

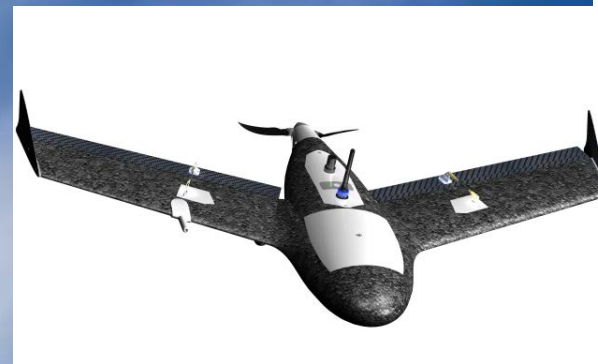


RPAS ACTIVITIES IN SPAIN

Madrid

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28/01/2014

RPAS ARE AIRCRAFT



MAIN OBJECTIVE

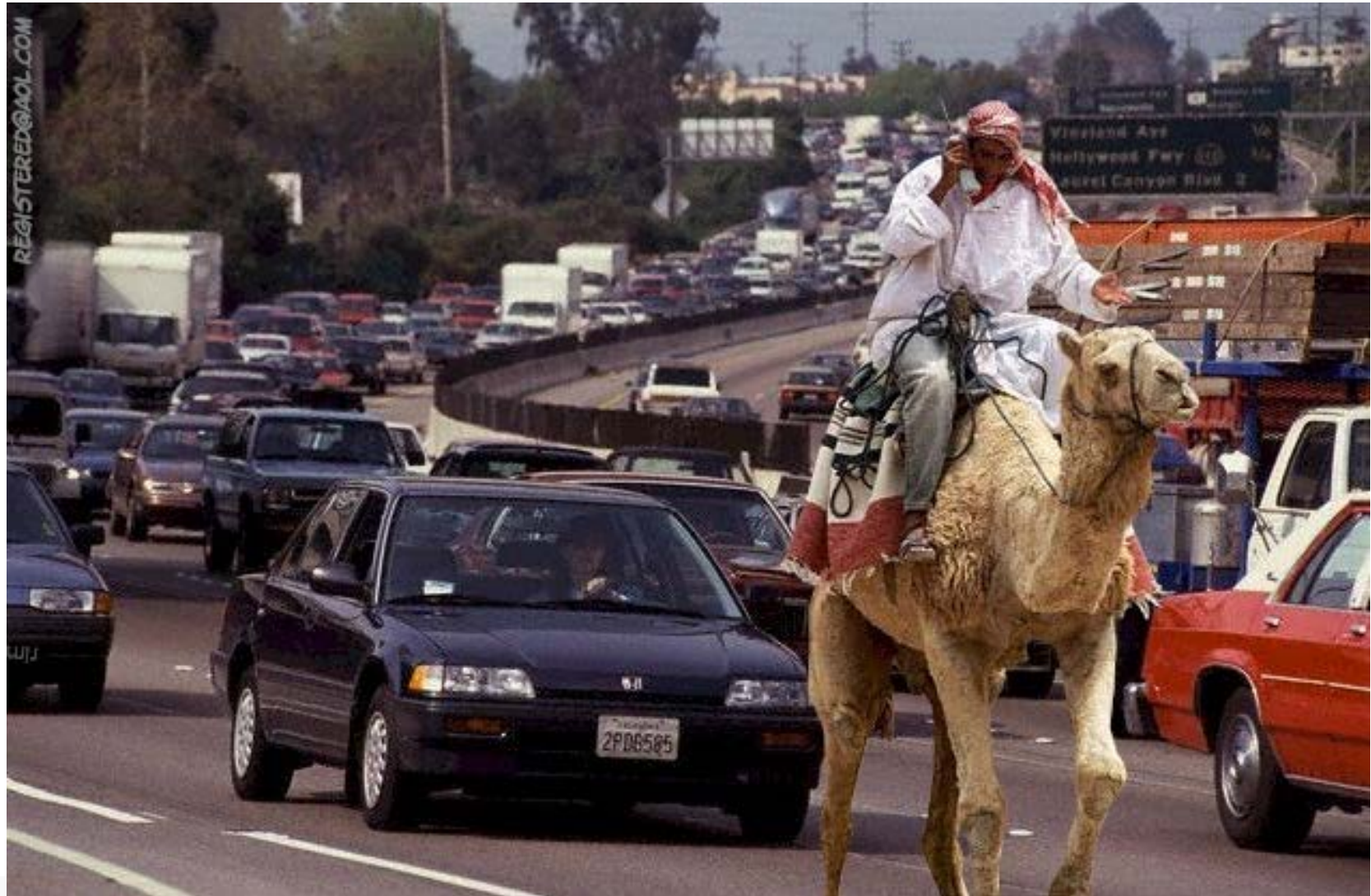
Safe integration of initial RPAS operations into the Spanish aviation and ATM system

