NORWEGIAN DEFENCE MATERIEL AGENCY

REQUEST FOR INFORMATION

Nr. 100934

Project 1116 – Infantry Fighting Vehicles

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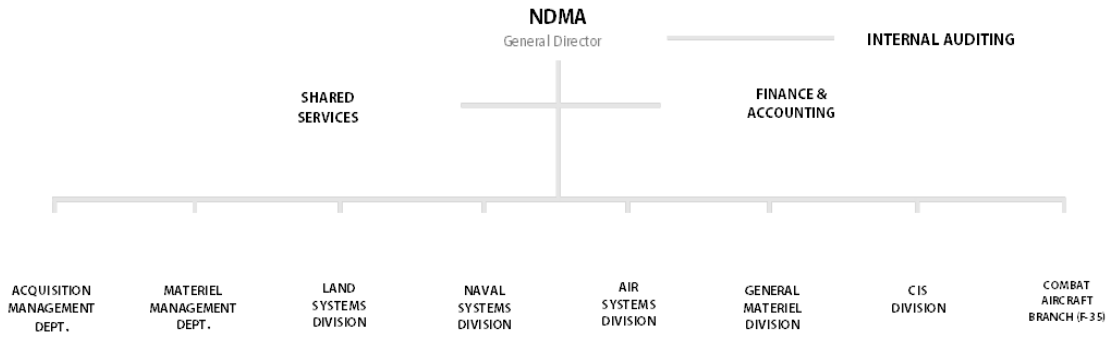
	Annex published upon request NATO requirements for an INF-H-Bn and other standards referenced in the RFI will be sent upon request.	

1 Introduction

1.1 The Norwegian Defence Materiel Agency

This Request for Information is carried out by the Norwegian Defence Materiel Agency (NDMA).

NDMA is an agency in the Norwegian Defence Sector and is directly subordinate to the Norwegian Ministry of Defence (MoD). NDMA shall ensure that the Norwegian Armed Forces and other undertakings in the defence sector shall gain access to cost-efficient, safe materiel in accordance with adopted long-term plans. NDMA's main tasks are planning, acquisition, management and disposal of materiel for the Norwegian Armed Forces (Armed Forces) and other MoD agencies. NDMA is the technical competent authority in certain areas and provides the Ministry of Defence, the Armed Forces and other parts of the sector with advice and expertise within the agency's area of responsibility. NDMA also follow up international partnerships relating to materiel and assist the Ministry of Defence to promote Norwegian industry. NDMA has approximately 1,450 employees, 60% of whom are civil employees and the rest military.



This procurement will be executed by the Land Systems Division, which is responsible for acquiring and ensuring the delivery of needed ground combat and support equipment for the Norwegian Armed Forces.

Further information is available on the following website: www.fma.no

The Norwegian Defence Materiel Agency will in the following be referred to as NDMA or 'the Purchaser'.

1.2 Project 1116

Project 1116 (P1116) is newly established with the purpose of providing the Norwegian Army with a larger number of Infantry Fighting Vehicles (IFV), including IFVs with recognition and combat management functionality. P1116 is currently in the concept phase where the possible concepts for how to solve the users' needs are established and evaluated. If the recommended concept is approved by the Ministry of Defence (MoD) the upcoming phase of the project will define the procurement solution, before the final procurement phase is initiated.

1.3 Purpose

The purpose of this Request for Information (RFI) is to provide the Norwegian Defence Materiel Agency with a more in depth knowledge on how to meet the Norwegian Armed Forces' (NAF) need for additional Infantry Fighting Vehicles (IFV), including IFVs with reconnaissance and combat management functionality. The project shall as far as possible be based on existing technology which is proven and available at the time of delivery, but the systems shall also be future-oriented and relevant throughout the system lifetime.

The IFVs are intended to be used as part of the Norwegian mechanized brigade, and shall have the ability to operate integrated with other capacities in the brigade and in the NAF, such as sea and air. On the brigade level the IFVs will operate with the existing IFVs (CV90), the main battle tanks (under procurement) and supported by the Engineering and Artillery battalions. The NAF emphasises that different units and materiel shall interact and create synergies for increased capabilities.

The RFI is intended to give knowledge regarding the market with respect to potential suppliers, technical performance, price, and lead-time for delivery. The gathered information will be used to determine the project feasibility as well as to define the projects technical and functional requirements, budget and time frame, which will be inputs to the upcoming definition phase.

1.4 Project schedule

The NDMA plans to carry out the project in accordance with the progress schedule provided below. It is specified that the schedule is tentative and major changes may occur.

