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CoreGRID: European Research Network on Foundations, Software Infrastructures and Applications for large scale distributed, GRID and Peer-to-Peer Technologies

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Administrative & Financial Coordinator

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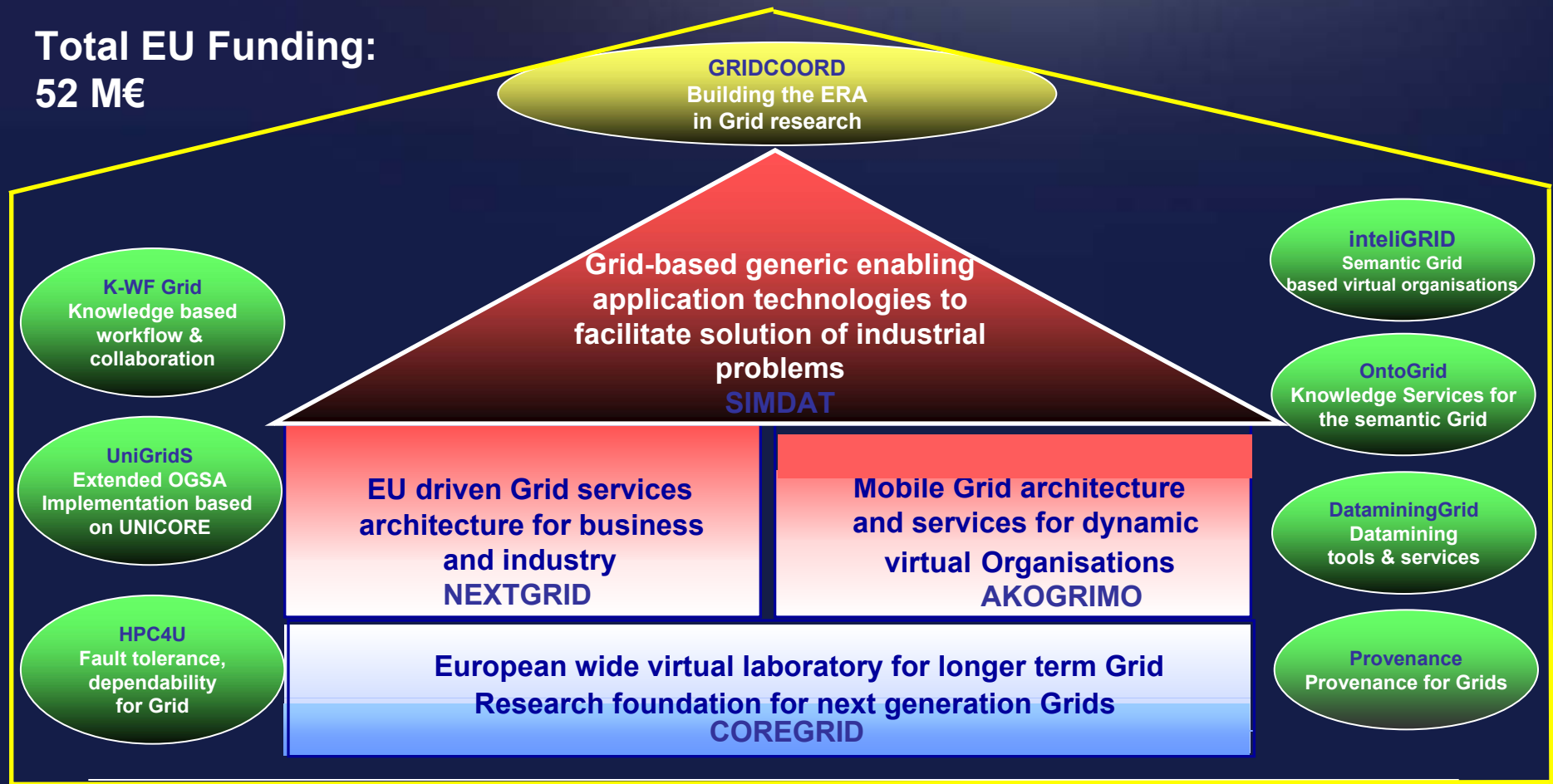
Scientific Coordinator

INRIA

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New Grid Research Projects (FP6) 2002-2006

Total EU Funding:
52 M€



The concept of Network of Excellence within FP6

- The aim of NoEs is to create very significant, long lasting integration – the creation of ‘Virtual Research Institutes’
- To overcome the fragmentation of EU research by fostering long-term integration of research programmes and capabilities of the participants, creating a world-class scientific resource
- Participants will require:
 - Commitment to integration of capabilities and resources
 - Capability to contribute to a joint research programme
 - Autonomy to re-align their research agenda with the NoE
- Important keywords: **INTEGRATION / SUSTAINABILITY**

CoreGRID objectives

To build a European-wide research laboratory

- To avoid fragmentation of Grid research activities in Europe
- Create the European “Grid Lighthouse” and be seen as such worldwide
- To achieve integration and sustainability

To build solid foundations for GRID and Peer-to-Peer (P2P) technologies

- Both on a methodological basis and a technological basis.
- Support medium and long term research activities

Achieve and promote scientific and technological excellence within & beyond the Grid research community

Gather and disseminate European research

A think-tank for spin-off projects

- EC funded, bilateral projects, international cooperations, ...

