



# JARUS UPDATE



# What is JARUS?

- JARUS is the *Joint Authorities for Rulemaking on Unmanned Systems*

The group aims at proposing harmonised regulation to cover all aspects of UAS operations

- Operational
- Personnel
- Technical
- Organizations



Founded in 2007

National Aviation Authorities

Harmonisation of light Rotorcraft UAS  
regulations

Growth to become a truly global effort



**JARUS IS A GLOBAL ORGANISATION**



# A global organisation

- Australia
- Austria
- Belgium
- Brazil
- Canada
- Czech Republic
- Colombia
- Denmark
- EASA (Chair)
- Estonia
- Eurocontrol (Secretary General)
- Finland
- France
- Germany
- Great Britain
- Greece
- Ireland
- Israel
- Italy
- Latvia
- Malta
- Netherlands
- Norway
- Poland
- Qatar
- Russia
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- United States of America (Vice-Chair)



# JARUS focus

## **Develop proposals for all aspects of UAS Regulation.**

- From the Terms of Reference: JARUS purpose is to recommend a single set of technical, safety and operational requirements for the certification and safe integration of Unmanned Aircraft Systems (UAS) into airspace and at aerodromes.
- JARUS intends to contribute to other rulemaking efforts (regional and worldwide)



# JARUS Working group structure

1. Operations and Personnel Licensing
2. Organisational approvals
3. Airworthiness
4. Detect and avoid
5. Command, control and communications
6. System safety ('1309')
7. General regulatory concept



