**EGI-InSPIRE**

EGI Technical Roadmap

**EU DELIVERABLE: D2.33**

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| --- | --- |
| Document identifier: |  |
| Date: | 25/04/2013 |
| Activity: | **NA2** |
| Lead Partner: | **EGI.eu** |
| Document Status: | **FINAL** |
| Dissemination Level: | **PUBLIC** |
| Document Link: | https://documents.egi.eu/document/1094 |

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| Abstract |

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1. Delivery Slip

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| --- | --- | --- | --- |
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1. Document Log

|  |  |  |  |
| --- | --- | --- | --- |
| **Issue** | **Date** | **Comment** | **Author/Partner** |
| 1 | 19/04/2012 | First draft | Steven Newhouse |
| 2 | 01/05/2012 | Second draft | Steven Newhouse |
| 3 | 02/05/2012 | Final version | Steven Newhouse |

1. Application area

This document is a formal deliverable for the European Commission, applicable to all members of the EGI-InSPIRE project, beneficiaries and Joint Research Unit members, as well as its collaborating projects.

1. Document amendment procedure

Amendments, comments and suggestions should be sent to the authors. The procedures documented in the EGI-InSPIRE “Document Management Procedure” will be followed:
<https://wiki.egi.eu/wiki/Procedures>

1. Terminology

A complete project glossary is provided at the following page: <http://www.egi.eu/about/glossary/>.

1. PROJECT SUMMARY

To support science and innovation, a lasting operational model for e-Science is needed − both for coordinating the infrastructure and for delivering integrated services that cross national borders.

The EGI-InSPIRE project will support the transition from a project-based system to a sustainable pan-European e-Infrastructure, by supporting ‘grids’ of high-performance computing (HPC) and high-throughput computing (HTC) resources. EGI-InSPIRE will also be ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit user communities within the European Research Area.

EGI-InSPIRE will collect user requirements and provide support for the current and potential new user communities, for example within the ESFRI projects. Additional support will also be given to the current heavy users of the infrastructure, such as high energy physics, computational chemistry and life sciences, as they move their critical services and tools from a centralised support model to one driven by their own individual communities.

The objectives of the project are:

1. The continued operation and expansion of today’s production infrastructure by transitioning to a governance model and operational infrastructure that can be increasingly sustained outside of specific project funding.
2. The continued support of researchers within Europe and their international collaborators that are using the current production infrastructure.
3. The support for current heavy users of the infrastructure in earth science, astronomy and astrophysics, fusion, computational chemistry and materials science technology, life sciences and high energy physics as they move to sustainable support models for their own communities.
4. Interfaces that expand access to new user communities including new potential heavy users of the infrastructure from the ESFRI projects.
5. Mechanisms to integrate existing infrastructure providers in Europe and around the world into the production infrastructure, so as to provide transparent access to all authorised users.
6. Establish processes and procedures to allow the integration of new DCI technologies (e.g. clouds, volunteer desktop grids) and heterogeneous resources (e.g. HTC and HPC) into a seamless production infrastructure as they mature and demonstrate value to the EGI community.

The EGI community is a federation of independent national and community resource providers, whose resources support specific research communities and international collaborators both within Europe and worldwide. EGI.eu, coordinator of EGI-InSPIRE, brings together partner institutions established within the community to provide a set of essential human and technical services that enable secure integrated access to distributed resources on behalf of the community.

The production infrastructure supports Virtual Research Communities (VRCs) − structured international user communities − that are grouped into specific research domains. VRCs are formally represented within EGI at both a technical and strategic level.

1. EXECUTIVE SUMMARY

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# Introduction

# Operational Infrastructure

## Core Infrastructure Platform

### Technical Services

#### Federated AAI

#### Information Discovery

#### Monitoring

#### Accounting

#### Metrics visualisation

#### Messaging

#### Service Catalogue

### Support Services & Tools

#### Operational security

#### Community Platform integration

#### Operations portal

#### Metrics portal

## Cloud Infrastructure Platform

### Federated Cloud management services

#### VM Management

#### Data Management

#### Virtual Organisation management & AAI

#### Image management and distribution

#### Information Discovery

### Core Infrastructure integration

#### Federated AAI

#### Monitoring

#### Accounting

#### Central Service Registry

## Collaboration Platform

### Technical collaboration services

#### Service Desk

#### VM Marketplace & Appliance Repository

#### Software Repository

#### Application Database

#### Requirements tracker

#### Training Marketplace

### Social collaboration services

#### Audio conferencing

#### Meeting planner

#### Wiki

#### Document Database

#### Discussion Forum

#### Client Relationship Management

# Community & Coordination

## Human Networks

### NGI International Liaisons

### EGI Champions

### Virtual Teams & mini Projects

## Conventions and dissemination

### Major EGI Events & Workshops

### Communications and Marketing

### Community building & user groups

## Strategy and Policy

## Business Development Strategy

# Virtual Research Environments

## Community Platforms

### Unified Middleware Distribution (UMD)

### Any other?!?

The HEP, A&A, etc. that were described in D2.31 are insufficiently scoped…

## Support Services for VREs

### Software Provisioning for Community Platforms

### Technical Outreach & Support