

Tender Document A1800487

Open tender according to Part I and III of Regulations for Procurements above EEA Threshold Values

for purchasing of

System for powder bed fusion metal additive manufacturing

for delivery to

Forsvarets forskningsinstitutt (FFI)
Norwegian Defence Research Establishment (NDRE)

Contents

1	GENERAL DESCRIPTION	4
1.1	The customer	4
1.2	Objective of the procurement	4
1.3	Size of procurement and value of contract	5
1.4	Composition of the tender document	5
1.5	Announcement of contract notices/invitation for tenders	5
1.6	Other information	5
1.7	Corrections, supplementary information, or changes to the tender document	5
1.8	Progress schedule	5
2	RULES FOR THE SUBMISSION OF TENDERS	7
2.1	Procurement procedure	7
2.2	Language	7
2.3	Mercell Sourcing Service's Purchasing Tool (KGV)	7
2.4	Qualification requirements	7
2.5	Formulation and submission of the tender document	8
2.6	Electronic signature	8
2.7	Security	8
2.8	Confidential information	9
2.9	Client Confidentiality	9
2.10	Use of FFI name for marketing purposes	9
2.11	Exceptions and deviations	9
2.12	Disclosure requirements	9
2.13	Subcontractor	10
2.14	Alternative offers	10
2.15	Validity of offer	10
2.16	Withdrawal of tender and/or changes	10
3	QUALIFICATION REQUIREMENTS	11
3.1	Vendor's organisational and juridical position	11
3.2	Vendor's economic and financial position	11
3.3	Vendor's technical and professional qualifications	12
4	SPECIFICATION OF REQUIREMENTS AND ASSIGNMENT CRITERIA	13
4.1	Specification of Technical Requirements	13
4.2	Prices	20
4.3	General Purchase Conditions	20
5	PROCESSING OF SUBMITTED TENDERS	21
5.1	Registration of tenders	21
5.2	Opening of tenders	21
5.3	Rejection of tenderers	21
5.4	Rejection of tenders	21
6	DECISION ON AWARDING OF CONTRACT	23

6.1	Cancellation of the invitation for tenders and rejection of all bids	23
6.2	Information and basis for award of contract	23

1 GENERAL DESCRIPTION

1.1 The customer

Forsvarets forskningsinstitutt (the Norwegian Defence Research Establishment, hereafter named FFI) is a civilian institution of research directly answerable to the Norwegian Ministry of Defence. The establishment has 700 employees, of whom 500 are research scientists and engineers who are engaged in the development of technology and expertise to enable Norway to maintain a modern and effective national defence. FFI is a multidisciplinary enterprise covering such fields as mathematics, physics, information technology, chemistry, biology, medicine, psychology, political science and economics. It is located at Kjeller near Lillestrøm, and also has a smaller division at Horten. For more information, please see our internet web pages www.ffi.no.

This procurement is made on behalf of FFI. The Establishment is the chief adviser on defence-related science and technology to the Ministry of Defence and the Norwegian Armed Forces' military organization.

FFI's Mechanical Design and Workshop (Ptv) has long experience in developing of products for use in demanding environments as underwater- and surface vessels, vehicles, aircraft and spacesystems. Ptv's strength is high competence in design, analysis, simulation and prototyping. We have many success stories in making our customer's idees materializing in great products.

Focus on AM light structure components and part with new functionallity. Investment in a AM machine for metalparts is an important part of further work in this area.

1.2 Objective of the procurement

As part of FFIs role, acheiving new knowledge in the area of advance manufacturing and complex systems. Our expertise is in the area of manufacturing and advanced characterization of metallic engineering materials, steels, titanium alloys and other materials. According to the development strategy, the department is interested in purchasing an Additive Manufacturing System for metal printing equipment also called selective laser melting machine (SLMM, but also called DMLS, SLS etc.) system for manufacturing of metallic components of metallic alloy or elemental powders. The machine is equipped with a computer controlled laser beam melting powder bed in the layer-by-layer manner, finally building up 3D objects of designed shape and functionality. The equipment will be used to run research project related to additive manufacturing, develop manufacturing parameters for new alloys and composites, manufacture specimens and prototypes, optimize manufacturing parameters. Key research will be done on manufacturing of prototypes and small series production and material characterization. Basically in light Ti and Al-alloys tallic materials, but also ferrous and Ni-base alloys... The procurement covers delivery, set-up and installation of the complete system for metal additive manufacturing. The tender must include all parts of a complete instrument. All required accessories, start-up material and software and in accordance with the technical requirements stated in the procurement. It also covers other features such as de-powdering station, sand-blaster and vacuum cleaner if offered with separate pricing.

