

# **Tender Instructions**

**Applicable to the European Public Tender for: Two (2) Glovebox systems**

**Contracting authority:**

The Netherlands Organisation for Applied Scientific Research / TNO

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## Definitions

In this document, certain capitalized words have a specific restricted meaning, as given below. In the case of nouns, the specific meaning applies to both singular and plural forms. Terms which do not appear in this list but which are defined by legislation, notably the *Aanbestedingswet* (Procurement Act 2012, amended 2016) take the meaning intended by that legislation.

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aanbestedingswet<br>(Dutch Procurement Act) | : the <i>Aanbestedingswet 2012</i> , effective 1 November 2012, as published in the Government Gazette 2012 no. 542; amended 1 July by Act of 22 June 2016 to amend Netherlands Procurement Act 2012 in connection with the implementation of European Directives 2014/23/EC, 2014/24/EC and 2014/25/EC; commonly referred to in English as the Procurement Act. May be abbreviated to 'AW'.                                                                                                                                                                     |
| Appendices                                  | : Appendices to these Tender Instructions, viz. <ul style="list-style-type: none"> <li>• A01 to A06 – prescribed templates to be used when preparing and submitting the Tender (bid)</li> <li>• B01 to B04 – prescribed templates to be used for the provision of information by one or more Third Parties e.g. evidential documents to support the Self-Declaration</li> <li>• C01 to C03 - documents and supplementary information which form part of the Tender</li> <li>• Instructions but are not intended for submission to any external party.</li> </ul> |
| Award Criteria<br>(singular: criterion)     | : the criteria used by TNO to determine which Tenderer has filed the most economically advantageous tender. Further information on the Award criteria can be found in chapter 6.                                                                                                                                                                                                                                                                                                                                                                                 |
| Award Decision                              | : the decision taken by TNO whereby the winning Tenderer is to be invited to enter into a Contract; alternatively, the decision not to award the Contract to any party.                                                                                                                                                                                                                                                                                                                                                                                          |
| Contracting authority                       | : The Netherlands Organisation for Applied Scientific Research (TNO).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Combination                                 | : an alliance of companies or legal entities who submit a joint tender as if acting as a single entity. Each member of the alliance is jointly and severally responsible and liable in law for the effective performance of the Contract, if awarded.                                                                                                                                                                                                                                                                                                            |
| Contractor                                  | : the successful Tenderer to whom the Contract is awarded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Contract                                    | : the legally binding agreement between TNO and the Contractor, effected further to the outcome of the Tender procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Eligibility Requirements                    | : the requirements imposed by TNO on all tendering parties not automatically excluded (under the Grounds for Exclusion), establishing minimum standards which must be met in order to be considered for the Contract.                                                                                                                                                                                                                                                                                                                                            |
| Grounds for Exclusion                       | : reasons whereby a party is automatically deemed ineligible to take part in the Tender procedure. Depending on the contents of the tender documents and description, such reasons may relate to the (personal) circumstances of the Tenderer company, an officer of that company and/or a Third Party with a material involvement in the Tender and the proposed Contract. The Grounds Exclusion are explained in chapter 5.                                                                                                                                    |
| Minimum Requirements                        | : the minimum requirements imposed by TNO with regard to the provision of supplies, services or works, i.e. the manner in which the Contractor is to perform the activities specified by the Contract.                                                                                                                                                                                                                                                                                                                                                           |
| Memorandum of Information                   | : a document providing further information about the Tender procedure and/or the tender documents, compiled by TNO in response to queries it has received from Tenderers. (The queries are anonymized in the interests of confidentiality.)                                                                                                                                                                                                                                                                                                                      |
| Tender                                      | : the bid submitted by the Tenderer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Tender Instructions                         | : the current document in which the Tender procedure is described.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

- Tender Procedure : the European tendering procedure through which a Contract is to be awarded.
- Third Party : any natural person or legal entity upon whom a market party (the Tenderer) can call to meet the requirements of financial and economic capacity and/or technical and professional competence, regardless of the nature of the relationship between the market party and the Third Party.

# 1 Contracting Authority and Contract

## 1.1 TNO

The Netherlands Organisation for Applied Scientific Research, hereafter 'TNO', is a modern, theme-led Research & Knowledge organization. It was established in 1930 by Act of Parliament with the intention of maximizing the practical relevance of scientific research to the public sector, industry and society at large. The government of the day believed that this would enhance the innovative strength of the Netherlands and contribute to long-term economic growth.

TNO is a national institution acting in the general interest and, for the purposes of European policy and legislation, is therefore a 'body governed by public law.' Although it operates under the formal responsibility of the Minister for Economic Affairs, TNO enjoys complete independence and autonomy in its day-to-day activities.

The organization has approximately 3,400 staff who work to develop and apply innovative knowledge. TNO conducts contract research on behalf of clients in all sectors, provides specialist advice and consultancy, and licenses the use of its many patents and the specialist software it has developed. TNO also tests and certifies products and services, issuing an independent quality assessment. The organization has spawned numerous commercial spin-offs to bring its innovations to market.

One of TNO's key strengths is that it brings various scientific disciplines together under one roof. Those disciplines combine and interact to create groundbreaking and sustainable new solutions. Increasingly, TNO seeks collaboration with partners in government and industry, working alongside knowledge institutions and societal organizations at home and abroad. Through its varied activities, TNO stimulates economic growth and social renewal. The organization's mission statement (as phrased in its 2022-2025 Strategic Plan) reads, "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." Its objectives are encapsulated in the motto, "TNO, Innovation for Life".

For further information, see: [www.TNO.nl](http://www.TNO.nl).

## 1.2 Organizational 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.

Staff of the various divisions and expertise areas are based at nine regional offices located throughout the Netherlands. The organization's head office is in The Hague and it is here that the central support departments ('Shared Services Organisation') are based.

### 1.2.1 Procurement

TNO's Procurement Department oversees all purchasing, procurement and tendering procedures on behalf of TNO, doing for this tender in close cooperation with Holst Centre.

As part of the Finance, Procurement & Legal (FPL) division, the Procurement Department is responsible for organizing and implementing all procurement processes in keeping with the corporate objectives of the organization.

### 1.2.2 Holst Centre

Within TNO, Holst Centre has as a goal to develop a pre-pilot line for foil based electronic and electrochemical devices. TNO operates extensive laboratory facilities for the production of these devices, wherein many production steps are taking place in a glovebox environment. To further realize this goal, it is necessary for TNO to invest in the further expansion of its current glovebox systems.

## 1.3 Contract description

The purpose of this Tender Procedure is to select one (1) Contractor to supply a two 2 glovebox systems. The supplies and the manner in which they are supplied must comply with the specifications and criteria given in the Tender documents, and notably the programme of requirements (see Chapter 8). There may be a combination of 'hard' and 'soft' requirements. The former are mandatory and must be met. If one or more of the 'hard' requirements are not met, the Tender will be excluded, provided the exclusion is not disproportionate. The 'soft' requirements are in the nature of 'preferences' which should be taken into consideration to the greatest extent possible.

### 1.3.1 Scope and content of the Contract

The Contract relates to the provision of supplies and services as specified in the programme of requirements (Chapters 6 and 8) as applicable.

In relation with this Tender Procedure, TNO has not the intention to issue a Contract for maintenance/services. However, we wish to gain more insight in the various options you can offer TNO in relation with preventive and corrective maintenance.

In this perspective, TNO has divided maintenance/services into two types, namely 'basic' and 'all-inclusive'. The price for the variation in maintenance/services must be submitted by the Tenderer in Appendix A04. These quoted prices shall be fixed, and no indexation will take place the first 2 years after the final acceptance of the continuous furnace system by TNO. For the developing of a proposal what exactly falls under the maintenance/services (for the relevant price, as included in appendix A04), TNO expects a proposal further specified in section 1.3.1.1.

**TNO intends to purchase a third glove box system within a period of up to three years, with similar requirements/preferences as stated in these Tender Guidelines. To this end, Tenderer is requested to complete the appropriate line numbers in Appendix A04.**

#### 1.3.1.1 Optional maintenance/services contract

TNO has divided maintenance/services into two types, being 'basic' and 'all-inclusive'. The price for the various options for maintenance/services must be submitted by the Tenderer in Appendix A04. These quoted prices shall be fixed, and no indexation should take place the first 2 years after the final acceptance of the two glovebox systems by TNO.

The price for the variation in maintenance should be submitted by the Tenderer in the price sheet (Appendix A04), as an optional item. For the elaboration of what exactly falls under the maintenance (for the relevant price, as offered in the price sheet), TNO expects an elaboration to be submitted as 'Appendix A07 - Maintenance/Services' (own format). TNO would like to receive a proposal for maintenance/services containing at least the two types of maintenance as described below, and this for the duration of 1, 2 and 3 years. TNO will pay attention to:

#### "All-inclusive maintenance contract"

What is offered for the "All-inclusive" maintenance contract type. What exactly does Tenderer offer and how does this match with the wishes of TNO, such as but not limited to response times, service-desk reachability, software updates, additional service hours which are not covered in this type of contract, etc. Make a preventive and corrective breakdown here. The maintenance time of the continuous furnace system shall not exceed two weeks per year. Therefore, state the consequences of not achieving or not fulfilling the service level specified by the tenderer.

#### "Basic maintenance contract"

What is offered for the "Basic" maintenance contract type. What exactly does Tenderer offer and how does this match with the wishes of TNO, such as but not limited to response times, service-desk reachability, software updates, additional service hours which are not covered in this type of contract etc. Make a preventive and (if available) a corrective breakdown here. The maintenance time of the continuous furnace system shall not exceed two weeks per year. Therefore, state the consequences of not achieving or not fulfilling the service level specified by the tenderer.

In addition to the maintenance contracts referred to above, the Tenderer is also entitled to propose another variant that, in the Tenderer's opinion, is even more in line with TNO's wishes and needs.

**1.4 Socially responsible procurement**

Sustainability is an extremely important aspect of TNO's core business. Much of our research is concerned with managing the economic, environmental and social impact of developments within our adopted themes. We do so using the 'roadmap' approach. In addition, we devote very close attention to the manner in which we can minimize the negative impact – and ideally maximize the positive impact – of our own operations.

We therefore attach great importance to social and environmental responsibility: People and Planet. We acknowledge that our staff are essential to our mission. The core values of TNO – integrity, independence, professionalism and social responsibility – underpin the organization's strategy and all its activities.

In terms of environmental responsibility, our policy centres on the spearheads of energy efficiency, reducing the carbon footprint of business travel, and sustainable procurement practice. Further information can be found in the TNO Sustainability Report which forms part of the TNO Annual Report.

Socially responsible procurement practice is therefore an intrinsic part of the procurement agenda. All procurement decisions are taken in consultation with the TNO budget holders and involve careful consideration of sustainability aspects. Where relevant and possible, the sustainability aspects will be translated into sustainability requirements and/or preferences which will be included in the Tender Instructions document.

## 2 The Tender Procedure

The Tender Procedure is conducted in full compliance with the conditions of the Dutch *Aanbestedingswet* (Procurement Act), which in turn is based on relevant European legislation. TNO has opted for the 'public' tendering procedure. This means that the Call for Tenders will be published on the TenderNed website at [www.tenderned.nl](http://www.tenderned.nl).

TNO has opted to apply the European public procurement procedure. This is because based on the limited competition in the field to which the Contract pertains, a restricted number of Tenders are expected whereupon the public procedure is likely to be more cost-efficient.

### 2.1 Schedule

The proposed schedule for the Tender Procedure is as follows:

| No. | Action                                                                                       | Deadline                                                        |
|-----|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 1.  | Publication of Call for Tenders (on <a href="http://www.tenderned.nl">www.tenderned.nl</a> ) | 04-03-2022                                                      |
| 2.  | Final opportunity for interested parties to submit questions                                 | 30-03-2022, 13:00 hrs.                                          |
| 3.  | Publication of (final) Memorandum of Information                                             | 07-04-2022                                                      |
| 4.  | Final date (and time) for submission of Tenders                                              | 20-04-2022, 9:30 hrs.                                           |
| 5.  | Announcement of Intention to Award                                                           | 06-05-2022                                                      |
| 6.  | Final date for submission of evidential documents by intended Contractor                     | 13-05-2022, in accordance with conditions stated in Section 7.1 |
| 7.  | Final date for lodging an objection                                                          | 30-05-2022                                                      |
| 8.  | Confirmation of Contract Award                                                               | Close after 30-05-2022                                          |

Dates are indicative, with the exclusion of the date to file questions and remarks for the Memorandum of Information and the date to submit the Tender. TNO reserves the right to amend the schedule but will of course observe all legislative requirements. Tenderers will be informed about any amendment to the schedule.

### 2.2 Tender conditions

#### 2.2.1 Acceptance

The submission of a tender is confirmation that the Tenderer accepts all applicable conditions in the Tender Documents.

#### 2.2.2 Formats

The Tenderer must use the prescribed templates and formats provided in the Appendices to the Tender Instructions. It is expressly forbidden to make any alteration to these templates without the prior consent of TNO.

#### 2.2.3 Self-declaration

The Tenderer must complete and submit a Self-declaration (Appendix **A01** and, if applicable, Appendix **A02** and/or **B01**) according to the following instructions.

The Tenderer must use Adobe Reader to open and complete Appendix **A01**, **A02** and **B01** (the European Single Procurement Document; ESPD). Opening Appendix **A01**, **A02** and **B01** in any other program may result in the loss of information that has been pre-entered by TNO. The submission of a Self-declaration in any form other than that included with the original tender will exclude the entire tender from further consideration. The Tenderer bears sole responsibility for opening Appendix **A01**, **A02** and **B01** and for submitting the Self-declaration in the prescribed manner.

#### 2.2.4 Order of precedence

Where any discrepancies between the contents of the various tender documents exists, the following order of precedence applies (in descending order of importance).

- Memoranda of Information, most recent first
- Tender Instructions and Appendices
- Call for Tenders.

### 2.2.5 Contact person and communication

All communication with respect to the Tender Procedure will only take place through TenderNed and in a manner other than prescribed in this Tender Instructions. If legal contact with TNO is required / necessary, communication only takes place at TNO's contact point below, which communication must always be done in writing via the e-mail address mentioned below.

Name : Arjan Verhoeven  
 Position : Senior buyer  
 Department : Procurement  
 Correspondence : P.O. Box 8550, 5656 AE, Eindhoven, the Netherlands  
 Email : **via TenderNed; the questions and answers module of the related Tender**

Tenderers cannot derive rights from verbal statements, promises and suggestions from TNO employees or agents, made in connection with the Tender Procedure and / or tender documents. Tenderers can only rely on written information provided by or on behalf of TNO.

Failure to comply with the above conditions, or any attempt to influence the judgement or decisions of any person involved in the Tender procedure, will result in immediate disqualification.

