

## Excerpts from EGI Blueprint draft as of 5 Dec 2008.

[intro text, relationship with PRACE / DEISA]

### 1.1. THE EGI ACTORS

#### 1.1.1. National Grid Initiatives

The main actors of EGI are the National Grid Initiatives (**NGIs**), which ensure the operations of the grid infrastructures in each country and a transparent representation of the requirements of all their scientific communities together with resource provider and all e-Infrastructure related institutions. The goal of EGI is to link existing NGIs together and to actively support the setup and initiation of new NGIs in those countries, where corresponding efforts do not yet exist. The characteristics of the NGIs can be identified as follows<sup>1</sup>:

Each NGI should

- be the **only** recognized national body in a country with a single point-of-contact representing all institutions and research communities related to a national grid infrastructure
- have the **capacity to sign** the statutes of EGI.org – either directly or through a legal entity representing it
- have a **sustainable structure** or be represented by a legal structure which has a sustainable structure in order to commit to EGI.org in the long term
- mobilise **national funding** and resources and be able to commit to EGI.org financially, i.e. to pay EGI.org membership fee and – if there is a demand for such services in the NGI – order EGI.org services and pay for these services
- ensure the **operation of a national e-Infrastructure** to an agreed level of service and its integration in EGI
- **support user communities** (application independent, and open to new user communities and resource providers)
- contribute and adhere to **international standards and EGI policies** and quality criteria

At this point in time, all NGIs in Europe are at different stages of their implementation, ranging from individuals claiming to represent an NGI to early implementations of NGIs with a preliminary legal status. During the development of EGI, these early forms of NGIs are expected to transform into legal entities, or be represented by established legal entities, which are able to collaborate on formal grounds in the European landscape. The EGI effort intends to support this development in order to achieve a mature level for all NGIs in Europe.

NGI are fully autonomous in their choices, within the boundary condition of the EGI model and the established EGI policies and rules. The autonomy of the NGIs is not limited to the tasks each NGI performs for supporting the national grid infrastructure and the national users and application communities (NGI National Tasks), but naturally extends also to the tasks that are specifically aimed at allowing the sharing of the national IT resources at pan-European and international level in a uniform, robust, and seamless way and at supporting the international application communities (NGI International Tasks). The EGI model and the EGI.org coordination intend to promote such autonomy and related responsibilities, proposing only the specifications, operational rules and policies needed for the good working of the infrastructure and for the benefit of research teams and resource providers.

(For more details, consult EGI\_DS deliverable D4.3) [2].

NGIs fulfilling these requirements should ideally exist by spring 2009.

#### 1.1.2. EGI Council

The top level management layer in EGI is the EGI Council. **The NGIs own EGI.org** and voice their views on all EGI matters through the EGI Council. Each Member States having established an NGI fulfilling the above

