

# 2023 Rotorcraft and VTOL Highlights

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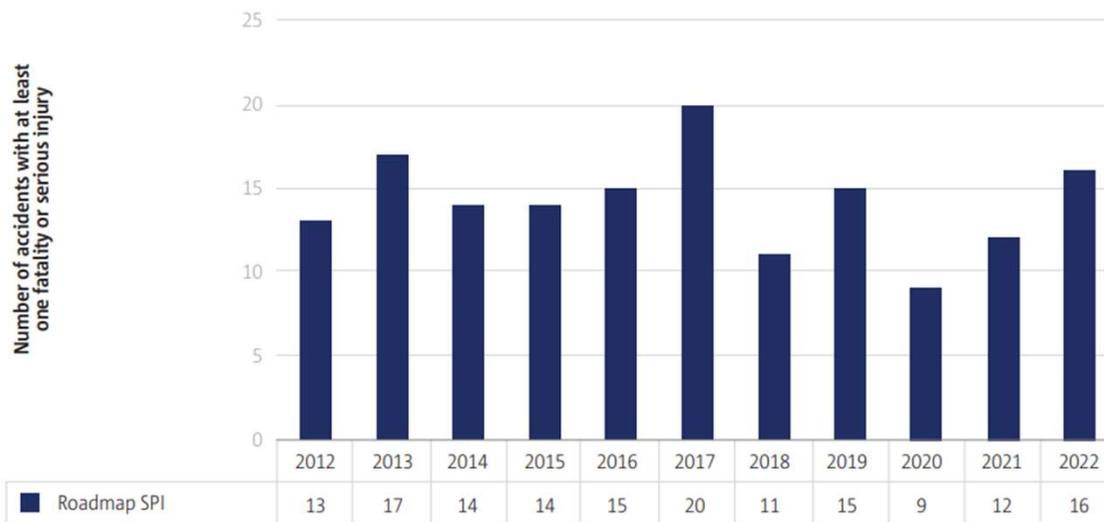


# Statistics

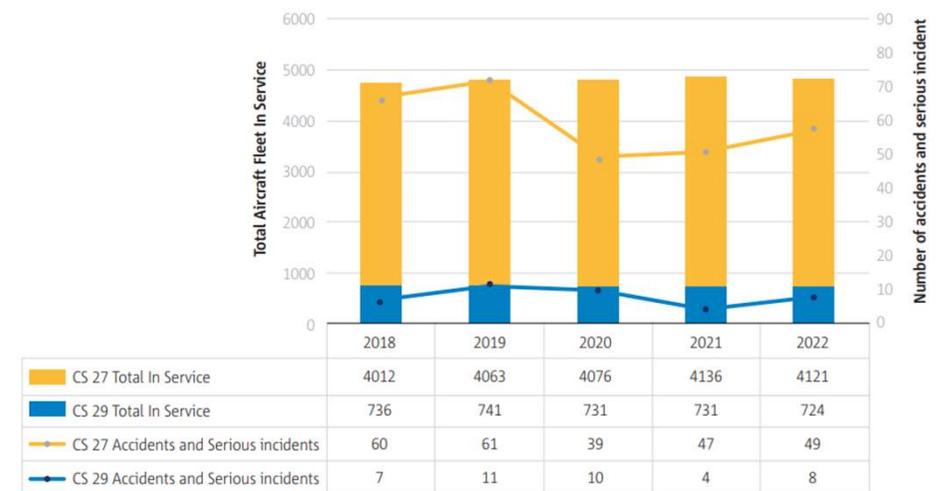
→ 2023 statistics are not encouraging for the Industry

→ Mainly driven by CAT Operations!

