

## **Non-competitive calls targeting specific beneficiaries named in the work programme for EUROMALE (Direct Award)**

EDIDP regulation provides in its article 15 (1) the possibility in certain duly justified and exceptional circumstances, that Union funding may also be granted in accordance with Article 195 of Regulation (EU, Euratom) 2018/1046.

### **Named beneficiaries will be invited to submit a proposal against the following topic**

- **EDIDP-RPAS:** Development of European MALE RPAS

## **Development of European MALE RPAS**

*EDIDP-RPAS*

### **Specific challenge**

The ‘Medium Altitude Long Endurance Remotely Piloted Aircraft System’ (MALE RPAS) is an indispensable capability to facilitate international conflict prevention and crisis management during all phases of operation – especially in the field of Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR). European Member States have already used different MALE RPAS types in Afghanistan, Iraq, Horn of Africa, Libya and Mali to provide detection, identification and communication. MALE RPAS could also contribute to EU internal security. Entities such as FRONTEX or the European Maritime Safety Agency (EMSA) have expressed their interest in using new generation RPAS for border and maritime surveillance and migration management.

Nowadays, most ISR capabilities of the European Union Member States rely on non-European Union manufacturers. Therefore, the industry in the area of the European Union has a lack of heavy unmanned airborne ISR capabilities, which is assessed as critical. The CDP underlines the permanent need for tracking of ships, aircraft and other equipment through a continuous air-space wide-area via interoperable unmanned surveillance systems able to operate in all weather conditions and all types of environment and with assured data integrity. To operate in all types of environment the RPAS has to be integrated into air-traffic-management.

As part of versatile and robust MALE and tactical RPAS, the system shall be effective in neutralizing targets which are a threat for the mission that has to be performed.

As of today, the U.S. and Israel are market leaders and produce MALE RPAS like the Reaper or Heron/Heron TP for their own needs and export purposes. With no European heavy state-of-the-art solutions at hand, Member States import these capabilities in order to be able to perform their missions. However, due to the sensitive nature of military operations and restrictions in technology transfer which hinder Member States to fully benefit from platform customization, the development of a European MALE RPAS is inevitable to ensure sovereignty in this area by covering a European Capability Development Priority in terms of Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR).

### **Scope**

Proposals shall address a development of a European MALE RPAS with an innovative Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) and armed ISTAR capability that will exceed the capabilities of comparable current systems and should exceed the capabilities of systems available at the entry into service time or, at least, match them. It is a collaborative effort with the aim to develop, produce and sustain a system that provides this critical defence capability to respond to future security challenges. It is an overarching objective to strengthen European sovereignty in this strategically relevant area. Hence, the proposal shall result in a step-changing programme in line with European defence objectives and ensuring European strategic autonomy and technological competitiveness in a broad sense.

The intention is to build a strong European Supply Chain across all levels to foster the European Defence Technological and Industrial Base (EDTIB) on a long term basis. The suppliers for critical mission or safety relevant systems are intended to be European or EU-based. In this process all competitive companies of all Member States have a chance to be part of the programme in all phases. The manufacturers will introduce a mechanism to identify and, where appropriate, qualify new suppliers ensuring the agility of the supply chain.

### **Targeted activities**

The proposal for EDIDP should cover the first phases of a development for a European MALE RPAS in particular:

- Defined work packages leading to a more detailed design of the system, including but not limited to the Preliminary Design Review (PDR).

### **Main high level requirements**

The System shall fulfil the following general requirements:

- Innovative Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) and armed ISTAR (enhanced collateral/additional damage prevention);
- European sovereignty;
- Wide array of sensors, with multi-cueing capability:
  - Electro-Optical/Infrared;
  - SAR (Synthetic Aperture Radar) with GMTI (Ground Moving Target Indicator) capability;
  - Electronic surveillance;
  - Electronic support measures;
  - Automatic Identification System (AIS);
  - Personal locator system.
- State-of-the-art means of communication:
  - Secure V/UHF;
  - Air data terminal;
  - Link 16;
  - Provision for future ATN network.
- Reliable and high-bandwidth C2/data-links:
  - Wideband beyond line of sight data link;
  - Wideband line of sight data link;
  - Narrowband beyond line of sight data link;
  - Narrowband line of sight data link.
- Armament integration;
- Automatic take-off and landing system;
- Growth potential:
  - For ATI equipment (Air Traffic Integration in non-cooperative traffic);
  - Provisions for future payloads.
- Long endurance (26 hours);

- Certified (acc. to STANAG 4671 Ed. 3, Draft Sept 2014);
- Ground control station taking latest HMI-related scientific expertise into account;
- Deployable via air/land/sea-based transport or ferry flight;
- Resilient to cyber, navigation and electronic warfare.

**Expected Impact**

- Support to European sovereignty for airborne ISR platforms;
- Design of a certified and air traffic integrated MALE RPAS;
- Improvement of EU Member States armed forces interoperability based on common elements.