

Prize Award Contest on the Detection of Low Flying Objects (DeLFO)

Rules of Contest

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1. Terms and Definitions

The terms in the table below, appearing either in a complete or in an abbreviated form, when used in this document and its annexes, shall be understood to have the following meaning:

Term	Acronym	Description
Agency	Frontex	The European Border and Coast Guard Agency.
Airspace	-	Airspace is designated as the portion of the atmosphere controlled by a country above its territory, including its territorial waters or, more generally, any specific three-dimensional portion of the atmosphere. For the purpose of this initiative is defined as any three-dimensional volume where the monitoring of Low Flying Objects takes place.
Applicant	-	Term used to describe a natural person or an entity with or without legal personality who is interested in participating in the Prize Award Contest and has submitted, for whom a third party has submitted, an Application to participate.
Application	-	Refers to the submission of an offer by an interested “applicant” to participate in the Prize Award Contest. The application content is defined in the Rules of Contest.
Begin Morning Nautical Twilight	BMNT	Also defined as the morning nautical twilight. Begins in the morning when the geometric center of the sun is 12 degrees below the horizon. In general, the term nautical twilight refers to sailors being able to take reliable readings via well-known stars because the horizon is still visible, even under moonless conditions.
Beyond Line of Sight	BLOS	Radio communication capabilities that link the transmitting and receiving station that are too distant from each other or fully obscured by terrain for Line of Sight communication.
Beyond Radio Line of Sight	BRLOS	A related term used to describe radio communications capabilities that link personnel or systems, which are too distant or fully obscured by terrain for Line-of-Sight communication (LOS or RLOS).
Beyond Visual Line of Sight	BVLOS	A related term usually used to describe operation of RPAS at distances outside the normal visible range of the pilot.
Broadband Link	-	A high-capacity transmission technique using a wide range of frequencies, which enables a large number of messages to be communicated simultaneously using a single telecommunication link.
Capabilities Integration and Training	CIT	An operational experimentation phase dedicated to integration, calibration, optimization and fine-tuning of the systems to the local conditions and parameters of the deployment. This phase allows the development of technical integration activities to achieve full operational capacity. Additionally, it’s the period where participants clarify organizational aspects, operational safety procedures and training.
Challenge	-	For the purpose of this Prize award Contest is defined as the main problem, or pain point, that calls on Industry participants to use as reference in their proposals for innovative ideas, concepts and technological solutions.
Compound Annual Growth Rate	CAGR	Compound annual growth rate is a business and investing specific term for the geometric progression ratio that provides a constant rate of return over the specified time period.
Configuration	-	The requirements, design and implementation that define a particular version of a system or system component.
Counter Unmanned Aerial System	C-UAS	The term “counter-UAS system” means a system or device capable of lawfully and safely disabling, disrupting, or seizing control of an unmanned aircraft or unmanned aircraft system.
Data Link	DL	A telecommunication link over which data is transmitted.

Data Processing Agreement	DPA	A written agreement between Data Controller and Data Processor explaining inter alia, the purpose means and scope of processing of personal data by Data Processor on behalf of Data Controller, as described in article 29 of Regulation 2018/1725 and article 28 of GDPR.
Data Processor	DP	As defined in article 3 of Regulation 2018/17251 and in Article 4 of GDPR.
Data Protection Impact Assessment	DPIA	A DPIA is a process designed to describe the lifecycle and impacts of personal data management (assessing its necessity, proportionality and risk management). A DPIA provides assessment and determines the appropriate measures to address any identified risks and issues.
Detection of Low Flying Objects	DeLFO	Defined as the processes and procedures involved in operational surveillance activities of low-level airspace regarding Low Flying Objects. It is used in this document also to refer to the associated technological solutions that may be committed to achieve that end.
Detection, Tracking and Identification	DTI	Designation of the traditional tasks associated with the operational surveillance activities on Objects of Interest.
End Evening Nautical Twilight,	EENT	Also defined as the evening nautical twilight. Ends in the evening, when the geometric center of the sun is 12 degrees below the horizon. In general, the term nautical twilight refers to sailors being able to take reliable readings via well known stars because the horizon is still visible, even under moonless conditions.
EU, EEA, SAC	-	European Union, European Economic Area, Schengen Associated Countries.
European Commission	EC	The European Commission is the EU's politically independent executive arm. It is alone responsible for drawing up proposals for new European legislation, and it implements the decisions of the European Parliament and the Council of the EU.
European Integrated Border Management	EIBM	Defined in Art. 4 of Regulation (EU) No 2016/1624 (European Border and Coast Guard Regulation) as the national and international coordination and cooperation among all relevant authorities and agencies involved in border security and trade facilitation to establish effective, efficient and coordinated border management at the external EU borders , in order to reach the objective of open, but well controlled and secure borders.
Fixed Wing	FW	A fixed-wing aircraft is a heavier-than-air flying machine, such as an airplane, which is capable of flight using wings that generate lift caused by the aircraft's forward airspeed and the shape of the wings. Fixed-wing aircraft are distinct from rotary-wing aircraft and ornithopters.
Lead Participant	-	Designates a Participant that represents a joint proposal submitted by a group of entities.
Line of Sight	LOS	Type of propagation that can transmit and receive data when the transmitting and receiving stations are in view of each other without any sort of obstacle between them.
Live Field Experimentation	LIVEX	Designates an operational experimentation activity that runs in a quasi-real environment, in a relevant area.
Low Flying Object	LFO	Term that designates a broad set of aerial platforms that operate in low level airspace and may be used to commit cross-border illicit activities.
Low Level Airspace		The definition of low-level airspace utilized throughout this Prize Contest will be defined as the volume of airspace below 1000ft above ground level .
Member State	MS	A country that meets the accession criteria as defined by the Copenhagen European Council of 1993 and signs the accession Treaty with the individual EU Member States becomes a Member State of the European Union.
Original Design Manufacturer	ODM	An original design manufacturer is a company that designs and manufactures a product, as specified, that is eventually rebranded by another firm for sale. Such companies allow the firm that owns or licenses the brand to produce products without having to engage in the organization or running of a factory.

Original Equipment Manufacturer	OEM	An original equipment manufacturer is generally perceived as a company that produces non-aftermarket parts and equipment that may be marketed by another manufacturer. It is a common industry term recognized and used by many professional organizations
Participant		Term used to designate an “Applicant” which has submitted a proposal to participate in the Prize Award Contest and has been successfully verified as eligible to participate.
Proposal		Refers to the submission of documentation by an “applicant” to participate in the Prize Award Contest.
Radar Tracks	-	A path or a trail created automatically by a radar using echo signals. A radar track will typically contain the following information: GPS Position (in two or three dimensions), Heading, Speed and a Unique track number.
Radio Frequency	RF	Radio frequency is the oscillation rate of an alternating electric current or voltage or of a magnetic, electric, or electromagnetic field or mechanical system in the frequency
Radio Line of Sight	RLOS	Radio communication capabilities that link the transmitting and receiving station within mutual radio link coverage.
Remotely Piloted Aircraft System	RPAS	A set of configurable elements consisting of a remotely-piloted aircraft, its associated remote pilot station(s), the required command and control links and any other system elements as may be required, at any point during flight operation.
Rotary Wing	RW	A rotorcraft or rotary-wing aircraft is a heavier-than-air aircraft with rotary wings or rotor blades, which generate lift by rotating around a vertical mast. Several rotor blades mounted on a single mast are referred to as a rotor.
Schedule of Events	SOE	Schedule of Events is understood as the list of planned activities, including the time, participants, main objective/content, and location of their execution.
Technology Readiness Level	TRL	Technology readiness levels are a method for estimating the maturity of technologies during the acquisition phase of a program. TRLs enable consistent and uniform discussions of technical maturity across different types of technology. Where a topic description refers to a TRL, the following definitions apply, unless otherwise specified: TRL 1 - Basic principles observed TRL 2 - Technology concept formulated TRL 3 - Experimental proof of concept TRL 4 - Technology validated in lab TRL 5 - Technology validated in relevant environment TRL 6 - Technology demonstrated in relevant environment TRL 7 - System prototype demonstration in operational environment TRL 8 - System complete and qualified TRL 9 - Actual system proven in operational environment
Unmanned Aerial System	UAS	Unmanned aircraft system (UAS) means an unmanned aircraft and the equipment to control it remotely. Throughout this document, the terms Unmanned/Uncrewed Aerial Systems (UAS), Remotely Piloted Aircraft Systems (RPAS) and the colloquial term “drones” is used interchangeably.
Unmanned Aircraft	UA	Unmanned aircraft (UA) means any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board. Throughout this document, the terms Unmanned/Uncrewed Aerial Systems (UAS), Remotely Piloted Aircraft Systems (RPAS) and the colloquial term “drones” is used interchangeably.

2. Introduction

The mission of Frontex - the European Border and Coast Guard Agency - is to ensure a coherent European integrated border management by facilitating and rendering more effective the application of existing and future Union measures relating to the management of the external borders, in accordance with its tasks and in full respect of the Union acquis on fundamental rights.

The Agency was set up to reinforce and streamline cooperation between national border authorities. In pursuit of this goal, Frontex is responsible for several operational areas, which are defined in the Regulation. In 2016, the Agency's mandate was enhanced, and its name changed to the *European Border and Coast Guard Agency* still to be commonly referred to as Frontex. The European Border and Coast Guard Agency (Frontex) is governed by Regulation (EU) 2019/1896 of 13 November 2019 on the European Border and Coast Guard (OJ L 295, 14.11.2019, p. 1).

The above-mentioned regulation provides the Agency with a reinforced mandate and increased competences compared to Regulation (EU) 2016/1624, such as the European Border and Coast Guard Standing Corps (the EU's first uniformed service).

Additionally, the European Integrated Border Management (EIBM) aims at managing the crossing of the external borders efficiently and addressing migratory challenges and potential future threats at those borders, thereby contributing to addressing serious crime with a cross-border dimension and ensuring a high level of internal security within the EU¹.

The areas of Frontex activity relevant to this initiative are:

- Operations: Frontex plans, coordinates, implements, and evaluates joint operations, pilot projects and rapid border intervention interventions.
- Capacity Building: Frontex participates in the development and management of research and innovation activities relevant for the control and surveillance of the external borders, including the use of advanced surveillance technology,
- Risk Analysis: The Agency monitors migratory flows and carries out risk analysis as regards all aspects of integrated border management.
- Frontex Situation Centre: The Agency develops and distributes the European Situational Picture and is responsible for creating and sharing the Pre-Frontier Common Intelligence Picture.
- Providing a rapid response capability: Frontex sets up and deploys a pool of resources which brings together specialist human and technical resources from across the EU.
- Information systems and information sharing environment: Frontex provides the necessary assistance for the development and operation of the EUROSUR and, as appropriate, for the development of a common information-sharing environment, including interoperability of systems, by developing, maintaining and coordinating the EUROSUR framework in accordance with Regulation (EU) No 2019/1896.

More about Frontex origin, organisation, its mandate, fields of activities, strategy, and planned activities and especially the Frontex Programmes of Work can be read on the official information section published on the Frontex web site².

¹ https://home-affairs.ec.europa.eu/pages/glossary/european-integrated-border-management_en

² <https://frontex.europa.eu/about-frontex/legal-basis>

3. Legal provisions

The Prize Award on the Detection of Low Flying objects is a call for EU prizes (Contest) on the topic of the **Detection of Low Flying Objects (DeLFO)**.

The regulatory framework for the Prize Contest is set out in **Regulation 2018/1046** of the European Parliament and of the Council of 18 July 2018³, as well, as in the **Frontex Financial Regulation** adopted by Management Board decision No 19/2019 of 23 July 2019⁴.

The Call for Prizes is launched in accordance with the **Single Programming Document 2022-2024** and will be managed by Frontex.

