

European Commission Announces EW-Related Capability Projects

The European Commission (EC) has awarded contracts for several electronic warfare (EW)-related development projects under its European Defense and Industrial Development Programme (EDIDP).

Within the scope of the EC's defense technology strategy, studies and research are conducted under the Preparatory Action on Defence Research (PADR) program. This work is continued into the "capabilities" phase under the EDIDP. In late June, the EC awarded €158.3 million for 26 EDIDP projects that were identified in response to research calls issued in 2020. Several of these will be conducted under the Permanent Structured Cooperation (PESCO) framework, which enables EU member states to plan, develop and invest in shared capability projects.

Among the recently announced EDIDP projects are:

CARMENTA: The €8.1 million, 30-month CARMENTA project aims to design a future airborne self-protection system capable of countering a wide range of current and evolving threats. "It will use artificial intelligence and cognitive behavior to support the operation of the system in a complex environment [and] will be based on open architecture and international standards to allow easy integration into existing and future platforms and for the implementation of new technologies," said the EC. Italy's Elettronica is coordinating an eight-nation consortium comprised of Leonardo (Italy); Thales DMS, MBDA and Safran Electronics and Defense (France); Indra and Airbus Helicopters Espana (Spain); Airbus Defence and Space, Airbus DE, Hensoldt Sensors and Saab DE (Germany), Terma (Denmark), DA Group (Finland), and BPTI (Lithuania)

JEY-CUAS: The Joint European sYstem for Countering Unmanned Aerial Systems (JEY-CUAS) is among the largest of the 2020 PADR projects with the EU contributing €13.5 million of the €15 million program cost. JEY-CUAS seeks to “advance technologies at system and sub-system level to develop a new generation C-UAS system based on a modular and flexible plug’n’play architecture to address the emerging challenge of micro and mini drones increasingly used for defence purposes.” This effort draws on expertise from 38 organizations working across radar, EO/IR sensors and EW. Leonardo (Italy) is serving as coordinator. EW companies, such as CERBAIR (France), Elettronica (Italy), Hensoldt, (Germany), Indra (Spain), Rheinmetall Electronics (Germany) and Saab (Sweden), are supporting the JEY-CUAS project.

SIGNAL: The Photonics-bAsed SIGINT payload f0r Class II RPAS (SIGNAL) project will develop a photonics-based ESM and ELINT system for Class II unmanned aerial systems. According to the project description, “A major advantage of the solutions is that it can be installed on small flexible platforms that can be updated and deployed according to the threats and battlefield scenario evolution in order to ensure Information Superiority in complex and/or saturated electromagnetic environments.” The EU is providing €2.5 million toward this €3.1 million program. DAS Photonics (Spain) is the project coordinator, with support from DA Group (Finland) and Tekever UAS (Portugal).

PADIC: The Passive Acquisition by Digital Convergence (PADIC) effort is focused on developing a network of passive radars for coastal and harbor defense applications. According to the program description, “The project will make use of low-cost and commercially available passive radars across Europe that are spectrally non-congesting during peacetime, while sustainable and immune against stealth attempts during conflicts. It will also maximise the performance through digitalization towards function-transparent, software-defined

sensor hardware platforms.” Saab (Sweden) is leading a group that includes Finland’s Patria and Estonian firms Rantelon and CAFA Tech in this €5.9 million (€4.8 million EU contribution) effort.

Most of the EDIDP projects will run for 2-3 years and will culminate with technology demonstrations. – *R. Scott and J. Knowles*