Evolution of the mobility and implications for the air transport

29 September 2017

LEONARDO
AIRCRAFT

Our Business

Leonardo is a global company in the high technology sector, and is one of the key actors in Aerospace, Defence and Security worldwide. We operate through:

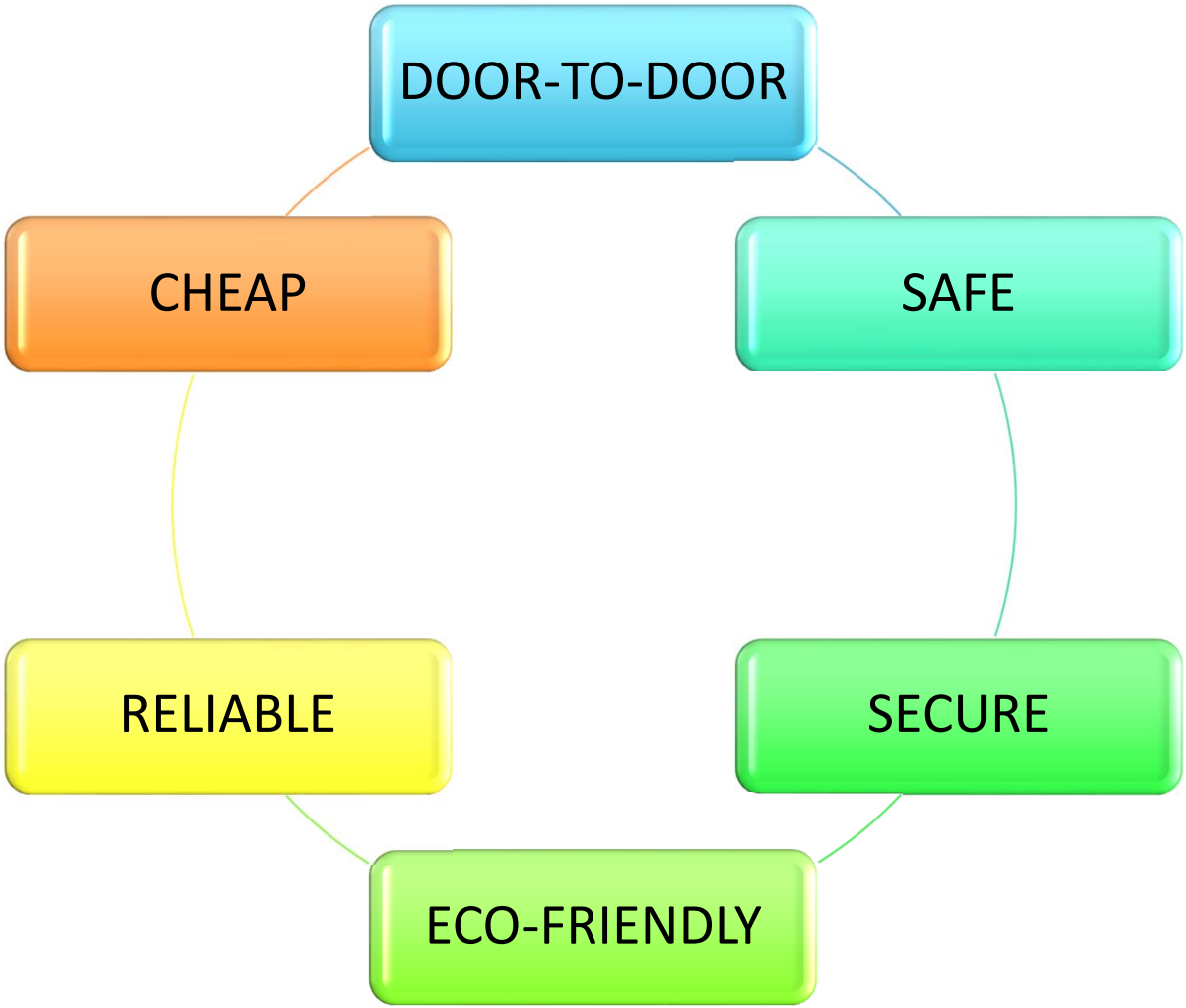
DIVISIONS

- **Helicopters**
- **Aircraft**
- **Aerostructures**
- **Airborne & Space Systems**
- **Land & Naval Defence Electronics**
- **Defence Systems**
- **Security & Information Systems**

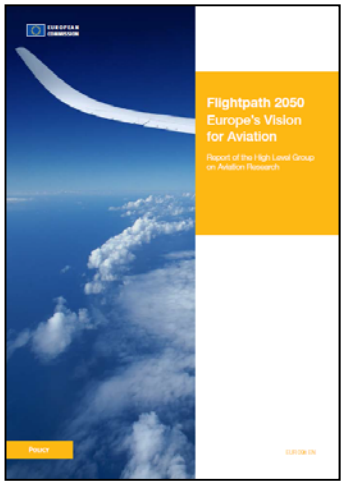
SUBSIDIARIES AND JOINT VENTURES

- **DRS Technologies** (100% Leonardo)
- **Telespazio** (67% Leonardo and 33% Thales)
- **Thales Alenia Space** (67% Thales and 33% Leonardo)
- **MBDA** (37.5% BAE Systems, 37.5% Airbus Group, 25% Leonardo)
- **ATR** (50% Leonardo and 50% Airbus Group)

What do we ask to the mobility system?