Frontex invites the participants to carefully read all the documentation that is available on the Prize Award Contest website:

<https://frontex.europa.eu/about-frontex/prize-contest/>

Applicants shall read the mandatory application package, which includes, but is not limited to:

- The Rules of Contest (this document)
- The Annexes and Appendix
- The FAQ on the Website

Additional documentation may be published on the website. These documents provide further context, clarifications, and answers to the main questions that applicants may have during the application process.

The current document outlines the:

- Background
- Challenge and Objectives
- Activities and desired capabilities
- The Contest roadmap and schedule
- Available prize awards
- Conditions for participation
 - Eligibility
 - Admissibility criteria
 - Exclusion criteria
- Submission of proposals
- Awarding prizes
 - award criteria
 - evaluation procedure
- Other conditions and provisions

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018R1046>

⁴ <https://prd.frontex.europa.eu/document/management-board-decision-19-2019-adopting-the-frontex-financial-regulation/>

4. Background

4.1. Situational context

In recent years the proliferation of unmanned aerial systems (UAS), or Remotely Piloted Aircraft Systems (RPAS), also commonly known as “drones”⁵, has led to an increasing democratization of Low-Level airspace. In the past this advanced technology has been mostly used for military and governmental applications due to its safety, efficiency, and cost benefits. Nowadays, these same benefits are making these platforms attractive for a wide range of commercial and civilian functions.

However, along with the advantages and benefits, the increasing careless, clueless, and criminal use of drones raise important questions on the effective management of malicious drone activity. The illegal use of these platforms has now become an emergent threat to overall safety and security across the world as malicious actors are adopting drone technology and developing new, creative, and sophisticated ways in which to commit cross-border illicit activities. This emerging trend has been accentuating a very well-known challenge of low-level air border monitoring at EU internal and external borders.

For the European Border and Coast Guard community, the term “low-flying objects” (LFO) include a broad set of aerial platforms that operate in low level airspace. The definition of low-level airspace utilized throughout this Prize Contest will be defined as the volume of airspace below 1000ft above ground level.

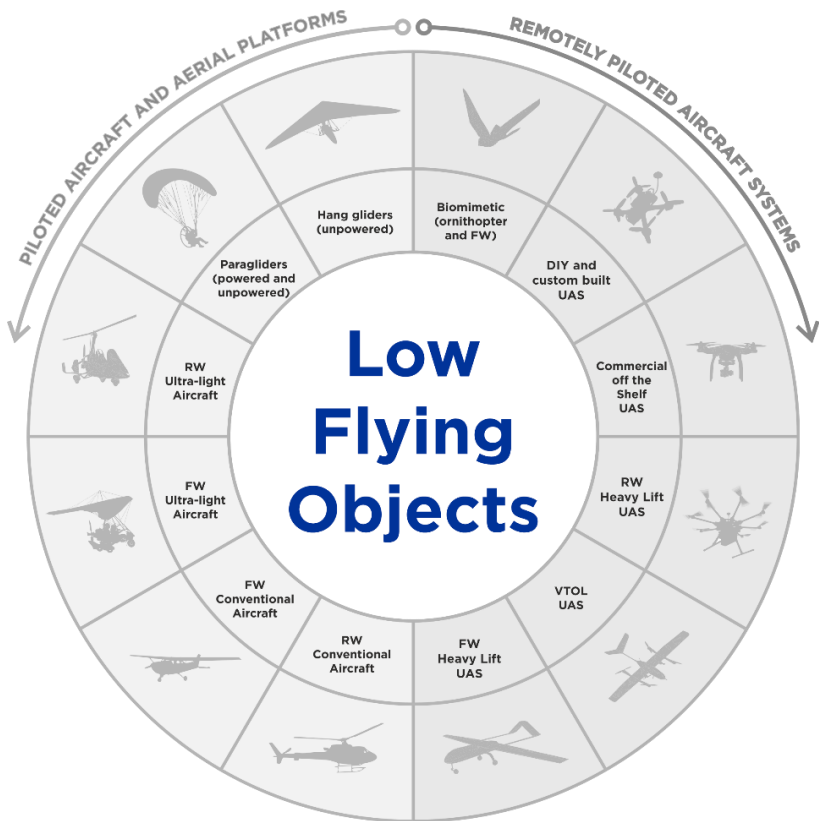


Figure 1 - Representation of the different types of aerial platforms that are considered as "Low Flying Objects" (Frontex, 2022).

⁵ Throughout this document, the terms Unmanned/Uncrewed Aerial Systems (UAS), Remotely Piloted Aircraft Systems (RPAS) and the colloquial term “drones” is used interchangeably.

LFOs include a wide range of aerial platforms, from piloted ultralight and conventional aircraft to remotely piloted aircraft systems. **Figure 1** demonstrates the different potential types of platforms that can be characterized under this proposed taxonomy.

The exponential increase in the use of drones has led the private sector to partner with academia and develop new solutions, centred around the need to protect critical infrastructures with dedicated Detection, Tracking, Identification (DTI) capabilities.

In the last few years this market has been evolving at a rapid pace fuelled by many iconic incidents. The total disruption of airport operations in London's Gatwick airport during 18-19th December 2018 is generally considered to be as one of the seminal moments in Counter-UAS (C-UAS) industry's history. This incident was caused by the reporting of more than 100 drone sightings which ended up affecting around 1000 flights, that were either diverted, cancelled, or rescheduled, impacting as much as 140,000 passengers who faced delays or disruption of their travel plans. The disruption, which lasted a total of 33 hours induced significant costs to the airport, airlines and local economy with a total financial impact estimated around 65.9 million EUR.

Since then, the threat from drones has been evolving and the number of incidents globally is increasing as drones become more accessible and cheaper to the public. Most of the countries around the World have invested in drone detection, tracking, identification, and mitigation systems however, due to lack of clarity in legislation, standards, certifications, and minimum common technical/operational requirements the solutions available in the market vary greatly in terms of capabilities. It is worth mentioning that the mitigation countermeasures (or effectors) are still not yet widely used apart from a military context, mostly due to regulatory issues.

Nonetheless, the C-UAS industry is experiencing a booming market, with a valuation of 1 112 million EUR in 2021 and a projection at a compound annual growth rate (CAGR) of 29.0% during the forecast period 2022-2032⁶.

However, considering the concept of detecting Low Flying Objects at the EU borders, and the inherently complex nature of the associated technical and operational challenges, it was observed through an internal market research analysis that the industry is not able to provide a single turn-key solution that can meet cost-efficiency, performance, integration, and scalability requirements to effectively deploy such surveillance systems in wide area such as EU land borders. Furthermore, this topic is of high interest to the European Commission, European Agencies and Member States, being a recurrent issue raised during expert-level meetings.

Additionally, INTERPOL organized of a three-day exercise in close collaboration with the Norwegian Police at Oslo Gardermoen Airport in Norway in September 2021⁷, where several relevant findings were identified:

- The operational capabilities of C-UAS systems often do not match real-life applications. Significant discrepancies were observed in terms of detection distance from what is being marketed. This could be related with the testing and evaluation methodologies performed by the manufacturers, which generally is carried out in off-site, open environments under ideal testing conditions. Many internal and external factors can contribute to a local degradation of expected performance at a deployment site. These can be technical in nature (integration, optimization, calibration) but also environmental (local conditions, weather, background RF pollution/interference, etc).

⁶ <https://www.uasvision.com/2022/08/09/global-c-uav-market-to-grow-at-cagr-of-29-by-2032>

⁷ https://www.interpol.int/en/content/download/17737/file/CUAS_Interpol_Low_Final.pdf

- The testing and evaluation of C-UAS systems shall be developed under a continuous effort to bridge the gap between evolving threats (new technologies, modus operandi and use cases) and the availability of novel C-UAS technical capabilities.
- The exercise also stated the need to test C-UAS systems in real or quasi-real environments, emulating expected threats, to further understand the actual capabilities and limitations of such systems.

At the EU level, the European Commission has been committed to support EU Member States in mitigating the non-cooperative UAS threats, especially in the hands of malicious actors (criminals and terrorists). A series of EU initiatives and projects on C-UAS are currently underway, notably Project Courageous which will develop a standardized test methodology for detecting, tracking, and identifying malicious drones.

Contributing to the overall coherence with EU strategic initiatives and considering that the complex nature of the detection of Low Flying Objects at EU borders requires a comprehensive approach, Frontex developed an improved framework for Research and Innovation activities on emerging and disruptive activities and launched the current Prize Award Contest as a platform to establish a preliminary yet accurate overview of state-of-the-art technologies, in terms of capabilities and limitations and their suitability to EBCG needs.

4.2. Why a Prize Award Contest?

In recent years, EU MS and experts from the European Border and Coast Guard community have pointed out the need for effective and cost-efficient technical equipment that can detect, track and/or identify Low Flying Objects at EU borders.

As discussed in the previous section, the lack of commonly agreed upon minimum technical and operational requirements, allied with the fact that the available solutions vary greatly in terms of actual and reported capabilities, introduces the need to develop a preliminary exploration research and innovation activity.

This Prize Award Contest will be the first initiative of this kind for Frontex. This new framework will enable a fundamental shift towards capability-driven testing and evaluation / operational experimentation, instead of the traditional approach done through Procurement and Grants.

This technologically agnostic approach may allow a mapping of different state-of-the-art detection solutions, in terms of their capabilities and limitations, thus providing a preliminary identification of common minimum requirements (technical and operational) for the current and future EU border threat scenarios with Low Flying Objects.

Additionally, the progressive nature of the proposed methodology will enable a continuous output of critical insights at different phases, contributing for a better understanding the “right mix” of technological solutions that could be used in a multi-layered / multi-sensor surveillance model that is cost-efficient and effective for detecting Low Flying Objects at EU land borders.

Aspects such as deployment mobility (fixed, deployable, vehicle-based, or portable equipment), integration, scalability, cost-efficiency, and operational performance shall provide insights into which surveillance models could be the most effective and viable for the development of a turn-key solution for further extended testing in a relevant operational area.

Figure 2 describes the presented situational context and rationale for launching the current Prize Award.