### 2.2.6 Language

Tenders must be submitted in the English language. Tenders submitted in other languages than the English language will be excluded from further participation in this Tender procedure. Evidential documents which cannot be submitted in the English language, can be submitted in the original language but the Tenderer should be able to provide a (sworn) translation on request.

### 2.2.7 Multiple tenders

The submission of multiple Tenders is not permitted. Each interested party may submit only one tender regardless of the capacity in which it does so (independent Tenderer, lead contractor, subcontractor or member of a combination). A group of companies, as defined by Article 2:24b of the Dutch Civil Code, may submit only one tender unless it is possible to show that there is no dependent relationship between the companies, i.e. no company is able to influence the decisions or operations of another. It is only permissible for two or more companies within the same group to submit competing tenders if they can demonstrate their independence and confidentiality of information (the 'Chinese wall' principle) to the satisfaction of TNO by any means they consider appropriate. Companies forming part of the same group can submit a single tender which specifies their respective roles (lead contractor and subcontractor or acting as a Combination).

### 2.2.8 Combination

A Combination is defined as an alliance of companies which submits a tender as a single party. A Combination must comply with the following criteria:

#### Coordinator

Where a Tender is submitted by a Combination, a Self-declaration (Appendix **A01**) must be completed by its coordinator, who must provide the following required information *with regard to the Combination itself*, in addition to the standard information required by the Self-declaration.

- (i) In Part IIA, under the heading 'Manner of Participation', tick the 'Yes' box to indicate that the Tender is being submitted on behalf of a Combination.
- (ii) In Part IIA, under the heading 'Manner of Participation' at 'If so', subsection a), the coordinator should state which of the eligibility requirements he fulfils (if applicable) and the specific tasks for which he is responsible.
- (iii) In Part IIA, under the heading 'Manner of Participation' at 'If so', subsection b), enter the official name(s) and legal structure of all other members of the Combination.
- (iv) If the Combination has been formalized and has a registered trading name, this should be entered in Part IIA under 'Manner of Participation' at 'If so', subsection c).

#### Other members

Each of the other Combination members must complete and submit a separate ESPD (Appendix **A01**) to include the following information regarding the Combination itself (in addition to all other required information):

- i) In Part IIA under 'Manner of Participation', tick the 'Yes' box to indicate that the Combination member is taking part in the Tender Procedure alongside other partners.
- ii) In Part IIA, under the heading Manner of Participation, subsection a), the Combination member should state which of the eligibility requirements he fulfils (if applicable) and the specific tasks for which he is responsible.
- iii) In Part IIA, under the heading Manner of Participation, subsection b), enter the official name(s) and legal structure of all other members of the Combination.
- iv) If the Combination has been formalized and has an official trading name, this should be entered in Part IIA under Manner of Participation, subsection c).

By submitting the tender, all members of the Combination accept joint and individual responsibility and liability for the fulfilment of all obligations and responsibilities of the Contract itself should this be awarded to the Combination.

All Self-Declarations must be duly signed by an authorized company officer.

### 2.2.9 Subcontractor

A partnership comprising a lead contractor and a subcontractor can submit a single Tender. The lead contractor is at all times responsible and liable in law for the proper performance of the Contract activities, including those delegated to the subcontractor.

A lead contractor can submit a Tender with a subcontractor in one of the following two manners. The signatory's authority must be established by enclosing a certified extract from the Chamber of Commerce Trade Register with the subcontractor's Self-declaration form (Appendix B01).

- Use of subcontractor's credentials to fulfil Eligibility Requirements  
If the Tenderer is reliant on the financial, economic, technical and/or professional capacity of a Subcontractor to fulfil the Eligibility Requirements, that subcontractor is also regarded as a Third Party. In such instances, the Tenderer must follow the instructions given in Para. 2.2.10 concerning reliance on the resources of one or more Third Parties.
- Subcontractor's contribution to fulfilment of Contract  
Where the Tenderer meets all Eligibility Requirements unaided but nevertheless wishes to deploy a subcontractor for the fulfilment of the Contract or parts of the Contract, the Tenderer must list all subcontractors to be involved in the fulfilment of the Contract in part IID of the Self-Declaration.

### Instructions for the Tenderer when completing the Self-declaration (Appendix A01)

The Tenderer should state whether he does or does not intend to involve one or more subcontractors in the performance of the Contract by completing Part II D of the Self-declaration (Appendix A01).

- If there is no intention to involve a subcontractor:  
The Tenderer should tick the box marked 'No' in Part II D of the Self-declaration (Appendix A01).
- If the Tenderer does intend to involve one or more subcontractors:  
The Tenderer should tick the box marked 'Yes' Part II D of the Self-declaration (Appendix A01), and enter the names of those subcontractors in the space provided beneath 'If so'.

### Instructions for submission of evidential documents

At the request of TNO and within the period specified in Para. 7.1., the Tenderer who is identified as the lead Contractor (subject to confirmation by TNO) is required to submit the corresponding information that he submitted about himself (in Parts II A, II B and III of the Self-declaration) for all subcontractors listed in Part II D of the Self-declaration (Appendix A01). The Tenderer must provide this information by submitting a Self-declaration form (Appendix B01) in which the relevant sections have been completed by each subcontractor.

The subcontractor's Self-declaration (Appendix B01) must be duly signed by an authorized company officer. The Tenderer must establish the signatory's authority by enclosing a certified extract from the Chamber of Commerce Trade Register with the subcontractor's Self-declaration form (Appendix B01).

### ➤ Required action between notification of Award and commencement of Contract

Where the successful Tenderer intends to involve one or more subcontractors in the performance of the Contract, TNO must be informed, in writing, of the name or names of the subcontractors who are to perform the contract, of the name of the duly appointed legal representative of each subcontractor, as well as the name, telephone number and email address of a contract person for each subcontractor. This information is to be provided no later than seven days prior to the date

of commencement of the Contract that was agreed by TNO and the Contractor or subcontractor. No subcontractor may be involved or changed without TNO's prior written consent.

➤ Required action during performance of Contract

Any subcontractors engaged by the Contractor during the performance of the Contract must be approved by TNO. Such approval must be confirmed in writing before the subcontractor is permitted to begin work on the contract (or part thereof) assigned to him by the Tenderer. This provision applies where the Contractor was not required to name specific subcontractors during the Tender Procedure and where new subcontractors are recruited after the Contract work has commenced. If there are any changes to the information relating to a subcontractor, the Contractor or subcontractor must inform TNO immediately and in writing.

In order to approve a subcontractor, TNO must ascertain that none of the Grounds for Exclusion listed in the original Tender Procedure apply. TNO may require the Contractor or subcontractor to submit evidential documents to establish that this is the case. The documents to be requested by TNO are limited to those listed in Section 5. 1 of the Tender Instructions.

If TNO determines that one or more Grounds for Exclusion does indeed apply to the subcontractor, approval will not be granted. TNO will allow the Contractor to propose another subcontractor, whereby the same approval procedure will be followed. TNO will hold the Contractor and subcontractor(s) responsible for the correct and timely execution of the Contract, regardless of any delay due to a subcontractor having been excluded from participation.

## **2.2.10 (no) Reliance on Third Party resources**

The Tenderer may call upon the financial, economic, technical and/or professional capacity of one or more Third Parties. Where the Third Party is to provide financial resources, both the Tenderer and that Third Party are jointly responsible and liable in law for the proper execution of the Contract (if awarded).

Where the Tenderer calls upon the technical or professional capabilities of one of more Third Parties, those Third Parties must take an active part in the performance of the Contract activities (assuming that the Contract is indeed awarded to the Tenderer).

### No reliance on Third Party resources

A Tenderer who does *not* intend to make any use of the financial, technical or professional capabilities of any Third Party should tick the box marked 'No' in Part II C of the Self-declaration (Appendix **A01**).

### Reliance on Third Party capacity

#### A) Instructions for completion of Tender

If the Tenderer *does* intend to call upon the financial, economic, technical or professional capabilities of one or more Third parties, he should fill in Part II C of the Self-declaration (Appendix **A01**) as follows:

1. tick 'Yes' in the appropriate section
2. indicate *which* of the Eligibility Requirements will be met further to the involvement of the Third Party
3. state *how* the Third Party's involvement will fulfil the relevant Eligibility Requirement(s).

The Tenderer who intends to call upon the financial, economic, technical and/or professional capacity of one or more Third Parties should also provide:

4. a separate Self-declaration form (Appendix **A02**) for each such Third Party, in which parts II A, II B and III have been completed. The forms must be signed by the duly authorized legal representative of the Third Party concerned, and this person's authority to sign must be confirmed by means of a certified extract from the Chamber of Commerce Trade Register. Note that the extract does not have to be submitted at the same time as the Tender itself; TNO will request further information in accordance with the following provisions.

### Addition requirement where Tender relies on the technical or professional capabilities of one or more Third Parties

5. Where the Tenderer intends to call upon the technical or professional capabilities of one of more Third Parties, a list of reference projects must be provided for each Third Party (in addition to that relating to the Tenderer). The list of Third Party reference projects should be compiled using the prescribed template provided as Appendix **A03**.

#### B) Instructions for Provisional Contractors who intend to call up the resources of one or more Third Parties

If the Tenderer selected by TNO and thus identified as the Provisional Contractor (subject to confirmation) intends to call upon the financial, economic, technical or professional capacity of one or more Third Parties, that Tenderer must submit the following documents on request, within the period stipulated in Para. 7.1 of the Tender Instructions:

1. A declaration produced and duly signed by each Third Party confirming that the Tenderer will have access to the resources stated. Where the Tenderer intends to call upon the financial and economic capacity of the Third Party, the declaration must be made using the template provided as Appendix **B02**. In the case of technical and/or professional capacity, the statement should be made using the template provided as Appendix **B03**.
2. A certified extract from the Chamber of Commerce Trade Register pertaining to each Third Party for whom a Self-declaration (Appendix **A02**) is submitted. The extract should confirm that the legal validity of the signature on the Self-declaration (i.e. the signatory is an authorized officer of the company concerned).
3. All evidential documents listed in Para. 5.1 for each of the Third Parties named in the Tender, confirming that none of the Grounds for Exclusion apply.

Supplementary provision for a proposed Contractor intending to call upon the financial and economic capacity of one or more Third Parties

4. If the Tenderer selected by TNO and thus identified as the Provisional Contractor intends to call upon the financial and economic capacity of one or more Third Parties, that Tenderer must, at the request of TNO and within the period stipulated in Para. 7.1 of the Tender Instructions, submit all documents listed in Para B (concerning '*Instructions for provisional contractors*') together with the evidential documents which establish that each of the Third Parties meets the Eligibility Requirements in respect of financial and economic status. (This replaces the requirement for the Tenderer to submit evidence of its own financial and economic status.)

#### **2.2.11 Alternative Tenders**

The submission of alternative Tenders is not permitted. Alternative Tenders will be disregarded.

#### **2.2.12 '...or equivalent'**

Where the Tender documents, including Appendices, refer to any specific brand name, patent, type, model, manufacturing process, etc., the words '... or equivalent' should be understood to follow.

#### **2.2.13 Reserved rights**

1. TNO may, at its own discretion and without having to state reasons, decide not to award the Contract to any of the parties from whom Tenders have been received. TNO reserves the right to suspend or cancel the Tender Procedure entirely or partially. Tenderers are not entitled to compensation for any form of loss or damage directly or indirectly incurred as a result.
2. TNO reserves the right to subject all information provided by Tenderers to further scrutiny for the purposes of verification. Referees may be contacted without prior notice to the Tenderer or Third Party.

Providing false or incomplete information will result in exclusion from the Tender Procedure. Any agreements made prior to the discovery of the false or incomplete information will be revoked and contracts will be annulled. No compensation will be paid. TNO expressly disclaims liability for loss or damage howsoever caused.

#### **2.2.14 Confidentiality**

The Tenderer undertakes to treat all information which may affect the commercial interests or scientific integrity of TNO in the strictest confidence. Information is provided on a 'need to know' basis and must not be disclosed to any employee or agent of the Tenderer's organization or those of a Third Party (including consultants and subcontractors) unless such disclosure is essential to the effective preparation of the Tender or, where applicable, the proper performance of the Contract. TNO acknowledges the confidentiality of all information provided in support of the Tender and undertakes not to disclose such information to unauthorized parties. However, Tenderers are advised that TNO is under a legal obligation to explain and justify the Award Decision, which may entail the disclosure of information pertaining to the Tenders received, both successful and unsuccessful.

#### **2.2.15 Distortion of competition**

Attempts to distort fair competition, such as collusion or cartel-forming, are grounds for disqualification. Where TNO has plausible indicators of any such attempt, the Tenderer will first be given an opportunity to prove otherwise. If, in the sole opinion of TNO, the Tenderer is not able to provide a satisfactory defence, he will be excluded from the remainder of the Tender Procedure.

**2.2.16 Withdrawal of Tender**

Submitted tenders cannot be withdrawn after the final date to submit a Tender (see paragraph 2.1). The Tender will remain in place throughout its period of validity.

**2.2.17 Period of validity**

The Tender represents a formal offer which must remain valid for at least ninety (90) days from the final date to submit Tenders (see paragraph 2.1). This period of validity is automatically extended with the Tenderer who emerges as the Provisional Contractor until the point at which the final Contract is signed.

If an objection to the Award Decision is placed before the judicial authorities in accordance with paragraph 6.2.1, the period of validity will (if necessary) be further extended by a period of thirty calendar days following the day on which the court returns its judgment.

**2.2.18 Terms and Conditions of Contract**

The Award of the Contract is to be effected by means of:

- A purchase order; and
- TNO's General Purchasing Conditions, February 2022, as included as Appendix C03, except where the Tender Documents include alternative provisions, in which case the Tender Documents take precedence.

As provided by Para. 2.3 of the Tender Instructions, the Tenderer may propose amendments to the current formulation of the General Purchasing Conditions. TNO will confirm the amendments to be made, which will be listed in the final Memorandum of Information. Acceptance of the final version of the amended General Purchasing Conditions is to be regarded as a minimum requirement. Failure to meet this requirement in full will result in exclusion from the remainder of the Tender Procedure.

The submission of a Tender indicates the Tenderer's full acceptance of all terms and conditions applicable at the time of submission.

**2.2.19 Suppliers' Terms and Conditions; Provisional Tenders**

The Tenderer's general terms and conditions, under any name and/ or any form whatsoever, do not apply. Imposing its own general terms and conditions in and/ or on the Tender, shall render the Tender invalid and leads to exclusion of the Tenderer.

Only TNO's General Purchasing Conditions apply to the Contract (Appendix C03).

**2.2.20 Legally valid signature**

The Tender and all documents included must be duly signed in ink by an authorized representative of the Tenderer organization. The hard copy of each document is then be scanned and uploaded to the TenderNed site. The signatory's authorization to sign must be established by means of a certified extract from the Chamber of Commerce Trade Register. If the signatory is not listed as a authorized representative of the Tenderer organization in the Trade Register, a mandate signed by a registered company officer must be provided. The extract and mandate must be submitted at the first request of TNO in accordance with the instructions and deadline stated in Para. 7.1 of the Tender Instructions.

