

TAZ call for projects

Introduction

This call for projects from the Defence Innovation Agency (AID) for the benefit of the French Navy concerns the search for a standalone remotely operated vehicle or requiring some kind of launching device, able to quickly reach a location from a ship, to follow a specified trajectory and capable of carrying a payload emitting electromagnetic waves.

This call for projects seeks to place contracts for one or more research and development projects of interest to the French MOD, for a maximum duration of 10 months each.

Responses to this call for projects are expected by 21st November 2019 at 17:00.

What we are looking for

In the naval field, an emerging requirement is to have a remotely operated vehicle that can:

- be deployed:
 - o from a naval platform with movements of up to 4°RMS roll and 2° RMS pitch;
 - o with a wind speed of up to 20m/s (or more if possible);
- reach a defined position in any direction relative to the platform's axis, at a distance of about 600m, in less than 10 seconds,
 - o to achieve this, the craft can either be pre-deployed well before being tasked or deployed following an alert from the ship.
- adopt several types of trajectories and speed ranges during the any given deployment (i.e. very quickly after reaching the position mentioned above) without requiring a pilot:
 - o the trajectories can be modified and updated in real time (using data from the naval platform or from the payload onboard the vehicle);
 - o changes of direction must be very fast;
 - o orientation of the machine must be able to be controlled and modified in real time;
 - o the altitude defined for the payload is between 5m and 50m;
- carry a payload of about 15 kg or, alternatively, about 35 kg (Candidates can address either on the 15 kg payload or the 35 kg on payload) (The payload is developed by a third party);
- have an autonomy of at least 3min, and up to 20min if possible, during operational use;
- be recovered (not mandatory), if the vehicle is particularly expensive.

The system (remotely operated vehicle and its supporting hardware) must be as compact as possible in order to be integrated on a ship (order of magnitude: h: 3m, L: 3m, w: 3m overall) on the outer decks and therefore subject to marine environment.

Supporting hardware: we mean a device fitted on the ship such as a catapult or a propelling device used to launch the craft. If such hardware is necessary to the performance described above, then it must be included in the scope of the project.

This craft must be able to communicate bidirectionally for mission-specific exchanges with the ship from which it is launched, in a busy electromagnetic environment.

The autonomy of the vehicle in motion may depend on the mass of the payload, the proposal may mention several pairs of values »payload weight / vehicle autonomy ".

A demonstration can be organised for all or part of the solutions offered. These demonstrations will be organized by the candidates at any time within the project duration of 10 months. AID retains the right to exclude a proposed demonstration if its feasibility is not proven, in particular when government furnished equipment are required.

We are not solely interested in new technologies; the innovative nature of the proposals may reside in the clever use of existing technologies.

The industrialized solutions resulting from these projects could equip French navy vessels (between 10 and 20 ships depending on the unit cost of the solution) within 5 to 10 years. The possibility of scaling up (in terms of technological maturation and mass production) must be taken into account in the proposal.

We accept proposals from all types of economic operators in the European Union: academics, small or medium-sized companies, medium-sized companies, large companies. We accept any gathering of these different types of operators.

What we do not want

Your proposal must **not**:

- be identical to a previous proposal made to AID or the French MOD;
- be a simple bibliographic study of the state of the art;
- provide solutions that are non-technical or add no value to existing practices;
- be a simple demonstration of off-the-shelf products with no extra development;
- be unsuitable for a naval usage.

Demonstration conditions

Each applicant can choose to include a demonstration of its solution, or not to include it.

Demonstrations, of all or part of the solution, will be conducted and organized by the candidates. It is conceivable to use government facilities or equipment (testing grounds for example) as part of the demonstration. In that case:

- these must be identified in the proposal,

- three months before the start of the demonstration, there must be a review of the project to confirm that the developments have reached a sufficient maturity and that the human or material resources of the administration, planned for the demonstration, are available .

Demonstrations will take place during each project, likely towards the 9th month.

Content of the proposal

The proposal must contain the following documents:

- The completed submission form [LE FORMULAIRE DE DÉPÔT] available [here](#).
- The completed contract template [LE MODÈLE DE MARCHÉ] available [here](#). We draw your attention to :
 - o The intellectual property clauses, which you unreservedly accept, like all provisions of contractual template not subject to modification
 - o Your requests for the provision of any means, equipment or information that you deem necessary for the performance of the contract. These adjustments will be subject to clarification if necessary before concluding the contract.
- The technical description of the solution (LE DESCRIPTIF TECHNIQUE DE LA SOLUTION POTENTIELLE : maximum 30 pages). This description must in particular answer the questions raised in the appendix hereafter.
- The project organisation (LE PLAN PROJET : maximum 20 pages) including:
 - o A schedule for the research and development and for a demonstration, if any, identifying milestones and deliverables;
 - o A breakdown of the contract value, in particular showing the part financed by the AID and the self-financed one if any.
- A justification document (UN DOCUMENT DE JUSTIFICATION : maximum 20 pages) explaining the contribution of the project for each of the evaluation criteria below, and in particular:
 - o Relevance: adequacy to operational and technical needs and constraints;
 - o Credibility: any evidence, scientific or technical, to confirm the feasibility of the project;
 - o Viability: the situation of the applicant company (s), the post-market developments financed under this call for projects, the envisaged collaborations, the potential for other applications and / or other market sectors.

