



CANSO Global ATM Operations Conference

MADRID | SPAIN | 8-9 MARCH



The challenges ANSPs will face in the future when their core business may have to be radically different

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Challenges and Opportunities for ANSPs

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DFS Deutsche Flugsicherung

How the Future might look like

A case study on potential future scenarios for 2040

New means for transportation will be available:

How will Mobility, Aviation and ATM change?

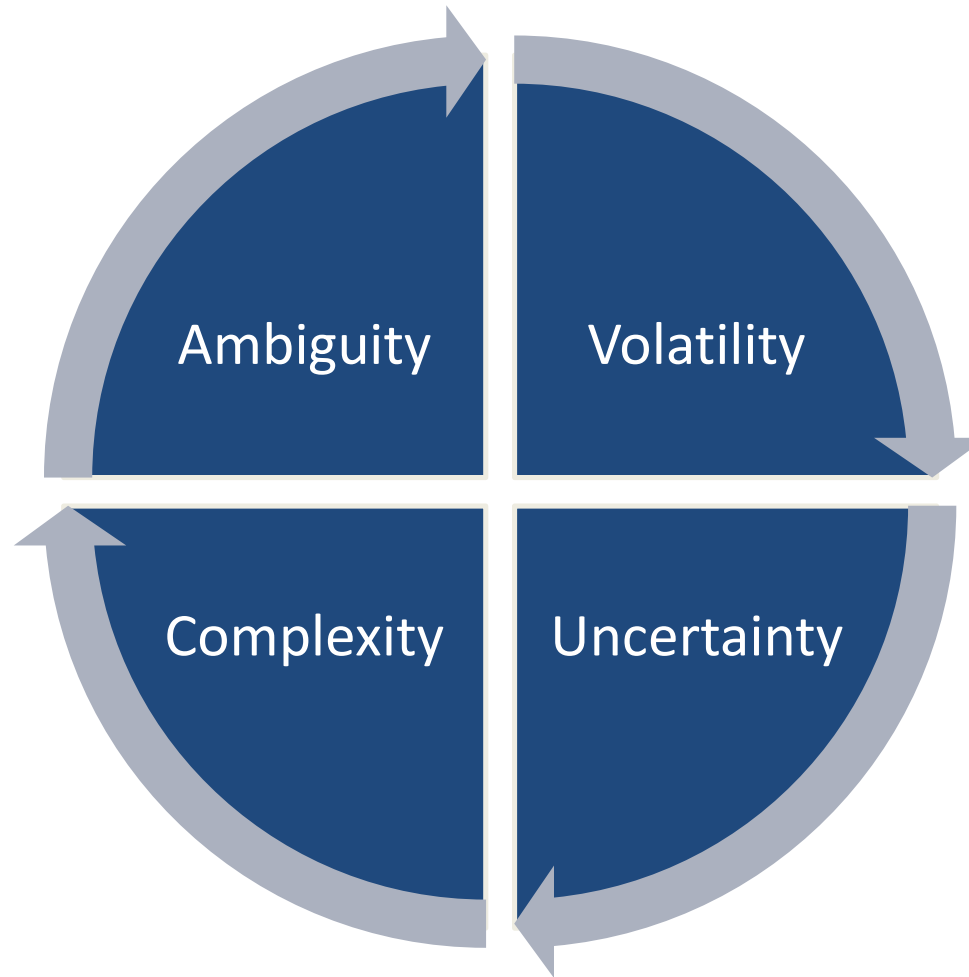
Rapid technological advances:

What are the Consequences for our Company?

- ❖ **Developed by an interdisciplinary group of young employees**
- ❖ **Initial results:**
 - ❖ **New vehicles (e.g. drones, hyperloops, spacecraft)**
 - ❖ **Connectivity and intermodality**
 - ❖ **Automatisation, digitalisation and artificial intelligence will radically change our current core business**
- ❖ **How can we ensure that our company remains relevant in 2040 in light of these disruptive changes?**

