SEERA-EI: South-East European Research Area for eInfrastructures

www.seera-ei.eu

e-IRG workshop, Uppsala, 14-15/10/2009
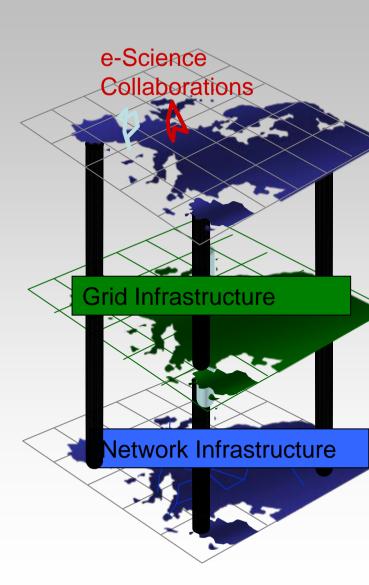
Xenophon Tsilibaris, GRNET S.A., xtsili@grnet.gr

The pan-EU e-Infrastructures vision

- ➢ The Research **Network infrastructure** provides fast interconnection and advanced services among Research and Education institutes of different countries'
  - ❑ Projects: GEANT, SEEREN, etc.
- ➢ 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
  - ❑ Projects: EGEE, SEE-GRID, etc.
- ➢ This integrated networking & grid environment is called **electronic infrastructure (eInfrastructure)** allowing new methods of global collaborative research - often referred to as **electronic science (eScience)**
- ➢ The creation of the eInfrastructure is a key objective of the **European Research Area**

e-Science Collaborations

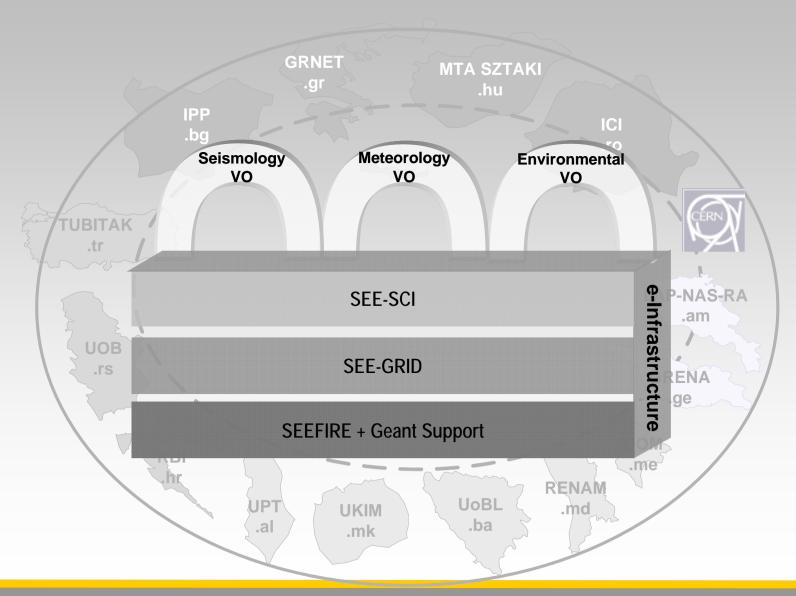Grid Infrastructure

Network Infrastructure

Timeline: 6 years of close collaboration in SEE

- ➢ **SEEREN1/2:** establishing the regional inter-NRN interconnectivity and GEANT links [DGINFSO]

- ➢ **SEEGRID1/2:** building the regional Grid infrastructure within and beyond EGEE [DGINFSO]

- ➢ **SEEFIRE:** studying the feasibility of long-term solutions for dark fiber backbone in the region [DGINFSO]

- ➢ **SEELIGHT:** implementation of the lambda facility in the region [Greek HPRB]

- ➢ **SEE-GRID-SCI:** eInfrastructure for large-scale environmental science: meteorology, seismology, env. protection. Inclusion of Caucasus. [DGINFSO]

