



Memorandum of Understanding between EGI.eu and PSNC





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BACKGROUND

The Stichting European Grid Initiative Foundation (hereafter referred to as "EGI.eu") has been created under the Dutch law with the mission to create and maintain a pan-European Grid Infrastructure in collaboration with its Participants, i.e. the National Grid Initiatives (NGIs), and Associated Participants (e.g. European International Research Organisations - EIROs) 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: 1) operate a secure integrated production grid infrastructure that seamlessly federates resources from providers around Europe; 2) coordinate the support of the research communities using the European infrastructure coordinated by EGI.eu; 3) work with software providers within Europe and worldwide to provide high-quality innovative software solutions that deliver the capability required by our user communities; 4) ensure the development of EGI.eu through the coordination and participation in collaborative research projects that bring innovation to European Distributed Computing Infrastructures (DCIs). A summary of EGI.eu is attached as Annex 1.

The mission of the Poznan Supercomputing and Networking Centre (hereafter referred to as PSNC), affiliated with the Institute of Bioorganic Chemistry at the Polish Academy of Sciences, is to integrate and develop the distributed computing for science on the national and European level. A summary of Poznan Supercomputing and Networking Centre is attached as Annex 2.





ARTICLE 1: PURPOSE

The purpose of this Memorandum of Understanding (MoU) is to define a framework of collaboration between EGI.eu and Poznan Supercomputing and Networking Centre (hereafter also referred to as "the Party" or the "Parties") for delivering the activities outlined within the Joint Work Plan (Article 3). The Parties recognise, by this MoU, the opening of a wider and longer-term cooperation in activities, which will bring visible benefits to everyone involved.

ARTICLE 2: DEFINITIONS

For the purpose of this MoU, the following definitions are relevant:

• The terms defined in the EGI glossary (<u>http://go.egi.eu/glossary</u>)

ARTICLE 3: JOINT WORK PLAN

The parties contribute to enable the vision of providing European scientists and international collaboration for sustainable distributed computing services to support their work.

In this broad context, the specific goals of the collaborations are to:

- Provide robust, well-designed, user-centric services to scientific user communities,
- Accelerate the development of standards within production grid infrastructures,
- Work towards a seamless integration into the EGI core infrastructure,
- Disseminate the results of this collaboration within the remit of each project's dissemination and communication activities such as joint events,
- Exchange ideas and collaborate on the definition of sustainability models,
- Develop and disseminate joint training material and events.

The specific activities to be carried out in the framework of the collaboration are¹:

A.1 Technical evolution of the QosCosGrid (QCG) middleware platform with application tools Parties Involved: EGI.eu (Michel Drescher, Sergio Andreozzi); PSNC (Tomasz Piontek, Mariusz Mamoński)

Description of work: Maintain and evolve middleware components based on requirements gathered by EGI.eu and PSNC within the various scientific communities within EGI and expressed through the EGI Technology and UMD Roadmaps; integrate the QCG platform into EGI's common Software provisioning processes.

Expected outcome: Coordination of initial and subsequent QCG provisioning activities for regular inclusion in EGI Software Repository, regular review and contribution to EGI roadmaps for technical evolution and standards adoption.

- M1.1 (15/Nov/2012) Sign a Service Level Agreement for regular provisioning of QCG in EGI.
- M1.2 (31/Dec/2012) Train EGI Software Provisioning teams in QCG and perform dry-run of QCG provisioning
- M1.3 (28/Feb/2013, yearly) Provide roadmap for technical evolution and standards adoption for QCG in the medium and long-term future.
- M1.4 (30/Apr/2013, yearly) Review Service Levels and the Agreement.

Party leading the activity is underlined.





A.2 Operational integration

Parties Involved: <u>EGI.eu</u> (<u>Peter Solagna</u>), PSNC (Tomasz Piontek, Mariusz Mamoński) **Description of work:** Coordinate integration of QCG in EGI operational infrastructure; particular focus on integrating Monitoring, Accounting, and Information Systems; setup of support infrastructures

Expected outcome: Third-level user support for incidents and requests, operational integration into the EGI production infrastructure

- M2.1 (30/Oct/2012) Deployed QCG instances are properly registered in GOCDB.
- M2.2 (30/Nov/2012) A QCG specific GGUS support unit is created.
- M2.3 (30/Nov/2012) Deployed QCG instances can be monitored through the EGI Monitoring infrastructure.
- M2.4 (30/Jun/2013) Deployed QCG instances publish accounting records in the EGI accounting repository
- M2.5 (31/Dec/2012) A technical document describes the use cases for the publication of QCG in the BDII, and the feasibility of the implementation of a GLUE2 compatible resource information provider on the QCG components. Possible implementations in QCG will feed into roadmap updates (see M1.3) to EGI.

