



**SEVENTH FRAMEWORK PROGRAMME  
Research Infrastructures**

**INFRA-2007-2.2.2.1 - Preparatory phase for 'Computer and Data Treatment' research infrastructures in the 2006 ESFRI Roadmap**



**PRACE**

**Partnership for Advanced Computing in Europe**

**Grant Agreement Number: RI-211528**

**D7.6.2  
Pre-Qualification Questionnaire**

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## Project and Deliverable Information Sheet

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## Document Control Sheet

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## Document Status Sheet

Version	Date	Status	Comments
0.1	28/02/2009	Draft	Integrated input from STFC, EPSRC, CEA and NCF and LRZ
1.0	12/03/2009	Review	Integrated comments from WP7 teleconference on 09/03/2009
1.1	27/03/09	Final	Integrated comments from internal review.

## Document Keywords and Abstract

<b>Keywords:</b>	PRACE, HPC, Research Infrastructure
<b>Abstract:</b>	<p>This document builds on Deliverable 7.6.1 Procurement Strategy which overviewed European procurement practices, summarised recent procurements by the Principal Partners within PRACE – reviewed a number of recent international procurements and commented on best practice.</p> <p>No matter which procurement route one chooses to progress for specific requirements, it is good practice to have a two phase process the first of which aims to obtain sufficient information to enable the procurer to evaluate the suitability of a potential supplier to meet its requirements- typically embodied in a Pre-Qualification Questionnaire (PQQ). The intention is to arrive at a shortlist of potential suppliers for formal Invitation To Tender against the requirements. The questionnaire is usually structured in two parts: Company Corporate Information and Information Relating to the Specific Requirement. In the following we highlight the issues that should be addressed in a PQQ and present a sample template.</p>

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## References and Applicable Documents

- [1] <http://www.prace-project.eu>
- [2] PRACE – Grant Agreement Number: RI-211528 - Annex I: Description of Work
- [3] PRACE Deliverable 7.6.1 – Procurement Strategy
- [4] PRACE Deliverable 7.6.3 – Evaluation criteria and acceptance tests

## List of Acronyms and Abbreviations

ESFRI	European Strategy Forum on Research Infrastructures; created roadmap for pan-European Research Infrastructure.
HPC	High Performance Computing; Computing at a high performance level at any given time; often used synonym with Supercomputing.
ITT	Invitation to Tender
PQQ	Pre-Qualification Questionnaire
PRACE	Partnership for Advanced Computing in Europe; Project Acronym.

## Executive Summary

PRACE Task 7.6 intends to develop a Procurement Process Template to be used by the European Supercomputing Infrastructure, including the definition of a procurement strategy; the detailed implementation of which would be addressed by other tasks within the work package. PRACE deliverable 7.6.1 [3] presented a brief overview of current European procurement procedures, recent procurements by the Principal and General Partners and discussed lessons learned in these and other Non-European procurements. The key principles outlined in this document can be applied both to the likely national procurements for the first tier-0 systems as well as for a single European procurement by a future Research Infrastructure or European Research Infrastructure or equivalent.

Most current national procurements follow the European procedures but no matter which procurement route one chooses to follow for specific requirements, it is good practice to have a two phase process. The first phase aims to obtain sufficient information to enable the procurer to evaluate the suitability of a potential supplier to meet its requirements - typically embodied in a Pre-Qualification Questionnaire (PQQ). The intention is to arrive at a shortlist of potential suppliers for formal Invitation to Tender against the requirement. The response is usually structured in two parts: Company Corporate Information and Information Relating to the Specific Requirement. In the following we highlight the issues that should be addressed in a PQQ and present a sample template and sample evaluation framework.

## 1 Introduction

PRACE Description of Work [2] summarises the aim of D7.6.2 to produce a Pre-Qualification Questionnaire (PQQ) to identify organisations and/ or suppliers with appropriate technical capabilities and financial standing to meet the needs of a specific requirement. The shortlisted organisations should then be invited to respond to a more detailed Specification of Requirements, and the responses evaluated according to the chosen procurement procedure.

## 2 Contents of a PQQ

The following draws on the experience of the Principal Partners distilled from written input provided by:

- EPSRC (J. Nicholson)
- STFC (R.J. Blake)
- GENCI/ CEA (F. Robin, J.-P. Nominé, S. Requena)
- LRZ (H.-D. Steinhöfer)
- CSC (D. Still)
- NCF/ SARA (P. Michielse)
- PSNC (N. Meyer)

and discussions at a teleconference.