The signature under the Tender also applies as a signature under the Self-declaration, Article 2.2.3, the form "ESPD".

If a Tender and/ or one or more documents are legally and duly signed, the Tender is invalid and the Tenderer will be excluded, except when this is disproportionate and not contrary to the fundamental principles of procurement law.

**2.2.21 Reimbursement of Tender costs**

All costs incurred further to the production and submission of the Tender are to be borne by the Tenderer. TNO shall not provide any form of reimbursement.

**2.2.22 Statement of prices and costs**

Prices and costs must be stated in euros (EUR), excluding Value Added Tax. The prices and costs are to remain applicable throughout the Contract term except where the Contract terms make alternative provisions. TNO wishes to make clear that price negotiations do not form part of the Tender Procedure. Tenderer is requested to present a cost breakdown.

**2.2.23 Site Acceptance Test (SAT)**

A full acceptance test on-site at TNO, High Tech Campus 21 in Eindhoven, must be performed by the tenderer in cooperation with TNO. The SAT contains the following checkpoints:

- The two glovebox systems will be checked for damages;
- The proper functioning of the two glovebox systems will be checked;

- Mechanical and vacuum functions,
- Electrical, - and switching functions,
- User interface(s), including software, controls and data storage,
- Safety functions.
- The SAT includes testing all functions and the requirements as listed in the schedule of requirements section 8, and all other functions offered by the tenderer;
- The presence and quality of the required documentation will be checked.

The details of the SAT shall be defined and agreed between TNO and the final Tenderer. As part of the tender bid, we ask the Tenderer to submit a SAT-proposal.

Following approved user acceptance test on-site, the delivered two glovebox systems shall be at the unrestricted disposal of TNO for six months. If the system works according to TNO's functional and technical specifications, without faults and/or malfunctions, the test period shall be concluded by TNO. If the two glovebox systems are not operating in this period according to TNO's functional and technical specifications, the faults and/or malfunctions will be remedied, and another test period, of one month, must successfully be completed and approved by TNO, up to a maximum of three test periods of one month each.

The details of the site acceptance test shall be agreed between the user and the supplier. Tenderer must submit a draft test protocol for the site acceptance test with its Tender.

#### **2.2.24 Failure in SAT**

In the event that the deliverables fail to meet the user Acceptance Criteria for the FAT/SAT, the Supplier must set out such failures in a written statement, to be signed by both parties. The supplier must then provide TNO with a corrective action plan for such failures within twenty (20) calendar days, or such other period if mutually agreed upon by the parties, from the date of signing of such statement. The supplier shall remedy such failures at no additional charge within the timeframe laid down in the corrective action plan.

#### **2.2.25 Publicity**

The Tenderer and any partners and/or subcontractors of the Tenderer must not make any public statement or comment about the Tender Procedure, except with the prior written permission of TNO.

#### **2.2.26 Intellectual property rights**

Except where expressly permitted under Copyright Law or where necessary for the successful preparation of a Tender, no part of the tender documents may be reproduced in any form, by print, photocopy, DVD, CD-ROM, microfilm or other means, without the prior written permission of TNO. Tenders and all accompanying documents submitted further to the Tender Procedure become the property of TNO upon receipt.

#### **2.2.27 Use of TNO logo**

It is not permitted to copy, modify or otherwise use the TNO logo on any documents submitted by the Tenderer further to the Tender Procedure.

#### **2.2.28 Defects in the Tender and explanations by the Tenderer**

In case a Tender has a defect which makes the Tender invalid, the Tenderer will be excluded, except when this is disproportionate and repair of the defect is in compliance with the fundamental principles of procurement law. TNO has the right, but no legal obligation, to offer a Tenderer the opportunity to repair the defect. For instance by submitting a missing document. Repairing a defect in the Tender is only possible and can only be allowed when this is in accordance with the fundamental principles of procurement law, in particular the principle of equal treatment. Any repair must be made within 48 hours after a written request by TNO. In case a defect is not sufficiently and/ or timely repaired, the Tender will be declared invalid and the Tenderer will be excluded. Tenderers must draft their Tender as clear and concrete as possible to avoid unclarities. TNO has the right to ask Tenderers for a clarification of their Tender. Tenderers must be aware that if a clarification is asked by TNO, the clarification must be provided within 48 hours after the written request. A clarification may not change the (contents of the) Tender.

### **2.3 Further information (questions)**

The Tender documents, including the Tender Instructions and Appendices, have been drafted with the greatest possible care. Interested parties are entitled to submit questions, remarks and requests for clarification at any time before the deadlines given in the schedule in Para. 2.1. The questions may relate to the contents of the tender documents or to the Tender Procedure itself. Clarification may be sought where there are any apparent ambiguities or discrepancies between documents. Further information should be requested within the stated period and in the manner described in this paragraph. A Tenderer who fails to request

information on time and in the prescribed manner will forfeit his right to object to any identified defects at a later date, for instance after the Award Decision has been provided.

During the period between the Call for Tenders and the information deadline, Tenderers may also submit grounded questions, suggestions for amendments to the text of the Tender documents, including TNO's General Terms and Conditions of Procurement (Appendix C03). Suggestions should be restricted to textual improvements, editorial corrections and clarifications; they may not affect the essence of the Contract or the applicable Terms and Conditions. TNO reserves the right to act upon or reject such suggestions at its sole discretion.

Questions, comments and requests for supplementary information must be submitted in English. They must only be submitted in writing, in the form of an email, and must use the 'editable' MS Excel template provided in Appendix C01. The specific aspect of the documents or procedure to which the query refers should be clearly indicated using the drop-down menu in Excel. The file must then be submitted by email to the TNO contact person named in Para. 2.2.5.

If two or more Memoranda of Information are issued, Tenderers may only submit questions, remarks, questions and/ requests for clarification for the second of following Memorandum of Information that concern the immediately preceding Memorandum of Information.

The TNO contact person will compile one or Memoranda of Information which provide the answers to the questions submitted. The source of the questions will not be identified by name. The deadline for submitting questions is given in Para. 2.1. The Memoranda of Information will be published at [www.tenderned.nl](http://www.tenderned.nl) in accordance with the schedule in Para 2.1. All questions and the answers provided are to be regarded as an integral component of the Tender Instructions. In principle, the Tender Instructions document becomes definitive with the publication of the final Memorandum of Information. TNO advises interested parties to delay submitting a Tender until the final Memorandum of Information has been published since it may include information which affects the content of the Tender.

Responsibility for reading and acting upon the Memoranda of Information in a timely manner rests with the Tenderer. If the production of the final Tender is jeopardized by technical problems affecting the TenderNed site, the Tenderer should contact the TNO contact person named in Para. 2.2.5, and TenderNed, without delay. If the TenderNed site is indeed 'down', TNO will implement an alternative course of action (subject to the provisions of the Procurement Act.)

TNO advises Tenderers to delay submitting a Tender until the final Memorandum of Information has been published. This may include information and details of changes to the Tender Instructions that affect the process of drawing up a Tender.

## **2.4 Disputes and applicable jurisdiction**

All aspects of the Tender Procedure are subject to Dutch law. Any dispute concerning the Tender Procedure requiring legal adjudication must in the first instance be placed before the Court in Interlocutory Proceedings in the District of The Hague, Prins Clauslaan 60.

Tenderers who object to (any part of) the Tender Procedure, (any part of) the information provided, or any other aspect directly or indirectly relating to the Tender Procedure and likely to affect its outcome, must bring their objections to the attention of the TNO contact person named in Para. 2.2.5 at the earliest possible opportunity. Before bringing proceeding to the District Court, the concerning Tenderer is required to request the TNO contact for a enumeration of TNO's prevented days from attending.

The period in which a formal objection can be lodged against the Award Decision and/or the Tender Procedure is twenty calendar days from the date on which the Award Decision is issued. The objection must be made in writing and the writ must be served at the registered statutory address of TNO within the twenty-calendar day period. Where formal proceedings have not been instigated within the designated period, lapse Tenderers forfeit their right to do so later ('rechtsverwerking').

Where a court order challenging the Award Decision and/or the Tender Procedure is sought, in a timely and legally valid manner, the Tenderer to whom the Contract has been provisionally awarded is expected to intervene in the Proceedings. If the Tenderer fails to do so, they will forfeit their right to a judicial procedure or to third-party proceedings if the judgment in the first instance requires TNO to amend or withdraw the Award Decision. It is in the interests of all parties to create clarity at the earliest possible opportunity and this requires all arguments to be presented openly and without delay.

## **2.5 Submission of the Tender**

### 2.5.1 Digital submission

The Tender comprises all forms in Appendices **A01 to A07** which must be completed in full and duly signed by a legally authorized representative of the tendering organization. The formats given in the Appendices must be used. For the signature requirements, see Para. 2.2.20.

For the current tender procedure, TNO has opted to use the online TenderNed system. TenderNed is the Dutch government's online tendering system. All Dutch authorities are obliged to announce their national and European tenders on TenderNed's announcement platform, so businesses can have insight into all public publications from a single webpage.

If you would like to bid in TenderNed you first have to register your company. Please keep in mind that the TenderNed application is only available in Dutch. The following information on registering your company and bidding is available in English:

- [Registering a foreign business](#)
- [Logging in as a foreign entrepreneur](#)
- [Request to participate in a restricted procedure](#)
- [Submitting a bid directly in an open procedure](#)
- [Training and consultancy](#)

Other manuals and instructions are only available in Dutch. You can also contact TenderNed's Service Desk at +31 70 379 88 99 or [email](#). Their opening hours are: 08:30-17:00 CET.

The completed Tender documents must be uploaded to the TenderNed secure document safe no later than **9:30 am on 20-04-2022**.

Tenders which are submitted beyond the published deadline or which are not uploaded to TenderNed's secure document safe in accordance with the instructions given in this document will be excluded from the remainder of the Tender Procedure. Responsibility for the timely and correct submission of documents rests with the Tenderer at all times.

Tenderers are urged to read the instructions on the TenderNed site, particularly those relating to the uploading of documents to the secure document safe. Note that the upload must be confirmed using the 'registration wizard' which has two-factor authentication requiring users to enter a code which has been sent to them as a text (SMS) message.

Tenderers are advised to allow ample time for the uploading of documents. If a technical problem occurs which places the timely submission of the Tender at risk, the Tenderer should immediately report this situation to TenderNed AND to the TNO contact person named in Para. 2.2.5. If TenderNed does experience a technical problem that makes it impossible for tenders to be submitted shortly before the deadline and TNO is unaware of any Tenders that, despite the technical problem, have been successfully uploaded to TenderNed's secure document safe, then TNO will extend the deadline for submission of Tenders, subject to the restrictions imposed by Article 2.109 of the Procurement Act.

TNO advises Tenderers to take note of the contents of Article 2.109a, further to which they should be prepared to submit an encrypted code identifying their Tender should there be any technical problem preventing the full Tender being uploaded to TenderNed.

### 2.5.2 Structure and presentation

The following instructions apply to the structure and presentation of the Tender submission. The Tender must consist of the following documents:

**Part A** comprises the following documents (files):

**Appendix A01** Self-declaration by Tenderer (European Single Procurement Document; ESPD )

**Appendix A02** Self-declaration by Third Parties on whose resources or abilities the Tenderer Relies (European Single Procurement Document; )

**Appendix A03** Prescribed format for reference projects

**Appendix A04** Schedule of prices / charges

**Appendix A05** Conformity list Programme of Requirements

**Appendix A06** Notification of preferences/answers to questions

**Appendix A07** Optional maintenance/services contract

All forms must be completed in full and then printed out. The paper hard copy is to be signed in ink by a legally authorized representative of the Tenderer organization and then scanned to create a digital (PDF) version.

The various PDF files (Appendices **A01** to **A07**) are to be placed in a single folder which must then be compressed ('zipped'). This folder should be named xxxx\_**part A**, where xxxx is replaced by (part of) the name of the Tenderer organization. Upload this compressed folder to TenderNed's secure document safe.

If a Tender is incomplete, the Tender is invalid and the Tenderer will be excluded, except when this is disproportionate and not contrary to the fundamental principles of procurement law.

### 3 Evaluation of Tenders and Tenderers

#### 3.1 Evaluation team

A multidisciplinary team will be assembled to undertake the qualitative evaluation of the Tenders. Its members will include experts in the subject matter and processes involved. The team members evaluate the Tenders on the basis of quality alone; they are not informed of the financial aspects.

Each member of the evaluation team assesses the Tender against the qualitative (sub sub) award criteria, doing so independently and without reference to the other members of the team. A meeting is then held at which the individual evaluations are compared and discussed. The overall score given for each of the (sub sub) award criteria is the average of the individual scores.

#### 3.2 Evaluation procedure

The evaluation procedure consists of the phases, as described in Chapters 2 to 8.

**Chapter 2** : Evaluation against Tender conditions

**Chapter 4** : Evaluation with regard to timely submission, form, presentation and completeness

**Chapter 5** : Evaluation against Eligibility Requirements and Grounds for Exclusion. These are mandatory provisions, whereby non-compliance will result in immediate and irrevocable exclusion from the remainder of the Tender Procedure.

**Chapter 6** : Evaluation against the Award Criteria. This is based on a numerical score for each material aspect.

**Chapter 7** : Evaluation of evidential documents which the Provisional Contractor is requested to submit to TNO.

**Chapter 8** : TNO's evaluation against the Minimum Requirements (with regard to Contract performance) and the Programme of Requirements (PoR).

Based on the overall evaluation, TNO will rank the Tenders in order. The Tender in first place is the '*Economically Most Advantageous Tender based on the Price-quality Ratio*' ('*Best PQR*').

At any time during the evaluation procedure, TNO may contact a Tenderer to request clarification where necessary. Tenderers are expected to provide a response within 48 hours (paragraph 2.2.29).

#### 3.3 Provisional award decision

Once the tenders have been assessed and TNO has upheld the Contract Award recommendation, the intention to award notice shall be issued to notify both the successful and the rejected tenderers of this decision. The award shall be specifically subject to:

- the results of the verification of the supporting documents for Grounds for Exclusion and suitability requirements.
- approval by the Executive Board of TNO.

If, for some reason the need arises, TNO reserves the right to decide against awarding the contract (provisionally or otherwise, Paragraph 2.13). The issue of the intention to award notice by the contracting authority shall not constitute the acceptance of the tenderer's bid, as defined in article 6:217, Section 1 of the Netherlands Civil Code.

## **4 Evaluation of timely submission, form, presentation and completeness**

### **4.1 Timely submission**

The Tender must be submitted before the final date (and time) for submission of Tenders (paragraph 2.1). Any Tender that is received by TNO after this deadline will be deemed invalid and excluded from further consideration.