A.3 Dissemination

Parties Involved: EGI.eu (Catherine Gather), PSNC (Bartosz Bosak)

Description of work: Disseminate the progress and final results of the collaboration within EGI and PSNC communities.

Expected outcome:

- M3.1 (31/Oct/2012) Advertise the start of the collaboration in each party website with a dedicated static page, article and press releases
- M3.2 (15/Apr/2013, 18-monthly) Events for new user communities, for example at EGICF2013 and EGITF2014, etc.
- M3.3 (01/Nov/2013, yearly) Dissemination report on the joint activities.

A.4 Sustainability & Business Models

Parties Involved: EGI.eu (Sergio Andreozzi), PSNC (Krzysztof Kurowski)

Description of work: Exchange information to evolve the sustainability strategies and business models around the provided software components. This may include sharing strategic and sustainability plans, information on the user base, details on current funding duration, ideas for innovative business models or opportunity to engage with business partners

Expected outcome:

- M4.1 (31/Dec/2012, yearly) PSNC to exchange strategic and sustainability information related to the QCG support and evolution
- M4.2 (30/Apr/2013, yearly) EGI to exchange information on the EGI strategic and sustainability plans

A.5 Training & Technical Outreach

Parties Involved: EGI.eu (Gergely Sipos), PSNC (Tomasz Piontek, Bartosz Bosak, Mariusz Mamoński)

Description of work: Develop and coordinate complementary training strategies; focus on material for system administrators and operators (deployment and configuration), software developers (integrating with QCG)





Expected outcome:

- M5.1 (31/Jan/2013, yearly) Tools and client-side software that can be used by community specific Virtual Research Environments to access QCG instances are registered in the EGI Applications Database. The registrations are reviewed and updated at least annually.
- M5.2 (31/Mar/2013, yearly) Training services (Events, Online training materials, Training environments or other resources) are registered in the EGI Training Marketplace. The registrations are reviewed and updated at least annually.
- M5.3 (15/Apr/2013, yearly) Coordinate and conduct joint training events for potential user communities. Organise the events under the EGI Community and Technology Forum umbrella, under NGI or community-specific events, or as separate events.

The EGI.eu Strategy and Policy Team (SPT) will coordinate the periodic review of the progress of the activities defined in the table above, follow-up the milestones and distribute reports to both Parties. Special meetings between the points of contact designated under 4 (Communication) shall be held, as often as necessary, to examine the progress in the implementing of this Agreement.

ARTICLE 4: COMMUNICATION

The Parties shall keep each other informed on all their respective activities and on their progress and shall consult regularly on areas offering potential for cooperation.

PSNC agrees to name a technical representative (with deputy) for the EGI.eu Technical Coordination Board (TCB).

PSNC agrees to name a technical representative (with deputy) for the EGI.eu Security Coordination Group (SCG).

PSNC agrees to regularly attend the meetings of EGI.eu TCB and SCG as observer.

PSNC will become a voting member in both groups after signing the SLA.

Each Party shall designate a "point of contact" that shall be responsible for monitoring the implementation of this MoU and for taking measures to assist in the further development of cooperative activities. Such points of contact shall be the ordinary channel for the Parties' communication of proposals for cooperation.

The primary point of contact for each Party is:

EGI.eu: Sergio Andreozzi (Sergio.Andreozzi@egi.eu)

PSNC: Krzysztof Kurowski <<u>krzysztof.kurowski@man.poznan.pl</u>>

Questions of principle or problems that cannot be solved at primary contact level are escalated to the EGI.eu Director and the PSNC Director.

ARTICLE 5: RIGHTS AND RESPONSIBILITIES

The procedure is set out in Annex 3.

ARTICLE 6: FUNDING

Each Party shall bear the costs of discharging its respective responsibilities under this MoU, including travel and subsistence of its own personnel and transportation of goods and equipment and associated documentation, unless otherwise agreed in this MoU.





Each Party shall make available free of charge to the other Party any office/meeting space needed for the joint activities.

The Parties' obligations hereunder are subject to their respective funding procedures and the availability of appropriated funds. Should either Party encounter budgetary problems in the course of its respective internal procedures that may affect the activities carried out under this MoU, that Party shall notify and consult with the other Party in a timely manner in order to minimise the negative impact of such problems on the cooperation. The Parties shall jointly look for mutually agreeable solutions.