A PQQ normally requests Company Corporate Information in the following areas:

1. Company details and history
2. Organisation and management
3. Capabilities
4. Financial
5. Quality Management
6. Supply Chain Management
7. Legislative Compliance

and information relating to the Specific Requirement including:

- Contact details
- Staff qualifications and skills – resumes
- Added value from other resources/ activities
- Activities to be subcontracted
- Financing – in particular of capital investment
- Similar contracts undertaken elsewhere and evidence of performance
- References from major international centres worldwide

The Appendix presents a template for a PQQ detailing the sort of information that could be requested.

### **3 Evaluation of the Response to a PQQ**

The weightings for the evaluation of a response to a PQQ will vary according to the type of system being procured, for example, whether access to reliable proven systems or the exploitation of novel architecture systems is the objective. Specific evaluation frameworks covering the PQQ and subsequent phases will be developed for Deliverable 7.6.3. It is expected that the evaluation will allocate marks on a sliding scale to specific areas of the PQQ response and that the marks from the specific areas will be weighted to give an overall score. A small number of candidates with the highest scores would then be invited to respond to a detailed statement of requirements.

### **4 Conclusion**

In the Appendix we present a draft PQQ which can be used to draw up a shortlist of potential suppliers prior to embarking on evaluating detailed responses to Statements of Requirements and formal contract negotiations.

Evaluation of the PQQ responses will depend on the nature of the system being procured but should include appropriate weightings covering the corporate and technical areas. These will be discussed in more detail in Deliverable 7.6.3 [4] – the final Task 7.6 Deliverable - as the weightings of the response to the PQQ should be commensurate with the weightings in the evaluation of the response to the Invitation to Tender (ITT), the latter being more detailed.

## 5 Appendix A: Sample Pre-Qualification Questionnaire



<b>SUPPLIER:</b>			
<b>REQUIREMENT:</b>	<b>PETASCALE COMPUTING SYSTEM</b>	<b>REFERENCE:</b>	<b>PS/0001</b>
		<b>PQQ ISSUE DATE:</b>	

**COMMERCIAL IN CONFIDENCE (WHEN COMPLETED)**

Issuing Organisation:

Address:

**PRE-QUALIFICATION QUESTIONNAIRE (PQQ)**

**FOR**

**PETASCALE COMPUTING SYSTEM**

Procurer's Details (for example)

Issued by: Issuing Person

Address:

Telephone:

Fax:

Email:

Return Time/ Date

**When completed this PQQ should be returned to the e-mail address above and a printed signed copy sent to the address above. Note that PQQs received after the due date for return may not be considered.**

**Objectives of the Procurement (for example)**

**Purchase of a 1 PF sustained performance scalable system, 100 TB of memory, 200 TB of fast disk, 1 PB SAN employing standard UNIX-like OS, parallel file-system, administration tools, backup capabilities for 10 PB, using 2 MW of system power, hardware and software systems maintenance and support and applications support on-site for 5 years.**

<b>SUPPLIER:</b>			
<b>REQUIREMENT:</b>	<b>PETASCALE COMPUTING SYSTEM</b>	<b>REFERENCE:</b>	<b>PS/0001</b>
		<b>PQQ ISSUE DATE:</b>	

## **PRE-QUALIFICATION QUESTIONNAIRE**

### **Preamble**

Nothing herein, or in any communication made between the Procurer and any potential supplier in connection with this PQQ, shall be relied upon as constituting a contract, agreement or representation that any contract shall be offered in accordance herewith. The Procurer reserves the right, subject to the appropriate procurement regulations, to change without notice the basis of, or the procedures for, the competitive tendering process or to terminate the process at any time. Under no circumstances shall the Procurer incur any liability in respect thereof.

Direct or indirect canvassing of any of the Procurer's employees or agents by any potential bidders concerning this requirement, or any attempt to procure information from any of the Procurer's employees or agents concerning this PQQ may result in the disqualification of the potential supplier from consideration for this requirement.

### **Purpose**

The purpose of this PQQ is to obtain sufficient information to enable the Procurer to evaluate the suitability of potential suppliers to meet its current requirement. During the PQQ stage, the intention will be to arrive at a Tender Panel of potential suppliers (normally no more than X) for formal Invitation To Tender against the requirement.

### **Additional Information**

Recipients are invited to complete the attached PQQ and to submit it, together with any relevant supporting information, to the contact point detailed on the covering page by the due date for return indicated. The completed document must be provided both in hard copy and electronic format.

All requests for clarification or further information in respect of this PQQ should be addressed to the named contact point. No approach of any kind in connection with this PQQ should be made to any other person within, or associated with, the Procurer.

This PQQ is being provided on the same basis to all potential suppliers.

### **Company Declaration**

I, the undersigned, confirm that the information contained in this PQQ response is correct at the time of completion. Any changes relevant to this requirement will be notified to the contact point detailed on the first page without undue delay.