### **4.2 Form, presentation and completeness**

Tenders will be assessed in terms of completeness and compliance with the published instructions. The omission of required information will result in disqualification.

Tenders which are incomplete and/or fail to comply with the presentation instructions will be declared invalid and excluded from further consideration.

## 5 Evaluation against Grounds for Exclusion and Eligibility Requirements

### 5.1 Grounds for Exclusion

The Tenderer will be evaluated against the Grounds for Exclusion. The Self-Declaration (European Single Procurement Document; Appendix A01, A02 and B03) includes a section which requires the Tenderer to confirm that none of the Grounds for Exclusion applies. If one or more of the Grounds for Exclusion does apply, the Tenderer will be excluded from the Tender Procedure. The Tenderer on who one or more of Ground of Exclusion applies, has the right to describe in the Self-Declaration if it has taken any self-cleaning measures which prove the Tenderer's reliability and/ or if exclusion is disproportionate (article 2.87a and 2.88 Dutch Procurement Act).

Where any of the Grounds for Exclusion applies to any one member of a Combination, the entire Combination is excluded from the Tender Procedure. The Combination, or one or more of its members, on who one or more of Ground of Exclusion applies, has the right to describe in the Self-Declaration if it has taken any self-cleaning measures which prove the Combination's reliability and/ or if exclusion is disproportionate (article 2.87a and 2.88 Dutch Procurement Act).

Where the Tenderer calls upon the resources or abilities of one or more Third Parties, as described in Para. 2.2.10, and one or more Grounds for Exclusion applies to any of those Third Parties, TNO will disallow the involvement of that Third Party. The Tenderer will then be given an opportunity to find another Third Party able to provide the necessary resources. The Tenderer must do so within seven (7) calendar days after TNO's message. If the Tenderer is unable to do so within the allotted period, or if the replacement Third Party is also subject to any other Grounds for Exclusion, the Tenderer will be excluded from the remainder of the Tender Procedure. Tenderers must be aware that the replacing Third Party must comply to the same Eligibility Requirements as the original Third Party.

In the first instance, a duly completed and signed Self-declaration form (Appendix **A01**) is enough to establish that none of the Grounds for Exclusion applies to the Tenderer. In the case of a Third Party, the Self-declaration form in Appendix **A02** is required. If the Tenderer is identified as the Provisional Contractor, it must provide evidence concerning the Self-Declaration. At the request of TNO, that Tenderer must provide the following evidential documents within the period stated Para. 7.1. In the case of a Combination, each individual member of that combination must submit these documents within the period stated Para. 7.1. Where the Tenderer calls upon the resources or abilities of one or more Third Parties, the Tenderer must submit these documents for each Third Party within the period stated Para. 7.1.

The evidential documents in question are:

- A certified extract from the Chamber of Commerce Trade Register pertaining to the Tenderer, or in the case of a Combination, to each member individually. The extract(s) must be dated no more than six months prior to the date of submission.
- A Certificate of Conduct (GVA) by the Tenderer or - in the case of a Combination - of any combinant and/or - if the Tenderer appeals to one or more Third Parties - every Third Party to which the Tenderer appeals. The Certificate of Conduct (GVA) is dated no more than two years prior to the date of submission of the Tender. To apply for a procurement statement, the Tenderer, combinant and/or Third Party must consult the Justis website ([www.justis.nl](http://www.justis.nl)) and follow the instructions contained therein regarding the application for a Certificate of Good Conduct;
- A declaration issued by the Tax Administration of the Tenderer or – in the case of a combination – of any combinant and/or – if the Tenderer appeals to one or more Third Parties – every Third Party to which the Tenderer appeals. The declaration must at the time of submission of the Subscription not exceed six months to prove that the Tenderer, combinant and/or Third Party has fulfilled his obligations under applicable legal provisions applicable to him relating to the payment of national insurance premiums or taxes.

Tenderers are reminded that it can take several weeks to obtain some types of evidential document. Especially a Certificate of Conduct (GVA), for which a maximum term of sixteen (16) weeks applies. It is therefore advisable to apply for them at the earliest possible moment. It will then be possible to produce the documents when required. It should also be noted that Tenderers are responsible for the timely submission of evidential documents, including documents pertaining to any Third Parties on whose resources they intend to rely. TNO therefore advises Tenderers to approach those Third Parties as soon as possible to make the necessary arrangements. Third Parties should be made aware of the time needed to obtain some documents.

A Tenderer who fails to submit and/or fails to timely submit and/or fails to fully submit the requested evidential documents (pertaining to himself or to any Third Parties) on time will be excluded from the Tender Procedure, except when exclusion is disproportionate. TNO may then invite the party who came second in the evaluation process to submit evidential documents.

## 5.2 Evaluation of Eligibility Requirements

A Tenderer must be able to demonstrate the level of expertise and skill required to perform the Contract activities. These are termed the 'Eligibility Requirements'. The Tenderer is evaluated against the Eligibility Requirements as formulated for the Tender. If the Tenderer intends to call upon the professional expertise of one or more Third Parties, as described in Para. 2.2.10, TNO will assess whether each of those Third Parties fulfils the Eligibility Requirements.

The Eligibility Requirements apply to several aspects: financial and economic capacity, technical and professional ability, and professional qualifications. The Tenderer must meet all Eligibility Requirements in order to be considered for the Contract, either independently or by relying on the capacity of one or more Third Parties.

### 5.2.1 Financial and economic capacity

#### 5.2.1.1 Insurance

The Tenderer must hold full liability insurance with a cover of at least € 1.000.000 per event giving rise to damage or series of related events, or must be willing to meet this requirement if identified as the Provisional Contractor. The insurance cover must be in place for the entire term of the Contract.

In the first instance, a duly completed and signed Self-declaration form (Appendix **A01**) is sufficient to establish that this requirement has or will be met. If, for the purposes of the present Eligibility Requirement, the Tenderer intends to rely on the financial and economic capacity of a Third Party, a separate Self-declaration must be submitted using the template provided as Appendix **A02**.

At the request of TNO, the Tenderer identified as the Provisional Contractor must submit evidence, within the period specified, of adequate insurance cover in the form of the policy document or a certificate of insurance issued by a recognized insurance company, showing that the Tenderer is insured as required in the Tender documents. Where the policy document is in the name of a holding company, group or concern, the Tenderer must present a copy together with evidence that cover extends to the Tenderer organization.

Where the Tenderer is not (yet) in the possession of the insurance policy or a certificate of insurance issued by an insurance company, within the period specified, he must complete, sign and return a Declaration of Intent to do so (Appendix **B04**). This is a statement to the effect that the Tenderer will obtain the required insurance cover and present the necessary evidential documents no later than **seven calendar days** before the signing of the Contract. It should be noted that this is a suspensory condition; failure to provide a copy of the policy or a certificate of insurance issued by the insurance company will result in the Contract offer being withdrawn and the Tender being deemed invalid. TNO will not issue confirmation of the Contract until the deadline for legal objections has passed or, if an objection is indeed lodged, it is overruled by the court. The Contract itself cannot be signed until TNO is in possession of evidence that the Tenderer holds the required insurance cover. In the absence of such evidence, TNO reserves the right to withdraw the Contract offer, whereupon the runner-up in the Tender evaluation process will assume first place and will be identified as the Provisional Contractor.

The prescribed document format for the insurance policy or certificate of insurance is enclosed as Appendix **B04**.

### 5.2.2 Technical and professional competence

The evaluation of technical and professional competence is an indicator of whether the Tenderer can be expected to perform the Contract activities to the required standard.

#### 5.2.2.1 Reference projects

To support the evaluation of technical and professional competence, the Tenderer is required to submit one (1) reference projects using the template provided in Appendix **A03**. The reference projects should demonstrate that the Tenderer has adequate experience and possesses the skills which make up the core competencies listed below. For each core competency, the Tenderer should refer to *one* of the reference projects in **A03**. It is not necessary to list a separate reference project for each core competency; one project may be used to demonstrate several competencies.

To demonstrate adequate experience in the core competencies listed below, the Tenderer should submit details of reference projects as part of the tender. This is accomplished using Appendix **A03**, which must be completed in full and signed in ink by a duly authorized representative of the Tenderer organization. If the Tenderer intends to call on the technical or professional resources of one or more Third Parties, a completed and signed form (Appendix **A03**) should also be submitted in respect of each Third Party, stating the core competency /competencies to which it refers.

**All reference projects must be completed. A forecast of expected awarded projects, or projects not yet completed, will not be accepted as a reference project by TNO.**

**Core competency 1** – The Tenderer has experience in the manufacturing and delivery of gloveboxes that are used for battery pouch cell production, in use in a scientific or research environment.

Reference project: During the three (3) years prior to the date of the Call for Tenders, the Tenderer has completed a project that demonstrates core competency 2, and had a contract value of at least € 150.000, excluding VAT. The project must have been completed in accordance with all the contractual conditions agreed at the time, including those relating to lead time and budget.

**Core competency 2** – The Tenderer has experience in the manufacturing and delivery of gloveboxes that are used for solvent-based processes such as slot-die coating, blade coating and spincoating, in use in a scientific or research environment.

Reference project: During the three (3) years prior to the date of the Call for Tenders, the Tenderer has completed a project that demonstrates core competency 2, and had a contract value of at least € 150.000, excluding VAT. The project must have been completed in accordance with all the contractual conditions agreed at the time, including those relating to lead time and budget.

TNO reserves the right to verify all references TNO assumes that the Tenderer will have informed its referees accordingly and has obtained their permission. Where the Tenderer has not demonstrated the necessary experience in all competencies, the Tender will be declared invalid and excluded from the remainder of the Tender Procedure.

### 5.2.3 Professional authority

By completing the Self-declaration (Appendix A01) the Tenderer declares that he is registered in the relevant professional register or trade register, in compliance with all requirements of the member state in which he is based.

At the request of TNO, the Tenderer must provide the following evidential documents within the period stated in Para. 7.1:

- For companies registered in the Netherlands: an original certified extract from the Chamber of Commerce Trade Register should be submitted. This must be no more than six months old at the time of submission. Companies registered in another country should provide a comparable document in accordance with national legislation and practice.
- If the Tenderer is a legal partnership, extracts should be submitted for all parties who are included on the Trade Register, together with a declaration signed by all partners establishing the right of representation with regard to the Tender.
- If the Tenderer is a Combination, an extract should be submitted for each member.
- If the Tenderer intends to call upon the resources of one or more Third Parties or subcontractors, extracts should be submitted in respect of each Third Party or subcontractor.

## 6 Evaluation against Award Criteria

TNO will evaluate and rank the Tenders based on the Award Criteria. In most cases, the primary consideration will be the Price-Quality Ratio.

### 6.1 Best Price-Quality Ratio

This criterion is divided into the following sub-award criteria and weighting factors. A numerical score is given in respect of Price (TP) and another for Quality (QU).

| Award criteria | Max. points |
|----------------|-------------|
| Price (TP)     | 1000        |
| Quality (QU)   | 600         |
| <b>Total</b>   | <b>1600</b> |

#### Minimum quality requirement

TNO attaches great importance to achieving the best possible Price-Quality Ratio for the services which fall under this Tender. Quality is nevertheless a leading factor. A minimum requirement is therefore applied whereby the Tender must achieve a score of at least 350 points for the sub criterium of 'Quality'. A Tender which fails to do so will be excluded from further consideration, regardless of Price (TP).

The Tender with the highest total score is designated the '*Economically Most Advantageous Tender based on the Price-quality Ratio*' ('*Best PQR*'). The scores are rounded down to the nearest (1) decimal point. The overall score is the total of all non-rounded scores. The Call for Tenders will state the maximum scores available for each (sub-) sub-award criterion.

In the event of a 'tie' - two Tenders with exactly the same total score - the choice will fall to the Tender with the highest score for Quality. If all Tenders also tie for Quality, the Provisional Contractor will be selected by a drawing of lots.

#### 6.1.1 Sub-award criterium: Price (TP)

To allow an evaluation of the Tender by total price (the TP sub-award criterium), the Tenderer should complete the schedule of prices and costs in Appendix **A04**. If this schedule is found to include omissions or inaccuracies, the entire Tender will be declared invalid and excluded from further consideration.

The price is assessed according to the following elements.

To allow a fair comparison of total price (TP), Tenderers must use the schedule provided by TNO as an MS Excel worksheet (Appendix **A04**). On completion, the schedule must be printed out, signed by an authorized representative of the Tenderer organization. It should then be added to the Tender. The Tenderer must adhere to the prescribed format. All sections must be completed. Tenders containing an incomplete form or a form of which the prescribed format is changed, are deemed invalid.

The allocation of points for Price is shown in the table below:

| Criterion                                                                                                                                                                                                                                                                                                                                                                               | Max. score  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Price TP</b><br><br>This subject of this tender includes:<br>- minimum requirements and offered preferences (if included in TP);<br>- two Year Warranty;<br>- factory acceptance test;<br>- freight and shipping (DDP incoterms 2020);<br>- start up on site, excluding hook up;<br>- site acceptance test;<br>- manual and documentations;<br>- installation and operator training. | 1000        |
| <b>Total TP</b>                                                                                                                                                                                                                                                                                                                                                                         | <b>1000</b> |

When evaluating the Tender against the sub-award criterium of price, TNO will check that the schedule of costs and prices (Appendix A04) has been completed in full. A price quotation on the basis of the schedule must meet the following minimum requirements:

- 1) Prices and costs must be stated in euros, excluding VAT, and accurate to two decimal places.
- 2) All figures and calculation factors cited in the Dossier of Financial Agreements (DFA) are indicative; no rights may be inferred of claimed.
- 3) Hourly rates are deemed to be 'all-in' amounts which include all costs associated with the service provision, including but not limited to travel and accommodation expenses, office costs and overheads. The Tenderer confirms that there will be no additional costs further to the performance of the Contract. Costs, rates and/ or prices not included in the price sheet (Appendix A04) will not be paid by TNO during the fulfilment of the Contract.
- 4) The schedule of prices must be completed in full. The Tenderer must use the MS Excel spreadsheet provided by TNO without any amendments or alterations.
- 5) The Tenderer is responsible for ensuring the accuracy of all figures and calculations. There will be no negotiations about the price sheet (Appendix A04).
- 6) All prices quoted by the Tenderer must be based on the contents of the Tender Documents and form a binding offer.
- 7) Specific minimum requirements and additional instructions for the completion of the Schedule of Prices can be found under the tab marked 'Additional Instructions'. Submission of the Tender indicates that the Tenderer accepts these conditions in full.

The lowest Total Price (TP) is assessed using the cumulative costs as defined by TNO and appearing on the schedule.

The Tender which offers the lowest Total Price (TP), corresponding to the lowest amount calculated for the total price, will be awarded the maximum of 1000 points. Other Tenders will be scored *pro rata* in inverse proportion to price.