In order to reduce the impact on travel costs, face-to-face meetings should be co-located with other events where participants are likely to attend. Meeting via teleconferences should be considered when the nature of the discussion does not strictly require a face-to-face presence.

ARTICLE 7: ENTRY INTO FORCE, DURATION AND TERMINATION

This MoU will enter into force when signed by the authorised representatives of the Parties and shall remain in force until completion of the activities identified in Article 3 (Joint Work Plan), or upon termination of the projects in which the Parties participate, or upon three (3) months prior written notice by one Party to the other. In the event of termination, the parties shall endeavour to reach agreement on terms and conditions to minimise negative impacts on the other Party. In the event of the continuation of the present cooperation, the Agreement may be extended and/or amended by mutual agreement in writing.

ARTICLE 8: AMENDMENTS

The MoU may be amended by written agreement of the Parties. Amendments shall be valid only if signed by the authorised representatives of the Parties.

ARTICLE 9: ANNEXES

Annexes Annex 1, Annex 2, Annex 3, Annex 4 and Annex 5 attached hereto have the same validity as this MoU and together constitute the entire understanding and rights and obligations covering the cooperation accepted by the Parties under this MoU. Annexes may be amended following the provisions of Article 8: Amendments.

ARTICLE 10: LANGUAGE

The language for this MoU, its interpretation and all cooperative activities foreseen for its implementation, is English.

ARTICLE 11: GOVERNING LAW – DISPUTE RESOLUTION

The terms of this MoU shall be interpreted in accordance with their true meaning and effect independently of national and local law. Provided that if and insofar as this MoU does not stipulate, or any of its terms are ambiguous or unclear reference shall be made to the substantive laws of Belgium. Disputes shall be resolved by amicable settlement or failing which by arbitration in accordance with the procedure set out in Annex 4.





Memorandum of Understanding between EGI.eu and PSNC

IN WITNESS WHEREOF, the Parties have caused their duly authorised representatives to sign two originals of this Memorandum of Understanding, in the English language.

The following agree to the terms and conditions of this MoU:

Dr. Steven Newhouse EGI.eu Director Dr. Maciej Stroiński PSNC Technical Director

Date

Date





Annex 1 – EGI.eu Description

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.





Annex 2 – PSNC Description

Poznan Supercomputing and Networking Center (PSNC) was established in 1993 as a research laboratory of the Polish Academy of Sciences and is responsible for the development and management of the national optical research network, high-performance computing and various eScience services and applications in Poland. The optical network infrastructure called PIONIER is based on dedicated fibres and DWDM equipment owned by PSNC. PSNC has several active computer science research and development groups working on a variety of aspects including: innovative applications, Grid portals, digital media services, mobile user support technologies and services, digital libraries, tools for network management, optical networks and QoS management. As it was demonstrated in many international projects founded by European Commission, PSNC experts are capable of bringing unique IT capabilities to the research and e-Science based on many experiences in the 5th, 6th and 7th Framework Programs. An active participation in the design and development of high-speed interconnects, fiberbased research and education networks allows PSNC today to be a key member of pan-European GEANT optical network connecting 34 countries through 30 national networks (NRENs). PSNC is also participating in the biggest scientific experiments offering the access to large scale computing, data management and archiving services. In addition we have been engaged in European initiative of building high performance computing e-Infrastructure - PRACE which will end in provisioning of permanent future Petaflops supercomputing installations involving reconfigurable hardware accelerators. Another branch of PSNC activity is the hosting of high performance computers, including Linux x86 clusters, large SMP and hybrid GPU clusters.

The Applications Department Group at Poznan Supercomputing and Networking Center consists of an elite team of experts whose expertise covers a wide spectrum of research and development activities conducted in regional, national and international multi-disciplinary projects. With the scope of information and communication technologies, we help our users to take advantage of innovative IT infrastructures, services, platforms, applications and human-computer interfaces.

The QosCosGrid (QCG) team has been working on grid and HPC related projects since the beginning of the Grid computing era. It is now almost two years since the QosCosGrid stack was deployed in production systems within the PL-Grid infrastructure. Currently, the development of QosCosGrid is steered by various user communities at the national and international levels; in particular end users directly involved the PLGrid Plus and MAPPER projects.





Annex 3 – Rights and Responsibilities

A. GENERAL

1. PSNC agrees to adhere to applicable policies and procedures relating to the use of the production infrastructure.

2. A Party which makes material, equipment or components available to the other Party, for the purposes of activities under this MoU shall remain the proprietor of such material, equipment or components.