→ Total fleet of helicopter increased



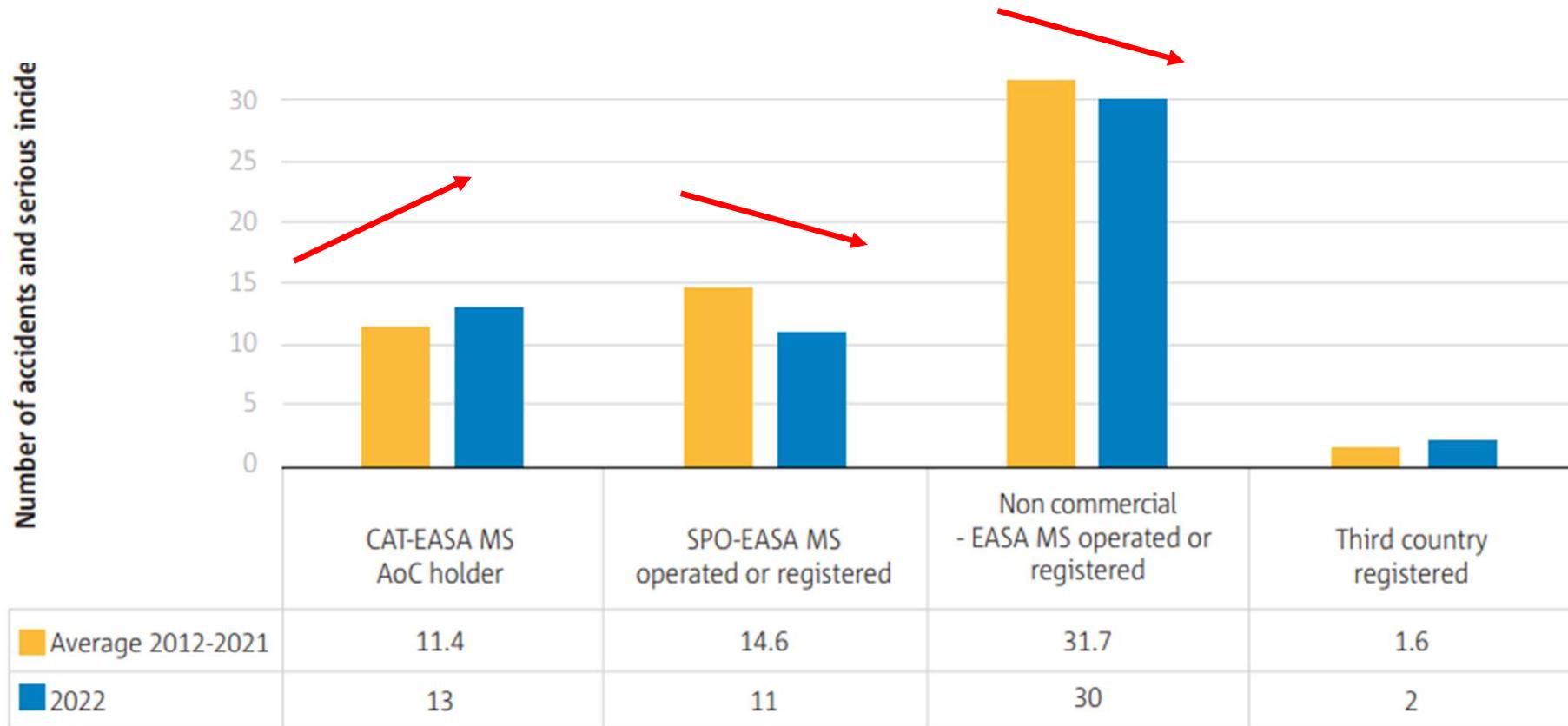
► **Figure 3.3** Number of accidents with a least one fatality or serious injury for all helicopter operations



► **Figure 3.6** Accidents and serious incidents by certification specification for all helicopter operations with the breakdown of aircraft certification type for the reported fleet