The calculation of the total number of points for Price is made using the following formula:

$$\text{Points} = 1000 - \left\{ \frac{(I - LI)}{LI} \times 1000 \right\}$$

Where:

**Points:** number of points scored for the criterion Price

**I:** Tender with "Price-TP"

**LI:** Tender with lowest "Price-TP"

If  $I \geq 2 \times LI$ , zero (0) points are awarded for the criterion Price TP.

### 6.1.2 Sub-award criterium: Quality (QU)

Chapter 8 of the Tender Instructions, the Programme of Requirements (PoR), sets out the Minimum Requirements which must be met during the performance of the Contract activities. These are hard requirements, as formulated by TNO. If one or more of the hard requirements of the PoR are not met, the Tender is invalid.

In addition, the PoR includes a number of preferences with regard to the quality of the goods concerned. These preferences have been identified by means of a process of consultation. Tenderers are asked to state whether and how they can meet these soft requirements. The ability to do so is likely to influence the assessment of quality. For each preference, the Tenderer is asked to provide a description which addresses certain specific aspects.

The description should be clear and unambiguous, covering all the relevant points in order. Each submission must be no more than the stated number of A4 pages (printed on one side only, with a line spacing of at least 1, minimum font size of 9 pt and margins of 2.5cm left, right, top and bottom).

TNO will base its assessment solely on the answers given, which must remain within the permitted length. If an answer exceeds the permitted length, the pages exceeding the maximum will not be assessed. Tenderers should avoid including cross-references to other documents in an attempt to evade the length restriction. Illustrations, diagrams, tables, organograms and sample reports are permitted. Any appendices do not form part of the answer and will not be included in this part of the evaluation procedure. It is possible that two or more tenderers will achieve the same scores for a particular question.

The answers setting out the manner in which the which the Tenderer proposes to meet the stated requirements must be presented in accordance with the instructions in Chapter 8. The Tenderer must use the templates provided in Appendix A05 and A06.

The allocation of scores for Quality is shown in the table below.

| <b>Chapter 8<br/>Sub-(sub) award criteria: Quality</b>          | <b>Max points</b> | <b>Minimum score</b> |
|-----------------------------------------------------------------|-------------------|----------------------|
| 8.1 - GB system 1 - General                                     | 40                |                      |
| 8.2 - GB system 1 - Antechambers                                | 25                |                      |
| 8.3 - GB system 1 - Purifier                                    | 225               |                      |
| Preference 8.3.2.1 - Solvents                                   |                   | 40                   |
| Preference 8.3.4.2 - N <sub>2</sub> filter quality and capacity |                   | 40                   |
| 8.4 - GB system 1 - Atmosphere integrity                        | 35                |                      |
| 8.5 - GB system 2 - General                                     | 35                |                      |
| 8.6 - GB system 2 - Antechambers                                | 10                |                      |
| 8.7 - GB system 2 - Purifier                                    | 65                |                      |
| Preference 8.7.2.1 - Solvents                                   |                   | 10                   |
| 8.8 - GB system 2 - Atmosphere integrity                        | 15                |                      |
| 8.9 - Transport, installation, hook-up and start-up             | 150               |                      |
| Preference 8.9.8 - Maintenance                                  |                   | 40                   |
| <b>Total</b>                                                    | <b>600</b>        | <b>200</b>           |

In total, the Tenderer must score at least 200 points for Quality (QU), including a minimum score for four (4) specific preferences, as listed above.

The evaluation of the answers to questions relating to the preferences listed in the PoR will also rely on a system of numerical scores. These scores will reflect the degree to which the Tenderer meets each preference. The various sub-sub-criteria will be scored by the individual assessors in accordance with the table below. The overall score (derived from the averages of the individual scores) will then be calculated as described in Para. 3.1.

| <b>Rating</b>     | <b>Score</b> | <b>Notes</b>                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No/poor answer    | 0%           | Nil score. In the assessment team's opinion, the tenderer does not answer the quality element or has skipped it altogether.                                                                                                                                                                                                                                                                         |
| Inadequate answer | 20%          | In the assessment team's opinion, the tenderer does not sufficiently address the required elements and aspects in terms of content and relevance. The tenderer does not take sufficient account of the principles set out in this invitation to tender. The connection with the quality element of the contracting authority is insufficient.                                                       |
| Adequate answer   | 50%          | In the assessment team's opinion, the tenderer does sufficiently address the required elements and aspects in terms of content and relevance, but his answer is too limited. The tenderer does take sufficient account of the principles set out in this invitation to tender, but his answer is too limited. The alignment with the quality element of the contracting authority is only partially |

| Rating           | Score | Notes                                                                                                                                                                                                                                                                                                             |
|------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |       | sufficient.                                                                                                                                                                                                                                                                                                       |
| Good answer      | 80%   | In the assessment team's opinion, the tenderer addresses the required elements and aspects well in terms of content and relevance. The tenderer takes good account of the principles set out in this invitation to tender. The alignment with the quality element of the contracting authority is good.           |
| Very good answer | 100%  | In the assessment team's opinion, the tenderer addresses the required elements and aspects very well in terms of content and relevance. The tenderer takes full account of the principles set out in this invitation to tender. The alignment with the quality element of the contracting authority is very good. |

NB These are the only possible scores: there are no intermediate values.

When evaluating the degree to which the Tender addresses TNO's preferences, the assessors will consider:

- the degree to which the proposed solution is specific, realistic, feasible, effective, complete and consistent
- the degree to which the proposed solution is in keeping with the specific situation and circumstances, and the degree to which it address the (hard) requirements and preferences stated in the PoR.

The evaluation is based on the 'total picture' created by each answer.

Tenderers must be aware that the Tender will be a contract document if the Contract is awarded to the Tenderer. Therefore, the Tender must be as specific as necessary. A more specific Tender will score higher than a more general Tender.

## 6.2 Award of Contract

### 6.2.1 Announcement of Award Decision

All Tenderers will be notified of the results of the evaluation and the Award Decision. Every effort will be made to ensure that this notification is given on the date stated in the Schedule in Para. 2.1.

The notification of the Award Decision will state which Tenderer has been selected as the Provisional Contractor and will give general reasons for the rejection of other Tenders. In the interests of confidentiality, TNO will not provide any information relating to the Tender price offered by the unsuccessful Tenderers.

### 6.2.2 Objections

A Tenderer who does not agree with the Award Decision may lodge an objection. He must do so within twenty (20) calendar days of the date of the Award Decision and in the manner described in Para 2.4.

If interlocutory proceedings are filed, the Court's preliminary decision will be the basis for the continuation of the Tender Procedure.

### 6.2.3 Confirmation of Award

Once the period permitted for objections has elapsed and no interlocutory proceedings are filed, TNO will contact the winning Tenderer, as soon as possible, with a view to signing the Contract *unless* an appeal has been lodged with the judicial authorities. The Award is confirmed and is deemed to be final when TNO and the Tenderer enter into a formal Contract. Until the agreement is signed, TNO has no obligation, legal or otherwise, towards the Tenderer or any other party.

## 7 Evaluation of evidential documents and other documents

### 7.1 Submission of evidential documents and other documents

The Tenderer identified as the Provisional Contractor must submit all necessary documents and information in support of the statements made in the Self-declaration, as well as any other documents and/or information necessary to determine whether the Tender meets all requirements and can be realised, no later than seven (7) calendar days of being requested to do so by TNO. (These documents in question are those supporting Appendices **B01** to **B04** and any others stipulated in the Tender Instructions and/or request for information.)

TNO will request the Provisional Contractor to submit the required evidential documents which will then be evaluated against the following criteria:

- Timely submission (within allotted period)
- Whether all requested documents have been provided and are complete. The absence of (part of) any document and/or other information may result in the disqualification of the Tender.
- Whether the documents support the Tenderer's eligibility, as claimed by means of the self-Declaration.

It is stressed that any Tenders which prove to include material errors or make claims which cannot be substantiated will be excluded from the Tender Procedure. Tenderers must therefore compile their Tenders with the utmost care and truthfulness.

TNO can request the Provisional Contractor to provide other documents or evidence concerning the contents of the Tender.

### 7.2 Suspensory conditions

Where the Tenderer is unable to submit a copy of the required insurance policy or a certificate of insurance issued by a recognized insurance company within the period stated in the foregoing paragraph, but has nevertheless signed the Declaration of Intent in Appendix **B04**, and provided that the period permitted for objections has elapsed without any party notifying the intention to instigate legal action (or such action has been adjudicated in TNO's favour), TNO will notify the Tenderer of its intention to enter in a contract 'under suspensory conditions'. In practice, this means that the Contract may only be deemed final and valid if the Tenderer is able to submit a copy of the required insurance policy or a certificate of insurance issued by a recognized insurance company, showing that the Tenderer is insured as required in the Tender documents, no later than a period of seven (7) calendar days before the signing of the Contract. The Contract will be finalized upon receipt of one or other of these documents.

If the Tenderer fails to submit either a copy of the insurance policy or a certificate of insurance issued by a recognized insurance company, the Contract will be deemed null and void. TNO reserves the right to approach the party whose Tender was ranked second in the Tender Procedure with a view to entering into a Contract.

### 7.3 Contract signing

If the conditions in paragraph 7.1 and 7.2 and no interlocutory proceedings are filed within twenty (20) days after Award decision, or, if proceedings are filed, the claims are denied, TNO will proceed to formalise the Award of the Contract by sending the Contractor a purchase order. TNO points out that the Contract has not been definitively awarded until the purchase order has been submitted to the Contractor by TNO.

## 8 Minimum requirements with regard to Contract performance (Programme of Requirements)

TNO will assess all Tenders against the Minimum Requirements which relate to the manner in which the Contract itself is to be performed. The Minimum Requirements imposed by TNO itself are listed in Chapter 8, the Programme of Requirements (PoR).

By submitting a Tender, the Tenderer indicates his unconditional acceptance of all Minimum Requirements, including TNO's General Purchasing Conditions – February 2022 (Appendix C03).

Tenders which do not comply unconditionally with all minimum requirements are deemed invalid and will be excluded from further consideration. This applies to the hard requirements. Tenders are requested to file an answer on the preferences/ soft requirement that can be scored by TNO (chapter 6).

As stated in Para. 6.1.2 of these Tender Instructions, this PoR contains, in addition to the minimum requirements, a number of requests, which are asked by question, regarding the quality of the requested service/delivery.

The Tenderer demonstrates the ability to meet the requirements and preferences by means of his answers to the various questions, which must be structured in accordance with the instructions given in Chapter 8. The Tenderer must use the templates provided in Appendix A05 and A06.

Activities further to the Contract must be performed in full accordance with the Tender Documents and the Tender submitted by the Tenderer. TNO wishes to stress that the requirements listed in the PoR form binding Contract conditions. Any amendments to the PoR made during the term of the Contract are to be implemented within the framework provided by the Contract. TNO will ensure that there is no material alteration to the Contract or the obligations it imposes on either party.

Chapter 1 of this document includes a description of current situation. It sets out the purpose and scope of the Contract and hence the purpose and scope of the PoR.

The Programme of Requirement is divided into the following sections:

- 8.1 GB system 1 - General
- 8.2 GB system 1 - Antechambers
- 8.3 GB system 1 - Purifier
- 8.4 GB system 1 - Atmosphere integrity
- 8.5 GB system 2 - General
- 8.6 GB system 2 - Antechambers
- 8.7 GB system 2 - Purifier
- 8.8 GB system 2 - Atmosphere integrity
- 8.9 Transport, installation, hook-up and start-up
- 8.10 Payment Terms
- 8.11 General requirements (directives and standards)

### Abbreviations:

AC = Antechamber

SDC = Slot Die Coater

GB = Glovebox

VOC = Volatile Organic Compounds

### Purifiers and filters

- Purifier: the system that purifies the working gas by removing H<sub>2</sub>O and O<sub>2</sub>
- Solvent filter: since the purifier system doesn't necessarily remove (harmful) solvents, an extra filter system is needed to remove VOC (Volatile Organic Compounds)
- N<sub>2</sub> filter: since the purifier system is designed to work with N<sub>2</sub> gas, an added system is needed to remove nitrogen from the working gas.

### Validation method

- A. Measuring tape
- B. Visual inspection
- C. Visual inspection. Performance check during training

- D. Visual inspection Measuring tape Heat stickers Performance check during training Visual inspection  
 E. Perform a cycle during training  
 F. Three (3) months evaluation period  
 G. Auditory inspection. Performance check during training

### 8.1 Glovebox system no. 1 - Aspect "General"

System 1 is an argon glovebox, with N<sub>2</sub> filter.

| Aspect "General"       |                                                                                                                                                                                                                                                                                                                                                                                                                                | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement<br>8.1.1   | <b>Box size</b> - The required dimensions for the tooling and the assembly space are at least 4300 mm (width) x 725 mm (depth), and the minimum height is 900 mm. The box will be max 5000mm wide, 1000mm deep and 1200mm high.<br><br>Remark: all measures concern internal dimensions.                                                                                                                                       |                                              |               | A                       |
| Requirement<br>8.1.2   | <b>Seams between panels</b> - The working area is not interrupted by raised seams and the seam widths are kept to a minimum. Especially the bottom panel is smooth as equipment and samples will be moved around it and dirt (which can take up moisture) can build up in seams. Also, the back panel is not interrupted by raised seams, making it possible to place shelves across the seams. The window may be interrupted. |                                              |               | B                       |
| Requirement<br>8.1.3   | <b>Storage</b> - The GB must have shelves at the back of the GB.                                                                                                                                                                                                                                                                                                                                                               |                                              |               | A                       |
| Requirement<br>8.1.3.1 | <b>Storage</b> - There are areas where no shelves are allowed. These areas are indicated in the layout in appendix C04.                                                                                                                                                                                                                                                                                                        |                                              |               | A                       |
| Requirement<br>8.1.4   | <b>Lighting</b> - The box must have adequate and homogeneous lighting throughout the GB.<br><br>The industry standard is a lighting strip across the entire top of the box, on the outside in LED or fluorescent lighting. The box will have an equivalent, or better lighting solution.                                                                                                                                       |                                              |               | B                       |
| Requirement<br>8.1.5   | <b>Feedthroughs</b> - The GB will require a number of argon gas feedthroughs, vacuum feedthroughs and 220V wall socket feedthroughs. You will find the GB layout in appendix C04.<br><br>- Ar feedthrough shall be a 6 mm or ¼" stainless steel tube or a Swagelok connection (bulkhead connection or KF40 flange).<br>- vacuum feedthrough shall be a 12mm or ½" stainless steel tube or Swagelok connection.                 |                                              |               | C                       |
| Requirement<br>8.1.6   | <b>Glovebox Pressure</b> - The GB has a pressure regulation system. The user can set working pressure, maximum pressure and minimum pressure.                                                                                                                                                                                                                                                                                  |                                              |               |                         |
| Requirement<br>8.1.7   | <b>Glovebox controls</b> - The GB must have basic operation settings and controls. Basic GB controls can control.                                                                                                                                                                                                                                                                                                              |                                              |               | C                       |
| Requirement<br>8.1.7.1 | <b>Glovebox controls</b> - In reference to req. 8.1.6, the GB pressure can be controlled from the GB control panel.                                                                                                                                                                                                                                                                                                            |                                              |               |                         |
| Requirement<br>8.1.7.2 | <b>Glovebox controls</b> - In reference to req. 8.1.4, the GB lighting can be switched on and off from the GB control panel.                                                                                                                                                                                                                                                                                                   |                                              |               |                         |