Selection criteria

Mandatory Criteria

Proposals will be assessed against the following mandatory criteria:

- Do they meet the scope of the call for projects (see "What we are looking for" and "What we do not want")?
- Do they present a project organisation?
- Do they present any interest with regards to each of the three evaluation criteria below?
- Is the proposal less than € 125,000 (excluding tax) – with no demonstration - or less than € 250,000 (excluding tax) with a demonstration?
- The applicant fully accepts the provisions of the standard contract template (as explicated above).

AID will only assess proposals meeting the mandatory criteria, to select projects that may lead to a contract.

Evaluation criteria

Eligible proposals will be assessed by a committee involving experts from the services, from DGA and from third party manufacturers (see § Industrial third parties). Committee members are not allowed to contact applicants about their proposal. They may only use the information contained in the proposals for the purposes of their evaluation.

This evaluation will be based on the following 3 criteria:

- **Relevance:** The proposed potential solution solves a problem of the users of the Ministry of the Armed Forces, and is likely to carry the adhesion of a sponsor at good level of the Ministry of the Armies.
- **Credibility:** The proposed potential solution has a good chance of succeeding scientifically, technically and practically, in the project schedule and with the resources allocated to the project.
- **Viability:** The situation of the applicant company (s), subsequent developments, other applications or other market sectors of the solution and the collaborations envisaged in the proposal reinforce the viability of the solution beyond the project funded under this call for projects.

An evaluation commission will meet and list the proposals it recommends to fund. This final choice is based on the evaluation results, the cost of each proposal vis-à-vis the available budget and strategic considerations for the Ministry of the Armed Forces.

Following the commission, applicants whose proposal has not been selected will be able to request a summary opinion on their proposal.

Practical arrangements

Budget and contracting

AID has budgeted to fund more than one project.

The documents submitted will be in French, excluding technical documentation that may be in the English language.

Each successful tender will result, potentially after a clarification phase, in the award of a research & development contract for a maximum duration of 10 months.

Tenders without demonstration must not exceed 125 000 € (excluding tax) each. Any proposal without demonstration exceeding 125 000 € (excluding tax) will be rejected automatically.

Otherwise, tenders must not exceed € 250,000 (excluding tax) each. Any proposal with a demonstration exceeding 250 000 € (excluding tax) will be rejected automatically.

Deadline for submission of proposals

Tenders must be received by November 21st, 2019 at 5:00 PM at the following address:

agenceinnovation.dir.fct@intradef.gouv.fr

An acknowledgment will be sent upon receipt.

Important: no proposal or additional element can be accepted after the closing date and time for the call for proposals.

Important: submitting a tender implies full acceptance of the challenge conditions.

Progress

Publication of the call for projects	06 September 2019
Challenge presentation - Innovation Défense Lab :	27 September 2019
Close of the call for projects:	Erreur ! Source du renvoi introuvable.
[If the need arises] Speed-meeting with a short list of bidders :	Early December 2019
Contracts :	Contracts are expected to kick-off in December 19 and to end 10 months later.
Demonstrations :	October 2020 (provisional date)

Registration for the challenge presentation session

An information session will be held on September 27th, 2019 from 2:00 pm to 4:00 pm It is open to 100 participants in total, with a maximum of 2 participants per economic operator.

The information session will be held at the Innovation Défense Lab, 20bis rue Balard, 75015 Paris.

Please register by email at this address: accueil@innovationdefense-lab.fr

You will indicate in the email the name of the economic operator as well as the names and surnames of the participants.

Questions

You can ask any question related to the challenge at the following address:

agenceinnovation.dir.fct@intradef.gouv.fr

For any question specifically related to the contractual aspects, you can contact:

dga-do-s2a.achats-aid.fct@intradef.gouv.fr

E-mail Terms and Conditions

All e-mails relating to this call for projects and sent by applicants must include the following in the subject of the e-mail: "Appel à projets TAZ / TAZ Call for Projects".

Given the constraints related to the secure gateway of the Ministry of the Armed Forces, the only files authorized for attachments of the emails are:

- files whose total size is less than 6 MB per message;
- Desktop files generated with Windows® tools without macro nor animation
- PDF files (without macro nor animation)
- images / videos (standard formats);
- the compressed files listed above.

APPENDIX 1: Questions on the performance and characteristics of the proposed solution

Targeted characteristics of the remotely operated vehicle:

- What is the weight of the remotely operated vehicle and its size?
- What are the constraints to be respected for the payload with regards to its location on the machine (accessible angular aperture for the antennas of the payload, allocated volume, ...)?

Operating of the remotely controlled vehicle:

- If a device is required to deploy the remotely operated vehicle, is it compatible with use on a ship? What is its size and total weight? Can it be minimized?

- How easy is using the remotely operated vehicle? How many operators are needed? Should specific devices be available to set the remotely operated vehicle on its deployment apparatus? How many vehicles can be ready for successive deployment in a short period of time?
- What elements are necessary to support the whole system (vehicle and launching device + means of deployment)?
- Is the system suitable for long-term storage in saline environment?
- Is the remote-controlled machine recoverable after use? Under which conditions? How long does it take to get it back?
- What are the propulsion constraints of the remotely operated vehicle?