Strategic agendas



Which are the goals?

CLEAN

- Zero emission mobility
- Fuel efficiency

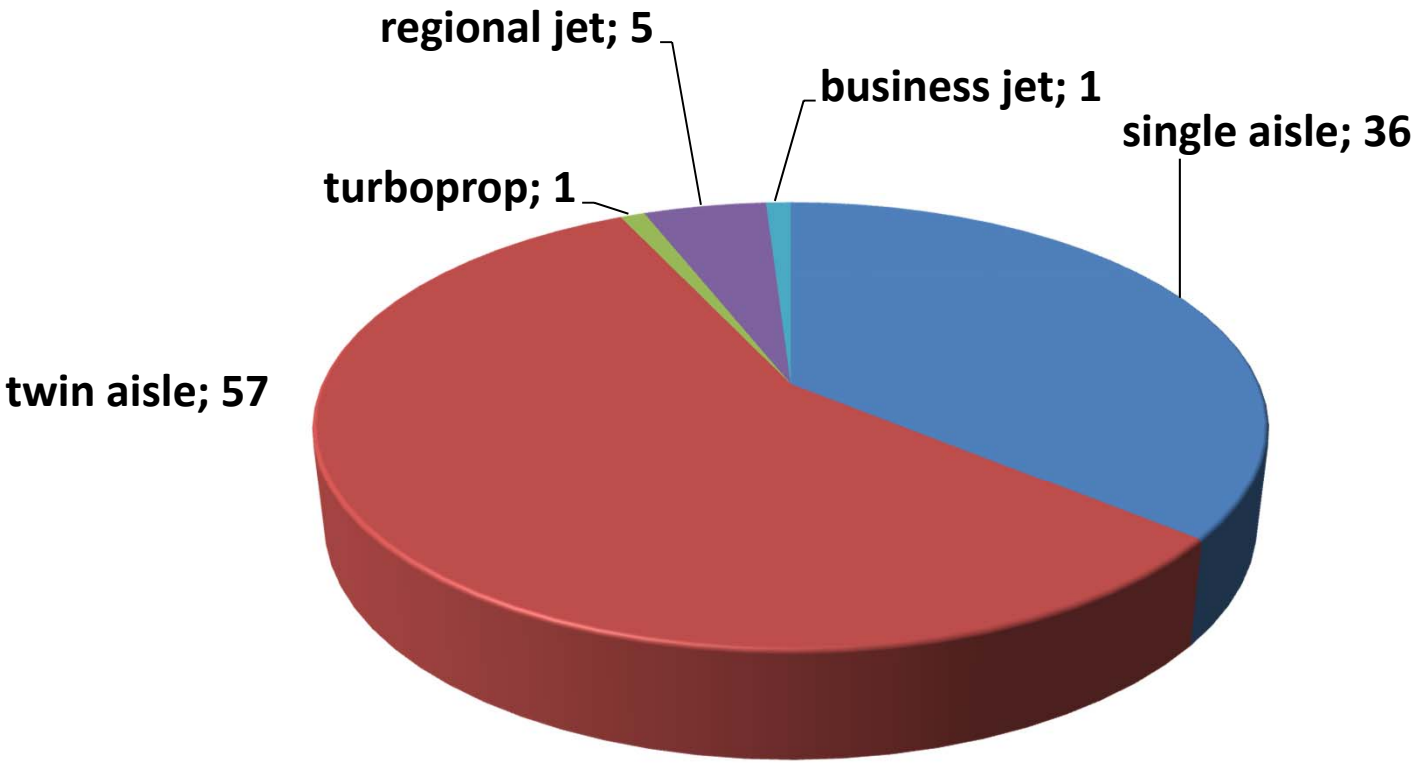
CONNECTED

- New digital services
- Mobility as a door-to-door service
- Seamless mobility solutions across modes

