Kick-off meeting	0 mois				14/04		
5	1.4	WPMT Kick-off meeting	0 jour				14/04		
6	1.5	Technical Forum #1 jointly with VOTECH	0 mois				18/03		
7	1.6	<i>D2.1: Preliminary Project Plan</i>	0 mois					30/04	

6.2. EuroVO-AIDA Final Phase

N°	Index WBS	Task Name	Durée	2010				2011	
				T1	T2	T3	T4	T1	T2
72	8	AIDA Final Phase	3 mois	03/05	AIDA-F	28/07			
73	8.1	WP1, WP2 activities	3 mois	03/05					
74	8.2	AIDA WPMT Final meeting	0 mois			31/05			
75	8.3	AIDA IST Final meeting	0 mois			31/05			
76	8.4	AIDA Final Board meeting	0 jour				29/06		
77	8.5	<i>D1.4: Final contractual report to EU</i>	0 jour				28/07		
78	8.6	<i>D1.5: Final plan for the use of dissemination of foreground</i>	0 jour				28/07		
79	8.7	<i>D2.10: Medium term strategic plan for Euro-VO</i>	0 jour				28/07		
80	8.8	<i>D2.11: Report on possible liaison of the astronomical VObs with other communities</i>	0 jour				28/07		

6.3. EuroVO-AIDA Networking Activities: Cycle 1 & Cycle 2

N°	Index wBS	Task Name	Durée	Début	2008				2009				2010			
					T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
8	2	AIDA Cycle 1 - NA	12,43 mois	Jeu 01/05/08												
9	2.1	WP1, WP2 Networking Activities	12 mois	Jeu 01/05/08												
10	2.2	D1.1: Project Website	0 mois	Jeu 29/05/08												
11	2.3	D2.2: First "Community feedback" Workshop	0 mois	Lun 01/12/08												
12	2.4	D2.3: "Hand-on" Workshop	0 mois	Lun 20/04/09												
13	2.5	WPMT meeting	0 jour	Jeu 23/10/08												
14	2.6	WPMT meeting	0 jour	Ven 17/04/09												
15	2.7	D1.2: First contractual periodic report to EC	0 mois	Jeu 19/03/09												
16	2.8	D2.6: Report on the astronomical knowledge infrastructure disciplinary model	0 mois	Jeu 30/04/09												
17	2.9	D2.4: First yearly report on the EuroVO-AIDA teams participation to the IVOA Interoperability	0 mois	Jeu 30/04/09												
18	2.10	Cycle 1 report of NA WPS to WPMT	0 jour	Jeu 30/04/09												
19	3	AIDA Cycle 2 - NA	12,43 mois	Ven 01/05/09												
20	3.1	WP1, WP2 Networking Activities	12 mois	Ven 01/05/09												
21	3.2	D2.7: Data Centre Workshop	0 mois	Lun 29/06/09												
22	3.3	D2.8: Second "Community feedback" Workshop	0 mois	Ven 20/11/09												
23	3.4	AIDA mid-term WPMT meeting	0 jour	Ven 01/05/09												
24	3.5	AIDA mid-term IST meeting	0 jour	Ven 01/05/09												
25	3.6	AIDA mid-term Board meeting	0 jour	Jeu 14/05/09												
26	3.7	D2.5: Revised Project Plan	0 mois	Jeu 28/05/09												
27	3.8	Preliminary Report on possible liaison with other communities	0 jour	Jeu 28/05/09												
28	3.9	WPMT meeting	0 mois	Ven 23/10/09												
29	3.10	D1.3: Second contractual periodic report to EC	0 mois	Ven 19/03/10												
30	3.11	D2.9: Second yearly report on the EuroVO-AIDA teams participation to the IVOA Interoperability	0 mois	Ven 30/04/10												
31	3.12	Final report of NA WPS to WPMT	0 jour	Ven 30/04/10												

6.4. EuroVO-AIDA Service Activities: Cycle 1 & Cycle 2

N°	Index WBS	Task Name	Durée	Début	2008				2009				2010					
					T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4		
32	4	AIDA Cycle 1 - SA	12.43 mois	Jeu 01/05/08	01/05	AIDA Cycle 1 - SA				30/04								
33	4.1	WP3, WP4, WP5 Service Activities	12 mois	Jeu 01/05/08	01/05													
34	4.2	D4.1: First Announcement of Opportunity	0 mois	Jeu 15/05/08	15/05													
35	4.3	SAC Meeting #1	0 jour	Ven 27/08/08	27/08													
36	4.4	SAC Meeting #2	0 jour	Ven 21/11/08	21/11													
37	4.5	D3.1: Euro-VO Registry of VO resources	0 mois	Jeu 23/10/08	23/10													
38	4.6	D3.2: Euro-VO Registry Curation Tool	0 mois	Mar 20/01/09	20/01													
39	4.7	D5.1: User Reqs for outreach activities	0 mois	Jeu 29/05/08	29/05													
40	4.8	D4.2: 1st Release of on-line science-oriented tutorials	0 mois	Jeu 30/04/09	30/04													
41	4.9	D5.2: 1st release of educational and outreach tools and material	0 mois	Jeu 30/04/09	30/04													
42	4.10	Cycle 1 report of SA WPS to WPMT	0 jour	Jeu 30/04/09	30/04													
43	5	AIDA Cycle 2 - SA	12.43 mois	Ven 01/05/09					01/05	AIDA Cycle 2 - SA				30/04				
44	5.1	WP3, WP4, WP5 Service Activities	12 mois	Ven 01/05/09	01/05													
45	5.2	D3.3: Release of VO-developers-oriented on-line tutorials	0 mois	Ven 23/10/09												23/10		
46	5.3	D4.3: Second Announcement of Opportunity	0 mois	Ven 15/05/09												15/05		
47	5.4	SAC Meeting #3	0 jour	Ven 29/05/09												29/05		
48	5.5	SAC Meeting #4	0 jour	Lun 23/11/09												23/11		
49	5.6	D4.4: Final Release of on-line science-oriented tutorials	0 mois	Ven 30/04/10												30/04		
50	5.7	D5.3: Final release of educational and outreach tools and material	0 mois	Ven 30/04/10												30/04		
51	5.8	Final report of SA WPS to WPMT	0 jour	Ven 30/04/10												30/04		

6.5. EuroVO-AIDA Joint Research Activities: Cycle 1 & Cycle 2

N°	Index WBS	Task Name	Durée	Début	2008				2009				2010				
					T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	
52	6	AIDA Cycle 1 - JRA	12.43 mois	Jeu 01/05/08	01/05	AIDA Cycle 1 - JRA				30/04							
53	6.1	WP6, WP7, WP8 Joint Research Activities	12 mois	Jeu 01/05/08	[Gantt bar from 01/05 to 24/09]												
54	6.2	Technical Forum #2 jointly with VOTECH	0 jour	Mer 24/09/08	[Task point at 24/09]												
55	6.3	Technical Forum #3	0 jour	Jeu 19/03/09	[Task point at 19/03]												
56	6.4	VOA Spring interoperability meeting	0 jour	Jeu 15/05/08	[Task point at 15/05]												
57	6.5	VOA Autumn interoperability meeting	0 jour	Ven 07/11/08	[Task point at 07/11]												
58	6.6	D6.1: Intermediate report on evolution of interoperability standards and associated	0 mois	Jeu 30/04/09	[Task point at 30/04]												
59	6.7	D7.1: Intermediate report on DAL protocols and DM standards and associated prototypes	0 mois	Jeu 30/04/09	[Task point at 30/04]												
60	6.8	D8.1: Intermediate report on assessment of new technologies and associated prototypes	0 mois	Jeu 30/04/09	[Task point at 30/04]												
61	6.9	Cycle 1 report of JRA WPs to WPMT	0 jour	Jeu 30/04/09	[Task point at 30/04]												
62	7	AIDA Cycle 2 - JRA	12.43 mois	Ven 01/05/09	01/05	AIDA Cycle 2 - JRA				30/04							
63	7.1	WP6, WP7, WP8 Joint Research Activities	12 mois	Ven 01/05/09	[Gantt bar from 01/05 to 24/09]												
64	7.2	Technical Forum #4	0 jour	Jeu 24/09/09	[Task point at 24/09]												
65	7.3	Technical Forum #5	0 jour	Ven 19/03/10	[Task point at 19/03]												
66	7.4	VOA Spring interoperability meeting	0 jour	Ven 15/05/09	[Task point at 15/05]												
67	7.5	VOA Autumn interoperability meeting	0 jour	Lun 09/11/09	[Task point at 09/11]												
68	7.6	D6.2: Final report on evolution of interoperability standards and associated prototypes	0 mois	Ven 30/04/10	[Task point at 30/04]												
69	7.7	D7.2: Final report on DAL protocols and DM standards and associated prototypes	0 mois	Ven 30/04/10	[Task point at 30/04]												
70	7.8	D8.2: Final report on assessment of new technologies and associated prototypes	0 mois	Ven 30/04/10	[Task point at 30/04]												
71	7.9	Final report of JRA WPS to WPMT	0 jour	Ven 30/04/10	[Task point at 30/04]												

7. SUMMARY OF DELIVERABLES

The EuroVO-AIDA Board has updated the timing of deliverables during its kick-off meeting on 17th March, 2008. Updates are indicated in red in the table.

