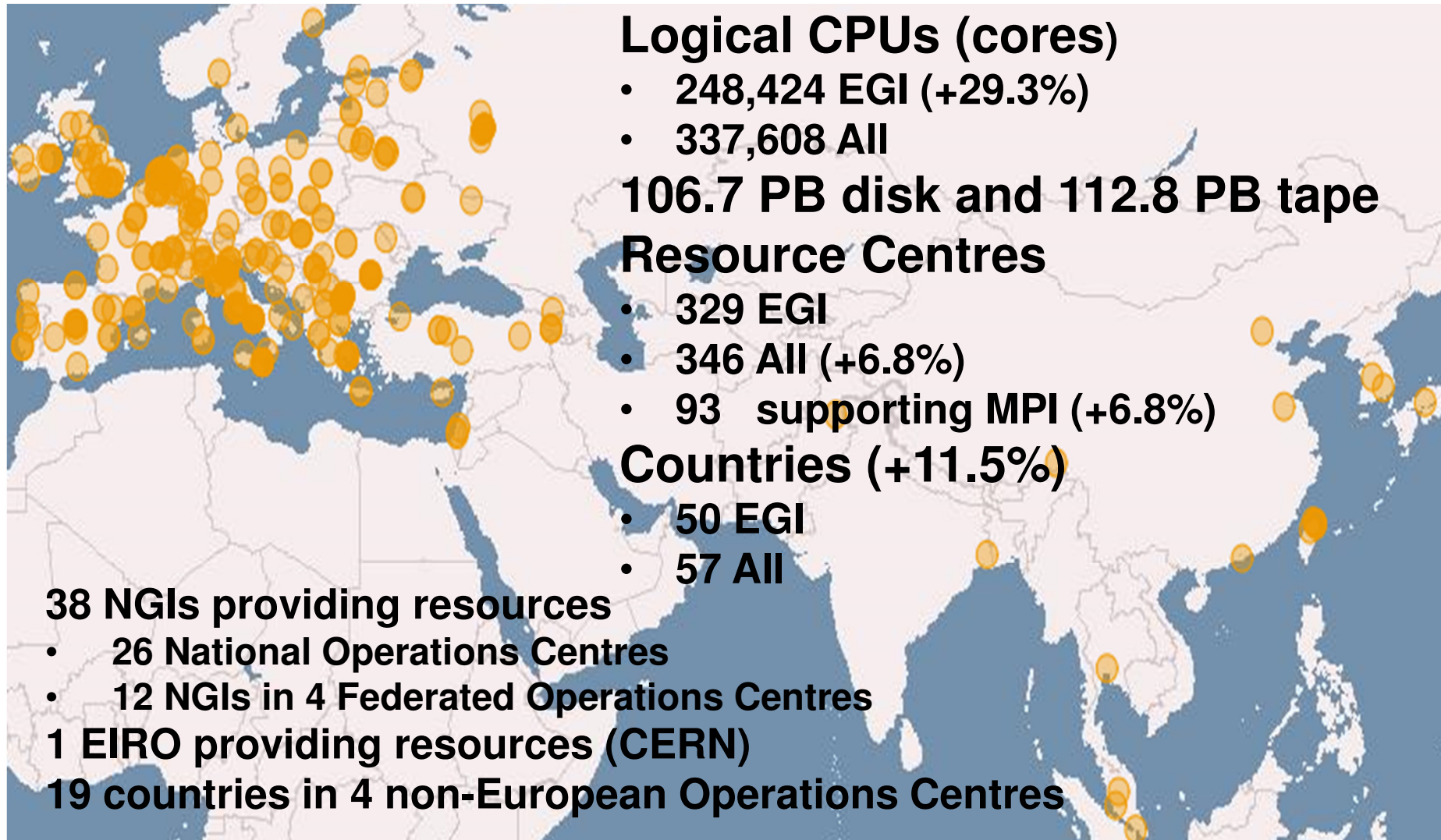


# EGI Cloud Federation: A hybrid cloud at a European scale

Michel Drescher, EGI.eu



- Objectives
  - Secure federation of Virtualised Resources
  - Integration with EGI's production infrastructure
  - Requirements for higher-level user services
  - Feedback to Technology Providers and SDOs
- Build on top of existing technology
  - Standards wherever possible
  - Profiles where necessary

