

## Uniform interface to Grid services

# UniGridS

The existing UNICORE Grid middleware is based on software initially developed in the German UNICORE and UNICORE Plus projects and extended in the EU-funded EUROGRID and GRIP projects. It is interoperable with Globus Toolkit 2 and supports challenging scientific and industrial applications and complex workflows in production environments that span multiple independent organisations. The UniGridS project will extend UNICORE towards a Grid services infrastructure that is compliant with the open **Grid services architecture (OGSA)**. **Additional features for industrial and business applications will be provided** while UNICORE's unique strengths will be retained.

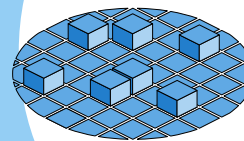
The guiding principle of the project will be both to adopt and to influence standards in key project areas. Key features of the UniGridS environment will be:

- additional generic software components for visualisation and steering of simulations, remote device monitoring and control will be developed to broaden the applicability of Grid computing to new scientific and technological areas;
- access to distributed data and databases will be integrated from previous European Grid projects;
- a framework for quality of service and service level agreements will be designed to meet the requirements of industrial and business communities;
- dynamic virtual organisations will be supported by enhancing the UNICORE security infrastructure to allow different usage models such as delegation and collective authentication;
- UniGridS will develop translation mechanisms, such as resource ontologies, to interoperate with other OGSA compliant systems;
- UniGridS will target Grid economics by developing an SLA framework and cross-Grid brokering services.

The project developments will be proved in **scientific and industrial domains**, namely biomolecular and computational biology, geophysical depth imaging by oil companies, and automotive, risk management, energy and aerospace.

The UniGridS project will **cooperate** with other European projects, particularly integrated projects in FP6. It will make its results available to them on a timely basis and solicit their requirements to influence the software development process. The partners in the UniGridS project have proven competencies to produce top quality open source middleware and to create added value for scientific and industrial application domains. To stimulate broader **take-up** and increase the project's **impact**, support for the evolving UNICORE middleware will be offered for research and academia during and beyond the duration of the project. A **commercial service offering** for research and industry is being planned.

*continued overleaf* ▶



# UniGrids

**Contract number**  
004279

**Type of project**  
Specific Targeted Research Project

**Project coordinator**  
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**Project website**  
<http://www.unigrids.org>

**Maximum Community contribution to project**  
EUR1 916 162

**Project start date**  
1 September 2004

**Duration**  
24 months



**Project partners***Organisation name and country*

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CONSORZIO INTERUNIVERSITARIO PER LA GESTIONE DEL CENTRO DI CALCOLO ELETTRONICO DELL'ITALIA NORD-ORIENTALE	IT
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