- 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)



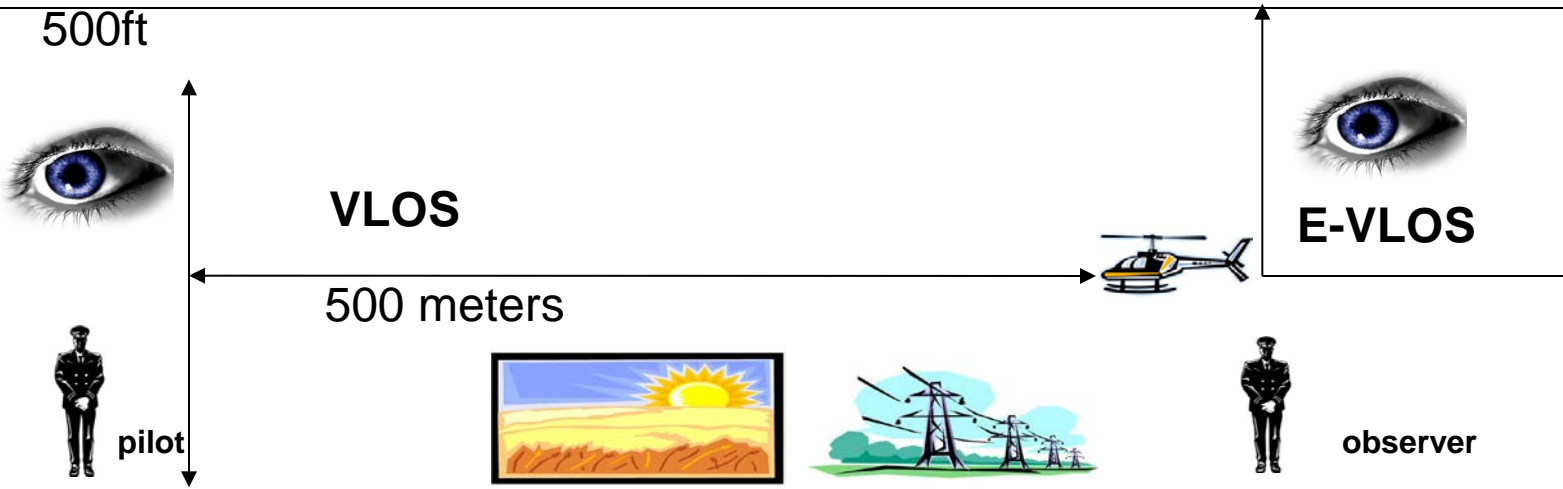
- DATA LINK requirements
- SPECTRUM

INTEGRATION CHALLENGES (3)



(E)VLOS

Very Low Level operations (<500 ft AGL)

