

Proposal Summary

Proposal full title:	Intelligent Framework for Generating Open (Adaptable) Development Platforms for Web-Service Enabled Applications Using Semantic Web Technologies, Distributed Decision Support Units and Multi-Agent-Systems
Proposal acronym:	INFRAWEBBS
IST Strategic Objective:	2.3.2.3 Open development Platforms for software and services

The primary project objective is to develop an **ICT framework**, which enables software and service providers to generate and establish open and extensible development platforms for WEB-Service applications. Generated in this way, the open platform consists of coupled and linked **INFRAWEBBS units**, whereby each unit provides tools and adaptable system components to analyse, design and maintain WEB-Services realised as Semantic-Web-Services (SW services) within the whole life cycle.

In the first step the INFRAWEBBS units will be used to establish an open development and collaboration platform for SMEs and strong industrial suppliers for software and services. This offers a new dimension of collaborative work and service production, service provision and service maintenance in run-time environments.

The challenges, and main objectives for INFRAWEBBS are to develop a framework to:

- (i) provide a comfortable and “easy to use” knowledge brokering unit,
- (ii) used within a collaborative workflow environment for analysis, design and composition of SW services
- (iii) supplemented with security and privacy preserving run-time and maintenance tools

These objectives will be achieved by developing software components consisting of:

- (i) an **ontology** and **similarity** based **organizational memory** and tools for extracting and retrieving specific knowledge and information for SW services, and
- (ii) a **P2P** agent-based **interoperability** environment (Distributed SW service repositories) for CBR based design and composition of SW services (CASE-tool), and
- (iii) a **run-time** module **for supervision** (Executor, QoS-Broker) and **maintenance** considering security and privacy aspects

The relevance to the specific programme and work programme is given as the answer to the European demands for interoperable middleware and tools to support the developers in the production of distributed user services with added value.