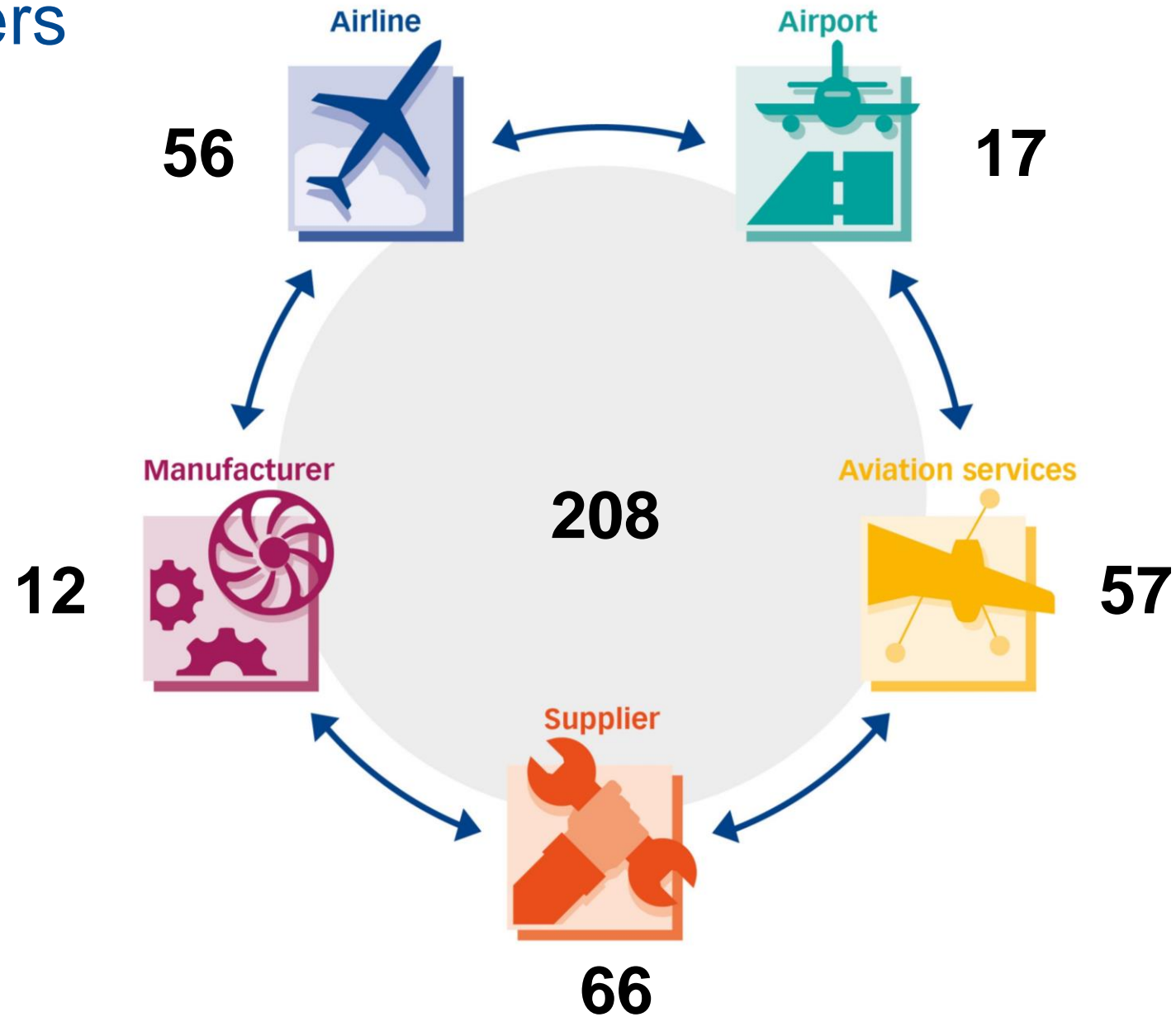


Opportunities and challenges of preparing for the full PBN environment in 2030

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ERA members



AU Position on GNSS & PBN



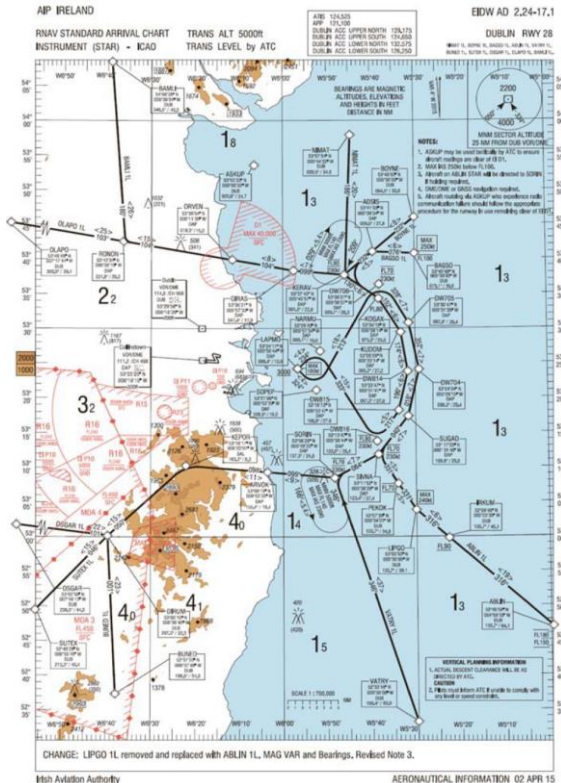
- **Support use of GNSS** as primary navigation infrastructure
- **Support implementation of ICAO PBN in all phases of flight**
 - Inc deployment of APV based on RNP APCH procedures
- Requirement specification based on:
 - **Agreed operational & safety improvements**
 - Planning and projection of fleet equipage
 - **Harmonisation**
- **AUs / ANSPs & NAAs must work together** when determining specific navigation requirements
- **Implementation must be focused on operational benefits** and therefore AU operational performance at centre of design process (flight efficiency / emission reduction)

Opportunities & Challenges

- Increased **focus on sustainability** and price of fuel *should* encourage adoption
 - Impacts from COVID affecting AU long term investment planning
 - Funding mechanisms very onerous for smaller airlines
- Radio Frequency Interference & Spoofing
- Connect remote markets given potential to operate into new airfields that may have been operationally unfeasible previously



Opportunities and Challenges



- Integration of SBAS Avionics so that LPV is available on both new and in-service aircraft
 - ➔ **BUT** - Airlines should equip based on own operational requirements
 - No mandatory requirement
 - No unjustified operational restrictions due decision not to equip
 - No costs imposed to AUs who do not use the technology
- Environmental benefits with potential track reduction and shorter trajectories of LPV approaches using EGNOS
 - ➔ Care needed to **ensure no unintended consequences** (e.g./ point merge / 'trombone')
 - ➔ **Engage** with AUs
- Providing AUs with OEM and STC certification paths



Key messages

- States under pressure to implement and be compliant with regulation
 - Procedures not always aligned with real needs of users
 - Not just operational (capacity) and safety, but also environmental
- Aircraft equipage and rationalisation
 - New airframes with RNP APCH for 15yrs+, some concerns over retrofit for older aircraft still likely to be service
 - MON (e.g./ ILS Cat 1)
 - Impacts of pandemic on liquidity / supply chains
- More engagement with AUs
 - Procedure design
 - Increased awareness and information / impacts
 - Associations ready to support and work with stakeholders



erao

The image shows the word "erao" in a dark blue, serif font. The letter 'o' is replaced by a blue sphere with a white airplane silhouette flying across it, symbolizing global travel or an airline.