EUMEDGRID-Support & EUMEDCONNECT2 Projects

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e-IRG Workshop
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EUMEDGrid Support Project ID:246589

Outline

- eInfrastructures introduction
- EUMEDCONNECT2 (David West)
- EUMEDGRID-Support
  - Project data & Partners
  - Objectives & strategies
  - Main activities planned
  - Next events
- Conclusions

The eInfrastructures pile

- The creation of the eInfrastructure is a key objective of the **European Research Area**

- The top level is made up by Data Repositories, User Applications and Virtual Communities exploiting the **electronic science (eScience)**

- The Research **Grid infrastructure** provides a distributed environment for sharing computing power, storage, instruments and databases through the appropriate software (middleware) in order to solve complex application problems
  - EGEE/EGI, **EUMEDGRID-Support** etc.

- The Research **Network infrastructure** provides fast interconnection and advanced services among Research and Education institutes of different countries'
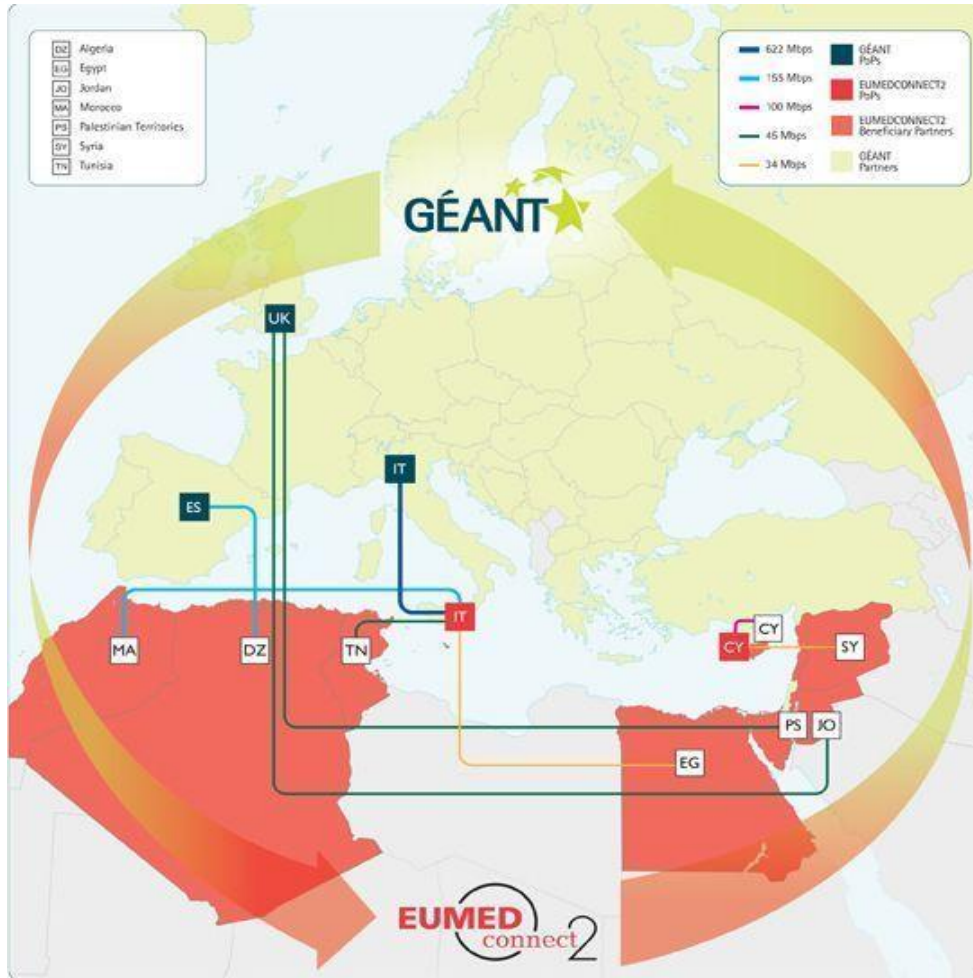 - GEANT3, **EUMEDCONNECT2**, etc.

