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## How to act as a project accelerator?

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Commission de la défense nationale et des forces armées

Published on 20/06/2020

Sciences & technologies

**M. Emmanuel Chiva, Director of the Defence Innovation Agency: Madam President, ladies and gentlemen of the Committee on National Defence and the Armed Forces, I am very pleased to be able to appear before your committee as a whole for the first time since the creation of the Defence Innovation Agency in September 2018. Naturally, we would all have preferred this hearing to take place in a different context; nevertheless, it is a great pride to present to you today the action taken by our Agency, particularly during this unprecedented crisis.**

The vision of the Minister of the Armed Forces, when she created this agency which I have the honour to head, was to have a conductor of theThe vision of the Minister of Defence when she created this agency, which I have the honour of heading, was to have a conductor of defence innovation who could also act as a project accelerator, in particular by opening up to civilian innovation. Being before you today is therefore also an opportunity to speak to you as we have just completed our first real exercise, and as we have structured a new organisation for theWe have structured a new project-oriented defence innovation organisation, with the aim of producing tangible, concrete and rapid results, in line with the ambition of the military programming law.

From this point of view, the Agency's action during the crisis validates this new functioning of defence innovation, in accordance with a ministerial instruction signed by the Minister on 7 May last. We will come back to this, as it is part of the feedback I wanted to share with you. I would now like to describe what we have done and what we are doing in the context of this pandemic.

Since the beginning of the health crisis, the Defence Innovation Agency has been fully committed to the government's plan to combat VIDOC-19. The Agency thus launched, on behalf of the Ministry of the Armed Forces, on Thursday 19 March 2020 a

call for projects aimed at capturing and supporting the development of innovative projects to combat the pandemic. The design and launch of this call for projects took place within a very short timeframe, since the launch came 7 days after the first speech by the President of the Republic announcing the closure of schools, and two days after the entry into force of containment. I would also like to point out that the entire management of this call for projects was carried out in full compliance with the health rules imposed on the entire population, with Agency staff all working from home.

In terms of content, this call for projects concerned the search for innovative technological, organisational and managerial solutions or solutions for adapting industrial processes that could meet the challenges posed by the Covid-19 crisis. The objective was to de-risk innovation and prepare for industrialisation, if necessary. The proposed solutions had to be directly mobilizable in order to protect the population, support patient care, carry out tests and diagnostics, monitor the evolution of the disease at the individual level and the evolution of the pandemic, or help limit constraints during the period of health crisis.

This call for projects therefore aimed at a broad field of innovations. It was a voluntary choice on the part of the Ministry of the Armed Forces, motivated by the diversity of needs and the determined will to capture the best projects. The scope of our call for projects was also adapted to the constantly changing situation. For example, all the proposals concerning protective masks were quickly transferred to the Directorate General for Enterprises (DGE), which led the specific interministerial task force on this subject, supported by the DGA, which provided technical support. The search for solutions to meet testing needs (whether virological, serological, antigenic or environmental detection) also quickly became one of our priorities.

In terms of funding, a budget of 10 M€ including tax was mobilized for the entire call for projects in order to be able to provide financial support to several projects of interest. The projects received came from companies, individuals or laboratories, but also from agents of the Ministry of the Armed Forces under the heading of what is known as participatory innovation. The project proposals were evaluated as they were submitted, according to 3 main criteria: the impact (on crisis management, the population, health care workers, etc.), the impact on the environment (on the environment, the population, etc.), the impact on the health care system, the impact on the environment, etc.) and the impact on the environment.); credibility (technical feasibility, scientific seriousness, status of the depositor); timetable (compatible with the tempo of the crisis). To these three central criteria was added an additional analytical factor: the potential for duality in future uses. This means that we analysed the extent to which the projects selected could in the medium or long term present applications for the world of Defence, and particularly "health and military protection". There was therefore an anticipation of what the second phase of each project could be, once the current health crisis is over. The contribution of an innovation that could benefit the health of our military personnel was naturally an additional advantage that we took into account.

For each project, three decisions were possible: rejection of the proposal; transfer of the proposal to another ministry or to another, more suitable call for projects; support by the Ministry of the Armed Forces.

