EGI.eu

VIRTUAL RESEARCH COMMUNITIES (VRC) IN THE EUROPEAN GRID INFRASTRUCTURE (EGI)

Document identifier	EGI-UCB-<VRC-Accreditation>-V1.0.2
Document Link	https://documents.egi.eu/document/253
Last Modified	12/11/2010
Version	V1.0.2
Policy Group Acronym	UCB
Policy Group Name	User Community Board
Contact Person	Gergely Sipos, EGI.eu Steve Brewer, EGI.eu
Document Type	Procedure
Document Status	FINAL
Approved by	EGI.eu Director
Approved Date	12/11/2010

Policy Statement

Within EGI the model for scalable user support is the Virtual Research Community (VRC). This model will serve both large and small communities by offering structured research communities a sustainable mechanism with which to interact with EGI. This will allow the VRC to access EGI services and provide a point through which EGI can gather objectives and requirements from a defined set of users. The document provides detailed information on the benefits of becoming an EGI VRC and describes the accreditation process itself.

I. AUTHORS LIST

	Name	Partner/Activity/ Organisation/Fun ction	Date
From	Gergely Sipos Steve Brewer	EGI.eu	12/11/2010

II. DOCUMENT LOG

Version	Date	Comment	Author/Organization
1.0	12/11/2010		EGI.eu
2.0			
3.0			
4.0			

III. APPLICATION AREA

This document is a formal EGI.eu policy or procedure applicable to all participants and associate participants, beneficiaries and Joint Research Unit members, as well as its collaborating projects.

IV. POLICY/PROCEDURE AMENDMENT PROCEDURE

Reviews and amendments should be done in accordance with the EGI.eu "Policy Development Process" (https://documents.egi.eu/document/169).

V. ORGANISATION SUMMARY

To support science and innovation, a lasting operational model for e-Infrastructure is needed – both for coordinating the infrastructure and for delivering integrated services that cross national borders. The objective of EGI.eu (a foundation established under Dutch law) is to create and maintain a pan-European Grid Infrastructure in collaboration with National Grid Initiatives (NGIs) in order to

guarantee the long-term availability of a generic e-infrastructure for all European research communities and their international collaborators.

In its role of coordinating grid activities between European NGIs, EGI.eu will:
- Operate a secure integrated production grid infrastructure that seamlessly federates resources from providers around Europe
- Coordinate the support of the research communities using the European infrastructure coordinated by EGI.eu
- Work with software providers within Europe and worldwide to provide high-quality innovative software solutions that deliver the capability required by our user communities
- Ensure the development of EGI.eu through the coordination and participation in collaborative research projects that bring innovation to European Distributed Computing Infrastructures (DCIs)

The EGI.eu is supporting 'grids' of high-performance computing (HPC) and high-throughput computing (HTC) resources. EGI.eu will also be ideally placed to integrate new Distributed Computing Infrastructures (DCIs) such as clouds, supercomputing networks and desktop grids, to benefit the user communities within the European Research Area.

EGI will collect user requirements and provide support for the current and emerging user communities. 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 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, 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 – structured international user communities – that are grouped into specific research domains. VRCs are formally represented within EGI at both a technical and strategic level.

TABLE OF CONTENTS

1 INTRODUCTION

Scientific research is no longer conducted within national boundaries. Scientists are becoming increasingly dependent on large-scale analysis of data generated from instruments or computer simulations housed in trans-national facilities using distributed computing and storage resources linked by high-performance networks. Such facilities are collectively known as e-Infrastructure.

EGI is a partnership between National Grid Initiatives (NGIs) and a coordinating body, named EGI.eu to operate a sustainable, pan-European Grid infrastructure for international scientific communities. NGIs are national legal entities charged with taking care of grid infrastructure related matters in their own countries. EGI.eu is seen as the glue enabling coherence between the NGIs for the benefit of their users and members of Virtual Research Communities or VRCs.

VRCs are groups of researchers, possibly widely dispersed, working together effectively through the use of information and communications technology (ICT). With the help of EGI the VRC researchers can collaborate, communicate, share resources, access remote computers or equipment and produce results as effectively as if they, and the resources they require, were physically co-located.

2 THE BENEFITS OF VRC MEMBERSHIP

VRC membership in EGI offers the following key benefits for researchers, scientists and the developers of distributed scientific applications:

1. VRCs can access computing, data storage and other types of resource made available by EGI stakeholders through open source middleware software solutions. VRC members can store, process and index large datasets and can interact with partners using the secured services of the EGI infrastructure.

2. The user support units of the NGIs and EGI.eu help VRC members during the routine usage of the systems and provide assistance to access and utilise the largest multi-disciplinary grid in the world.