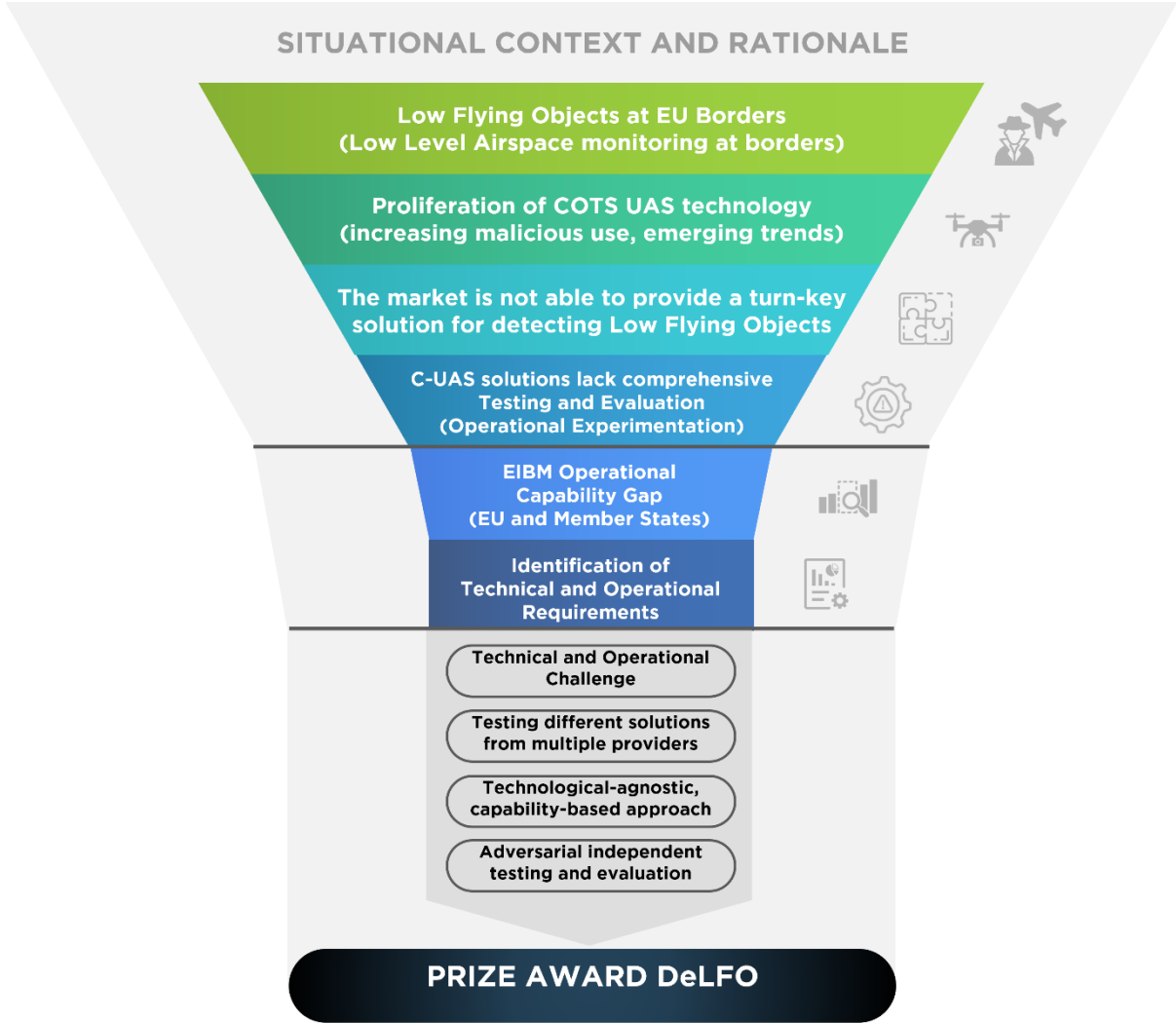


Figure 2 - Situational context and rationale for the Prize Award Contest on the Detection of Low Flying Objects (Frontex, 2022).

5. Overview of the Contest

5.1. The Challenge

Frontex launches this Prize Award Contest seeking to:

1. Incentivize the industry to develop innovative new concepts and technological solutions for cost-efficient, scalable, and integrated operational capabilities.
2. Reward the best performing technological solutions.
3. Obtain insights on how these solutions may support a proof-of-concept validation of what an effective multi-layered, multi-sensor surveillance model might be for the Detection of Low Flying Objects at EU borders.

The main challenge for this Prize Award Contest on the Detection of Low Flying Objects is:

*Considering the existing technological solutions available in the market (or those currently under development) and their potential combination in a **multi-layered, multi-sensor** model, how can Low Flying Objects be effectively **detected, tracked, and identified** in a European land border, in a **cost-efficient, scalable and integrated** way?*

The ultimate goal of this Prize Award Contest is to provide an opportunity for selected industry participants to deploy and test their proposed technological solutions in a testing environment, which will simulate a section of an EU land border. This real-world area will create unique conditions for comprehensive Testing and Evaluation, provided free of cost for participants.

Applicants are encouraged to develop a participation strategy to this Prize Award Contest that ultimately aims at being selected for Phase 3 (Operational Trials) where they can demonstrate the effectiveness of the proposed solution to monitor a hypothetical surveillance volume.

This volume is defined as 5 kilometres in length, 1 kilometre in depth and 1000ft in height (from ground level). The exact specifications of the testing areas will be shared at a later stage.

During all Phases, participants shall be guided by the Challenge, to answer the following aspects:

- What are the capabilities of the proposed technological solution to detect, track and identify Low Flying Objects?
- How is the multi-layered approach designed (concept and architecture)?
- What is the deployment mobility (fixed, deployable/mobile, vehicular, portable, or any combination of these)?
- What are the logistical support requirements (off-the-grid, limited infrastructure, access to public utilities)?
- How does the solution expected to perform in degraded operating conditions (local operational conditions, terrain, wildlife bird activity, weather, and RF interference)?
- What is the level of integration (how are different systems integrated; high-level, low-level)?
- What is the technological maturity of the overall proposed solution?
- How is the proposed solution innovative?

5.2. Objectives

The main objectives of this Prize Award Contest are:

1. To stimulate the development of innovative technological solutions on the detection of Low Flying Objects.
2. Create market awareness and inspire the development of technological solutions that will meet EBCG operational needs.
3. Provide Industry with a curated real-world environment where adversarial independent testing and evaluation will simulate technical and operational challenges, provided free of cost.
4. Promote a rich and immersive operational experimentation environment, providing participants, experts and EBCG representatives a unique opportunity to collaborate by providing a backdrop for rapid peer-to-peer learning and knowledge transfer.
5. Providing critical insights through realistic emulation of current and future threat scenarios posed by Low Flying Objects at EU borders.
6. To support EC, EU and partner Agencies, as well as Member States, in the identification of technical and operational requirements, capabilities, limitations, as well as lessons learned regarding the surveillance of Low Flying Objects at EU land borders.
7. Support the EIBM capacity building efforts by identifying innovative technological solutions that may have the potential to be effective, scalable, and integrated in the detection of Low Flying Objects.

5.3. Activities and desired capabilities

The applicants shall present their ideas, strategies, concepts for a technological solution that will meet the Prize Award Challenge (Section 5.1). The selected participants shall be invited to develop and test, in a quasi-real operational environment, their innovative technological solutions to detect, track and identify Low Flying Objects at EU Borders demonstrating their effectiveness, scalability, integration and cost-efficiency.

Applicants shall take into consideration throughout the Prize Award that a multi-layered model is considered as a cornerstone of a potentially comprehensive solution, which allows early warning, greater reaction time, redundancy, and increased confidence level in detection, tracking, and identification of Low Flying Objects.

Frontex is seeking to gather insights into which combination of different systems will be the most adequate to serve the EBCG and Member States for the land border use cases.

Participants shall note that a **mandatory requirement for this Prize Award Contest is to provide a technological solution that includes at least 3 systems**, using a combination of both Active and Passive detection capabilities (for example: RF frequency monitoring, Camera, and Radar).

The desired technological solutions shall be composed by a combination of different systems, as described in Figure 3 below.

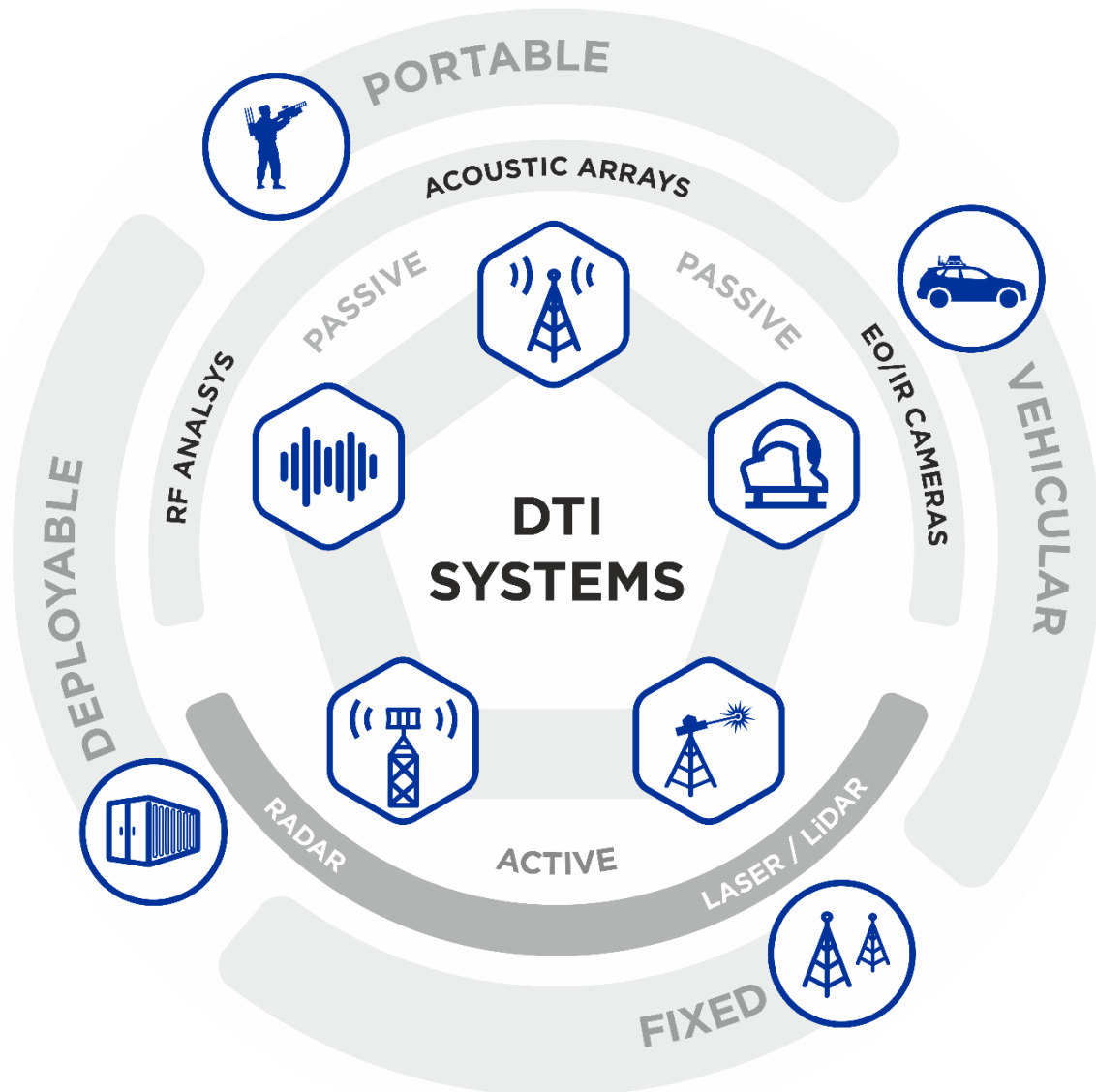


Figure 3 - Desired types of technological solutions in terms of type of DTI system (centre) and their deployment mobility modality (Frontex, 2022).

Any other type of technical equipment, capability or service offered in the application, will be assessed favourably, as additional features may enrich the proposal if relevant for the scope of this initiative.

The use of mitigation countermeasures may be considered, although it is not within the main scope of this initiative. However, if the applicants can demonstrate an integrated all-round solution for Detection, Tracking, Identification and Mitigation Frontex will favourably consider that enhanced solution⁸.

⁸ Effectors, or mitigation countermeasures, shall be considered only for drones and regarded as a complementary technical solution used to incapacitate, mitigate, or neutralize its activity.

The following list of added capabilities may be considered to further enrich the proposal:

- [Effectors] Non-kinetic (“soft kill”):
 - RF Jammers
 - GNSS denial / spoofing
 - GSM service denial
 - Protocol manipulation - Cyber take over / cybersecurity methodologies
 - Directed Energy Weapon (DEW)
 - High-power Microwave (HPM)
- [Effectors] Kinetic (“hard kill”/capture):
 - Ramming interceptors (Drone-on-Drone)
 - Nets
 - Projectiles/chaff (non-ballistic)
 - Directed Energy Weapon (DEW)
 - High Energy Lasers (HEL)
- [Complementary capabilities / Data analytics]
 - GSM / Mobile phone detection⁹
 - Field media extraction forensic devices¹⁰
 - Sensor fusion capabilities and level of automatization¹¹

Applicants shall take into consideration that the confirmation of the deployment of mitigation systems (effectors) will be subject to further coordination.

The submitted proposals shall focus on new or improved ways to implement existing solutions, combine them innovatively, adapt or develop them to a different context according to the scope of this initiative.