Signed: Name/ Role  
Company Name:

The PQQ is in two parts. Respondents must adhere to the format of this PQQ when answering the questions. Where questions cannot be fully answered, please provide relevant explanation and details.

<b>SUPPLIER:</b>			
<b>REQUIREMENT:</b>	<b>PETASCALE COMPUTING SYSTEM</b>	<b>REFERENCE:</b>	<b>PS/0001</b>
		<b>PQQ ISSUE DATE:</b>	

**Part 1** is intended to capture Company Corporate Information. All questions must be completed by the respondent. This information can then be used should the Company receive further PQQ(s) from the Office. If your Company has recently completed Part 1 of this PQQ in relation to another requirement, and there are no subsequent changes to report to the information provided, please annotate this form accordingly. In such cases you are *not* required to complete Part 1, and your response should be limited to Part 2 only. Part 1 requests information in six areas:

- Section 1:** Company Details
- Section 2:** Organisation & Management
- Section 3:** Capability
- Section 4:** Financial
- Section 5:** Quality
- Section 6:** Supply Chain Management
- Section 7:** Legislative Compliance

**Part 2** requires the respondent to provide information relating to the specific requirement.

The selection of suppliers that will be invited to respond to a more detailed Statement of Requirements will comply with articles 39 and 40 of the "DIRECTIVE 2004/18/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts.

## **PART 1- COMPANY CORPORATE INFORMATION**

### **Section 1: Company Details - related to the company or division responding to the PQQ.**

- Full legal name of Company.
- How long has the Company traded under this name/previous name if applicable?
- State whether the Company is private or public limited partnership, etc.
- Address of registered office.
- Telephone number of registered office.
- Fax number of registered office.
- E-mail address of registered office.
- Name and address of Parent Company if applicable.
- If you are a division or subsidiary, what is the Company's relationship with the Parent Company (ownership, directorship, authority, etc).

### **Section 2: Organisation and Management**

- Please provide details of your Company's organisation and management hierarchy in the form of a wiring diagram.

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		<b>PQQ ISSUE DATE:</b>	

- Names and addresses of Directors/ Partners/ Secretary.
- Give details of staff turnover for the last three years, expressed as a percentage of staff employed. Where significant changes have occurred in respect of key management or specialist staff this should be identified.
- Please describe briefly the process the Company employs in training and developing staff in order to improve effectiveness in the workplace.
- Please provide brief details of how the Company approaches change management in the execution of business.
- Please describe how Risk Management is handled within the Company and identify any appropriate tools and techniques employed.

### **Section 3: Capability**

- Please list any contracts with the Procurer, either received direct or as a sub-contractor during the past 3 years, in the format set out below.
  - Contract number
  - Company role: prime/ subcontractor
  - Contract description
  - Contract Value: M EUR ex VAT
  - Contractor Title and contact details
  - Performance – indicate:
    1. Whether the Company has fully met the stated requirements expressed by the Customer.
    2. Where issues within or outside of the Company's control have impacted upon meeting the contract requirements.
    3. Where the Company has initiated a change or sought amendment to the contractually agreed specification to enhance the Customer's requirement as a result of innovation or product improvement.
    4. Where the Company has initiated a change to the contractually agreed requirements for any reason except those mentioned above.
    5. Where the Company has received bonus or incentive payments as a result of timely achievement of major milestones etc.

For points 2 to 5 please provide a brief explanation of the circumstances.

- Please provide details of the principal areas of business activities in which your Company specialises. Please discuss the importance of high-performance computing in terms of the overall business.
- Please provide a staff profile showing the total number of permanent staff employed, their grades, trade and professional qualifications.
- Please provide details of the qualifications, experience and awards achieved by key personnel within the Company.
- Please indicate which professional or trade bodies your Company belongs to.
- Please provide details of any mergers and acquisitions in the last 3 years which have resulted in a significant change in the nature of the Company's business.
- Please provide details of your Company's e-business experience and capability.
- Please provide details of Investor In People (IIP) Accreditation or equivalent award.

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#### **Section 4: Finance**

- Value of business (M EUR, VAT exclusive) expressed as:
  - Direct business with contractor
  - Indirect business with contractor
  - Business with other organisations
- Please provide copies of the audited summaries of your Company's accounts for the past three years. For those companies that have been formed for less than three years, and for which audited summaries are not available, equivalent financial information should be provided, endorsed at an appropriate level.
- Please provide details of insurers. Provide evidence of insurance for Employer's Liability and Public Liability and extent of both.
- Please provide details of significant pending developments, changes in financial structure or ownership, prospective take-over bids, buy-outs and closures etc. which are currently in the public domain.