3. VRCs will have the ability to establish their own Virtual Organisations (VOs) as collections of hardware, software and human resources configured in order to share capacities, to collaborate with partners and to run data intensive simulations. The VOs can benefit from the resources provided by NGIs and other VRCs.

4. NGIs provide trainers and technology specialists for VRCs to support them during the integration and adaptation of their legacy applications and datasets to the EGI infrastructure. The combination of VRC's own training resources together with EGI's infrastructure-related modules can provide comprehensive packages for VRC members in an efficient and timely manner.

5. VRCs can influence the evolution of EGI's services through representation in the User Community Board and the User Support Advisory Group. Based on requirements collected from its members, VRCs can advise EGI on its planning and operational priorities.

3 DEFINITION

The following diagram illustrates the purpose of the Virtual Research Community (VRC) within the EGI ecosystem. The VRC is defined as an organisational grouping that brings together transient Virtual Organisations within a persistent and sustainable structure. A VRC must be a self-organising group that collects and represents the interests of a focussed collection of researchers across a clear and well-defined field. Named contacts are agreed upon by the VRC to perform specific roles and these then form the communication channel between the VRC and EGI.
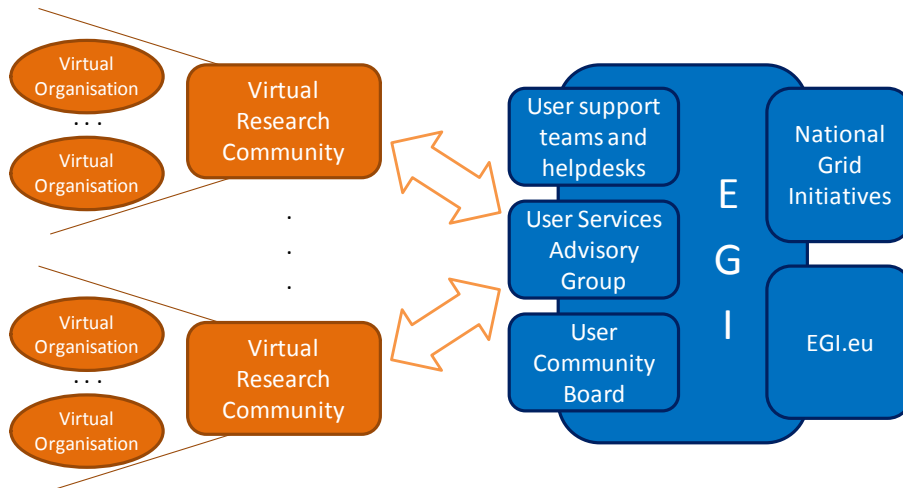
4 JOINING AN EXISTING VRC

Existing VRCs run applications for research domains as diverse as high energy physics, life sciences, astronomy, astrophysics, computational chemistry, earth sciences, fusion. The current list of active VRCs and their VOs can be found on the User Support section of the EGI website, together with information on how to join: www.egi.eu/user-support.

5   REGISTERING A NEW VRC

EGI invites international scientific communities to establish new VRCs. The proposal must demonstrate that it represents a community of researchers that has an established existence outside of the VRC, i.e. that it has structure (such as an ESFRI project, EIROFORUM laboratory, national research structure. professional organisation or affiliation, etc.) and that this body represents this particular community. The VRC must also show that it has an established governance model and open mechanisms for new participants to enter (or leave) the organisation, and that all members of this organisation will have access to all the services offered by the VRC, i.e. beyond those who are just part of the proposal. These conditions enable EGI.eu to recognise the VRC as being the 'voice' of a particular community of users within the infrastructure. EGI can also provide help and advice on suggested best practices for such organisational models if needed. All communication should be through the Chief Community Officer cco@egi.eu.

6 PROCEDURE FOR VIRTUAL RESEARCH COMMUNITY ACCREDITATION IN EGI

The following steps provide detailed information on the VRC accreditation process for EGI. Within EGI the model for scalable user support is the Virtual Research Community (VRC). This model will serve both large and small communities by offering structured research communities a sustainable mechanism with which to interact with EGI. This will allow the VRC to access EGI services and provide a point through which EGI can gather objectives and requirements from a defined set of users. The following section defines the purpose and benefits of the VRC as well as an accreditation process which involves a set of evaluation criteria for examining potential new VRCs to determine whether EGI should formally recognise them as appropriate and effective representatives of a given research community. Once this initial process is complete and contact points have been established more detailed discussions will take place to establish the technical and contractual agreements.