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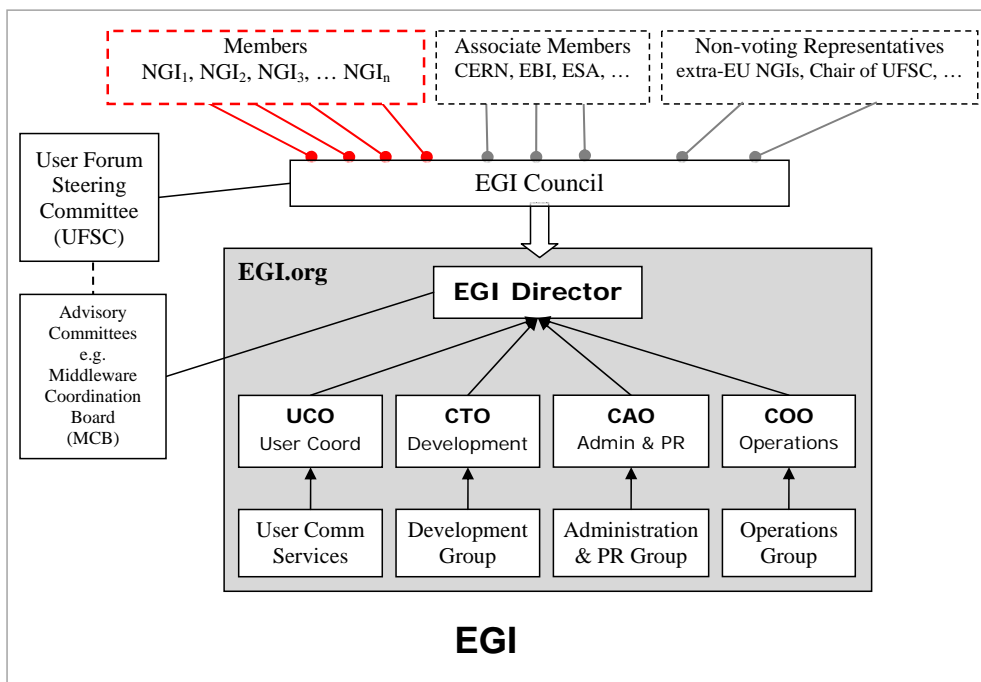
<sup>1</sup> These characteristics are further developed in an EGI\_DS Document “Guidelines for NGIs”, which also reflects the different stages of evolution of the NGIs.

requirement is represented in the EGI council. Other members of this body are the **Associate Members**, i.e. international institutions such as CERN, EBI, ESA, etc., and **non-voting Representatives**, such the Chair of the **User Forum Steering Committee** (UFSC – see below) and the representatives of extra-European grid infrastructures, as many of the user communities currently supported by EGEE are already of a global dimension. It is expected that this representation could be reciprocated and that the EGI Council will be represented in the governing bodies of those grid infrastructures. The EGI Council may install committees that elaborate recommendations to the EGI Council for specific topics. It may furthermore elect an Executive; details will be determined later.

The EGI Council may contribute to creating an International grid infrastructure coordination to handle the issues related to the overall international interoperability.

### 1.1.3. The EGI Organization – EGI.org

To facilitate the interaction and collaboration between NGIs and to provide a common managerial framework of the pan-European grid infrastructure, EGI intends to set up and implement a new legal organisation owned by the NGIs, the so-called EGI Organisation (**EGI.org**), which is expected to start its operation in 2010. This deadline must be met to ensure a smooth transition without interruption from today's EGEE-based infrastructure into the future **EGI model**.



**Figure 1: The EGI.org Management Structure (FIGURE needs to be updated)**

One of the obviously necessary functions for EGI is the management of EGI.org. Figure 1 shows the outline of the proposed organisational structure. The following description contains a rough sketch of the management levels and (within text-boxes) assumptions how the functions should be funded.

#### 1.1.3.1. EGI.org Director and Heads of Units

The EGI.org Director, who works full time for EGI.org, provides the organisational interface to the EGI Council, to funding and policy bodies (EC etc.) and to several EGI committees on one side and the heads of the EGI.org units on the other side. For all internal and external activities the EGI.org Director has one person who will assist with handling the work. Within the unit heads the functions of a Central Technical Officer (CTO), a Central Operational Officer (COO), a Central Administration Officer (CAO) and a User Coordination Officer (UCO) are implemented. The administration also covers efforts for the public relations and contains positions in the administrative and legal services. The EGI.org Director needs a secretariat and must have some staff to prepare policy developments, representation on European level, and to support the EGI Council.

#### 1.1.3.2. The EGI Middleware Coordination Board (MCB)

The Middleware Coordination Board (MCB) is the EGI body which sets technical priorities and makes all decisions concerning the maintenance, support and evolution of the middleware deployed (or planned to be deployed) in the EGI e-Infrastructure.