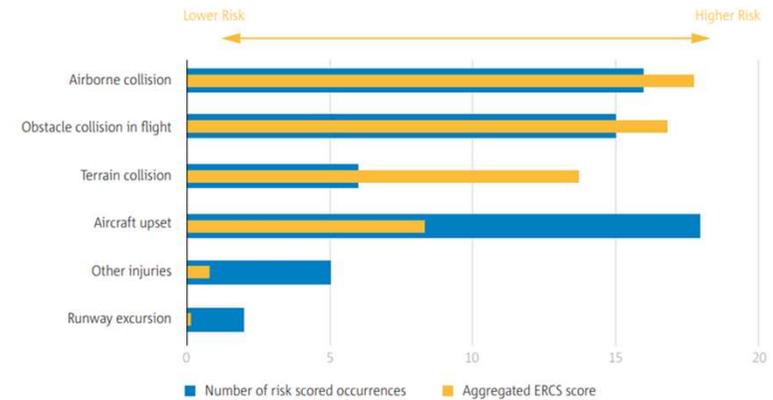
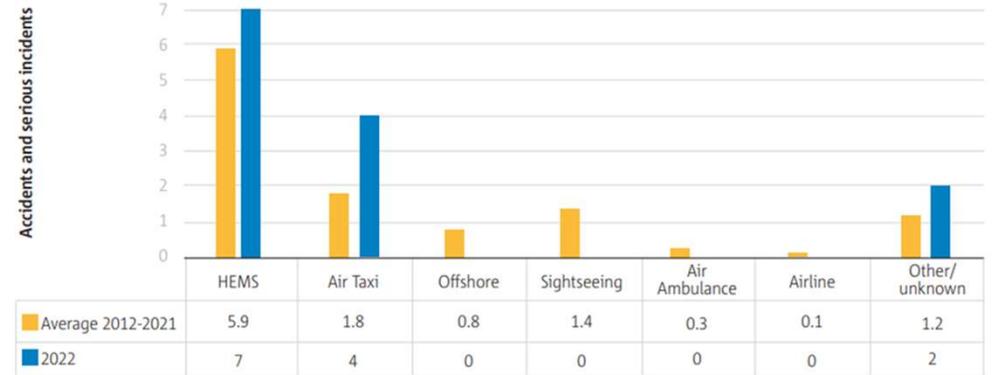
# Per Operations



# Focus on CAT Operations



► **Figure 3.10** Fatal and serious injuries per year involving CAT helicopters



► **Figure 3.16** KRAs by aggregated ERCS score and number of risk-scored occurrences, involving CAT helicopters



# SPO Operations

→ Fatal accident – Sling load and cable collision



Figure 3.17 Fatal accidents, non-fatal accidents and serious incidents

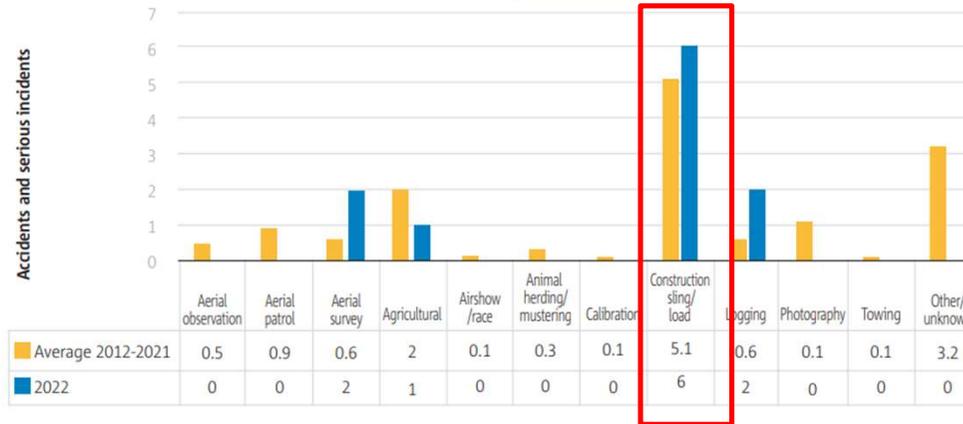
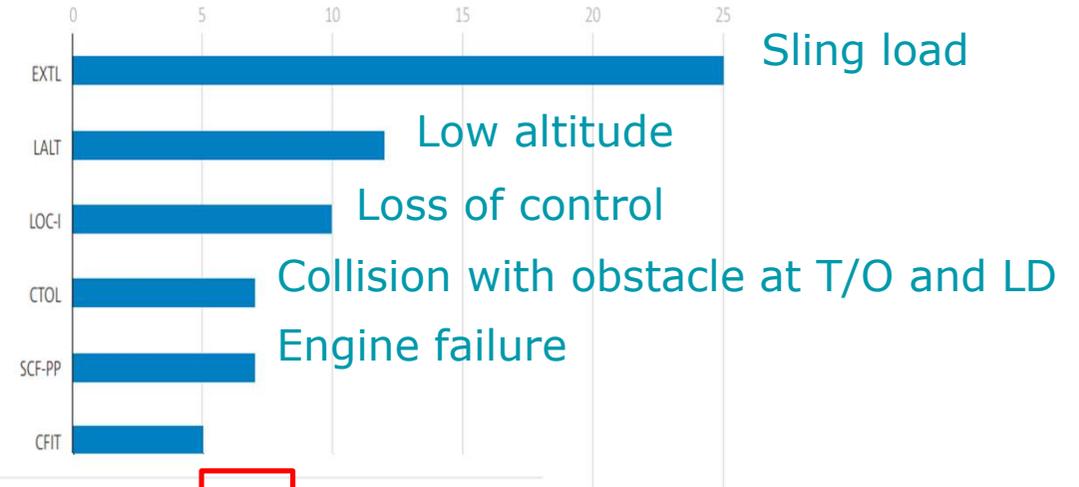