| Aspect "General"     |                                                                                                                                                                                                                                                          | Remarks for score<br>(in case of preference)                                                       | Max.<br>Score | Method of<br>validation |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Requirement 8.1.7.3  | <b>Glovebox controls</b> - In reference to req. 8.3.1, the GB circulation can be switched on and off from the GB control panel, and the automatic regeneration cycle can be started.                                                                     |                                                                                                    |               |                         |
| Requirement 8.1.7.4  | <b>Glovebox controls</b> - In reference to req 8.4.1, the GB audible and visual alarm settings can be controlled from the GB control panel.                                                                                                              |                                                                                                    |               |                         |
| Requirement 8.1.7.5  | <b>Glovebox controls</b> - In reference to req. 8.2.1, the GB AC and its settings can be controlled from the GB control panel.                                                                                                                           |                                                                                                    |               |                         |
| Requirement 8.1.7.6  | <b>Glovebox controls</b> - In reference to req. 8.4.2, the GB purge can be switched on and off from the GB control panel.                                                                                                                                |                                                                                                    |               |                         |
| Requirement 8.1.7.7  | <b>Glovebox controls</b> - In reference to pref. 8.4.2.1, the GB automatic purge settings can be controlled from the GB control panel.                                                                                                                   |                                                                                                    |               |                         |
| Requirement 8.1.8    | <b>Glovebox controls</b> - The controls will be primary accessible through buttons or a touchscreen outside of the GB.                                                                                                                                   |                                                                                                    |               | C                       |
| Preference 8.1.8.1   | <b>Glovebox controls</b> - The controls are redundantly set up to be able to control certain functions without taking your hands out of the gloves (like start evacuation cycle, start box purge).                                                       | Binary; yes/no<br><br>Yes: 20 points<br>No: 0 points                                               | 20            | C                       |
| Preference 8.1.9     | <b>Logging</b> - The history of the O <sub>2</sub> , H <sub>2</sub> O and box pressure can be logged for a minimum of 18 hours and can be graphically displayed.                                                                                         | <18 hours: 0 points<br><br>>18 hours: 5 points<br><br>>3 days: 10 points<br><br>>1 week: 20 points | 20            | C                       |
| Optional 8.1.9.1     | <b>Logging</b> - The logging history can be exported through USB.                                                                                                                                                                                        |                                                                                                    |               | C                       |
| Requirement 8.1.10   | <b>Display</b> - The GB system will have a display. The display will be on the GB or attached to it and will have a maximum diameter of 61 cm (24 inch) and a minimum of 12.7 cm (5 inch). It will not be an extra separate computer or computer screen. |                                                                                                    |               | C                       |
| Requirement 8.1.10.1 | <b>Display</b> - In relation to pref. 8.1.9, the GB display can graphically represent the logging data.                                                                                                                                                  |                                                                                                    |               |                         |
| Requirement 8.1.10.2 | <b>Display</b> - In relation to req. 8.3.1, the display can indicate the regeneration status or progress.                                                                                                                                                |                                                                                                    |               |                         |
| Requirement 8.1.10.3 | <b>Display</b> - In relation to req. 8.2.1, the display can indicate the AC evacuation status and the evacuation cycle status or progress.                                                                                                               |                                                                                                    |               |                         |
| Requirement 8.1.10.4 | <b>Display</b> - In relation to reqs. 8.3.1 and 8.4.3, the display can indicate the H <sub>2</sub> O and O <sub>2</sub> levels and alarms.                                                                                                               |                                                                                                    |               |                         |
| Requirement 8.1.11   | <b>Metric units</b> - The system will use metric units.<br><br>Remark: preferred units: (m)bar, °C, ltr/min or m <sup>3</sup> /hr, gr, ppm and kg.                                                                                                       |                                                                                                    |               | C                       |

| Aspect "General"   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.1.12 | <p><b>Windows</b> - The windows must have a coating to prevent scratches (for instance, a sapphire coated polycarbonate window is sufficient). The GB will not be fitted with bare polymer windows.</p> <p>Remark: To make solutions for slot die coating, particulate matter will be solved in solvent. By the lack of moisture in the GB electrostatic effects are more prevalent. Therefore, we want a coating that has less static charge build-up than PC, like sapphire or glass.</p> |                                              |               | B                       |
| Requirement 8.1.13 | <b>Gloves</b> - Standard butyl rubber gloves will be fitted on the GB.                                                                                                                                                                                                                                                                                                                                                                                                                      |                                              |               |                         |
| Requirement 8.1.14 | <b>Vacuum pump</b> - Any vacuum pumps must be dry scroll pumps, capable of displacing at least 12.5 m3/hr. (Like ACP15G or similar, purge port, corrosion resistance).                                                                                                                                                                                                                                                                                                                      |                                              |               | C                       |
| Optional 8.1.15    | <b>Bigger (capacity) vacuum pump</b> - System can be delivered with two ACP28G or similar (e.g. purge port, corrosion resistance).                                                                                                                                                                                                                                                                                                                                                          |                                              |               |                         |

## 8.2 Glovebox system no. 1 - Aspect "Antechambers"

| Aspect "Antechambers" |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.2.1     | <p><b>Antechamber 1.1 – Big antechamber</b></p> <p>The GB will have one big main antechamber (AC) on the right-hand side.</p> <ul style="list-style-type: none"> <li>- <b>Size:</b> Internal Diameter &gt; 380mm, depth &gt; 500mm but no deeper than 1000mm.</li> <li>- <b>Temperature:</b> The internal temperature can be set between room temperature and 120C or higher. The temperature homogeneity at any set temperature will be 20% or better.</li> <li>- <b>Slide:</b> The slide will have a ball or needle (or equivalent) bearing system to minimize generation of particles by metal-on-metal friction.</li> <li>- <b>Vacuum lead safety:</b> The AC vacuum lead will be protected from materials like wipes and small parts falling in and damaging the pump/clogging the vacuum lead.</li> <li>- <b>Evacuation and Refill:</b> AC will be used to store and dry the slot die coated samples. Therefore it will be under vacuum for long periods of time and the AC will have the possibility to be evacuated and refilled manually.</li> </ul> |                                              |               | D                       |

| Aspect "Antechambers"  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Remarks for score<br>(in case of preference)                 | Max.<br>Score | Method of<br>validation |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------|-------------------------|
| Requirement<br>8.2.1.1 | <p><b>Big antechamber</b> - The big AC must have an automated pressure-controlled evacuation and refill cycle with adjustable parameters:</p> <ul style="list-style-type: none"> <li>- A lower vacuum limit at which the AC starts refilling the AC.</li> <li>- An upper vacuum limit at which the AC starts evacuating again.</li> <li>- Amount of cycles.</li> <li>- A timer for the evacuation step.</li> <li>- If it takes too long for the AC to reach base pressure, the timer will end the cycle and trigger an (audible) alarm to inform the user that something is wrong.</li> <li>- 3 evacuation and refill cycles must not exceed 20 minutes.</li> </ul> <p>The settings are accessible through the control panel.</p>                                                                                                                                                                                                                             |                                                              |               | E                       |
| Requirement<br>8.2.1.2 | <p><b>Big antechamber</b> - The big AC must have an interlock system so that the AC can only be opened from the inside when it is safe (e.g. when the AC atmosphere is inert).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |               | C                       |
| Preference<br>8.2.1.3  | <p><b>Big antechamber</b> - The AC cycle of the big AC can also be started without taking your hands out of the gloves.</p> <p>Remark: main control should still be outside of the GB, see Requirement 8.1.7.5.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Binary: yes/no</p> <p>Yes: 25 points<br/>No: 0 points</p> | 25            | C                       |
| Requirement<br>8.2.1.4 | <p><b>Big antechamber</b> – In order to be able to still use the GB and the small AC (see req. 8.2.2), when the big AC is under vacuum (especially for prolonged periods of time), the big AC will have its own vacuum pump.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                              |               |                         |
| Requirement<br>8.2.2   | <p><b>Antechamber 1.2 - Small Antechamber</b></p> <p>The GB will have a mini antechamber (AC) on the left hand side.</p> <ul style="list-style-type: none"> <li>- <b>Size:</b> Internal diameter &gt; 150mm, depth &gt; 300mm but no deeper than 600mm.</li> <li>- <b>Temperature:</b> The internal temperature can be set between room temperature and 120C or higher. The temperature homogeneity at any set temperature will be 20% or better.</li> <li>- <b>Slide:</b> AC will have a sliding tray to accommodate introduction of materials into the GB.</li> <li>- <b>Vacuum lead safety:</b> The AC vacuum lead will be protected from materials like wipes and small parts falling in and damaging the pump/clogging the vacuum lead.</li> </ul> <p>Remark: AC will be used to dry out consumables. Therefore it will be under vacuum for long periods of time and the AC will have the possibility to be evacuated, refilled and closed manually.</p> |                                                              |               | D                       |
| Requirement<br>8.2.3   | <p>The ACs will have their own Ar supply and will not fill with gas from the GB.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |               | B                       |
| Requirement<br>8.2.4   | <p>The ACs are protected against overpressure from the Argon line.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |               | B                       |

**8.3 Glovebox system no. 1 - Aspect "Purifier"**

| Aspect "Purifier"   |                                                                                                                                                                                                                                            | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.3.1   | <b>Purifier</b> - The GB has a purifier system.                                                                                                                                                                                            |                                              |               | B                       |
| Requirement 8.3.1.1 | <b>Purifier</b> - The circulation blower must have a capacity of at least 70 m <sup>3</sup> per hour.                                                                                                                                      |                                              |               | B                       |
| Requirement 8.3.1.2 | <b>Purifier</b> - The purifier can absorb at least 35L of oxygen and 1250 gr of H <sub>2</sub> O and will be regenerable.                                                                                                                  |                                              |               | F                       |
| Requirement 8.3.1.3 | <b>Purifier</b> - The purifier can maintain O <sub>2</sub> and H <sub>2</sub> O levels below 1 ppm at a leakrate of 0,03 volume % per hour.<br><br>Remark: This leakrate is specified to correspond to a large leak like a cut in a glove. |                                              |               | F                       |
| Requirement 8.3.2   | <b>Solvents</b> - The GB has a solvent filter system which can remove the solvents listed in the solvent list provided in appendix C05.                                                                                                    |                                              |               |                         |

| Aspect "Purifier"     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Remarks for score<br>(in case of preference)     | Max.<br>Score | Method of<br>validation |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------|-------------------------|
| Preference<br>8.3.2.1 | <p><b>Solvents</b> - The solvent filter has enough capacity to reduce solvent levels (used solvents listed in appendix C05) to a minimum at a replacement rate of 3 months or longer.</p> <p>Rationale: We intend to slot die coat solutions. This means about 5mL of solvent per workday will evaporate. The main solvents for SDC are Dimethyl sulfoxide, Acetonitrile, Tetrahydrofuran, but the GB will also be exposed to other solvents from the list (to a lesser extent).</p> <p>A list of solvents is included in appendix C05. The different components and subsystems of the GB will be exposed to these solvents in both gas and liquid (working area only) phase and therefore might be compromised. The tenderer shows:</p> <ul style="list-style-type: none"> <li>- Which components or subsystems might be affected by these solvents.</li> <li>- Which measures are implemented to prevent damage to the subsystems and components.</li> <li>- Why and how these measures are implemented.</li> </ul> <p>Remark: Possible measures are:</p> <ul style="list-style-type: none"> <li>- A bigger capacity Activated Charcoal filter</li> <li>- Impregnations of some kind</li> <li>- Pre and post filters</li> <li>- A sensor system to activate a box purge or stop circulation over these components</li> </ul> <p>A subsystem or component could be:</p> <ul style="list-style-type: none"> <li>- Pumps</li> <li>- Circulation blower</li> <li>- Gloves</li> <li>- N<sub>2</sub> filter</li> <li>- Solvent filter</li> <li>- Particle filters</li> <li>- Purifier systems</li> <li>- Windows</li> <li>- Box</li> </ul> <p>Describe how this preference will be implemented/achieved. The entire answer should be no more than two (2) A4 page. If the answer exceeds two (2) A4 pages, the additional pages will be disregarded.</p> | See rating paragraph 6.1.2                       | 90 points     | F                       |
| Preference<br>8.3.3   | <p><b>Solvent sensor</b> - The system will have a solvent sensor for measuring ppm levels of the solvents listed in Appendix C05. The solvents sensor can be calibrated for a predefined solvent.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Binary: yes/no<br>Yes: 45 points<br>No: 0 points | 45            | F                       |
| Preference<br>8.3.3.1 | <p><b>Solvent sensor</b> - The solvent sensor can trigger an additional solvent reduction system (for instance: an automatic box purge).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Binary: yes/no<br>Yes: 10 points<br>No: 0 points | 10            | F                       |
| Requirement<br>8.3.4  | <p><b>Nitrogen filter</b> - The GB has a N<sub>2</sub> filter, capable of removing N<sub>2</sub> from the system at a rate that is enough to maintain &lt;1ppm of N<sub>2</sub> in the GB at a leakrate of &lt;0,03 vol% per hour. Nitrogen filter is able to trap at least 500L of N<sub>2</sub> (measured value).</p> <p>Remark: This leakrate is specified to correspond to a big leak, like a cut in a glove.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                  |               | F                       |

| Aspect "Purifier"      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement<br>8.3.4.1 | <p><b>Nitrogen filter</b> - The Nitrogen filter is protected from exposure to large amounts of N<sub>2</sub> through accidental leaks in the GB.</p> <p>Remark: this can be done for example through an automatic box purge or automatic shutdown of circulation over the filter at elevated O<sub>2</sub> or H<sub>2</sub>O levels.</p>                                                                                                                                                                                                                                                                                                                                                                                                  |                                              |               |                         |
| Preference<br>8.3.4.2  | <p><b>N<sub>2</sub> filter quality and capacity</b> - We are looking for a durable and low maintenance (cost) solution. For the offered nitrogen filter (req. 8.3.4.1), specify the (yearly) maintenance costs and provide a calculation example of expected lifetime of the filter (e.g., the time between filter replacement = the capacity of the filter charge / the expected amount of N<sub>2</sub> that leaks into the box over time). Also, we want to know what it costs to replace a saturated filter charge.</p> <p>Describe how this preference will be implemented/achieved. The entire answer should be no more than one (1) A4 page. If the answer exceeds one (1) A4 pages, the additional pages will be disregarded.</p> | See rating paragraph 6.1.2                   | 80            |                         |
| Requirement<br>8.3.5   | <b>Particle filters</b> - The system will have HEPA particle filters to filter incoming and outgoing working gas flow. The HEPA class is H13 or better.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |               |                         |