MCB is composed by representatives, appointed in agreement with the EGI.org management, of:

- the main **middleware** developers of the components in use in the EGI e-Infrastructure as the three European Middleware Consortia;
- the **operation** function representing globally the operational requirements of EGI.org, NGIs and Resource providers;
- the **user community** services (UCS) teams on behalf of the Specialised Support Centres, which will be defined below, representing the various user communities organised in thematic disciplines.

#### 1.1.3.3. Assumptions about the Financing Structure of EGI.org

The EGI.org funding is based on three income streams:

- (a) membership fees from NGIs according to an EGI-Key, which is decided by the EGI Council,
- (b) income from project grants co-funded by the NGIs
- (c) service charges to be paid by those NGIs who get specific services from EGI

During the initial phase of the EGI, we expect that only the first two streams will be actually available for the EGI.org funding. European Commission funding (in the form of project grant) is deemed necessary for the establishment of EGI (for the first 3-5 years).

#### 1.1.3.4. EGI.org Legal Aspects

We have analysed a range of legal structures and their characteristics and coupled them with EGI.org specific needs. Details can be found in [3] and [4]. Based on this analysis below is a list of requirements that the EGI.org should have:

- autonomous legal entity
- legal structure that allows both public and private entities to be members
- legal form that allows for membership of entities established in non-EU member States
- not-for-profit status
- limited liability of its members
- fast to create
- location in an EU member State

National laws in Europe offer solutions that fulfil these requirements (for example: French Société Civile, the English Company Limited by Guarantee, the Foundation or the Association).

A potential solution would be the legal framework currently being defined by the Commission for European Research Infrastructure (ERI). The use of the ERI framework for EGI.org would enhance its political status and credibility in Europe and with regard to the rest of the world. It would also offer advantages in terms of tax

**Comment [FK1]:** This might imply that there are no matching funds from NGIs for an EC project grant! i.e. that the project is 100% funded by the EC (if the project is EC funded...

**Comment [FK2]:** Although we have discussed about this, I believe that this paragraph complicates things, especially since it can be considered that it is mapped 1 to 1 with the income streams.

exemptions and other facilities which will probably be granted to an ERI. However, the suitability of the ERI legal framework for EGI.org will finally depend on the time by which the regulation will be in force as well as any constraints it may impose and their compatibility with EGI.org's needs.

### 1.1.3.5. Location of the EGI Organisation and creation calendar

According to the EGI\_DS Description of Work, the agreements of the NGIs on the EGI.org Statutes should be obtained in October 2008 [5]. However, the Statutes cannot be completed as long as the legal structure is not defined, which cannot be done until the location is known.

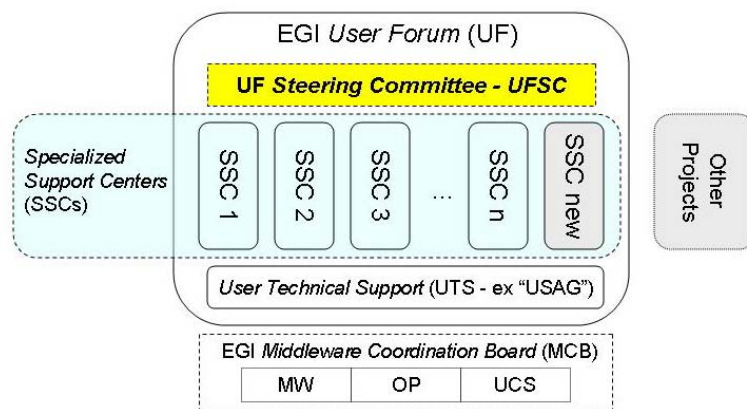
Therefore, a call for proposal has been launched for the location of the EGI.org central office. Bidders will also be required to describe one or several types of legal entities existing within their national legal framework and satisfying the EGI.org requirements. This bidding process has been launched by the EGI Policy Board, which will determine the best procedure to select a location.

The call has been launched in October 2008, so as to receive the expressions of interest by the end of 2008. It is expected that the location will be selected by March 2008. After that the EGI.org Statutes will be finalised and agreed by their future members and the creation process will be launched so that we meet the goal to have the EGI.org established by January 2010.

