Quality Assurance Instruction

MARKET SURVEY QUALIFICATION CRITERIA HELP AND GUIDELINES

Abstract
This document provides instructions for the preparation of Market Survey Qualification Criteria

Note
The original of this instruction is written in HTML as an interactive document and can be found on the WWW in the Quality Assurance pages of the LHC Project. A copy is presented here for reference only and will not be maintained up to date. Always refer to the WWW copy for working purposes.

Prepared by:
M Mottier
EST/ISS
Marcel.Mottier@cern.ch

Checked by:
This is an example Qualification Criteria for a Market Survey. It is based on the official LHC Market Survey Qualification Criteria template. It includes hints and guidelines on how to prepare the Qualification Criteria for a Market Survey.

The example is meant as a guide to the contents, and as a reminder of the points to consider, when preparing a Market Survey. The chapters proposed in the template should be amended to suit individual cases.

The following conventions are used in this example:

- All the text in black is the text found in the Word template. This may need editing to obtain a complete Qualification Criteria document.
- The text in red is an example of what has to be added to complete the document. In the Word template these additions are indicated by XXXX.
- The HELP are links to hints and guidelines to help the editor preparing the document.

More information on Market Surveys can be found in:
- Help and Guidelines for Market Survey Technical Description.
- GO TO the commented Qualification Criteria

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**Market Survey**

**Qualification Criteria for the Industrial Control System for LHC Cryogenics**

In order to be considered as a potential bidder for the forthcoming Invitation to Tender, the firm shall satisfy the criteria specified below.

1. **TYPE OF FIRM**

   The firm requested shall be:
   - either a firm that produces all the equipment for the entire Control System, both hardware and software,
   - or a consortium of producers of hardware and/or software, integrating both types of components,
   - or a firm subcontracting integration and/or production of control equipment supplies.
2. PRODUCTION CAPACITY  

2.1. Turnover  

The turnover in control equipment production shall be over 100 MCHF per year for a firm furnishing both hardware and software.  
The minimum required for the hardware firm within a consortium is 50 MCHF per year.  
For the firm in charge of the integration, the turnover in industrial control system software integration alone shall be above 20 MCHF per year.

2.2. Resources  

The firm shall have available the experienced staff and the resources needed to supply the quantities required within the schedule indicated in section 5 of the Technical Description. A minimum of 25 people (number of engineers, and software developers) in the engineering and development departments in charge of control system integration is required.

2.3. Experience  

The firm shall have at least 5 years of experience in the following domains:

- Installation of control systems dealing with a number of I/Os above 10000 tags.
- Installation of distributed control systems with parallel control rooms.

At least three (3) references within Europe shall be provided, where equipment and experience similar to that required by CERN is currently in use. CERN reserves the right to visit those installations.

3. QUALITY ASSURANCE  

4. PRODUCT MAINTENANCE AND PERENNITY  

The firm shall be able to guarantee for a period of at least 15 years:

- The delivery of spares or their compatible equivalents
- A maintenance and repair service for the delivered hardware.
- The delivery of components of the initial hardware for extensions.
- The ascending compatibility of both hardware and software products
- Its capacity to maintain both software and hardware by their own qualified personnel trained on CERN specific applications.

The firm shall provide references to other contracts with a duration covering a minimum of 10 years with the same type of guarantee as those listed above.

5. TESTING FACILITIES  

6. SPECIAL TECHNICAL REQUIREMENTS
Help and Instructions to Use the Template

See the description of the styles and toolbar used in the template

**MS Number**

The MS number is identical for the technical description, the questionnaire and the qualification criteria.

The MS number has the following structure:

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MS - 0000/LHC/LHC
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Document Number Division Project type

It is given by the SPL Division when the Market Survey is registered with them.

Use **Update Doc No** on the toolbar to update this number throughout all the document (cover page and headers)

**TYPE OF FIRM**

In the case of a consortium, please specify whether the restrictions e.g. minimum turnover, personnel etc. are applicable to the consortium as a whole or to each member, and whether there is any restriction on the total number of firms in the consortium.

**Date**

Replace the month and year on the template by the current month and year

Use **Update Doc No** on the LHC Tech. Spec. toolbar to update this date on the cover page.

**PRODUCTION CAPACITY**

Check list:

- Global turnover of the firm.
- Turnover in the field specific to the Market Survey.
- Total number of employees.
- Number of employees in the field specific to the Market Survey.

Follow the rule of thumb that "the ratio between the yearly expected expenditure under the planned contract and the annual turnover of the firm should not exceed 1:3".

**QUALITY ASSURANCE**

Options:

- The firm shall have ISO 9xx or equivalent certification.
- The firm shall be capable of setting up and working in accordance with a quality assurance system corresponding to ISO 9xx or equivalent.
- The firm shall be capable of working to a CERN-approved quality assurance plan.

In some cases you may want to omit a quality assurance plan and rely totally on reception tests.

**TESTING FACILITIES**

Indicate whether test facilities must be on the contractor's premises or whether it can be sub-contracted.