e-Science Collaborations

Grid Infrastructure

Network Infrastructure

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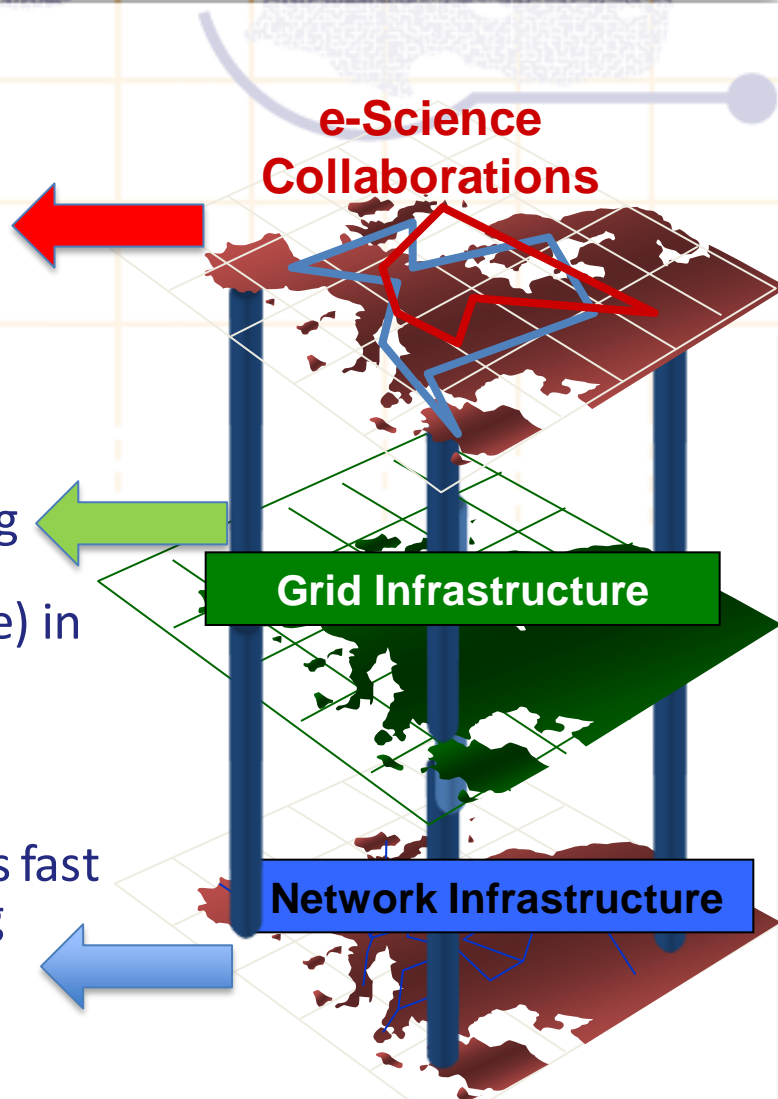
EUMEDCONNECT2 Update

David West, DANTE

Network Update

Connects:

- 7 MED countries
- 700 academic and research sites
- 2m + users

- Still 34 – 155 Mbps capacities

- Telco markets are still largely uncompetitive

- EUMEDCONNECT provides the only R&E links to GEANT

Network Usage

- Circuits well used

- EUMEDGRID applications

- Wide range of FP6/FP7 projects

- LHC analysis in Morocco

- E-health and environmental programmes increasing

- LinkSCEEM2 requires connectivity between Cyprus supercomputing and SESAME

EUMEDCONNECT – essential EC support

- EUMEDCONNECT 2004 – 2007
  - EC funding 10M Euro, 80% share of costs

- EUMEDCONNECT2 Q3 2008 – Q1 2011
  - EC funding 4M Euro, 54% share of costs

- No EUMDCONNECT3 support yet confirmed (DG RELEX/AIDCO decision due July 2010)
  - EC funding needed 2011 – 2014, around 6M Euro, 30 – 40 % share of costs

Rataionale for further EC funding

- No alternative R&E connectivity to connect MED and EU users

- Growing number of user projects depend on EUMEDCONNECT

- Finally moves underway to develop regional self-sufficiency:
  - Formation of Arab States Research and Education Network (ASREN) just announced: best chance for sustainability
  - Moves to extend regional connectivity to other countries in the region, including the Gulf
  - EC funding needed to support transition to ASREN

- E-IRG support for further EC funding welcome!