ACTIVITY	**DATE**
End of project concept phase	Ultimo 2022
External Quality Audit	First Half of 2023
Start project definition phase	Medio 2023
Project approved	Ultimo 2024
Start procurement phase	End of 2024
Project termination	Ultimo 2030

2 The Request for Information

2.1 Company information

Please provide NDMA with the following information concerning your company:

- Company name, legal form, address and contact persons.
- Information whether your company intends to engage/has a Norwegian firm or contact person as your representative in Norway.
- If the company relies on other enterprises to meet requirements for economic and financial capacity and/or technical and professional qualifications.

2.2 Technical information

A description shall be given for the described materiel, and should, if possible, include information on the subjects listed below. Any characteristics considered as special features or advantages of the materiel/concept should be emphasised. The response should be based on existing data and NDMA does not expect the respondents to produce a significant amount of new documentation for the RFI response.

2.2.1 Physical characteristics

Please give a general description of the materiel based on the following:

- Drawings or pictures of the materiel/concept.
- Overall dimensions.
- Total operational weight.

2.2.2 Maintenance

Please give a description based on the following:

- Maintenance concept, e.g. recommended level of maintenance, is there a built-in-test capability, special tools and test equipment, total time to overhaul (TTO), etc.
- Identification of items with a relatively speaking high failure rate or critical parts with a significant consumption of resources with regard to logistic support.
- Reliability predictions (MTBF) on main items.

2.2.3 Preliminary needs and requirements

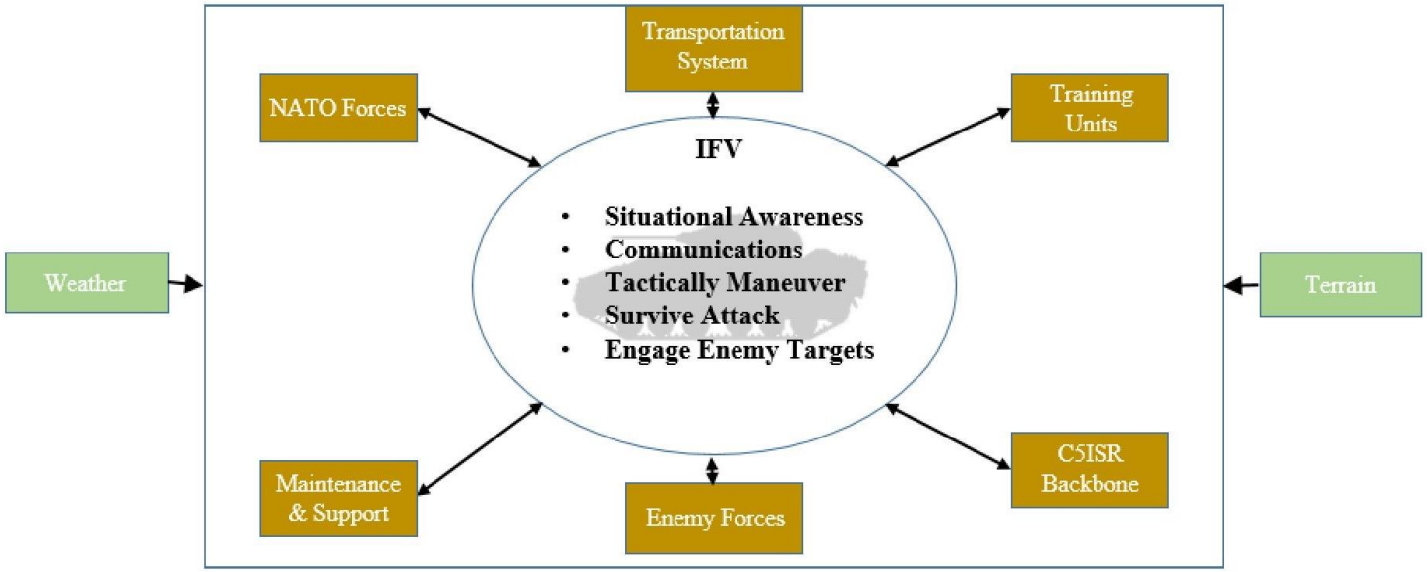
The respondent should describe the IFVs according to the following general needs and requirements, a 100% compliance with the requirements is not necessary in order to form a reply.