- ➢ **SEERA-EI:** regional programme managers collaboration towards common eInfrastructure vision and strategy [DGRTD]
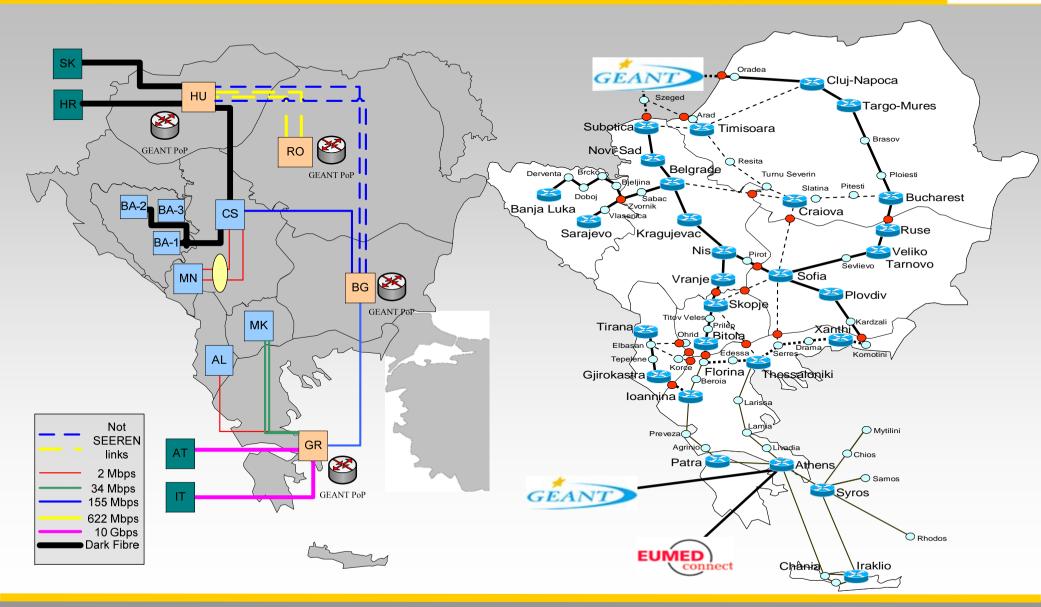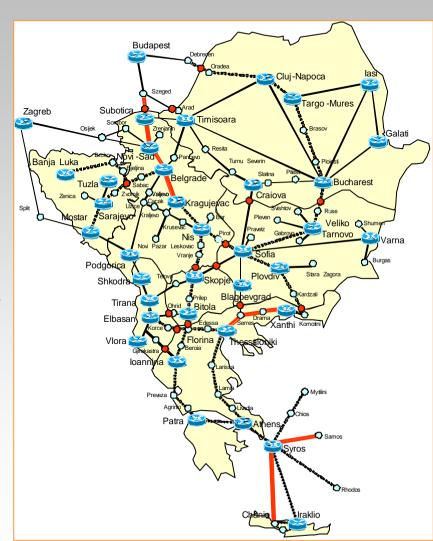
SEE-LIGHT: South-East European Lambda Network Facility for R&E
- o Deployment of an advanced regional network infrastructure (lambda network facility) for R&E, under the Hellenic Plan for the Economic Reconstruction of the Balkans (HiPERB).
- o 4 countries committed, others in progress
- o SEENet: a management body for SEELIGHT
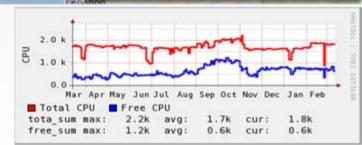
Grid: SEEGRID1-2 and SEEGRIDSCI

Total number of countries: 14
Total number of sites: 35
Total number of CPUs just for SEEGRID VOs:
1836
Total number of storage resources: 200 TB

Grid Sustainability

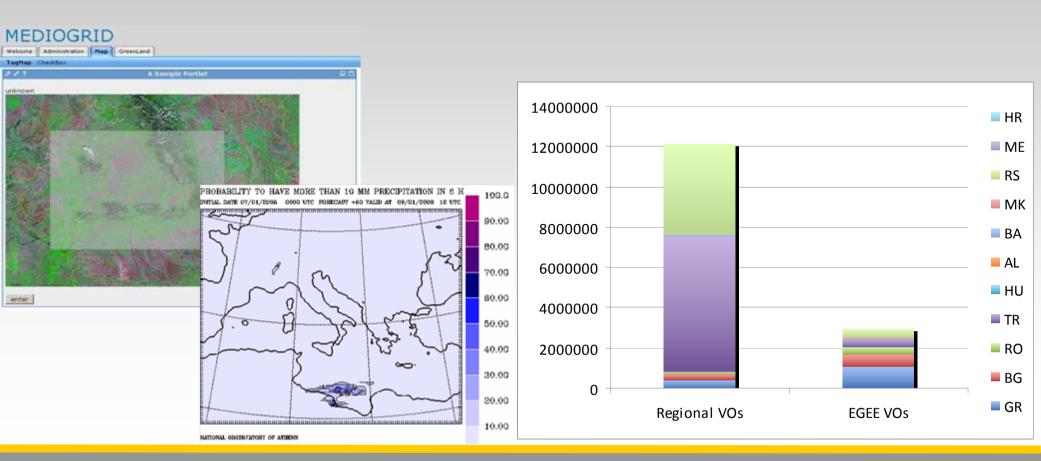➤ Large infrastructure built through 3 projects