At the close of the call for projects on 12 April 2020, the Defence Innovation Agency had received 2584 proposals corresponding to €1.15 billion in funding requests. So we had to be selective. Out of this total of 2584 proposals, 2547 proposals were rejected or transferred to other players in the fight against Covid 19. Nearly 40 projects were selected by the Ministry of the Armed Forces. To date, 22 contracts have been notified for as many projects which are now in the active support phase. We are in the process of finalising the contractual procedures for the other projects. As soon as all the contracts have been notified, and therefore the final list of selected projects has been stabilised, we will be able to send it to you so that it can, if necessary, be annexed to the minutes of this hearing. We are pleased to be able to point out that out of the forty or so projects selected, 1/3 are the result of participatory innovation internal to the Ministry of the Armed Forces, i.e., they are the result of the participation of all the stakeholders. This reminds us of the innovative nature of our Ministry and its military personnel. The participatory innovation projects have received cumulative funding of just over €2M, and the projects from the private sector have received a cumulative €7.9M, which means that the initial budget of €10M has been fully used up.

The selected projects offer innovative solutions in the areas of virus detection and diagnostics; decontamination and protection; decision support and crisis management; patient care; and medical device innovation. I can give you some examples, at your convenience.

So much for the organisational and framing elements of this call for projects, I would now like to make a more precise point on the new method put in place to deploy support for these projects in concrete terms.

First of all, with regard to the submission of proposals, we have taken care to put in place a specific procedure that makes it possible to respond to the urgency of the situation. A system of simplified procedures has thus been introduced using digital tools provided by the Interministerial Directorate for Digital Technology and the State Information and Communication System (DINUM). This system really made it possible to meet the requirements of the situation, while constituting a full-scale experiment for our Agency. It has been a fruitful experiment, which encourages us to consider perpetuating this simplified method of submitting projects, in order to further facilitate the relationship between the Ministry and innovators. All the projects proposed via the "simplified approach" platform were then received by our single window. If I may, I will say a few words about this.

When the Agency was created, one of our priorities was to offer innovators easier access to our department. The single window is the single point of entry, as its name suggests, the single point of entry that is intended to centralize all project proposals and then direct them to the appropriate contacts and processes. This single-window principle is found in most large organizations where it can be difficult to identify a relevant entry point. The single window has been operational since January 2019 and has been essential in the Agency's ramp-up phase. In the context of this call for projects, this window has been an indispensable tool, enabling all innovators to be directed to a clearly identified contact. This was particularly relevant for this PAA, which was intended for a large number of players who are not used to working with our ministry, since they came to us from the world of health. We can therefore say that this PAA was fundamentally committed to an open innovation process. Internally, centralisation has enabled efficient

information management, upstream of the file filtering process. The AAP's experience has therefore strengthened our conviction that the one-stop shop is a vital tool to guarantee the capture of innovative projects and the responsiveness of our structure.

Once the projects reached the Agency, they were each evaluated by different successive teams. These teams, in addition to the Agency, included the DGA (in particular NRBC Control), and the Army Health Service mainly, but also experts particularly concerned by certain projects of These teams, in addition to the Agency, included the DGA (especially CBRN Control) and the Army Health Service mainly, but also experts particularly concerned by certain innovation projects, from the entire Ministry of the Armed Forces, who came to support us (the Army commissariat and the Army Battle Lab Terre, for example, seconded reinforcements to us). The course of a proposed project was thus as follows: The ALPHA team was first in charge of a generic filtering mission (Go / No Go depending on whether or not the criteria were met). The ALPHA team was first in charge of a generic filtering mission (Go / No Go depending on whether or not the basic criteria of the PAA were met; at this stage, 82% of the projects were rejected); the BRAVO team was then in charge of analysing the files that had passed the filtering and deciding whether or not to proceed with the project. The BRAVO team was then tasked with analysing the files that had passed the screening and deciding whether they should be supported, rejected or be the subject of requests for further details; the files selected were then sent to the CHARLIE team, in charge of Finally, the DELTA team was in charge of the support finalisation phase, i.e. the reactive contractualisation phase.

Thanks to the organisation put in place, the average appraisal time for a file received under this PAA was 5 days, between receipt of the file and the final decision on whether or not to support the project. In order to maintain this pace, a project steering committee met daily, 7 days a week throughout the duration of the PAA to make arbitrations.

Once selected, the selected projects receive financial support. In the case of participatory innovation (once again, innovation coming from the military personnel of the Ministry of the Armed Forces) this support takes the form of delegated financial management. In the case of projects led by external actors, the support leads to the conclusion of a contract.

In order to meet the deadlines imposed by this crisis, we have set up a rapid contracting team. This team was made up of five buyers from the Agence-CATOD shared procurement division and six buyers from other procurement divisions of the DGA's armament procurement department who responded to our call for volunteers. We would like to take this opportunity to acknowledge their support. Their mobilization made it possible to ensure notification of each contract within an average period of 6 to 20 days. To give you two examples, the call for projects was launched on 19 March; the first letter of financial delegation for a participatory innovation project was signed on 27 March, and the first contract was notified on 31 March.

