#### SEE-GRID: Advancing South-East Europe into the elnfrastructure era



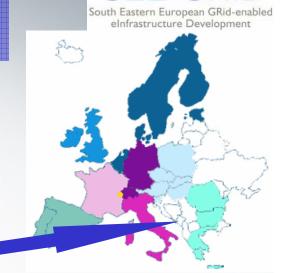
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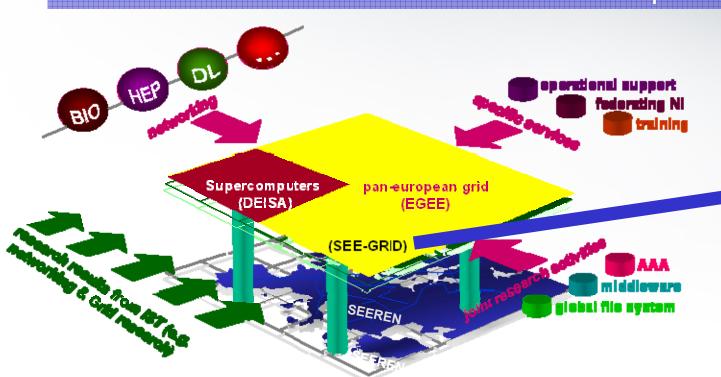


### The SEE-GRID initiative



Contribute to building a Pan-EU eInfrastructure by expanding the "eInfrastructure inclusion" into South-East Europe





























Contract No.: FP6-RI-002356

Project type: Specific Support Action (SSA)

Start date: 01/05/2004 Duration: 24 months Total Budget: 1,215,000 €

> http://www.see-grid.org

## **SEE-GRID** snapshot



- Pilot infrastructure with sites in all SEE partners
  - Beneficiary SEE partners installed 2-3 sites per country with O(10 CPUs, 100 GBs) per site
  - Core services deployed (RB-BDII, VOMS, MyProxy) support the pilot SEE-GRID VO
- SE4SEE (Search Engine for South-East Europe) and VIVE (Volumetric Image Visualization Environment) apps
- Regional Catch-all Certification Authority accredited by EUGridPMA
- National Grid Initiatives inaugurated in beneficiary SEE partners (e.g. AEGIS, MARGI)
- Training and Dissemination events (from P-GRADE portal to Policy Workshops)
- Alternative roadmaps and research, e.g. deployment of LCG m/w over working installations of Debian GNU/Linux clusters (when only RedHat Linux 7.3 and Scientific Linux were supported)
- Sites in Serbia-Montenegro, Turkey, Croatia, FYROM migrated into the EGEE-SEE infrastructure
- Serbia-Montenegro, Turkey, Croatia joined EGEE-II proposal
- Key issue: Sustainability

## Partnership with EGEE



SEE-GRID Grid

SEE-GRID VOs

SEE-GRID core services

**EGEE-SEE Grid** 

EGEE-wide VOs

EGEE-SEE core services

- MoU signed to govern projects' communication and exchange of know-how
- Common partners: CERN, GRNET, ICI, IPP-BAS, SZTAKI
- Related activities:
  - EGEE NA2-NA3 (Dissemination-Training) SEE-GRID WP5

e.g. Joint conferences - training events, e.g. training in Istanbul on GILDA and GENIUS, plan to

organize trainings in collaboration with UNESCO in SEE.

- EGEE NA4 (Applications) SEE-GRID WP3
  - Promote new applications to EGEE
- EGEE SA1 (operations) SEE-GRID WP4
  - Migrate EGEE-developed M/W to SEE-GRID
  - Expand SEE ROC to include SEE-GRID partners that will be integrated in the EGEE infrastructure
- In a nutshell:
   <u>a CERN/EGEE-liaison (a "champion") that was committed to make it work!</u>

#### **SEE-GRID-2: New Directions**



- Policy-focused deployment strategy
  - achieve Grid uptake and buy-in beyond the "usual suspects" of the R&E community (-> government, industry, policy-makers...)
  - Shift priority from a "top-down" approach (i.e. from regional project execution to national "copying"/implementing) towards a a "bottom-up" approach (from national priorities, cooperation, and innovation to regional cohesiveness, vision, and break-through)
- Proliferation of Grid Resource Centers
  - Expand regionally to include new countries/areas and widen the SEE elnfra community
  - Expand nationally to include new sites/institutes and strengthen collaboration in each country

     create a web of resource centers also at national level, not only at regional.
- Application-driven deployment approach
  - serve the needs of diverse and multi-disciplinary communities
  - extend the user-base USE the grid, USE the network, USE the Infrastructure
  - get closer to the public-at-large.