The Research and Education Network
for the Mediterranean

Globalisation of Grid Infrastructures

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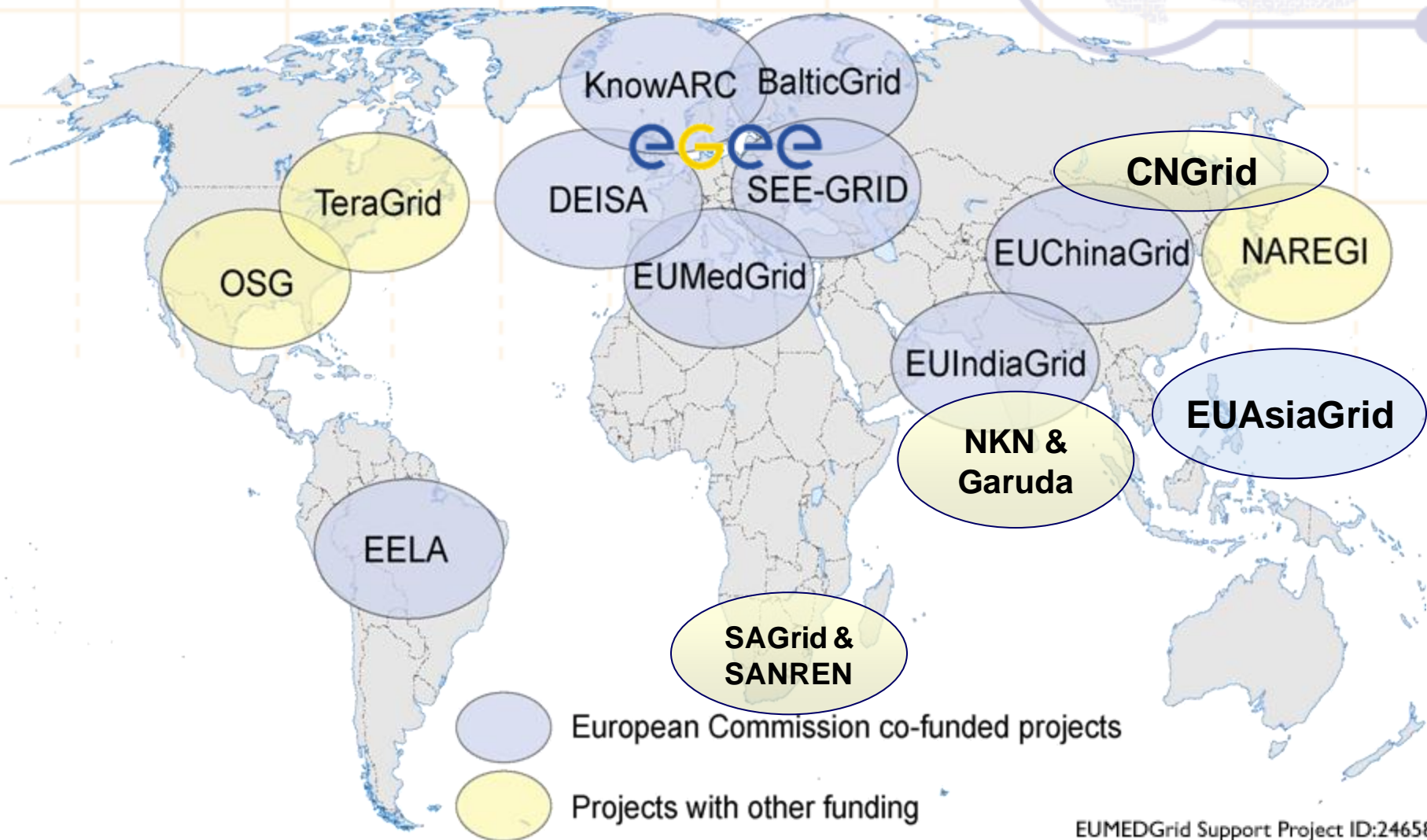
Project Status