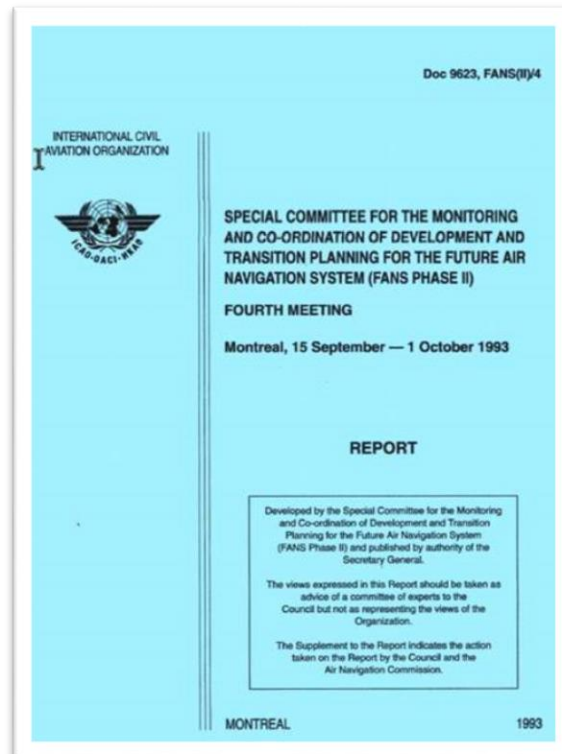


Future Environment



Short-term Realities and Long-term Visions

1993: ICAO „Future Air Navigation Systems“



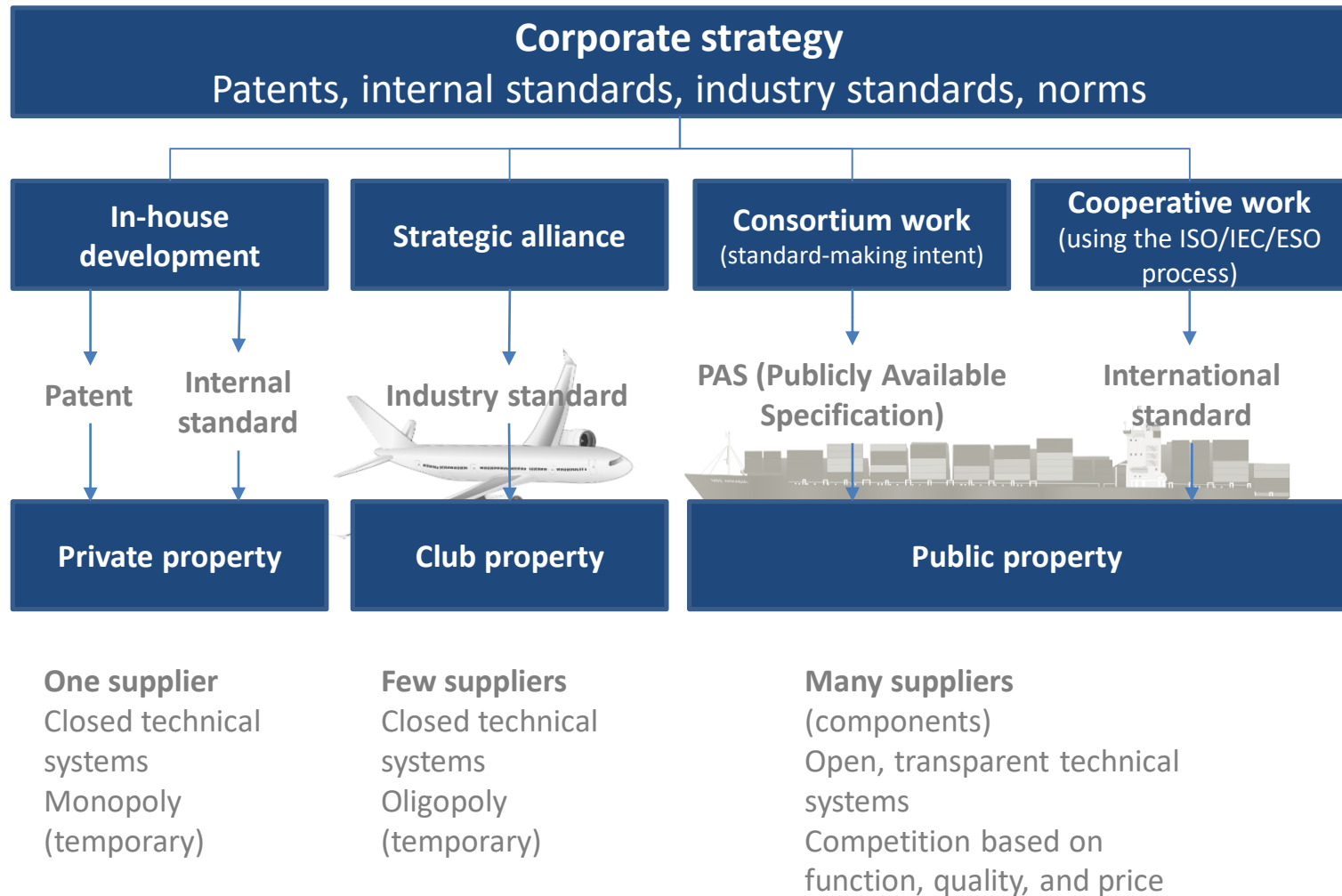
Satellite Navigation

Satellite
Communication

Automatic
Dependant
Surveillance

Datalink

Standardisation Processes



Translated from: Hartlieb et al., 2009, page 8: *Normung und Standardisierung: Grundlagen*

Conclusions

- **Aviation has an excellent safety record. We need to keep that on top.**
- **Generally good performance record:**
 - Capacity and delays
 - Improved route-network
 - Free-route airspace
 - Civil-military cooperation
 - Flexible use of airspace

Cooperation and partnership is key to success

CANSO stands for Partnership





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