Del. no.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (project month)
D2.1	Preliminary project plan	2 (task 2-1)	CNRS	4	R ¹	PU ²	Month 3 (April 2008)
D1.1	Project Web site	1	CNRS	1	O ³	PU/CO ⁴	Month 4 (May 2008)
D5.1	User requirement for the outreach activity	5	INAF	3	R	PU	Month 4 (May 2008)
D4.1	First Announcement of Opportunity	4	ESO	10	O	PU	Month 5 (June 2008)
D2.2	First "Community feedback" Workshop	2 (task 2-2)	ESA	10	O	PU	Month 9 (Oct. 2008) Postponed to Month 11 (Dec. 2008)
D3.1	Euro-VO Registry of resources	3	ESA	3	O	PU	Month 9 (Nov. 2008)
D3.2	Registry curation tools	3	ESA	4	O	PU	Month 12 (Jan. 2009)

¹ Report

² Public

³ Other

⁴ Confidential, only for members of the consortium (including the Commission Services)

Del. no.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (project month)
D1.2	First contractual periodic report	1	CNRS	2	R	PP ⁵	Month 13 (Feb. 2009)
D2.3	"Hand-on" Workshop	2 (task 2-2)	ESO	12	O	PU	Month 13 (Feb. 2009) Postponed to Month 15 (April 2009)
D2.4	First yearly report on the EuroVO-AIDA teams participation to the IVOA Interoperability meetings	2 (task 2-4)	UEDIN	9	O	PU	Month 15 (April 2009) Updated to month 16 (May 2009: after the Interoperability meeting)
D4.2	First release of on-line science-oriented tutorials	4	ESO	11	O	PU	Month 15 (April 2009)
D5.2	First release of educational and outreach tools and material	5	INAF	10	O	PU	Month 15 (April 2009)
D6.1	Intermediate report on Evolution of interoperability standards and associated prototypes	6	UEDIN	22	R + O	PU	Month 15 (April 2009)

⁵ Restricted to other programme participants (including the Commission Services)

Del. no.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (project month)
D7.1	Intermediate report on Data Access Protocols and Data Models and associated prototypes	7	ESA	13	R + O	PU	Month 15 (April 2009)
D8.1	Intermediate report on Assessment of new technologies and associated prototypes	8	CNRS	20	R + O	PU	Month 15 (April 2009)
D2.5	Revised project plan	2 (task 2-1)	CNRS	4	R	PU	Month 16 (May 2009)
D2.6	Report on the astronomical knowledge infrastructure disciplinary model	2 (task 2-1 and 2-5)	CNRS	8	R	PU	Month 16 (May 2009)
D2.7	Data Centre Workshop	2 (task 2-2)	ESA	15	O	PU	Month 17 (June 2009)
D4.3	Second Announcement of Opportunity	4	ESO	10	O	PU	Month 17 (June 2009)
D3.3	Release of VO-developers-oriented on-line tutorials	3	ESA	6	O	PU	Month 18 (July 2009)
D2.8	Second "Community feedback" Workshop	2 (task 2-2)	ESA	10	O	PU	Month 21 (Oct. 2009) Postponed to Month 22 (Nov. 2009)

Del. no.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (project month)
D1.3	Second contractual periodic report	1	CNRS	2	R	PP	Month 25 (Feb. 2010)
D2.9	Second yearly report on the EuroVO-AIDA teams participation to the IVOA Interoperability meetings	2 (task 2-4)	UEDIN	9	O	PU	Month 27 (April 2010) Updated to month 28 (after the Interoperability meeting)
D4.4	Final release of on-line science oriented tutorials	4	ESO	12	O	PU	Month 27 (April 2010)
D5.3	Final release of educational and outreach tools and material	5	INAF	14	O	PU	Month 27 (April 2010)
D6.2	Final report on Evolution of VObs interoperability standards and associated prototypes	6	UEDIN	25	R + O	PU	Month 27 (April 2010)
D7.2	Final report on Data Access Protocols and Data Models and associated prototypes	7	ESA	16	R + O	PU	Month 27 (April 2010)
D8.2	Final report on Assessment of emerging technologies and associated prototypes	8	CNRS	17	R + O	PU	Month 27 (April 2010)

Del. no.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (project month)
D1.4	Final contractual report	1	CNRS	3	R	PP	Month 30 (July 2010)
D1.5	Final plan for the use and dissemination of foreground	1	CNRS	1	R	PU	Month 30 (July 2010)
D2.10	Medium term strategic plan for Euro-VO	2 (task 2-1)	CNRS	8	R	PU	Month 30 (July 2010)
D2.11	Report on possible liaison of the astronomical VObs with other communities	2 (task 2-5)	CNRS	4	R	PU	Month 30 (July 2010)
TOTAL				305			

8. SUMMARY OF MILESTONES

The EuroVO-AIDA Board has updated the timing of milestones during its kick-off meeting on 17th March, 2008. Updates are indicated in red in the table.

Milestone no.	Milestone name	WPs No's	Lead beneficiary	Delivery date from Annex I	Comments
M1	Project kick-off	all	CNRS	Month 1 (February 2008)	Agenda and Minutes of the Board kick-off meeting (17 March 2008): http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/Board1
M2	First Technical Forum (jointly organized with VO-TECH)	WP2, WP6, WP7, WP8	CNRS	Month 2 (March 2008)	Meeting Web site: agenda and presented viewgraphs: http://wiki.eurovotech.org/twiki/bin/view/VOtech/StageSevenPlanningMeetings
M3	Preliminary Project plan approval	all	CNRS	Month 3 (April 2008)	Preliminary project plan (This document)
M4	IVOA Interoperability meeting	WP2, WP6, WP7, WP8	UEDIN	Month 4 (May 2008)	Meeting organized in Trieste (19-23 May 2008) by INAF. Meeting Web site: http://www.ivoa.net/cgi-bin/twiki/bin/view/IVOA/InterOpMay2008#Meeting_Web_site

Milestone no.	Milestone name	WPs No's	Lead beneficiary	Delivery date from Annex I	Comments
M5	First SAC meeting	WP2, WP4	ESO	Month 5 (June 2008) Anticipated (March 2008)	<ul style="list-style-type: none"> - Agenda and minutes of the SAC meeting - Evaluation of the proposals received to the first Announcement of Opportunity <p>The evaluation of proposals will be made by e-mail First SAC meeting on 11-12 March 2008.</p>
M6	Second Technical Forum (jointly with VO-TECH)	WP2, WP6, WP7, WP8	UEDIN	Month 8 (September 2008)	Meeting Web site: agenda and presented viewgraphs
M7	First "Community feedback" workshop	WP2, WP4	ESA	Month 9 (October 2008) Postponed to Month 11 (Dec. 2008)	<ul style="list-style-type: none"> - Meeting Web site: agenda and presented viewgraphs - Report on feedback
M8	IVOA Interoperability Meeting	WP2, WP6, WP7, WP8	UEDIN	Month 10 (November 2008)	<p>Meeting organized by US-VO in Baltimore on 27-31 October 2008.</p> <p>Report on EuroVO-AIDA partners' participation to the Interoperability meeting.</p>
M9	Second SAC meeting	WP2, WP4	ESO	Month 10 (November 2008)	Agenda and minutes of the SAC meeting

Milestone no.	Milestone name	WPs No's	Lead beneficiary	Delivery date from Annex I	Comments
M10	"Hands-on" workshop	WP2, WP4	ESO	Month 13 (February 2009) Postponed to Month 15 (April 2009)	<ul style="list-style-type: none"> - Meeting Web site - Report on feedback
M11	Third Technical Forum	WP2, WP6, WP7, WP8	CNRS	Month 14 (March 2009)	Meeting Web site: agenda and presented viewgraphs
M12	IVOA Interoperability Meeting	WP2, WP6, WP7, WP8	UEDIN	Month 16 (May 2009)	Report on EuroVO-AIDA partners' participation to the Interoperability meeting
M13	Mid-term Board meeting	all	CNRS	Month 16 (May 2009)	<ul style="list-style-type: none"> - Agenda and Minutes of the Board mid-term meeting - Revised project plan - Description of the disciplinary model of knowledge infrastructure
M14	Third SAC meeting	WP2, WP4	ESO	Month 16 (May 2009)	<ul style="list-style-type: none"> - Agenda and minutes of the SAC meeting - Evaluation of the proposals received to the second Announcement of Opportunity

Milestone no.	Milestone name	WPs No's	Lead beneficiary	Delivery date from Annex I	Comments
M15	DCA workshop	WP2, WP3, WP6, WP7, WP8	ESA	Month 17 (June 2009)	<ul style="list-style-type: none"> - Meeting Web site: agenda and viewgraphs presented - Report on feedback
M16	Fourth Technical Forum	WP2, WP6, WP7, WP8	INAF	Month 20 (September 2009)	Meeting Web site: agenda and presented viewgraphs
M17	Second "Community feedback" workshop	WP2, WP4	ESA	Month 21 (October 2009) Postponed to Month 22 (Nov. 2009)	<ul style="list-style-type: none"> - Meeting Web site: agenda and presented viewgraphs - Report on feedback
M18	IVOA Interoperability Meeting	WP2, WP6, WP7, WP8	UEDIN	Month 22 (November 2009)	Report on EuroVO-AIDA partners' participation to the Interoperability meeting
M19	Fourth SAC meeting	WP2, WP4	ESO	Month 22 (November 2009)	Agenda and minutes of the meeting

