

## JRA1 status

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(INFN and CERN)*

[www.eu-egee.org](http://www.eu-egee.org)  
[www.glite.org](http://www.glite.org)

PM	ID	Title	Lead Partner	Status
1	<a href="#">MJRA1.1.1</a>	Support plan, definition of common components and tools, strategy for multiple platform support	INFN	PEB approved
3	<a href="#">MJRA1.2</a>	Functional Description of Grid Components	INFN	PEB approved
4	<a href="#">MJRA1.3</a>	Grid Components Reengineering Workplan	INFN	PEB approved
6	<a href="#">MJRA1.4</a>	Shibboleth interoperability through dedicated SICS	SWITCH	PEB approved
9	<a href="#">MJRA1.5</a>	Shibboleth interoperability with attribute retrieval through VOMS	SWITCH	PEB approved
10	<a href="#">DJRA1.1</a>	Report on Middleware Service Reengineering	INFN	PEB approved
11	<a href="#">MJRA1.6</a>	Update of Functional Description of Grid Components and associated Workplan	INFN	PEB approved
14	<a href="#">MJRA1.1.2</a>	Update of Support plan, definition of common components and tools, strategy for multiple platform support	INFN	PEB approved
<del>21</del> ↓ 22	MJRA1.7	<del>Shibboleth interoperability with SAML support</del> ↓ Authorization mechanisms in gLite	SWITCH	
23	DJRA1.2	Final report on progress of middleware reengineering	INFN	

- **Performance**
  - New WMS/LB now in production
  - gLiteCE and CREAM passed the acceptance criteria
    - Completing in CREAM the features needed for production
  - The TCG wants to define acceptance criteria for all services
- **Portability / usability**
  - Everything for gLite 3.1 is in ETICS
  - Only UI and WN released on SL4
    - Need to speed up the release of all other services
  - gLite restructuring
  - Need to start implementing the new logging format
- **Functionality**
  - New VOMS-Admin still in certification
  - SRM 2.2 supported by all clients
  - Prototype EDS based on DPM/LFC almost complete

- **Christoph Witzig from SWITCH is the new Security Architect**
- **He is co-chair of the MWSG and member of the SCG**
- **The main task for Christoph is to understand the various authorization mechanisms in gLite and to propose a design which will be implemented within JRA1 in the remainder of EGEE-II and the first year of EGEE-III (assuming EGEE-III is being approved)**

- **SCAS: Site Central Authorization Service**
  - Should have at least the same functionalities of LCAS/LCMAPS
  - Needed mainly for the support of identity change on the WN (pilot jobs)
  - Based on a common interface agreed with OSG
    - Fast implementation using the library developed by Globus
  - Short time scale: needs to be ready well within EGEE-II
- **New Authorization Service**
  - Uniform authorization and policy management in gLite
  - Compatible with SAML and XACML standards
  - Built on the experience of previous systems
    - LCAS/LCMAPS, SCAS, G-PBox, gJAF
  - Full design to be completed by Dec. 2007, implementation will start in 2008 and continue in EGEE-III
  - Not constrained to the use of any existing implementation
    - though recommended for the sake of economy
- **The agreement with OSG on the interface is expected to stay**
  - Long term requirements coming from the new design must be taken into account when defining the common interface also in the short term

- ✓ **1. Compact UI and WN**
  - Remove obsolete components from the repository
- ✓ **2. Remove non-gLite dependencies from Meta-RPMs**
  - Gain a better understanding of the dependencies of individual components
- ✓ **3. Reduced and disentangled dependencies per component (*Dependency Challenge*)**
  - Dependencies per component cut down to a minimum
  - *Requires components to be ready for certification on SL4*
- 👉 **4. Unified Dependencies across Components**
  - Common set of external dependencies
  - *Mostly done in step 3. Requires input from SA3*
- 👉 **5. Cleaned Client/Server code**
  - cleaner separation between client and server code
  - *To be completed by the end of November!*

- **Complete the release of all services on SL4-32**
- **Complete the gLite restructuring (client-server code and all dependencies clean-up)**
- **Release WN on SL4-64**
  - Check what libraries needs to be available for both flavours
  - UI and other services to follow
- **Adopt the common logging format**
- **Administrative interfaces for all services**
  
- **SCAS prototype, AuthZ service design**
- **CREAM ready for certification**
- **Working EDS prototype**
- **...**

- **The IT and CZ groups used to have joint meetings in EGEE when they were part of the same cluster**
- **In EGEE-II they were cancelled but they feel there is a lack of coordination in the field of Job Management**
- **Starting with next January there will be again IT/CZ meetings to coordinate the job management activities**
  - To improve coordination and exchange of information
  - With very technical content