## 1.1.4. TheGrid Users

### 1.1.1.1. EGI User Forum

The user community will have representation and support mechanisms articulated within an ecosystem that we call the **EGI User Forum (UF)**. The UF will organize a general meeting of all user communities one or two times per year to favour information exchanges at all levels.



**Figure 2. The EGI User Forum**

The services necessary to support the EGI users are distributed among NGIs covering the national needs and **Specialised Support Centres (SSCs)** – entities typically organised to keep the EGI e-Infrastructure corresponding to the needs of the large international scientific disciplines and efficiently support their users, but also in some cases by function (e.g. an “SSC new” can be envisioned which specifically supports new user communities of international relevance as e.g. those related to the new ESFRI Research Infrastructures or smaller ones but with an European level organization). All or a subset of NGIs may decide to collectively organise their user handling in SSCs where EGI.org may take over a coordination role through its Unit providing for User Community Services (UCS) lead by User Coordination Officer.

SSCs are described more in detail in D3.1 and elsewhere, but in any case it is expected that an SSC will have a chief representative that is part of a User Forum **Steering Committee** (UFSC). The UFSC appoints a chairperson who represents, as a non-voting representative in the EGI Council, the user communities, and interacts with this body in an advisory capacity. The UFSC advises both the Council and the EGI.org Director on all matters requiring the involvement of the users of the EGI e-Infrastructure.

In some cases, the SSCs will take over some functions of the existing EGEE strategic discipline clusters connected to specific international communities, and could be highly structured themselves. While these centres are not all expected to structure themselves according to a given template, it is assumed that some elements should be in place to facilitate communications related to EGI policy issues, such as participation in the User Forum Steering Committee, and the usage of the general technical services outlined below.

The SSCs will contribute to collecting and transferring the requirements and feedback from the user communities to the EGI on two levels: (a) the **User Technical Support** team covering the day to day technical needs in cooperation with the Operations help desk team, and (b) the **Grid Planning** team which participates in the EGI Middleware Coordination Board providing a more long term technical planning and may establish other advisory committees to work with the EGI.org director.

The specific value EGI offers its users is the infrastructure (set of services) that enables them to share, in a secure and transparent way, IT resources, data and other networked services provided by distributed Resource Centres, where each associated VO is allocated a given resource share. A secondary value is the possibility for a certain kind of application to have lower priority access to a larger pool of resources, primarily allocated to different VOs in the same or even extended set of resource centers. Such access to additional resources is possible because the Resource centers use the same Grid infrastructure for satisfying the sharing needs of the different VOs.

The capability to satisfy new user communities has shown to be very important for the continuous growth of the EGEE infrastructure. Each new user community brings additional requirements for e-Infrastructures. There are many examples of this today with the successful user community-based projects that expand the functionality and services provided by the e-Infrastructures. Many of these advances are relevant for other user communities as well. This cross-community sharing of developments has many examples which are often highlighted at the current User Forum events organised by EGEE. What is important is to ensure that such advances become part of the EGI e-Infrastructure ecosystem and accessible to all communities so the investments made can benefit the most users. But to do this requires the engagement of EGI guaranteeing the continued support and development activities and it is important to identify in EGI which parties have the expertise and willingness to do this.

EGI as EGEE in the past will not directly fund such activities. It is expected that in the future additional EC and national funding will continue to be available to support the new user communities in expanding/adapting the functionalities of the services made available by EGI possibly in collaboration with the Middleware Consortia. It is then vital for EGI to continue to be able to integrate those enhancements in the offered production services making them generally available. The organization of EGI.org and of EGI in general is structured to be able to satisfy such fundamental need. Specifically, certain SSCs, with some central support in EGI.org, could elect to have **Front Desk** services, as described more in detail in D3.1. This option would be particularly advisable for an SSC dedicated to new communities.