To allow for this efficiency, each project leader was paired with a buyer. The setting up of these small, dynamic and voluntary teams allowed for short, reactive, short-loop exchanges with all the stakeholders. They made it possible to carry out all stages of the project at the same time, thereby reducing processing times. These contracts were



awarded on the basis of simplified and proven market models on the one hand, and on the other hand, on the public procurement provisions best suited to each of the selected projects. These contracts were awarded based on simplified and proven market models on the one hand, and on the other hand on the public procurement provisions best suited to each of the selected projects (provisions relating to crisis emergency and research and development, adapted procedure contracts and the decree of 24 December 2018 relating to markets for innovative products and services). The contractualization practices that were used did not emerge in the context of this PAA. All of these practices, referred to as "contract factories" in the DOID 2019, have proved their worth in the framework of this PAA and created concrete results through their effective implementation by teams designed to take rapid action.

To conclude the life cycle of the projects launched under the PAA, I would like to recall that the selection of these projects is not an end in itself but the beginning of an adventure. These forty or so projects now integrate the workload plan of the Innovation Défense Lab, the participative innovation unit, but also of certain management units concerned at DGA and experts from the Technical Department who will accompany their development over the next few months, or even longer if certain projects require it. One of the particularities that characterise the selected projects lies in the fact that their scaling up is not envisaged solely within the framework of the Ministry of the Armed Forces. Indeed, the projects selected following the call for projects will now be supported by the Ministry of the Armed Forces for their research and development and pre-industrialization phases, for experimentation and evaluation purposes. Then their scaling up will be ensured by the Ministry of the Armed Forces, but also by other public administrations, which will be likely to place massive orders for the solutions developed as a result of the PAA.

Throughout the management of this call for projects, our teams have been in contact with experts from the Ministry of the Armed Forces (the DGA and the SSA have already been mentioned, as well as the DGNUM, the AAP Coordination Unit, and the SSA). Artificial Intelligence Coordination Unit, or the network of Army Labs); but they have also liaised with other ministries, particularly to share relevant files between the initiatives carried out by each entity. The Ministry of Solidarity and Health, the Ministry of Higher Education, Research and Innovation, and the National Research Agency were important interlocutors during this period. This interministerial cooperation is currently being pursued with the forthcoming implementation of a shared platform on which public entities that have led calls for projects in the context of the crisis will be able to share their results, particularly projects received but not selected. This tool will serve as a platform for "repechage", a project not selected according to IDA criteria that could potentially be of interest to the ANR for example.

In conclusion, the steering of this call for projects was for our agency a validation of the ministerial instruction on defence innovation which has now been published (signed by the Minister on 7 May) and a source of learning on many points.

First of all, a validation: this unprecedented exercise confirmed the relevance of the new functioning of the support for defence innovation. It confirmed the interest of having a federating player, capable of mobilising and orchestrating large-scale innovation projects involving multiple players within our Ministry and in relation with other public administrations. When you're not a conductor, you don't play all the instruments... This

experience also confirms to us the capital importance of agility and audacity in our action. Faced with an unprecedented threat, it was necessary to take full measure of the situation in order to support the action of the Ministry of the Armed Forces in terms of innovative responses to the needs of the world of health. I think I can say that we have collectively been able to meet the challenge, particularly thanks to the implementation of these simplified procedures, which have been highly relevant and constitute feedback on which we will capitalize.

The complementarity between the open and planned mode of innovation also makes sense in such a situation. The company B for Cure is a very good example of this. Today accompanied up to its pre-industrialisation phase thanks to the PAA, this company is in fact supported by our Ministry since 2013. Beneficiary of the ASTRID systems, then ASTRID MATURATION and finally RAPID, this AAP has enabled us to capitalise on past efforts to accompany the project right to the end of its development.

The entire management of this call for projects and the innovations which will result from it, were only possible thanks to the unfailing mobilisation of the staff of the Defence Innovation Agency and all the volunteers of the Ministry of the Armed Forces. Together, they have made our institution's contribution to the national effort to respond to the covid-19 crisis possible. I would like to take this opportunity to thank them here before you.

**I would like to close these developments by emphasising one essential point: while our country is gradually anticipating the "after" and is looking for the levers available to revive our economy, shaken by the weeks of containment, particularly in the industrial sector, defence innovation will be able to make an active contribution to this recovery. With €890 million committed in 2019, 99% of which directly irrigated the French Defence industrial and technological base, defence innovation can be a major tool for economic recovery, I am firmly convinced.**

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<b>Title :</b>	Commission de la défense nationale et des forces armées
<b>Author (s) :</b>	Commission de la défense nationale et des forces armées
<b>Release date</b>	12/02/2021

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