Applicants are encouraged to demonstrate the novelty/innovation of the proposed solution, in comparison with those already available in the market.

The final version of the presented solutions during the operational trials shall have an appropriate level of technological maturity (TRL 6 or above).

- Applications from start-ups or spin-offs can submit a proposal with technological solutions of TRL 4 and use the Prize Award Contest to further test, develop and validate the solutions to demonstrate the higher TRL level by the Operational Trials.
- Major industry OEM’s and Integrators are encouraged to use the Prize Award Contest to field test new innovative models, variations/modifications or improvements on their latest technological solutions or product family.

⁹ For example, to support the detection of the location of the operator.

¹⁰ For example, to potentially gather data from a “downed” drone.

¹¹ For example, using conventional algorithmic or AI-based automation routines and programs to aid Detection, Tracking and Identification. Any functionality that may minimize human resources and/or reduce the cognitive burden / fatigue on operators for persistent surveillance is highly appreciated.

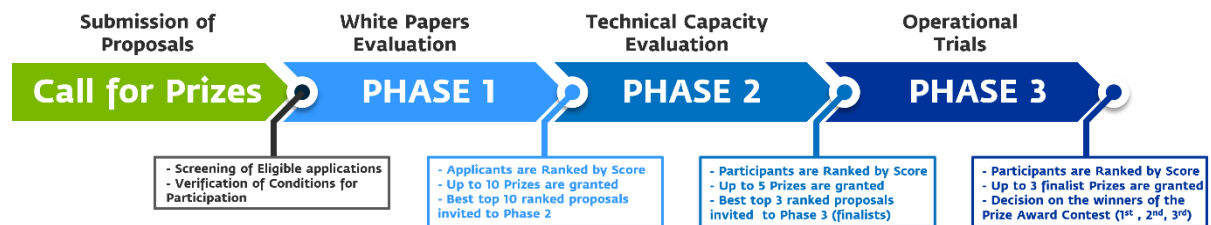
Participants shall consider throughout the Prize Award Contest that their proposed technological solutions shall:

- Be innovative.
- Be able to detect, track and identify the spectrum of different Low Flying Objects.
- Be technically feasible to participate in the Operational Trials.
- Be relevant to the perceived operational needs of the EBCG community.
- Be data-driven and integrated.
- Allow calibration, optimization, configuration, or customization of technical parameters.
- Be able to be deployed in a quasi-real environment for the duration of the operational trials (4 weeks).
- Demonstrate adequate levels of performance and reliability to withstand continuous testing in real world conditions.
- Include supporting equipment, command, control and communications systems and capabilities, the necessary personnel and expertise to deploy, operate, manage, and maintain it during the duration of the operational trials.

5.4. The Contest Roadmap

Applicants interested in participating in the Prize Award Contest shall submit their applications according to the requirements set forth in this document.

The Prize Award Contest will be organized in three distinct Phases as described by the Figure below.



Following the deadline of **Call for Prizes** all applications will be screened for eligibility and admissibility. All eligible applications will move automatically into Phase 1 - White Paper Evaluation.

During the Contest, participants shall be evaluated in accordance with the award criteria defined in section 8.

5.4.1. Call for Prizes - Submission of Proposals

Interested applicants shall **pre-register for participation** in the Prize Award Contest by fulfilling a EU survey form as described in section 7.

Applicants shall prepare their submission and proposal package in accordance with the requirements laid out in this document and its annexes and appendix. The proposal package shall contain the documents specified in **Annex 1 - Proposal Package checklist**. The guidelines and requirements for the application and submission of proposals is explained in detail in section 7.

Immediately after the deadline on the Call for Prizes (defined in section 5.7 - Schedule), all applications shall undergo a process of verification of their admissibility and eligibility according to the criteria described in section 6. Refer to section 7.3 for the full description of the submission process.

Documents and deliverables:

- Pre-registration on EU Survey link during the Call for Prizes period.
- Submission of the Prize Award Contest proposal package (both in paper and electronic format, with a scanned copy to the prize award functional mailbox).

5.4.2. Phase 1 - White Papers Evaluation

In their submission of proposals, applicants are required to deliver a white paper describing the proposed ideas, strategies, concepts, as well as describing, in a comprehensive way, their proposed technological solutions to detect low flying objects at EU borders in accordance with the Challenge defined in section 5.1.

- The “White Paper” shall provide a clear and concise overview of the proposed solution in accordance with the criteria defined in section 8.2 and be guided by the White Paper template and guidelines (Appendix 1).
- Applicants shall describe their original and innovative ideas and concepts, stating main assumptions, capabilities, and limitations.
- The white paper shall describe how the proposed solution will address the technical and operational challenges of detecting Low Flying Objects at EU borders. The applicant shall mention clearly for which use cases the proposal meets or exceeds the EBCG needs.
- The White Paper shall keep to a maximum number of 100 (one hundred pages) (refer to Appendix I). Excess pages will be disregarded. No limit is defined for annexes and supporting documentation; however, applicants shall note that the content of the White Paper will be main subject of evaluation.
- The proposal shall include a description of the participation plan for the Prize Award Contest, mentioning the applicants current and expected capacity to participate in Phase 3 - Operational Trials.
- Applicants may submit proposals below TRL 4¹², if they are technically feasible and have the potential to be developed into fully functioning solutions by Phase 3.
- All received White Papers shall be evaluated and **scored up to 100 points** (according to the criteria defined in Section 8.2). All participants will be ranked in a scoreboard.
- The **top 10 best ranking** proposals will be eligible to receive a prize award of **EUR 10 000** each.
- The 10 laureates will be invited to Phase 2.

<u>Documents and deliverables:</u>
<ul style="list-style-type: none"><input checked="" type="checkbox"/> White Paper<input checked="" type="checkbox"/> Supporting documentation (technical and operational)

¹² Refer to: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

5.4.3. Phase 2 - Technical Capacity Evaluation

In this phase participants are required to submit a technical document where they provide a detailed and comprehensive overview of the technical and operational capabilities and limitations, specifications, and overall architecture of the proposed solution. This document shall present either a working concept, prototype or fully fledged solution.

The selected participants shall organize a presentation to the Frontex, in which they shall present the project team, their concept and the proposed technological solution(s) (showcasing the solutions' hardware and software).

- Participants shall present and demonstrate on Phase 2 a comprehensive overview of the capabilities and limitations of their proposed technological solution(s), providing proof to the claims of technological maturity level outlined in Phase 1, and their overall readiness to participate in Phase 3. This shall be done through the submission of a “Technical Proposal” and a “Technical Capacity Presentation”.
- Participants can submit proposals below TRL 6¹³, if they are technically feasible and have the potential to be developed into fully functioning prototypes or solutions by Phase 3.
- Participants are encouraged to include a description of the testing conducted to date, and supporting documentation/certifications, that substantiates the claimed level of performance of the proposed technological solutions.
- Technical Proposals shall have a **minimum threshold of 20 points**. Only the participants that will meet or exceed this minimum criterion will be requested to organize the Technical Capacity Presentation. Frontex shall request further assessment activities such as a site-visits organized in the Participants' premises and/or technical interviews.
- All received Technical Proposals as well as the participants' performance during the Technical Capacity Presentation shall be evaluated and **scored up to 100 points** (according to the criteria defined in Section 8.2). All participants will be ranked in a scoreboard.
- Each of the **top 5 best ranking** participants of this Phase will be eligible to receive a prize award of EUR 50 000.
- The **top 3 best ranked laureates** will be invited to Phase 3 - Operational Trials.

The costs of organising the technical capacity presentation will not be reimbursed by Frontex.

<u>Documents and deliverables:</u>
<ul style="list-style-type: none"><input checked="" type="checkbox"/> Technical Proposal<input checked="" type="checkbox"/> Organisation of a Technical Capacity Presentation

¹³ Refer to: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

5.4.4. Phase 3 - Operational Trials

On this phase participants shall prepare, deploy, and operate their proposed technological solutions up to **3-weeks** in a relevant operational environment in an EU Member State. The hosting EU Member State will be communicated to Participants immediately after the evaluation of Phase 2.

- The selected participants shall deploy their technological solutions, personnel, and expertise to the designated testing areas in the host EU Member State to participate in operational trials.
- During the preparation period a series of coordination meetings will take place between the Participants, Frontex and the Host Member State. This preparation period will allow pre-deployment coordination and fulfilment of the necessary legal and regulatory requirements to operate the technological solutions.
- The finalists of the Prize Award will have the opportunity to demonstrate the performance and reliability of their proposed technological solutions through the planned sequence of testing.
- Each participant shall be **allocated to a segregated testing area**, without direct contact or interference from other participants' technological solutions.
- The deployed technological solutions shall be also able to contribute to real-world monitoring of low-level airspace, in support to the Host Member State.
- The simulation events shall be generated by an independent testing team, under Frontex and host Member State coordination. This independent testing team shall be responsible for preparing and executing the simulation events. These include support to the preliminary calibration and optimization of systems, scripted testing, and the adversarial emulation testing (by providing different scenarios comprising diverse types of low flying object threats and modus operandi).
- The operational trials shall last up to 3 weeks divided in the following progressive stages:
 - **Week No. 1** - Deployment and Capabilities integration and training (CIT)
 - Objective(s): Allow Participants to deploy their technological solutions and supporting equipment to the testing areas. This week will also provide a calibration environment with scripted range-testing scenarios that will be performed to a pre-defined schedule of events (SOE) to allow the final integration, calibration, optimization and fine-tuning of the systems, as well as the clarification of operational safety procedures and training.
 - **Week No. 2** - Live Field Experimentation (LIVEX)
 - Objective(s): During this week, the participants will have the opportunity to test their systems through a scripted pre-defined SOE. This week will allow the identification of the technological solutions' capabilities and limitations in local conditions. Participants may reconfigure their model and asset locations with the insights from this Stage.
 - **Week No. 3** - Live Field Experimentation (LIVEX)
 - Objective(s): During this week, the participants will have the opportunity to test their systems through an unscripted SOE focused on adversarial testing and evaluation with a wide range of Low Flying Objects (this will include both conventional and ultra-light aircraft). In the end of this week participants shall

also present a live demonstration of their technological solutions to a visiting delegation of EC, EU Agencies and MS experts.

- The participants shall provide Frontex with a “Participation Report” which provides a comprehensive overview of their participation in the operational trials, detailing the technical specifications and parameters of the deployed solution (systems, sub-systems, command, control, and communications architecture, etc), as well as an account of all operational activities (detections, statistics, etc). This report shall also cover the preparation and integration activities. This deliverable provides participants an opportunity to share challenges, lessons learned and insights with Frontex and the EBCG community.
- All participants will be evaluated throughout the duration of the operational trials in accordance with qualitative and quantitative criteria (defined in Section 8.2.). After the conclusion of the operational trials the participants shall be evaluated and **scored up to 100 points** (according to the criteria defined in Section 8.2) All participants will be ranked in a final scoreboard.
- Frontex shall award the following prizes to the finalists, by score ranking order of Phase 3:
 - 1st Prize: **EUR 250 000** (Prize Award Contest Winner)
 - 2nd Prize: **EUR 200 000**
 - 3rd Prize: **EUR 150 000**

The costs of participation during the operational trials shall not be reimbursed by Frontex.

<u>Documents and deliverables:</u>
<ul style="list-style-type: none"><input checked="" type="checkbox"/> Participation Report<input checked="" type="checkbox"/> The participants shall deliver a copy of all the collected data during the Prize Award to Frontex.

5.5. Available Prizes

The total available prize budget is **EUR 950 000**.

Frontex shall award financial rewards to participants that comply with the requirements and meet or surpass the criteria laid out in in this document.

Frontex shall award the following prizes per phase:

- **PHASE 1**
 - A prize of **EUR 10 000** up to the ten (10) best ranked proposals.
- **PHASE 2**
 - A prize of **EUR 50 000** up to the five (5) best ranked presentations of technical capacity.
- **PHASE 3**
 - A grand prize of **EUR 250 000** to the best ranked participant.
 - A grand prize of **EUR 200 000** to the second-best ranked participant.
 - A grand prize of **EUR 150 000** to the third-best ranked participant.

