

Market consultation

For: Bit-error-rate tester (BERT)

Contracting authority:

TNO, Netherlands Organisation for applied scientific research

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1. Introduction

The document describes the organisation TNO, its content and objective of the market consultation, the schedule, preconditional and procedural matters.

TNO, department Quantum Technology intends to purchase a Bit-error-rate tester (BERT). TNO would like to gain more information from the market by conducting this market consultation. The gained information might be used as input for the formal tender process. Therefore, any party which is able to deliver such system for the purposes described in section 3 is invited to contact TNO to present the costs and (technical) possibilities of their stitching interferometer.

After this market consultation TNO will decide which Tender procedure is the most appropriate choice to buy a Bit-error-rate tester (BERT).

1.1 TNO

TNO, the Netherlands Organisation for applied scientific research, was founded by law in 1932 to enable business and government to apply knowledge. As an organisation regulated by public law, we are independent: not part of any government, university or company.

TNO connects people and knowledge to create innovations that boost the competitive strength of industry and the well-being of society in a sustainable way. This is our mission and it is what drives us in our work every day. We work in collaboration with partners and focus on nine domains.

1.2 Organisational structure

TNO's high level of ambition demands an appropriate organizational structure and corporate culture. Staff must be given every support as they pursue innovation and productive cooperation. The current organizational unit structure is shown below:



All units are concerned with issues which are high on the national and European innovation agenda. The themes form the focus of the organization's nine units, each of which is responsible for acquiring and performing contract research relevant to its specific theme and innovation areas.

If you would like further information about a domain or a specific subject, please take a look at: www.TNO.nl.

1.2.1 Procurement

On behalf of TNO, the Procurement department supervises all procurement, purchasing and tendering procedures and works closely together with the Quantum Technology department in this market constellation. As part of the Finance, Procurement & Legal (FPL) division, the Procurement Department is also responsible for organizing and implementing all procurement processes in keeping with the corporate objectives of the organisation.

1.3 Purpose of the market consultation

Before proceeding with the preparation of a possible tender, TNO wants to consult the market on how this tender can best be structured (broadly speaking). Within the scope of the market consultation advice is sought to gain insight into the potential market for the delivery of a stitching interferometer for TNO. The market consultation is open to all players in the market.

With this market consultation TNO wishes to gain insight into what is technically feasible on the basis of the functional & technical specifications as specified in chapter 3. In this way we want to give parties the opportunity not only to get involved at an early stage but also to think along with us about what the best solution might be for TNO. After all, the insights obtained can be taken into consideration in the final formulation of the specifications for the (possible) future Tender and allows participants to contribute to the success of the Tender.

The purpose of the market consultation is covering the following aspects:

- To gain more insights in the pricing models of the different Bit-error-rate testers currently available on the market;
- To gain more insights in discriminating factors for different configurations of Bit-error-rate testers;
- To gain more insights about who is able to deliver such Bit-error-rate testers as needed within TNO;
- To gain more insight into the current possibilities and the choice on the market; to get a clear understanding of the visions, ideas and suggestions of market participants;
- To gauge market interest for this Tender;
- To decide which procurement strategy is best suited to our functional requirements in the current market.

TNO wishes to be advised about on how the existing situation (see section 3.1) the best can be requested.

The results of the market consultation may be processed in the Tender documents, without being traceable of participants of this market consultation.

1.4 Schedule

No dialogue sessions are planned during this market consultation. However, if the input provided leads to additional questions at TNO, TNO will ask for a written and/or oral explanation.

The schedule of the market consultation is shown in the table below.

Deliverable / activity	Responsible	Date
Market Consultation document published by TNO	TNO	31-10-2023
Deadline for submitting your questions on the Market Consultation document	Subscriber	13-11-2023
Deadline for TNO to reply to the questions (anonymised) and publish any additional information or revision of this document on TenderNed	TNO	17-11-2023
Deadline for submitting your input	Subscriber	28-11-2023
Possibility for TNO to ask clarification to each party individually when necessary (information will be included in the summary)	Subscriber/TNO	Week 49/50
TNO summary of market consultation results on TenderNed	TNO	Shortly after week 50

2 Basic principles and preconditions

2.1 The basic principles and preconditions

The basic principles and preconditions mentioned below apply to this market consultation:

- TNO observes the principles on non-discrimination and transparency when carrying out this market consultation;
- This document is solely intended for market consultation purposes and thus is not part of the possible Tender procedure. In short, just a consultation round;
- This market consultation does not serve to make a pre-selection from candidates or interested market parties in the context of the planned tender;
- Market participants who do not apply for this market consultation will not be excluded from participating in the (possible) final Tender. Similarly, market participants who join this market consultation will not be excluded or privileged from participation in the (possible) final Tender;
- This market consultation is non-binding, both for the participants and for TNO;
- Parties who may or may not participate in this market consultation cannot derive any mutual obligations or rights vis-à-vis TNO;
- Participating to this market consultation does not confer no entitlement at obtaining a contract award;
- TNO shall not reimburse any eventual costs in participating to this market consultation;
- Participating market parties agree that the information provided by them can be processed anonymized in the further elaborating program of requirements;
- In the context of the market consultation, provided information may differ from the information that will be provided in the (possible) Tender procedure;
- The contribution of participating Parties will be handled as much as possible with confidentiality and in any case TNO will take into account the legitimate interests of the parties;
- The official language during this market consultation will be Dutch and/or English;
- TNO is in no way bound by the outcome of the market consultation or obliged to realise and/or put out to tender the desired investment to which the market consultation is linked;
- No claim will be honoured for the use of information, confidentiality, or request for compensation herewith;
- All documents submitted by the participating Parties are considered public documents and shall be copy-right free. If copyrights are applicable, TNO is protected by the participating Parties;
- No value judgment can be attributed to TNO's answers to questions given by you;
- TNO reserves the right to:
 - o perform the proposed procurement process in a different way, in terms of content and style, than the process that may have been communicated;
 - o to cease publication of the market consultation temporarily or permanently.
- Participating in this market consultation, constitutes the Parties unconditional approval of the procedure as stated in this document.

2.2 Contact person and communication

All communication relating to the market consultation, will take place via TenderNed only and in the manner specified in this Procurement Guide. If direct contact with TNO is specified/necessary, communication will take place exclusively with the TNO contact person stated below, in writing at all times, via the TenderNed messaging module.

Name : Arjan Verhoeven
Position : senior buyer
Department : Procurement
Postal address : PO Box 96800, NL-2509 JE The Hague
E-mail : via TenderNed, the messaging module for the present tender

Participating market parties cannot derive any rights from oral statements, undertakings and suggestions made by TNO employees and/or consultants in relation to the market consultation procedure and/or the market consultation documents. Participating market parties may only rely on information provided in writing by or on behalf of TNO.

In the heading of all your correspondence, relating to this market consultation, should be clearly mentioned 'Market consultation 2023 FPL/INK 102_Bit-error-rate tester (BERT)'.

The information received may lead to more in-depth questions for TNO. Optionally, TNO may therefore decide to hold a second round of in-depth questions. For this second round of in-depth questions TNO will only invite those parties who also

participated in the first round. In addition, TNO leaves the possibility open to invite market parties without justified reasons and to ask for an additional explanation of the answers received.

2.3 Language

Tenders must be written in the English language. Tenders in languages other than English will be excluded from participation. Official documents that cannot be submitted in the English language may be written in the language of the document's country of origin. Upon request, the participating market party shall arrange a translation by a sworn interpreter-translator. The costs incurred shall be borne by the participating market party.

2.4 Confidentiality

The participating market party will observe strict confidentiality in respect of all information that is or becomes known to it through TNO. It will not make the information available to Third Parties and will only disclose it to its staff, including consultants, subcontractors and Third Parties, to the extent necessary to submit the response to the market consultation.

2.5 Intellectual property rights

Subject to exceptions as specified in the Dutch Copyright Act [Auteurswet], no part of the market consultation documents may be reproduced (other than for the purpose of submitting an answer to the market consultation) in any manner whatsoever without TNO's consent in writing. Responses to the market consultation and all Annexes submitted by participating market parties as part of the market consultation procedure will become TNO's property upon receipt.

2.6 Use of TNO logo

The TNO logo may not be copied, altered or otherwise used on documents submitted by the participating market party as part of the Procurement Procedure.

3 Clarification of the functional & technical desired requirements

3.1 Background

We are currently setting up a new photonics lab. One of the activities we would like to carry out in the lab is develop technologies for optical wireless communication. For that, we need to do signal integrity measurements (up to 16 Gb/s) using a bit error tester, which we would like to purchase.

3.2 Minimum requirements

- a) Max. data rate: anywhere between 16 Gb/s and 32 Gb/s, the lower the better;
- b) Min. data rate: as low as possible but, not higher than 1Gb/s;
- c) PRBS order: Up to 31 (7, 9, 11, 13, 15, 20, 23, 31);
- d) Computer interfaces: USB/HDMI/RJ45/ ...;
- e) The bit-error-rate tester must be tunable from its lowest data rate to its highest;
- f) It must be compatible with any pattern-generator;
- g) (Excellent) Support afterwards, so you are kindly requested to provide us with the necessary insight into what you can offer in terms of support;

If you cannot meet the above minimum requirements, we would still appreciate it if you could give us an insight into what specifications you can meet.