- **CERN, 26-30 November 2007**  
<http://indico.cern.ch/conferenceOtherViews.py?view=standard&confId=20080>
- **Topics:**
  - Critical Services - Experiments' Viewpoint
  - *Reliability by design* - follow-up on issues from WLCG Collaboration workshop in Victoria / CHEP
  - Monitoring & end-to-end Service Reliability
  - Middleware development - tips & techniques related to *reliable by design*.
    - Including a session on developing DB apps
  - WLCG Medium Term Requirements for Operations & Support
- **Our contribution is requested:**
  - Thursday morning: “Robust Services - Middleware Developers' Techniques & Tips”
    - DPM/LFC and FTS already in agenda (1h)
    - Others may be WMS and LB, VOMS, R-GMA, ... (1h30' available)
- **Other parts of the workshop are interesting for us as well!**

## JRA1 in EGEE-III

- **Proposal presented on 20/9/2007**
- **Invited for the hearings on 23/10/2007**
- **Feedback from EU expected by next week**
- **No time scale for the negotiations...**

## TJRA1.1

*Middleware support*

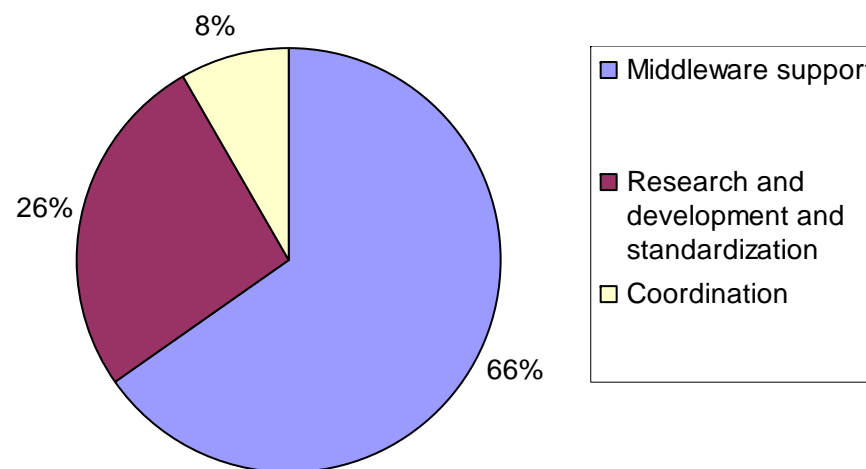
## TJRA1.2

*R&D and standardization*

## TJRA1.3

*Coordination*

Distribution of JRA1 manpower per task



- **Focus is on support**
- **Strong collaboration with SA3**
  - The partners of JRA1 have a component in SA3 for integration and certification of the components they develop
- **Effort: 924 PM (38.5 FTEs )**
  - 25% less than in EGEE-II

- **Focus is on Grid foundation**

- Security infrastructure
- Information system and accounting
- Compute element
- Storage element