# JARUS Acheivements

CS-LURS

Draft JARUS -ORG

JARUS C2 link RCP concept





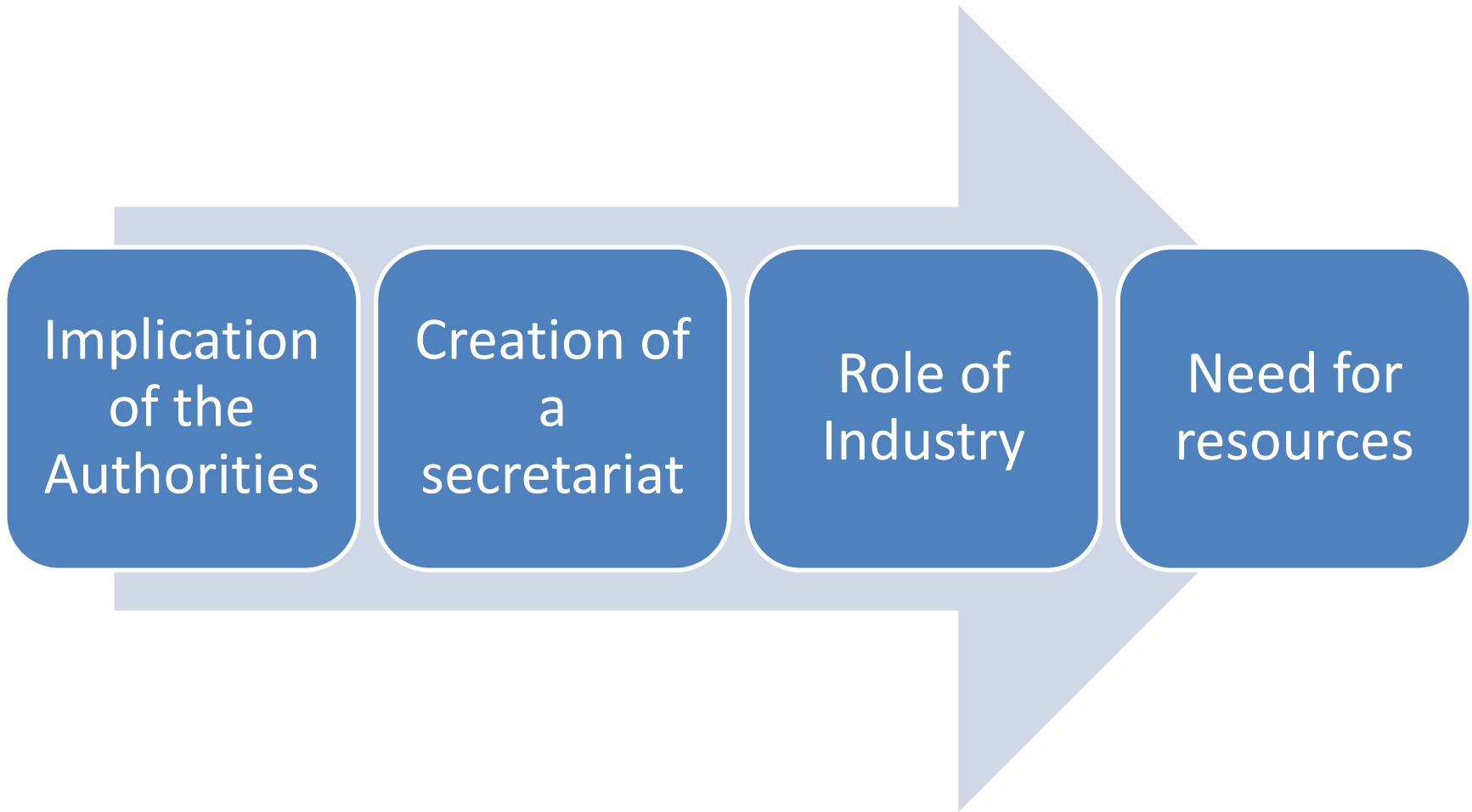
# JARUS at the Heart of EU effort

## European Commission Communication

- Use of JARUS
- Performance based approach
- Role of EASA



# JARUS at the Heart of Harmonisation





# JARUS at the Heart of Harmonisation

Secretary General: Mike Lissone (Eurocontrol): [mike.lissone@jarus.rpas.org](mailto:mike.lissone@jarus.rpas.org)

Vice-Chair: Chris Swider (FAA): [chris.swider@jarus.rpas.org](mailto:chris.swider@jarus.rpas.org)

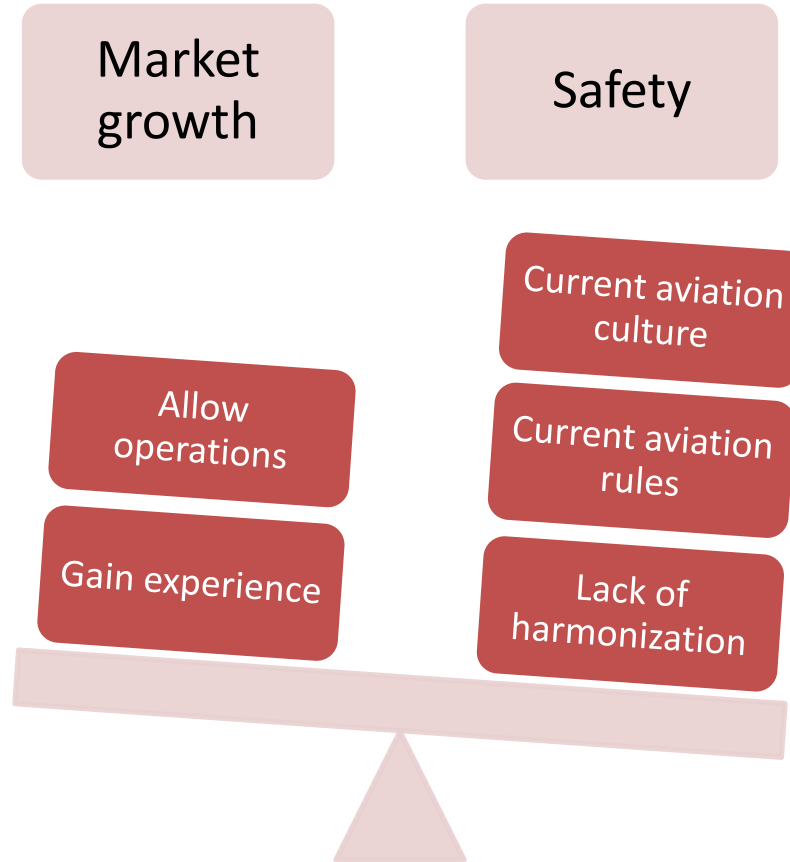
Chairman: E Sivel (EASA): [eric.sivel@jarus.rpas.org](mailto:eric.sivel@jarus.rpas.org)