#### 8.4 Glovebox system no. 1 - Aspect "Atmosphere integrity"

| Aspect "Atmosphere integrity" |                                                                                                                                                                                                                                                                                                                        | Remarks for score<br>(in case of preference)                                                                                                                                                                                                       | Max.<br>Score | Method of<br>validation |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Requirement<br>8.4.1          | <b>Audible alarms</b> - An audible alarm will be available to indicate raised O <sub>2</sub> and/or H <sub>2</sub> O levels. The alarm will not be loud, but clearly audible. Available settings must be at least: silenced on/off, activated/deactivated, the threshold settings are accessible through the controls. |                                                                                                                                                                                                                                                    |               | G                       |
| Requirement<br>8.4.2          | <b>Box purge</b> - The glovebox has a purge option that instead of circulating over the purifier supplies the box with inert supply gas. This purge is capable of reducing raised O <sub>2</sub> and H <sub>2</sub> O levels in the box much faster than the purifier.                                                 |                                                                                                                                                                                                                                                    |               | C                       |
| Preference<br>8.4.2.1         | <p><b>Automatic box purge</b> - If the system has an O<sub>2</sub> or H<sub>2</sub>O level above the user set ppm level the box purge is started automatically until levels of O<sub>2</sub> or H<sub>2</sub>O are below the user set ppm level again and circulation through the purifier is resumed.</p>             | <ul style="list-style-type: none"> <li>- Purging based on O<sub>2</sub> level: 20 points</li> <li>- Purging based on H<sub>2</sub>O level: 10 points</li> <li>- Purging based on both: 35 points</li> </ul> <p>In all other cases: null points</p> | 35            | C                       |
| Requirement<br>8.4.3          | <b>Sensors</b> - The GB system will have an H <sub>2</sub> O and an O <sub>2</sub> sensor capable of a resolution of 1 ppm or better.                                                                                                                                                                                  |                                                                                                                                                                                                                                                    |               | C                       |

**8.5 Glovebox system no. 2 - Aspect "General"**

System 2 is an argon glovebox, without N<sub>2</sub> filter.

| Aspect "General"    |                                                                                                                                                                                                                                                                                                                                                                                                                                  | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.5.1   | <b>Box size</b> - The required dimensions for the tooling and the assembly space are at least 2550 mm (width) x 775 mm (depth), and the minimum height is 900 mm. The box will be max 3200mm wide, 1000mm deep and 1200mm high.<br><br>Remark: all measures concern internal dimensions.                                                                                                                                         |                                              |               | A                       |
| Requirement 8.5.2   | <b>Seams between panels</b> - The working area is not interrupted by raised seams and the seam widths are kept to a minimum. Especially the bottom panel is smooth as equipment, and samples will be moved around it, and dirt (which can take up moisture) can build up in seams. Also, the back panel is not interrupted by raised seams, making it possible to place shelves across the seams. The window may be interrupted. |                                              |               | B                       |
| Requirement 8.5.3   | <b>Storage</b> - The GB must have shelves at the back of the GB.                                                                                                                                                                                                                                                                                                                                                                 |                                              |               | A                       |
| Requirement 8.5.3.1 | <b>Storage</b> - There are areas where no shelves are allowed. These areas are indicated in the layout in appendix C04.                                                                                                                                                                                                                                                                                                          |                                              |               | A                       |
| Requirement 8.5.4   | <b>Lighting</b> - The box must have adequate and homogeneous lighting throughout the GB.<br><br>The industry standard is a lighting strip across the entire top of the box, on the outside in LED or fluorescent lighting. The box will have an equivalent, or better lighting solution.                                                                                                                                         |                                              |               | B                       |
| Requirement 8.5.5   | <b>Feedthroughs</b> - The GB will require a number of argon gas feedthroughs, vacuum feedthroughs and 220V wall socket feedthroughs. You will find the GB layout in appendix C04.<br><br>- Ar feedthrough shall be a 6 mm or ¼" stainless steel tube or a Swagelok connection (bulkhead connection or KF40 flange).<br>- vacuum feedthrough shall be a 12mm or ½" stainless steel tube or Swagelok connection.                   |                                              |               | C                       |
| Requirement 8.5.6   | <b>Glovebox Pressure</b> - The GB has a pressure regulation system. The user can set working pressure, maximum pressure and minimum pressure.                                                                                                                                                                                                                                                                                    |                                              |               |                         |
| Requirement 8.5.7   | <b>Glovebox controls</b> - The GB must have basic operation settings and controls.                                                                                                                                                                                                                                                                                                                                               |                                              |               | C                       |
| Requirement 8.5.7.1 | <b>Glovebox controls</b> - In reference to req. 8.5.6, the GB pressure can be controlled from the GB control panel.                                                                                                                                                                                                                                                                                                              |                                              |               |                         |
| Requirement 8.5.7.2 | <b>Glovebox controls</b> - In reference to req. 8.5.4, the GB lighting can be switched on and off from the GB control panel.                                                                                                                                                                                                                                                                                                     |                                              |               |                         |
| Requirement 8.5.7.3 | <b>Glovebox controls</b> - In reference to req. 8.7.1, the GB circulation can be switched on and off from the GB control panel, and the automatic regeneration cycle can be started.                                                                                                                                                                                                                                             |                                              |               |                         |
| Requirement 8.5.7.4 | <b>Glovebox controls</b> - In reference to req. 8.8.1 and 8.8.3, the GB audible and visual alarm settings can be controlled from the GB control panel.                                                                                                                                                                                                                                                                           |                                              |               |                         |

| Aspect "General"     |                                                                                                                                                                                                                                                          | Remarks for score<br>(in case of preference)                                                       | Max.<br>Score | Method of<br>validation |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Requirement 8.5.7.5  | <b>Glovebox controls</b> - In reference to req. 8.6.1, the GB AC and its settings can be controlled from the GB control panel.                                                                                                                           |                                                                                                    |               |                         |
| Requirement 8.5.7.6  | <b>Glovebox controls</b> - In reference to req. 8.8.2, the GB purge can be switched on and off from the GB control panel.                                                                                                                                |                                                                                                    |               |                         |
| Requirement 8.5.7.7  | <b>Glovebox controls</b> - In reference to pref. 8.8.2.1, the GB automatic purge settings can be controlled from the GB control panel.                                                                                                                   |                                                                                                    |               |                         |
| Requirement 8.5.7.8  | <b>Glovebox controls</b> - In reference to req. 8.6.1, the GB big AC can be set to vacuum, without compromising the usability of the GB.                                                                                                                 |                                                                                                    |               |                         |
| Requirement 8.5.8    | <b>Glovebox controls</b> - The controls will be primary accessible through buttons or a touchscreen outside of the GB.                                                                                                                                   |                                                                                                    |               | C                       |
| Preference 8.5.8.1   | <b>Glovebox controls</b> - The controls are redundantly set up to be able to control certain functions without taking your hands out of the gloves (like start evacuation cycle, start box purge).                                                       | Binary; yes/no<br><br>Yes: 20 points<br>No: 0 points                                               | 20            | C                       |
| Preference 8.5.9.    | <b>Logging</b> - The history of the O <sub>2</sub> , H <sub>2</sub> O and box pressure can be logged for a minimum of 18 hours and can be graphically displayed.                                                                                         | <18 hours: 0 points<br><br>>18 hours: 5 points<br><br>>3 days: 10 points<br><br>>1 week: 15 points | 15            | C                       |
| Optional 8.5.9.1     | <b>Logging</b> - The logging history can be exported through USB.                                                                                                                                                                                        |                                                                                                    |               | C                       |
| Requirement 8.5.10   | <b>Display</b> - The GB system will have a display. The display will be on the GB or attached to it and will have a maximum diameter of 61 cm (24 inch) and a minimum of 12.7 cm (5 inch). It will not be an extra separate computer or computer screen. |                                                                                                    |               | C                       |
| Requirement 8.5.10.1 | <b>Display</b> - In relation to pref. 8.5.7, the GB display can graphically represent the logging data.                                                                                                                                                  |                                                                                                    |               |                         |
| Requirement 8.5.10.2 | <b>Display</b> - In relation to req. 8.7.1, the display can indicate the regeneration status or progress.                                                                                                                                                |                                                                                                    |               |                         |
| Requirement 8.5.10.3 | <b>Display</b> - In relation to req. 8.6.1, the display can indicate the AC evacuation status and the evacuation cycle status or progress.                                                                                                               |                                                                                                    |               |                         |
| Requirement 8.5.10.4 | <b>Display</b> - In relation to reqs. 8.7.1 and 8.8.3, the display can indicate the H <sub>2</sub> O and O <sub>2</sub> levels and alarms.                                                                                                               |                                                                                                    |               |                         |
| Requirement 8.5.11   | <b>Metric units</b> - The system will use metric units.<br><br>Remark: preferred units: (m)bar, °C, ltr/min or m <sup>3</sup> /hr, gr, ppm and kg.                                                                                                       |                                                                                                    |               | C                       |
| Requirement 8.5.12   | <b>Windows</b> - The windows must have a coating to prevent scratches (for instance, a sapphire coated polycarbonate window is sufficient). The GB will not be fitted with bare polymer windows.                                                         |                                                                                                    |               | B                       |
| Requirement 8.5.13   | <b>Gloves</b> - Standard butyl rubber gloves will be fitted on the GB.                                                                                                                                                                                   |                                                                                                    |               |                         |

| Aspect "General"   |                                                                                                                                                                                                  | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.5.14 | <b>Vacuum pump</b> - Any vacuum pump on the system will be a dry scroll pump capable of displacing at least 12.5 m <sup>3</sup> /hr. (Like ACP15G or similar, purge port, corrosion resistance). |                                              |               | C                       |
| Optional 8.5.15    | <b>Bigger (capacity) vacuum pump</b> - System can be delivered with an ACP28G or similar (e.g. purge port, corrosion resistance).                                                                |                                              |               |                         |

## 8.6 Glovebox system no. 2 - Aspect "Antechambers"

| Aspect "Antechambers" |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.6.1     | <b>Antechamber 2.1 – Big antechamber</b><br><br>The GB will have one big main antechamber (AC) on the right-hand side. <ul style="list-style-type: none"> <li>- <b>Size:</b> Internal Diameter &gt; 380mm, depth &gt; 500mm but no deeper than 1000mm.</li> <li>- <b>Temperature:</b> The internal temperature can be set between room temperature and 120C or higher. The temperature homogeneity at any set temperature will be 20% or better.</li> <li>- <b>Slide:</b> The slide will have a ball or needle (or equivalent) bearing system to minimize generation of particles by metal-on-metal friction.</li> <li>- <b>Vacuum lead safety:</b> The AC vacuum lead will be protected from materials like wipes and small parts falling in and damaging the pump/clogging the vacuum lead.</li> <li>- <b>Evacuation and Refill:</b> the big AC will be under vacuum for prolonged periods of time. The AC will have the possibility to be evacuated and refilled. The GB still needs to be usable in a situation where the AC is under vacuum. Therefore, it will have a "close function" (available from the control panel see req. 8.5.7) or a separate pump.</li> </ul> |                                              |               | D                       |
| Requirement 8.6.1.1   | <b>Big antechamber</b> - The big AC must have an automated pressure-controlled evacuation and refill cycle with adjustable parameters: <ul style="list-style-type: none"> <li>- A lower vacuum limit at which the AC starts refilling the AC.</li> <li>- An upper vacuum limit at which the AC starts evacuating again.</li> <li>- Amount of cycles.</li> <li>- A timer for the evacuation step.</li> <li>- If it takes too long for the AC to reach base pressure, the timer will end the cycle and trigger an (audible) alarm to inform the user that something is wrong.</li> <li>- 3 evacuation and refill cycles must not exceed 20 minutes.</li> </ul> The settings are accessible through the control panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |               | E                       |
| Requirement 8.6.1.2   | <b>Big antechamber</b> - The big AC must have an interlock system so that the AC can only be opened from the inside when it is safe (e.g. when the AC atmosphere is inert).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |               | C                       |

| Aspect "Antechambers" |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Remarks for score<br>(in case of preference)         | Max.<br>Score | Method of<br>validation |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------------|-------------------------|
| Preference<br>8.6.1.3 | <b>Big antechamber</b> - The AC cycle of the big AC can also be started without taking your hands out of the gloves.<br><br>Remark: main control should still be outside of the GB, see Requirement 8.5.7.5.                                                                                                                                                                                                                                                                                                                                               | Binary: yes/no<br><br>Yes: 10 points<br>No: 0 points | 10            | C                       |
| Requirement<br>8.6.2  | <b>Antechamber 1.2 - Small Antechamber</b><br>The GB will have a mini antechamber (AC) on the right hand side.<br><br><ul style="list-style-type: none"> <li>- <b>Size:</b> Internal diameter &gt; 150mm, depth &gt; 300mm but no deeper than 600mm.</li> <li>- <b>Slide:</b> AC will have a sliding tray to accommodate introduction of materials into the GB.</li> <li>- <b>Vacuum lead safety:</b> The AC vacuum lead will be protected from materials like wipes and small parts falling in and damaging the pump/clogging the vacuum lead.</li> </ul> |                                                      |               | D                       |
| Requirement<br>8.6.3  | The ACs will have their own Ar supply and will not fill with gas from the GB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                      |               | B                       |
| Requirement<br>8.6.4  | The ACs are protected against overpressure from the Argon line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                      |               | B                       |