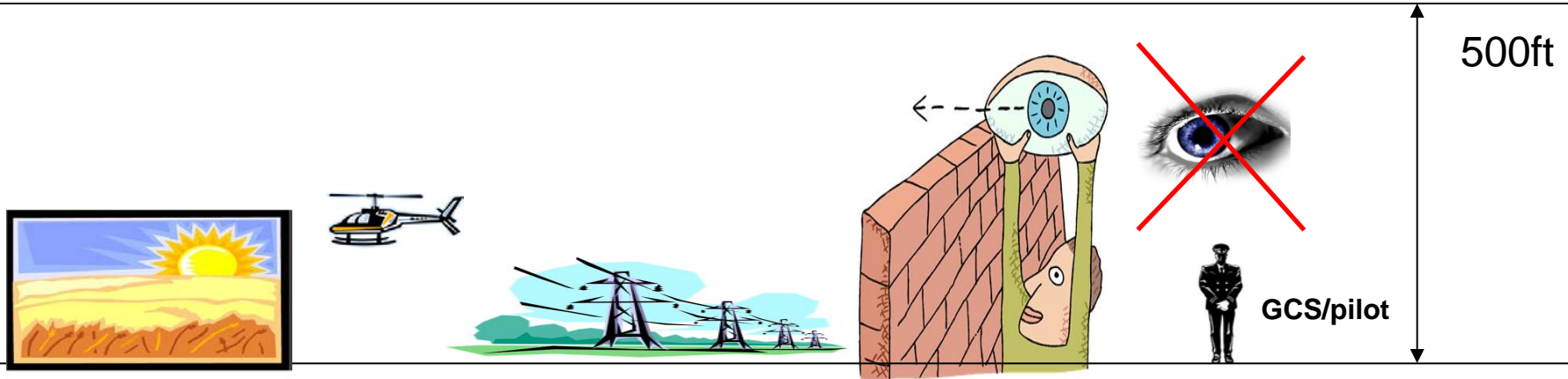


restrictions



B-VLOS

Very Low Level operations (500 ft AGL)