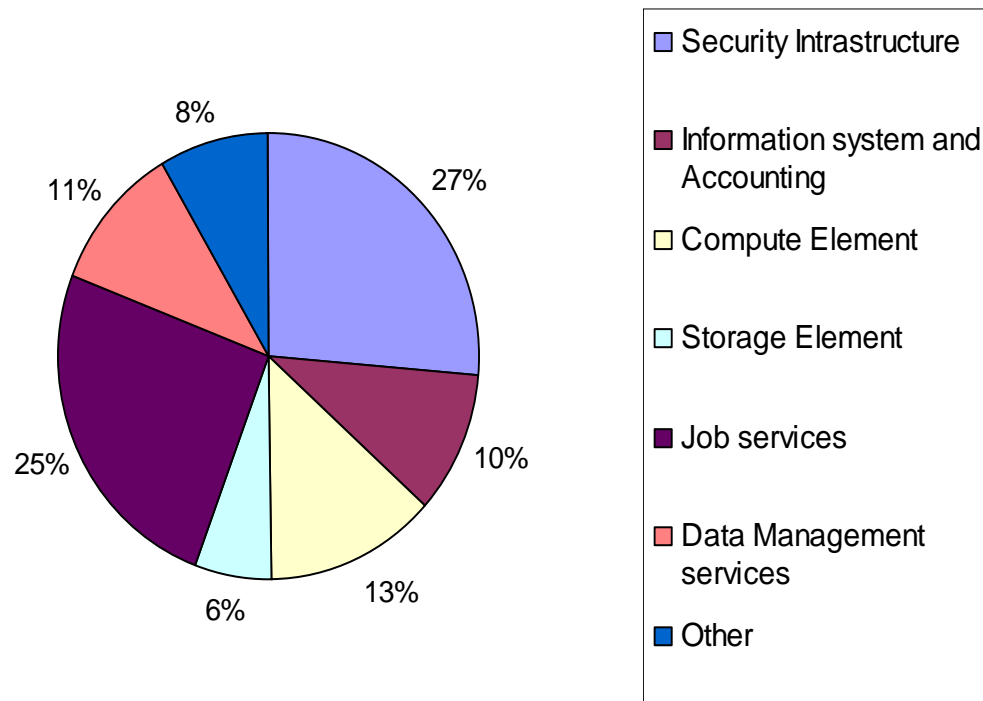
- **High level services**

- Job services
- Data Management services

- **Other activities**

- Coordination (activity manager, deputy, Security Architect and cluster representatives)