6.1 Procedure

All communication should be through the Chief Community Officer (CCO) cco@egi.eu with an email subject of "Request for new VRC called [your_VRC]"

6.2 Step 1: Before submitting a request for a new VRC

Please check the current list of active Virtual Research Communities. This is accessible from the User Support section of the EGI website. This list also contains a list of the currently active Virtual Organisations (VOs) together with the VRC to which they are associated if applicable. The following questions can then be asked:

- Is there an existing VRC that could meet the needs of all or part of the proposed community? The scope of the proposed VRC should not overlap to any significant degree with any existing VRC;

- Are there existing VOs whose needs could be met by the proposed community? These may or may not already be part of an existing VRC;

6.3 Step 2: Initial request:

The VRC proposal must demonstrate that it represents a community of researchers that has an established existence outside of the VRC, i.e. that it has structure (such as an ESFRI project, EIROFORUM laboratory, national research structure. professional organisation or affiliation, etc.) and that this body represents this particular community. This community must also show that it has an established governance model and open mechanisms for new participants to enter (or leave) the organisation, and that all members of this organisation will have access to all the services offered by the VRC, i.e. beyond those who are just part of the proposal. These conditions enable EGI.eu to recognise the VRC as being the 'voice' of a particular community of users within the infrastructure. EGI can provide help and advice on suggested best practices for such organisational models if needed.

The proposal should also describe how the VRC organisational structure will become sustainable over time. For example will it adopt a formal legal structure or will it rely on committed services form a

few dominant partner organisations in the field. There is no right or wrong answer as long as the potential for persistence can be demonstrated. The proposed VRC should respond to the following points:

1. Which ESFRI Roadmap projects (if any) are affiliated to the proposed VRC?

2. How would your community structure and organise itself in order to present a unified view as a VRC?

3. Which NGIs/EIROs endorse the proposed VRC by committing to provide access to resources (compute/data), VO services (e.g. VO monitoring frameworks through dashboards, VOMS for VO membership registration etc.) and generic user support services (e.g. application porting, training, etc.)?

4. How will the proposed VRC have the ability, capability and commitment to provide domain-specific support including training, dissemination and general community coordination activities?

5. How will the proposed VRC work with EGI to collect and prioritise requirements from within the communities they represent?

6. Any required interactions with resource providers outside of Europe should also be noted in terms of requirements and opportunities.

The application should also include the following information:

- A succinct description of the scope of the proposed VRC in terms of research discipline and the NGIs (if any) that are supporting the proposal.

- Details of the named representatives of the proposed VRC (together with a current email address and telephone number):

    o Coordinator: providing strategic and managerial input on the VRC's activity to the CCO and Director of EGI.eu;

    o Technical contact: representing the VRC within EGI on the User Community Board (UCB) and possibly on other groups within EGI (e.g. User Support Advisory Group);

    o Policy contact: providing input and feedback on the non-technical policies (e.g. security and usage) being developed by EGI;

    o Dissemination contact: providing a bi-directional contact point between the EGI Dissemination Manager (and their staff) and the VRC relating to dissemination activities

- o Training contact: providing requirements to evolve the training services (i.e. digital library, registry of trainers, training calendar) and as contact point for training needs and services within their community;

- o User Support contact: route for integrating community-based support units with the associated Support Unit in EGI;

- o Security contact: communication point for liaising with the EGI's Computer Security and Incident Response Team (CSIRT) for issues relating to activities of the VRC's users;

- o Operations contact: the communication point for any VRC-specific services needed by the VRCI;

These contact points may be the same person. These representatives (or additional people) may be invited to participate in other EGI bodies depending on the interests of the VRC.

- A justified estimation of the size of the VRC at a European level in terms of users, Virtual Organisations (VOs) and services and resources (compute & data) that already exist within the VRC and which are or could be integrated with the EGI infrastructure[1];

- A summary of the applications that the proposed VRC would need together with information about who would support these applications.

Note:
1. The VRCs must agree to name a technical representative (with deputy) for the EGI User Community Board;

2. The VRC may be asked to nominate a representative for EGI-InSPIRE's External Advisory Committee;

3. The VRC may be asked to nominate representatives to serve on other advisory groups as appropriate; The VRC will accept and enforce EGI's acceptable use and security policies;

4. The VRC's named dissemination contact will work with EGI's dissemination team to share and coordinate dissemination activities and materials;

5. The VRC's named training and user support contact will work with the EGI User Community Support Team to integrate services;

---

[1] Integrating existing VRC services into the EGI infrastructure does not mean that they will be freely available to all but rather they will be accessible to the VRC across the broader infrastructure.

6.4   Step 3: Approval

VRC proposals are reviewed and approved by the EGI User Community Board. This process may take up to a month.

6.5   Step 4: Response

Within one month of submission, a letter confirming or rejecting support for the proposed VRC will be provided to the requestor by EGI.eu. After this, the process of creating the VRC and aligning its associated VOs within the infrastructure will commence.

6.6   Step 5: Memorandum of Understanding

The relationship between EGI and the VRC must be captured within an agreement that documents the bi-directional expectations between EGI (as a representative of the service providers) and the VRC (as a representative of the community).