Milestone no.	Milestone name	WPs No's	Lead beneficiary	Delivery date from Annex I	Comments
M20	Final Technical Forum	WP2, WP6, WP7, WP8	UHEI	Month 26 (March 2010)	Meeting Web site: agenda and presented viewgraphs
M21	IVOA Interoperability Meeting	WP2, WP6, WP7, WP8	UEDIN	Month 28 (May 2010)	Report on EuroVO-AIDA partners' participation to the Interoperability meeting
M22	Final Board meeting	all	CNRS	Month 29 (June 2010)	<ul style="list-style-type: none"> - Agenda and minutes of the final Board meeting - Euro-VO Medium Term Strategic Plan

9. WP1 - NA1 - MANAGEMENT

9.1. Work Package Objectives

This Work Package is led by CNRS. Its objectives are to oversee the project on behalf of all the partners, to co-ordinate financial and administrative matters and to deliver the project external presence.

9.2. Work Package Deliverables

D1.1 (Month 4: May 2008): Project Web site

D1.2 (Month 13: Feb. 2009): First contractual periodic report to EC

D1.3 (Month 25: Feb. 2010): Second contractual periodic report to EC

D1.4 (Month 30: July 2010): Final contractual report to EU

D1.5 (Month 30: July 2010): Final Plan for the use and dissemination of foreground

9.3. Work Package activities

9.3.1. Project Management and monitoring

This task includes overall legal, contractual, financial and administrative management activities:

- Establishment and maintenance of the Consortium Agreement (CA)
- Production of the contractual reports
- Obtaining audit certificates by each of the partners
- Compilation of the meetings organized and the reports produced by the project

In order to assure the project management, various actions will be undertaken by WP1:

- Creation and update of the project directory
- Creation of Board, WPMT, and IST mailing lists
- Dissemination of reporting templates and guidelines
- Update of the list of DCA presentations to conferences/meetings of other EC-funded projects

In other respects, each WP will monitor the different aspects of its activities. This monitoring is part of the WP reports, and will be assessed by the WPMT and the Board.

The Risk Register (see section 4.3) has been reviewed and approved by the Board during the Board kick-off meeting. It will be maintained by the Euro-VO WPMT throughout the project. The Project Manager will also assure the maintenance of the list of Performance/research indicators (see below) for each Work Package. The list of Performance/research indicators has been reviewed and approved by the Board during its kick-off meeting.

List of Performance/research indicators

The List of Performance/research indicators, defined in the Description of work, has been updated by the Board during its kick-off meeting, which took place in Strasbourg on March 17th, 2008. The updates are indicated in red in the different tables.

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
WP1-NA1 Management	Define EuroVO-AIDA logo, document templates, high-level documents for external audience		Logo available on the TWiki since the Board kick-off meeting (17 March 2008) Documents templates available on the TWiki (June 2008)
	Functioning EuroVO-AIDA Web site (Deliverable D1.1)	Including <ul style="list-style-type: none"> ▪ details of each partner ▪ details of each WP and deliverables ▪ links with other relevant projects 	Month 4 (May 2008)
	Production of the first, second and final contractual reports (Deliverables D1.2, D1.3, D1.4)		Month 13 (Feb. 2009) Month 25 (Feb. 2010) Month 30 (July 2010)
	List of EuroVO-AIDA presentations to meetings organized by EC and to meetings organized by other EC funded projects		For each reporting period

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p>WP2-NA2</p> <p>Strategy, co-operation and dissemination</p>	Board, WPMT, IST meetings		As planned <ul style="list-style-type: none"> ▪ Board kick-off meeting (17 March 2008)
	Update of risk register		Initial Risk Register produced at the Board kick-off meeting (17 March 2008) Each WPMT meeting
	Production of the Preliminary and Revised Work Plan (Deliverables D2.1, D2.5)	Including <ul style="list-style-type: none"> ▪ List of documents to be produced during the project ▪ Updated list of criteria and performance/research indicators 	Month 3 (April 2008) – This Document Month 16 (May 2009)
	Production of the report on astronomical knowledge infrastructure disciplinary model (Deliverable D2.6)		Month 16 (May 2009)
	Maintenance of the Euro-VO census of European Data Centres		One update during Cycle 2
	Production of the Medium Term Strategic Plan for Euro-VO (Deliverable D2.10)		Month 30 (July 2010)

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p style="text-align: center;">WP2-NA2</p> <p style="text-align: center;">(continued)</p>	<p>Organization of the Scientific Workshops (Deliverables D2.2, D2.3, D2.8)</p>	<ul style="list-style-type: none"> ▪ Workshop Web site ▪ Overall level of participation ▪ Number of countries represented ▪ Feedback from participants 	<p>Month 9 (Oct. 2008) - First "Scientific Workshop" postponed to Month 11 (1-3 Dec. 2008): ESA</p> <p>Month 13 (Feb. 2009) - "Hands-on Workshop" postponed to Month 15 (April 2009): ESO</p> <p>Month 21 (Oct. 2009) - Second "Scientific Workshop" postponed to Month 22 (Nov. 2009): CNRS</p>
	<p>Organization of the Data Centre Workshop (Deliverable D2.7)</p>	<ul style="list-style-type: none"> ▪ Workshop Web site ▪ Overall level of participation ▪ Number of countries represented ▪ Feedback from participants 	<p>Month 17 (June 2009): ESA</p>
	<p>Organization of the Technology Forums</p>	<ul style="list-style-type: none"> ▪ Meeting Web site ▪ Level of European participation ▪ Multiple prototypes presented ▪ Acceptance of input by IVOA 	<p>Month 2 (17-20 March 2008): CNRS</p> <p>Month 8 (Sept. 2008): UEDIN</p> <p>Month 14 (March 2009): CNRS</p> <p>Month 20 (Sept. 2009): INAF</p> <p>Month 26 (March 2010): UHEI</p>

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p>WP2-NA2</p> <p>(continued)</p>	<p>(*) Report on EuroVO-AIDA teams participation to the IVOA Interoperability meetings</p> <p>(Deliverables D2.4, D2.9)</p>	<ul style="list-style-type: none"> ▪ Number of participants ▪ Representation of EuroVO-AIDA JRAs teams ▪ Standards discussed with EuroVO-AIDA teams participation 	<p>Reports produced on Month 15 (April 2009), Month 27 (April 2010)</p>
	<p>Participation to conferences for community dissemination</p>		<p>For each reporting period</p>
	<p>(**) Provision of on-line tutorials from WP3 and WP4 on the Web site</p> <p>(Deliverables D4.2, D4.4, D3.3)</p>	<ul style="list-style-type: none"> ▪ Number of tutorials 	<p>Science tutorials: Incremental releases: Month 15 (April 2009), Month 27 (April 2010) VO-developers-oriented tutorials: Month 18 (July 2009)</p>
	<p>List of contacts/meetings with other communities</p>		<p>For each reporting period</p>
	<p>Production of the Report on possible liaison with other communities</p> <p>(Deliverables D2.11)</p>		<p>Month 30 (July 2010)</p>

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p align="center">WP3-SA1</p> <p align="center">Service Activities in support of deployment of IVOA protocols and standards</p>	<ul style="list-style-type: none"> ▪ Release of the Euro-VO Registry of resources ▪ Release of Registry Curation tools (Deliverables D3.1, D3.2) 	<ul style="list-style-type: none"> ▪ Registry compliant with IVOA standard ▪ Harvesting and harvestable registry ▪ Availability of the registry curation tool 	<p>Month 9 (Oct. 2008) Month 12 (Jan. 2009)</p>
	<p>Production of elements for WP2:</p> <ul style="list-style-type: none"> ▪ On-line tutorials for developers ▪ Preparatory Work for the Data Centre Workshop 		<p>See above (**)</p>
	<p>List of visits to data centre providers</p>		<p>For each reporting period</p>
	<p>List of adaptation of VO tools to serve the data centre community</p>		<p>For each reporting period</p>

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
WP4-SA2 Service Activities in support of provision of VObs-enabled services to the science community	Announcement of Opportunities (Deliverables D4.1, D4.3)	<ul style="list-style-type: none"> ▪ Number and topics of proposals ▪ Feedback on standards and tools 	Month 5 (June 2008): AO open on 16 April 2008. Application deadline: 15 June 2008. Month 17 (June 2009)
	Production of elements for WP2 <ul style="list-style-type: none"> ▪ On-line science tutorials ▪ Preparatory work for the scientific workshops 		See above (**)
	List of adaptation of VO tools to serve the science community		For each reporting period

