



REPUBLIC OF ESTONIA
CENTRE FOR
DEFENCE INVESTMENT

The whom it might concern

23.08.2022 no 2-7/22/3359

Request for Information

Estonian National Defence Strategy relies on two pillars – NATO's collective defence and an initial national defence capability.

Hereby the Estonian Centre for Defence Investment (ECDI) would like to invite you to participate in the preliminary Request for Information (RFI) stage of preparation of the tendering process for procurement of "**Counter-Battery Radar Systems**" for Estonian Defence Forces (EDF).

A counter-battery radar detects artillery projectiles fired by one or more guns, howitzers, mortars and rocket launchers and from their trajectories locates the position on the ground of the weapon that fired it or in addition, it may determine where the projectile will land. Planned radar systems shall be highly mobile and transportable on a single vehicle for maneuvering forces. Air Surveillance capability is an option.

The RFI contains conceptual framework, questions about the technical parameters of the systems, potential delivery and manufacturing times/schedules, estimated lifecycle cost etc.

After your feedback, ECDI and EDF will evaluate your company's system profile and suitability to achieve the goals in a timely and cost-effective way while satisfying the operational requirements of the EDF. After evaluation of the received answers to the RFI, ECDI will decide the final procurement strategy.

The potential procurement time – not decided yet, but ECDI would like to be fully prepared after receiving needed funds for project.

We shall be looking forward for your feedback as soon as possible. Preferably, we would like to receive the reply no later than the **September 31, 2022 by e-mail priit.soosaar@ecdi.ee**.

Respectfully,

/Digitally signed/

Priit Soosaar

Strategic Category Manager (C4I, Cyber& Radars)
Estonian Centre for Defence Investment

**ANNEX 1
MINIMUM MILITARY REQUIREMENTS (MMR)**

1. Conceptual Framework

Estonian National Defence Strategy relies on two pillars – NATO’s collective defence and an initial national defence capability.

Procured Counter-Battery Radar Systems shall meet the following general principles and characteristics:

- Mobility – the Counter-Battery Radar System unit components shall meet the high mobility criteria due to the requirement of the system to fulfil multi-functional tasks in several regions.
- Survivability – the Counter-Battery Radar System unit mission-critical components shall have integrated self-defence and implemented system redundancy measures.
- Sustainability – the Counter-Battery Radar System unit system components shall meet the criteria of high reliability in order to enable operations in extended period of high readiness state.
- Operational availability – the Counter-Battery Radar Systems system shall be operable in all weather, day and night in accordance with Estonian specific geographic and climatic conditions.

After being acquainted Annex 1 background, conceptual framework, functional and other requirements we kindly ask to fill this questionnaire with YES/and NO answers and please specify you position

Requirement number	Description of Requirement(s)	YES/NO Note: Please specify your answers and the solution(s) you can offer
1	Counter-Battery Radar System simulator functionality to allow for training of personnel based on realistic scenarios built on customer requirements	
2	Counter-Battery Radar System have built-in mission planning tools	
3	Counter-Battery Radar System shall have high mobility including manoeuvring and operating in closed terrain conditions	
4	Counter-Battery Radar System shall utilize standardized components (e.g. ISO standard containers)	
5	Counter-Battery Radar System shall be operable in all weather, day and night, and EW conditions	
6	Automatic Detection and Tracking capability	
7	Radar System Frequency Band/ Operational Band	
8	Antenna type	
9	Transmitter type	
10	Azimuth coverage of 120°	
11	Azimuth coverage of 360°	
12	Operational modes (example 90°, 120°, 360°)	
13	OPTIONAL Instrumented range air surveillance	

14	Elevation Coverage Minimum Range	
Range capability (name different modes example 90°, 120°, 360°)		
15	Artillery	
16	Mortars	
17	Light Rocket	
18	Heavy Rocket	
19	MLRS	
20	Tactical missiles	
21	Number of tracks simultaneously – air threats	
22	Number of tracks simultaneously – mortars	
23	Number of tracks simultaneously – artillery	
24	Number of tracks simultaneously – light rocket	
25	Number of tracks simultaneously – heavy rocket	
26	Number of tracks simultaneously – MLRS	
27	Number of tracks simultaneously – tactical missiles	
28	Radar cross section (RCS) Mortar bomb	
29	Radar cross section (RCS) Artillery shell	
30	Radar cross section (RCS) Light rocket (e.g 122 mm)	
31	Radar cross section (RCS) Heavy rocket (e.g 227 mm)	
32	Radar cross section (RCS) MLRS	
33	Navigation Aid	
34	MTBCF	
35	Protection	
36	Power supply	
37	Links to IFPC / CRAM (FAADC2)	
38	Control Unit description	
39	BITE	
40	Counter-Battery Radar System has to be in service (preferably member of NATO and/or European Union)	
41	Counter-Battery Radar System shall have minimum logistic footprint (incl. personnel required to operate the system)	
42	Counter-Battery Radar System expected in-service life time shall be not less than 30 years	
43	Counter-Battery Radar System shall enable integration with existing EDF C4IS architecture	
44	Please name the system main components and what does it includes	
45	ISO standard and all the equipment must be designed according to ISO 10/20ft standards	
46	Counter-Battery Radar System should be transportable with trucks, please name type of trucks what can be used	
47	The Counter-Battery Radar System should be operated from trucks, please name type of trucks what can be used	

48	The lifecycle cost of the Counter-Battery Radar System should be calculated for 30 years with MLU	
49	For lifecycle calculations the system operational usage shall be at least 1300h per year, from which the training is at least 100 hours	
50	Availability of supply	
51	Proportions between acquisition cost and life-cycle management cost (for the expected in-service life of the system, e.g. 30 years)	

**ANNEX 2
REQUEST FOR INFORMATION**

We kindly ask to provide the following information:

1. Please provide a Rough order of Magnitude (ROM pricing) for this capability (in EUR and/or US dollars, VAT Excl.)
 - a. One (1) Counter-Battery Radar System price;
 - b. Three (3) Counter-Battery Radar System price;
 - c. Five (5) Counter-Battery Radar System price;
 - d. Life-cycle management cost (for the expected in-service life of the system, e.g. 30 years)
 - e. Other related cost

2. The vendor of Counter-Battery Radar System is expected to present information about, so that we can take into account extra costs that will be necessary for operating this system
 - a. Availability of supply
 - b. Technical information
 - c. Life-Cycle Management Concept
 - d. Life-Cycle activities between the vendor and end-user
 - e. Truck if needed
 - f. Requirements for infrastructure
 - g. Requirements for maintenance halls
 - h. Requirements for storage (equipment)
 - i. Requirements for communications type of radios, waveforms, etc)
 - j. Delivery times in months
 - k. Proportions between acquisition costs and life-cycle management cost

3. Other vendor information