- Support Action co-funded by European Commission under: Capacities specific program - Research Infrastructures - FP7-INFRASTRUCTURES-2009-1

- Project ID 246589

- Duration: 24 months

- Start: 1st January 2010

- Budget (EU contribution): 740 k€

- Budget (Total): 867 k€

Project Partners

EUMEDGrid Support

14 Partners + 2 Third Parties from 13 Countries

[Partners & Third Parties]

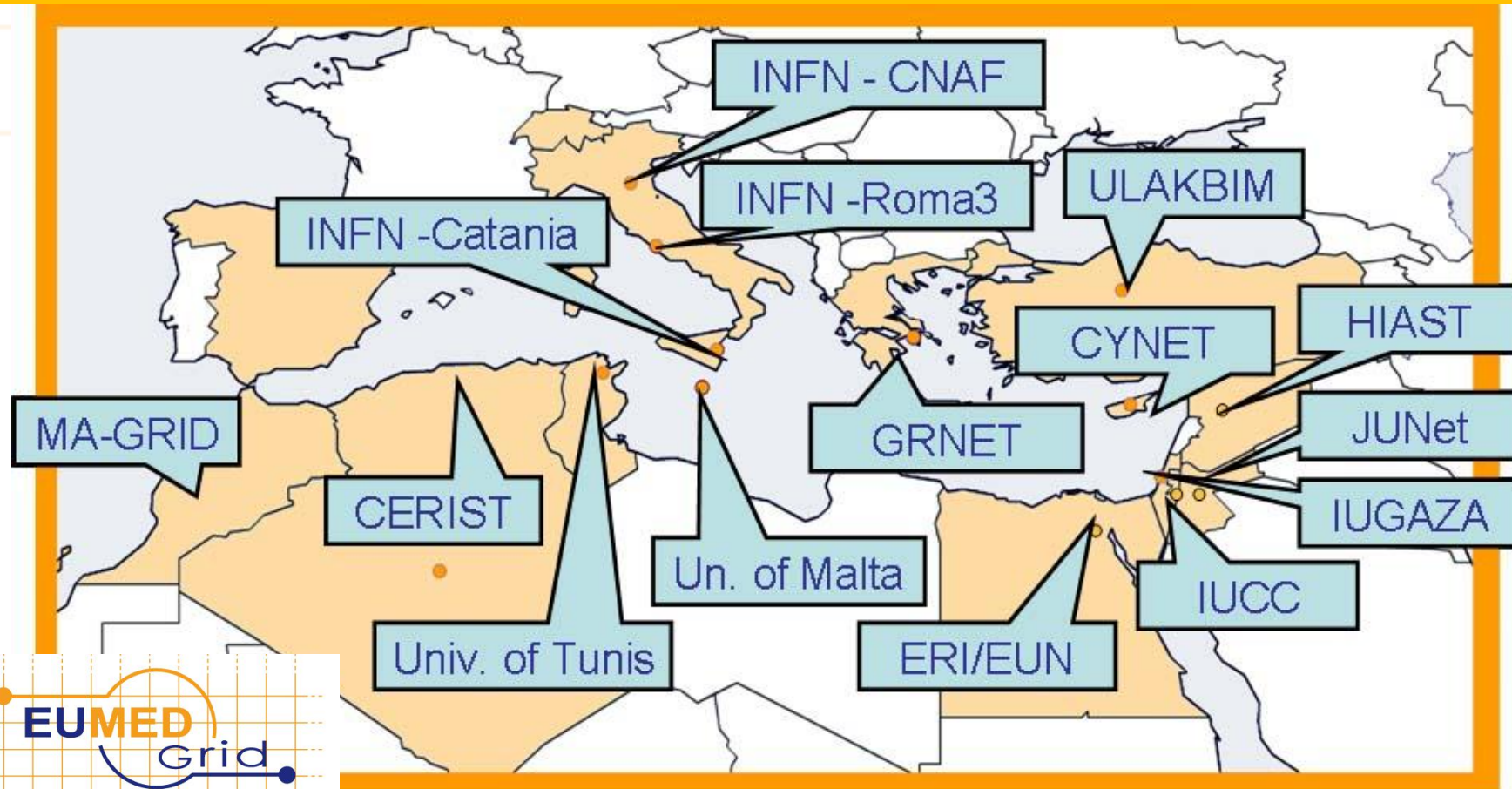|				
			🇮🇹	INFN, GARR, COMETA
🇹🇳 CCK		🇨🇾 CYNET		IUGAZA
🇩🇿 CERIST		🇪🇬 EUN		TÜBİTAK, ULAKBIM
🇫🇷 CNRS-IDG HealthGrid		🇯🇴 JUNET		🇬🇧 TRUST-IT
🇲🇦 CNRST		🇸🇾 HIAST		🇲🇹 University of Malta

