Proposal for a Life-Science Virtual Research Community Support Initiative

10 August 2010, version 2

About this document

This document is the second version of a proposal initiated after the LSVRC workshop that took place during the HealthGrid conference in June 2010 in Paris. In addition to the information collected at this workshop (see slides available online[1]), the text was significantly revised with input from the Dutch NGI (in particular S. Olabarriaga and A.H. van Kampen), the Swiss NGI (H. Stockinger) and the French NGI (S. Keuchkerian, Y. Legré, J. Montagnat and T. Glatard).

Motivation and definitions

The purpose of this document is to motivate and propose a setup for a Life-Science Virtual Research Community.

The "**Life-Science community**" covers notably the following scientific domains: bioinformatics, genomics, biobanking, medical imaging, (statistical) analysis and systems biology (e.g., virtual physiological human). It covers research groups from universities, research centers and industry, IT actors developing tools for Life Sciences, hospitals and ESFRIs. A "**grid**" consists of the distributed infrastructures provided by the National and European Grid Initiatives (NGIs and EGI), supercomputing platforms (DEISA), infrastructures potentially provided by ESFRIs, and other possible resources (e.g. commercial/private cloud resources).

European grid projects, in particular EGEE and now EGI, initiated strong collaborations among life sciences (LS) community members through the setting up of a Virtual Research Community (VRC). These collaborations have further increased the capacity of the communities to mobilize their members worldwide to create strong Virtual Organizations (VOs), notably biomed and many others.

During the Enabling Grids for E-sciencE (EGEE) project series production services such as resource monitoring, user support and training have been setup and delivered to all users of the LS community in Europe, Asia and Latin America. In the new EGI operation model, however, VO-specific support is no longer available, so the continuity of these services is currently at risk. As a temporary solution, since May 2010 a small number of volunteers have operated them. A new sustainable model needs to be found shortly to guarantee the operation of these services, to sustain and strengthen the community building, to avoid fragmentation of the international community built after so much effort, and to ensure further embedding of grid technology in life sciences. We believe that ensuring the cohesion of the life sciences user communities with a continuation of the VRC model is vital to guarantee that new scientific challenges can be tackled based on these previous achievements.

Missions

The goal of the VRC is to serve the European Life Sciences community in its exploitation of the grid.

It has the following missions:

- **Advance** and apply grid technology for life sciences.
- **Represent** the Life Sciences grid users: negotiate resources, liaise with EGI and other worldwide resource providers.
- **Coordinate actions**: serve as a contact point for new users, share expertise, avoid replication of efforts, define domain-specific requirements, encourage sharing of resources, data and tools.
- **Provide technical services**: operate and support common VOs, operate shared services, provide targeted user support and application porting.
- **Induction:** organize community-specific training events that can smooth the learning curve and lower the start-up cost.
- **Dissemination:** transfer knowledge, advertize actions, and facilitate communication internally with the

[1] http://indico.in2p3.fr/sessionDisplay.py?sessionId=1&slotId=0&confId=2504#2010-06-28

members and externally to other groups of interest (e.g., funding and policy-making initiatives).

Implementation

The VRC is as a **lightweight non-profit organization**. The HealthGrid association is proposed as the legal entity to host the LSVRC. VRC members are VOs, NGIs, projects, institutions or individuals. The VRC coordinator and deputy are elected by the VRC members. The scientific board is constituted and defines the VRC goals which are implemented by an executive body. Decisions are made based on scientific merit, technical feasibility and value for money.

To ensure sustainability, financing mainly consists of membership contribution in the form of paid fees or manpower provisioned by stakeholder organization among their qualified personnel. Financing may also include long-term sponsoring and public funding from projects.

Supporting organizations/Representatives

- EGI-Inspire LS representative / Giovanni Aloisio
- Dutch NGI / Silvia Olabarriaga
- Swiss NGI / Heinz Stockinger
- French NGI / Johan Montagnat
- Spanish NGI / Ignacio Blanquer
- German LS users (MEDIGRID?) / Dagmar Krefting
- Lifewatch ESFRI / Los Wouter
- Italian NGI / Luciano Milanesi, Giorgio Maggi