1.3 Size of procurement and value of contract

The estimated value of this procurement is expected to lay above the threshold for EEA announcements; hence the decision to follow the regulations in Part III of the "Regulations on Public Procurement"

The overall budget for this procurement is EUR 625.000 exl. VAT.

If a demo machine is available within the price limit, please quote as an option to new machine.

More information about the procurement, with technical requirements, are specified in article 4 in this document.

1.4 Composition of the tender document

The tender document consists of this template and its associated attachments:

- 1. General Purchase Conditions, Form 5052 (Annex A)
- 2. Ethical statement for suppliers to the royal Norwegian Ministry of Defence (Annex B)
- 3. *.stl files for production of samples

1.5 Announcement of contract notices/invitation for tenders

Contract notices/invitations to submit tenders will be publicly announced in the Norwegian national tender notification service DOFFIN www.doffin.no and the Tenders Electronic Daily – TED http://ted.europa.eu

1.6 Other information

In the event a supplier feels that the guidelines in the tender document are unclear, or that there are errors in the document, the supplier may submit a written request for more information to the customer through Mercell Sourcing Service's Procurement Tool, KGV (Norwegian, "Mercell Konkurransegjennomføringsverktøy").

1.7 Corrections, supplementary information, or changes to the tender document

The customer reserves the right to make corrections, provide supplementary information or make changes to the tender document as long as these adjustments are not of a substantial nature.

Revisions, corrections, supplementary information, or changes to the tender document will be sent to all recipients of the original document immediately. Announcements concerning revisions, corrections, supplementary information or changes to the tender document will be made electronically on DOFFIN through the Mercell Procurement Tool (KGV).

1.8 Progress schedule

The customer has established the following timescale for the process:

Task	Target dates
Announcement of invitation to submit tenders in DOFFIN	July 5 th 2018
Deadline for submission of tenders	August 6 th 2018 12:00 (noon)
Opening of tenders	August 6 th 2018
Evaluation of submitted tenders and negotiations	1 - 2 week after opening
Awarding of contract and notification to other tenderers	2 weeks after opening
Disputes – deadline for submission of tenderer complaints	10 days after awarding of
(karenstid)	contract

Please note that the target dates following the opening of tenders are intended as a guideline only and may be subject to change.

2 RULES FOR THE SUBMISSION OF TENDERS

2.1 Procurement procedure

Procurements are to be made according to the Law of Public Procurement of 16 June2016 (Norwegian, "Lov om offentlige anskaffelser av 16. Juni 2016" or LOA), and the Regulations Governing Public Procurements of 12th August 2016 (Norwegian, "Forskrift om offentlige anskaffelser (FOA) av 12. August 2016). The procurement process will be conducted through the system of open tendering in accordance with Part I and Part III of the Regulations (above the EEA threshold value). The type of procurement is "Purchase of goods".

The system of open tendering offers all interested bidders the opportunity to submit tenders in free and open competition. There is no pre-qualification of vendors, and tenderers should submit supporting documentation proving their qualifications with the submission of their bids.

Tenderers are recommended to give their best offer within the specified closing date of the competition. Up to three suppliers will be invited to negotiations. The negotiations will focus on price, technical solutions and final configuration, including options. Other aspects of the tender might also be discussed.

Norwegian Ministry of Defence regulations on procurement will be adhered to where the Law of Public Procurement (LOA) or the Regulations Governing Public Procurement (FOA) do not apply.

2.2 Language

All written and oral communication with regards to this competition shall be in Norwegian or English.

2.3 Mercell Sourcing Service's Purchasing Tool (KGV)

The competitive tendering process will be administered through use of Mercell Sourcing Service's Purchasing Tool (KGV). All inquiries concerning the invitation to tender should be made through the Mercell communication module so that they may be documented and registered. Verbal responses and descriptions will not be considered unless they are formally documented in writing.

Please contact Mercell support +47 21 01 88 60 with questions.