The EUMEDGRID e-Infrastructure

March 2008: 25 EUMEDGRID sites deployed in 13 countries, for a total of 1800 connected Servers and about 84 TBs of storage capacity
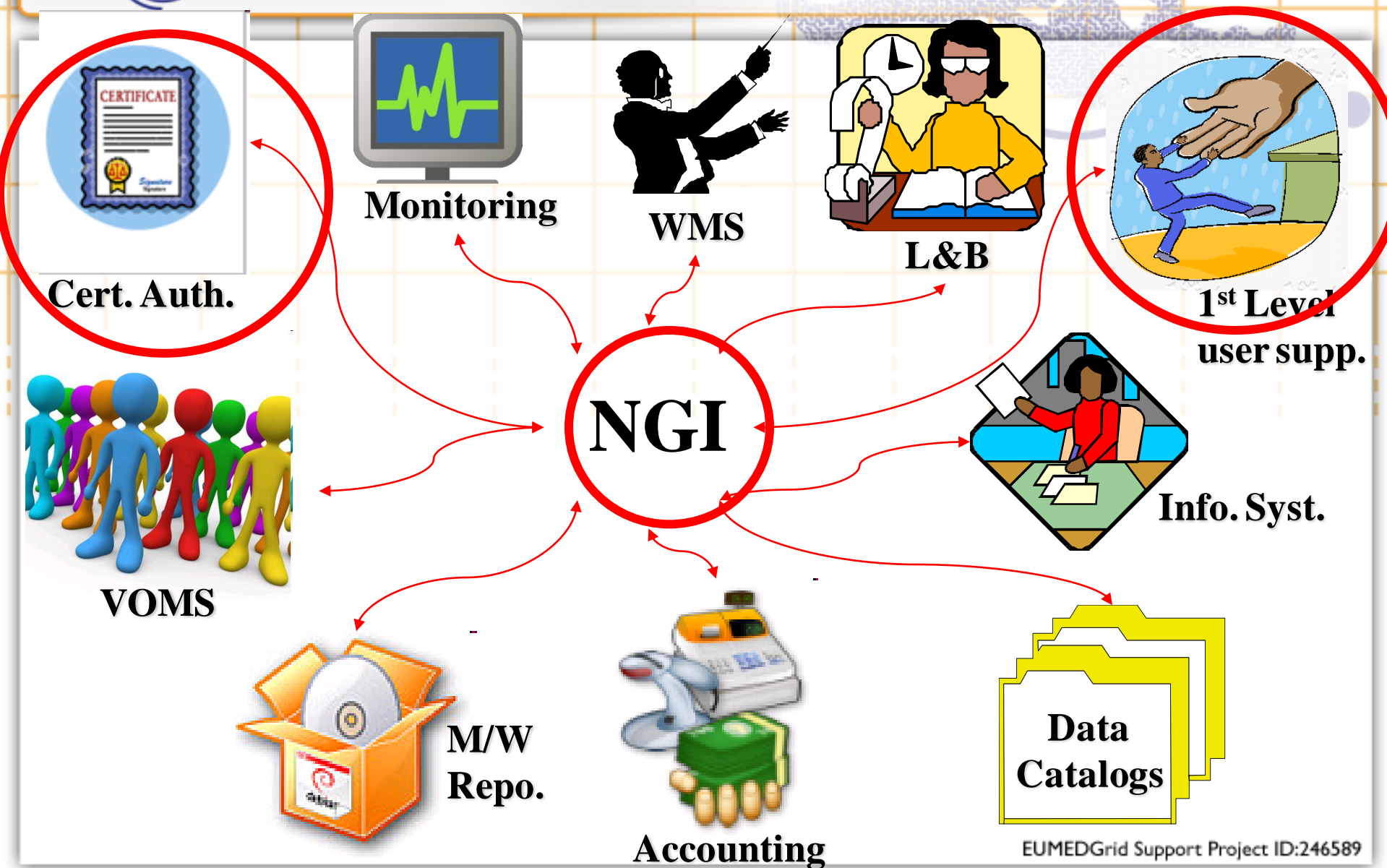
Objectives & Strategic Lines