restrictions

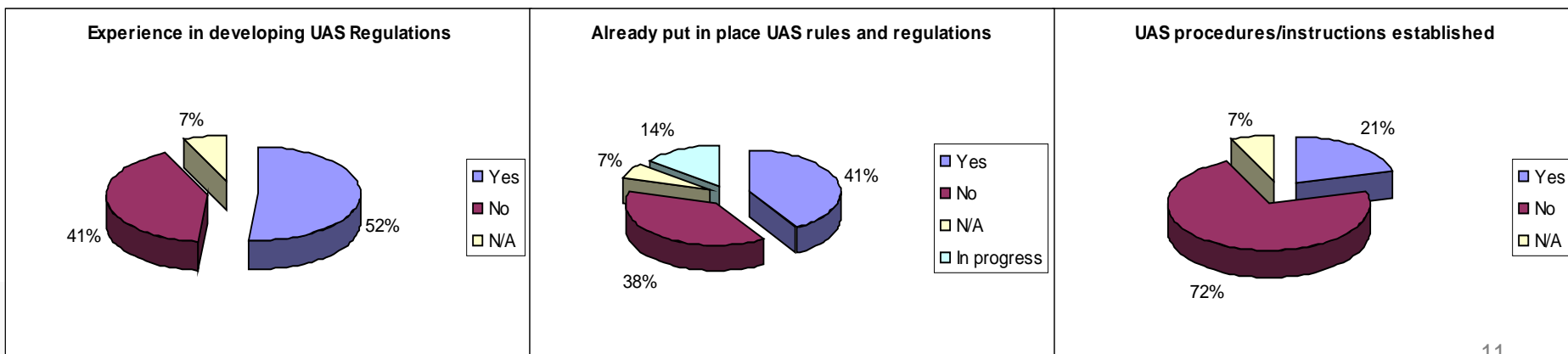


Current Progress

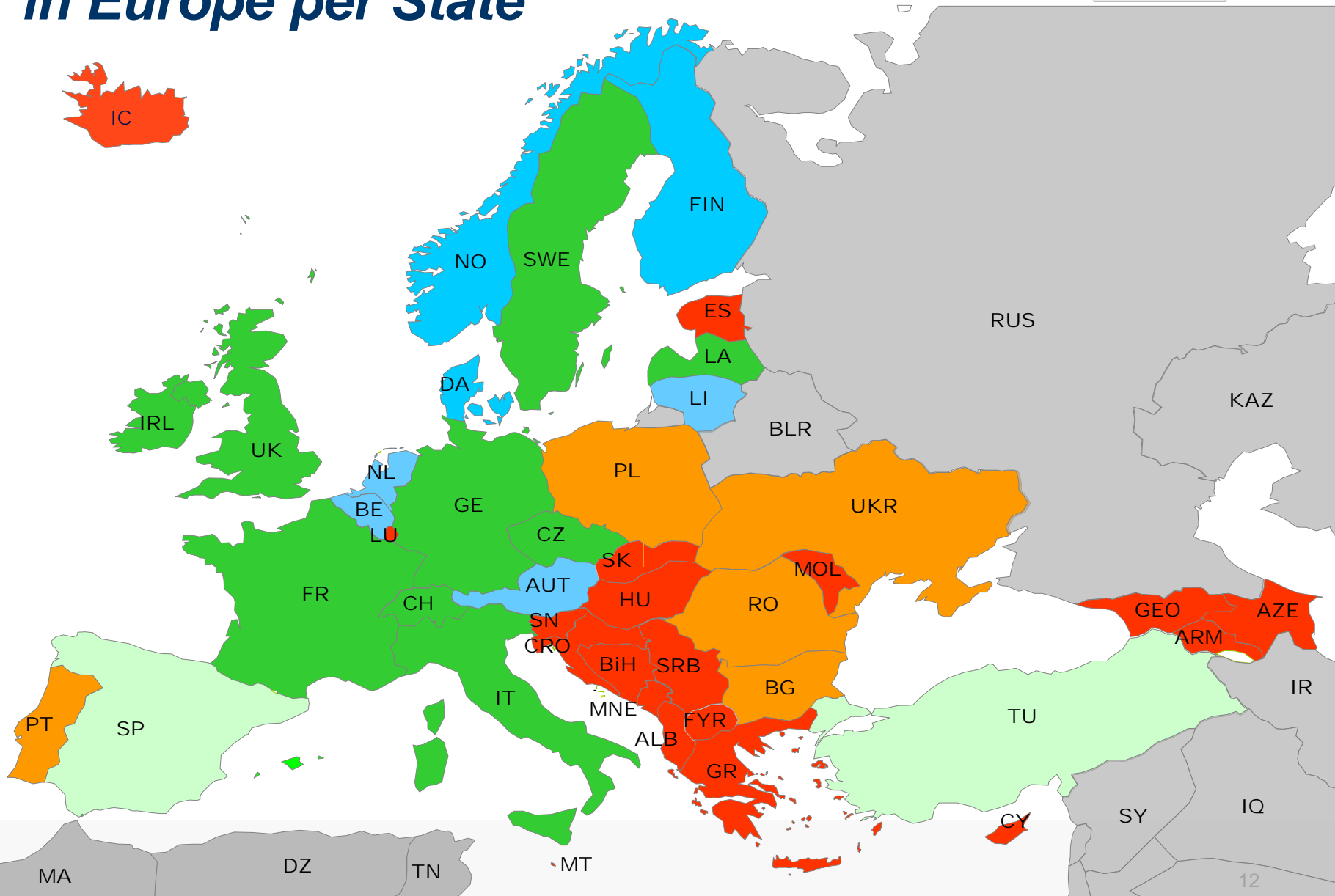
Outcome UAS Regulatory Gap Analysis Questionnaire