Figure 3.21 Accidents and serious incidents by operation type involving SPO helicopters



# NCC Operations



Figure 3.25 Fatal accidents, non-fatal accidents and serious incidents per year involving non-commercial operations helicopters

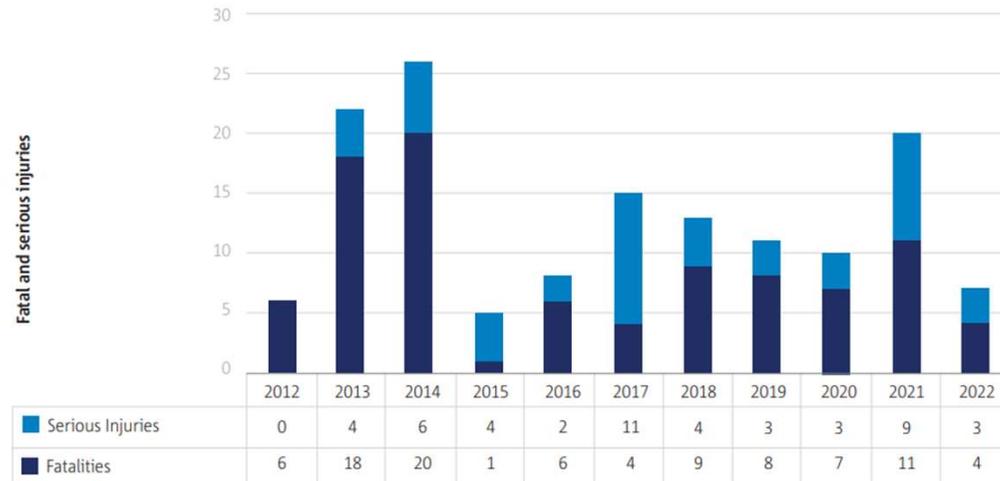
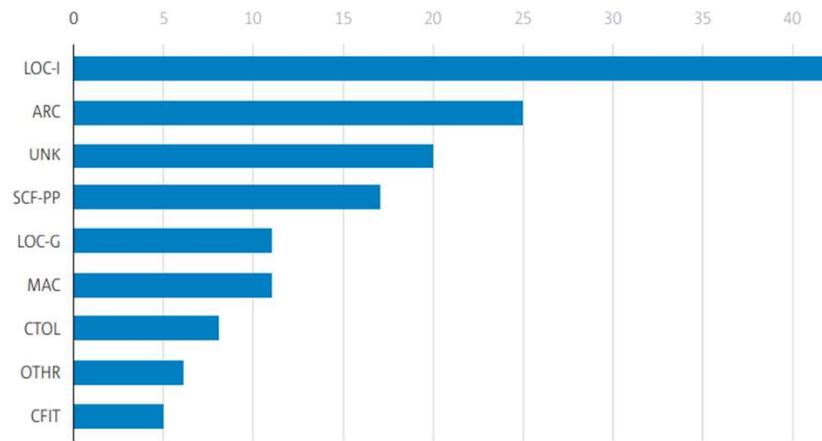


Figure 3.26 Fatal and serious injuries per year involving non-commercial operations helicopters



Figure 3.29 Accidents and serious incidents by operation type involving non-commercial operations helicopters



# Rotorcraft Safety Roadmap

## → Airworthiness

- Production cut in and retrofit of CRFS in final stage
- Stream considered completed
  - CS27/29 update will be reduced
- Focus on
  - CRI reduction
  - FAA harmonization
  - SEI reduction
- VAST – Draft Rating under evaluation
- Pre-application and IPC fully operational

## → Part/CS26

- Newly produced H/C –  
Entry into force 2 years  
after publication
- More than 6 pax – 7 years
- Less than 5 pax – 15 years
- Import of non partially  
compliant H/C not possible  
anymore at date of  
publication
- Technical criteria
  - Bladder
  - Puncture resistant