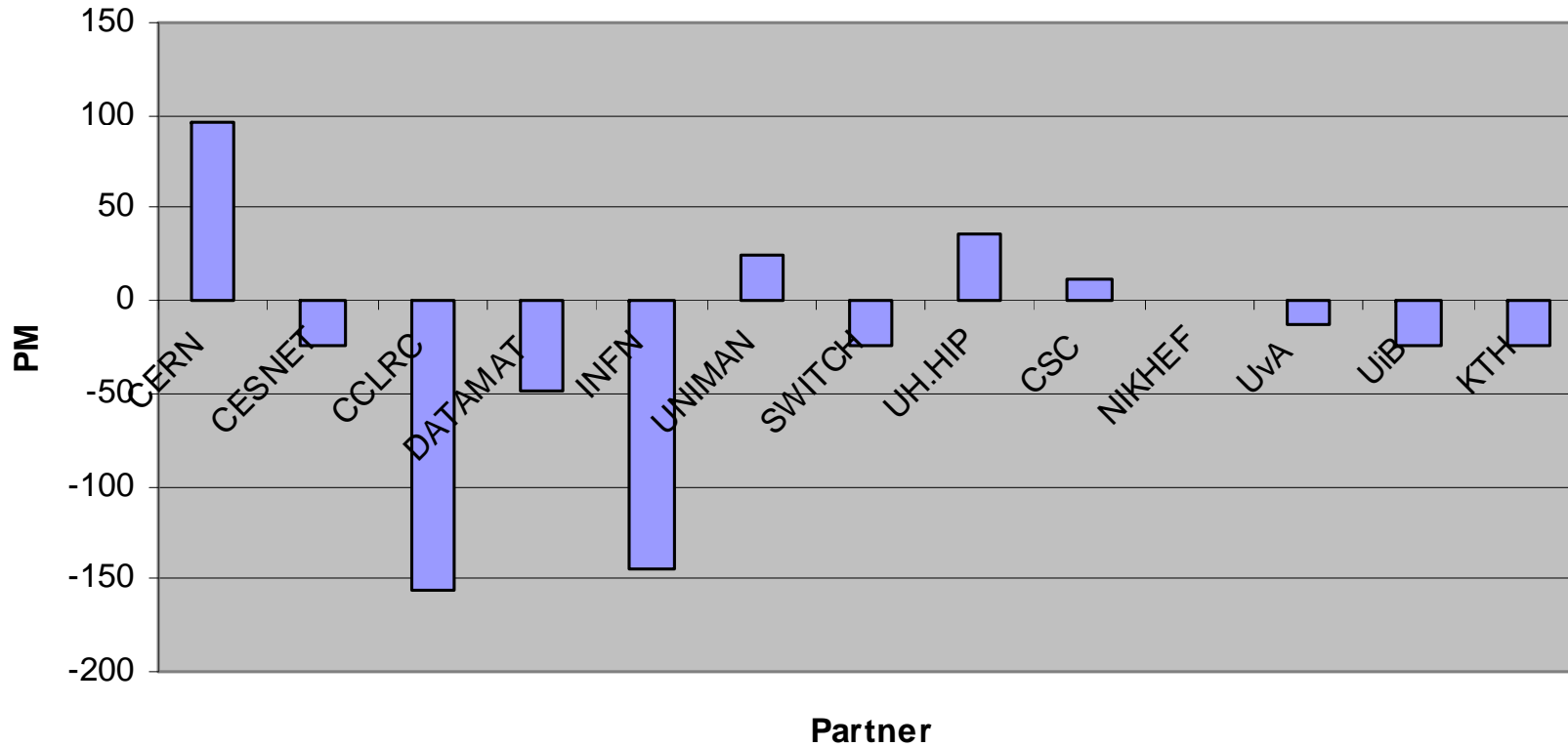
Distribution of JRA1 manpower per area





Partner	Middleware area / Task	PMs
<b>Security Infrastructure</b>		
CESNET	Proxy renewal	12
INFN	VOMS/VOMS-Admin, Authorization services	72
UNIMAN	GridSite	24
SWITCH	Authorization services	36
UH.HIP	TrustManager/Util-Java, Delegation, Pseudonymity services	39
NIKHEF	Authorization services, glexec	48
UvA	Authorization services	12
<b>Information system and Accounting</b>		
CERN	bdII	48
STFC	Service discovery	12
INFN	DGAS	36
<b>Compute Element</b>		
INFN	BLAH, CREAM, CeMon	120
<b>Storage Element</b>		
CERN	DPM, GFAL	54

Partner	Middleware area / Task	PMs
<b>Job services</b>		
CESNET	Logging&Bookkeeping, Job Provenance	78
DATAMAT	gLite WMS	66
INFN	gLite WMS	90
<b>Data Management services</b>		
CERN	LFC, FTS, lcg_utils	60
UH.HIP	Encrypted Data Storage, including Hydra	27
CSC	Encrypted Data Storage, including Hydra	12
<b>Coordination and overhead</b>		
CERN	JRA1 steering	6
CESNET	JRA1 steering	6
DATAMAT	JRA1 steering	6
INFN	Activity coordination and JRA1 steering	30
SWITCH	Security Architecture	12
UH.HIP	Activity deputy and JRA1 steering	18
<b>TOTAL</b>		<b>924</b>

JRA1 Difference EGEE-III - EGEE II



1. Where specifically is the simplification and optimisation in the provision of services compared to state of the practice? What metrics will be used to assess and monitor this?
2. Please clarify your strategy for commercial uptake in the light of the market experience of other open source products and with EGEE II?
3. Please elaborate your strategy towards creating a sustainable infrastructure. Describe in detail the actions the consortium will undertake, including collaborating with EGI\_DS, to complete the successful transition to a sustainable infrastructure by the end of the project. Is there sufficient resource in place for this, and what are the risks?
4. Please demonstrate and substantiate the mapping between the objectives, activities and the allocated resources
5. Can you justify the resources allocated to the first Joint Research Activity (JRA1), the sustainability task (NA1.5), the strategic discipline clusters (NA4), and the business outreach (NA6)? 
6. What is your policy on the use and adoption of and contribution to existing and emerging standards? 
7. Please explain what IPR issues you foresee, especially in integrating third-party software, and what are your plans for dealing with them.
8. Please clarify your plans for making it possible for users without resources to gain access to the infrastructure
9. What impact will the LHC have on infrastructure availability when it comes on-line?



- **EGEE-III objectives: [...] Ensure continuous provision of production quality Grid infrastructure: SAs & JRA1**
- **Smoother middleware installation & deployment (via SA3 and JRA1)**
  - Will expand platform support and further reduce effort required to operate sites
- **JRA1: Middleware Engineering**
  - Reduction of 25% in effort compared to EGEE-II
  - Majority of effort is for continuous and immediate support
    - Increased number of sites, with different levels of gLite expertise
    - Continuous change of underlying infrastructure and components, increased number of applications, with diverse needs (EGEE-II: ~500 changes/year)
    - Heavy demand for more supported platforms (will enable more resources to be connected)
  - Implementation of robust service logic for adopted standards
  - Increased emphasis on security framework
    - Uniform authorization framework (for grid community not just gLite)

- **Standards ensure a choice of implementations and interoperability with other infrastructures**
- **EGEE-III is committed to implementing/deploying middleware adhering to selected standards**
  - EGEE 2007 user forum event was co-located with OGF20 meeting
- **Through large-scale operational experience and users' needs, EGEE identifies relevant standards and proactively develops them via bodies such as OGF**
  - EGEE-II is active in 14 groups that have produced 6 standards documents with a further 16 in draft form
  - “Best practice” approach has proven most successful for interoperability
- **Agreed standards are an early milestone towards a deployable service on the production infrastructure**
- **Examples where this process has been shown to produce results include GIN, security, Glue, SRM, BES and JSDL**
- **EGEE will continue to provide open source middleware components and facilitate access to commercial alternatives (e.g. sites may choose MySQL or Oracle, PBS or LSF, etc.)**

## The next All Hands Meeting will be at NIKHEF



**Wednesday February 22<sup>nd</sup> to Friday February 24<sup>th</sup>**