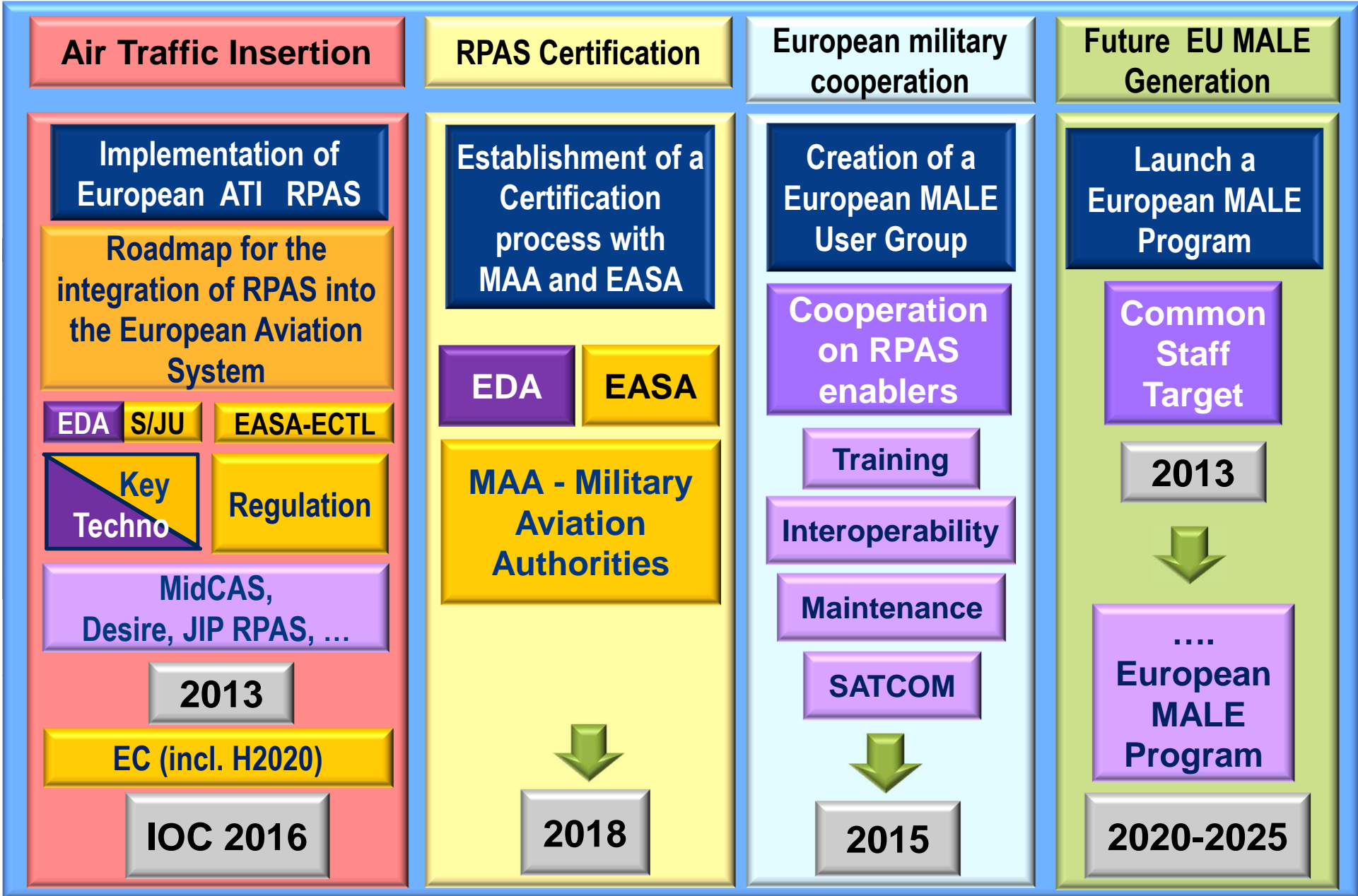




Pioneer Project on RPAS

EDA RPAS Pioneer Project



Remotely Piloted Aircraft Systems

- Preparation work coordinated with EC RPAS Roadmap
 - EC objective is the safe integration of RPAS operations into European Aviation system from 2016 in a non-segregated environment.
 - EDA contributed to the roadmaps elaboration on Regulation, Technology and Complementary Measures,
 - Roadmap now finalised (Steering Committee 23 may 2013)
 - EC preparing a Communication on RPAS by summer 2013
- JIP-UAS MC established
 - 11 nations: AT, BE, CZ, DE, ES, FR, IT, LU, PL, SE, UK
 - 2 associated members: EC, ESA
 - MC meetings: one every month
- Technical topics identified and prioritized

JIP UAS main topics lists

Topics	
T1.1	Secure Command and Control System and Links
T1.2	Air Traffic Management Interface
T1.3	Weather Detection and Protection
T1.4	Taxi, Automatic take-off and landing
T1.5	Safe Recovery Systems, decision making and autonomous behaviour
T1.6	Dependable Emergency Recovery
T1.7	Health Monitoring/ Fault Detection
T1.8	UAS Pilot /commander training
T1.9	Sense and Avoid
T3.1	Payloads / Sensors
T3.2	Information Management
T3.3	LOS/BLOS infrastructures including assessing the combination with GMES infrastructure
T4.1	Ground Station - Human Machine Interface
T4.2	Radio bandwidth allocation
T4.3	Cyber Security
T4.4	Safe Automated monitoring and decision making
T5.1	Platform and Payload
T5.2	Propulsion and Power systems
T5.3	Maintenance Free operations

Way forward on JIP RPAS

- Elaboration of concrete project proposals with the support of industry:
4 candidates to date
 - Joint ESA-EDA demo project on C2 via satellite (origin: ESA-EDA)
 - Maintenance Free Operations project proposed under T5.3 (origin: Cassidian)
 - Autarkia: series of projects focused on Autonomy (origin: Cassidian)
- Challenges
 - Evaluate financial perimeter of JIP UAS
 - Finalise the technical specifications for the selected projects
 - Sign Technical Arrangement with ESA for the joint demo: will detail rules for tendering, joint technical and administrative management
 - PA signature, planned on 18 Nov 2013 during SB MOD meeting

RPAS Certification

- Certification of civil RPAS >150Kg is a EASA responsibility.
- < 150 Kg is the responsibility of National Civil Airworthiness Authorities (may change in the future)
- Military airworthiness is the responsibility of National Military airworthiness authorities.
- There are agreed and emerging standards in a number of areas, but there is no current agreement on common standards between the civil and military communities
- National Military certification authorities apply their own regulations. Even where there are standards they are subject to national interpretation.

RPAS Certification

- In order to support the development of a healthy and diverse RPAS market , there is a strong case for:
 - Harmonising the military airworthiness requirement through the EDA MAWA process.
 - As far as possible converging the EDA MAWA requirements with EASA processes for civil RPAS certification.

Opportunities for military cooperation on RPAS

- Up to 2020, exploring military cooperation on MALE RPAS enablers
 - Training
 - Deployability
 - Maintenance
 - Satcom
- Beyond 2020 : preparing next generation of RPAS
 - Preparation of common requirements for a MALE RPAS
 - Exploring common requirements for small RPAS
- Timelines
 - 16 May: EDA Exploratory RPAS meeting
 - 10 July: next RPAS meeting based on pMS answers to questionnaire to be circulated end of June.