

**Q1** What is your organisation's/project's name?

Poznan Supercomputing and Networking Center

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**Q2** Your organisation's/project's website

www.man.poznan.pl

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**Q3** Are you?

**A research organisation**

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**Q4** Your name

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**Q5** Your email address

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**Q6** Your contact phone number

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**Q7** Please summarise who you are and what you do

Poznan Supercomputing and Networking Centre (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 connecting more than 700 research campuses and universities around the country. PSNC has several active computer science research and development groups working on a variety of aspects including: innovative and large scale HPC applications, scalable services, digital media services, mobile user support technologies, digital libraries, storage management, tools for high-speed optical networks and QoS management. More than 300 PSNC experts are capable of bringing unique IT capabilities to the research and e-Science communities based on many experiences in the 5th, 6th and 7th Framework Programs and Horizon 2020. An active participation in the design and development of high-speed interconnects, fiber-based 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.

Additionally, PSNC has been engaged in European initiative of building high performance computing e-Infrastructure - PRACE Research Infrastructure provisioning of permanent future Petaflops supercomputing installations involving reconfigurable hardware accelerators. Currently PSNC maintains around 2 Petaflop computing and 40 TB of storage facilities. PSNC is also taking an active role in EUDAT contributing with the development of sustainable data storage, archiving and backup services. PSNC was participating in multiple national and international projects (Clusterix, ATRIUM, SEQUIN, 6NET, MUPBED, GN2 JRA1, GN2 JRA3, GN2 SA3). It was also a coordinator of pan-European projects such as GridLab, PORTA OPTICA STUDY and PHOSPHORUS and took an active part in many other EU projects such as HPC-Europel/II, OMII-Europe, EGEE/II, ACGT, InteliGrid, QosCosGrid or MAPPER, ComPat, Escape.

**Q8** In what way would like to contribute to an EsD project? **As a technology provider,**

**As a system integrator** ,

Other (please specify):

HPC/Cloud resource provider

**Q9** What would be your contribution to an EsD project?

PSNC can provide HPC/Cloud resources as well as a technology provider can offer various software solutions among others Middleware tools and services ([www.qoscosgrid.org](http://www.qoscosgrid.org)). The QCG middleware (previously known as QosCosGrid) is an integrated system offering advanced job and resource management capabilities to deliver to end-users supercomputer-like performance and structure. By connecting many distributed computing resources together, QCG offers highly efficient mapping, execution and monitoring capabilities for variety of applications, such as parameter sweep, workflows, MPI or hybrid MPI-OpenMP. Thanks to QCG, large-scale applications, multi-scale or complex computing models written in Fortran, C, C++ or Java can be automatically distributed over a network of computing resources with guaranteed QoS. The middleware provides also a set of unique features, such as advance reservation and co-allocation of distributed computing resources.

PSNC can also bring expertise in the area of software components and technologies integration.

**Q10** What partners are you looking for?

We are looking for partners with various types of applications and needs to scale up them to be executed on HPC/Cloud infrastructures. Especially we are interested in supporting sophisticated workloads and experiments that require co-allocation of heterogenous resources and a proper level of Quality of Service. We can also offer our expertise in advance visualization and building problem specific desktop and portal access tools.

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**Q11** Please include links to any additional material.

[www.qoscosgrid.org](http://www.qoscosgrid.org)

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**Q12** Other comments/ideas

**Respondent skipped this question**

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