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
WP5-SA3 Service Activities for higher education and outreach	Production of User requirements for the outreach activity (Deliverable D5.1)		Month 4 (May 2008)
	Releases of educational and outreach tools and material (Deliverables D5.2, D5.3)		Month 15 (April 2009) Month 27 (April 2010)

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p>WP6-JRA1</p> <p>Evolution of VObs interoperability standards</p>	<p>Detailed Work Programme for Cycle 1 (Included in Deliverable D2.1)</p>	<ul style="list-style-type: none"> ▪ Agreement on requirements ▪ The Work programme takes into account the current results from VO-TECH and the current status of IVOA standards 	<p>End of kick-off phase (April 2008)</p>
	<p>Detailed Work Programme for Cycle 2 (included in Deliverable D2.5)</p>	<ul style="list-style-type: none"> ▪ Agreement on updated requirements ▪ The Work programme takes into account the final results from VO-TECH and the current status of IVOA standards 	<p>End of Cycle 1 (April 2009)</p>
	<p>Production of activity reports and associated prototypes (Deliverables D6.1, D6.2)</p>	<ul style="list-style-type: none"> ▪ Reports have consensus on conclusions and recommendations ▪ Software prototypes work 	<p>Month 15 (April 2009) Month 27 (April 2010)</p>
	<p>Impact on IVOA standards</p>	<ul style="list-style-type: none"> ▪ AIDA staff active on IVOA working groups ▪ Euro-VO prototypes need minimum re-engineering after IVOA standards agreed 	<p>Month 15 (April 2009) Month 27 (April 2010) See above (*)</p>

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p align="center">WP7-JRA2</p> <p>Data Access Protocols and Data Models</p>	Detailed Work Programme for Cycle 1 (Included in Deliverable D2.1)	<ul style="list-style-type: none"> ▪ Agreement on requirements ▪ The Work programme takes into account the results from VO-TECH and the current status of IVOA standards 	End of kick-off phase (April 2008)
	Detailed Work Programme for Cycle 2 (included in Deliverable D2.5)	<ul style="list-style-type: none"> ▪ Agreement on updated requirements ▪ The Work programme takes into account the final results from VO-TECH and the current status of IVOA standards 	End of Cycle 1 (April 2009)
	Production of activity reports and associated prototypes (Deliverables D7.1, D7.2)	<ul style="list-style-type: none"> ▪ Reports have consensus on conclusions and recommendations ▪ Software prototypes work 	Month 15 (April 2009) Month 27 (April 2010)
	Impact on IVOA standards	<ul style="list-style-type: none"> ▪ AIDA staff active on IVOA working groups ▪ Euro-VO prototypes need minimum re-engineering after IVOA standards agreed 	Month 15 (April 2009) Month 27 (April 2010) See above (*)

WP	EVENT	PERFORMANCE INDICATOR	SCHEDULE
<p>WP8-JRA3</p> <p>Assessment of emerging technologies</p>	<p>Detailed Work Programme for Cycle 1 (Included in Deliverable D2.1)</p>	<p>The Work programme takes into account the results from VO-TECH and the current status of IVOA standards</p>	<p>End of kick-off phase (April 2008)</p>
	<p>Detailed Work Programme for Cycle 2 (included in Deliverable D2.5)</p>	<p>The Work programme takes into account the final results from VO-TECH and the current status of IVOA standards</p>	<p>End of Cycle 1 (April 2009)</p>
	<p>Production of activity reports and associated prototypes (Deliverables D8.1, D8.2)</p>	<ul style="list-style-type: none"> ▪ Reports have consensus on conclusions and recommendations ▪ Software prototypes work 	<p>Month 15 (April 2009) Month 27 (April 2010)</p>
	<p>Impact on IVOA standards</p>	<ul style="list-style-type: none"> ▪ AIDA staff active on IVOA working groups ▪ Euro-VO prototypes need minimum re-engineering after IVOA standards agreed 	<p>See above (*)</p>

9.3.2. Project Reporting

The Project Reporting to the European Commission (EC) will consist in the delivery of all Project Deliverables. CNRS, as the Project Coordinator, will help partners for the writing of these deliverables and will transmit them to the EC. The Project Manager has provided the Reporting guidelines and Deliverables templates on the TWiki: <http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/WP1Management>.

The list of deliverables to be transmitted to the EC is available in Section 7 of this document. The Project Manager will be in contact with the Board and the WPMT to prepare the Project deliverables for the Commission, especially for the First and Second contractual Reports and the Final contractual Report.

Here is a **list of documents and reports to be produced during the project** and their draft Table of Contents:

D1.2 - CNRS - First contractual periodic report (month 13: February 2009) and D1.3 - CNRS - Second contractual periodic report (Month 25: February 2010)

This report describes the activities during the first year of the project, and includes all information required by EC in contractual periodic reports, in particular:

- A publishable summary
- A summary of the project objectives for the period
- The description of the work progress and achievements during the period
- Deliverables and milestones tables
- The description of the project management
- An explanation of the use of the resources
- Financial statements – Form C and Summary financial report
- Certificates

D1.4 – CNRS - Final contractual report (Month 30: July 2010)

This report describes the project activities, and includes all information required by EC in final reports, in particular:

- A final publishable summary report
- A plan for use and dissemination of foreground
- A report on societal implications

D1.5 – CNRS - Final plan for the use and dissemination of foreground

This compulsory deliverable includes all information required by EC.

D2.5 – CNRS - Revised project plan (Month 16: May 2009)

This report will be an update of the preliminary project plan (this document), with a detailed description of the work foreseen during Cycle 2.

D2.6 – CNRS - Report on the astronomical knowledge infrastructure disciplinary model (Month 16: May 2009)

This report will deliver a description of the astronomical VObs community and disciplinary model, prepared in close connection with WPs 2-5.

D2.10 – CNRS - Medium term strategic plan for Euro-VO (Month 30: July 2010)

The report includes an assessment of the possible liaison with other scientific disciplines and with the projects which develop generic concepts and tools from D2.11 below.

D2.11 – CNRS - Report on possible liaison of the astronomical VObs with other communities (Month 30: July 2010)

The report summarizes the project findings in terms of possible liaison with other scientific communities and developers of digital library framework.

D5.1 - INAF - User requirement for the outreach activity (month 4: May 2008)

This report will contain:

- A list of VO-Tools
- The identification of external outreach tools useful for this activity
- List of projects/organizations which produce existing resources

D6.1 – UEDIN - Intermediate report on Evolution of interoperability standards and associated prototypes (Month 15: April 2009)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work.

D6.2 – UEDIN - Final report on Evolution of VObs interoperability standards and associated prototypes (Month 27: April 2010)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work and requirements on future technical projects.

D7.1 – ESA - Intermediate report on Data Access Protocols and Data Models and associated prototypes (Month 15: April 2009)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work.

D7.2 – ESA - Final report on Data Access Protocols and Data Models and associated prototypes (Month 27: April 2010)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work and requirements on future technical projects.

D8.1 – CNRS - Intermediate report on Assessment of new technologies and associated prototypes (Month 15: April 2009)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work and possible uptake.

D8.2 – CNRS - Final report on Assessment of emerging technologies and associated prototypes (Month 27: April 2010)

The report summarizes the achievements to that point, analyse the state of the international scene, and make recommendation for continued work and possible uptake.

9.3.3. Project external presence (CNRS)

The Project Manager will assure the project external presence through the maintenance of the EuroVO-DCA website and the maintenance of the project TWiki (<http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/WebHome>).

The EuroVO-AIDA logo is already available and will be used for the design of the Project Website, which is due for May 2008. The project TWiki has been made available before the Board kick-off meeting and is continuously updated by the partners. The "static" web pages describing the project will be produced by the CNRS and partners will provide comments. These Web pages will be installed on the Euro-VO Web pages, with a link to the project TWiki.

Partners are also asked to keep up to date the list of presentations to meetings organized by the EC and by other EC funded projects to which they will participate, by filling the "Schedule" page and the relevant WP1 page on the TWiki, and to keep the PM informed of all meetings to which they will participate on EuroVO-AIDA funds.

10. WP2 - NA2 - STRATEGY, CO-OPERATION AND DISSEMINATION

10.1. Work Package Objectives

This Work Package is led by CNRS. Its objective is to ensure the entire project Networking Activities through:

1 - WP2-1: Strategy definition

- Defines the project program
- Oversees the project development and monitors the progress
- Oversees the scientific aspects of the project
- Ensures external liaisons:
 - Liaisons with the policy-making level (Europe, national agencies and policy makers in the partner countries)
 - Explores the extension of the astronomical VObs community to other European countries
 - Manages the liaison with other international VObs projects
- Defines a medium term strategic plan for Euro-VO

2 - WP2-2: Workshops

- Dissemination of knowledge, gathering of feedback, and sharing of best practices among the European scientific and data provider communities
- Technology Forums

3 - WP2-3: Community dissemination

4 - WP2-4: International co-operation on the definition of IVOA standards

5 - WP2-5: Liaison with other communities

- Explores the possible future collaboration with other scientific disciplines and other communities (e.g. the Digital Library community)
- Provides input for the medium term strategic plan

10.2. Work Package Deliverables

D1.1 (Month 4: May 2008): Project Web site

D1.2 (Month 13: Feb. 2009): First contractual periodic report to EC

D1.3 (Month 25: Feb. 2010): Second contractual periodic report to EC

D1.4 (Month 30: July 2010): Final contractual report to EU

D1.5 (Month 30: July 2010): Final Plan for the use and dissemination of foreground

10.3. Work Package activities

WP2 objectives are to ensure the entire project Networking Activities. This will be done through a strong interaction with the other WPs.