➤ User community buy-in secured

➤ National structuring via NGIs

➤ Kick-off of national-level projects

➤ But long-term regional dimension crucial in terms of joint operations and human network

User communities: SEE-GRID-SCI
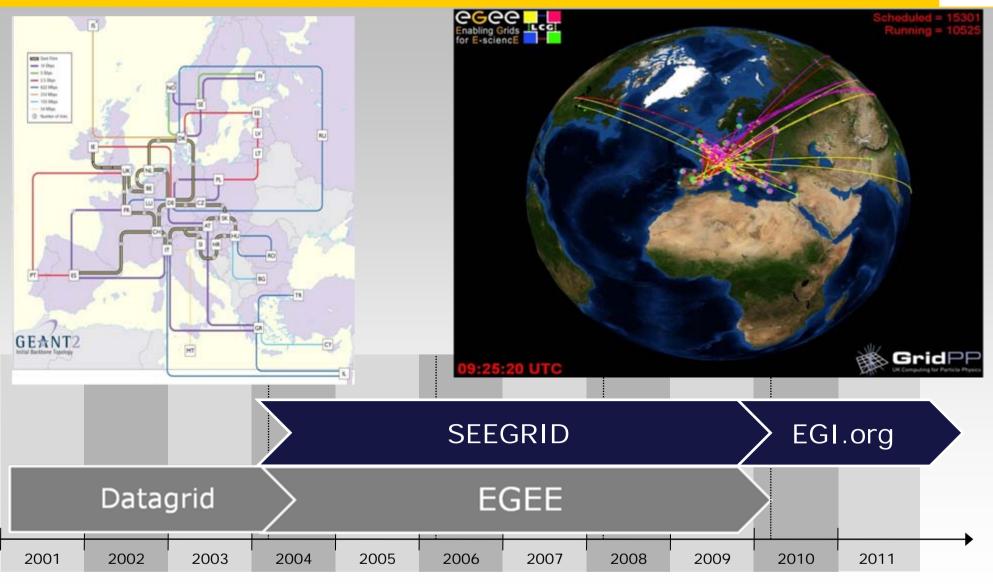
- ➤ Seismology (5 major applications), meteorology (2) and environmental protection (5)
- ➤ Cross-border user communities and beneficiaries
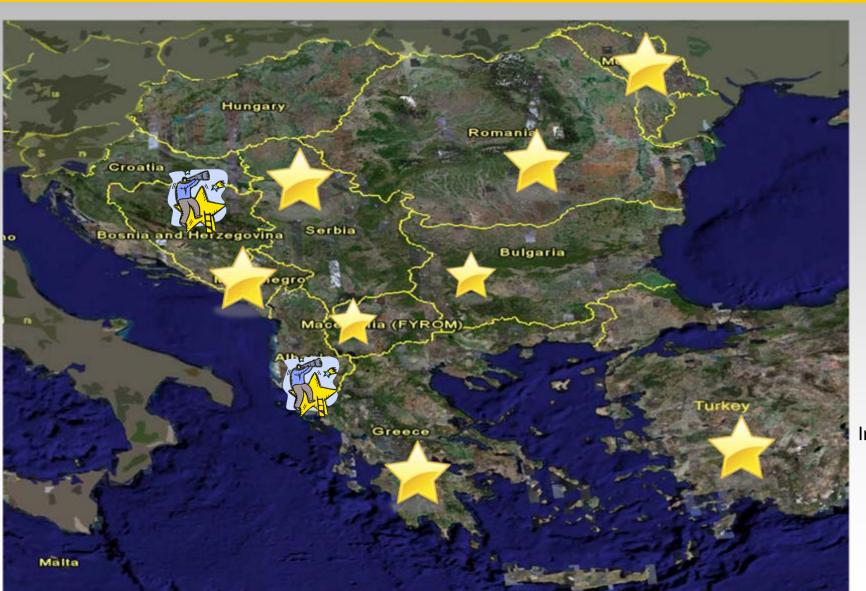
Crucial sustainability building blocks:
NGI/NRN status

➢ National projects

➢ National contributions to GEANT / EGI.org

➢ However there is lack of coordination between programmes and fragmentation of national programmes