#### 8.7 Glovebox system no. 2 - Aspect "Purifier"

| Aspect "Purifier"      |                                                                                                                                                                                                                                            | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement<br>8.7.1   | <b>Purifier</b> - The GB has a purifier system.                                                                                                                                                                                            |                                              |               | B                       |
| Requirement<br>8.7.1.1 | <b>Purifier</b> - The circulation blower must have a capacity of at least 70 m3 per hour.                                                                                                                                                  |                                              |               | B                       |
| Requirement<br>8.7.1.2 | <b>Purifier</b> - The purifier can absorb at least 35L of oxygen and 1250 gr of H <sub>2</sub> O and will be regenerable.                                                                                                                  |                                              |               | F                       |
| Requirement<br>8.7.1.3 | <b>Purifier</b> - The purifier can maintain O <sub>2</sub> and H <sub>2</sub> O levels below 1 ppm at a leakrate of 0,03 volume % per hour.<br><br>Remark: This leakrate is specified to correspond to a large leak like a cut in a glove. |                                              |               | F                       |
| Requirement<br>8.7.2   | <b>Solvents</b> - The GB has a solvent filter system which can remove the solvents listed in the solvent list provided in appendix C05.                                                                                                    |                                              |               |                         |

| Aspect "Purifier"     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Remarks for score<br>(in case of preference)     | Max.<br>Score | Method of<br>validation |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------|-------------------------|
| Preference<br>8.7.2.1 | <p><b>Solvents</b> - The solvent filter has enough capacity to reduce solvent levels (used solvents listed in appendix C05) to a minimum at a replacement rate of 3 months or longer.</p> <p>Rationale: We intend to fill pouch cells with electrolyte. This means about 2mL of solvent per workday will evaporate. The main solvents used in electrolyte Dioxalane and Dimethoxyethane, but the GB will also be exposed to other solvents from the list (to a lesser extent).</p> <p>A list of solvents is included in appendix C05. The different components and subsystems of the GB will be exposed to these solvents in both gas and liquid (working area only) phase and therefore might be compromised. The tenderer shows:</p> <ul style="list-style-type: none"> <li>- Which components or subsystems might be affected by these solvents.</li> <li>- Which measures are implemented to prevent damage to the subsystems and components.</li> <li>- Why and how these measures are implemented.</li> </ul> <p>Remark; Possible measures are:</p> <ul style="list-style-type: none"> <li>- A bigger capacity Activated Charcoal filter</li> <li>- Impregnations of some kind</li> <li>- Pre and post filters</li> <li>- A sensor system to activate a box purge or stop circulation over these components</li> </ul> <p>A subsystem or component could be:</p> <ul style="list-style-type: none"> <li>- Pumps</li> <li>- Circulation blower</li> <li>- Gloves</li> <li>- Solvent filter</li> <li>- Particle filters</li> <li>- Purifier systems</li> <li>- Windows</li> <li>- Box</li> </ul> <p>Describe how this preference will be implemented/achieved. The entire answer should be no more than two (2) A4 page. If the answer exceeds two (2) A4 pages, the additional pages will be disregarded.</p> | See rating paragraph 6.1.2                       | 25 points     | F                       |
| Preference<br>8.7.3   | <p><b>Solvent sensor</b> - The system will have a solvent sensor for measuring ppm levels of the solvents listed in Appendix C05. The solvents sensor can be calibrated for a predefined solvent.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Binary: yes/no<br>Yes: 30 points<br>No: 0 points | 30            | F                       |
| Preference<br>8.7.3.1 | <p><b>Solvent sensor</b> - The solvent sensor can trigger an additional solvent reduction system (for instance: an automatic box purge).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Binary: yes/no<br>Yes: 10 points<br>No: 0 points | 10            | F                       |
| Requirement<br>8.7.4  | <p><b>Particle filters</b> - The system will have HEPA particle filters to filter incoming and outgoing working gas flow. The HEPA class is H13 or better.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |               |                         |

**8.8 Glovebox system no. 2 - Aspect "Atmosphere integrity"**

| Aspect "Atmosphere integrity" |                                                                                                                                                                                                                                                                                                                        | Remarks for score<br>(in case of preference)     | Max.<br>Score | Method of<br>validation |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------|-------------------------|
| Requirement 8.8.1             | <b>Audible alarms</b> - An audible alarm will be available to indicate raised O <sub>2</sub> and/or H <sub>2</sub> O levels. The alarm will not be loud, but clearly audible. Available settings must be at least: silenced on/off, activated/deactivated, the threshold settings are accessible through the controls. |                                                  |               | G                       |
| Requirement 8.8.2             | <b>Box purge</b> - The glovebox has a purge option that instead of circulating over the purifier supplies the box with inert supply gas. This purge is capable of reducing raised O <sub>2</sub> and H <sub>2</sub> O levels in the box much faster than the purifier.                                                 |                                                  |               | C                       |
| Preference 8.8.2.1            | <b>Automatic box purge</b> - If the system has an O <sub>2</sub> or H <sub>2</sub> O level above the user set ppm level the box purge is started automatically until levels of O <sub>2</sub> or H <sub>2</sub> O are below the user set ppm level again and circulation through the purifier is resumed.              | Binary: yes/no<br>Yes: 15 points<br>No: 0 points | 15            | C                       |
| Requirement 8.8.3             | <b>Sensors</b> - The GB system will have an H <sub>2</sub> O and an O <sub>2</sub> sensor capable of a resolution of 1 ppm or better.                                                                                                                                                                                  |                                                  |               | C                       |

**8.9 Aspect "transport, installation, hook-up and start-up"**

| Aspect "transport, installation, hook-up and start-up" |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Remarks for score<br>(in case of preference)                                                                                              | Max.<br>Score | Method of<br>validation |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Requirement 8.9.1                                      | <b>Delivery time</b> – It is required by TNO that delivery takes place within 22 weeks, after TNO submitted a purchase order.<br><br>Note: not achieving the offered delivery time will lead to a penalty discount of 20% of the total order amount and shall be immediately due and payable and eligible for setoff and will replace clause 8.4 of the General Purchasing Conditions TNO – 2022.                                                                                                                                                      |                                                                                                                                           |               |                         |
| Preference 8.9.2                                       | <b>Delivery time</b> – It is preferred by TNO that delivery takes place within 20 weeks, after TNO submitted a purchase order.<br><br>Tenderer is requested to provide the fastest, most reliable delivery time that Tenderer can guarantee, without any additional costs for TNO.<br><br>Note: not achieving the offered delivery time will lead to a penalty discount of 20% of the total order amount and shall be immediately due and payable and eligible for setoff and will replace clause 8.4 of the General Purchasing Conditions TNO – 2022. | <16 weeks:<br>70 points<br><br>>16 weeks but <18 weeks: 50 points<br><br>>18 weeks but <20 weeks: 30 points<br><br>>20 weeks: null points | 70            |                         |
| Requirement 8.9.3                                      | <b>Installation and SAT</b> - Installation and SAT of the GB systems is included and will be performed within 2 weeks after delivery of the GB systems (see also paragraph 2.2.23).                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                           |               |                         |

| Aspect “transport, installation, hook-up and start-up” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Requirement 8.9.4                                      | <b>Critical parts</b> - Tenderer should provide a list of the most critical parts of the system together with argumentation why Tenderer considers these critical parts, as well as delivery time of such critical parts. Tenderer should also provide a list of recommended spare parts and consumables to have on stock at TNO. Spare parts shall be available for at least 10 years after SAT.                                                                                                                      |                                              |               |                         |
| Requirement 8.9.5                                      | <b>Training</b> - Operators training program:<br><br>Tenderer should propose a training program for the machine operators, covering at least: <ul style="list-style-type: none"> <li>- correct use of the glovebox,</li> <li>- safety instructions,</li> <li>- cleaning of the glovebox.</li> <li>- maintenance that can be carried out by TNO service engineer/tool owner and the operators.</li> </ul>                                                                                                               |                                              |               |                         |
| Requirement 8.9.6                                      | <b>Warranty</b> - The GB system must have a warranty period of at least 24 months, as stated in TNO’s General Purchasing Conditions – February 2022.                                                                                                                                                                                                                                                                                                                                                                   |                                              |               |                         |
| Requirement 8.9.7                                      | <b>Maintenance/Services</b> - during warranty TNO requires the following response times: <ul style="list-style-type: none"> <li>- Confirmation of receipt of service request or complaint within one (1) working-day*;</li> <li>- Service or support request online, in the event of a GB system failure, within two (2) working days*;</li> <li>- Service or support request on site, in the event of a GB system failure, within seven (7) calendar-days*.</li> </ul><br>* within regular office hours and workdays. |                                              |               |                         |

| Aspect “transport, installation, hook-up and start-up” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Remarks for score<br>(in case of preference) | Max.<br>Score | Method of<br>validation |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|
| Preference<br>8.9.8                                    | <p><b>Maintenance contract</b></p> <p>Tenderer shall include a ‘basic’ and a ‘all-inclusive’, maintenance contract proposal (see also paragraph 1.3.1 and 1.3.1.1), which also must state the reaction times of the Tenderer (or third party contracted by the Tenderer for maintenance) in case of malfunctioning of the machine.</p> <p>TNO wants to prevent malfunctions of the GB systems as much as possible, and when the warranty period is over, TNO might intend to ensure this with a maintenance contract.</p> <p>In this respect, Tenderer must elaborate on the following subjects:</p> <ul style="list-style-type: none"> <li>- Describe in your response how you register service requests, or how TNO can report service requests.</li> <li>- Describe your response time online.</li> <li>- Describe your response time onsite.</li> <li>- Describe what kind of maintenance/service support you can provide for each type of contract, and at what cost.</li> </ul> <p>The maintenance contract will be under Appendix C03 General Purchasing Conditions – February 2022.</p> <p>The entire answer should be no more than six (6) A4 pages. If the answer exceeds 3 A4 pages, the additional pages will be disregarded.</p> | See rating paragraph 6.1.2                   | 80            |                         |
| Requirement<br>8.9.9                                   | <p><b>Language</b> - The tenderer declares that all senior and executive members of staff/management of its organisation have a thorough command of the English language. It is a particular requirement that all oral and written communication during the (maintenance) Contract shall be in English for the duration of the agreement.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |               |                         |

#### 8.10 Aspect “Payment Terms”

| Aspect “Payment Terms” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Requirement<br>8.10.1  | <p><b>Terms and conditions of payment</b></p> <ul style="list-style-type: none"> <li>- 30% at order, after receipt of a bank guarantee covering 80% of the total amount.</li> <li>- 50% after delivery at location TNO.</li> <li>- 20% after installation and commissioning On-site and Site Acceptance Test (SAT) including test periods, approved by TNO’s management.</li> </ul> <p>The Tenderer to whom the Contract will be awarded must provide a bank guarantee to TNO, covering at least 80% of the total price. The Bank guarantee and the bank who issues the Bank guarantee have to be approved by TNO (minimal A rating). TNO must have the right to draw the bank guarantee in any and all cases where Tenderer falls short in fulfilling its obligations under the Contract. The validity of the bank guarantee may not expire until approval of the SAT by TNO</p> |

**8.11 Aspect “General Requirements (directives and standards)”**

| Aspect “Documentation” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Requirement 8.11.1     | <p><b>Documentation</b> - Documentation must include at least the following:</p> <ul style="list-style-type: none"> <li>- Installation documentation</li> <li>- Instruction manual</li> <li>- Maintenance manual including all required technical documentation for Preventive and Corrective Maintenance.</li> <li>- Quick- start guide</li> <li>- P&amp;ID of the system</li> <li>- Safety measures and their implementation</li> <li>- Certificates and manuals of all third-party hardware that is part of the GB system.</li> </ul> <p>All the documents should be delivered digitally in English and are expected during SAT.</p> |
| Requirement 8.11.2     | <p><b>CE certification</b> - Safety &amp; Ergonomics standards</p> <p>It must be safe to operate the GB systems for a skilled operator without any safety issues. Official CE certification is required.</p>                                                                                                                                                                                                                                                                                                                                                                                                                            |

**8.12 Aspect “Questions”**

| Aspect “Documentation” |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Question 8.12.1        | <p>Corporate Social Responsibility is becoming increasingly important in our own organization and in the future TNO will also ask more from our suppliers to play a part in this.</p> <p>What possibilities have you already initiated and where do you see opportunities for yourself and for TNO?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Question 8.12.2        | <p>As you're aware, ISO 20400 is an international standard that provides guidelines on sustainable procurement. The standard can be used by any organization that intends to improve their social, economic, and environmental sustainability. Considering the growing awareness with regard to sustainable business practices, nationally and internationally, whether required by laws and regulations, promoted by the UN Sustainable Development Goals, or even by the changing societal expectations – there are a myriad of reasons in today's world that drive organizations to be more sustainable, including TNO.</p> <p>Do you embrace the ISO 20400 guideline, and if so, how do you implement it in your own organisation?</p> |
| Question 8.12.3        | <p>Laboratory instruments that TNO uses for its scientific research consume a lot of power and also consist of very high-quality raw materials.</p> <p>For the benefit of the corporate social responsibility (CSR), are you making or willing to make technological investments to reduce power consumption during the use of the instrument, without negatively affecting the technical application of the instrument?</p>                                                                                                                                                                                                                                                                                                               |
| Question 8.12.4        | <p>Biobased Goods are made of materials derived from fully renewable sources. TNO is considering to require in future Goods that devices be made (in part) from biobased materials.</p> <p>Can you give TNO some insight into whether this is feasible for the Goods in your portfolio, and if so, which biobased Goods do you think could be used as alternative Goods?</p>                                                                                                                                                                                                                                                                                                                                                               |
| Question 8.12.5        | <p>What is the negative impact of the current Covid-19 pandemic on your supply chain and what measures have you taken, for example, to ensure that you can meet the agreed delivery deadline?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 9 Appendices

All Appendices to the Tender Documents are published to accompany the Tender Instructions on [www.tenderned.nl](http://www.tenderned.nl).

The Appendices fall into three categories:

### A) To be submitted with Tender

- Appendix A01** Self-declaration by the Tenderer: European Single Tender Document (ESTD)
  - *If the Tender is to be submitted by a Combination, a copy of Appendix A01 must be submitted by each member of the Combination.*
- Appendix A02** Self-declaration by all Third Parties on whose resources the Tenderer intends to rely: European Single Tender Document (ESTD)
  - *Where necessary, a copy of this form should be provided for each Third Party on whose resources the Tenderer intends to rely.*
- Appendix A03** Reference projects
- Appendix A04** Schedule of Prices and Costs
- Appendix A05** Conformity list Programme of Requirements
- Appendix A06** Notification of preferences/answers to questions
- Appendix A07** Optional maintenance/services contract

### B) To be submitted on request (evidential documents)

- Appendix B01** Self-declaration with regard to subcontractor(s) to be deployed during performance of Contract
  - *Where necessary, a copy of this form should be provided for each subcontractor*
- Appendix B02** Declaration re. use of Third Party financial and economic capacity
- Appendix B03** Declaration re. use of Third Party technical and professional competence
- Appendix B04** Declaration re. insurance policy/certificate of insurance

### C) Additional information:

- Appendix C01** Standard template for questions submitted by Tenderer
- Appendix C03** TNO General Purchasing Conditions, February 2022
- Appendix C04** Feedthroughs Layout
- Appendix C05** Solvents

#### Remarks

Some of the forms and templates listed above are made available as 'editable' MS Excel or MS Word files. This is to facilitate both their completion by the Tenderer and the subsequent evaluation by TNO, in accordance with Chapter 5. Some (sections of the) documents are secured in order to prevent unintentional or undesirable changes.

It is not permitted to make any alteration to the format or pre-completed content of any document. The format and text of all documents as included in the Tender Instructions and published on [www.tenderned.nl](http://www.tenderned.nl) will take precedence at all times.