10.3.1. Strategy Definition (WP2-1)

This task provides technical and scientific leadership and planning, ensuring the coordination of the EuroVO-AIDA activities, developing the overall project plan and assessing the project activities.

The different aspects of the work are:

- Definition of the project program
- Overseeing of project development and progress monitoring: the PM follows WPs activities in close connection with the WP leads. The risk register and the "performance indicators" list are established and will be maintained by the WPMT
- Overseeing of scientific aspects
- Ensuring of external liaisons: at the Policy making level, with other communities and with other VO projects

The work is under the responsibility of the Board, of the WPMT and of the IST, and high level scientific guidance is provided by the Science Advisory Committee.

The CNRS will in particular organize a discussion of the medium term Euro-VO strategic plan taking into account EU calls.

The maintenance of the Risk Register and of the List of performance indicators will also contribute to the adaptation of the project global activities to the project results and to the evolution of the context.

This task also includes the maintenance of the Euro-VO DCA census of European data centres produced by EuroVO-DCA, which will be used and maintained by EuroVO-AIDA.

10.3.2. Workshops (WP2-2)

The three Science Workshops (ESO), the two Community Feedback Workshops (ESA) and the bi-yearly Technology Forums (UEDIN) are essential elements for the dissemination of knowledge, the gathering of feedback and the sharing of best practices among astronomers and data providers.

The two first Technology Forums will be organized in collaboration with the VO-TECH project. The first one, organized by CNRS in Strasbourg, took place in March 2008. The second one, which will also be the closing VO-TECH meeting, will be organized by UEDIN in September 2008.

During its kick-off meeting, the EuroVO-AIDA Board defined the schedule as follows:

- 1 - Technology Forum 1 / March 2008 (CNRS)
- 2 - Technology Forum 2 / September 2008 (UEDIN)
- 3 - First Science Workshop, foreseen in October 2008 (ESA) - Postponed to November 2008, then to December 2008 because of other meetings in October 2008 (IVOA Interoperability meeting and ADASS Conference), and taking into account the availability of meeting rooms at ESAC.

- 4 – Technology Forum 3 / March 2009 (CNRS)
- 5 – Hands-on Workshop / February 2009 (ESO) - Postponed to April 2009.
- 6 – Data Centres Workshop / June 2009 (ESA)
- 7 – Technology Forum 4 / September 2009 (INAF)
- 8 – Second Science Workshop / October 2009 (CNRS) - Postponed to November 2009.
- 9 – Technology Forum 5 / March 2010 (UHEI)

10.3.3. Community Dissemination (WP2-3)

The Project TWiki and the Euro-VO Web site will be major tools for the dissemination towards the community.

Tutorials from SA1 (Service activities in support of the deployment of IVOA protocols and standards) and SA2 (Service Activities in support of provision of VObs-enabled services to the science community) will be published on Euro-VO Web pages (<http://www.euro-vo.org/pub/>), and will be properly identified as EuroVO-AIDA products.

Participation in conferences will complete the Community Dissemination.

10.3.4. International co-operation on the definition of IVOA standards (WP2-4)

The international cooperation on IVOA standards will be assured through participation in the bi-yearly IVOA Interoperability meetings and IVOA Working Group discussions.

In 2008, IVOA Interoperability meetings will be held as follows:

- The spring meeting will be organized in Trieste, Italy, by INAF, on 19-23 May
- The fall meeting will be organized in Baltimore, USA, by the US Virtual Observatory project, on 27-31 October

10.3.5. Liaison with other communities (WP2-5)

The idea is to develop future collaborations with other disciplines and other communities developing generic frameworks and tools and to provide input for the Euro-VO medium strategic plan.

A number of other scientific communities have already been identified:

- Planets, Heliospheric physics, METAFOR, Earth Observation (L. Fusco's projects)
- Digital libraries (DRIVER II et al)
- genomic databases/bioinformatics, artificial intelligence
- computing and data storage grid

This task also includes active participation in EC-organized concertation activities. This began before the start of the project (4th e-Infrastructure Concertation meeting, Sophia Antipolis, France, 5-6 December 2007) and will continue with participation to the 5th e-Infrastructure Concertation meeting (Barcelona, Spain, 6 June 2008) and to the next Concertation meetings.

11. WP3 - SA1 - SERVICE ACTIVITIES IN SUPPORT OF DEPLOYMENT OF IVOA PROTOCOLS AND STANDARDS

11.1. Work Package Objectives

This Work Package is led by ESA. Its objective is to support the deployment of IVOA protocols and standards in Europe with the goal of increasing the amount of astronomical resources being accessible through the Virtual Observatory.

11.2. Work Package Deliverables

D3.1 (Month 6: July 2008, ESA): Euro-VO Registry of VObs resources available

D3.2 (Month 12: Jan. 2009, ESA): Availability of Curation tools for the Euro-VO Registry

D3.3 (Month 18: July 2009, ESA and other WP3 participants): VObs developers-oriented on-line tutorials

11.3. Work Package activities

The objective of WP3 is to support the deployment of IVOA protocols and standards in Europe, including provision of a Euro-VO registry of VO resources. This Work Package and WP2-2 will ensure continuation of EuroVO-DCA activities in support to data providers.

Partners will work in close collaboration on the different aspects of WP3 and the EuroVO-DCA actions in support to data centres from other European countries will be continued.

This Work Package includes four strands of work:

- Provision to the European Community of a Euro-VO Registry of VObs resources
- Registry Curation tools
- Service activities in support of the European Data Centres for the implementation of the IVOA standards and protocols for them to publish their data holdings to the VObs
- Adaptation of the VObs tools to the evolution of existing IVOA standards and to the new standards that will be produced, and to take into account data providers' feedback

11.3.1. Provision to the European Community of a Euro-VO Registry of VObs resources

Activities for the Euro-VO Registry are mainly ESA work. The plan is to base the work on the effort that has already taken place for the ESA-VO Registry. That means to convert the ESA-VO full Registry into the Euro-VO Registry.

This will include the following activities:

- Finalize migration of the ESA-VO Registry to new IVOA Registry of Resources v1.1
- Convert the ESA-VO Registry into the Euro-VO Registry

- Make it available from the Euro-VO web pages
- Announce the new Euro-VO Registry at IVOA level and European level
- Ensure harvesting between the Euro-VO Registry and the other IVOA registries worldwide

These activities will lead to the Deliverable D3.1 in October 2008 with the availability of the central Euro-VO Registry with the main characteristics:

- Full IVOA searchable Registry of VO Resources
- Euro-VO registry harvests all other European and worldwide (harvestable) registries
- Euro-VO registry can be harvested by other European and worldwide registries

Use Cases and support will be provided about the registering of VO Resources:

- People / data centres can register VO resources directly into the Euro-VO central registry
- Data Centre / National Projects can have their own publishing registries, register their VO resources in their own registry, which then get harvested into the Euro-VO central registry
- People can register their own VO resources into their data centre / national project registries, which then get harvested into the Euro-VO central registry

Furthermore, use cases and support will be provided for searching VO Resources:

- People / VO application developers can search directly into the Euro-VO central registry
- Data Centre / National Projects can search their own Registry
 - If this is an IVOA full searchable Registry
 - Their Content will depend if they also harvest the Euro-VO central Registry

Later on, the work will continue with the operations, maintenance and potential upgrade of the Euro-VO Registry of VObs resources for the Euro-VO according to the specifications of the IVOA Registry of VObs resources.

In parallel to these “operational” activities, we will participate to the IVOA Registry WG discussions, mailing forum, teleconference, documents writing, and meetings as a natural link to WP6 activities. Feedback and inputs will be given through the experience of operating a central Registry for Euro-VO and supporting data centres in the task of registering their resources.

11.3.2. Registry Curation tools

The Euro-VO Registry, acting as a central Registry in Europe, will have the responsibility to ensure the quality/curation of the VO resources it contains. Although this is not an easy task and it is agreed that neither the IVOA nor the Euro-VO should act as a “censure” body, it is important that the Euro-VO plays an active role in ensuring the quality of the VObs resources so they can be used efficiently and securely.

Moreover, the quality stored in the Euro-VO Registry will be propagated to other registries harvesting the Euro-VO Registry, hence its importance to ensure its quality.

The work on curation utilities is only starting and presents many challenges, so the work plan will consist of:

- Review work going on in that area of curation utilities at European and IVOA level
- Review list of VO resources which can be "curated" when inserted into the registry and define plan of actions
- Development of the curation tools of VO Resources
- Implementation of these tools into the Euro-VO Registry

These activities will lead to Deliverables 3.2 in February 2009 with the availability of initial curation tools for selected VO Resources selected in the study phase. These curation tools will be plugged into the Euro-VO Registry to start ensuring the quality of the VO Resources there.