5.6. Additional benefits for applicants

Apart from the financial rewards, the Prize Award Contest is designed to offer more incentives for participation.

These include, but are not limited to:

- The winners of the prize award contest (first, second and third prizes) will have the opportunity to promote their ideas, results, and technological solutions in a dedicated event with the wider European Border and Coast Guard community, including European Commission, EU Agencies and Member State’s representatives and experts.
- The winners will have the opportunity to present their ideas, results, and technological solutions to a network of experts from the European Border and Coast Guard community on different occasions through expert-level meetings and workshops.
- Frontex will promote and support the visibility of the technological solutions that underwent operational testing, by granting a symbolic “**participation badge**” for each prize winner that can be used publicly.
- The operational trials will allow an immersive testing and evaluation environment, by bridging the gap between industry and experts, promoting networking and discussions on a working level. This will support a more thorough understanding of EBCG community operational needs. Additionally, the participants will have the opportunity to develop partnerships or identify potential business opportunities with other participating companies, but also with experts, end-users, EU representatives and stakeholders.
- The participants will have access to weekly debriefings and retrospective sessions to further understand the threat scenarios and *modus operandi* so that they can improve and optimize their solutions.
- The participants will benefit from an operational testing environment centred around real-world simulations of Low Flying Object threats, that will be emulated by an adversarial independent testing team.

- The participants will receive technical and operational reports concerning their participation in the operational trials.
- The final award ceremony will take place during a formal public high level Frontex event with press release coverage.
- The prize award contest will provide a continuous public communications outreach, including the announcement of the participants that are selected on each round, as well as the Contest winners, through Frontex' communication channels and external press releases.
- Participants will have the opportunity to be acquainted with Frontex' vision and capacity building plan on the topic of Detection of Low Flying Objects.

5.7. Schedule

The indicative timeline, main milestones and phases of the Prize Award Contest is the following:

- Call for Prizes: **16th December 2022 - 15th February 2023**
- Deadline for submission of proposals: **15th of February 2023 at 12:00:00 CET (Warsaw time)**
- Screening of eligibility and admissibility conditions for participation: **February 2023**
- **PHASE 1**
 - Evaluation of White Papers: **16th February - 09th March 2023**
 - Announcement of laureates: **15th March 2023**
 - Prize Award payments: during **April 2023**
- **PHASE 2**
 - Deadline for the submission of Technical Proposals: **14th April 2023**
 - Technical Capacity Presentations: **01st - 12th May 2023**
 - Announcement of laureates: **26th May 2023**
 - Prize Award payments: during **June 2023**
- **PHASE 3**
 - Pre-deployment coordination meetings (virtual): week of **5th - 9th of June 2023**
 - Deployment Preparations period¹⁴: **12th June - 10th July 2023 (4 weeks)**
 - Deadline to deploy to the host EU Member State: **10th July 2023**
 - CIT stage (1 week): **10th - 14th July 2023**
 - Operational Trials (2 weeks): **14th - 28th July 2023**
 - Live demonstration event to EC, EU Agencies and MSs: **26th - 27th July 2023**
 - Announcement of laureates: **07th - 11th August 2023**
 - Final awarding ceremony: **September 2023 (Date TBC)**
 - Prize Award payments: during **October 2023**

Participants shall note that this timeline **may be changed without prior notice**. The most updated version of this schedule will be available, and continuously updated, on the Prize Award Website (section 3).

¹⁴ This shall include field visits to the testing sites coordinated by Frontex and host MS.

6. Conditions for Participation

6.1. Eligibility

The Prize Award Contest welcomes proposals from all sources, sectors and types of organisations including public, private sector and non-profits.

To be eligible, the Applicant (or Lead Applicant in the case of Joint applications) shall:

- be legal entities (natural persons, public or private bodies)
- be established in one of the EU Member States, including overseas countries and territories.

Entities which do not have legal personality under their national law may exceptionally participate, provided that their representatives have the capacity to undertake legal obligations on their behalf and offer guarantees for the protection of the EU financial interests equivalent to that offered by legal persons.

For the purpose of these Rules of Contest, 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 his legal domicile registered.

Applicants must fill in the **legal entity form** which will be validated by Frontex Legal and Procurement Unit. For this validation, the Applicant may be requested to send supplementary documents demonstrating legal status and origin.

Proposals can be submitted by mono-beneficiary (single application) or by consortium (joint application).

For joint applications refer to section 6.3.

6.2. Admissibility

- Applicants shall fulfil a pre-registration on the EU Survey link provided.
- Applications shall be submitted to Frontex in paper format (with applicable documents signed) AND an electronic copy shall be sent to the Prize Award functional mailbox, before the deadline for the submission of documents as described in section 7. Paper submission of proposals is a mandatory requirement for participation in this Prize Award. Applicants who send only electronic applications will not meet the admissibility criteria.
- The documentation of the applications (which includes annexes and other supporting documents) shall be submitted using the templates provided at the Prize Contest website.
- Applications shall provide all the requested information set forth in the Rules of Contest.
- Applications must be accurate, readable, and formatted for printing.
- Any other additional documentation requested by Frontex to the Applicants shall be submitted before the deadline indicated in the request (for example: legal entity validation, bank account validation, ethics review, declaration of honour, etc).
- All submitted documentation shall be clear and concise. It shall be compliant with all the requirements and instructions laid out in the Rules of Contest and supporting documentation. The documentation shall favour readability and correctness to avoid doubts as to the proposed ideas and concepts, as well as to any other supporting elements (such as graphics and data).
- The working language for the contest is English.

- The White Paper shall keep to a maximum number of 100 (one hundred pages) (refer to Appendix I). Excess pages will be disregarded. No limit is defined for annexes and supporting documentation; however, applicants shall note that the content of the White Paper will be main subject of evaluation.
- The Applications must be submitted before the Call for Prizes deadline (refer to section 5.7. - Schedule). After this deadline, the EU Survey pre-registration questionnaire shall be closed, and applications shall no longer be submitted. Applications submitted via paper after the specified deadline date will not be considered. Applicants are encouraged to send proof of the priority courier dispatch information (and tracking data if available) along with scanned electronic copies of their application package to prize.award@frontex.europa.eu.

6.3. Joint applications

- Joint applications shall have up to 7 different legal entities. Refer to section 6.5.
- In case of joint applications submitted by a group of applicants, the applicants shall appoint a “Lead Participant” to represent them towards Frontex. The eligible participants shall jointly hold responsibility for fulfilling and respecting the conditions and requirements set out in these Rules of Contest.
- Each applicant of a joint application shall identical legal and administrative obligations as those set for single applications.

6.4. Subcontractors

- These Rules of Contest do not apply to subcontractors.
- Applicants are free to select and propose subcontractors from any country (including outside of EU). In principle all economic operators may act as subcontractors for the applicants/participants of the Prize Contest.
- Sub-contracting shall be allowed, provided that the subcontractor(s) roles and responsibilities, along with its estimated scope of work is clearly indicated in the White Paper, for the purpose of participation in the Prize Award.
- Applicants shall note that subcontractors shall not be responsible for implementing core activities, defined within the scope of these Rules of Contest.

6.5. Restrictions on the number of submitted proposals

- Applicants shall submit up to one single application in the role of “**Single Participant**”.
- Applicants shall submit up to one joint application in the role of “**Lead Participant**”.
- There are no limits set on joint applications for applicants in the role of “**Supporting participants**”¹⁵.

6.6. Eligible activities

- Eligible activities are the ones described in this Rules of Contest (including, but not limited to section 5.3).

¹⁵ For example, the same legal entity may participate in different joint applications as a “supporting participant”. All applicants shall take into consideration that the total number of different legal entities per application is limited to 7 as per section 6.3.

6.7. Ethics and values

- Activities must comply with the highest ethical standards and the applicable EU, international and national laws, and regulations on ethical principles.
- Moreover, they shall respect basic EU values (such as respect for human dignity, freedom, democracy, equality, transparency, the rule of law and human rights, including the rights of minorities).
- The activities shall comply with:
 - ethical principles (including the highest standards of research integrity) and
 - applicable international, EU and national laws and regulations.
- Applications involving ethical issues shall undergo an ethics review to conclude the eligibility and admissibility check. Applications that involve the use of military or dual-use systems shall clearly describe in their White Paper any potential ethical issue regarding their participation. Applicants may be made subject to specific ethical requirements in order to authorise funding.

6.8. Security

- Applications that require high levels of operational and information security (i.e., sensitive military or dual-use systems) shall not be considered eligible for participation. Applicants are encouraged to provide justification and context for their participation.
- Applicants shall be aware that Frontex is aligned with the principle of transparency and the rights of individuals to access documents of EU bodies, and so it may provide public access to documentation¹⁶.
- Applicants' proposals and documentation shall be treated as confidential throughout the Prize Award Contest. No commercially confidential information submitted by applicants shall be disclosed unless otherwise authorized by applicant / participant.

6.9. Exclusion criteria

Applicants who are subject of an EU exclusion decision or are in one of the following exclusion situations that prevent them from receiving EU funding are not eligible to participate:

- bankruptcy, winding up, affairs administered by the courts, arrangement with creditors, suspended business activities or other similar procedures (including procedures for persons with unlimited liability for the Applicant's debts).
- in breach of social security or tax obligations (including if done by persons with unlimited liability for the Applicant's debts).
- guilty of grave professional misconduct (including if done by persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the prize).
- committed fraud, corruption, links to a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking (including if done by persons

¹⁶ The principle of transparency and the rights of individuals to access documents of EU bodies are laid down in both Article 15 of the TFEU and Article 42 of the Charter of Fundamental Rights of the EU and implemented through Regulation (EC) [No 1049/2001](#) of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (Regulation (EC) No 1049/2001). The internal framework for Public Access to Documents held by Frontex is set by Frontex Management Board Decision [No 25/2016 of 21 September 2016](#).

Link: https://prd.frontex.europa.eu/wp-content/uploads/mb_decision_25_2016_on_adopting_practical_arrangements_regarding_pad.pdf

having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the prize).

- shown significant deficiencies in complying with main obligations under an EU procurement contract, grant agreement, prize, expert contract, or similar (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the prize).
- guilty of irregularities within the meaning of Article 1(2) of Regulation No 2988/95 (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the prize).
- created under a different jurisdiction with the intent to circumvent fiscal, social or other legal obligations in the country of origin or created another entity with this purpose (including if done by persons having powers of representation, decision making or control, beneficial owners or persons who are essential for the award/implementation of the prize).

Applicants shall also be not eligible to participate if:

- during the award procedure it's verified that they misrepresented information required as a condition for participating or failed to supply that information.
- they were previously involved in the preparation of this initiative, and this entails a distortion of competition that cannot be remedied otherwise (conflict of interest).

Special rules apply for certain entities (e.g. entities subject to EU restrictive measures under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU) and entities covered by Commission Guidelines No 2013/C 205/05), therefore such entities shall not be eligible to participate in any capacity.

Applicants shall also be aware that if they have already received an EU or EURATOM prize they shall not be eligible to receive a second prize for the same scope of activities.

Applicants are required to fulfil and sign the Annex 3 - Declaration of Honour and acceptance of Exclusion Criteria.

7. Submission of Proposals

7.1. Form and content

Before the final date for submission of proposals (i.e., the last day of the Call for Prizes), all documentation shall be submitted to Frontex:

- in **paper format** (with applicable documents correctly filled in and signed) to:

Frontex, Research and Innovation,
plac Europejski 6, 00-844 Warsaw, Poland

- and, in **electronic format** through a scanned copy of the signed documents. This copy shall be sent to the Prize Award functional mailbox (prize.award@frontex.europa.eu).

