

# EUMEDGRID Infrastructure

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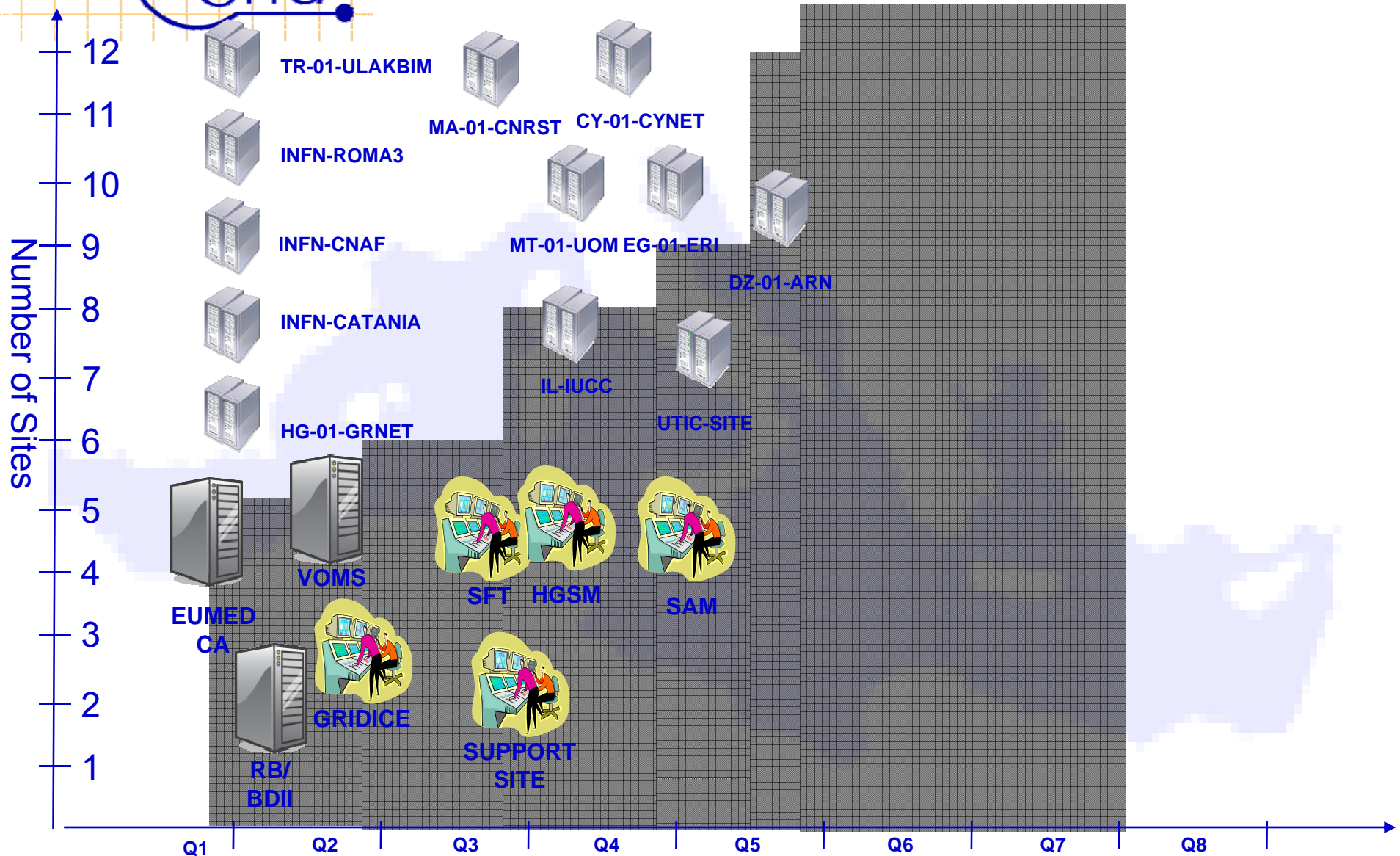


## The EUMEGRID infrastructure

- ▶ 15 Sites (13 in production 2 joining now)
- ▶ 1425 CPU, 70TB Storage
- ▶ 12 Countries participating: Algeria, Cyprus, Egypt, Greece, Italy, Jordan, Malta, Morocco, Palestine, Syria, Tunisia, Turkey)
- ▶ 9 Regional Applications deployed: GROGET, HERO, HuM2S, JP2\_GRID, MINSP, PAREL, SACATRIGA, SymCommSys