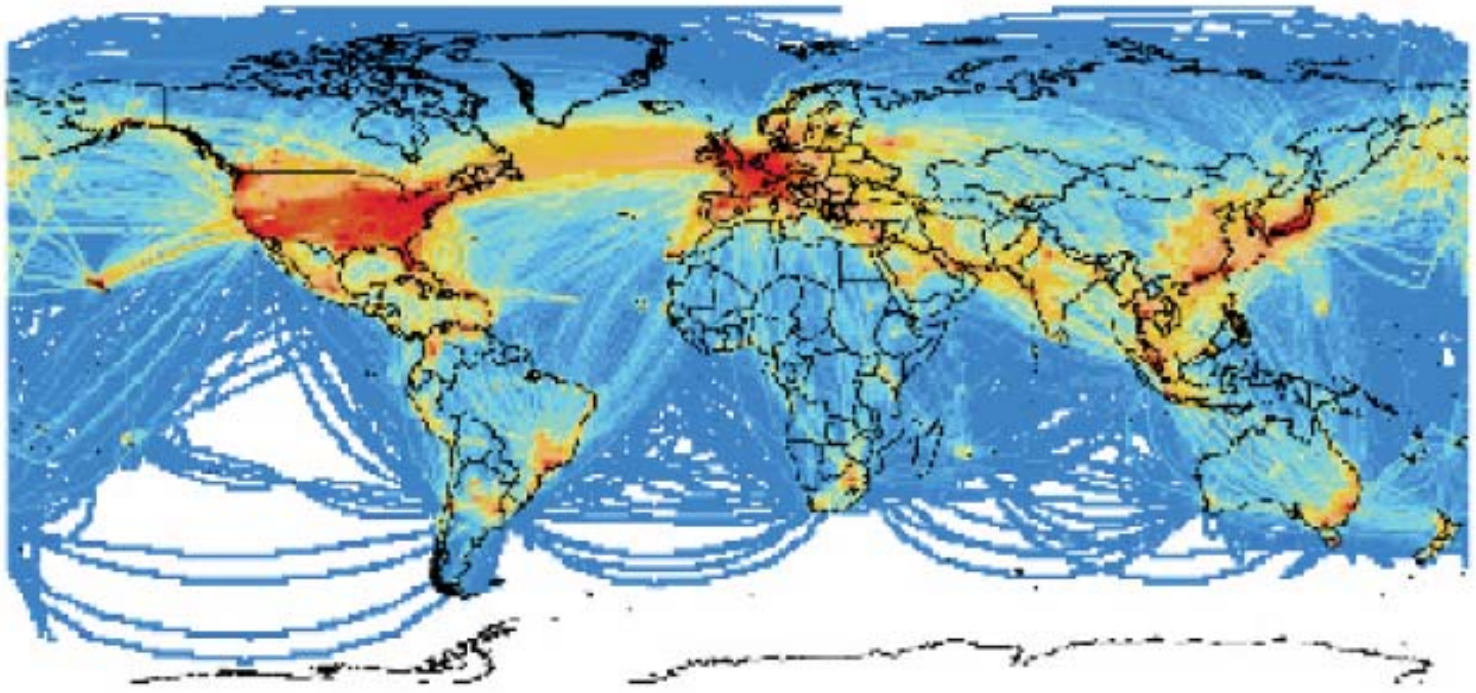
COMPETITIVE

- Strong EU basis for manufacturing and service provision
- Socially fair and attractive market

Which are the main contributors to pollution?