- **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

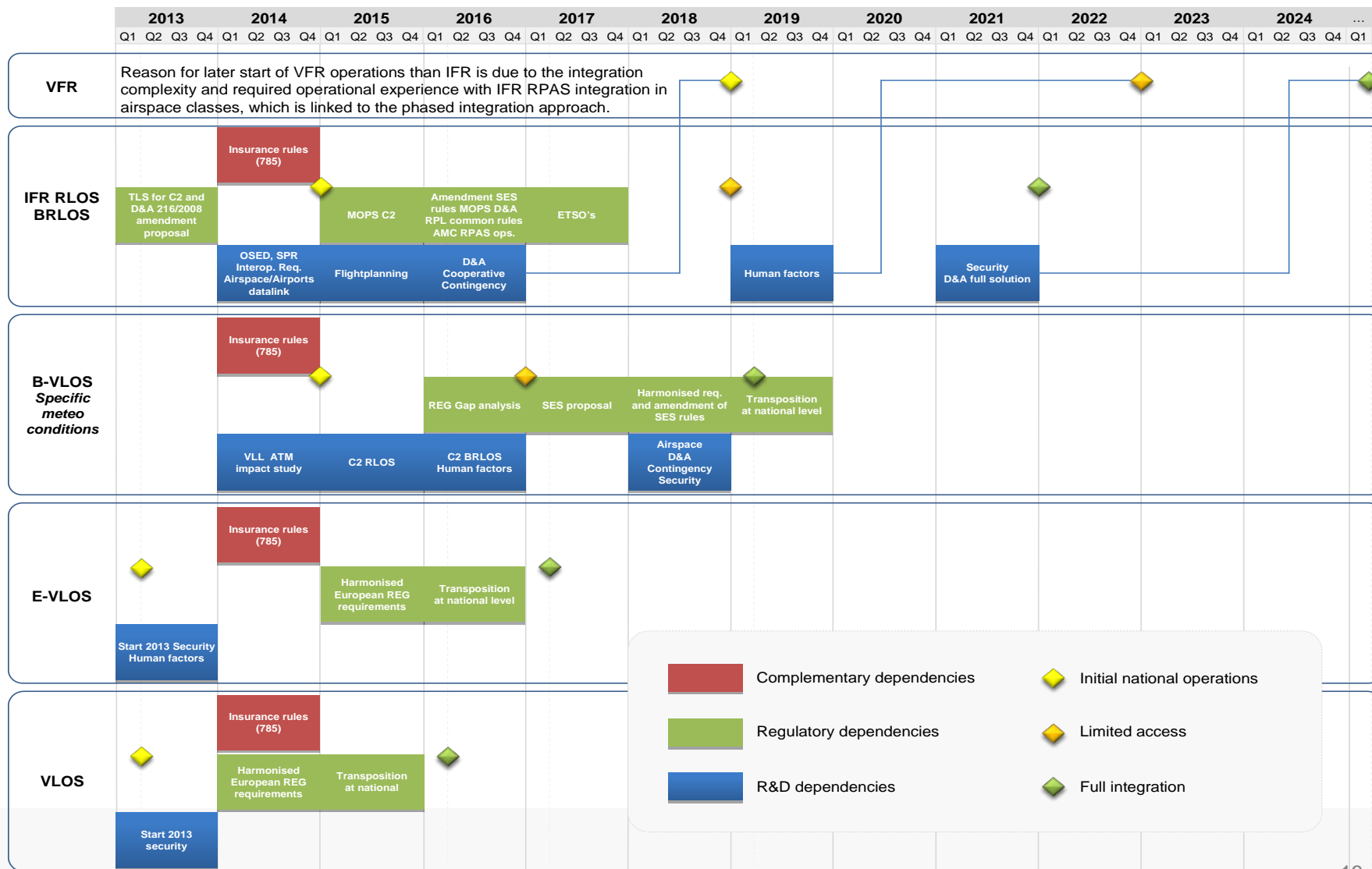
Stakeholders		Experience in developing UAS Regulations			Already put in place UAS rules and regulations				UAS procedures/instructions established		
		Yes	No	N/A	Yes	No	N/A	In progress	Yes	No	N/A
Authority (Civil)	14	8	6	0	5	5	0	4	4	10	0
Authority (Military)	7	5	2	0	5	2	0	0	2	5	0
Service Provider (ANSP)	6	2	4	0	2	4	0	0	0	6	0
Other	2	0	0	2	0	0	2	0	0	0	2
Total	29	15	12	2	12	11	2	4	6	21	2



Current Status Civ UAS Regulation in Europe per State



EUROPEAN RPAS INTEGRATION ROADMAP



Organisation of work (civil & mil)

- **Policy**
 - Support to EC
- **ATM**
 - Guidelines, integration, training, etc
- **Regulation**
 - EASA

MAIN GOAL
DRIVE HARMONISATION

- NATO
- **Support to States**
 - ATM
 - REG
 - R&D

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.

CONCLUSION

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