CoreGRID membership

42 partners
 18 Countries (1 from S. America)
 120 Researchers
 165 PhD Students

 Budget : 8.2 M€



Joint Program of Activities

Sergei Gorlatch

Pierre Guisset



Joint Programme of Activities

Integrated Activities

Jointly Executed Research

Spreading of Excellence

Coordinated Programming of Partners' activities

Domenico Talia



Knowledge & Data Management

Public Website

Coordinated approach to prepare project proposals

Marco Danelutto



Programming Model

Technical reports

Internal Collaboration and Dissemination

Artur Andrzejak



System Architecture

Workshops & conferences

Annual Integration Workshop

Ludek Matyska



Grid Information and Monitoring Service

Industry

Common Understanding Trust & Security

Ramin Yahyapour



Resource Management And Scheduling

GRID User community

Grid Testbed

Vladimir Getov



PSE, tools and GRID systems

Newsletter

Mobility of researchers

Conferences

Brochures

Training & Education

Collaboration with other EU Grid projects

Wolfgang Ziegler



Collaboration Gateway

Exploitation of synergies /
technical concertation

Joint fora for exchange
and dissemination

Co-ordination of
standardisation efforts

Repository of reference
Implementations and Grid
middleware

Collaboration on research
Inventories and roadmaps

Indicators and impact
assessment

Training activities

CoreGRID is participating to
the Collaboration Gateway
and leads two activities :

- Roadmaps
- Trainings



A set of well identified research challenges

Knowledge & Data Management

- Handling information/data that are required/produced by a wide range of diverse processing power

Programming Model

- Making the programming of Grid infrastructures as simple and transparent as possible

System Architecture

- Designing the next generation Grid middleware

Grid Information and Monitoring Services

- Scalable information service to implement a service view of the Grid

Resource Management & Scheduling

- Scheduling jobs/applications/tasks/computation within a Grid environment

Problem Solving Environments, tools and GRID systems

- Integrating various middleware, tools and applications for problem solving

Scientific Advisory Board

Industrial Advisory Board

Specific Task Forces

Members
General
Assembly



Chair:
D. Laforenza
(CNR-ISTI)

Integration Monitoring Committee

Chair: R. Perrott (U. Belfast)



Administrative &
Financial Co-ordinator

B. Le Dantec (ERCIM)



Scientific
Co-ordinator

T. Priol (INRIA)



Executive
Committee

Spreading Excellence

P. Guisset (CETIC)



Integrated Activities

S. Gorlatch (U. Munster)



CoreGRID
Institutes

Knowledge &
Data Management

D. Talia (U. Calabria)



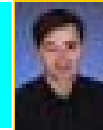
System
Architecture

A. Andrzejak (ZIB)



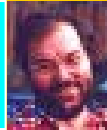
Scheduling

R. Yahyapour
(U. Dortmund)



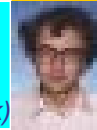
Programming
Model

M. Danelutto (U. Pisa)



Grid Information
& Monitoring

L. Matyska (U. Masaryk)



PSE, tools and
GRID systems

V. Getov (U. Wesminster)



Collaboration Gateway

W. Ziegler (FhG)



Industrial Advisory Board (IAB)

IAB has four primary objectives:

- To communicate to the Network European Industry's long-term Grid-related technology needs and challenges
- To provide the Network with Grid validation cases
- To help identify the market sector(s) to be addressed within the Grid User Community, in order to ensure a quick adoption of next generation Grid technologies within European industry
- To report to the Scientific Advisory Board its recommendation with respect to future strategic GRID-related research objectives

IAB is composed of 15 members from the European industrial sector

ALGOSYSTEMS SA, ATOS ORIGIN, DATAMAT, EADS CCR, ERICSSON, EUROPEAN MICROSOFT INNOVATION CENTER, FUJITSU SIEMENS COMPUTERS, HITACHI EUROPE SAS, IBM GRID COMPUTING, LMS – NOESIS, NOKIA RESEARCH CENTER, ORACLE, SAMTECH - OPEN ENGINEERING, SAP RESEARCH CENTER, SUN MICROSYSTEMS.

CoreGRID progress meeting (April 28th, 2005) *Main conclusions and recommendations*

Recommendation #5

“ The consortium should define a strategy, set targets and promote opportunities for financial involvement of industrial stakeholders into the Network activities. The attraction of and leverage on private investments is considered key to complement public funding sources and assure the continuation of the Network beyond the duration of the project. ”

European commission