2.4 Qualification requirements

The supplier must fulfil the qualification requirements for participation in the competition:

Documentation of the qualification requirements is added under "Kvalifikasjonskrav" in Mercell and answered as described under pkt 3 "Qualification Requirements" in the Tender Document.

To be qualified for participation in the competition all the requirements must be answered with "Ja" and valid documentation must be attached.

2.5 Formulation and submission of the tender document

Tenders should address all of the areas specified below. In order to facilitate a proper and thorough evaluation of bids, it is essential that tenderers adhere to the bid outline as shown.

Bids should be submitted through the Mercell Purchasing Tool (KGV).

The following files should be attached to all bids:

- Formal written letter of tender providing a short description of the vendor/supplier and a accept of the terms of the purchaser's tender document
- Price in EUR according to the specification of the requirements. It can also be included in the letter of tender.
- Eventually other attachments or technical documentation. Fulfilment of specification requirements. Description of how the offered goods/service fulfils each point of customer's specifications and requirements.

The letter of tender shall also include

- Reference to the tender document number and title.
- The vendors address, telephone/fax number and VAT number
- Contact person at the vendor with telephone number and e-mail address
- Accept of all terms applied in the tender document. Any reservations shall be listed in the letter of tender with reference to the actual point in the tender document.
- The tender document shall be dated and signed by a person who has power to commit the company.

Bidders should address all questions, requirements and clarification points requested in point 4 "Specifications of requirements" in the tender document.

FFI will not reimburse bidders for expenses incurred in connection with the preparation, submission, or following up of a tender, nor for product demonstrations or showings etc.

Submitted tenders and their accompanying documentation and materials are considered FFI property and will not be returned.

2.6 Electronic signature

In this connection there will be asked for electronic signature for validation of the identity of the supplier. Electronic signature can be provided from www.comfides.com, www.buypass.no or www.bankid.no. We call attention to that it may take some weeks to receive electronic signature. Suppliers who download tenders after the tender due date will be rejected.

Mercell Kundesenter, tlf +47 21 01 88 60 will assist suppliers who need technical support regarding the Mercell tool or electronic signature.

2.7 Security

The successful Tenderer will be granted access to FFI as necessary to perform the installation. However, all visits by non-Norwegian citizens to FFI must be pre-approved by the Security Officer. FFI reserves for security reasons, cf. Sikkerhetsloven (Law on Security), to deny an employee of the successful Tenderer access to the premises of FFI. The successful Tenderer shall in that case send another employee that can be given access. FFI reserves for security reasons also the right to deny Tenders from companies where it is unlikely that its employees can be granted access to the premises of FFI.

2.8 Confidential information

According to § 23 in the Law Relating to Public Access to Documents in the Public Administration (Norwegian Freedom of Information Act or in Norwegian, "Offentleglova"), information contained in public procurement tenders may be held in confidentiality until the contract has been awarded. After that, barring other extenuating circumstances such as business confidentiality or issues of national security, the information contained in the tenders may be made public. If the tender or parts of it should remain confidential, also after the contract has been awarded, this should be clearly stated in the tender at the time it is submitted.

2.9 Client Confidentiality

FFI and its employees are obliged to prevent that persons not concerned are admitted access or knowledge to information concerning technical arrangements, procedures, management or business matters that for security reasons should be kept secret. cf. FOA § 3-6, jf. forvaltningsloven § 13.

2.10 Use of FFI name for marketing purposes

Vendors must obtain permission from FFI in order to use the business relationship between FFI and the vendor following the award of a contract for advertising/marketing purposes. This restriction applies to any form of advertising, both internal and external, whether in word, speech or image.

2.11 Exceptions and deviations

If a tenderer wishes to make certain exceptions and stipulations to certain parts of the tender document, this should be clearly stated in the tender. These provisos should be clearly specified in the bid, and their implication for performance, price or other relevant factors should be clearly stated.

The same terms apply to deviations. Exceptions and deviations should be formulated precisely and clearly so that the purchaser can assess them without having to contact the supplier. Exceptions and deviations should refer to the relevant point in the tender document and should be specified and discussed in a separate enclosure (see point 2.5.). Exceptions and deviations of a substantial nature will result in the tender being refused.

2.12 Disclosure requirements

Tenderers will receive written notification from the purchaser with a short explanation in the event that:

- · The tender is refused
- All submitted bids are rejected or if the competition is cancelled.

Suppliers may make a written request for:

• Why the tender was refused or rejected.