- Support the consolidation and expansion of the EUMEDGRID Infrastructure with a special emphasis on sustainability.

- Top-Down approach:
  – High Level Policy Dissemination
  – Involve institutions and ministries to include eInfrastructures in the political agenda

- Bottom-Up approach:
  – Create a Two Levels network of Competence Centres
  – Involve new user communities
  – Strongly cooperate with other projects and initiatives relevant for the Mediterranean
  – Create critical mass to exploit the available resources and build consensus.
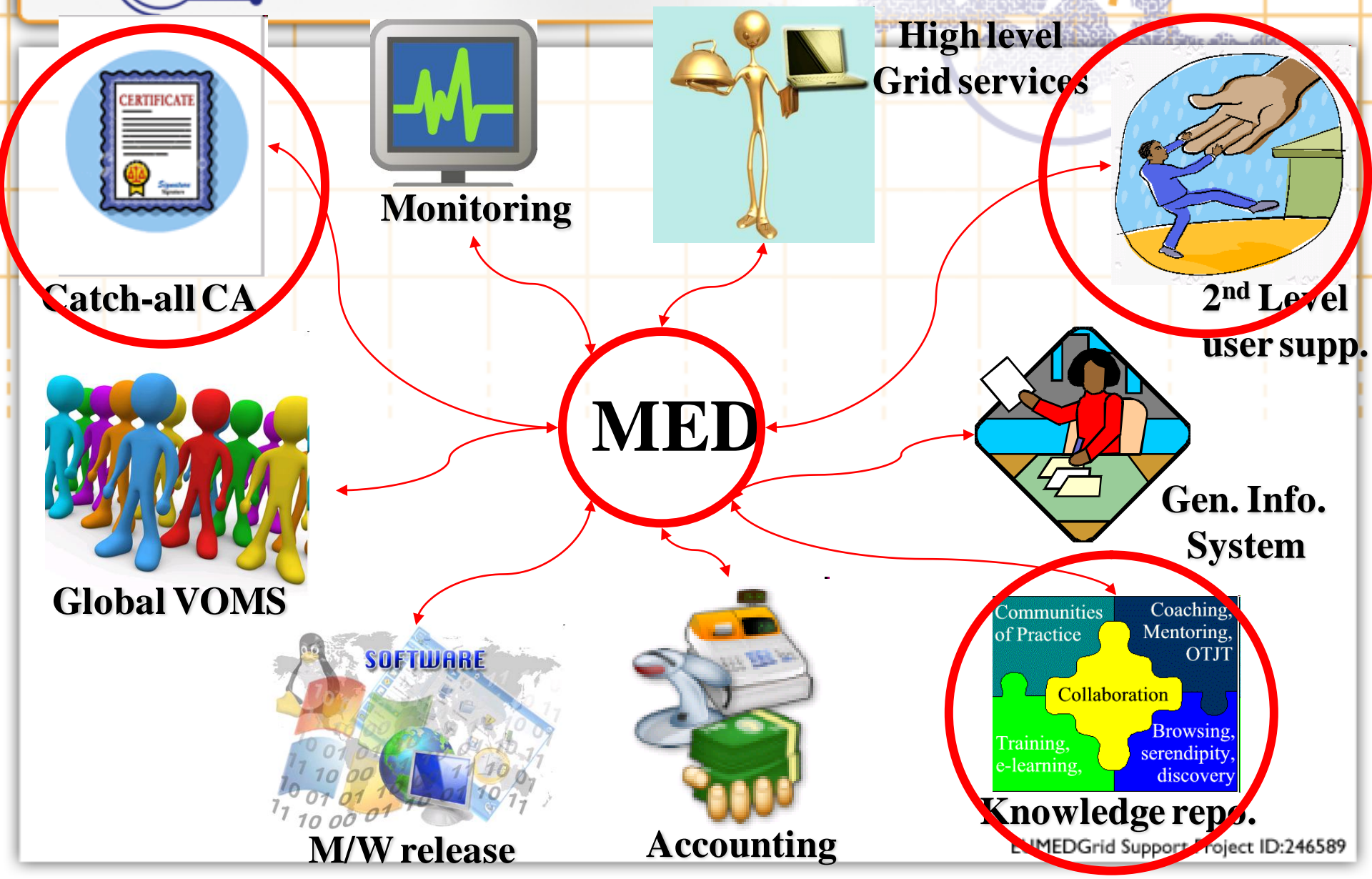
User Support and ROC

