

Why ORCHESTRA?

Risk management activities involve a range of different organisations at various administrative levels with their own systems and services. However, the sharing of relevant information that is required for dealing with risks is often limited to a mere raw data exchange. Thus, true efficiency, in most cases, is hindered by administrative and legal boundaries as well as a lack of interoperability on the technical side. Furthermore, the application of numerous and different policies, procedures, data standards and systems, results in co-ordination problems with respect to data analysis, information delivery and resource management, all critical elements of risk management.

ORCHESTRA comprises two main goals:

- The first one is the design and development of a reference model for an open architecture for risk management services, based on de-facto and de-iure standards.
- The second goal is to develop the necessary services in order to demonstrate the usefulness of our approach in pilots that address the actual needs of end users and - in general - all the stakeholders involved in risk management activities in real-world scenarios.

In addition, emerging specifications out of the INSPIRE and GMES initiatives will be incorporated. Software adhering to the ORCHESTRA architecture will be able to interoperate, to a certain extent even at a semantic level, and organisations will be able to cooperate much more efficiently than it is currently possible.

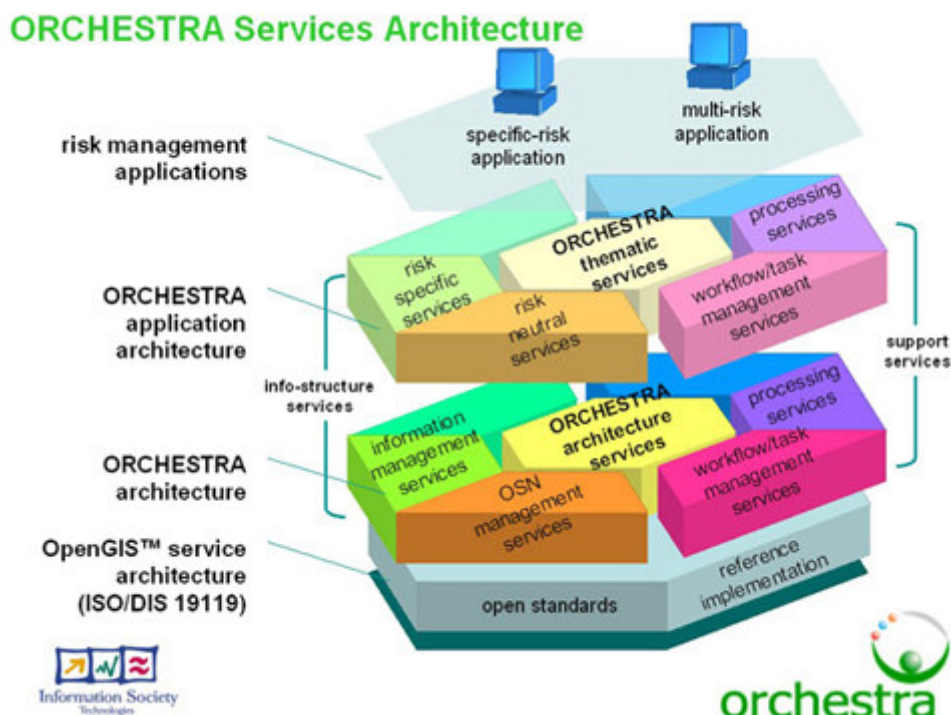
More specific goals of ORCHESTRA are:

- To design an open service-oriented architecture for risk management
- To develop the software infrastructure for enabling risk management services
- To deliver an infrastructure integrating spatial and non-spatial services for risk management
- To validate the ORCHESTRA results in a multi-risk scenario
- To provide software standards for risk management applications

ORCHESTRA started on **01/09/2004** and is a three-year project.

The ORCHESTRA approach

The following diagram depicts the ORCHESTRA approach to risk management services:



Status and latest achievements of ORCHESTRA

ORCHESTRA is organised in 5 Sub-Projects (SPs), namely:

- SP1: Management, Dissemination and Exploitation
- SP2: User Requirements and Policy Watch
- SP3: Open Architecture for Risk Management
- SP4: Risk Management Services
- SP5: Community Building and Training

During the first year of the project, work has concentrated mainly on SP1, SP2 and SP3. In SP1 activity has focused on the legal, financial and administrative tasks, the cooperation with external projects (like OASIS and WIN) and initiatives, and the monitoring and planning of the whole project. In SP2, the work has centred in the elaboration of user requirements and the work on risk domain ontologies. SP3 has been focused on the design and development of the RM-OA (Reference Model - ORCHESTRA Architecture). SP4 has just been kicked-off at the end of September 2005, although preparatory work for pilot selection has been carried out during the summer. SP5 has centred its activity in setting the learning environment and establishing relevant contacts outside the consortium.

As regards the main results, they have been:

- User requirements for the harmonised risk management platform and end-user applications, taking into account the additional constraints derived from any new and emerging policies in the area of risk management.
- The knowledge model, comprising the definition and development of formal ontologies to represent both the content and the decision making processes carried out by users in risk management applications.
- The draft architecture, whose the design includes **a)** the clear definition its layers, **b)** the definition of required components like registries, catalogues, information and processing services, collaboration components, etc., **c)** a concept for a systematic approach for the integration of spatial and non-spatial information, **d)** the management view of the overall system, **e)** the most important interfaces at the conception level.
- The meta-information model, necessary in order to have a clear understanding about how meta-information (modelled through ontologies) will be implemented and incorporated in the architecture.
- The criteria for pilot selection, a detailed analysis which defines and describes all necessary elements for the selection of the future ORCHESTRA pilots.
- The learning environment, created by the integration of existing platforms of ATOS and ETHZ.
- The enabling processes and tools, such as quality assurance processes and tools, methodology and tools for traceability of requirements among sub-projects, reporting templates and processes, dissemination and exploitation methodologies and tools, etc.

What's next?

The ORCHESTRA consortium is determined to make an impact on the risk management domain. We are confident that the adoption of the ORCHESTRA approach will enable all involved stakeholders co-operate more efficiently in risk and crisis management situations.

At the same time, and in spite of the effort required to launch such an ambitious project, the first year of ORCHESTRA has seen the production of important interim results, as listed in the previous section.

For these reasons, we are currently refining our workplan, in order to continue the activities of ORCHESTRA with the end users and their needs as main drivers. Social, commercial and technical objectives are thus completely aligned in order to achieve the maximum impact of ORCHESTRA results.

The expected results in the next phases of the project are:

- The selection and deployment of pilots for multi-risk management.
- The finalisation of the specific ontologies for the selected pilots.
- The final version of the architecture.
- The development of services for the pilots, based on the architecture and requirements
- The population of the learning environment with content from the project, and subsequent training of users and the industry.
- The final market analysis and exploitation plan.
- The provision of input to relevant standardisation bodies.
- The commercial deployment of the ORCHESTRA architecture and services.

Do you want to know more about ORCHESTRA?

If you want to know more about ORCHESTRA, please check the project website:

www.eu-orchestra.org

There you will find information about the project objectives and status, links to relevant initiatives, a list of the events attended or planned (with presentations), and the contact data for the partners in the consortium.

You may also contact the project co-ordinator:

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