Operations of the EGI e-Infrastructure

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e-infrastructure

- Operations centres from EGEE-III to EGI-InSPIRE
- EGI Infrastructure
  - Operational Level Agreements
  - Infrastructure provider MoU
  - Operations Management Board
- QR1 accomplishments
- Roadmap

- Stop of operations of **Central Europe regional operations centre** in August 2010. The respective NGI become operational indepentent:
  - May 2010: Poland
  - June 2010: Slovenia, Croatia, Slovakia and Czech Rep.
  - July 2010: Belarus and Hungary. 2 Austrian sites under the operations of NDGF
 - Oct 2010: Switzerland

- Apr 2010: SEE-Grid-SCI countries joined the South East Europe ROC
  - Albania, Armenia, Azerbaijan, FYR of Macedonia, Georgia, Moldova, Montenegro
- New independent NGIs
  - Apr 2010: Greece
  - Jun 2010: Serbia
  - Turkey, Bulgaria, Armenia, Israel and Romania entered this process

- **Asia Pacific** (Australia, China, India, Japan, New Zealand, Malaysia, Philippines, South Korea, Taiwan, Thailand)
- **Canada** (Canada, China)
- **ROC IGALC** (Argentina, Brazil, Chile, Colombia, Ecuador, Venezuela), **and ROC Latin America** (Brazil, Colombia, Mexico)
- **NDGF**: Austria, Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Sweden, Switzerland (1 site)
- **IberGrid**: Portugal and Spain → South West Europe decomissioned
- **Belgium-The Netherlands**
- Still existing but planning to stop operations by the end of 2010
  - **Germany/Switzerland**
  - **UK/Ireland**

- **EIROs**
  - CERN

- **NGIs**
  - France
  - Italy
  - Russia

PRODUCTION Number Of Sites Per Date
January-2010 and September-2010
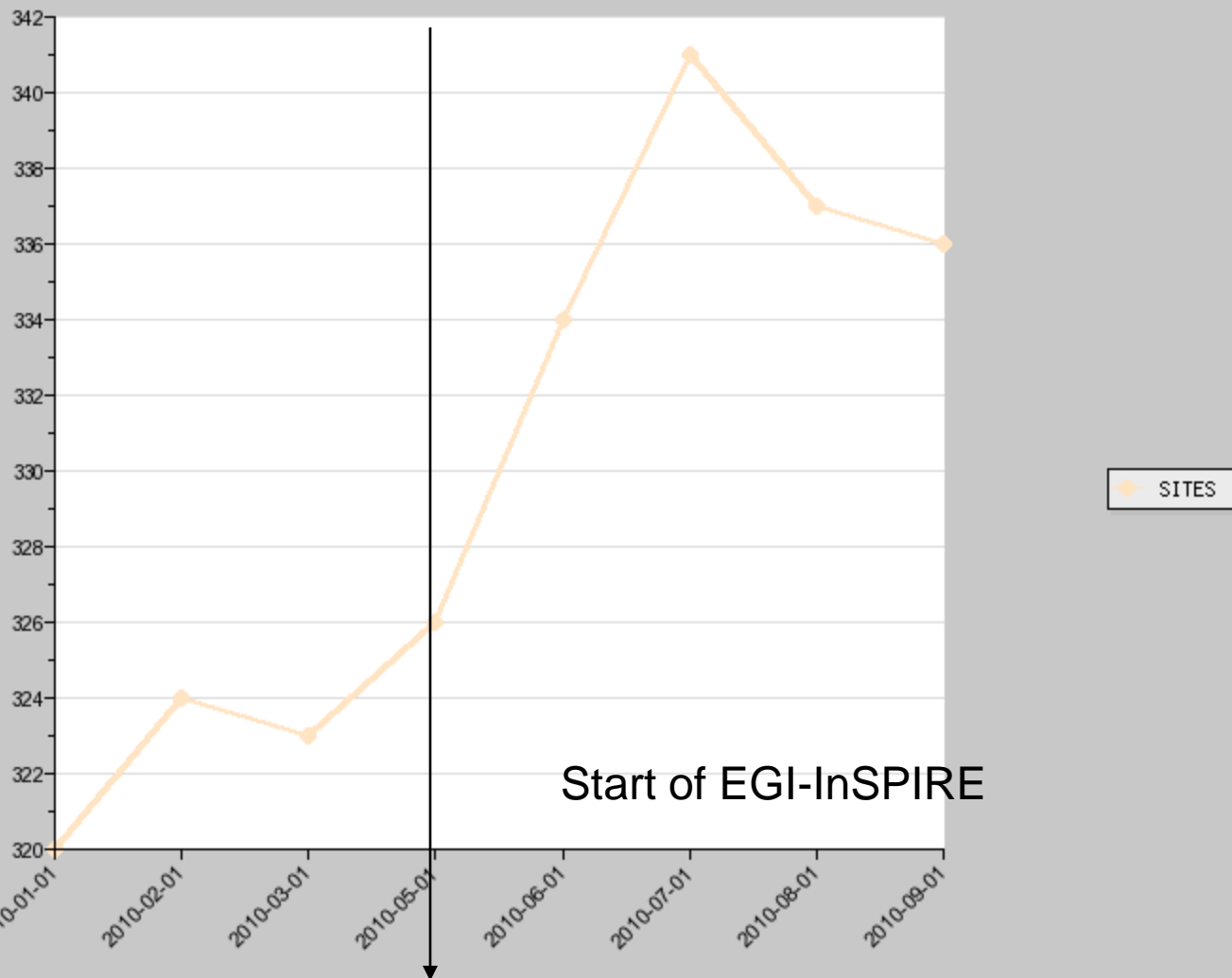
-From 290 to 336
15.8 % increase