The customer must reply within 15 days of having received the tenderer's request.

2.13 Subcontractor

FFI desires to work with a single source vendor who can document the desire and capability of assuming responsibility for the entire delivery. If in order to be able to furnish a bid for complete delivery of goods or services, the vendor wishes to include sub vendors, the applying vendor should appear in the tender document as the primary tenderer. FFI reserves the right to disallow the tenderer's choice of sub vendor. The main supplier should be able to enter into a long term cooperative effort with FFI for common administration of the system described in the invitation for tenders. FFI should be advised of any changes of sub vendors well ahead of time.

2.14 Alternative offers

Alternative offers outside of the open tendering process will not be accepted.

2.15 Validity of offer

Offers should be valid for a minimum 90 calendar days after the closing date for submission of tenders.

2.16 Withdrawal of tender and/or changes

Submitted tenders may be withdrawn or changed until the submission deadline. Withdrawal of tenders should go through the Mercell Purchasing Tool (KGV). Changes in the tender will be considered to be a new offer.

3 QUALIFICATION REQUIREMENTS

The separate points in the qualification requirements in the suppliers start menu is answered in the following way:

- Choose "Ja" from the drawdown menu to the question: Er du kvalifisert? (Are you qualified?)
- Attach necessary documentation to the qualification requirements.
- Eventually give your comments to the requirements and answers in the writing area to the left.

3.1 Vendor's organisational and juridical position

Requirements - examples	Documentation requirements - examples	
The vendor shall be a legally	Norwegian firms: Company registration certificate.	
established business enterprise.	Foreign enterprises: Official documentation that the company is	
	formally registered in the relevant business directory or formal	
	registry of business enterprises in the country in which it is	
	established.	
The vendor should be current and up to date in the payment of income tax and value added tax.	Value added tax certificate issued by the Department of revenue, not more than six months old. • Further information is to be found at: www.skatteetaten.no • The certificate may be requested from Altinn www.altinn.no og and cannot be dated more than six months before the deadline in this documents article 1.8.	
Ethical statement for suppliers to the royal Norwegian Ministry of Defence	A template for the statement are provided with the tender document. The statement must be printed, signed and scanned.	

Foreign vendors should provide certificates of compliance issued by the relevant authorities in their own countries.

3.2 Vendor's economic and financial position

Requirements - examples	Documentation requirements - examples
The vendor shall have the	Credit check/rating within the last 6 months based on the last
economic capacity to deliver/carry	publicly available accounting figures. Credit rating to have been
out the contract.	assessed by a publicly approved credit rating institution. The rating
	should be creditworthy or higher.

If there are legitimate reasons that prevent the vendor from providing the specific documentation the customer requests, the vendor may provide other supporting documentation acceptable to the customer which proves his economic and financial position.

3.3 Vendor's technical and professional qualifications

Requirement	Documentation requirement
The vendor should have	A reference to a system the Tenderer has delivered within the last three
successfully executed similar	years. The reference shall include the time the system was delivered
contracts on earlier occasions	and contact name, telephone number and e-mail address for a
	reference person in the firm commissioning the contract and to whom
	the delivery was made.

4 SPECIFICATION OF REQUIREMENTS AND ASSIGNMENT CRITERIA

4.1 Specification of Technical Requirements

Must and should

Requirements in this specification are marked:

- M (must) which indicates a requirement. The offered equipment must meet or exceed the
 requirement. The tender must fulfil all requirements or it will be excluded from further
 evaluation.
- S (should) are questions that is not mandatory but generates quality score.

All requirements with "describe" must have a description and/or attachment with more information, a simple Yes is not enough.

Must (mandatory):

M1 - describe

The additive manufacturing system (further - System) must be state of the art, brand new or demo machine, equipped with latest available software and fully equipped for AM operations and completely functioning metal powder bed fusion system. Any planned new releases of machines and/or software within the next six months from tender submission, must be stated.

M2 - describe

Specification of main principles of the equipment and criteria to evaluate/quantify equipment performance must be defined and attached.

M3 - describe

The equipment must be able to manufacture 3D objects of metal powders of ferrous and non-ferrous materials including potentially igneous/reactive Ti and Al powders. Safety measures must be provided. All available approved materials for the machine should be described including necessary laser options to process the materials.