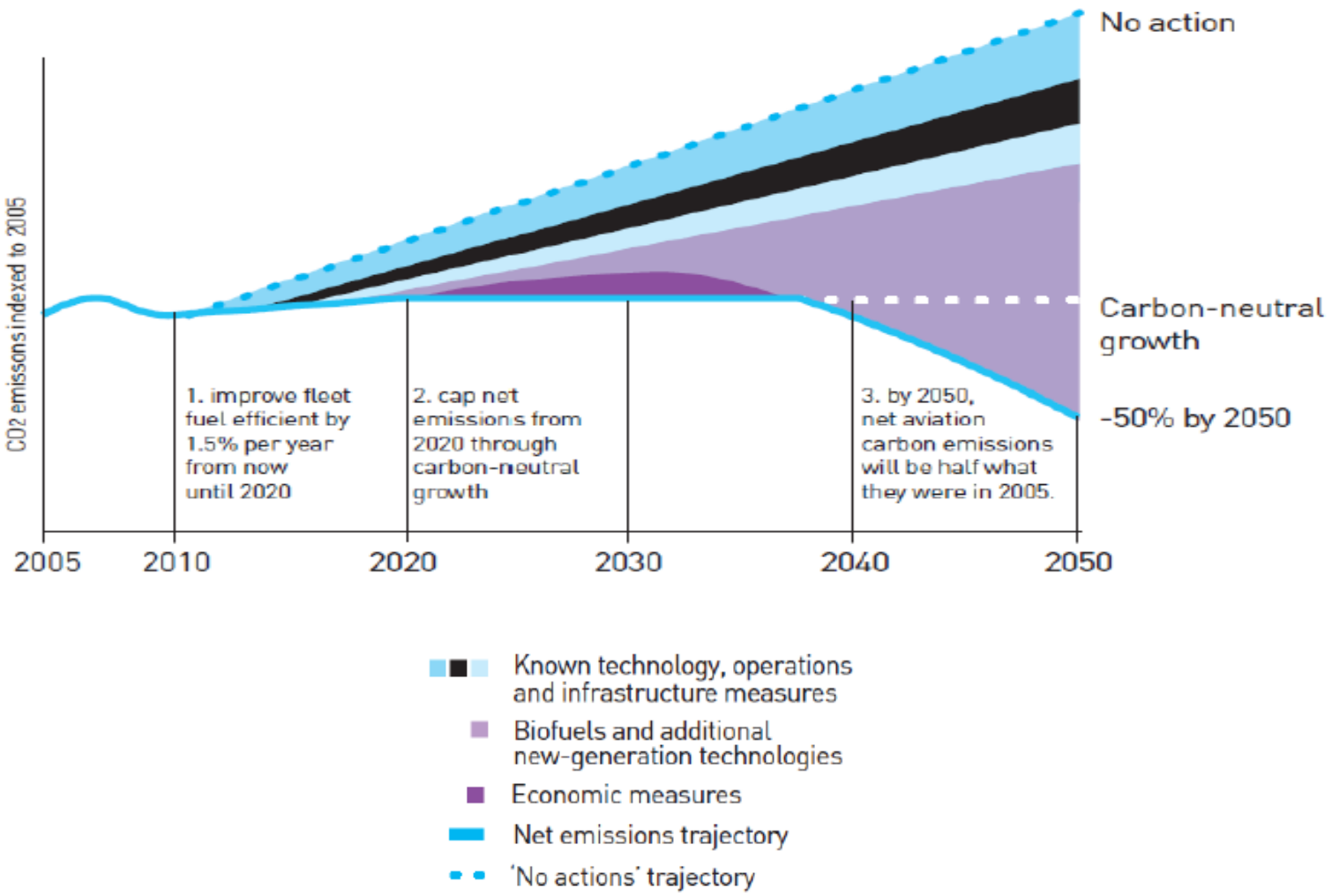


How is the aviation pollution contribution distributed ?

