

EUROPEAN DEFENCE AGENCY

DEFENCE INNOVATION PRIZES WORK PROGRAMME 2021

In order to further expand the envelope of technological knowledge, provide access to emerging trends to its participating Member States (pMS), and capture innovative ideas, the European Defence Agency (EDA) aims to engage on a global scale with R&D communities and innovators. One of the incentives that EDA will exploit are prizes to stimulate innovative ideas in defence with potential impacts either on future defence capabilities or filling existing capability gaps.

Since 2018, the Agency have been organizing the 'EDA Defence Innovation Prize' which rewards companies and research entities who come up with ground-breaking technologies, products, processes or services applicable in the defence domain. The contest aims to stimulate defence innovation in Europe and provide non-traditional defence stakeholders (civil industries, SMEs, research organisations, universities, etc.) with an opportunity to showcase their know-how in domains relevant for defence. EDA has so far hosted three editions of the Defence Innovation Prize that have led to enhanced focus and activity in the respective areas. The past editions have been focused on:

- 1st Edition (2018): Autonomous Systems in the areas of: 1) Integration of multi-robot swarming concepts in support of future defence capabilities in the area of Guidance, Navigation and Control (GNC) and 2) Autonomous detection, identification and monitoring/sampling/analysis through sensor and platform networking in the area of CBRN (chemical, biological, radiological and nuclear) protection technologies and techniques
- 2nd Edition (2019): Artificial Intelligence (AI) applications for defence
- 3rd Edition (2020): Innovative solutions/Technologies for Countering Swarms of UAVs

The following topic is to be awarded in 2021.

Prize: Innovative solutions & technologies on Human-Machine Interfaces enabling Human-Machine-Teaming for Defence.

This innovation topic will stimulate innovative solutions & technologies on Human Machine Interfaces to enable Human Machine Teaming for Defence Applications in Air, Land and Maritime platforms. Some examples of these technologies are:

- Gesture commands,
- Head and tracking; eye gesture and wide area eye tracking,
- Voice commands and 3-D audio,
- Immersive technologies such as virtual and augmented reality,
- Wearable human-machine-interfaces
- Human multi-asset interaction
- Haptic control and feedback
- Virtual Assistants

- Crew Monitoring System such as brain computing interface and pilot sensing and monitoring
- Stress and health monitoring
- Autonomous decision-making functions such as human-AI interaction

Some examples of where the innovation on these technologies would enable Human Machine Teaming for Defence operations are:

- Medical and Casualties Evacuation
- Supply Chain and Precision Air Drop
- Intelligence, Surveillance & Reconnaissance

Addressed CDP priority: Enhanced logistic and medical supporting capabilities; Ground combat Capabilities; Air superiority and Underwater control contributing to resilience at sea.

The earmarked budget for the first-ranked Prize is 30 000. Subject to budget availability, EDA could consider awarding additional prize (s).

Expected results: The prize winner (s) are expected to propose ideas which would, if implemented between now and 2035, contribute to improve and enhance specific EU defence capabilities.

Eligibility criteria

The contest is open on equal terms to all natural and legal persons established within the European Defence Agency participating Member States. When applying the rules of access to the competition, it is the state where the applicant is established which is to be considered. As regards a natural person, it is the State in which the person has their domicile.

Award criteria

The prize will be awarded to the entity(s) that based on the evaluation of the evaluation committee demonstrate a solution that best addresses the following qualitative criteria (further clarification of these criteria will be published in the Rules of Contest):

- Originality and/or level of innovation
- Relevance and impact on EU defence capabilities
- Relevance/extent of the idea to stimulate engagement of non-traditional defence R&T communities and innovators
- Feasibility of the idea

Indicative timetable of contest

Stages	Indicative period
Opening of the contest	Q1 2021
Deadline for submission of applications	Q3 2021
Evaluation	Q3 2021
Award of the prizes	Q4 2021

Type of Action

Prize

Indicative timetable

The specific rules of the contest will be published in 2021 by the European Defence Agency, which will directly launch and manage the contest and award the prize.