

Linking Scientific Computing in Europe and the Eastern Mediterranean

LinkSCEEM-2



Linking Scientific Computing in Europe and the Eastern Mediterranean

- **LinkSCEEM-Phase 2**

- 48 month project, starting September 1st, 2010
- Follow-up and implementation of LinkSCEEM findings

- **LinkSCEEM**

- 21 month project (April 2008-January 2010)
- Assessed Eastern Mediterranean user needs, developed strong links with regional user communities, initiated training and technical support activities, implemented a network study

- **Main goal**

- Develop a High Performance Computing eco-system in the Eastern Mediterranean region by integrating regional compute, data and visualization resources and engaging regional user communities.

Partners & Work Package Organization

Partners:

1. Cyl/ CaSToRC - Cyprus Institute, Computation based Science and Technology Research Center
2. NARSS – National Authority for Remote Sensing & Space Sciences
3. BA - Bibliotheca Alexandrina
4. JSC – Jülich Supercomputing Centre, Forschungszentrum Jülich
5. NSCA - National Center for Supercomputing Applications, University of Illinois
6. SESAME – Synchrotron light for Experimental Science and Applications in the Middle East
7. ESRF - European Synchrotron Radiation Facility
8. MPIC - Max Planck Institute for Chemistry
9. CYNET - Cyprus Research and Educational Network
10. JUNET - Jordanian Universities Network
11. IUCC - Inter-University computational Centre

Management & coordination – Cyl

Networking

Networking – Cyl, NARSS, BA, SESAME, JUNET, IUCC

Access to resources – JSC, Cyl, NARSS, BA

Training – NARSS, Cyl, BA, JSC, NCSA, SESAME, ESRF, MPIC

Dissemination & Outreach - SESAME, Cyl, NARSS, BA, NCSA

Services

User support – Cyl, NARSS, BA, JSC, NSCA, SESAME, ESRF, MPIC

Connectivity – CYNET, JUNET, IUCC

Integration of resources – NCSA, Cyl, NARSS, BA, SESAME

Research

Cross-disciplinary – JSC, NCSA, Cyl, NARSS, BA, SESAME, IUCC

Climate - MPIC, Cyl

Cultural Heritage – NCSA, Cyl, BA

Synchrotron radiation – ESRF, SESAME, Cyl

Specific Objectives

- **Optimally integrate regional computational resources utilizing expertise from established lead HPC centers e.g JSC and NCSA**
- **Create user support and training programs, and an active networking process to engage research communities and enable scientists in the region to utilize HPC**
- **Enable research of particular relevance to the region in climate science, cultural heritage and synchrotron applications**
 - Digital cultural heritage
 - Climate studies
 - Synchrotron radiation science
- **Contribute to the upgrade of the regional network connectivity**
 - Including upgrade of connectivity to Jordan
- **Build strong links to the European Research Area in accord with the European Neighbourhood Policy**