# Rotorcraft Safety Roadmap

## → More training instead of checking

- Opinion 5/2023 published in October and AMC/GM published in November
  - Promote use of training devices
  - Introduction of Safety awareness training during refresher training or prof checks (GM1 FCL.740.H)
  - Clarification of how to conduct VRS, autorotation & UAY training (AMC2 FCL.115 LAPL(H), AMC2 FCL.210 PPL(H), AMC1 ORO.FC.230, FCL appendix 9) with a link to the FI Guide
  - The possibility to revalidate (H) type rating with a training flight (with an instructor) + 6 hrs flight time (as alternative to 2hrs, incl. an check ride with an examiner) (FCL.740.H)



# Conclusions

- Industry as a whole should better embrace the challenge
- IAW changes are completed – results will be in the next 30 years...
- Changes in Flight Standards
  - Initial wave just published – Will take a couple of years to see potential benefits
  - Efforts needs to be pursue to tackle current operational challenges all together
- 5 years to go to reach the objective
- Working together is key



# VTOL

Update



# Bringing IAM into EU framework

## Innovative Aerial Services (IAS)

*The set of operations and/or services that are of benefit to citizens and to the aviation market and that are enabled by new airborne technologies*

### Aerial Operations

### Innovative Air Mobility (IAM)

*The safe, secure and sustainable air mobility of passengers and cargo enabled by new generation technologies integrated into a multimodal transportation system*

### Urban Air Mobility (UAM)

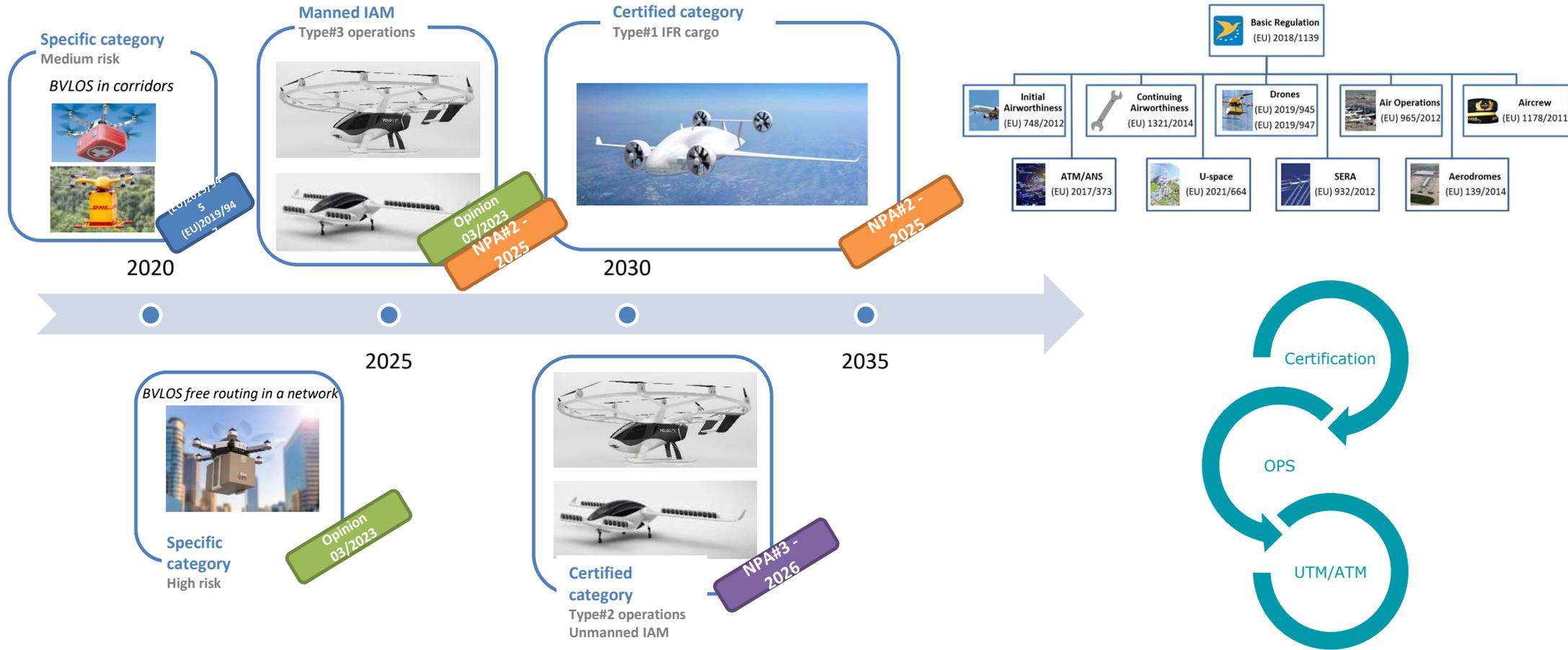
*The subset of IAM operation conducted into, within or out of urban environments*