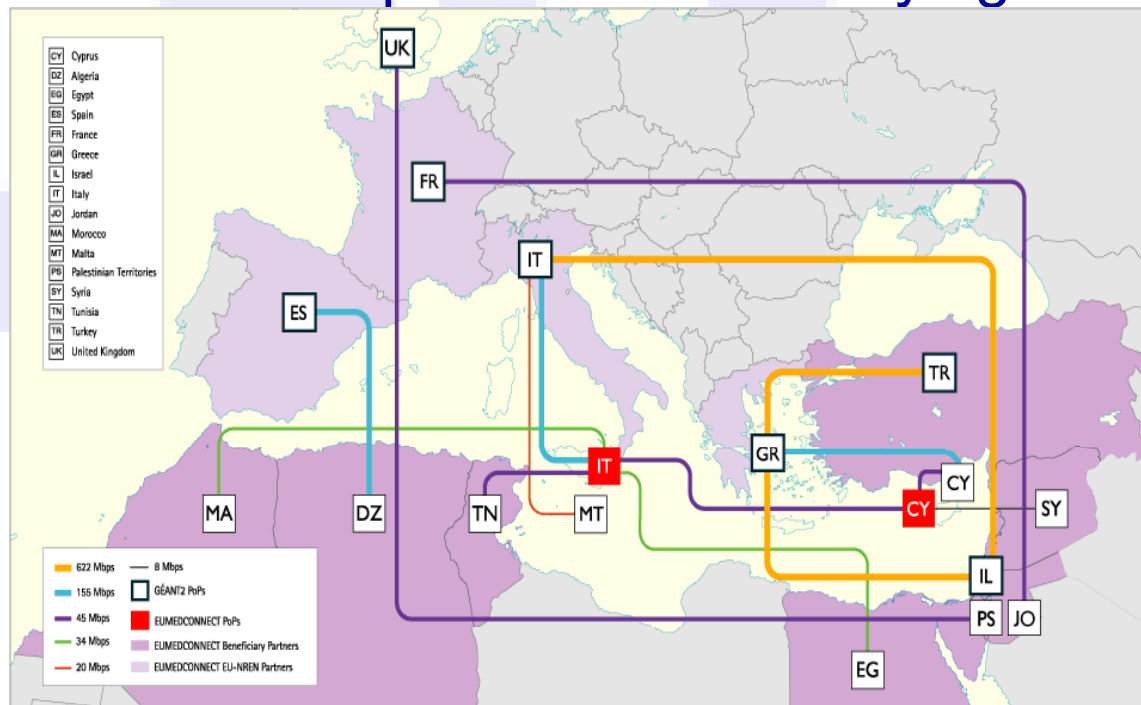
# EUMED Grid

# EUMEDGRID Infrastructure Timeline



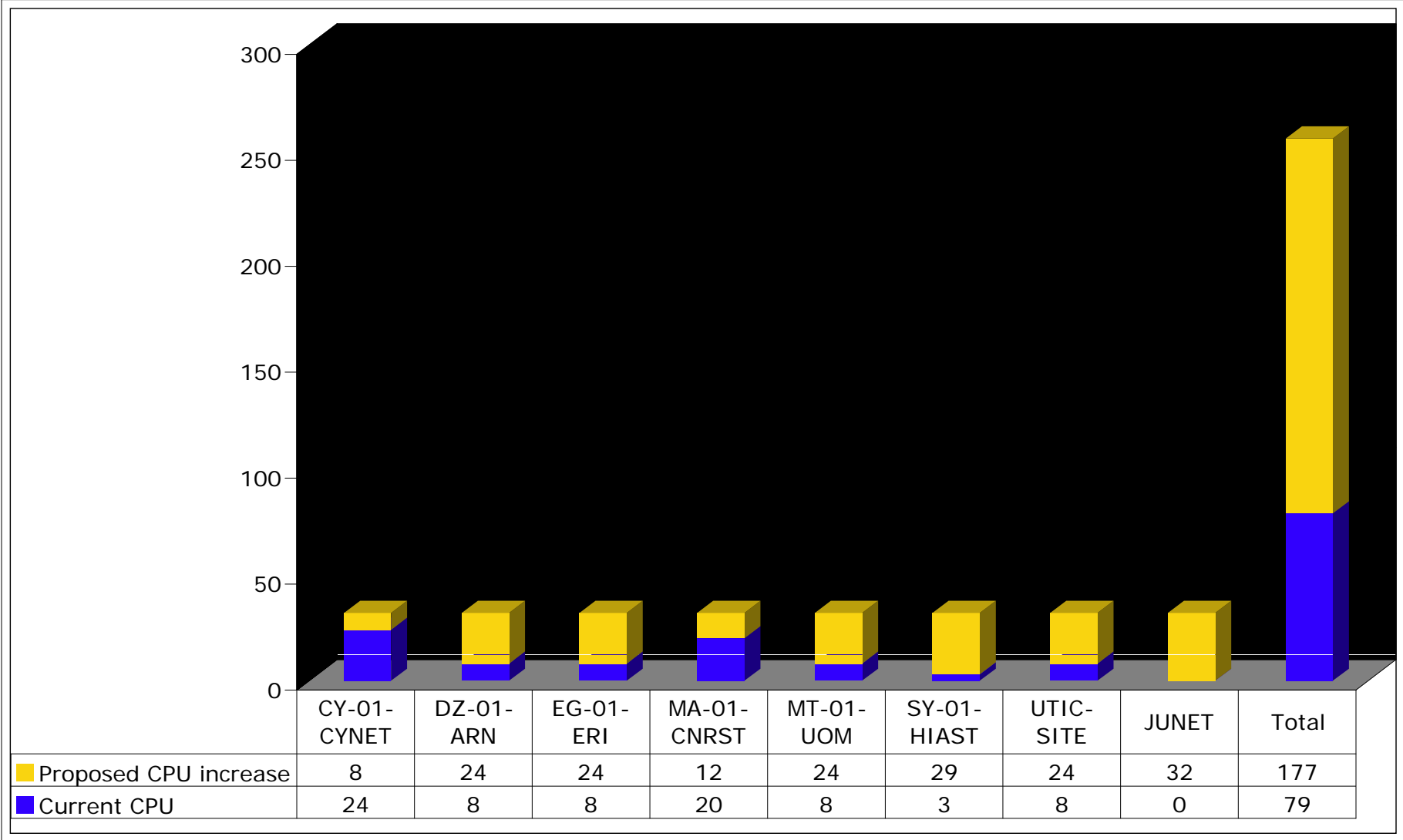
## Network Status

- ▶ **Rec1: Sustainable network is a pre-requisite for regional Grids.**
- ▶ EUMEDGRID relies on local NRENS, EUMEDCONNECT and GEANT-2 to provide the underlying network.