➢ A wealth of things to learn between national funding agencies

➢ The ground is set for common regional vision and concrete actions
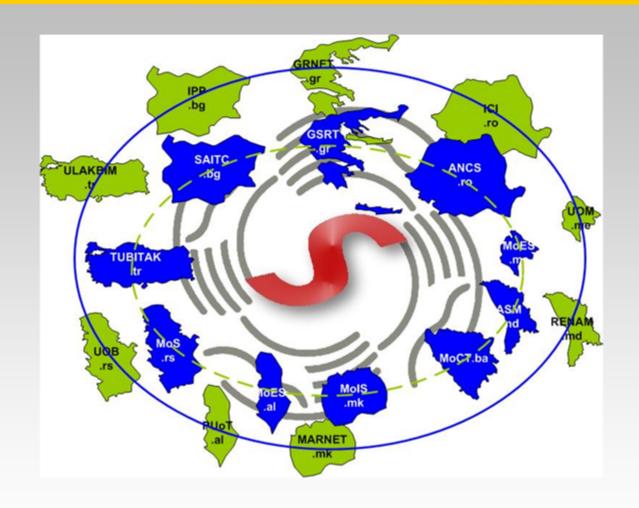
- ➢ **Area:** "INFRA-2008-3.1: ERA-NET supporting cooperation for research infrastructures in all S&T fields"
- ➢ **Start:** 1 April 2009
- ➢ **Duration:** 36 months
- ➢ **Total budget:** 2 000 000 €
- ➢ **Funding from the EC:** 1 500 000 €
- ➢ **Total funded effort, PMs:** 451
- ➢ **Contract n°:** RI-228052
- ➢ **Project type:** Coordination and support action

Ministry partners + eInfra partners programme manager partners

SEERA-EI: core objective

➢ Core Objective – Develop and strengthen the coordination and cooperation of national eInfrastructures programmes in the region of South-East Europe.

❑ The core objective of the SEERA-EI project is to engage national key programme owners in the field of Research Infrastructures (eInfrastructures) in SEE in common dialogue and planning, to establish a sustainable and sustained communication platform, and to undertake activities targeting durable cooperation in building the common regional Research Infrastructures vision, strategy and action plan.

SEERA-EI: detailed objectives

- O1 - Enable common dialogue and exchange of information between national programme owners

- O2 – Analyse state of the art in national programmes

- O3 - Reduce fragmentation and improve coordination across SEE segment of ERA in field of RI, on the level of national programmes, and avoid creating niches of non-standardised programmes

- O4 - Facilitate efficient set-up and support for national eInfrastructure programmes, in coordination with common guidelines and regional vision

SEERA-EI: detailed objectives

➤ O5 - Enable concrete cooperation of programme owners and common planning and development of join activities, both within project duration and beyond it in long term

➤ O6 – Establish a long-term platform for sustained dialogue between programme owners that will extend beyond project lifetime

➤ O7 – Enable information exchange with rest of ERA, carry out international collaboration activities, and contribute to EU policy on eInfrastructures

Work Organisation

Work package No	Work package title	Type of activity	Lead beneficiary No	Person-months	Start month	End month
WP1	Project administrative and operational management	MGT	GRNET	17	M01	M36
WP2	Information exchange and analysis of national programmes	COORD	ROEDUNET	109	M01	M36
WP3	Identification of harmonized national activities and joint regional activities	COORD	TUBITAK	122	M12	M36
WP4	Design and implementation of joint activities	COORD	MoS-RS	127	M12	M36
WP5	Dissemination and liaison with pan-European initiatives	COORD	SAITC	76	M01	M36
	TOTAL			451		

WP2: information exchange and analysis of national programmes

- Objectives:

- Create a human network on the level of programme owners in the region
- Promote trust building between programme managers
- Establish a platform for exchange of information regarding past and current national programmes in the area of eInfrastructure.
- Facilitate face-to-face meetings regarding exchange of information between programme managers
- Gather and systemise data regarding past and current national programmes in eInfrastructures

State of the art in programme management

➢ The lack of systemized data on past and existing eInfrastructure-related programmes greatly hinders the understanding of the state of the art in programme management in this field:

- • *exchange of information and best practices, as well as*
- • *specification of joint planning and activities between programme owners.*

➢ A questionnaire has been specified as a first step towards in-depth data collection on national eInfrastructure programmes and actions.

➢ The questionnaire is divided in two parts:

• collection of state of the art of <u>actual eInfrastructures</u> in the region and their funding modalities, to be filled by NRNs and NGIs in SEE

• collection of data on <u>actual programmes / actions</u> to be filled by e-Infrastructure Programme funding bodies in SEE
(also kindly asking e-Infrastructure Programme funding bodies from Old MS, to fill it)

➢ Questionnaire results will be assessed using a set of metrics and presented at an open workshop

Feedback also sought by Old MS

- The analysis that will follow data collection, should provide:

  - an overview of the past and current activities in the region

  - highlighting of commonalities and differences between the countries from SEE and different eInfrastructure-related programmes (even possible inside of the same country),

  - identifying relationships with European and worldwide trends and policies.