Regional

International



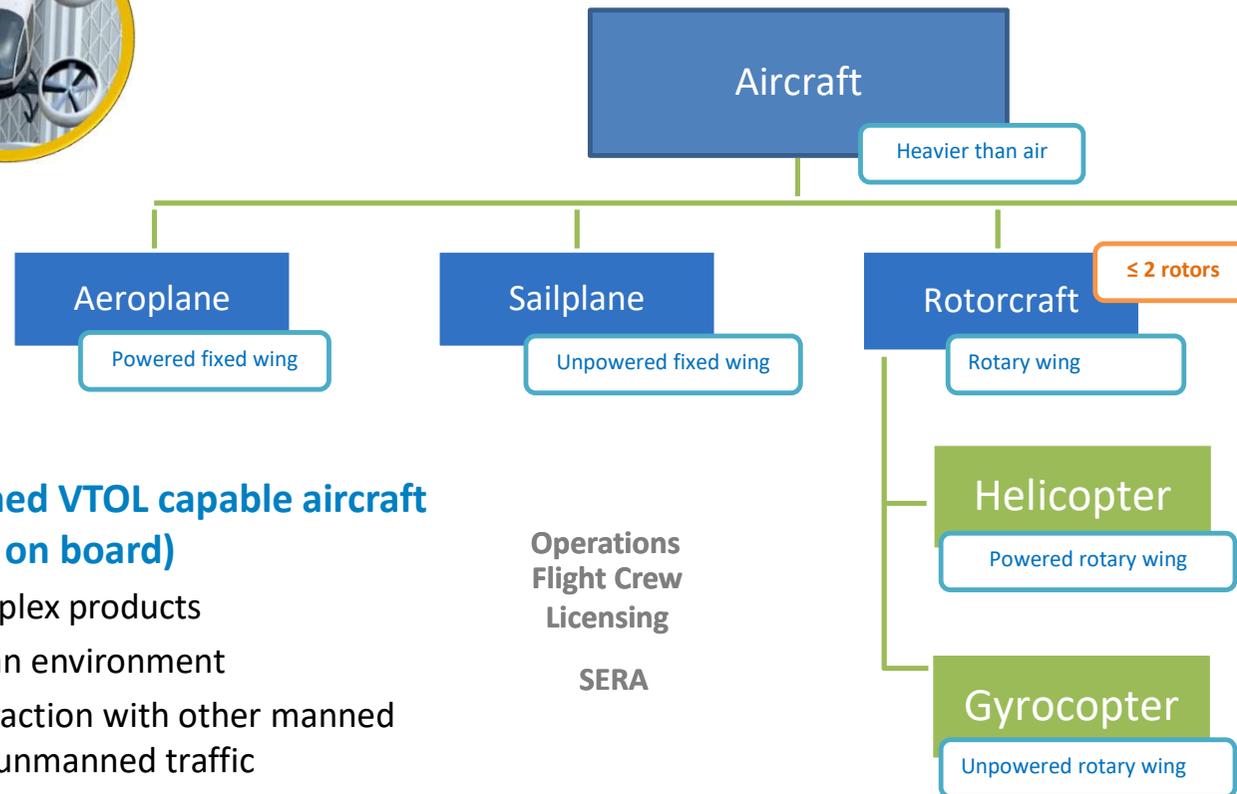
# Publication of Opinion 03/2023



# Publication of Opinion 03/2023



CLASSIFICATION BY PRINCIPLE OF GENERATION OF LIFT/THRUST



## Manned VTOL capable aircraft (pilot on board)

- Complex products
- Urban environment
- Interaction with other manned and unmanned traffic