Applicants are encouraged to send proof of the priority courier dispatch information (with tracking data if available) along with scanned electronic copies of their application package to the Prize Award functional mailbox.

Applications submitted after the specified deadline date and/or sent in a different way than described above shall not be considered.

Paper submission of proposals is the **mandatory requirement** for participation in the Prize Award Contest. Applicants who send only electronic applications will not meet the admissibility criteria as defined in section 6, and therefore their applications shall not be considered.

The application process and submission of proposals is divided in two sections:

- **Section 1:** Administrative information
- **Section 2:** Proposal

The content of each section is described in the tables 1 and 2 below.

Section 1 - Administrative Information		
Document	Content	Reference
1. Pre-registration form (EU Survey)	Interested applicants shall pre-register for participation in the Prize Award Contest by fulfilling the EU survey form. Frontex shall use the contact details provided to eventually contact the applicants about the contest. Frontex is not responsible for inaccuracies in the details which have been submitted by the applicants.	SECTION 7.3
2. Proposal Package Checklist	The purpose of the checklist is to facilitate the preparation and submission of proposals by applicants. An overview of the required documents, for different modalities of participation, is provided (single application or joint application). All participants are required to print a copy of this annex, check the boxes where applicable and provide a signed copy in their proposal package to state the correct delivery of all documents.	Template: ANNEX 1
3. Application Submission Form	Identification of the applicant(s) and details of contact person that will act as the main representative for communications which may take place between Frontex and the participant(s).	Template: ANNEX 2
4. Declaration of Honour and Acceptance of Exclusion Criteria	Checklist and declaration to be fulfilled and signed by applicant(s).	Template: ANNEX 3
5. Privacy Note	Declaration to be fulfilled and signed by applicant(s) on consent of processing of personal data.	Template: ANNEX 4
6. Legal Entity Form	Form to be fulfilled and signed by applicant(s), in accordance with the different modalities of participation and legal entity type (single application or all applicants of a joint application).	Template: ANNEX 5
7. Financial Identification Form	Form to be fulfilled and signed by applicant(s), in accordance with the different modalities of participation and legal entity type (single application or all applicants of a joint application).	Template: ANNEX 6

Table 1 - Documents and content of proposals (Section 1 - Administrative Information).

Section 2 - Proposal		
Document	Content	Reference
8. Executive Summary	A one-page document describing background about the Applicant(s), experience and main ideas, concept and proposed technological solution to participate in the Prize Award Contest. This summary is not for evaluation, and it may be used by Frontex in support of the promotion and dissemination of communications about the Prize Award Contest (webpage and social media). <u>This summary shall not exceed 300 words.</u>	-
9. White Paper	<p>The white paper shall provide a clear and concise overview of the proposed solution in accordance with the criteria defined in section 8.2 and following the White Paper template and guidelines (Appendix 1). Applicants shall describe their original and innovative ideas and concepts, stating main assumptions, capabilities, and limitations.</p> <p>The white paper shall describe how the proposed solution will address the technical and operational challenges of detecting Low Flying Objects at EU borders. The applicant shall mention clearly, for which use cases, the proposal meets or exceeds the EBCG needs.</p> <p>The proposal shall provide also a description of the participation plan of the applicant for the Prize Award Contest, mentioning its capacity to participate in Phase 3 - Operational Trials.</p>	Template and guidelines: Appendix 1

Table 2 - Documents and content of proposals (Section 2 - Proposal).

7.2. Confidentiality

Once an application is submitted it shall become property of Frontex, and all documents contained in it, handled confidentially.

7.3. Submission process

Applicants shall submit their submission by fulfilling the following steps before the closing date of the Call for Prizes:

STEP 1:	Pre-registration for participation in the Prize Award Contest by fulfilling the EU survey form: https://ec.europa.eu/eusurvey/runner/925efd77-54c0-ba4e-a4fd-abe20d168d29
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STEP 2:	Preparation of the Proposal Package documentation (refer to section 7.1 - Tables 1 and 2).
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STEP 3:	Submission of the Proposal Package documentation before the end of the Call for Prizes: <u>No later than Wednesday, 15th of February 2023 at 12:00:00 (CET - Warsaw Time)</u>
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Immediately after the deadline on the Call for Prizes (defined in section 5.7 - Schedule), all applications shall undergo a process of verification of their admissibility and eligibility according to the criteria described in section 6.

Frontex will communicate to all applicants the result of this admissibility and eligibility check.

Applicants with eligible applications shall be designated as “Participants” from the moment of that communication and move automatically into Phase 1 - White Paper Evaluation where their proposals will be evaluated in accordance with the award criteria of section 8.2.1.

7.4. Reimbursement of costs

Frontex shall not reimburse any costs nor expenses incurred in preparing and submitting applications / proposals in response to this Contest.

The participants of the Phase 2 shall cover all costs related with the preparation of the Technical Proposal and the Technical Capacity Presentation.

Frontex shall not reimburse any costs nor expenses incurred by the participants of the Phase 3 - Operational Trials.

8. Awarding criteria and evaluation procedures

8.1. Admissibility and eligibility check

The evaluation of submitted proposals will be done in accordance with the requirements and conditions laid out in these Rules of Contest.

Applications will be subject to an admissibility and eligibility check by Frontex prior to the evaluation as defined in sections 6 and 7. The criteria for eligibility and admissibility checks are laid down in sections 6.1. and 6.2. Exclusion criteria are detailed in section 6.9.

Failure to meet any of the criteria will result in a rejection of the Application on formal grounds.

Frontex may contact the Applicants during the admissibility and eligibility check only:

- If clarification or additional evidence in relation to the administrative information is required.
- If clarification is requested or if obvious clerical errors in the application need to be corrected, provided that the terms of the Proposal are not modified as a result.

In the cases described above, Frontex may contact the Applicant and request a response within a time-limit stipulated in its request. Failure in providing the required documents and clarification within the time limit shall result in rejection of the Application on formal grounds.

8.2. Award criteria

Eligible applications will be subject to a merit-based evaluation by Frontex. The evaluation process for each phase of the Prize Contest will be carried out as described below.

Frontex will assess the participants' adherence to the requested deliverables for each phase in accordance with the award criteria laid in chapter 8.

In each phase, the merit-based evaluation will be carried out in two stages:

- Individual evaluation - at this stage, the participants' deliverables (and their performance¹⁷) shall be assessed independently by 3 evaluators, who will carry out individual assessments.
- Consensus - at this stage, the evaluation is performed collectively by the designated evaluators and a consensus is reached on the final scoring for each participant.

For each phase, evaluators shall attribute jointly a score ranging from **0 to 100 points** in accordance with the award criteria laid out below.

The position of each participant in the Prize Award Contest scoreboards shall be then defined by its total number of earned points after each Phase. From Phase to Phase the scoreboard is updated accordingly, after each round of evaluations.

In case of an ex-aequo scoring, Frontex shall jointly decide on the order of participants in the scoreboard.

¹⁷ In both the Technical Capacity Presentation (Phase 2) and the Operational Trials (Phase 3).



The award criteria scoring shall be assessed confidentially and on a discretionary basis by Frontex.

The Prize Award Contest participants irrevocably acknowledge the fact that Frontex' deliberations are confidential and shall not be disclosed.

All participants shall be notified by Frontex on the results of each round of evaluations.

Participants that meet the award criteria laid out in section 8.3. shall be notified in accordance with the provisions of section 9.

8.2.1. Phase 1

The evaluation of Phase 1 is divided into 2 sections:

- Section 1 - Overall quality of the White Paper
- Section 2 - Overall quality of the Proposed Solution

Table 3 describes the award criteria and their relative weight in terms of scoring, table 4 describes the scale for assessment of award criteria indicators.

PHASE 1 - White Papers Evaluation			
No.	Award Criteria indicator	Maximum Scoring Points	100
1.1.	Section 1 - White Paper	20	
1.1.1	The relevance, clarity and quality of the proposal and it's methodology	5	
1.1.2	Comprehensiveness of the proposed solution	5	
1.1.3	Understanding of the objectives, the context and the work to be carried out	5	
1.1.4	Relevance for European border management	5	
1.2.	Section 2 - Proposed solution	80	
1.2.1	Adequacy of the proposed solution to meet the Challenge	20	
1.2.2	Capability for detecting different types of Low Flying Objects	15	
1.2.3	Comprehensiveness of technological solutions (number of systems, integration, etc)	15	
1.2.4	Technological maturity and readiness to deploy the proposed solution	15	
1.2.5	Innovative approach (novelty and originality)	10	
1.2.6	Capabilities in terms of deployment mobility (footprint)	5	

Table 3 - Award criteria for Phase 1 - White Papers Evaluation.

PHASE 1 - White Papers Evaluation						
No.	Scale for assessment of award criteria indicators					Maximum Scoring Points
1.1.	Section 1 - White Paper					20 points
1.1.1.	The relevance, clarity and quality of the proposal and it's methodology					5 points
	1 point	2 points	3 points	4 points	5 points	
	Submission with flawed methodology and insufficient detail on more than two mandatory elements required in the Rules of Contest. The submission lacks the required level of clarity and/or quality	Submission with partially relevant level of detail, with at least one or two major mandatory elements required in the Rules of Contest not covered satisfactorily in terms of clarity and/or quality.	Submission with satisfactory relevance and level of detail covering most major elements.	Submission with substantial relevance and level of detail covering all major elements with appropriate clarity and quality.	Submission with high relevance and level of detail covering all elements with clarity and high quality.	
1.1.2.	Comprehensiveness of the proposed solution					5 points
	1 point	2 points	3 points	4 points	5 points	
	Insufficient level of comprehensiveness, lacking critical information on more than two mandatory elements required in the Rules of Contest.	Submission that provides a partial level of comprehensiveness regarding technical and operational elements of a potential solution.	Satisfactory submission covering the main technical and operational elements of a potential solution.	Comprehensive submission covering the principal elements from a technical and operational level, while enumerating some general nuances and subtleties.	Highly comprehensive submission addressing in detail technical and/or operational aspects, providing a thorough outline of nuances, subtleties and expert-level assumptions.	
1.1.3.	Understanding of the objectives, the context, and the work to be carried out					5 points
	1 point	2 points	3 points	4 points	5 points	
	Non-compliant in virtually all aspects/virtually all risks & concerns are trivia. Lack of understanding of the objectives, context, and work to be carried out.	Non-compliant in significant requirements set out in the Rules of Contest. Submission includes many trivial risks/concerns. Partial understanding of the objectives, context, and work to be carried out.	Compliant with the requirements set out in the Rules of Contest. Satisfactory level of understanding of the objectives, context, and work to be carried out.	Compliant with the majority of requirements set out in the Rules of Contest. Relevant concerns and constraints. Sound understanding of the objectives, context, and work to be carried out.	Fully compliant, shows valid areas of concern and constraints. Submission demonstrates a full understanding of processes and method of works covering all major elements.	