3. Each Party shall remain fully responsible for its own activities, including the fulfilment of its obligations under any grant agreement with the European Commission or under any consortium agreement related thereto.

B. PERSONNEL

1. Each Party shall be solely responsible for any personnel hired to carry out work under this MoU.

2. In case personnel employed by one Party temporarily carries out work under this MoU on the premises of another (hereafter referred to as "secondment"), the following provisions shall apply:

(a) The persons seconded shall be subject to all regulations, including, in particular, safety regulations, applicable on the site of the Party they are seconded to.

(b) The personnel seconded by a Party to another shall remain employees of the Party having seconded them and such Party, as employer, shall bear exclusive responsibility for the payment of salary and for the procurement of adequate social security and insurance, including third party liability insurance and health insurance.

(c) Unless otherwise agreed by the Parties concerned, Intellectual Property Rights generated by personnel seconded by a Party to another shall be owned by the Party having seconded such personnel.

C. INTELECTUAL PROPERTY RIGHTS AND LICENSE

1. "Intellectual Property Rights" shall mean all intellectual creations including but not limited to inventions, know-how, layouts, drawings, designs, specifications, computer programs, reports, processes, protocols, calculations and any other matter and protected by intellectual property rights, whether registered or not, including patents, registered designs, copyrights, design rights and all similar proprietary rights and applications for protection thereof.

2. Intellectual property rights generated by a Party under this MoU shall be the property of that Party who shall be free to protect, transfer and use such Intellectual Property Rights as it deems fit.

3. Notwithstanding the foregoing each Party shall grant the other a non-exclusive royalty free, perpetual license to use the Intellectual Property Rights generated by it under this MoU for use within its project or for the exploitation the results thereof. Such license shall include the right to sublicense the entities involved in the project.

D. JOINTLY OWNED RESULTS

1. Results that were jointly generated by both Parties will be jointly owned by the Parties, hereinafter referred to as ("Jointly Owned Results"). Each Party shall be entitled to grant non-exclusive licenses to third parties, without any right to sub-license, subject to the following conditions: If the third party is not affiliated with EGI.eu through the EGI Council, then

a) The prior written consent of the other Party must be obtained, and

b) Fair and reasonable compensation must be agreed with and provided to the other Party.

Otherwise such license to third party shall be considered null and void. Each Party shall be entitled to disclose such Jointly Owned Results without restrictions unless such Jointly Owned Results contain a Joint Invention in which case no disclosure must be made prior to the filing of a priority application.

2. With respect to any joint invention resulting from this MoU (i.e. any invention jointly made by employees of both Parties), the features of which cannot be separately applied for as Intellectual Property Rights and which are eligible for statutory protection requiring an application or registration





(herein referred to as "Joint Invention"), the Parties shall agree on which Party will carry out any filling as well as any further details with regard to persecuting and maintaining of relevant patent applications.

E. PUBLIC RELATIONS

1. Any publication by a Party resulting from the activities carried out under this MoU shall be subject to prior agreement of the other Party not be unreasonably withheld.

2. The Parties may each release information to the public, provided it is related only to its own part of the activities under this MoU. In cases where the activities of the other Party are concerned prior consultation shall be sought. In all relevant public relations activities, the contribution of each Party related to activities covered by this MoU shall be duly acknowledged.

F. CONFIDENTIALITY OF INFORMATION

1. The Parties may disclose to each other information that the disclosing Party deems confidential and which is (i) in writing and marked "confidential", or (ii) disclosed orally, and identified as confidential when disclosed, and reduced in writing and marked "confidential" within fifteen (15) days of the oral disclosure (hereafter referred to as "Confidential Information"). Confidential Information shall be held in confidence and shall not be disclosed by the receiving Party to any third party without the prior written consent of the disclosing Party.

2. Notwithstanding the foregoing a Party is entitled to disclose Confidential Information which it is required by law to disclose or which, in a lawful manner, it has obtained from a third party without any obligation of confidentiality, or which it has developed independently from any Confidential Information received under this MoU, or which has become public knowledge other than as a result of a breach on its part of these confidentiality provisions.

G. LIABILITY

1. Each Party shall use reasonable endeavours to ensure the accuracy of any information or materials it supplies to the other Party and of any other contribution it makes hereunder and promptly to correct any error therein of which it is notified. The supplying Party shall be under no obligation or liability other than as stated above and no warranty or representation of any kind is made, given or to be implied as to the sufficiency, accuracy or fitness for a particular purpose of such information, materials or other contribution or as to the absence of any infringement of any proprietary rights of third parties through the possession or use of such information, materials or other contribution. The recipient Party shall be entirely responsible for its use of such information, materials or other contribution and shall hold the other Party free and harmless and indemnify it for any loss or damage with regard thereto.