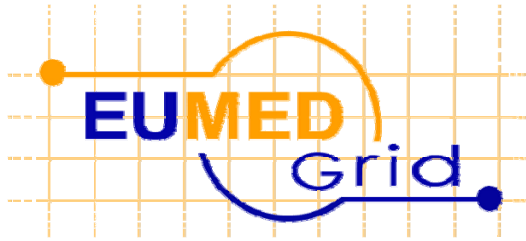
# Infrastructure and Sites



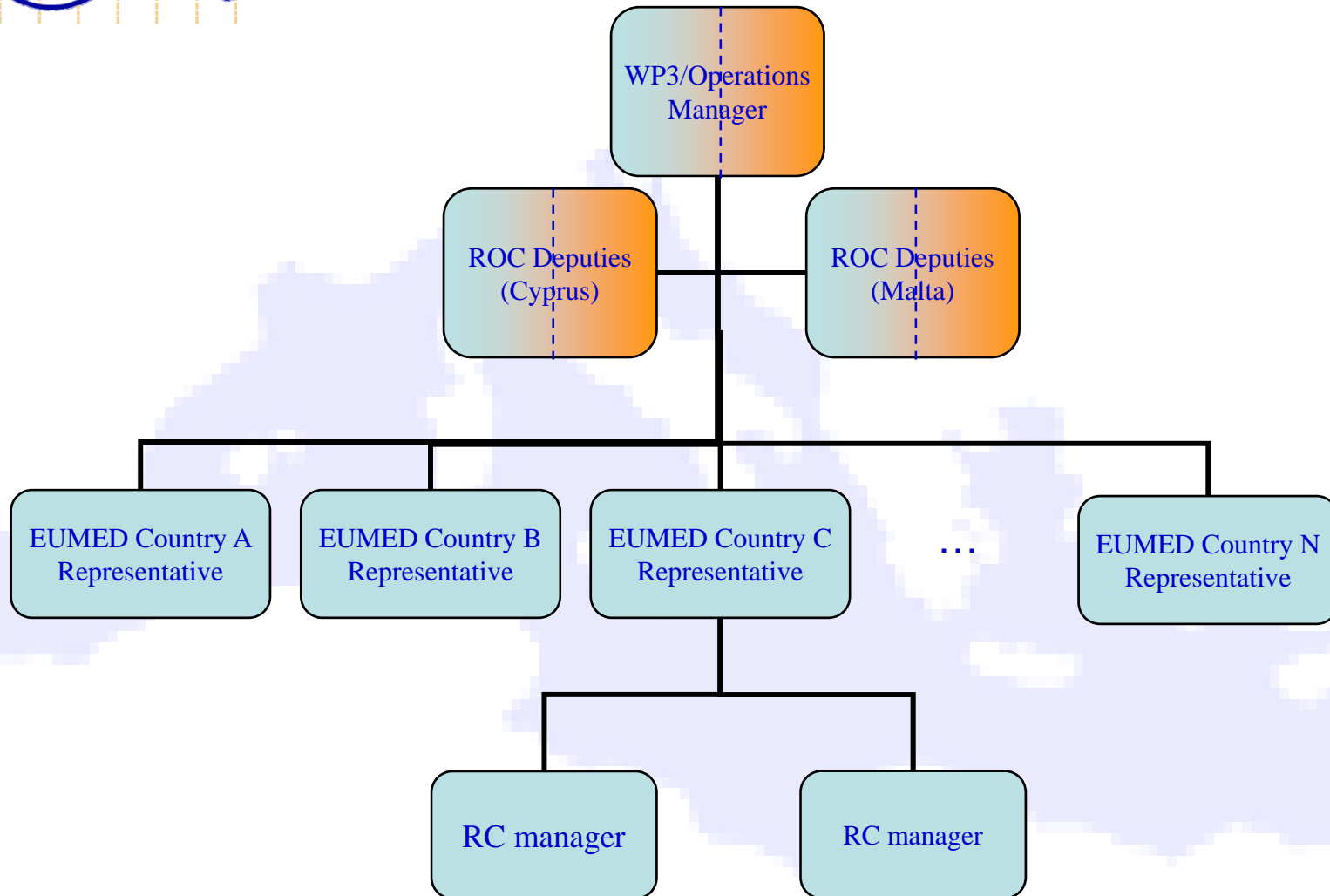


## Operations

- ▶ **EUMEDGRID uses the following tools to assist its operation**
  - Trouble Ticketing System/ Helpdesk (<http://support.eumedgrid.eu>)
  - GSTAT
  - SAM
  - GRIDICE
  - HGSM



# ROC Definition



## Country Level Operations

- ▶ **Rec6: Aim to have possibility of stand-alone operations, independent on related federated Grids and projects, but interoperable and interoperational.**
- ▶ Working towards the establishment of NGIs
  - Each country Rep. is responsible for the local sites.
  - Each non-EGEE country is preparing its CA to be accredited. (Morocco has already an Accredited CA)
  - CORE services will be voluntary be deployed in non egee countries if its is deemed necessary.



## VO Management

- ▶ **Rec7: Catch-all VOs on regional and national level prove to be flexible and efficient for deployment of new applications on-the-fly. A hierarchy of regional and national VOs should be established.**
- ▶ The EUMED VO CATCH-ALL VO used to:
  - Monitor the infrastructure
  - Deploy regional/national applications
- ▶ Per Scientific Field / Application Vos
  - Have high deployment **overhead** and Will only be deployed if it is technically justifiable.
- ▶ Sites are free to authorize additional EGEE VO's depending on the collaborations

- ▶ **Rec8: Collaboration on SLA definitions over regions is important.**
- ▶ EUMEDGRID is currently investigating the state of the art in GRID SLAs and plans to test one in EUMEDGRID-II