Later on, activities will encompass the operations, maintenance and upgrade of these curation tools, as well as potentially developing new ones when need arise. These activities are also to be part of the WP6 and WP7 activities, in link with the IVOA Registry Working Groups discussions and activities.

11.3.3. Service activities in support of the European Data Centres for the implementation of the IVOA standards and protocols for them to publish their data holdings to the VObs

As follow up activities of what is being done in the Euro-VO DCA (Data Centre Alliance) project, we believe it is important to keep providing help and support to the European Data Centre for them to publish their data holdings into the VObs, making sure they are then registered into the Euro-VO Registry so they can be accessed by all the Scientific Community.

By helping providing more data through the VObs framework, we ensure the increased usage of the European science data holdings, the increased usefulness of the VO applications making use of these VObs Resources and therefore the VObs dissemination in general.

The activities in that context will include:

- Development of technical on-line tutorials oriented towards developers of data centre on how to publish data into the VObs, which will be distributed in the frame of WP2-3
- Preparatory work for the EuroVO-AIDA Data Centre Alliance Workshop in June 2009 on how to publish their data holdings through IVOA protocols and standards (WP2-2)
- Visit to data centre providers, as required, to provide them on-site support to publish their data holdings into the VObs
- Gathering feedback from the Data Centres on publishing their data holdings into the VObs, to be used to improve the publishing tools and the IVOA standards and protocols, in close cooperation with WP7

11.3.4. Adaptation of the VObs tools to the evolution of existing IVOA standards and to the new standards that will be produced, and to take into account data providers' feedback

Several tools (SAADA, MEX, DALToolkit, DMMapper, DSA ...) have already been developed in Europe to help Data Providers to publish their data holdings into the VObs, according to existing IVOA standards and protocols. These tools have initially been used in the context of previous data providers workshop, but need to be continuously kept up to date with the definition and evolution of IVOA standards and protocols. Furthermore, using the feedback received from the data centres which used them, these tools can be improved and made easier to use with the relevant level of documentation and help.

In particular, activities will continue at ESA to keep on developing the publishing tools such as DALToolkit (Data Access Layer) and DMMapper (Data Model Mapper). Furthermore, special effort will be made to integrate these tools with other European tools such as the ESO MEX (Metadata Extraction) and AstroGrid DSA. That will include some specific discussions, meeting and joint development which will result in a more integrated European data publishing solution for the VObs.

These activities will lead to Deliverable 3.3 in October 2009 where all these tools will be published on the Euro-VO web pages. Nonetheless, it is expected that these tools will already be available from there throughout the project lifetime, with significant updates in June 2008 and June 2009, when they are going to be presented and used extensively during the Data Centres Workshops.

All these activities have a natural and strong link with WP6 and WP7 in particular, as the evolution of the IVOA standards and protocols will have impact on the development of the data publishing tools, and as the feedback from the data centres using these tools and publishing their data through the VObs framework will bring inputs to the evolution of the IVOA standards.

12. WP4 – SA2 – SERVICE ACTIVITIES IN SUPPORT OF PROVISION OF VOBS-ENABLED SERVICES TO THE SCIENCE COMMUNITY

12.1. Work Package Objectives

This Work Package is led by ESO. Its objective is to serve the science community in its uptake of the VObs-enabled data infrastructure:

- 1 - Trigger advanced usage of VObs capabilities
- 2 - Obtain a set of well documented science cases
- 3 - Gather feedback about the science community needs
- 4 - Adapt VObs tools to these needs

12.2. Work Package Deliverables

D4.1 (Month 5: June 2008, ESO): First Announcement of Opportunity

D4.2 (Month 15: April 2009, ESO with other WP4 participants): First release of on-line science-oriented tutorials

D4.3 (Month 17: June 2009, ESO): Second Announcement of Opportunity

12.3. Work Package activities

WP4 activities can be summarized as follows:

- In complement to the free usage of the services through communications network, Announcements of Opportunities for advanced usage of astronomical digital archives through VObs tools, and scientific support to the selected projects; feedback gathering on the tools from the proposals submitted to the AOs
- Development of on-line science-oriented tutorials based on science cases for the usage of VObs-enabled astronomical archives and VObs data access tool, disseminated in the frame of WP2-3
- Preparatory work for the Scientific Workshops to help astronomers utilise at best European digital archives (WP2-2)
- Adaptation of VObs tools to fulfil the science community needs

This Work Package also manages the **Euro-VO Science Advisory Committee** (Euro-VO SAC). The first meeting of the Euro-VO SAC, initially foreseen on Month 5 (June 2008), was held earlier in Cambridge (UK), on March 11-12, 2008: (<http://www.euro-vo.org/cgi-bin/twiki/bin/view/Fc/SacMeeting04>). This change was made to gather Euro-VO SAC comments on EuroVO-AIDA plans before the kick-off meeting. Input from the Euro-VO SAC has been very useful for the discussion of the project Preliminary Work Plan. The Euro-VO SAC agreed to evaluate the proposals received to the first Announcement of Opportunities (which was supposed to be done during the first meeting from the Description of Work) by e-mail discussion.

The First **Announcement of Opportunities** (AO) was foreseen in June 2008. The idea is to give support to scientists and projects interested in utilising VO tools. As the 2007 prototype Euro-VO Research Initiative has not been very successful, it is necessary to

improve the results. The Science Advisory Committee provided input. A draft text for the AO was provided by ESO and partners provided their comments. National contact points have been nominated by the partners who will also contact selected national teams to gather requirements and needs and to publicize the AO, in addition to more general European and national information dissemination channels.

At least one meeting will be organized with the selected teams, and they may be invited to present their results to a specific meeting. The call is open since 18 April, 2008. The deadline for proposals is 15 June 2008, to begin the support in September 2008.

The first **"Community feedback" Workshop**, which will be organized by ESA in the frame of WP2-2, is scheduled on 01-03 December 2008. Partners provided a contact person to work on the Workshop organization. ESO will also work with the project interested partners for the organization of the **"Hands-on Workshop"**, due in March 2009, also as deliverable of WP2-2.

Proposed topics for the "Community Feedback" Workshops are: Multi-wavelength astronomy, Images, Time series, Surveys. The Board decided to organise the first Workshop on the theme of Multi-wavelength astronomy.

Additional focused Workshops can be organized if several partners are interested as in EuroVO-DCA for the "Spectroscopy and the VO" Workshop.

13. WP5 – SA3 – SERVICE ACTIVITIES FOR EDUCATION AND OUTREACH

13.1. Work Package Objectives

This Work Package is led by INAF. Its objective is to provide and share expertise and material between partners useful for:

- 1 - Higher educational level (university, doc and post doc students)
- 2 - Teacher of the 14-18 years old students (non specialists in astronomy)
- 3 - General public, amateur astronomers, and press

13.2. Work Package Deliverables

D5.1 (Month 4: May 2008, INAF with other WP5 participants): Identification of User requirement for the outreach activities.

D5.2 (Month 15: April 2009, INAF with other WP5 participants): First release of Educational and Outreach tools and material

D5.3 (Month 27: April 2010, INAF with other WP5 participants): Final release of Educational and Outreach tools and material

13.3. Work Package activities

The activities developed in WP5 are new among European VO activities. We want to provide tools for accessing VO data for the groups of public listed in section 1.2 and, in particular, for higher education students, for middle school teachers, and for amateur astronomers. The idea is to "adapt" tools already in use among professional astronomers with the following two general requirements: on the one hand to maintain the sense of wonder and the excitement of accessing the top-level information that humans have been able to gather by observing the sky, on the other to ease the steep learning curve that the original tools for professional astronomers would require. These general requirements will become a more specific set of requirements that we will apply to our selected professional tools and that we will offer to other existing tools that have been developed for a variety of goals and that access, or will access, European VO data.

INAF organized a teleconference meeting on 29 April 2008 with interested partners to identify all available tools and define what to propose to the various groups of our public. One aim was to prepare deliverable D5.1 (Identification of User requirement for the outreach activities). After this first contact, a group of interested partners also met at the IVOA Interoperability Workshop held in Trieste, May 19-23 2008 with the same purpose. More information on these meetings and on the WP5 activities are detailed on following TWiki page: <http://cds.u-strasbg.fr/twikiAIDA/bin/view/EuroVOAIDA/WP5Outreach> and pages therein.

At the time of writing this document, we have identified the main professional tools that we will adapt and offer to our public: they are Aladin (CDS) and Stellarium/VirGO (ESO). We have also surveyed the main tools that allow the public to experience astronomy at various levels and this list is part of our deliverable D5.1. In particular, we note that outreach vocabulary and interface with Google Sky and Microsoft World Wide Telescope are presently discussed at IVOA level.

We recognize that outreach tools, in particular if used for education, need to be translated into as many languages as possible and we plan to offer the translation of outreach tools in the languages of Euro-VO AIDA partners. We also recognize the importance to provide some basic information on the main classes of objects whose data will be searched by our public within the Euro VO database. We will produce part of such information and we will contact various international projects for the diffusion of astronomy in order to discuss inclusion of (part of) their knowledge base within our outreach interfaces. Finally, we plan to negotiate with various agencies the use of their PR images in order to add appeal to our interfaces also for the widest public.