# JARUS Vision on RPAS

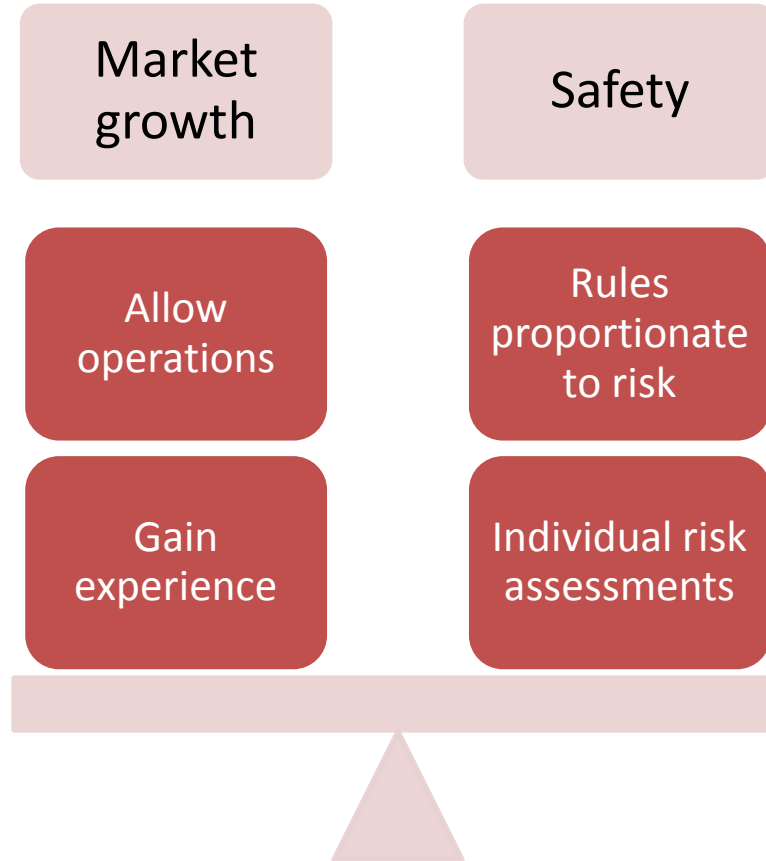


# Background and Objectives



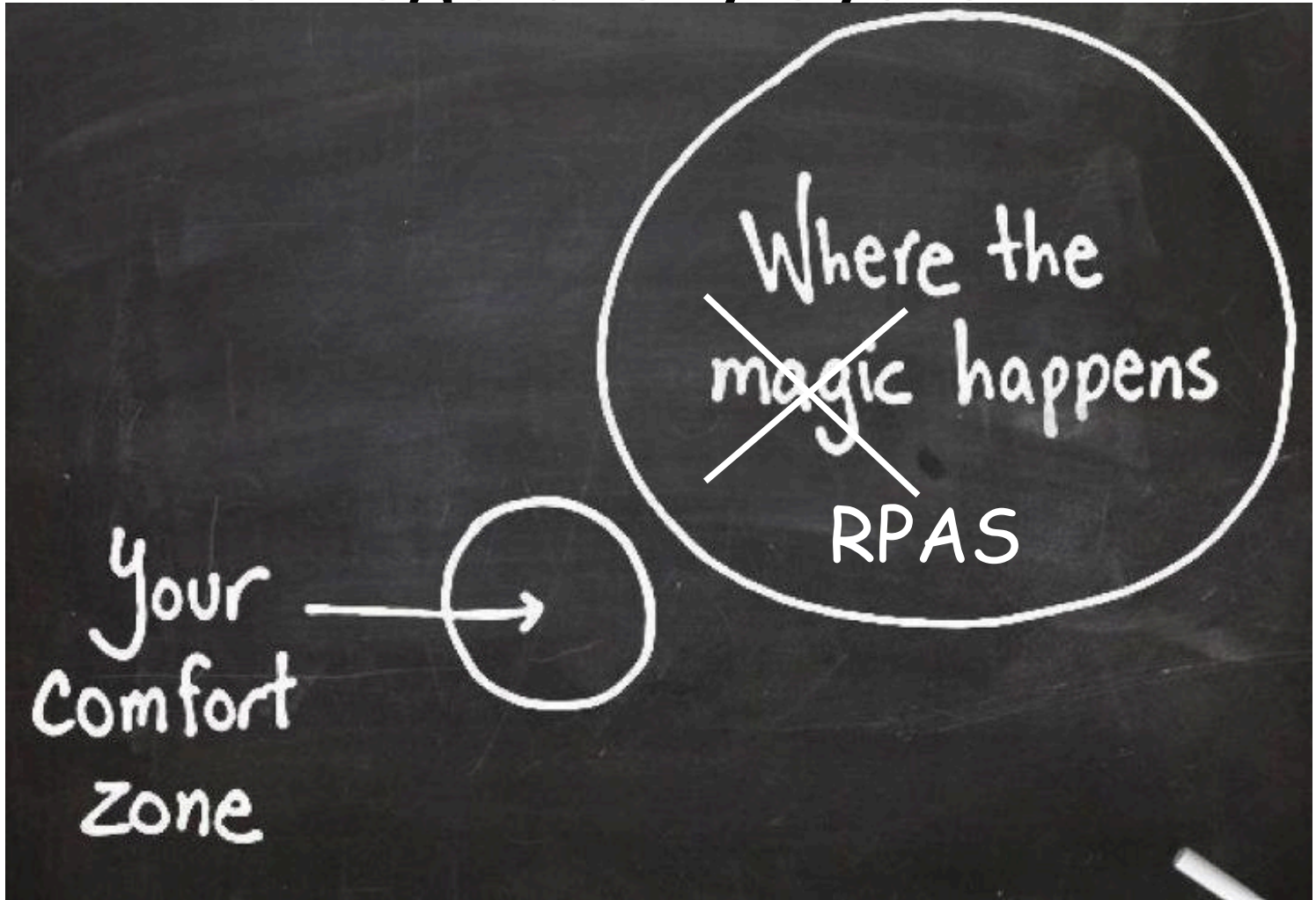


# A balancing act...





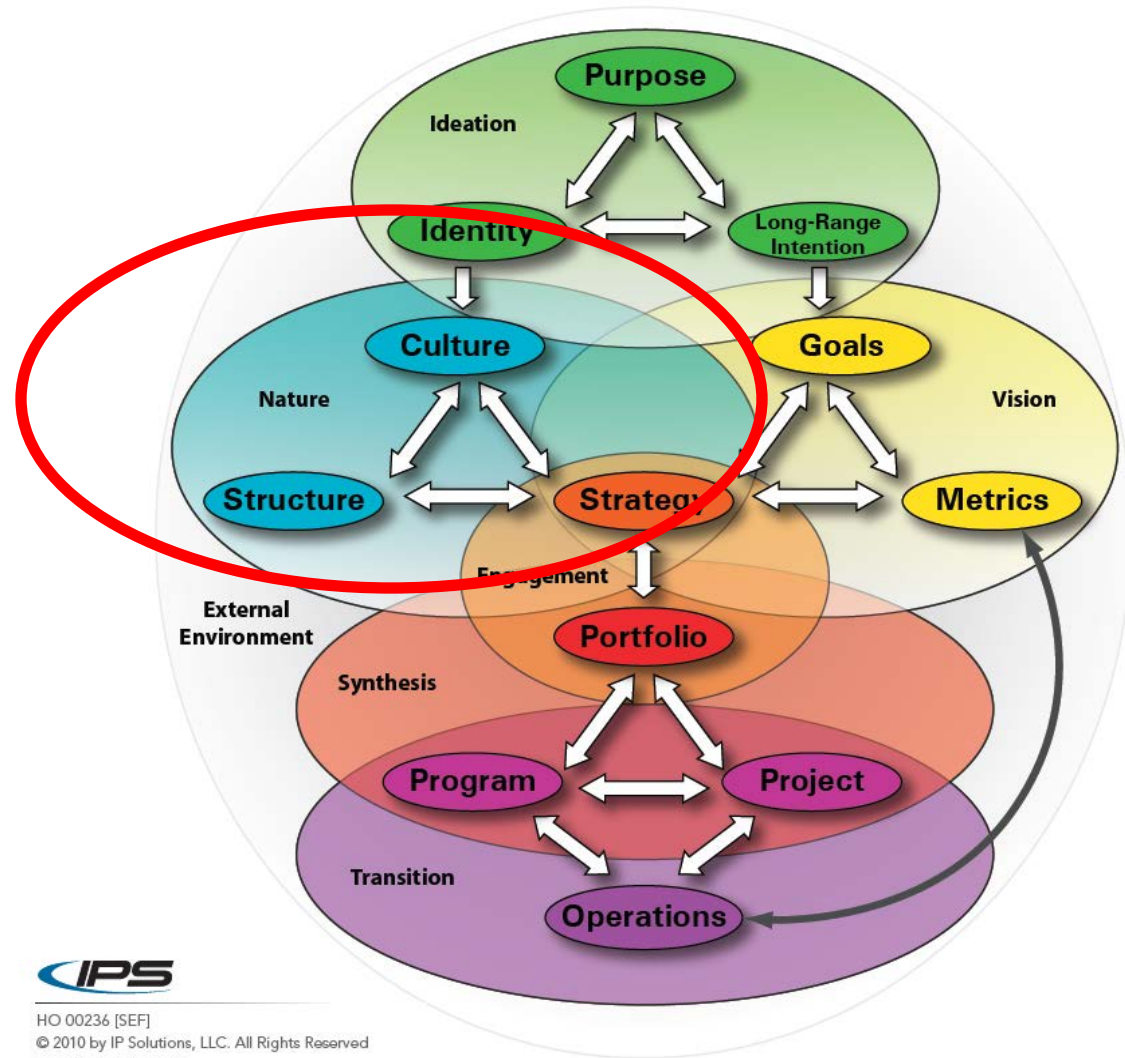