1.1.4.	Relevance for European border management					5 points
	1 point	2 points	3 points	4 points	5 points	
	The proposed solution is not of interest for EBCG	The proposed solution is of low interest for EBCG	The proposed solution is adequate for EBCG	The proposed solution is highly adequate for EBCG	The proposed solution is specific for EBCG applications	
1.2.	Section 2 - Proposed solution					80 points
1.2.1.	Adequacy of the proposed solution to meet the Challenge					20 points
	1 point	5 points	10 points	15 points	20 points	
	The proposed solution does not have the potential to achieve the Challenge.	The proposed solution has the potential to barely achieve the Challenge.	The proposed solution has the potential to achieve the Challenge.	The proposed solution has the potential to achieve and exceed the Challenge.	The proposed solution has the potential to achieve and significantly exceed the Challenge.	
1.2.2.	Capability for detecting different types of Low Flying Objects					15 points
	1 point	5 points	10 points	15 points	20 points	
	The proposed solution provides poor information on its potential for detecting Low Flying Objects	The proposed solution has the potential to detect only commercial off the shelf drones	The proposed solution has the potential to detect the most prevalent types of Low Flying Objects described in the Rules of Contest.	The proposed solution has the potential to detect the majority types of Low Flying Objects described in the Rules of Contest	The proposed solution has the potential to detect all types of Low Flying Objects described in the Rules of Contest	
1.2.3.	Comprehensiveness of technological solutions (number of systems, integration, etc)					15 points
	1 point	5 points	10 points	12 points	15 points	
	The proposed solution provides less than 3 systems and does not use a combination of both Active and Passive detection capabilities	The proposal provides an integrated solution with less than 3 systems using a combination of both Active and Passive detection capabilities	The proposal provides an integrated solution 3 systems using a combination of both Active and Passive detection capabilities	The proposal provides 4 systems using an integrated combination of both Active and Passive detection capabilities	The proposal provides a fully integrated solution with more than 4 systems using a combination of both Active and Passive detection capabilities	

		Technological maturity and readiness to deploy the proposed solution					
		1 point	5 points	10 points	12 points	15 points	
1.2.4.	The proposed solution has a low level of technological maturity (below TRL 6).	The proposed solution has a satisfactory level of technological maturity.	The proposed solution has an adequate potential level of technological maturity, able to be developed into a future solution.	The proposed solution is a technologically mature product or service, or combination of products and services, able to be further developed or converted into a adequate solution.	The proposed solution is a fully technologically mature product or service, or combination of products and services, able to be converted into a fully-fledged solution.		15 points
		Innovative approach (novelty and originality)					
		1 point	2 points	5 points	8 points	10 points	
1.2.5.	The proposed solution has a poor level of innovation	The proposed solution has incremental or minor innovations	The proposed solution is innovative	The proposed solution is highly innovative	The proposed solution is disruptive in terms of innovation.		10 points
		Capabilities in terms of deployment mobility (footprint)					
		1 point	2 points	3 points	4 points	5 points	
1.2.6.	The proposed solution provides only data-driven software-based options.	The proposed solution provides only portable solutions	The proposed solution provides a limited number of deployment mobility options: portable and vehicular solutions	The proposed solution provides different deployment mobility options: portable, vehicular, and deployable/mobile solutions	The proposed solution provides different deployment mobility options: portable, vehicular, deployable/mobile, and fixed solutions		5 points

Table 4 - Scale for assessment of award criteria indicators for Phase 1 - White Paper Evaluation.

8.2.2. Phase 2

The evaluation of Phase 2 is divided into 2 sections:

- Section 1 - Overall quality of the Technical Proposal
- Section 2 - Overall assessment of the Technical Capacity

Table 5 describes the Award criteria and their relative weight in terms of scoring, table 6 describes the scale for assessment of award criteria indicators.

Technical Proposals shall have a **minimum threshold of 20 points**. Only the participants that will meet or exceed this minimum criterion will be requested to organize the Technical Capacity Presentation. Frontex shall request further assessment activities such as a site-visit is organized in the Participants' premises and/or virtual meeting.

PHASE 2 - Technical Capacity Evaluation			
No.	Award Criteria indicator	Maximum Scoring Points	100
2.1.	Section 1 - Technical Proposal	40	
2.1.1	The relevance, clarity and quality of the document and it's methodology	5	
2.1.2	Understanding of the technical and operational challenges of detecting LFOs at EU land borders	5	
2.1.3	Comprehensiveness of the technical and operational description	10	
2.1.4	Clarity and quality of the described work organization for Phase 3 deployment (planning, integration activities, implementation plan)	20	
2.2.	Section 2 - Technical capacity	60	
2.2.1	Composition, profile, and experience of the proposed team (key personnel roles and responsibilities)	10	
2.2.2	Capacity to scale the proposed solution into a fully-fledged product or service	10	
2.2.3	Capacity to deploy the proposed solution in Phase 3 - Operational Trials	20	
2.2.4	Comprehensiveness and quality of the participants presentation and readiness	20	

Table 4 - Award criteria for Phase 2 - Technical Capacity Evaluation.

PHASE 2 - Technical Capacity Evaluation						
No.	Scale for assessment of evaluation criteria indicators					Maximum Scoring Points
2.1.	Section 1 - Technical Proposal					20 points
2.1.1.	The relevance, clarity and quality of the document and its methodology					5 points
	1 point	2 points	3 points	4 points	5 points	
	Document with flawed methodology and insufficient detail, lacking the required level of clarity and/or quality	Document with partially relevant level of detail with less-than-optimal clarity and/or quality.	Document with satisfactory relevance and level of detail covering most major elements with clarity and quality.	Document with substantial relevance and level of detail covering all major elements with appropriate clarity and quality.	Document with high relevance and level of detail covering all elements with clarity and high quality.	
2.1.2.	Understanding of the technical and operational challenges of detecting LFOs at EU land borders					5 points
	1 point	2 points	3 points	4 points	5 points	
	Insufficient level of understanding, lacking critical information about the potential use cases or technical/operational elements.	Document provides a partial level of understanding regarding technical and operational elements of the proposed solution.	Satisfactory submission covering the main technical and operational elements of the proposed solution.	Comprehensive submission covering the principal elements from a technical and operational level, while enumerating some general nuances and subtleties of the proposed solution.	Highly comprehensive submission addressing in detail technical and/or operational aspects, providing a thorough outline of nuances, subtleties and expert-level assumptions on the proposed solutions.	
2.1.3.	Comprehensiveness of the technical and operational description					10 points
	1 point	2 points	5 points	8 points	10 points	
	Document provides a poor technical and operational description of the proposed solution, lacking critical information.	Document provides a partial overview and technical and operational descriptions of the proposed solution.	Document provides a satisfactory level of technical and operational descriptions of the proposed solution.	Document provides a detailed level of technical and operational descriptions of the proposed solution.	Document provides a fully comprehensive and detailed level of technical and operational descriptions of the proposed solution.	

2.1.4.	Clarity and quality of the described work organization for Phase 3 deployment (planning, integration activities, implementation plan)					20 points
	1 point	5 points	10 points	15 points	20 points	
	The document presenting poor work organization for deployment and participation in Phase 3 - Operational Trials.	The document lacks critical information about the work organization for deployment and participation in Phase 3 - Operational Trials.	The document is satisfactory in terms of work organization for deployment and participation in Phase 3 - Operational Trials.	The document is detailed in terms of work organization for deployment and participation in Phase 3 - Operational Trials.	The document is highly detailed and comprehensive in terms of work organization for deployment and participation in Phase 3 - Operational Trials.	
2.1.2.	Section 2 - Technical Capacity Presentation					80 points
2.2.1.	Composition, profile and experience of the proposed team (key personnel roles and responsibilities)					10 points
	1 point	2 points	5 points	8 points	10 points	
	Significant concerns over team structure. Poor or unsatisfactory qualifications and/or relevant experience. No CVs provided.	Concerns over team structure. Unsatisfactory qualifications and little relevant experience. Irrelevant CVs provided.	Suitable structured team with relevant support qualifications and experience and relevant CVs provided.	Well-structured team with satisfactory relevant support with relevant CVs provided. Demonstrating most personnel are suitably qualified and experienced for the role they will be carrying out.	Well-structured team with significant relevant support with comprehensive and relevant CVs provided. Demonstrating all personnel are suitably qualified and experienced for the role they will be carrying out.	
2.2.2.	Capacity to scale the proposed solution into a fully-fledged product or service					5 points
	1 point	2 points	3 points	4 points	5 points	
	Poor capacity to scale the proposed solution into a fully-fledged product or service.	Unsatisfactory capacity to scale the proposed solution into a fully-fledged product or service.	Satisfactory capacity to scale the proposed solution into a fully-fledged product or service.	Significant capacity to scale the proposed solution into a fully-fledged product or service.	Exceptional capacity to scale the proposed solution into a fully-fledged product or service.	

2.2.3.	Capacity to deploy the proposed solution in Phase 3 - Operational Trials					10 points
	1 point	2 points	5 points	8 points	10 points	
	Poor capacity to deploy the proposed solution for Phase 3 Operational Trials	Unsatisfactory capacity to deploy the proposed solution for Phase 3 Operational Trials	Satisfactory capacity to deploy the proposed solution for Phase 3 Operational Trials	Significant capacity to deploy the proposed solution for Phase 3 Operational Trials	Exceptional capacity to deploy the proposed solution for Phase 3 Operational Trials	
2.2.4.	Comprehensiveness and quality of the participants presentation and readiness					15 points
	1 point	5 points	10 points	12 points	15 points	
	The presentation is poorly organized. The participants capabilities and readiness to participate in Phase 3 is unclear and not presented adequately. The technological solutions are not displayed, and their presentation lacks critical information.	The presentation is satisfactorily organized. A partial overview of the participants capabilities and readiness to participate in Phase 3 is presented. A partial presentation of the technological solutions is performed.	The presentation is adequately organized providing an overview of the participants capabilities and readiness to participate in Phase 3. A general presentation of the technological solutions is performed.	The presentation is well organized providing a comprehensive overview of the participants capabilities and readiness to participate in Phase 3. The technological solutions (hardware and software) are presented.	The presentation is very well organized providing a comprehensive overview of the participants capabilities and readiness to participate in Phase 3. The participant organizes a live demonstration of capabilities presenting the technological solution.	

Table 5 - Scale for assessment of award criteria indicators for Phase 2 - Technical Capacity Evaluation.

8.2.3. Phase 3

The evaluation of Phase 3 is divided into 2 sections:

- Section 1 - Overall capabilities of the proposed solution
- Section 2 - Overall performance of the proposed solution

Table 7 describes the award criteria and their relative weight in terms of scoring, table 8 describes the scale for assessment of award criteria indicators.

PHASE 3 - Operational Trials			
No.	Award Criteria indicator	Maximum Scoring Points	100
3.1.	Section 1 - Capabilities	50	
3.1.1.	Capability to recognize type/class of Low Flying Object	10	
3.1.2.	Comprehensiveness of multi-layered architecture	10	
3.1.3.	Level of automatization, integration, and data analysis	10	
3.1.4.	Operating conditions	5	
3.1.5.	Deployment mobility	10	
3.1.6.	Additional features	5	
3.2.	Section 2 - Performance	50	
3.2.1.	Detection, Tracking and Identification capabilities	45	
a.	Total number of positive detections	15	
b.	Maximum range of combined active detection	15	
c.	Maximum range of combined passive detection	15	
3.2.2.	Human resources and logistical footprint	5	

Table 6 - Award criteria for Phase 3 - Operational Trials.