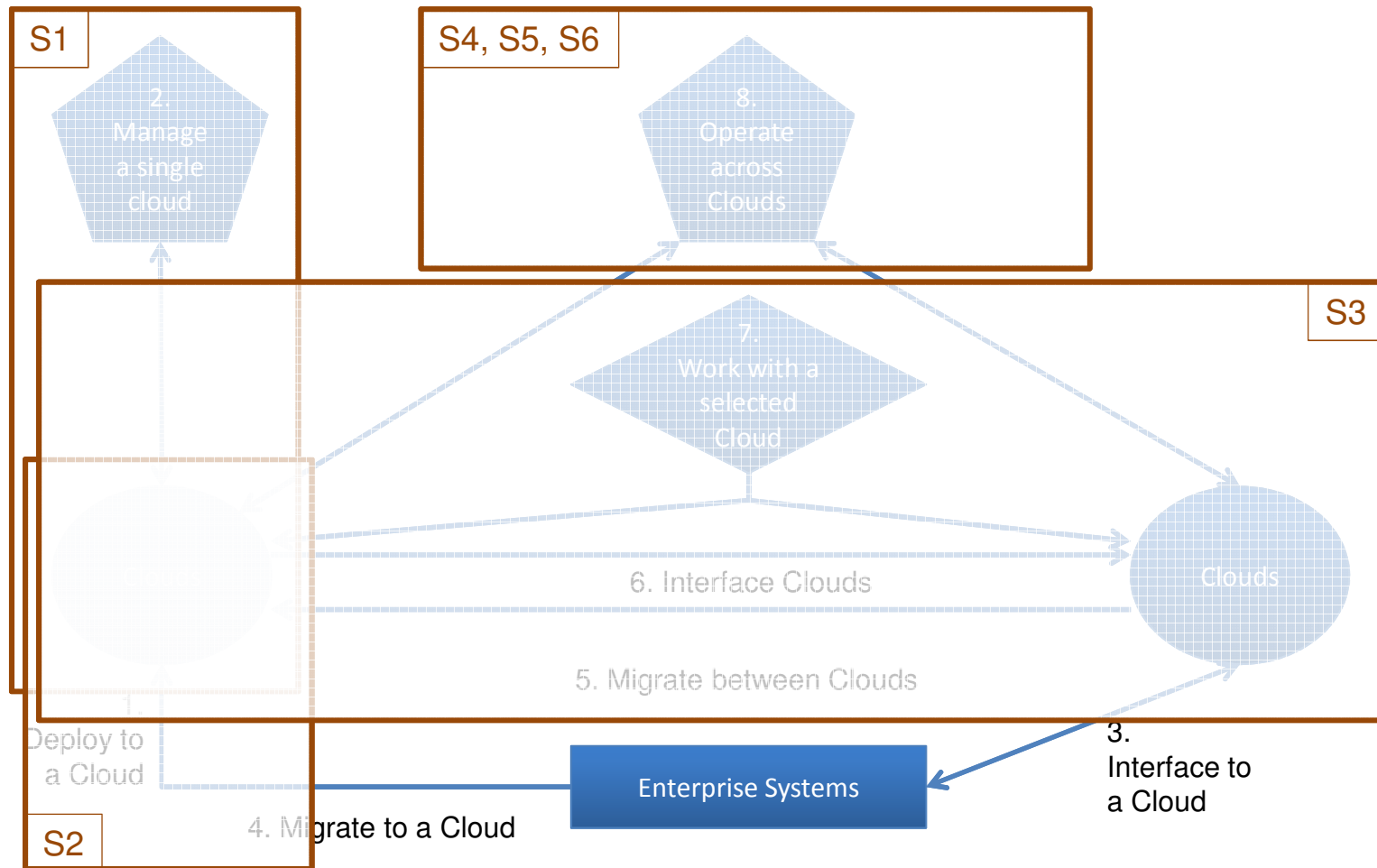
<http://go.egi.eu/tf-fedclouds>



# EGI's Cloud Usage Scenarios

1. Running a pre-defined VM Image (VMI)
2. Using My VMIs & My Data in the Infrastructure
3. Running across multiple Resource Providers
4. Accounting across Resource Providers
5. Reliability & Availability of Resource Providers
6. VM/Resource state change notification

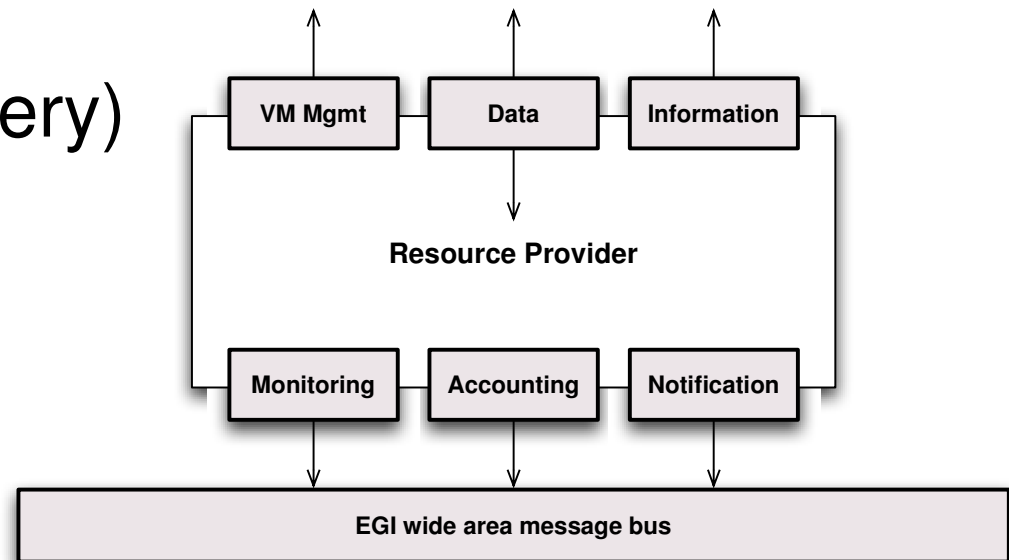
<http://go.egi.eu/435>



## Six Capabilities define the EGI Cloud Profile

Functionality required for uniform & integrated  
federated Cloud Computing

1. VM Management
2. Data access
3. Information (Discovery)
4. Accounting
5. Monitoring
6. Notification





# EGI Cloud Deployment

## *A Federation of Resource Providers*

- Autonomous in User Community choice
- Autonomous local Cloud Deployments

**Private:** Support a specific research community

**Community:** Support communities with similar business logic

**Public:** Support diverse user communities

**Crossing both Administrative & Trust boundaries**

- Enable support for diverse user communities
  - EGI currently provides a single business logic
    - Great if you are a community that uses this model
  - However, other communities have different logic!
    - Enable other community deployments through virtualisation
- Standards are critical for hybrid, federated Clouds
  - Core business need: to support multiple communities
  - Core resource model: independent cloud deployments