- User support will be provided by a 2 levels support structure:
  - First level, local support to users
  - Second level centralized support
- Extensive training will be provided to site administrators
  - Enabling new resources for local support
- An EUMED/African Regional Operation Centre (ROC) will spin off during the project
- Initial support and training on ROC procedures and tools provided by the IGI ROC (Italian Grid Infrastructure)

Consolidating NGIs

EUMEDGrid Support

- Cert. Auth.
- Monitoring
- WMS
- L&B
- 1st Level user supp.
- VOMS
- NGI
- Info. Syst.
- M/W Repo.
- Accounting
- Data Catalogs

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Consolidating the Regional Infrastructure

Catch-all CA

Monitoring

High level Grid services

2ⁿᵈ Level user supp.

MED

Global VOMS

Gen. Info. System

M/W release

Accounting

Knowledge repo.

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Not mature / under development **S1**

ready for standalone use **S2**

GILDA test-bed
EPIKH schools

S3 ready for gLite

EUMED Infrastructure

EUMED APPS support team

S4 ready for testing

S5 deployed / in production

New application

on-line Survey

EUMED web site

EPIKH calls for apps.

gLite

High Level Policy Dissemination

- 3rd EUMED Event in Brussels 31st March 2010

- Organised in cooperation with EUMEDCONNECT2 and GEANT3.

- Participation of stakeholders and policy makers of the Mediterranean Countries.

- Dr. Talal Abu-Ghazaleh, Chair of the Global Alliance for ICT and Development (GAID) of the United Nations announced the launch of the Arab States Research and Education Network (ASREN)

- Next one in 2011

EU-MED EVENT 3   30-31 March 2010

Events

- Workshops targeting relevant scientific domains.
    - Rome 25-27 October 2010 - "Environmental Radioactivity: New Frontiers and Developments"
    - Lebanon Universite Saint-Joseph in Beyrouth May/June 2011 – "Health and Physics"
    - ICTP Trieste November 2011 – "Climate Change" (in cooperation with EU-IndiaGrid2).
    - And others…
- Grid schools in cooperation with the EPIKH project (applications can be submitted at www.epikh.eu):
    - Algiers – 28 June – 15 July 2010
    - Cairo – October November 2010

Cooperation

For further information

Visit:

www.eumedgrid.eu

Contact:

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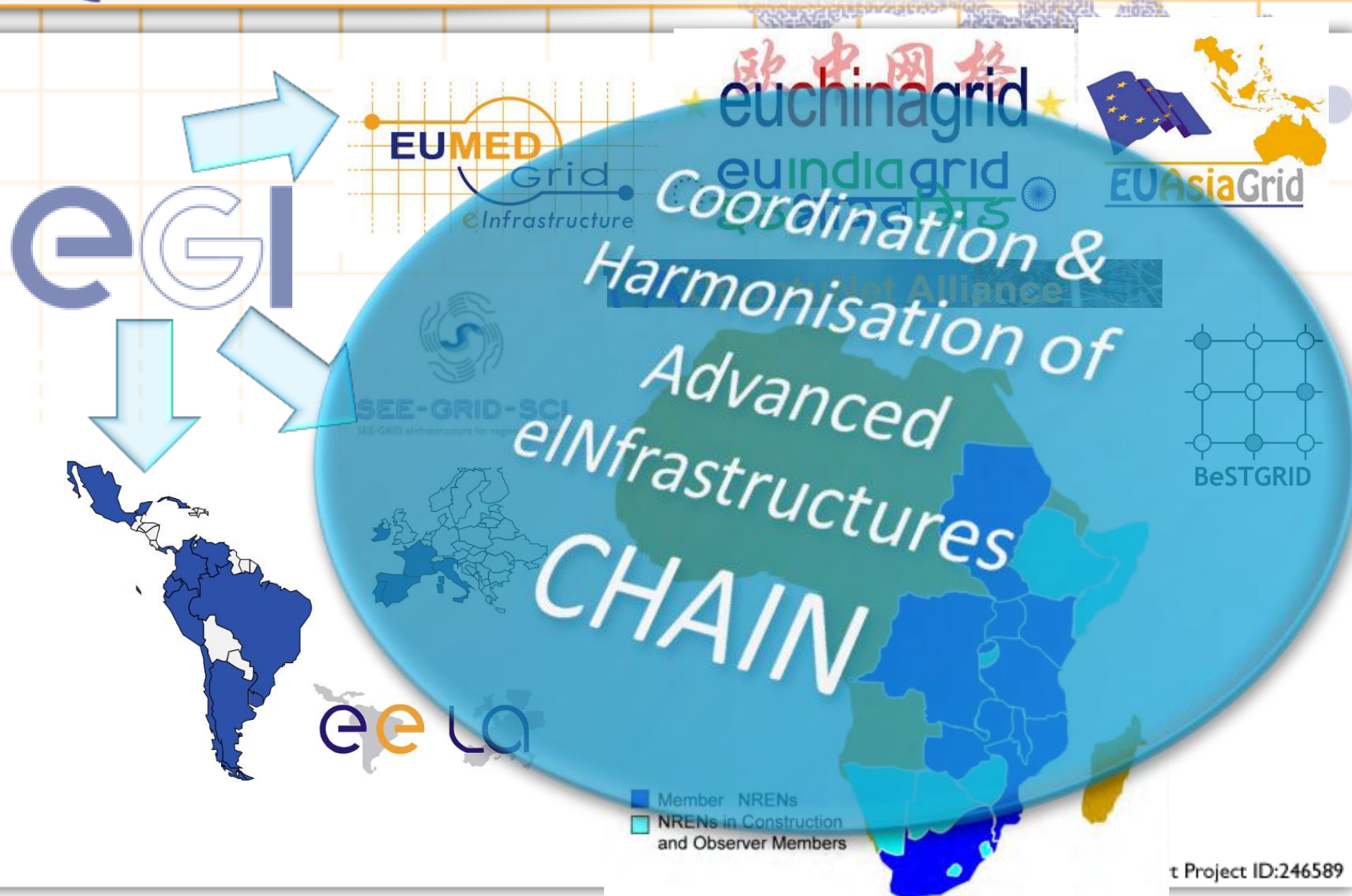Federico.Ruggieri@roma3.infn.it

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A new project

CHAIN Objectives

- Define a strategy and a model for external collaboration, in close collaboration with EGI.org, which will enable operational and organisation interfacing of EGI and external eInfrastructures.

- Validate this model, as a proof-of-principle, by supporting the extension and consolidation of worldwide Virtual Research Communities.

- Explore and propose concrete steps forward towards the coordination with other projects and initiatives (e.g. EGI.eu, EUMEDGRID-Support, EUIndiaGrid2, LinkSCEEM, National Knowledge Network, CNGrid, etc.).

Status & Partners

- Support Action (FP7-RI 260011)
- Start Date: 1 December 2010
- EC contribution of 1.1 M€ on a total cost of 1.9 M€
- Partners:
    - INFN (Italy - Coordinator)
    - CIEMAT (Spain)
    - GRNET (Greece)
    - CESNET (Czech Rep.)
    - IHEP (China)
    - UBUNTUNET (Africa)
    - CLARA (Latin America)
    - PSA (India)
    - ASREN (Mediterranean) Represented by INFN
    - Asia-Pacific area Represented by INFN

Thank you !