PHASE 3 - Operational Trials						
No.	Scale for assessment of evaluation criteria indicators					Maximum Scoring Points
3.1.	Section 1 - Capabilities					50 points
3.1.1.	Capability to recognize type/class of Low Flying Object					10 points
	1 point	2 points	5 points	8 points	10 points	
	The solution is able to recognize the type and class less than 25% of the types of Low Flying Objects during the operational trials.	The solution is able to recognize the type and class between 25 and 50% of the types of Low Flying Objects during the operational trials.	The solution is able to recognize the type and class between 50% and 75% of the types of Low Flying Objects during the operational trials.	The solution is able to recognize the type and class of at least 75% of the types of Low Flying Objects during the operational trials.	The solution is able to recognize the type and class of all types of Low Flying Objects during the operational trials.	
3.1.2.	Comprehensiveness of multi-layered architecture					10 points
	1 point	2 points	5 points	8 points	10 points	
	Multi-layered architecture has a poor comprehensiveness	Multi-layered architecture requires improvement in terms of comprehensiveness	Multi-layered architecture has a satisfactory comprehensiveness	Multi-layered architecture is significantly comprehensive	Multi-layered architecture is exceptionally comprehensive	
3.1.3.	Level of automatization, integration, and data analysis					10 points
	1 point	2 points	5 points	8 points	10 points	
	The solution has a poor level of automatization, integration, and data analysis	The solution requires improvement in the level of automatization, integration, and data analysis	The solution has a satisfactory level of automatization, integration, and data analysis	The solution demonstrates a significant level of automatization, integration, and data analysis	The solution has an exceptional level of automatization, integration, and data analysis	
3.1.4.	Operating conditions					5 points
	1 point	2 points	3 points	4 points	5 points	
	The solution has a poor level of adaptation to the operating conditions	The solution requires improvement on the adaptation to the operating conditions	The solution has a satisfactory level of adaptation to the operating conditions	The solution has a significant level of adaptation to the operating conditions	The solution has an exceptional level of adaptation to the operating conditions	

3.1.5.	Deployment mobility					10 points
	1 point	2 points	5 points	8 points	10 points	
	The proposed solution provides only data-driven software-based options.	The proposed solution provides only portable solutions	The proposed solution provides a limited number of deployment mobility options: portable and vehicular solutions	The proposed solution provides different deployment mobility options: portable, vehicular, and deployable/mobile solutions	The proposed solution provides different deployment mobility options: portable, vehicular, deployable/mobile, and fixed solutions	
3.1.6.	Additional features					5 points
	up to 5 points					
	Additional features that may enrich the performance during the operational trials. This may include sensor fusion capabilities and technological automatization of data management functionalities, or mitigation countermeasures (if use is allowed).					
3.2.	Section 2 - Performance					50 points
3.2.1.	Detection, Tracking and Identification capabilities					45 points
	As defined by the combined sum of sub-criteria's a., b., and c.					
a.	Total number of positive detections (False positive detections not considered)					15 points
	1 point	5 points	10 points	12 points	15 points	
	The total number of detections accounts for <u>less than 30%</u> of the simulated events	The total number of detections accounts between <u>30% and 50%</u> of the simulated events	The total number of detections accounts between <u>50% and 60%</u> of the simulated events	The total number of detections accounts between <u>60% and 80%</u> of the simulated events	The total number of detections accounts for <u>80% or more</u> of the simulated events	
b.	Maximum range of combined active detection					15 points
		10 points	12 points	15 points		
		Third highest maximum range of combined active detection when compared to other participants	Second-highest maximum range of combined active detection when compared to other participants	Highest maximum range of combined active detection when compared to other participants		

c.	Maximum range of combined passive detection				15 points	
		10 points	12 points	15 points		
		Third highest maximum range of combined passive detection when compared to other participants	Second-highest maximum range of combined passive detection when compared to other participants	Highest maximum range of combined passive detection when compared to other participants		
3.2.2.	Human resources and logistical footprint				5 points	
	1 point	2 points	3 points	4 points		5 points
	Intensive in terms of human resources. Requires a very high logistical footprint.	Requires a significant number of human resources. Significant logistical footprint.	Balanced need of human resources. Average logistical footprint.	Reduced need of human resources and low logistical footprint.		Minimal need of human resources and very-low logistical footprint.

Table 7 - Scale for assessment of award criteria indicators for Phase 3 - Operational Trials.

8.3. Award procedure

Following the merit-based evaluation by Frontex, the award criteria for prizes is defined as follows:

Phase 1:

- All received White Papers will be evaluated and scored up to 100 points (according to the criteria defined in Section 8.2) and ranked in a scoreboard.
- The top 10 best ranking proposals will be eligible to receive a prize award of **EUR 10 000**.
- The 10 laureates will be invited to Phase 2.

Phase 2:

- All received Technical Proposals and the participants' performance during the Technical Capacity presentation will be evaluated and scored up to 100 points (according to the criteria defined in Section 8.2).
- Participants' score of Phase 2 is added to their previous score from Phase 1. All participants are ranked in the scoreboard.
- The top 5 best ranking presentations of technical capacity will be eligible to receive a prize award of **EUR 50 000**.
- The top 3 best ranked laureates will be invited to Phase 3 - Operational Trials.

Phase 3:

- After the conclusion of the operational trials the participants will be evaluated and scored up to 100 points (according to the criteria defined in Section 8.2) and ranked in a scoreboard.
- Frontex will award the following prizes to the finalists, by score ranking order of Phase 3:
 - 1st Prize: **EUR 250 000** (Prize Award Contest Winner)
 - 2nd Prize: **EUR 200 000**
 - 3rd Prize: **EUR 150 000**

The awarded participants for each phase will be publicly announced on the official Prize Award Contest website and through Frontex' social media channels.

9. Award Prizes

9.1. Award decision

Prizes shall be awarded in accordance with the principles of transparency and equal treatment.

Prizes shall promote the achievement of policy objectives of the European Union.

Based on the evaluation by the Frontex, the awarding authority will decide on:

- the award decision of the prizes.
- the invitations to the best-ranked participants to progress through Phases. All Applicants shall be informed about the evaluation result through an “**evaluation result letter**”.

Information on the awarded Participants will be published at the Prize Award Contest website.

9.2. Payment arrangements

The prize money shall be paid to the prize winners not more than 1 month after the publication of the results of each Phase of the Contest. In case of joint participation, the payment will be made to the Lead Participant.

9.3. Complains

If the Participant believes that the evaluation procedure was flawed, a complaint can be submitted in accordance with the provisions laid out in the evaluation result letter (following the deadlines and procedures).

9.4. Withdrawal of the prize – Recovery of undue amounts

The Awarding authority may withdraw the prize after its award and be eligible to recover all payments made, if it finds out that:

- false information, fraud or corruption was used to obtain to meet the criteria and/or obtain the prize
- the prize winners were not eligible or should have been excluded or
- the prize winners are in serious breach of their obligations under these Rules of Contest.

10. Other Provisions

10.1. Acceptance of the Rules of Contest

Participation in the Contest requires the acceptance of the Rules of Contest. All Applicants must comply with the Rules of Contest; in particular the attention of the applicants is brought to the obligations set forth under Section 10.3 (Communications and Dissemination), Section 10.4 (Intellectual Property) and Section 10.5 (Audits).

10.2. Contacts between applicants and Frontex

Regarding clarifications or corrections, contacts between Frontex and the applicants before the final date for submission of proposals may take place only in exceptional circumstances, and under the following conditions only:

- Frontex may, on its own initiative, inform interested parties of any error, inaccuracy, omission, or other clerical error in the text of the Prize Award Contest documents. This information will be published solely on Frontex website.
- Applicants may request clarifications regarding the Contest documents. The requests for additional information must be made in writing only through the dedicated functional mailbox (prize.award@frontex.europa.eu). Insofar as it has been requested in good time, the answers to the requests for additional information will be published solely on Frontex website as soon as possible and no later than six days after receiving the request.
- Applicants are encouraged to formulate, at least 15 business days before the deadline to submit Proposals, any remark, complaint, or objection they would have in relation to all aspects of these Contest documents in order that Frontex can evaluate the need for corrective measures and implement them before the submission of Proposals.
- Frontex is not bound to reply to requests for additional information made less than 5 business days before the deadline for submission of Proposals.
- Any other contacts are prohibited and can lead to the exclusion of the Applicant.

After the final date for submission of proposals, contacts may take place between Frontex and applicants only in exceptional circumstances, and under the following conditions only:

- If clarification or additional evidence in relation to the administrative information is required.
- If clarification is requested or if obvious clerical errors in the Proposal need to be corrected, provided that the terms of the Proposal are not modified as a result.

In the above-mentioned cases, the contracting authority may contact the applicant and request a response within a time-limit stipulated in its request.

Any other unrelated contacts are prohibited and can lead to the exclusion of the Applicant.

10.3. Communication and dissemination

Prize winners shall promote the prize and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner.

Communication activities related to the prize (including media interviews, press statements, presentations, etc., in electronic form, via traditional or social media, etc.), must acknowledge EU support and display the European flag (emblem) and funding statement (translated into local languages, where appropriate).



Funded by the
European Union

The EU emblem must remain distinct and separate and cannot be modified by adding other visual marks, brands, or text. Apart from the emblem, no other visual identity or logo may be used to highlight the EU support.

The prize award winners shall also be able to publicize the participation badge that they will receive from Frontex, that should be used in conjunction with the EU emblem in accordance with the guidelines that will be provided.

For the purposes of these obligations, the winners may use the EU emblem/ participation badge without first obtaining approval from the Awarding authority. This does not, however, give them the right to exclusive use. Moreover, they shall not appropriate the emblem or any similar trademark or logo, either by registration or by any other means.

Any communication or dissemination activity related to the prize shall use factually accurate information.

Moreover, it must indicate the following disclaimer (translated into local languages where appropriate):

“Recipient of a Frontex Prize Award, funded by the European Union. Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or Frontex nor the awarding authority can be held responsible for them.”

In terms of communication and dissemination throughout the Prize Award Contest, participants shall collaborate with Frontex’ request to provide pictures, videos and any other graphical elements to further increase visibility of the initiative through the production of promotional videos and other graphical elements.

10.4. IPR - Rights of use

The Awarding authority has the right to use non-sensitive information relating to the prize and materials and documents received from the winners (such as pictures or audio-visual material, in paper or electronic form) for information, communication, dissemination and publicity purposes.

Photos and videos taken by Frontex throughout the Prize Award Contest are the sole property of the Frontex and EU.

10.5. Checks, audits, and investigations

The Frontex, the European Commission, the European Anti-Fraud Office (OLAF), the European Public Prosecutor's Office (EPPO) and the European Court of Auditors (ECA) may carry out checks, audits and investigations in relation to the prize¹⁸.

10.6. Data protection

Any personal data related to the Prize Contest, including its execution shall be processed by Frontex, as a data controller, pursuant to Regulation (EU) 2018/1725 on the protection of natural persons regarding the processing of personal data by the Union institutions, bodies, offices, and agencies and on the free movement of such data.

Processing of the personal data is necessary for the performance of the Prize Contest and, therefore it shall be processed solely for the purposes of the performance, management and follow up of the Prize Contest by the Executive Director of Frontex without prejudice to possible transmission to internal audit services, to the European Court of Auditors, to the Financial Irregularities Panel and/or to the European Anti-Fraud Office (OLAF) for the purposes of safeguarding the financial interests of the European Union.

The personal data shall be processed for the duration of the Prize Contest and for a necessary period after the Prize Contest. The Applicant shall have the right of access to his personal data and the right to rectify any such data that is inaccurate or incomplete. Should the Applicant have any queries concerning the processing of his personal data, he shall address them to the Executive Director of Frontex. The Applicant shall have right of recourse at any time to the European Data Protection Supervisor.

The Applicant must process personal data in compliance with applicable EU Law and national law on data protection.

10.7. Applicable law

The Contest is governed by the applicable European Union law complemented, where necessary, by the law of Poland.

The General Court or, on appeal, the Court of Justice of the European Union, shall have sole jurisdiction to hear any dispute between the Union and any Participant concerning the interpretation, applications, or validity of the rules of this Contest, if such dispute cannot be settled amicably.

¹⁸ For the powers of OLAF, EPPO and ECA, see Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18/09/2013, p. 1), Council Regulation (Euratom, EC) No 2185/1996 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15/11/1996, p. 2), Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor's Office ('the EPPO') and Article 287 of the Treaty on the Functioning of the EU (TFEU) and Article 257 of EU Financial Regulation 2018/1046.

10.8. Rescheduling and cancellation of the Contest

The awarding authority may reschedule or cancel the Contest or decide not to award the prizes – without any obligation to compensate Participants on following situations:

- no significant number of eligible applications
- no significant number of quality proposals
- Frontex is unable to evaluate the criteria to determine laureates
- The laureates are found to not be eligible or must be excluded
- Changes in the geopolitical environment prevent the execution of the scheduled activities
- Changes in the epidemiological situation that may affect travel
- Other *force majeure* circumstances

In all cases, all applicants/participants shall be notified by Frontex.