SSCs, as well as NGIs in fulfilling their international tasks, will in addition collaborate in several other interdisciplinary UC Services, including contributing to the **EGI Application Database**, the **External and UMD Candidate Software Review** (similar to EGEE RESPECT), the building and maintenance of wikis, repositories, gateways, etc.

The geographical boundaries of EGI are still very blurred and hence there are uncertainties about how EGI will liaise with equivalent structures on a global level. What is clear from the current projects is that EGI cannot revert to a European-only model since many of the user communities currently supported are already of a global dimension and will not tolerate any step backwards in terms of interoperability. There are plans to form the equivalent of EGI in Latin America and the Asian countries have all expressed their intention to continue the

expansion of grid usage in the future and see interoperability with EGI as crucial. The same is true for the Open Science Grid in US and other grid infrastructures in the world.

To ensure cooperation at the management level of EGI with equivalent structures around the world, in an initial phase, representatives from other regions will be accepted as non-voting observers in the EGI Council and this invitation could then be reciprocated. In a more long term future EGI in line with the interest expressed by several extra European grid infrastructure could foster the set up of an overall world-wide coordination aiming at supporting the international interoperability through the adoption of standards and common policies.

The role of the business communities has yet to be defined and we are still likely to face the same situation as today: the pan-European e-Infrastructures cannot be used for commercial applications but a successful technology/knowledge transfer service can be put in place. There are several examples of how companies have profited from or have been created as a result of pre-competitive access to e-Infrastructures such as EGEE.

The liaison of EGI with infrastructures in other regions is of high importance to ensure that EGI enables access for trans-continental user communities and applications. The existing International projects, lead by European partners, have gathered a lot of experience, both technical and cultural that can help EGI maintain Europe's leading role in a global context.

#### 1.1.5. Resource Providers

The Resource Providers and their funding agencies collectively fund, procure, host, and operate the IT resources for the Research Teams in specific Resource Centers.

The NGIs' services include global monitoring and accounting tools that are seen useful for a funding agency to verify and tune the resource allocation to the applications it supports and the overall resource usage balance.

A Resource Center (with its hardware and the usual system level support for it and for the research teams using it) joins the EGI grid via its reference NGI, which, being part of the EGI, takes care of making its resources part of the global grid. The resource owners will of course still be free to decide who has the right to use their resources.

#### 1.1.6. Middleware Consortia

The maintenance, support, interoperability, and development of the middleware will not be a direct internal EGI activity since the necessary expertise could not be present in the NGIs. However, the EGI infrastructure is mainly constituted by a set of software services so a tight relation with middleware expert teams will be established and maintained by EGI.org who will keep the full responsibility for the procurement and deployment of the components deployed in the EGI e-Infrastructure.

There will be two main tasks:

1. to guarantee the maintenance and the interoperability of the middleware currently deployed on the e-Infrastructure – this is a task similar to any software maintenance, with its rules and costs provided as general service offered to all European grid users
2. to provide the further development required by the research communities, VOs and operational teams

Even if these tasks are strongly related they are conceptually different and should be treated separately in terms of financial responsibility. To guarantee the continuity of the grid infrastructures in Europe, the natural partners for EGI are the Middleware Consortia around the most largely used European middleware stacks: gLite, ARC, and UNICORE. EGI sees further evolution in the form of an EGI Unified Middleware Distribution (UMD), which does not constitute the development of a new middleware stack but implements a unified distribution of certified components of the current stacks that are currently deployed in the European e-Infrastructure – see Chapter **Error! Reference source not found.**

The EGI.org will include only a small team for providing specifications and the final certification of the accepted components. The work program in the context of the UMD will be defined in a Middleware Coordination Board (MCB) composed of representatives of the user communities, operations and the developers.