Work Package Structure

Management & Coordination



Networking/Coordination

- Networking
- Access to resources
- Training
- Dissemination & Outreach

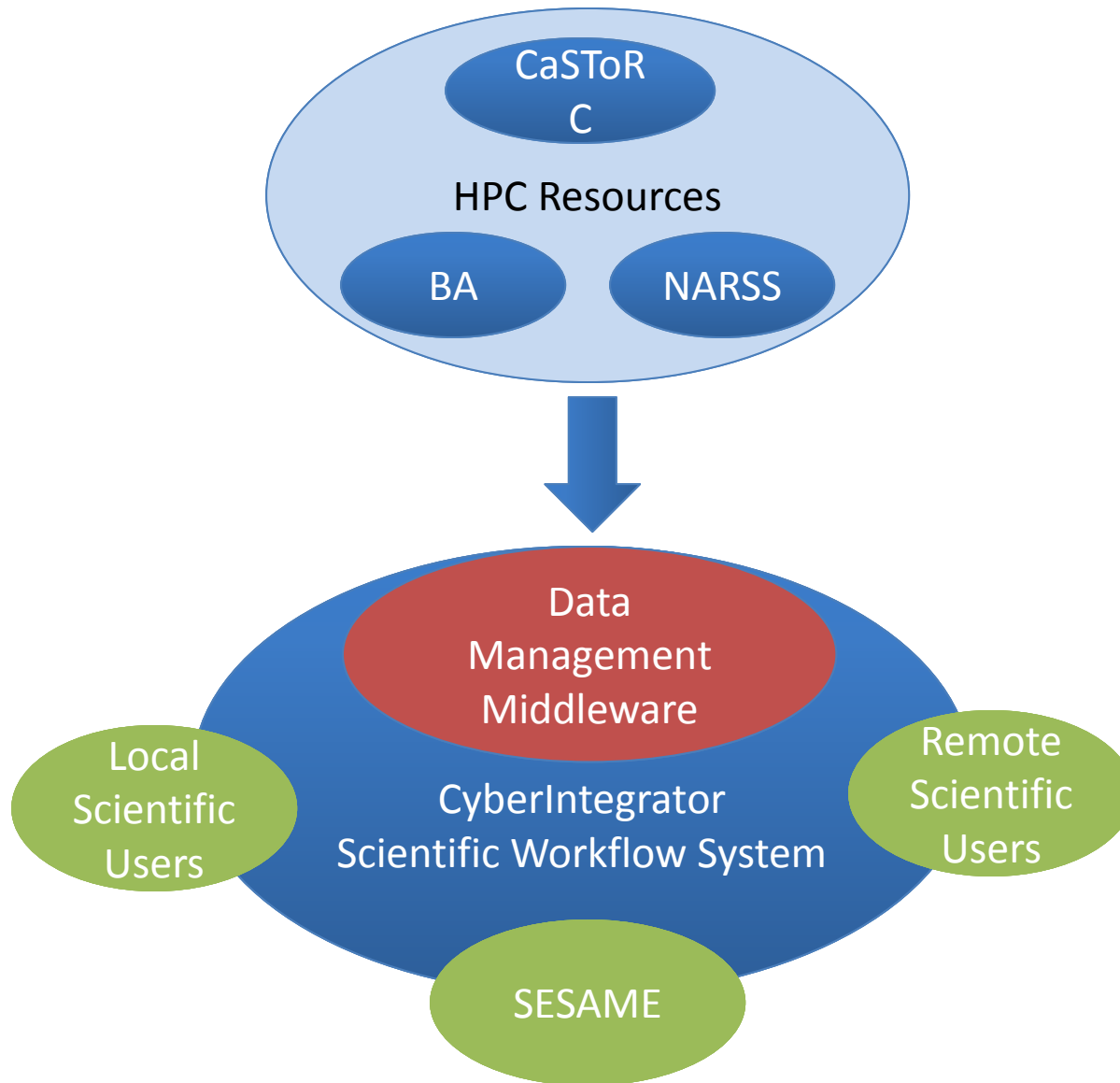
Services

- User support
- Connectivity
- Integration of resources

Research

- Cross disciplinary research
- Climate research
- Cultural Heritage research
- Synchrotron Radiation research





The LinkSCEEM Opportunity

- **Make crucial contributions to the development of an Eastern Mediterranean virtual computational science community**
 - Bring together regional user communities starting from Climate, Cultural Heritage and Synchrotron Radiation research.
 - Expand user communities to non-partner institutions in Lebanon, Greece, Turkey, etc
- **Act as a bridge between Eastern Mediterranean computational science researchers and organizations and, the EU HPC ecosystem**
- **Exploit prospects for enlargement of infrastructure through engagement of additional computational resources from the region**
- **Explore synergies with partners to attract young talent from the region to science and technology**
- **Develop synergies with EU projects**
 - E.g. PRACE - combine training, outreach activities, advanced HPC architectures, etc
- **Seek other EU initiatives, e.g Marie-Curie programs, Erasmus Mundus, European Neighborhood programs, that support mobility, exchanges and training of youth**
- **Seek opportunities within the Union for the Mediterranean**

Thank you

linksceem.eu

Acknowledgement

Funding is provided by DG-INFSO

Grant Agreement Number: 261600

Call (part) identifier: FP7-INFRASTRUCTURES-2010-2

Topic: INFRA-2010-1.2.3: Virtual Research Communities

Funding Scheme: Combination of CP & CSA

FP7 RI 261600

CaSToRC