We point out that, in preparing this document and our plan for WP5-SA3, we have taken into account the draft of the ASTRONET Infrastructure Roadmap (May 2008; <http://www.strw.leidenuniv.nl/astronetroadmap/>), in particular chapter 7 "Education, recruitment & training, public outreach".

Next steps are:

- Adaptation of tools, in particular the production of a 'lite' version of Aladin (with versions in different European languages) (CNRS for the adaptation of Aladin)
- Identification of the required adjustments of the VObs standards and their transmission to WP6-JRA1 (INAF with the other WP5 participants)
- study of use cases of the outreach interfaces to be used as tests by a sample of our public whose feed-back will be used to tweak our project

Finally, here is an outline of the current project plan (a current version, updated if required, can be found on WP5 TWiki page):

- Deliverable 5.1 (near final draft available):
 - Requirements for outreach interfaces (Aladin / Stellarium / VirGO)
- Toward Deliverable 5.2:
 - Production and/or modification of existing software
 - Translation of outreach interfaces
 - Basic documentation with use cases (in relevant languages)
 - Test Interface
 - Gather, translate and organize feed-back for interface revisions
- Toward Deliverable 5.3:
 - Produce final version of outreach interface(s)
 - Produce documents (user guide, primer, examples, basic script library ...)
 - Produce basic outreach content for interface (short description of relevant objects, instruments)

Some partners also plan to organize outreach events at the national level which may be attended by other partners' members.

14. WP6 - JRA1 - EVOLUTION OF VOBS INTEROPERABILITY STANDARDS

14.1. Work Package Objectives

This Work Package is led by UEDIN. Its objectives are:

- 1 - To decide what technical standards and protocols are required for Euro-VO
- 2 - To bring forward these requirements to the IVOA, in the frame of WP2-4 activities
- 3 - To develop drafts of these standards
- 4 - To develop prototype software implementing the draft standards
- 5 - To make all possible effort to conclude international agreement on the necessary standards
- 6 - To ensure that deployments within Euro-VO are compatible with IVOA standards.

14.2. Work Package Deliverables

D6.1 (Month 15: April 2009, UEDIN and other WP6 participants): WP6-JRA1 intermediate report and associated prototypes

D6.2 (Month 27: April 2010, UEDIN and other WP6 participants): WP6-JRA1 intermediate report and associated prototypes

14.3. Work Package activities

JRA1 is led by UEDIN, with large contributions by CNRS, ESA, and INAF, and some contributions by other partners. The three EuroVO-AIDA Joint Research Activities (WPs 6, 7, 8) are strongly interlinked. The evolution of the VO standards is very important for the development of the Virtual Observatory and will continue to require an international agreement for which European organizations can provide a strong input through EuroVO-AIDA.

WP6 activities can be summarized as follows:

- Formulation of requirements and the technical plan. This takes input from other parts of Euro-VO, and formulates a plan which is used by all other parts, especially WP7-JRA2 and WP8-JRA3
- Participation in IVOA Working Groups. This includes co-ordinating our plan with the IVOA roadmap; producing draft standards; attending IVOA meetings and telecons; and reporting of IVOA progress to Euro-VO. Networking with IVOA is part of WP2-4
- Development of software prototypes. Draft standards will be tested by developing and deploying software prototypes which implement those standards (e.g. tools, dataset access). We will also develop recommendations for Euro-VO partners on construction of actual working infrastructure components which are compliant with VO standards

Feedback from Service and Networking activities will be important input for WPs 6-8. For instance, it is expected that the Service activities linked to registry in WP3 will allow intense tests and produce requirements for evolution of the Registry standards.

The key milestones are the Technical Forums (included in WP2-2), which will be prepared with the VO-TECH team for the two first ones, and the IVOA interoperability meetings. In order to prepare IVOA meetings at best, EuroVO-AIDA partners will discuss during the Technology Forum before each IVOA event, to define a European view on targets and priorities.

The reports to be produced will contribute to set the status of interoperability standards.

Partners will take part to the discussions in the different groups of the IVOA (Applications, GWS, Registry, etc.). An immediate zero level priority is the definition of the Table Access Protocol (TAP). EuroVO-AIDA partners' priorities include PLASTIC/SAMP, Theory standards (as follow up in particular of the evaluation done in the frame of the EuroVO-DCA project), Single Sign On, in addition to standards linked to Data Access Layer, Data Models and VO Query, which are tackled by WP7.

Planned travels to IVOA interoperability meetings within WP2-4:

- May 2008: IVOA Interoperability meeting (Trieste)
- November 2008: IVOA Interoperability meeting (Baltimore)
- May 2009: IVOA Interoperability meeting
- November 2009: IVOA Interoperability meeting
- May 2010: IVOA Interoperability meeting

Planned participation in Technical Forums within WP2-2:

- Technical Forum #1: March 2008 (CDS, jointly with VO-TECH Design Study Review and Planning meeting)
- Technical Forum #2: September 2008 (UEDIN, jointly with VO-TECH Final DSRP)
- Technical Forum #3: March 2009 (CDS)
- Technical Forum #4: September 2009 (INAF)
- Technical Forum #5: March 2010 (UHEI)

15. WP7- JRA2 - DATA ACCESS PROTOCOLS AND DATA MODELS

15.1. Work Package Objectives

This Work Package is led by ESA. Its objectives are:

- 1 - Taking into account requirements from the scientific users and the data centres, participate in the IVOA Working Groups for the definition of the IVOA standards and protocols for data access, data description (taking into account in particular data provenance and data quality), and query language, beyond the present initial versions ("simple" protocols)
- 2 - Input will be given to the Data Access Layer, Data Models and VO Query Language IVOA Working Groups, in the frame of WP2-4 activities

15.2. Work Package Deliverables

D7.1 (Month 15: April 2009, ESA and other WP7 participants): WP7-JRA2 intermediate report and associated prototypes

D7.2 (Month 27: April 2010, ESA and other WP7 participants): WP7-JRA2 final report and associated prototypes

15.3. Work Package activities

The idea is to perform R&D studies for Data Access, Data Model and VObs Query Language protocols and standards. WP7 is lead by ESA with contributions from the other WP7 participants, in particular of CNRS for the data modelling aspects, and of CNRS, INAF, INTA and UHEI for theory standards.

In particular that includes:

- Studying the DAL, DM, VOQL standards. Assessing possible technologies to implement these standards
- Participation to the IVOA Working Groups discussions, mail forum, teleconferences
- Participation to writing the standards specifications document of these DAL, DM, VOQL
- Participation to the IVOA Technical forum and meetings to present the findings and implementations of these DAL, DM, VOQL standards
- Writing prototype implementation of these DAL, DM, VOQL standards onto real data holdings from European Data Centres
- If applicable, publish these implementations into the Euro-VO Registry of VObs resources
- Coordinate with EuroVO-AIDA Service Activities for these (prototype) implementations of these DAL, DM, VOQL standards to be consumed by VObs tools (in liaison with WP3 and WP4)

EuroVO-AIDA participation in the IVOA interoperability meetings to present EuroVO-AIDA findings, prototypes and reference implementations of these DAL, DM, VOQL standards is taken into account in the Networking task WP2-4. The co-operation between partners amongst the JRAs is a networking activity undertaken in WP2-2 service activities.

Technology Forums organized within WP2-2 will be important milestones to bring Euro-VO view as one.

Technology Forums organized within WP2-2 will enable discussions amongst the European partners on all these DAL, DM, VOQL aspects with the goal to be able bring the Euro-VO view as one consolidated view to the IVOA discussions. Nonetheless, it is to be noted that although this is the goal, the project recognizes the diversity of the various partners (which makes its strength as well!), which might represent different user communities and therefore having different requirements and ideas. These technology Forums will be the opportunity to expose and understand these various views so that gives us a chance to try to unite them at European level before discussing them at a more worldwide level.

The WP also has a natural link with WP3 service activities in support to Data Centres for the implementation of these prototypes at the European level and for gathering feedback from implementation. As explained earlier on in the WP3 section, lots of interaction will take place between these two WPs.

Work on the DAL, DM and VOQL standards and potential resulting services will be inputs to the definition and the implementation of the curation utilities of the Euro-VO Registry of VObs resources, as well as inputs to the data publishing tools developed at European level. Feedback from the data centres when implementing the DAL, DM and VOQL standards to publish their data holdings into the VObs framework will be used for the evolution of these IVOA standards.

Planned travels to IVOA interoperability meetings within WP2-4:

- May 2008: IVOA Interoperability meeting (Trieste)
- November 2008: IVOA Interoperability meeting (Baltimore)
- May 2009: IVOA Interoperability meeting
- November 2009: IVOA Interoperability meeting
- May 2010: IVOA Interoperability meeting

Planned participation in Technical Forums within WP2-2:

- Technical Forum #1: March 2008 (CDS, jointly with VO-TECH DSRP)
- Technical Forum #2: September 2008 (UEDIN, jointly with VO-TECH DSRP)
- Technical Forum #3: March 2009 (CDS)
- Technical Forum #4: September 2009 (INAF)
- Technical Forum #5: March 2010 (UHEI)

16. WP8 - JRA3 - ASSESSMENT OF EMERGING TECHNOLOGIES

16.1. Work Package Objectives

This Work Package is led by CNRS. Its objective is to assess the potential usage of emerging technologies of interest to the VObs in technical areas where partners are involved.

