RPAS ARE AIRCRAFT
**MAIN OBJECTIVE**

Safe integration of initial RPAS operations into the Spanish aviation and ATM system

- Non-segregated ATM environments
- Civil and Mil
- Create Spanish RPAS community
- Cater for large and small industry
- Develop safety culture
- Ensure liability and privacy are considered
RPAS Integration in ATM

- RPAS is not the future – it is here – activities are on-going
- RPAS to adapt to ATM – not the other way around – just another airspace user
- The objective is to integrate initial RPAS operations into Spanish Airspace and ATM environments
- Issues and opportunities to be worked on;
  - Terminology
  - Detect and Avoid systems – sense vs. see-and-avoid
  - Data communications – aircraft control and command – ATC communications
  - Automation and Human-in-the-loop
  - Certification – airworthiness – model/toys vs. RPAS
  - Awareness and acceptance
  - Training
  - Security
INTEGRATION CHALLENGES (1)
INTEGRATION CHALLENGES (2)

- DATA LINK requirements
- SPECTRUM
INTEGRATION CHALLENGES (3)

DETECT & AVOID
Rules of the AIR
(E)VLOS
Very Low Level operations (<500 ft AGL)

500ft

VLOS

500 meters

E-VLOS

restrictions

observer

pilot
B-VLOS
Very Low Level operations (500 ft AGL)

restrictions
Current Progress
Outcome UAS Regulatory Gap Analysis Questionnaire

- **Objective:**
  - To ensure to get the full picture
  - New and/or updated information from Stakeholders
  - Current status of UAS ATM Integration in National Framework
- **Questionnaire sent to** UAS Coordination Group – 46 Stakeholders
- **Total Responses received** - 29

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Experience in developing UAS Regulations</th>
<th>Already put in place UAS rules and regulations</th>
<th>UAS procedures/instructions established</th>
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**Experience in developing UAS Regulations**
- 41% Yes
- 52% No
- 7% N/A

**Already put in place UAS rules and regulations**
- 38% Yes
- 41% No
- 7% N/A
- 14% In progress

**UAS procedures/instructions established**
- 72% Yes
- 21% No
- 7% N/A
- 0% In progress
Reason for later start of VFR operations than IFR is due to the integration complexity and required operational experience with IFR RPAS integration in airspace classes, which is linked to the phased integration approach.
Organisation of work (civil & mil)

- Policy
  - Support to EC
- ATM
  - Guidelines, integration, training, etc
- Regulation
  - EASA
  - JARUS
  - EASA
- R&D
  - SJU, EDA, ESA etc (until SESAR 2)
- Standardisation
  - ICAO UASSG
  - EUROCAE WG 73/93
  - NATO
- Support to States
  - ATM
  - REG
  - R&D

Main Goal
Drive Harmonisation
RPAS integration will impact all actors and elements of our ATM environment. It is EUROCONTROL’s responsibility to ensure that we develop the best integration solutions for our stakeholders whilst enabling this new industry to reach its maximum potential for Europe.
Thanks to the work performed in Madrid 2013, through the RPAS roadmaps and ECTL work programme:

- We know what needs to be done
- We know how to do it
- We are underway
- Now we organise and move forward