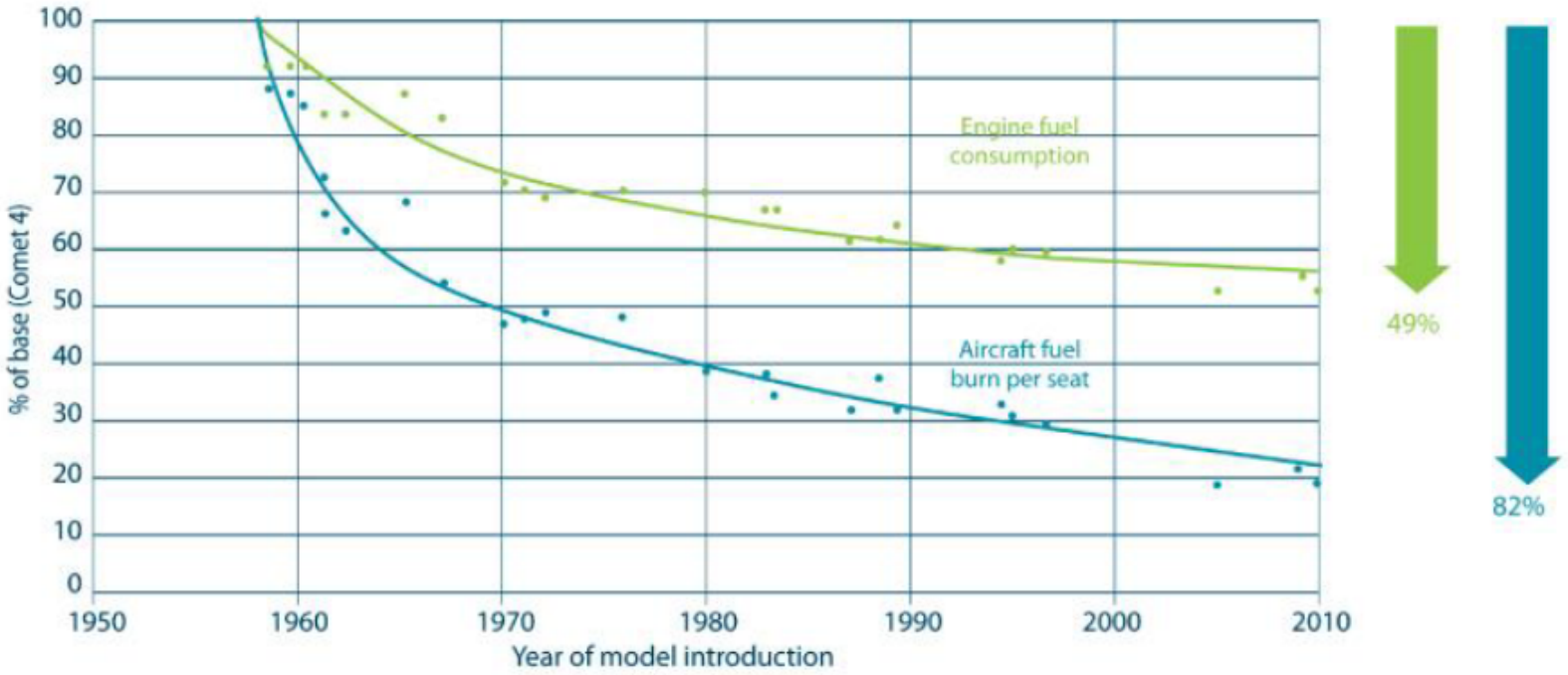


FAA System for assessing Aviation's Global Emissions (SAGE) shows the world-wide distribution of aircraft carbon dioxide emissions (2000)

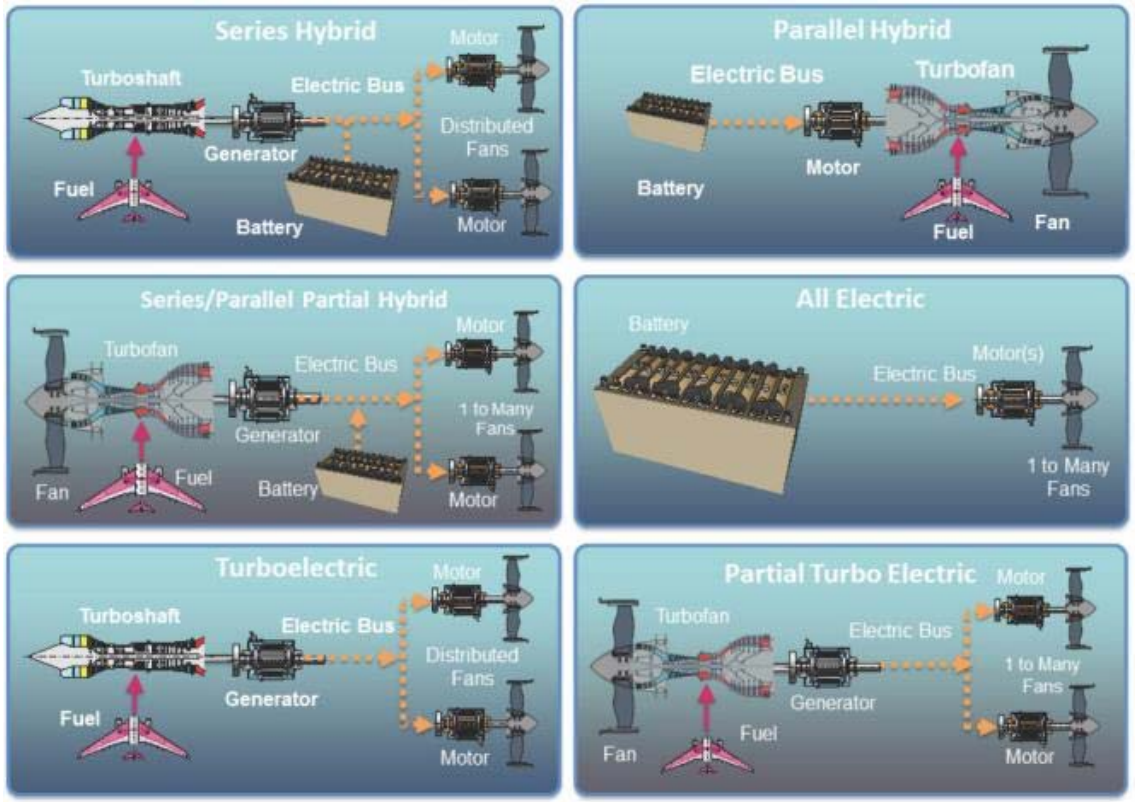
What could be the evolution?