The funding of the independent middleware activities related to the maintenance, support and increased interoperability of the deployed components will be guaranteed by EGI, while new developments should be funded in principle by the VOs or operational teams who require them. In case that the MCB has identified a wide-spread need for a new proposed development, EGI will provide consultancy to the EC for co-funding it via calls connected specifically to EGI, ensuring the generality and coherence of the new components with the existing ones, avoiding duplication of efforts and ensuring that any advance is incorporated in the EGI e-Infrastructure services and available to all communities so that the investments made can benefit the most users.

[ ... other sections ... ]

## 1.2. USER COMMUNITY SERVICES

The stated goal of EGI is to provide a significant added value for the existing and new user communities. The growing user demands have provided and will continue to provide the necessary push for development and extension of the Grid infrastructure. Therefore the active support for these communities is a primary concern for the EGI / NGI ecosystem, as the users are the *raison d'être* of the Grid (middleware, infrastructure, operations and deployment).

The EGI, broadly intended, will support european User Communities (UCs) that use the e-Infrastructure by offering collaborative support in the following areas:

1. **Gathering requirements** from the UCs and providing efficient channels for their **representation** vis à vis the middleware – and other software – providers.
2. Carrying out a review process to **integrate useful “external” software** – i.e. software packages that can help application developers use the grid infrastructure, but are not part of the core Middleware distribution(s)
3. Establishing **Science Gateways** that expose common tools and services (e.g. workflow engines, web services, semantic annotation) in a transparent and user-friendly manner to UCs in the various disciplines.
4. Establishing technical **collaborations with the large European Infrastructure projects** (e.g. ESFRI) in support of customers of the European Organisations.
5. Providing “umbrella” **services for collaborating projects**, to streamline information management tasks and ensure some continuity of service between project cycles (e.g. maintenance of repositories, FAQs, wikis, etc.)
6. Maintaining a European Grid **Application Database** that allows applications to be “registered”, permitting people to search for similar applications and contact the authors for guidance.
7. Organising European events such as the **User Forum** meetings and **topical meetings** for specific user communities.
8. Providing **services for new communities** – e.g. “Front desk” services, VO creation counseling, etc.
9. Ensuring that the user communities and grid administrators are provided with high quality **documentation and training services**.

This is carried out mainly by the NGIs in the context of a structured network of extended **User Community Services** (UC services or ‘UCS’ – optional services), with coordination by a small central team. Activities such as providing support to porting activities and training of the users and administrators is generally delivered through NGIs, either on a national level or via specific agreements with other NGIs in the context of the creation of a cluster of extended UC services referred to as a **Specialised Support Centre (SSC)**. For a detailed discussion of these services and their related tasks, please see the EGI-DS deliverables *3.1 and 3.2 : EGI Function definition*

The EGI.org will provide overall coordination for these services, structured as follows:

<b>TASKS</b>	<b>FTEs in EGI.org</b>
<b>Coordination of SSC activities &amp; UCO</b>	
The <b>User Coordination Officer (UCO)</b> is the head of the User Community Services unit and participates in all relevant meetings. The UCO reports directly to the EGI.org Director. The UCO will work with the Grid Planning team to organise the representation of user community needs, new software etc in EGI management.	1
A <b>Technical coordinator</b> will have a central role with respect to coordinating activities (1)-(6) above, and the User Technical Support group with its Operations counterpart.	1
<b>Services for new and small communities &amp; Front Desk coordination</b>	
2 FTEs to coordinate services in (8) above, and to work with Grid Planning in analysing new trends in typology of grid users and new resources.	2
<b>Event organisation &amp; User Forum Support</b>	
The <b>EGI User Forum</b> is represented at various levels both in the EGI Council and as a Strategy Committee (see sect 3). 2 FTEs in EGI.org will provide liaison and <b>support for the work of the UFSC</b> , and coordinate the organisation of the main User Forum Events, plus others as needed in collaboration with their counterparts in the NGIs and SSCs	2
<b>Grid Planning &amp; Technical Coordination</b>	
Representatives of the International user communities will be members of the MCB who steer, define priorities and provide feedback to the technical work program of the EGI.org Director and the group of technical units in charge of the UMD component evolution and deployment. The Grid Planning team works directly in support of these activities, in collaboration with the UCO and technical SSC coordinator. 1 senior FTE and one deputy to represent the UC Services team in the Middleware Coordination Board (MCB) and to liaise with any user committees that are established for technical representation and advisory activities with respect to the EGI Council and EGI.org management on behalf of their communities.	2
<b>Coordination of technical information and documentation</b>	
2 FTEs for the activities in (9) related to technical information gathering, content and material creation, and support of central services such as material repository and online resources	2
<b>Coordination of training efforts</b>	
2 FTEs for the activities in (9) related to management and coordination of training efforts in the NGIs and support of the interoperation of t-Infrastructures and management of grid central services	2