## Contributions to Standards

- ▶ **Rec9: Contribution to standards and community groups like GIN OGF is important. Regional projects should contribute to standards in a coordinated way.**
  - EUMEDGRID tries to be represented to all the major standardisation bodies through its liaison with EGEE and other similar projects. No direct steps were taken so far.

## Join Development Areas

- ▶ **Rec10: Collaboration of regional Grid projects on joint development and deployment of operational and infrastructural tools (or sharing of already developed ones) should be encouraged.**
  - As an SSA project, EUMEDGRID does not have any resources for the development of new tools and/or middleware modifications.
  - Minor customisations to operational tool were done with direct collaboration with the developers of the tools.

## Training Infrastructure

- ▶ **Rec15: Issue of providing a similar approach to training infrastructure should be considered by the regional Grid projects; this t-infrastructure must be reliable and must provide enough resources for timely execution of test jobs submitted during training events (the same for storage resources).**
  - EUMEDGRID has no separate training infrastructure
  - We use GUILDA-T and/or the production service
  - Or set up local temporary ones.

## Other Points and Issues to discuss

- ▶ Further success stories and recommendations
  - An official way to collaborate more closely with EGEE and related projects in both technical and policy level is needed.
  - No clear path how to contribute new developments / modifications back to the origin (usually differs case by case)
  - Hardware funding direct / indirect ?
  - Sustainability