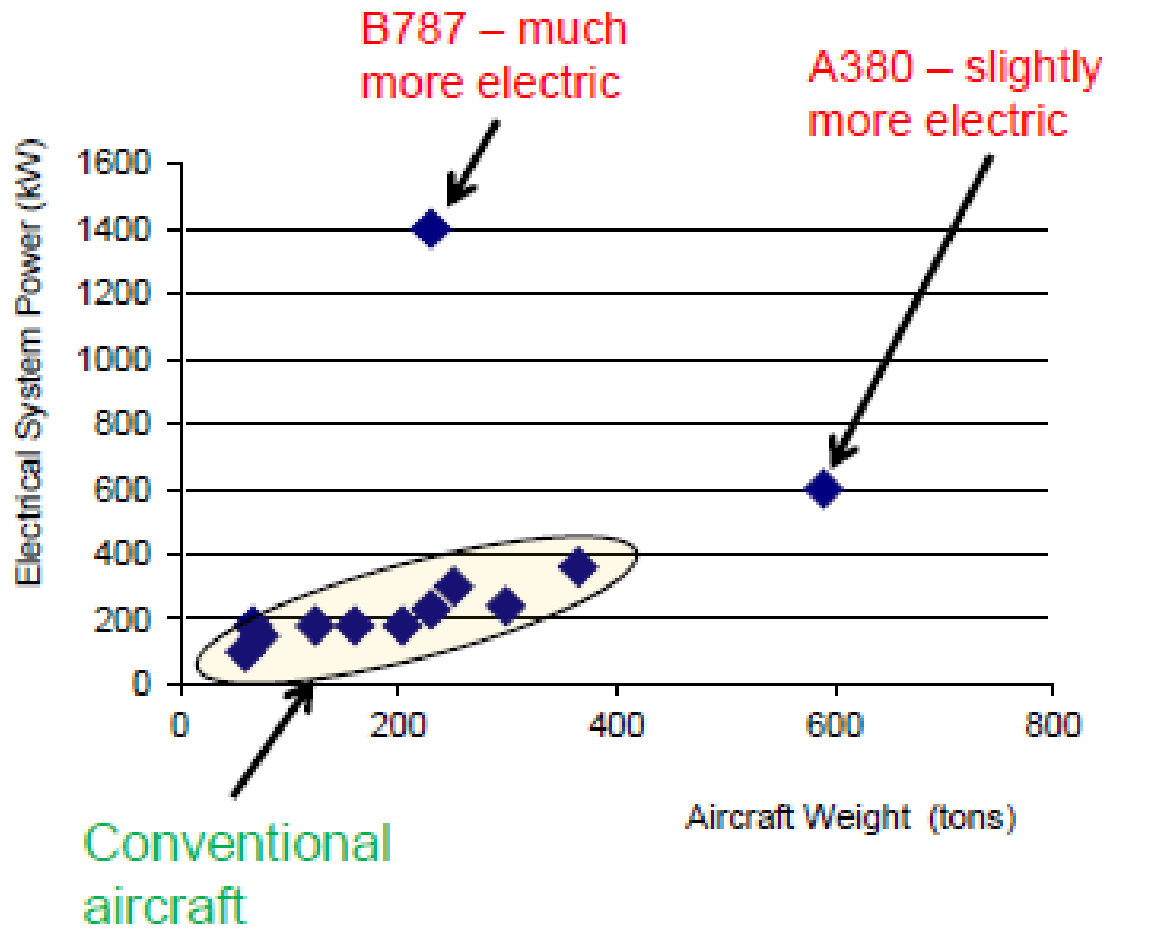
Conventional engine evolution



Electrification



The most electric aircraft?



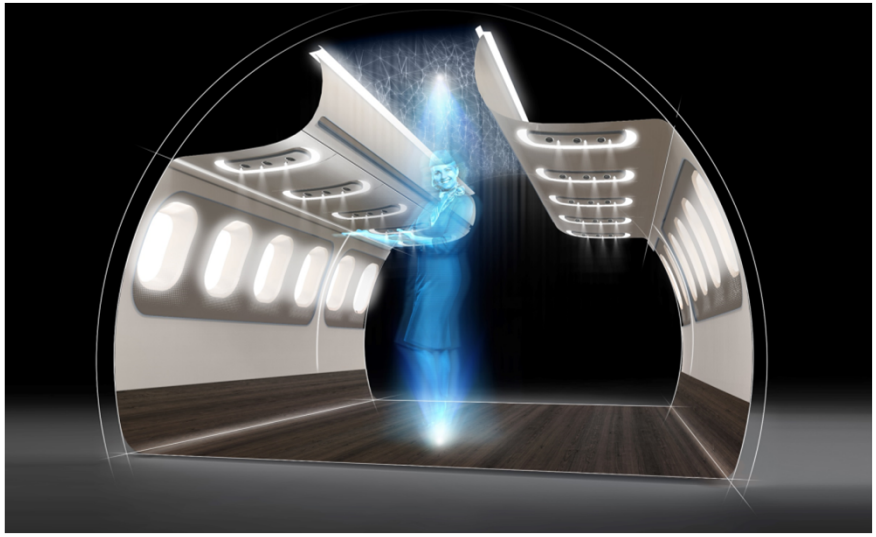
Near future applications?

