EDA - INDUSTRY EXCHANGE PLATFORM ON RPAS AIR TRAFFIC INSERTION (ATI)

2nd CALL FOR PAPERS - 19 JULY 2018

The integration of military RPAS in European airspace is one of the priorities for EDA and its participating Member States. The Agency has several ongoing activities in this domain, namely R&D activities and studies, involving several expert committees and working groups. Besides, and in line with the specific guidance on industry engagement from the EDA Steering Board[1], EDA set up an RPAS ATI Industry Exchange Platform which held its first formal meeting on 27 November 2017.

During this meeting several technical barriers and enablers with respect to air traffic insertion of Large/Certified RPAS were identified, in dialogue with representatives from pMS, European industry and other key stakeholders. Several industry representatives also highlighted their concern about the lack of R&D and validation projects on RPAS integration into Air Traffic Management, while U-Space and Drone Traffic Management have become the current focus of work and public investment in Europe.

EDA is now preparing the second formal meeting, scheduled on 26 October 2018, which will address relevant technical and financial aspects in this context, as shown in the preliminary agenda at Annex 2. Agenda item 5 "Industry Exchange Platform Ideation" will be devoted to discussing potential new R&D and validation activities needed in three priority areas previously identified during the first formal Platform meeting[2]:

- Autonomy
    - Certification of autonomous systems.
    - Autonomous flight management functions for multiple concurrent contingencies.

- Secure Command and Control datalinks
    - Cyber security and COMSEC: encryption, resilience, protection against spoofing and interference.
    - Advanced technologies for cyber-attacks autonomous detection and compensation.
    - Multiband capability for C2 datalinks in RLOS and BRLOS: SDR and advanced antennas.
    - SDR for flexible waveform configuration (civil and military)
    - Unique standard architecture for RLOS and BRLOS
    - Improvement on C2 links reliability

- Detect and Avoid
    - Situational awareness
    - Sensor suite requirements, particularly for non-cooperative traffic detection
    - SWaP reduction
    - Collision avoidance function and interoperability

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[1] EDA's revised approach towards establishing a structured dialogue and enhanced engagement with industry based on a set of priority actions was supported by the EDA Ministerial Steering Board on 18 May 2017.

[2] This prioritization is the result of an EDA internal assessment on the alignment of the outcome of the first formal Platform meeting with the 2018 EU Capability Development Priorities derived from the revision of the Capability Development Plan (CPD), the Technology Building Blocks (TBB) and the CapTechs' Strategic Research Agendas

Industry is invited to present potential project proposals in the abovementioned areas in reply to the present call for papers and in accordance with the instructions provided in this document.

Industry responses will be used to drive the Industry Exchange Platform Ideation. Contributors will be invited to present the selected papers and to participate in an open discussion on the potential implementation mechanisms and the role of Industry, the EDA and its participating Member States. Contributors will be given access to the EDA network of experts, having the opportunity to form valuable partnerships to leverage on some of the EDA and wider EU R&T funding opportunities.

Due to the collaborative nature of the EDA RPAS ATI Industry Exchange Platform, the responses received will be made available to all Industry Exchange Platform members (industry contributors, EASA, SJU, EUROCONTROL, European Commission and EDA pMS).

Finally, the responses to this call for papers will be used to update the Industry Exchange Platform contributors list in view of potentially inviting additional industry participants to this initiative[3].

INSTRUCTIONS

Responses to the present call for papers should be drafted using the template provided at Annex 1 and be limited to 1.500 words all sections combined, though length will not be used as an exclusionary criterion.

Responses should not contain commercially sensitive information so that they can be made available as supporting material ahead of the 26 October 2018 EDA RPAS ATI Industry Exchange Platform meeting.

Responses should be addressed to the EDA by e-mail to cps@eda.europa.eu with a copy to Mr. Juan lgnacio DEL VALLE, CPS Project Officer Air Programmes (juanignacio.delvalle@eda.eurora.eu) by **21st September 2018 CoB**.

Please clearly indicate a point of contact inside your company to coordinate participation in the 26 October 2018 EDA RPAS ATI Industry Exchange Platform meeting.

Any questions should be addressed to Mr. Juan lgnacio DEL VALLE by e-mail.

The EDA will assess the papers according to the criteria below while also striving to select a wide spectrum of industry representatives in view of ensuring a fair, objective and balanced discussion. Responses from commercial actors, as well as research institutes are also welcome.

ELIGIBILITY CRITERIA

European- Submitters must represent European defence industry or European defence industrial interests (in the case of research institutes) and be active in the area of RPAS.

Experience - Lack of defence expertise will not be a criterion for exclusion but interested commercial actors must have a demonstrated track record of output and an effective market presence of RPAS in the civil domain.

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[3] Invitation to the Industry Exchange Platform meetings is restricted to industry having contributed to at least one Call for Papers published under this initiative.

Versatility – Submitters should be well versed in RPAS technology however participation is not limited to RPAS manufacturers and system integrators; submissions from SME's are encouraged.

EVALUATION CRITERIA

Relevance – The focus shall be on (one of) the three technical areas identified in this Call for Papers (Automation, Secure C2 Links and DAA) in relation to the integration of RPAS in the European Air Traffic Management System (Accommodation and/or full Integration phases). Concepts from U-space are out of scope and should only be addressed when impacting operations within the ATM system (e.g ATM/DTM interface).

Credibility and ambition – The responses to this Call for Papers shall describe credible proposals in terms of objectives, required effort, project duration and technology readiness in the 2025-2030 timeframe. They shall describe their added value to the RPAS ATI domain in Europe and their approach to bridge from R&D to final solutions (industrialisation).

Clarity – The responses to this Call for Papers shall use the template provided in Annex 1 and clearly address all sections or provide a clear rationale when a specific section is considered 'Not Applicable'.

INDUSTRY EXCHANGE PLATFORM RPAS ATI
EDA PRELIMINARY OUTLINE DESCRIPTION

[FULL NAME OF PROPOSED PROJECT/PROGRAMME]

[ACRONYM]

1. ## DURATION OF PROJECT/PROGRAMME

    [Set out length]

2. ## LINKED TO OTHER EDA PROJECTS/PROGRAMMES

    [Set out any Projects/Programmes or N/A]

3. ## ESTIMATED VALUE IN EURO (INCLUDING INDUSTRY CONTRIBUTION)

    [Set out amount]

4. ## OBJECTIVE

    [Set out objective of Project/Programme having regard to the EDA's mission, functions and tasks as set forth in Arts. 2 and 5 of Council decision 2015/1835]

5. ## CLASSIFICATION

    EU Unclassified/EU Classified

6. ## PARTICIPATION OF EUROPEAN COMMISSION, THIRD STATES OR OTHER THIRD ORGANISATION OR ENTITY

    [Set out any participation by non-MS or N/A]

7. ## PARTICIPATING INDUSTRIES

    [Set out any industries or N/A]

8. ## LINKAGES TO EXTERNAL ACTIVITIES

    [Set out activities, including but not limited to SESAR 2020, H2020 and national projects and initiatives]

EDA - INDUSTRY EXCHANGE PLATFORM ON RPAS ATI

2nd Formal Meeting

EDA (Brussels) - 26th October 2018 – 10:00 to 16:00

Preliminary Agenda

1. Welcome and introduction

2. The European Funding Gateway

3. EDA Processes: Ad Hoc and Operational Budget Projects

4. Aerial Systems CapTech Presentation

5. Industry Exchange Platform Ideation

    a. Autonomy

    b. Secure Command and Control Links

    c. Detect and Avoid

6. A.O.B