#### **Section 5: Quality**

- Please provide details of any Quality Assurance systems operated by the Company, both internally and externally through the supply chain.
- Does the Company hold any third-party accreditation such as ISO 9001 and ISO 14001 or equivalent? If so please submit copies of all accreditation certificates.
- Details of other quality systems assessments.
- What procedures are in place for identifying and recording non-compliant work (in terms of quality) and for subsequently implementing corrective and preventive actions?
- Please advise whether the Quality Accreditation status of the Company has changed over the past 3 years. If so, please explain why.

#### **Section 6: Supply Chain Management**

- Please describe how the Company approaches the management of the supply chain.
- Please provide details of any formal Supplier Performance Assessment scheme(s) which the Company uses in the conduct of business
- Has the Company ever been asked to take part in a Supplier Performance Assessment process either as a supplier to a Prime Contractor or as a potential or actual Prime Contractor? If yes, were any improvements made as a direct result?
- Does the Company maintain a list of approved suppliers, i.e. those suppliers with which the Company is prepared to contract.

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		<b>PQQ ISSUE DATE:</b>	

- Does the Company use preferred suppliers, i.e. suppliers with whom agreements have been reached under which specific business will be directed to them in preference to other suppliers?
- Where sub-contract opportunities arise, and subsidiaries or divisions within your Company have the capability to carry out the work, what is the Company's approach to their utilisation?
- Describe the Company's approach to managing risks throughout the supply chain.
- If appropriate, please provide details of where the Company has invested (in terms of time, resources etc.) in a supplier's business in order to improve and enhance the capability that is provided.
- Has the Company adopted a Partnering approach (i.e. a long term commitment for the purpose of achieving specific business objectives with resultant benefits for all parties) with any suppliers? If yes, please describe any benefits that have accrued or that are expected to accrue.

## **Section 7: Legislative Compliance**

- Please list current accreditation and provide documentation on policies in safety, health and environment areas.
- Please list any legislative breaches over the past three years and provide details.

### **PART 2 - INFORMATION SPECIFIC TO THE CURRENT REQUIREMENT**

- Please provide the name & position of the point of contact within the Company responsible for this requirement,
- Address of office for point of contact if different from the registered office address provided in Part 1 (Company Details) of this PQQ.
- Telephone number of point of contact if different from that provided in Part 1 (Company Details) of this PQQ.
- Fax number of point of contact if different from that provided in Part 1 (Company Details) of this PQQ.
- E-mail address of point of contact if different from that provided in Part 1 (Company Details) of this PQQ.
- Please indicate the number and grades of staff likely to be involved directly in the provision of the goods/services to which this requirement relates.
- Provide a resume/brief (paragraph) CV of the key personnel to be engaged in this requirement,
- Please identify the key resources from within your organisation that would be deployed to manage and support this requirement.

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- Please present a technology roadmap and how key systems components, both hardware and software will/ may evolve over the next 5 years. (A Non-Disclosure Agreement will be signed if required).
- Please outline your approach to energy efficient and green computing.
- Please identify the size of development and benchmarking systems available internally or externally.
- Please identify those elements of the requirement that you would intend to sub-contract.
- How would you intend to finance any capital investment that might be required?
- Please provide details of projects of a similar size and nature or of relevance to this requirement undertaken in the last three years in the format set out below. Note that the Procurer's acquisition team may wish to approach the customers listed below to confirm the Company view.
  - Contract number:
  - Company role: prime/ subcontractor
  - Contract description
  - Contract Value: M EUR ex VAT
  - Contractor Title and contact details
  - Performance – indicate:
    1. Whether the Company has fully met the stated requirements expressed by the Customer.
    2. Where issues within or outside of the Company's control have impacted upon meeting the contract requirements.
    3. Where the Company has initiated a change or sought amendment to the contractually agreed specification to enhance the Customer's requirement as a result of innovation or product improvement.
    4. Where the Company has initiated a change to the contractually agreed requirements for any reason except those mentioned above.
    5. Where the Company has received bonus or incentive payments as a result of timely achievement of major milestones etc.

For points 2 to 5 please provide a brief explanation of the circumstances.

- Please identify any major/national academic scientific research centres with whom you have previously worked, and provide examples of work done – in particular breakthrough science.
- Please describe previous experience of the supply of Top-500 HPC systems and support services, and describe what tools and processes you have currently available to supply these services.
- Please describe your experience in working within European projects.
- Please describe your experience of working with academic users.
- Please describe your experience in working with industrial users and commercial software companies.
- Please describe what tools you have currently available to manage computing capacity and capability.
- Please describe your experience in managing critical delivery time issues for users.
- Please provide details of service availability figures for scientific HPC services you currently provide, or have provided within the last 3 years.

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- Please provide examples of HPC service reports from customer sites for the last 6 months. These should include details of reliability, availability, serviceability, summaries of incidents and hardware and software maintenance.