Alternative fuels

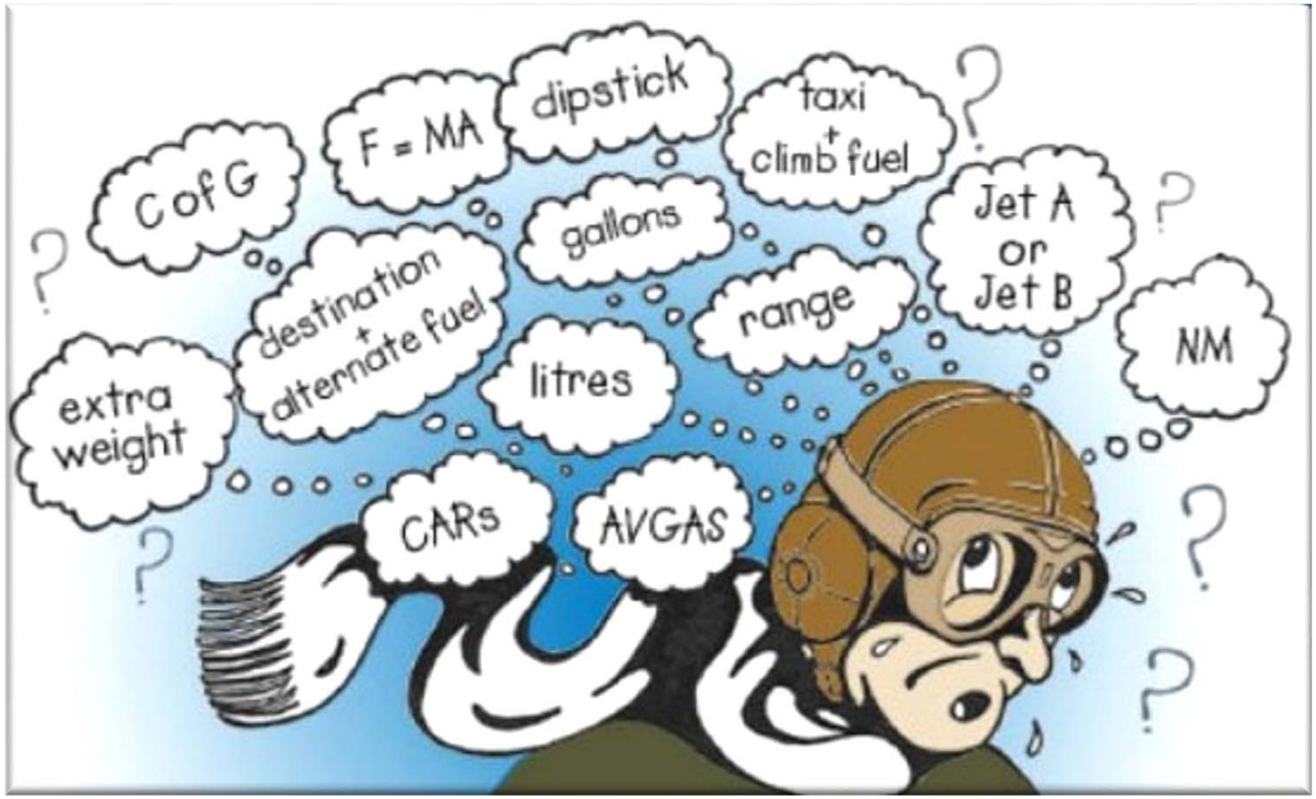
End of tube and wing?

And the interiors?

Holograms?



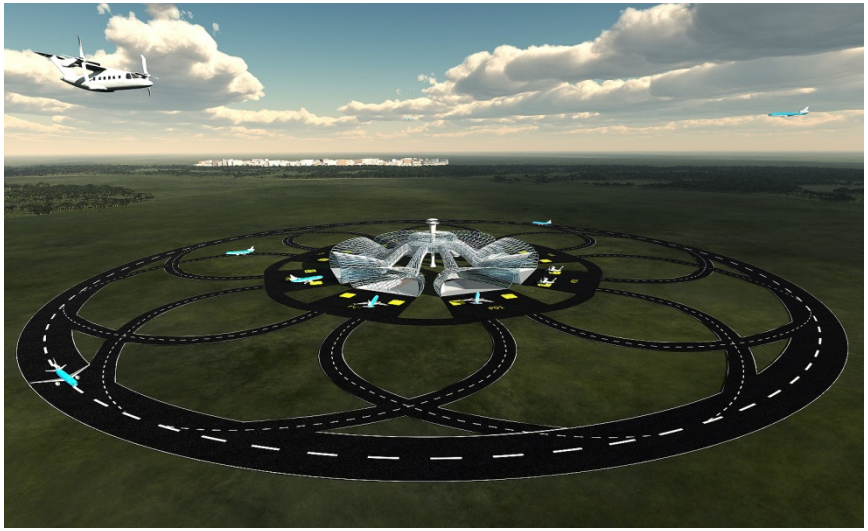
Single pilot?



What about unmanned?