- The questionnaire (http://www.survey.amres.ac.rs/) is now open to the wider European community:

Help would be appreciated if e-Infra Programme Managers from Old MS funding bodies , notably Germany, France, Italy, UK and Nordic countries, also fill in the questionnaire

Please e-mail for passwords to:milan.kuzelka@rcub.bg.ac.rs xtsili@admin.grnet.gr, oprnjat@admin.grnet.gr

➢ **Objectives:**

➢ Produce a set of best practices for national eInfrastructure programme formulation and management.

➢ Produce recommendations for standardized evaluation and monitoring practices, taking into account local specificities.

➢ Produce a baseline minimum specification for a national eInfrastructure programme, flexible enough to cater for local needs

➢ Achieve commitment of national programme owners for implementation of national programmes according to guidelines identified.

➢ Identify potential areas for joint regional activities complementary to the national activities.

WP4: Design and implementation of joint activities

➢ **Objectives:**

➢ Identify scope for international cooperation

➢ Implement the short term soft actions including one potential common proof-of-principle call

➢ Implement short-term policy-level actions

➢ Identify long-term actions and prepare the necessary administrative background

WP4: short-term soft actions

➢ Clustering of current national-level projects and their mutual reinforcement

➢ Guidelines for evaluation of national programmes, including cross-evaluation

➢ Actual post-evaluation of national programmes

➢ Joint dissemination and training activities

➢ Short-term exchange of staff (focused on bi-lateral best-practice visits)

➢ Joint database of experts/advisors and regional committees.

➢ Stimulation of bi-lateral activities

➢ Collection of impact indicators. The set of impact indicators will be defined early on in the process (for example existence of the definition of common criteria for monitoring and evaluation of respective national programmes, joint activities, progress towards sustainability, etc.).

WP4: short-term policy-level actions

- ➢ Cooperation agreements and MoUs for resource sharing, etc
- ➢ Drafting of the joint common vision and regional strategy position paper for eInfrastructures
- ➢ Investigation of European Research Infrastructures legal framework as a possible mechanism for formal legalisation of the regional eInfrastructures.
- ➢ Analysis of forecast national budgets
- ➢ Sustainability analysis, in terms of exploration of funding models for longer term
- ➢ Identification of complementary funding opportunities for the regional eInfrastructures - including accession mechanisms and NATO
- ➢ Consideration of leveraging the other branches of funding and national funds (example being the eHealth initiatives in Serbia)

WP4: short-term policy-level actions

➢ Striving to put the eInfrastructures on the agendas of the ministries, aiming at results such as explicit inclusion of eInfrastructure concepts in open science calls.

➢ Carrying out research on the European policy level, specifically with ESFRI and eIRG.

➢ Consideration of appropriate mechanism for involving the regional scientists in the PRACE initiative

➢ Investigation of the mechanism for regional representation in EGI, eIRG and other international initiatives

WP4: preparation of long-term actions

➢ Exploration of possibility of joint funding of the common initiatives (programme or actual RI) e.g. panel for Grid candidate regional applications to be run on the regional eInfrastructure, regional Grid or Network operations centre, Regional Grid Initiative, or similar.

➢ Drafting of the regional workprogramme / joint action plan to be endorsed provisionally by programme owners. This is long-term vision for lasting coordination

➢ Drafting of a template for pilot regional calls

➢ Definition of regional schemes for evaluation and monitoring of regional programme

➢ Estimate of potential regional budgets

WP5: information exchange and analysis of national programmes

➢ **Objectives:**

➢ A platform for PR, communication and dissemination of information about SEERA-EI, including also liaisons and SEERA-EI branding

➢ Ensuring that the relevant activities in eInfrastructure programme coordination on the European level are followed in detail and contributed to significantly

➢ Liaison with eIRG, ESFRI and EGI

➢ Liaison with regional eInfrastructure activities

➢ Organization of an open event of EU Ministries

➢ General dissemination activities of project results

Conclusions

➢ Research Infrastructure a core building block for new science

➢ Regional technical cooperation brought forward significant results and a stable, sustainable research infrastructure

➢ Policy-makers collaboration is envisaged to leverage these results with concrete long-term sustainable support for eInfrastructure activities in all countries in the region; as well as regional investments and programmes

➢ Please help us by filling in the questionnaire – very relevant for future cooperation of the region with the rest of Europe.