# RPAS Regulatory System





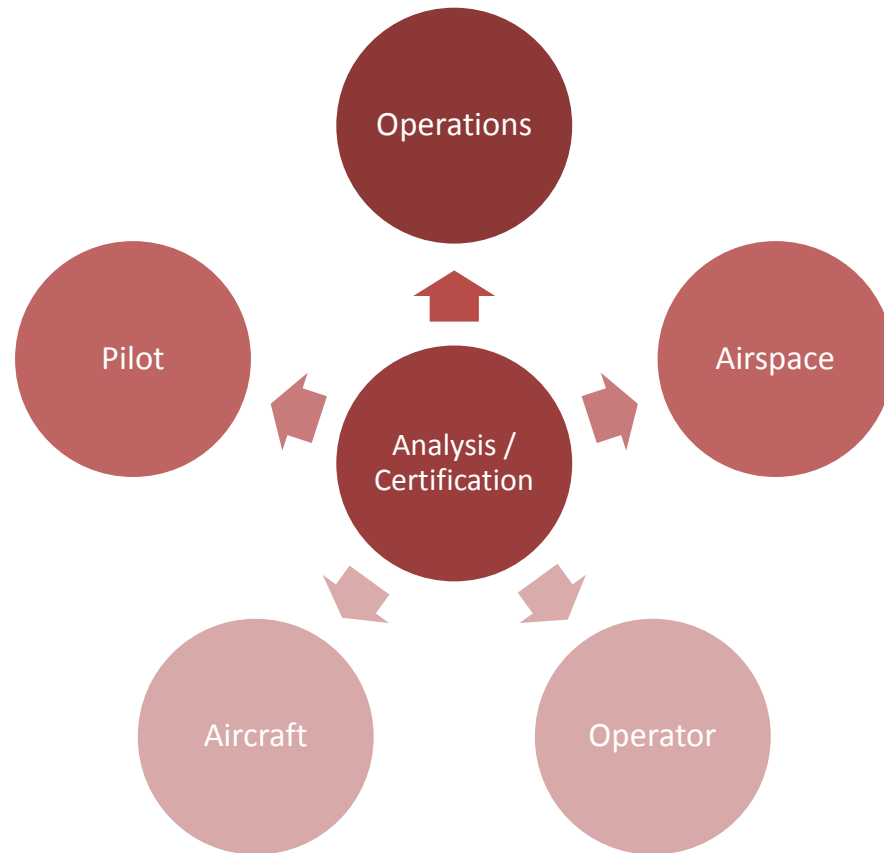
# The RPAS challenge...

RPAS are challenging our very own nature!





# A change in culture, from atomistic...





# .. to holistic!



# RPAS Operational risk Categorisation

## Open Category (A)

- Within direct visual contact (VLOS)
- Not within a certain distance of crowds
- Not within a certain distance of airports or aerodromes
- Below a certain altitude