NEED	REQUIREMENT	REASON/DESCRIPTION/CLARIFICATION	COMPLIANCE
NEED 1: Operate in Norway and NATO countries including NATO partners.	**Req 1**: The vehicle shall operate in climate zones A2, A3, B1, B2, C0 and C1. Ref AECTP-230.	• The geographical location of NATO countries covers climate zones A2, A3, B1, B2, C0 and C1. • Some parts of Norway are in climate zone C2. The System shall keep operating when temperature drops from C1 to C2. Storage not included. • Primary AO: Norway • Secondary: NATO and partner countries • Tertiary: Globally	
	Req 2: The vehicle shall be transported both tactical and strategic by truck, rail, ship and aircraft. Applicable standards (not limited to): STANAG 2832 Ed3. Envelope B for category 6 and 7 rail wagons. STANAG 4062 (SLINGING AND TIE-DOWN FACILITIES FOR LIFTING AND TYING DOWN MILITARY EQUIPMENT FOR MOVEMENT BY LAND AND SEA) Requirements for transport by C17 Globemaster.	• The vehicle will be transported internally in Norway between regions, and internationally to and from exercises and deployments. • Transport by rail, ship, aircraft and truck. • MCL-50 according to NAAG LCGLE MBT/IFV Pre-Concept 3.1.2 Mobility	
NEED 2: Operate as an integrated part of NAF Infantry Heavy Battalion (INF-H-Bn).	**Req 3**: The vehicle shall be a part of an INF-H-Bn according to NATO requirements for an INF-H-Bn.	• Interoperability • Protection level • Armament • Mobility • C5ISR, Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, Reconnaissance • NGVA, NATO Generic Vehicle Architecture	

		• The Battalion (Bn) as a system of systems where the Vehicle (one individual) is one system, see figure 1 below.	
	Req 4: The vehicle shall as a part of an INH-H-Bn also be a part of an INF-H-BDE according to NATO requirements.	• Interoperability • Protection level • Armament • Mobility • C5ISR • NGVA • The Brigade (BDE) as a system of systems where the Battalion (Bn) is one system.	
	Req 5: Sustainment	• Maintain active operational status (crew and platform) for a duration exceeding 48h. Must exceed 80% operational availability according to NATO requirement. • The vehicle and subsystems must have above 80% operational availability, no mission critical failures.	
	Req 6: Logistics	• The vehicle shall be in service for 30 years. • The vehicle shall have logistics support that comply with NATO and Norwegian Armed Forces standards and regulations. • Utilize vehicle digitalization to increase logistics efficiency.	
NEED 3: Future relevance, growth potential	**Req 7**: The vehicle shall have a Digital twin	• C5ISR is the fastest developing area of technology. A digital twin will enable rapid development and integration of new C5ISR capabilities.	
	Req 8: The vehicle shall have an open architecture.	• That all automation will be compliant with NGVA STANAG 4754. • Enabling future replacement of capabilities. • Enabling future growth in capabilities.	
	Req 9: The vehicle shall have interfaces conforming to open standards.	• That all automation will be compliant with NGVA STANAG 4754. • Enabling future replacement of capabilities. • Enabling future growth in capabilities.	

NEED 4: Protection	**Req 10:** The vehicle shall provide protection according to NATO AEP-55.	• Capable of crew protection and system operation in a hostile environment.
		• EW, but limited to:
		  ○ Hits from IFV KEP, frontal arc
		  ○ CBRN
		  ○ AT mines
		  ○ Blast and fragmentations
		  ○ ATGM and RPG
		  ○ IED end EFP	

	Req 11: The vehicle with C5ISR shall comply with the Norwegian security act, Sikkerhetsloven.	• The system will have the required dynamic defences to withstand cyber-attacks against individual platforms as part of the greater network enterprise.	
NEED 5: Lethality	**Req 12:** Armament according to NATO requirement for IFV as part of an INF-H-BDE.	• Ref. L 3108 NATO requirement INF-H-BDE, short-term view.	
	Req 13: The Vehicle shall have the means to survey 360 degrees for situational awareness.	The purpose is to establish local situational awareness. Typically but not limited to • Day and night vision. • Acoustic sensors. • Active and passive sensors. • Fusion of sensors from subsystems.	
	Req 14: Automation and computer programs.	• The information of the IFV will be processed by the integrated and assigned data processing equipment. • The mission-relevant and operation-relevant information must be provided in real time, transmitted securely and processed immediately in order to ensure integration into the information network at any time. • The information processing system shall be interoperable with the systems of superior agencies and supported forces. The connection with command and control systems must enable information exchange without interruption.	
NEED 6: Training	**Req 15:** The vehicle shall provide the crew on board training.	• Utilize vehicle digitalization to provide on board training.	



- Figure 1 - The Battalion (Bn) as a system of systems where the Vehicle (one individual) is one system.