Aside from the activities that are carried out by senior personnel and therefore directly associated with two full time employees, the estimated effort for the other activities are more overall activity averages – e.g. event organisation requires more than 2 FTEs in certain periods and less in others, documentation-related activities are often performed in conjunction with coordination of SSC activities, and so on. Overall, the UCS team should ideally be co-located, or at least not excessively distributed, since the network of SSCs is already strongly distributed.

The establishment of SSCs will ensure that the user communities which currently receive support in projects that are coming to an end, such as EGEE, will continue to be supported. Thus some of the SSC effort is expected to provide continuity of service to the current EGEE scientific clusters. On the other hand, it is expected that SSCs may also be formed around specific functional needs of communities or groups of projects which have – or wish to establish – collaborations and request formal representation and “umbrella services” for the sustainability of their contributions to user communities. Examples of SSCs can be drawn from the characteristics any number of current projects, and new ones can be envisioned. A few specific cases are discussed in Annex 1

The main characteristics of these centres are currently envisioned as follows:



- The articulation in SSCs will provide flexibility to the EGI ecosystem, minimising the load on the central EGI.org, and allowing the NGIs to support the parts of the system that are closest to their interests and would benefit most from federation of resources.
- An SSC can be hosted by an NGI that has (or can host) the appropriate resources and **European-level commitment**, under a specific agreement with the other member NGIs and EGI.org.
- There is **no obligation for an NGI to be part of any SSC**. An SSC will have a mechanism to allow new members to join at a later date, or – if appropriate – to allow a community within an NGI to make partial use of its services, which would be properly acknowledged by the relevant NGI.
- The formation of SSCs will be carried out under assessment by the EGI governing bodies of proposals submitted by federations of NGIs and the relevant user communities. These plans should include timetables for the evolution of the SSC and resource estimates, for which we give some guidelines in D3.1.

The core manpower for the SSCs will be provided by the interested NGIs with EC co-funding; in addition, wherever appropriate, an SSC will leverage collaborative efforts from specific other projects dedicated to supporting complementary activities for relevant user communities.

EC co-funding is envisaged to be important for allowing the NGIs to act efficiently in their role as primary providers of support for their users and Research Teams (possibly via the SSCs).

As mentioned, an NGI is free to provide support to its “international” users without contributing to the relevant SSCs; however this NGI will not be entitled to share in the EC co-funding foreseen for the SSCs, and will miss the synergies and consistent representation of its community offered by the SSC system.

The effort expected for an SSC of the kind that will provide continuity to the EGEE scientific clusters and other projects coming to a close may range initially between **4** and **12** FTEs, depending on:

- a. the size and maturity of the community served by the SSC;
- b. the possibility of delegating tasks to collaborating projects; and
- c. additional effort which may be offered by the NGIs

As a first approximation it is estimated that these SSCs will account for about **50** FTEs. It is however foreseeable that the effort expected of NGIs for international RTS activities may evolve into a network of SSCs, providing for a net savings in global manpower.