-From 52 to 59
countries

Start of EGI-InSPIRE

EGI Infrastructure

- EGI infrastructure is the composition of
  - Resource infrastructures
    - Resource centres (sites): contribute resources to one or more infrastructure providers, the smallest operational entity in the model
    - Infrastructure providers (NGIs, EIROs, otherr DCIs): operational entities peering locally with the respective resource centres, and globally with other infrastructure providers and EGI.eu
  - Service infrastructures
    - Global services (EGI → VRCs and NGIs/ROCs)
    - Infrastructure provider services (NGIs/ROCs → VRCs and EGI)

Operational Level Agreements

- OLAs will be introduced to formally define services offered and the corresponding committed quality of service
  - Infrastructure provider → EGI: the services the infrastructure provider will offer to international Virtual Research Communities and the EGI operational community at large, for example:
    - Grid middleware core services (e.g. VOMS, LFC, top-BDII)
    - Operational services (e.g. Monitoring and accounting infrastructure, helpdesk, support, etc.)
  - EGI → Infrastructure provider: the services that EGI will offer to the infrastructure provider, for example:
    - Central operational tools (GOCDB, operations dashboard, operations portal, etc.)
    - First and second line support
  - EGI (NGIs and EGI.eu) – VRC for example:
    - VRC-specific services (e.g. Training, application porting, VO dashboard and related dedicated monitoring infrastructure, etc.)
    - VRC dedicated middleware services

MoUs

- For infrastructure providers that are not part of the EGI Council, OLAs will be defined in the framework of a MoU

- In the Infrastructure Provider MoU the signing parties commit to
  - endorse a basic set of (existing) procedures and policies
  - mutually provide services as defined in the related OLAs
  - Participate to the Operations Management Board

- **Operations Management Board** (OMB)
  - Leading the evolution of the operations infrastructure
  - Current members
    - all NGIs that are part of the EGI-InSPIRE partners
    - Jamie and Maria G. for WLCG
    - external infrastructure providers (ROC Canada, IGALC, Latin America etc.)
  - Meeting regularly on a monthly basis since May 2010

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- NGIs and site managers continuing their committment to grid operations
- Commitment of EGEE ROCs who have been assisting NGIs during their creation process
- Global services well established thanks to early start of the transition during EGEE-III
    - Reassignment of responsibilities where needed
    - Increasing committment of COD in followup of availability issues and suspension
- Operations infrastructures:
    - Transition to Nagios-based monitoring and distributed deployment almost finalized
    - Started migration of messaging for distribution of accounting usage records

New procedures

- EGI adopted all EGEE procedures and policies
- but various changes introduced
  - New availability/reliability statistics followup procedure defined and approved
  - New procedure for NGI creation and integration defined and approved
  - New procedure defined for 2nd line/3rd line middleware support, implementation ongoing → relying on the EGI "Deployed Middleware Support Unit"
  - New procedure for middleware rollout to the infrastructure
  - Other procedures are under definition (https://wiki.egi.eu/wiki/Operations:OD)

What comes next 1/2

- Infrastructure
  - Consolidation of new NGIs
  - Integration of new infrastructure providers (e.g. ROC Africa), finalization of Infrastructure provider MoU
  - Case studies of integration of new DCIs and heterogeneous middleware stacks

- Plans and requirements
  - Transition plan from gLite 3.1 to gLite 3.2
  - Deployment plan of regionalized operational tools
  - Accounting requirements to lead development in EGI-InSPIRE JRA1 and EMI

- Middleware deployment
  - More sites and NGIs involved in middleware staged rollout
  - Establishement of the Technical Coordination Board to implement reporting channels to the middleware developers (requirements and deployment issues)

What comes next 2/2

- Support
  - revision of existing GGUS Support Units and related membership
  - definition of 2nd and 3rd line middleware Support Units
  - definition of network support infrastructure
- Update of existing documentation made available at the EGI wiki
- Availability statistics
  - Report generation needs to be streamlined
  - Improvement of availability calculation algorithm?
- Operational Level Agreements
  - Extension of existing ones (ongoing)
  - Understanding of impact on tools