M4 - describe

The system must provide good control over the laser beam, beam scanning system parameters (hardware, beam size, beam focus/de-focus, power range, etc.) must be defined. Specification of the technical solution and criteria to evaluate/quantify laser system performance must be defined and attached.

M5 - describe

The system should be able to print with chamber preheated up to at least 170 degrees C.

M6 - describe

The system must have a computerized system to control manufacturing process parameters. The control system must be open and provide possibility to vary manufacturing process parameters. In case special access key/license is required, price of such license has to be specified.

M7 - describe

The system must be designed such that it could be operated in a safe manner, including prevention of explosion and fire inside the machine.

Required safety measures

, must be included in the price of the system. Specification of the technical solution and criteria to evaluate system safety must be defined and attached.

M8 - describe

The equipment must fulfil all legal regulations on safety and health. NEK 400 or comparable European standard applies. Electrical connections must be for 3 x 380/400 V AC or 220/230 V AC, 50 Hz. Any necessary transformers must be included. The Tenderer must explicitly verify in the offer that the complete system and any separate parts will comply with the relevant EU directive (declaration of conformity), including CE marking.

M9 - describe

The system must be able to work with powders containing particle sizes in the range from 20 to 60 µm. Possibility to work with wider range of powder particles size, has to be specified in attachment.

M10 - describe

The system must have possibility to work with variable layer thickness in the range from 20 to 60 μ m. Broader range of layer thickness has to be specified in attachment.

M11 - describe

Built chamber must be minimum 250x250 mm and minimum 250 mm in height. Larger build chambers would be beneficial. Chambers with possibility to use reduced built plates (S9, S10) is advantageous.

M12 - describe

The system must be adopted for easy material change (S11). Description of the procedure/technical solution and estimated procedure time has to be attached and required consumables have to be specified. Available options to ease powder change to be specified including cost.

M13 - describe

The system must have an easy solution to change between protective atmospheres.

M14 - describe

The system must provide good integrated control of the built chamber environment. Air leakage, gas flow stop, atmosphere and temperature must be controlled. Description of sensors, including sensitivity range and location in the chamber must be specified in the attachment.

M16 - describe

The system must have a protection from damage from power failure, gas flow and/or cooling water failure.

Required hardware solution, including safety measures required, has to be included in the price of the system. Technical description has to be specified in the attachment.

M17 - describe

The system must consist of a modern computer operative system with e.g. windows-type of interface (to be specified) providing control over the system and data transfer via, for example network. Conditions for the upgrades and software updates must be specified. System control software must be pre-installed in the computer and supplied with the system.

M18 - Y/N

The system must be delivered, installed and commissioned by supplier; price is included in the system costs.

M19- Y/N

Additional equipment/consumables required for the full additive manufacturing chain (metal powder, powder sieving unit, powder mixing unit, samples cleaning equipment, etc.) included in the offer, must be available for delivery at the same time as the system.

M20 - describe

The installation set up of the system must contain specified amount of Aluminum metallic powder provided with process parameters (S15).

M21 - describe

The supplier to describe plan for required training for machine operators and designers. Price to be specified.

Recommended future training and support to be proposed with cost.

M22 - describe

The warranty must be a full guarantee at least for one year, meaning that the supplier shall pay all costs of corrective measures during the term of the warranty. By end of warranty a full service including calibration and software update should be provided. A possibility and a price for extended warranty should be provided (S21)

M23 - describe

Supplier must specify support and service after the end of warranty, present costs and time frame for repair should be specified for the system. A service contract must be offered.

M24 - describe

The tenderer must indicate and clearly define any limitation of liability.

M25 -Y/N

Maintenance and support services for the system must be available for at least 5 years. On-site repair and maintenance service must be provided within maximum two (2) weeks from request. Cost to be specified in tender.

M26- Y/N

Spare parts for the system and all components must be available for at least 10 years after delivery of the equipment.

M27 - describe

Details on reliability and maintainability (intended design life of key components and ease of replacement) must be provided. A list of typical replacement parts with price to be included in tender.

M28 - describe

The tenderer must provide evaluation of the running cost for the system. Running costs have to include costs based on the estimated lifetime and wear of the system components as e.g. energy source (laser), powder feeding system, etc., and all the necessary consumables (powder filters, powder feeding system, etc.).