Operations  
Flight Crew  
Licensing  
  
SERA

## VTOL-CAPABLE AIRCRAFT

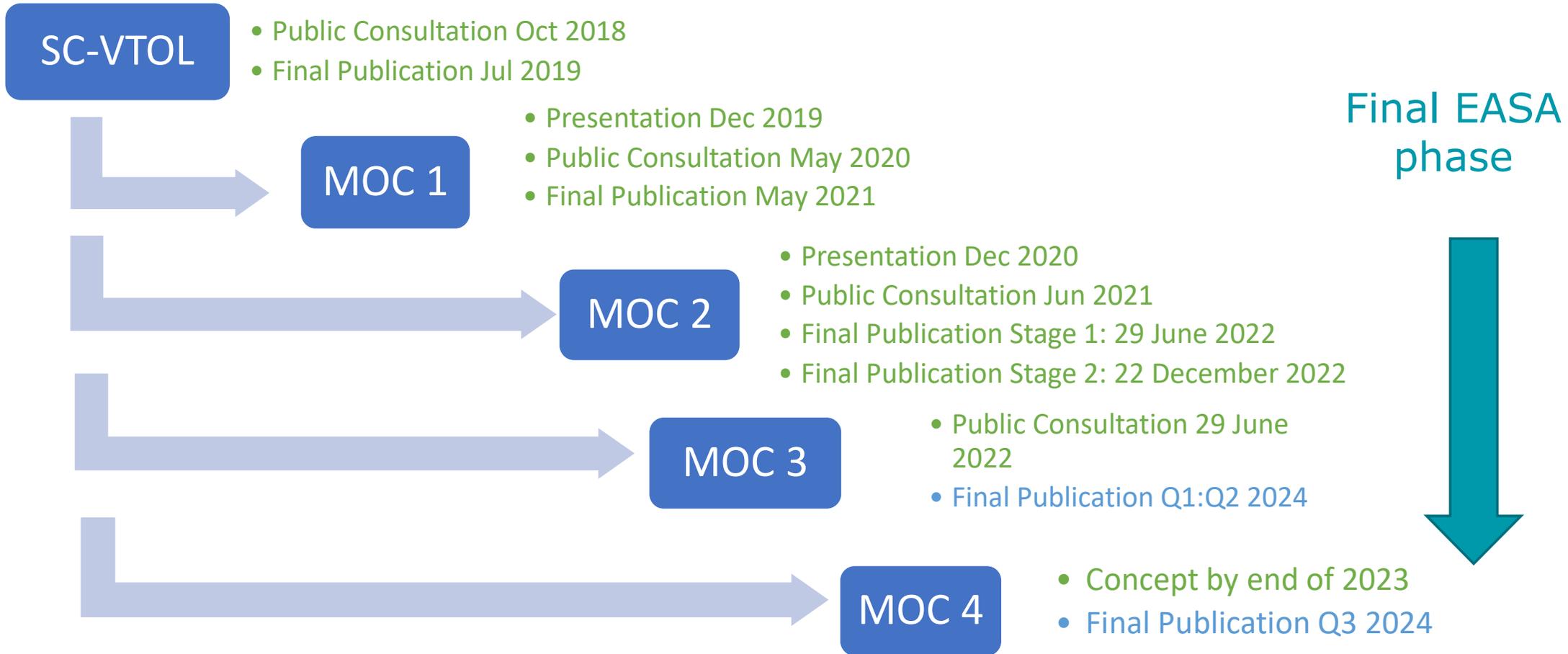
“heavier-than-air aircraft, other than aeroplane or rotorcraft, capable of performing vertical take-off and landing by means of lift and thrust units used to provide lift during the take-off and landing”



