

DIP Project Participants



DERI, NUI, Galway



Innsbruck University



EPFL



Changing the rules of business

ILOG



SAP AG



FZI Karlsruhe



BT



The Open University

The Open University



VRIJE UNIVERSITEIT
BRUSSEL

Vrije
Universiteit
Brussel



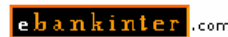
inubit



ISOCO



Unicorn



Bankinter



Essex County Council



Berlecon



Onto text



Inubit

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<http://dip.semanticweb.org>

▶ **DIP**

Data, Information, and Process
Integration with Semantic Web
Services



Data, Information and Process Integration
with Semantic Web Services

dip.semanticweb.org





The DIP Project

With current web technology the computer is used as a device for rendering information for the human reader only. Providing actual support in information processing and information exchange requires machine-processable semantics of data and information. This is precisely the goal of the **Semantic Web**. Based on ontologies, the computer will be enabled as a device for querying and managing semi-structured information. Recent complementary efforts are meant to lift the web to a new level of service based on integrating it with *computational aspects*. Software programs can be accessed and executed via the web using **Web Services**, which can significantly increase the Web architecture's potential by providing a way for automated program communication, discovery of services, etc.

The mission of **DIP** is to further develop Semantic Web and Web Services and to enable their combination. Web Services are the proper means to access semantically enriched data. Semantic enrichment of Web Services is essential for scalability and maturity in the world of complex enterprise applications called **Semantic Web Services**. Semantic Web Service technology will allow structural and semantic definitions of documents providing completely new possibilities in knowledge management, Enterprise Application Integration, and eCommerce. Semantic Web Services will provide a *new infrastructure* for eWork and eCommerce based on their ability to provide *semantic* processing of data, information, and processes. DIP will develop this technology and will focus on applications in **eWork** and **eCommerce** including sub topics such as Knowledge Management, Enterprise Application Integration, eBanking, Virtual Internet Service Providers and eGovernment.



The Project DIP

DIP's mission is to make Semantic Web Services a reality, providing an infrastructure that will revolutionize data and process integration in eWork, and eCommerce as the Web did for human information access.

Main Results of DIP

Standard proposal through SWSI, W3C and OASIS. Through the already existing Semantic Web Services Initiative (SWSI) standards proposals in the area of Semantic Web Services will be produced and submitted to major standards organizations like W3C and OASIS. DIP will generate major inputs to the work of SWSI through continuous participation and in this way the results of DIP will have maximum impact .

Open source Semantic Web Services Architecture. One of the key deliverables of DIP will be a WSMO / WSMX based open source Semantic Web Service Architecture that is made public on a world-wide basis. The goal of the WSMO / WSMX based open source approach is to make the architecture easily available for other organizations (research as well as industrial). Through this approach a fast uptake of the work of DIP will be achieved.

Exploitable tools. Since tools are implemented that realize part of the overall architecture they become exploitable for the partners of DIP on a large scale. This approach ensures that real impact can take place and in combination with the open source architecture these tools will be in great demand by many organizations.

The DIP Consortium

DIP as a consortium consists of 17 partners divided into:

- Core partners who are leading universities and industrial companies
- Associated research partners who have expertise in specific technology areas
- Associated tool developing partners who are very experienced in tool construction
- Associated case study partners who provide real world domain expertise
- Associated horizontal support partners who have a variety of skills applicable to all areas of this work

DERI Involvement in DIP

- Ontology reasoning and querying
- Ontology management
- Service ontologies and service description
- Service discovery, invocation, execution, composition and mediation
- Technology watch and standardization
- SWS architecture