2.2.4 Overall system description

With reference to the above stated needs and requirements, the system description should be further broken down to show potential and/or alternative capability solutions. The description should be based on the described NATO requirements for INF-H-Bn, including a general Technology Readiness Level description (see Annex A) for the referred capability. The respondent should not include capabilities rated below **TRL 4.** The following table presents categories and guidelines which the reply may be structured according to, but the respondent is free to present its information in its preferred format.

Description	**Price (describe price increase if capability goes beyond IFV base configuration and/or if NRE-costs is necessary).**	**TRL**	**Reference to requirement compliance and/or solution description.**
IFV – Base configuration			
Digitalization: - Interoperability - NGVA - C5IRS - Digital Twin - Etc.			
Survivability: - Protection solutions - Etc.			
Situational awareness: - Sensor integration - Automation - reconnaissance capabilities - Etc.			
Lethality - Turret/armament configurations - Etc.			
Mobility - Mobility configurations - Etc.			

2.3 Commercial information

2.3.1 General

Please give a description based on the following main issues:

- Quality Assurance level in the AQAP and/or ISO system.
- If export of equipment or associated information is subject to special regulations, this must be stated. If for the same reason any requested information is being withheld from the Norwegian Defence Materiel Agency, this must also be stated.
- Please submit a reference list of your customers.

2.3.2 Price information

Kindly state your budgetary unit prices for the following quantities:

Description	**Quantity range**		
IFV	30 – 40	50 – 60	60+
IFV with reconnaissance capability	5-10	10+	
IFV with combat management capability	5 – 10	10 – 15	15+
Simulator and training solutions	TBD	TBD	TBD
Estimated need for logistic support* (training, spare parts, etc.)	TBD	TBD	TBD

*We also request budgetary prices for items with a relatively high failure rate or critical parts with a significant consumption of resources with regard to logistic support.

The basis for the prices such as currency, advance payment, delivery terms etc. should be stated.

2.3.3 Time of delivery

Please give a description based on then following main issues:

- Lead-time, from contract award until delivery.
- Schedules for delivery of the materiel and quantity as mentioned above.

2.3.4 Procurement with Industrial Cooperation

The planned procurement will be subject to Industrial Cooperation Agreement equivalent to 100% of the total contract value, including the Contracts amendments. More information about industrial cooperation is available at www.fma.no.

3 Request for Information Reply

3.1 Structure of RFI reply

The reply should be structured as follows:

Marking	Document name	Article reference
1	Company information	2.1 Company information
2	Technical information, structured according to sub articles	2.2 Technical information
3.1	General commercial information	2.3.1 General
3.2	Completed price matrix	2.3.2 Price information
3.3	Completed delivery schedule	2.3.3 Time of delivery
4	Other relevant information, if any	
5	Redacted version of the RFI reply, if relevant	4.1 Public disclosure and duty of confidentiality

3.2 Address

Reply shall be submitted electronically through the Mercell-portal. In order to simplify the review of the information, the Purchaser requests that:

- The files are submitted in readable (OCR) PDF format or Microsoft Office compatible format.
- The files are identified to reflect the content of the file.

3.3 Request for Information reply – due date

The requested information shall be at the Norwegian Defence Materiel Agency/ Land Systems disposal no later than **23.06.22 (June 23rd) at 16.00 (CET).**

4 Administrative Regulations

4.1 Public disclosure and duty of confidentiality

The Freedom of Information Act applies to public access to documents relating to a public procurement. The Purchaser and its employees have a duty to prevent others from gaining access to and knowledge of information about technical installations and procedures or operational and business matters that should be kept secret for competitive reasons, cf. the Public Administration Act § 13.

The company may submit a version in which information that should be kept secret for competitive reasons is redacted. Examples of such classified information can be personal data, reference descriptions, information about partners, unit prices, hourly rates etc.

This notwithstanding, the Purchaser shall, if access is requested, consider whether the information is of a nature that means the Purchaser is obliged to grant access.

The contractors shall protect confidential information that is made available to them in connection with the request for information.

4.2 Use of information

The requested information will only be used for internal purposes in the NDMA and the Norwegian Armed Forces.

NDMA does not intend to make any procurement based on this RFI or to pay for any of the information provided.

4.3 Planed procurement procedure

The project is in a concept phase and the procurement procedure has not yet been settled. The requested information will be used to evaluate potential procurement procedures.

4.4 Point of contact

All communication shall be addressed to:

- Commercial point of Contract: Bård Tronvold
  Phone: +47 481 45 473
  E-mail: btronvold@mil.no

All written communication shall be in either the Norwegian or English language.