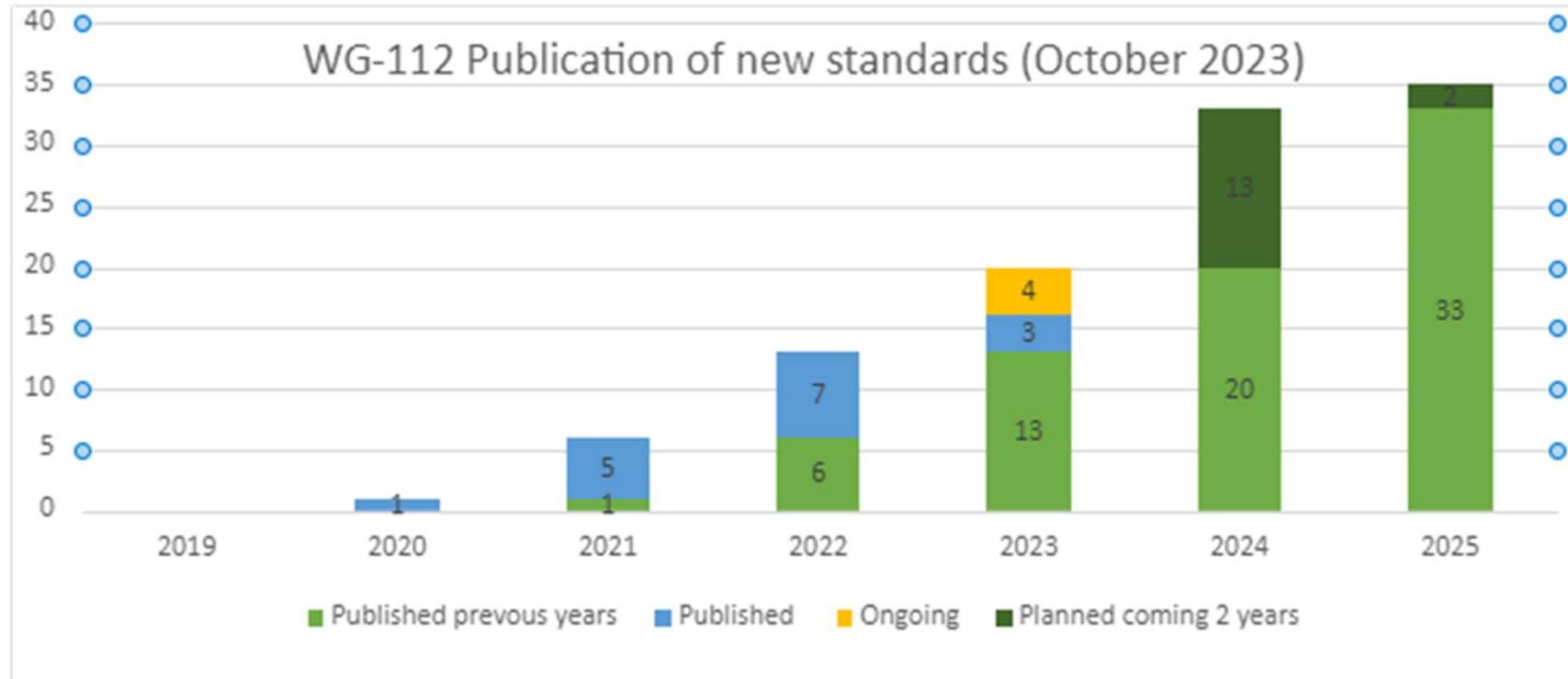
- Propulsion systems
- Flight control systems
- Energy systems
- Safety-of-design requirements
- Environment
- Operations
- Strong link between design and operations



# SC-VTOL -Main outcome of the year



# Eurocae Activity



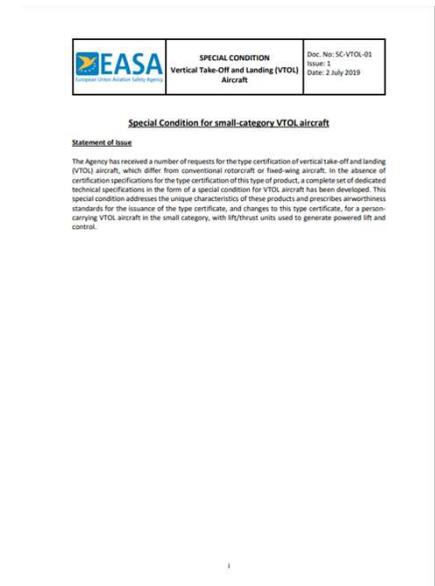
# Next Steps

## → Update of SC-VTOL

- MTOW update up to 5700 kg
- Better integration with OPS
- Convergence with FAA as far as practicable
- eRules consolidation

## → Carry on work with Standardisation bodies

## → Focus on project Specific MoC and Compliance Demonstration



Thank you  
for your attention!

Your safety is our mission.



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