M29 - describe

The tenderer must provide information/offer about additional equipment/consumables/software used for full additive manufacturing chain the tenderer can supply (metal powder, powder sieving unit, powder mixing unit, vacuum cleaner, samples cleaning equipment, post treatment, sand blasting etc.). Price for each unit has to be indicated separately.

FFI would preffer a complete system, but is not committed to buy the additional equipment/consumables from the tenderer.

M30 - description

The tenderer must provide suggestions in a form of drawing and/or a list of recommendations with numbers/figures, (for instance for ventilation, distance from walls etc.) and safety comments related to the installation of the system and additional equipment in the described above environment (section Description of the current situation). Possible issues with safety and functionality of the system should be emphasized.

M31 – description

The system must be delivered with at least 3 set of full documentation in addition to electronic version. This includes user manual, parts list including exploded views, maintenance manual, electrical schematics, etc.

M31 - description

The system must be delivered with at least 3 set of full documentation in addition to electronic version. This includes user manual, parts list including exploded views, maintenance manual, electrical schematics, etc.

M32 - description

The tenderer must produce test samples according to attachments. Two identical parts with the purpose of showing print accuracy, details and surface finish, along with five tensile test samples. The two parts showing print accuracy should be placed with one part in one of the corners of the print envelope, and the other one in the center of the envelope (mark the samples so that individual print location can be identified). The samples should be produced in a standardized type aluminum alloy, to the tenderers choise, provided with a technical data sheet showing the mechanical properties to be achieved in the printed part. Process parameters from the print job should be provided with the test

samples, including any heat treatment. No other postprocessing is accepted exept from removal of residual powder.

Samples must be sent to FFI, Gunnar Randers vei 42, 2007 Kjeller, Norway. The package must be marked with "Product sample 3D printer" Attn.: "Tom Major/Geir Skjolden/Bendik Sagsveen PtV – do not open before August 6th 2018" and the value must be set to NOK 1,00. Within the package each sample must be packed separately and marked "Do not open before August 6th 2018".

M33 – description

The system must pass SAT at FFI after installation and documentation delivered before delivery acceptance. Production of a test sample same as delivered with quote, will be part of SAT. Supplier to make proposal for SAT for acceptance by FFI.

M34 – description

The machine must be delivered and istalled by latest March 31st 2019.

Should (desirable):

S1 – describe

The system should be able to print with chamber preheated up to at least 500 degrees C.

S2 -describe

The system should have a laser that allows melting of conventional steel, Copper, Ni-base and Ti-base alloys

and high-temperature materials (intermetallic and ceramics) powders.

S3 - describe

The system should have integrated process quality control system. For example optical (camera), temperature inside the process chamber, humidity, energy source characteristics, gas flow conditions, etc. Tenderer must specify technical solution - sensors type and characteristics - as well as software description.

S4 - describe

The system should have integrated device/system as for deposition, leveling/densification of powders, including nano-sized powders. Tenderer must specify technical solution - sensors type and characteristics - as well as software description.

S5 - describe

The system should have a solution to control residual oxygen content in ppm level in closest proximity to the building plate.

S6 - describe

The system should have possibility to work with a heated build platform. Operating temperature and technical description have to be described in the attachment.

S7 -Y/N

The system should be able to work with powders from 5 to 100 µm in size.

S8 - Y/N

The system should be able to work with different powder layer thicknesses. Range of interest taken into account during evaluation will be 5 to 100 μ m.

S9 - describe

The size of the build envelope should be specified. Larger build plates, up to 1500 cm2, with possibility to use platform reduction units are advantageous.

S10 - describe

The system should have a flexible technical solution for the built platform reduction. An operator should do installation of the solution. The Tenderer should specify the technical solution, present schematic

drawing/photo of the solution and describe it's functionality, size and required installation time.

S11 - describe

The system should provide possibility for fast material change where one operator can perform the full process of instrument preparation for processing another material.

Describe the process and required time for material change. If this involved optional equipment, please specify with cost.

S12 - describe

Provided solution, including fire extinguishing and/or other safety systems, has to be described. Technical description and specification of the safety system has to be specified in the attachment.

S13 - describe

The system should have process/component quality control systems. Technical solution and specification of the quality control system has to be specified in the attachment. Options to be specified including price.

S14 -describe

The system should be supplied with an efficient amount of powders (full charge, X kg or Y liters) for the test, training, and demonstration. Powder should be aluminium, supplier to propose., Parameters for high quality, fully dense manufacturing of these powders should be provided by the tenderer. Supply of additional powder within the costs of an installation package is an advantage.