16.2. Work Package Deliverables

D8.1 (Month 15: April 2009, CNRS and other WP8 participants): WP8-JRA3 intermediate report and associated prototypes

D8.2 (Month 27: April 2010, CNRS and other WP8 participants): WP8-JRA3 final report and associated prototypes

16.3. Work Package activities

The activities undertaken in this WP will be the study, prototyping and evaluation of the usage of:

- Web 2.0 for data centres (CNRS): assessment of technology and of the human cost associated to quality management (moderation, user-account management, etc)
- Semantics and ontologies (INAF and CDS), with applications to the astronomical semantic web and to the definition and usage of an astronomical vocabulary. INAF will work with the CDS on the definition of a vocabulary, on the mapping and on the development of a prototype on Ontology. The results will be discussed at the international level in particular in the IVOA Semantics Working Group (WP2-4)
- Data Mining (UEDIN), with work on both the assessment and implementation of new algorithms, technologies, and packages, and on the technical infrastructure needed in Euro-VO to deliver data mining services to end users

The "Web 2.0" activity is new in Euro-VO. Thanks to VO-TECH, "Semantics and Ontologies" and "Data mining" are already under development and the transition with EuroVO-AIDA is taken into account.

For Ontologies, as a follow-up the VO-TECH activities, the main goal will be to explore the possibilities offered by strongly constrained ontologies with an emphasis on developing software prototypes.

This will include in particular:

- Evaluating the use of instance bases as a semantics-enabled entry point for large collections of astronomical objects
- The automated creation of such instance bases and the ways of guaranteeing their consistency
- Working with partners on linking ontologies between themselves, as well as with various data sources

For Semantics, partners will work with on the definition, structure and use of specific vocabularies to be used in the VO community. This also includes collaboration with the CDS on ontology-generated mappings of astronomical vocabularies.

The data mining work in VO-TECH has concentrated on assessing and implementing existing packages, both astronomical and more general packages, within the VO context. Such assessment will continue in EuroVO-AIDA, but the new focus will be in assessing and prototyping the technical infrastructure needed to deploy such services. This will partly be about the required standards and protocols to describe such services and automate their use by other tools, but also about the grid infrastructure needed for such services to interoperate, and for example to move the code to the data where required.

The Participation to the IVOA Working Groups includes participating to the discussions, meetings and telecons and reporting results and recommendations as IVOA Technical Notes.

Planned travels to IVOA interoperability meetings within WP2-4:

- May 2008: IVOA Interoperability meeting (Trieste)
- November 2008: IVOA Interoperability meeting (Baltimore)
- May 2009: IVOA Interoperability meeting
- November 2009: IVOA Interoperability meeting
- May 2010: IVOA Interoperability meeting


Planned participation in Technical Forums within WP2-2:

- Technical Forum #1: March 2008 (CDS, jointly with VO-TECH DSRP)
- Technical Forum #2: September 2008 (UEDIN, jointly with VO-TECH DSRP)
- Technical Forum #3: March 2009 (CDS)
- Technical Forum #4: September 2009 (INAF)
- Technical Forum #5: March 2010 (UHEI)

17. EFFORT DISTRIBUTION

Activity Type	CNRS	ESA	ESO	INAF	INTA	RUG	UEDIN	UHEI	TOTAL ACTIVITIES
Joint Research (RTD) activities									
WP6	9	6	9	2	2	2	16	4	47
WP7	0	12	9	0	2	4	3	2	29
WP8	12	3	0	7	2	4	6	3	37
Total 'JRAs'	21	21	12	9	6	10	25	9	113
Networking (Coordination) activities									
WP2	25	6	12	12	9	11	12	6	93
Total 'NAs'	25	6	12	12	9	11	12	6	93
Consortium Management activities									
WP1	9 (+9 contr.)	(+2 contr.)	(+2 contr.)	(+2 contr.)	(+2 contr.)	(+2 contr.)	(+2 contr.)	(+2contr.)	9 (+2contr.)
Total 'Management'	9	0	0	0	0	0	0	0	9
Service activities									
WP3	0	9	3	2	3	0	0	3	20
WP4	3	6	3	0	9	4	3	3	43
WP5	9	0	6	12	2	3	0	1	27
Total 'SAs'	12	15	18	14	14	7	3	7	90
TOTAL	67	42	42	35	29	28	40	22	305

18. ESTIMATED BUDGET BREAKDOWN PER WORK PACKAGE

Grant agreement Preparation Forms			
	EUROPEAN COMMISSION 7th Framework Programme on Research, Technological Development and Demonstration	Combination of Collaborative Project and Coordination and Support Action	A3.2: What it costs

<i>Proposal number (1)</i>	212104	<i>Proposal acronym (2)</i>	EuroVO-AIDA
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ONE FORM PER PROJECT

Participant number in this project	Organisation short name	Estimated eligible costs (whole duration of the project)					TOTAL A+B+C+D+E	Total receipts	Requested EC contribution
		RTD (A)	Coordination (B)	Support (C)	Management (D)	Other (E)			
1	CNRS	190.400,00	330.315,20	0,00	100.008,00	113.664,00	734.387,20	0,00	577.370,29
2	ESA	244.475,00	158.877,00	0,00	889,00	178.485,80	582.726,80	0,00	360.445,28
3	ESO	90.000,00	231.576,00	0,00	840,00	138.648,00	461.064,00	0,00	413.476,60
4	INAF	75.600,00	165.440,00	0,00	1.120,00	122.464,00	364.624,00	0,00	290.922,00
5	INTA	55.000,00	116.000,00	0,00	1.000,00	131.373,33	303.373,33	0,00	242.433,33
6	RUG	89.333,33	151.866,67	0,00	1.120,00	62.533,33	304.853,33	0,00	232.214,17
7	UEDIN	251.250,00	170.180,00	0,00	1.000,00	33.190,00	455.620,00	0,00	343.897,50
8	UHEI	110.550,00	107.200,00	0,00	1.000,00	85.983,33	304.733,33	0,00	239.240,83
TOTAL		1.106.608,33	1.431.454,87	0,00	106.977,00	866.341,79	3.511.381,99	0,00	2.700.000,00

ANNEX: ACRONYMS USED

ADASS	Astronomical Data Analysis Software and Systems
AIDA	Astronomical Infrastructure for Data Access
AO	Announcement of Opportunities
AstroGrid	UK VO project
Astro-WISE	Astronomical Wide-field Imaging System for Europe
CA	Consortium Agreement
CDS	Centre de Données astronomiques de Strasbourg
CNRS	Centre National de la Recherche Scientifique
D#	Deliverable number
DAL	Data Access Layer
DCA	Data Centre Alliance
DM	Data Model
DRIVER	Digital Repository Infrastructure Vision for European Research
DS	Design Study
DSA	Data Set Access
DSRP	Design Study Review and Planning
EC	European Commission
ESA	European Space Agency
ESAC	European Space Astronomy Centre, Villafranca del Castillo
ESFRI	European Strategy Forum on Research Infrastructures
EU	European Union
Euro-VO	European Virtual Observatory
EuroVO-AIDA	European Virtual Observatory - Astronomical Infrastructure for Data Access
EuroVO-DCA	Euro-VO Data Centre Alliance (EC Funded, FP6 eInfrastructure Communication Network Development, 2006-2008)
FP	Framework Program
GWS	Gravitational WaveS
HOU	Hands-On Universe
INAF	Istituto Nazionale di Astrofisica
INTA	Instituto Nacional de Técnica Aeroespacial
IST	Internal Science Team
IVOA	International Virtual Observatory Alliance
JRA	Joint Research Activity
LBT	Large Binocular Telescope
LOFAR	LOW Frequency ARray

M#	Milestone number
METAFOR	Common METAdata FOR Climate Modeling Digital Repositories
MEX	Metadata EXtraction
PLASTIC	PLatform for Astronomical Tool InterConnection
PM	Project Manager
R&D	Research & Development
RUG	Rijksuniversiteit Groningen
SA	Service Activity
SAADA	Automatic Archival System for Astronomical Data
SAC	Science Advisory Committee
SAMP	Simple Application Messaging Protocol
TAP	Table Access Protocol
UEDIN	University of Edinburgh
UHEI	University of HEIdelberg
UK	United Kingdom
UKIDSS	UKIRT Infrared Deep Sky Survey
VObs or VO	Virtual Observatory
VOFC	Euro-VO Facility Centre
VOQL	Virtual Observatory Query Language
VOTC	Euro-VO Technology Centre
VO-TECH	Virtual Observatory Technology (EC-funded project, FP6, Infrastructure Design Study, 2005-2008)
WG	Working Group
WP	Work Package
WPMT	Work Package Management Team