With respect to these latter activities – the NGI international UCS tasks – we expect that the NGI contribution to the collaborative activities (1)-(9) will be in the following ranges:

	NGI International UC Services
Small NGI	0.5 ~ 1.7
Medium NGI	1 ~ 2.5
Large NGI	1.5 ~ 4

It must be kept in mind that these ranges represent **average** manpower – e.g. it may be the case that an NGI could have zero effort for UC services because it relies on effort offered by another NGI; similarly, an NGI could host a centre of excellence which serves several other NGIs, and therefore could have more manpower than sketched above. In this latter case, the centre in question could establish itself as an SSC, allowing the averages estimated above to trend lower.

Again at a first approximation, these international UCS tasks are projected to add up to about **60** FTEs, and are expected to be co-funded at 50% level by EU. Thus the initial global UCS effort – including all SSCs and NGI international UCS tasks – is estimated to be about **110** FTEs to be attributed to the individual NGIs according to their commitments and contributions. (See Annex for a few concrete cases), and corresponding to an EC co-funding of 4.4 M Euro per year, assuming a full cost of 80 k Euro/year for 1 FTE.

These numbers were derived from the total estimates (minimal national + international tasks) quoted in D3.1 under the assumption that most of the training effort is expected to be purely national, while the effort related to application support instead is expected to be equally shared between national and international tasks.

### **1.3. EXTERNAL LAISON FUNCTIONS**

#### **1.3.1. Dissemination**

A small team within this function will execute the dissemination activities of the EGI.org. The team will focus on content production and coordinating activities. Technical and specific services will preferably be bought from third party.

The dissemination team of the EGI.org will support and coordinate the publication work of the EGI. Press releases and Newsletters of the work and key achievements will be published and widely distributed in order to increase the visibility of the EGI. NGIs have to contribute by providing material to paper and electronic publications. The EGI.org will also be in charge of organisation of annual events and conferences, similar to e.g. EGEE User Forum and DEISA Symposium

The effort estimated is 2 FTEs for EGI.org and 0,5 for each NGI

The following expertise is proposed:

- A dissemination manager – 1 FTE for EGI.org
- A web editor – 1 FTE for EGI.org
- NGI dissemination interface for EGI – 0,5 FTE for each participating NGI. As said above 1-2 of the NGI interfaces can also further staff the EGI dissemination team.

#### **1.3.2. Other External Relations**

External relations are defined as relations with organisations and initiatives outside of the EGI and of direct relevance for the EGI in terms of collaboration or interoperation. Examples of such organisations and initiatives are:

1. Grids outside Europe
2. Commercial grids (e.g. cloud computing efforts)
3. Large-scale international research collaborations (e.g. the EIROForum organisations and WLCG)
4. Networking organisations (e.g. NRENs, DANTE, TERENA)
5. Policy and standard shaping bodies (e.g. e-IRG, ESFRI, OGF)
6. Private sectors that could bring extra competences and resources to the EGI

The EGI.org management and specifically the Director should be in charge of External Relations. This responsibility should primarily be focused on

- establishment of formal relations when necessary
- promotion of common understanding on policies in scope of grid interoperation
- influence on policy and Standards shaping activities
- networking and enlargement of the EGI “sphere of influence”

The effort estimated is 2 FTEs for EGI.org.

The following expertise is proposed:

- 1) A policy and external liaison manager – 1 FTE for EGI.org
- 2) A standardisation liaison manager – 1 FTE for EGI.org

### **SUMMARY OF THE EGI FUNCTIONS MANPOWER ESTIMATIONS**

Table 1 Summarizes the manpower estimations for EGI.org made in this Chapter.

For the manpower estimations for the NGIs and the Middleware Consortia the reader is referred back to the specific sessions in this Chapter.

Note that these estimations are always made for the initial phase of EGI

Nr.	Manpower for	EGI.org FTE
1	Operations	17
2	Middleware	8
3	User Community Services	12
4	External Liaison Functions	4
	<b>Total</b>	41

**Table 1: Overall effort for the EGI.org functions**