S18 - Y/N

Maintenance and support services for the system should be available for 10 years.

S21 - describe

The tenderer should provide a possibility and a price for extended warranty.

4.2 Prices

Prices should be given in EUR accordance with requirements in article 4.

Prices shall be given for all parts of the system. **Necessary information must be given in order to make it possible for FFI to choose the final configuration of the system**. The final configuration will be decided based on an assessment done by FFI taking into consideration the needs of FFIs researchers, and the budget for this procurement.

The prices shall be fixed for 90 days from the tender due date and not subject to changes due to later currency amendments in that period.

4.3 General Purchase Conditions

General Purchase Conditions, Form 5052, of The Armed Forces of Norway will be applied in this competition.

Assignment criteria

FFI will award the contract to the Tenderer who submits the most advantageous Tender based on the following criteria set up in the Evaluation weighting base:

Evaluation weighting base*	
Price	25 %
Fulfilment of technical specifications "Must requirements"	50 %
Fulfilment of technical specifications "Should requirements"	25 %

^{*)}The maximum budget for this procurement is a fixed limit. If we based on an overall assessment find that none of received offers will satisfy our needs for a capable and flexible direction finder we may consider to cancel the procurement.

5 PROCESSING OF SUBMITTED TENDERS

5.1 Registration of tenders

All incoming tenders are registered in the Mercell Purchasing Tool (KGV).

FFI reserves the right to request additional information from tenderers that it considers of interest on the basis of the offers presented. FFI also reserves the right to adjust or modify recommended solutions, as well as to accept any offer, in whole or in part, or to reject all of the submitted bids.

Tenderers of rejected bids will receive written notification thereof.

5.2 Opening of tenders

The opening of tenders will not be public.

5.3 Rejection of tenderers

Tenderers who fail to submit income tax statements and workplace health and safety statements by the closing date of the invitation to tender will be rejected, likewise tenderers who do not fulfil the established and announced qualification requirements.

Furthermore, the customer may refuse tenderers for other reasons, such as:

- bankruptcy, if the company is in receivership or in the process of liquidation, suspension of business operations or in the process thereof according to national laws and regulations;
- petitioning for bankruptcy, initiation of debt settlement procedures or compulsory dissolution of the enterprise according to national laws and regulations;
- the company has, by legally enforceable judgment, been found guilty of unlawful conditions with respect to its professional conduct;
- the company has breached professional and ethical norms in its branch of operations;
- failure to pay social security insurance in the company's country of establishment or in Norway;
- failure to pay taxes and public duties according to the statutes of law in the country in which the company is established or in Norway;
- grossly misleading or falsification of information and/or withholding of information mentioned herein; likewise falsification/withholding of information with respect to the customer's stated requirements for suppliers.

5.4 Rejection of tenders

A tender will be rejected if:

- a). the tender is not submitted by deadline;
- b). the tender submitted is not in accordance with the invitation to tender;
- c). the tender takes the form of an alternative offer not in keeping with the tender document;
- d). the tender contains provisos and exceptions to tender document stipulations on:
 - the conditions of contract:
 - -specification of requirements;

- partial offers;
- time duration of offer's validity;
- withdrawal or alteration of offer.

A bid may be refused if:

- a). the bid does not contain all requested information;
- b). the bid does not give a price as assumed in the tender document;
- c). the bid seems abnormally low in relation to the service being offered;
- d). the bid is not signed.

Before an offer is rejected because it seems abnormally low, the customer shall make written request for relevant information about individual components of the bid and check this against the presentation that has been given. The customer may consider factual explanations such as savings in production costs, technical solutions, or unusually favourable conditions made possible by new development.

6 DECISION ON AWARDING OF CONTRACT

6.1 Cancellation of the invitation for tenders and rejection of all bids

The customer may cancel the invitation for tenders or, if there are legitimate grounds, reject all bids.

6.2 Information and basis for award of contract

All tenderers will be notified in writing of the customer's decision on the recipient of the contract and in good time before the contract is formally entered into and signed. The term "contract is entered into", means the point in time that both parties sign the contract.

The final date for lodging a complaint is ten calendar days after notification of the award of the contract. Upon the elapse of this deadline, the intent of the customer is to enter into and sign the contract.