## SEE-GRID-2 partnership

SEE-GRID-2 partnership consists of 13 contractors representing 11 SEE countries

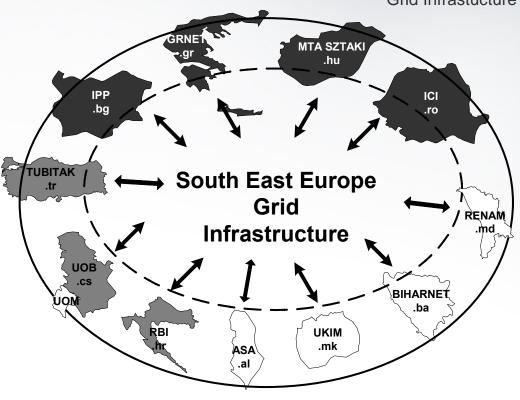
- Partnership includes
  - EU member-states (Greece, Hungary)
  - Acceding Countries (Bulgaria, Romania)
  - Candidate Countries (Croatia, Turkey)
  - Third Countries Western Balkans (Albania, Bosnia-Herzegovina, Former Yugoslav Republic of Macedonia, Serbia-Montenegro)
  - European Neighborhood Policy countries (Moldova)
- By using participation in EGEE as reference for a partner's maturity, three layers can be identified:
  - Bulgaria, Greece, Hungary, and Romania were members of EGEE and will carry on in EGEE-II
  - Croatia, Serbia, and Turkey advanced within the course of SEE-GRID and have joined EGEE-II
  - Albania, Bosnia-Herzegovina, Former Yugoslav Republic of Macedonia, Moldova, and Montenegro will work towards integration with European eInfrastructures within the course of SEE-GRID-2.

Planned Start date: 01/05/2006
Planned Duration: 24 months
Planned Total Budget: 2,002,691 €

SEE GRID

South Eastern European GRid-enabled eInfrastructure Development





## **SEE-GRID-2 Objectives**



- Ensure Sustainable Development
  - National commitment and support for incubating NGIs, (annually increasing) local financing,
     National eInfrastructure Strategy, NGI to include partners beyond project partnership
  - Engage regional and national user communities, involve a wide range of institutes and communities and support Grid applications from groups in various scientific domains
- Upgrade SEE grid infrastructure
  - Upgrade the capacity of the regional pilot infrastructure and EGEE-migrated sites
  - Support the accreditation of national Grid CAs
- Strengthen the Human Network
  - Liaise with and beyond SEE user communities, approach SEE industrial partners
  - Training and dissemination events at regional and national (own budget) level
  - Regional eInfra projects Policy Workshop
  - "virtual SEE Doctoral School on Advanced Topics In Networking and Grids (eInfrastructures)"- pool of professors to guide students in their Ph.D.s

## See-Infra strategic priority



- Strategic success metrics of SEE-xxx initiatives:
  - not Gbps/sec
  - <u>not</u> the number of nodes
  - <u>not</u> the TBs of storage
- SEE-GRID/SEE-GRID-2: puzzle pieces of RTD efforts to sustain SEE development
  - Increasing the retention of talented scientists in the SEE
  - Pursuing joint R&D efforts among SEE countries
  - Making available the benefits of the Information Society for all SEEtizens
  - Easing the digital divide between the region and the rest of the continent
  - Improvement of regional competitiveness in all market sectors
  - Regional political stability and cohesiveness
  - Future enlargement of the European Union
  - ...

# Thank you!