2. Except in case of gross negligence or wilful misconduct, neither Party shall be liable for any indirect or consequential damages of the other Party, including loss of profit or interest, under any legal cause whatsoever and on account of whatsoever reason.

H. PARTICIPATION IN SIMILAR ACTIVITIES

1. Parties are not prevented by this MoU from participating and activities similar to those described in this document with third parties. There is no obligation to disclose any similar activity to the other party. However, when considered of mutual benefit, both parties are encouraged to involve the other party in similar activities to the goal of disseminating the knowledge about EGI.eu.





Annex 4 – Settlement of Disputes

1. All disputes or differences arising in connection with this MoU which cannot be settled amicably shall be finally settled by arbitration in accordance with the procedure specified below which shall be adapted in the light of the number of Parties involved.

2. Within thirty (30) calendar days of written notification by a Party to the other Party of its intention to resort to arbitration, the first Party shall appoint an arbitrator. The second Party shall appoint an arbitrator within three (3) months of the appointment of the first arbitrator. The two arbitrators shall, by joint agreement and within ninety (90) calendar days of the appointment of the second arbitrator, appoint a third arbitrator, who shall be the Chairman of the Arbitration Committee.

3. If the second Party fails to appoint an arbitrator or the two arbitrators fail to agree on the selection of a third arbitrator, the second or, as the case may be, the third arbitrator, shall be appointed by the President of the Court of Justice of the European Communities.

4. Unless otherwise agreed by the Parties concerned within thirty (30) calendar days of the provision of notice referred to in Article 12 above, the arbitration proceedings shall take place in Brussels and shall be conducted in English. The Parties shall within one month of the appointment of the third arbitrator agree on the terms of reference of the Arbitration Committee, including the procedure to be followed.

5. The Arbitration Committee shall faithfully apply the terms of this MoU. The Arbitration Committee shall set out in the award the detailed grounds for its decision.

6. The award shall be final and binding upon the Parties, who hereby expressly agree to renounce any form of appeal or revision.

7. The costs including all reasonable fees expended by the Parties to any arbitration hereunder shall be apportioned by the Arbitration Committee between these Parties.





Annex 5 – Detailed Contact List

Role	EGI.eu	Collaborating Organisations
Signing Authority	Steven Newhouse EGI.eu Director steven.newhouse@egi.eu	Maciej Stroiński PSNC Technical Director <stroins@man.poznan.pl></stroins@man.poznan.pl>
MoU Contact Point	Sergio Andreozzi Strategy and Policy Manager sergio.andreozzi@egi.eu	Krzysztof Kurowski Head of PSNC Applications Department < <u>krzysztof.kurowski@man.poznan.pl</u> >
Technical Coordination	Michel Drescher Technical Manager <u>michel.drescher@egi.eu</u>	Tomasz Piontek Senior IT specialist < <u>piontek@man.poznan.pl</u> >, Mariusz Mamoński Developer < <u>mamonski@man.poznan.pl</u> >
Operational issues (Grid related, operation, security)	Tiziana Ferrari Chief Operations Officer tiziana.ferrari@egi.eu, Peter Solagna Operations Manager peter.solagna@egi.eu	Tomasz Piontek Senior IT specialist < <u>piontek@man.poznan.pl</u> >, Mariusz Mamoński Developer < <u>mamonski@man.poznan.pl</u> >
Dissemination	Catherine Gater EGI.eu Deputy Director catherine.gater@egi.eu	Bartosz Bosak Developer < <u>bbosak@man.poznan.pl</u> >
Sustainability & Business models	Sergio Andreozzi Strategy and Policy Manager sergio.andreozzi@egi.eu	Krzysztof Kurowski Head of PSNC Applications Department < <u>krzysztof.kurowski@man.poznan.pl</u> >
User support and training	Gergely Sipos Technical Outreach Manager gergely.sipos@egi.eu	Tomasz Piontek Senior IT specialist < <u>piontek@man.poznan.pl</u> >, Bartosz Bosak Developer < <u>bbosak@man.poznan.pl</u> >, Mariusz Mamoński Developer < <u>mamonski@man.poznan.pl</u> >

These contact points may be the same person. The EGI.eu Strategy and Policy Team (mailto:policy@egi.eu) is to be notified regarding any changes to the contact list.