**RPAS CAN BE  
OPERATED  
WITHOUT ANY  
PRIOR  
AUTHORISATION**

## Specific Category (B)



**CASE BY CASE RISK  
ASSESSMENT**

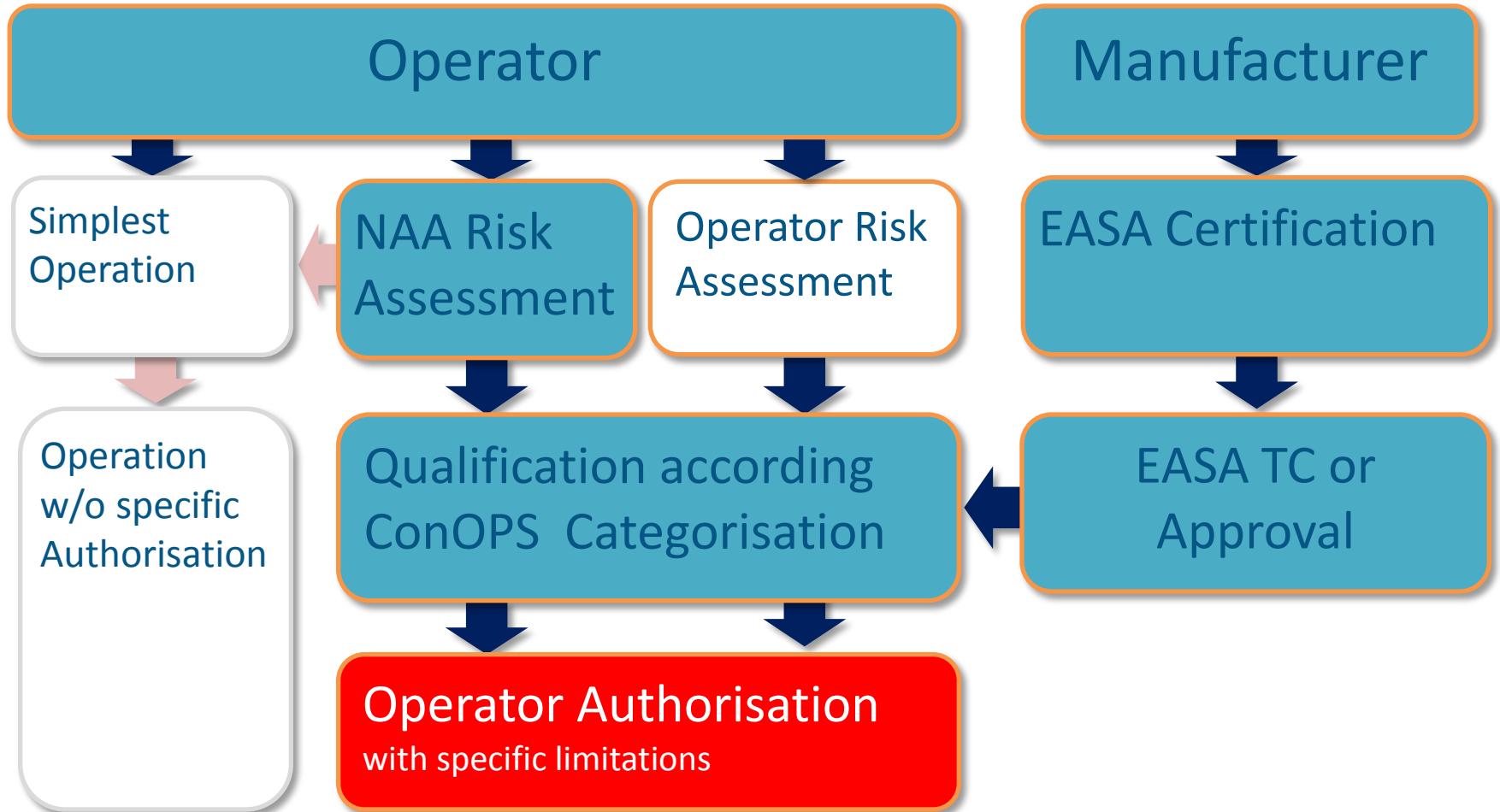
## Regulated Category (C)

### **HIGH RISK OPERATIONS**

Traditional :  
Type Certificate  
Pilot license  
Approvals  
...Continued  
Plus:  
Approved detect and  
avoid  
Approved command  
and control



# Operator at the Centre



# Challenges



- Resource JARUS
- Industry participation in JARUS
- Need to obtain buy in from all involved parties
- Strong expectations from stakeholders and applicants
- New problems like privacy, cyber-security, enforcement, need to be addressed ...

# Short term action plan

Introduce the industry into JARUS work



Review the governance of JARUS



Publish the Concept of Operations

- Review the working groups
  - **Start work in a manner closer to industry needs**
- 

Review the working methods with industry  
standardisation bodies

Thank You for your attention