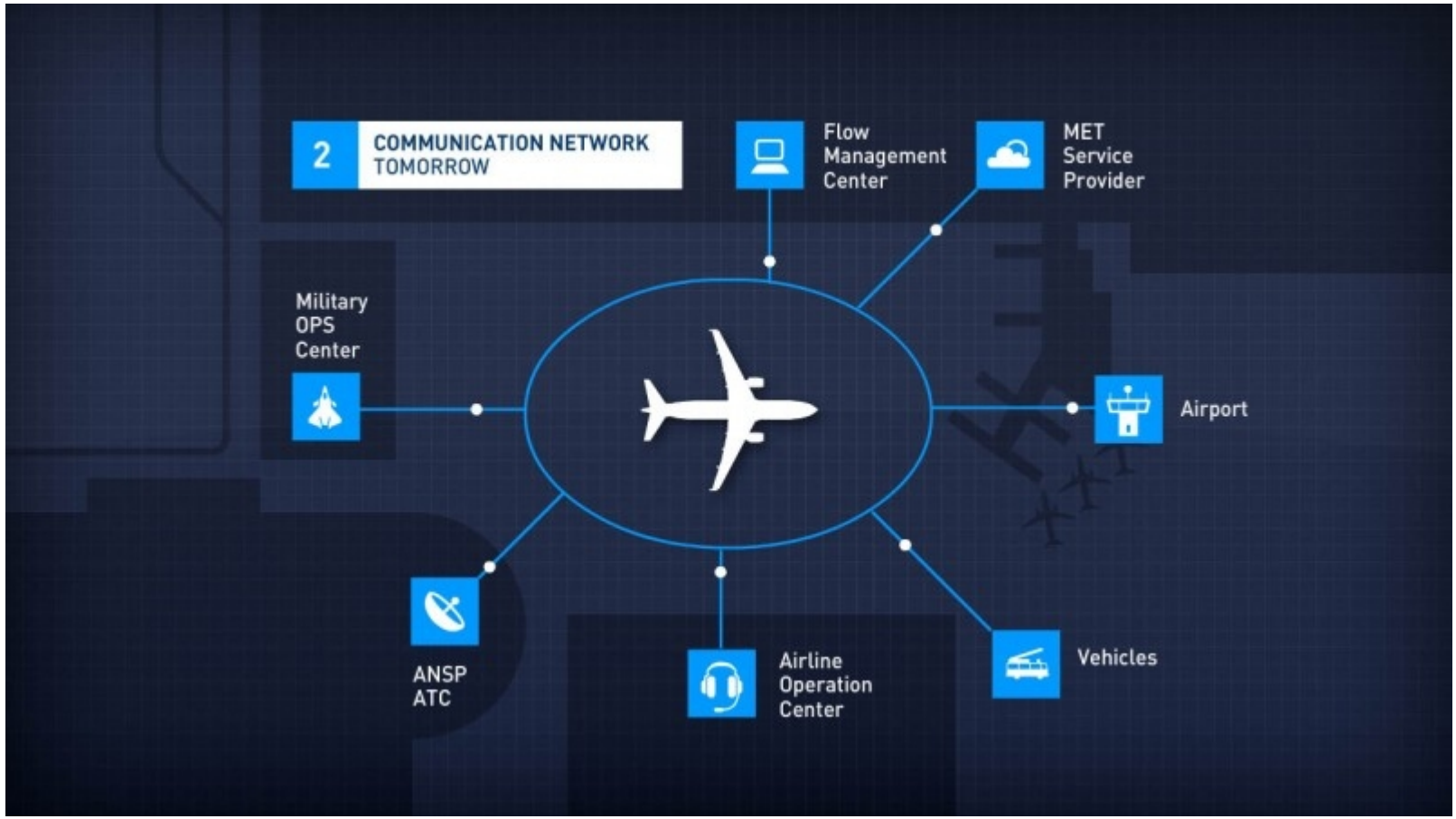
Transport infrastructure

Transport infrastructure



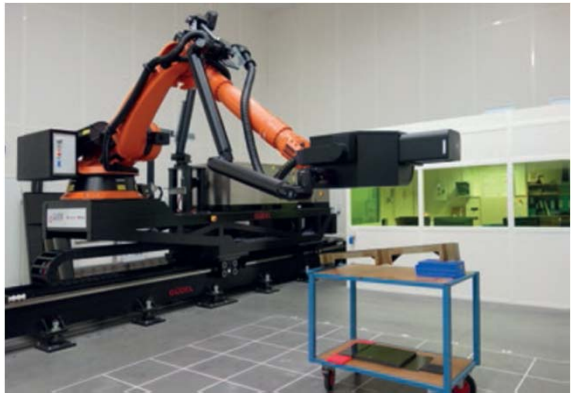
Smart transport and mobility services (incl. urban)

Connected transport



Network and traffic management systems

Which technologies for the future?



Reference

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- *The updated Strategic Research and Innovation Agenda (SRIA)* available at *www.acare4europe.org/sria*
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- *Integrated System Research Program Environmentally Responsible Aviation (ERA) Project* available at www.nasa.org
- Information about the aviation technologies development in Europe are available at www.cleansky.eu and www.sesarju.eu