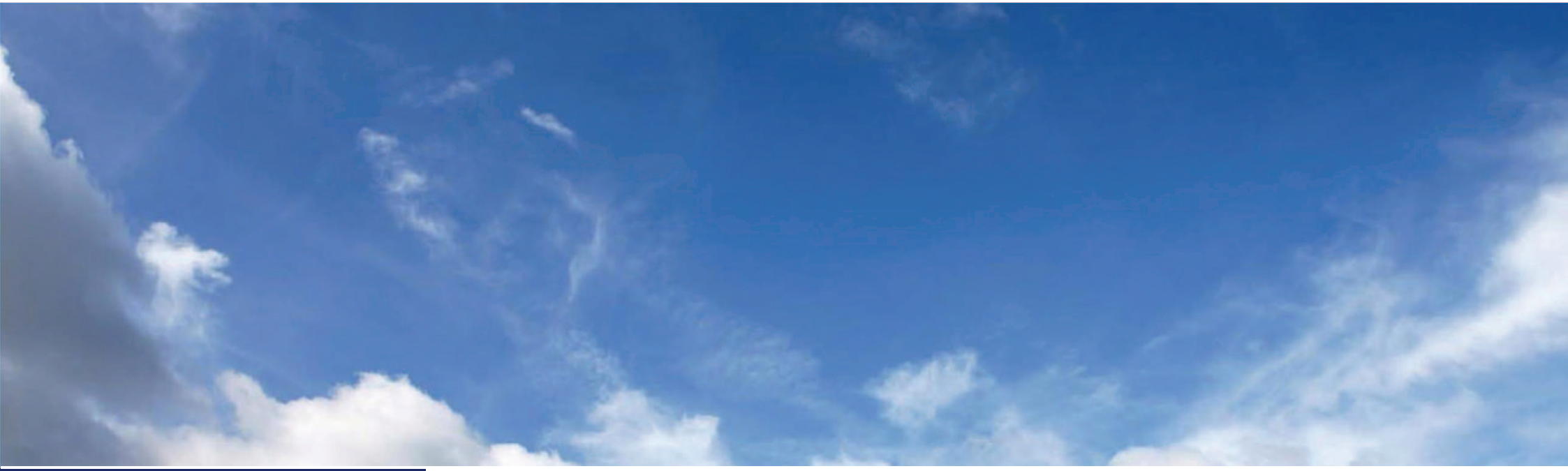


EU FINANCING OF R&D IN AVIATION POST-2020

Nathalie Errard

Airbus, Senior Vice President , Head of Europe + NATO Affairs

GREEN AVIATION BUSINESS BREAKFAST 27/09/2017

AIRBUS

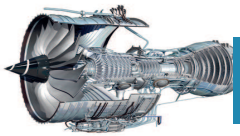
High-level political messages

- Air transport : essential enabler for societal mobility and a **job creator across Europe**.
- Clean Sky research projects : clear **return on investment for the citizen**
- **EU strategic autonomy**, as driver of economic growth.
- **Intense competition** (US, Russia and China)
- **Sustainability** is key, both in terms of fuel efficiency, and the wider social and environmental responsibility of our industry.
- Successful **public private partnerships like Clean Sky** are the fundamental pillars for European sustainable leadership worldwide.

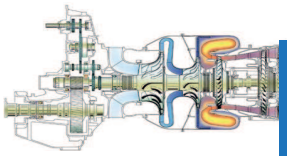
AIRBUS

Clean Sky achievements

Clean Sky 1 demonstrators



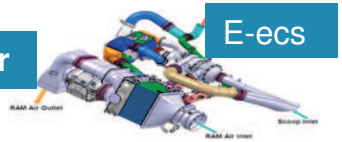
Large Turbofan



New Product emerging from technology development: ARRANO, selected for new H160 helicopter

Diesel cycle engine

Open Rotor

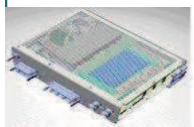


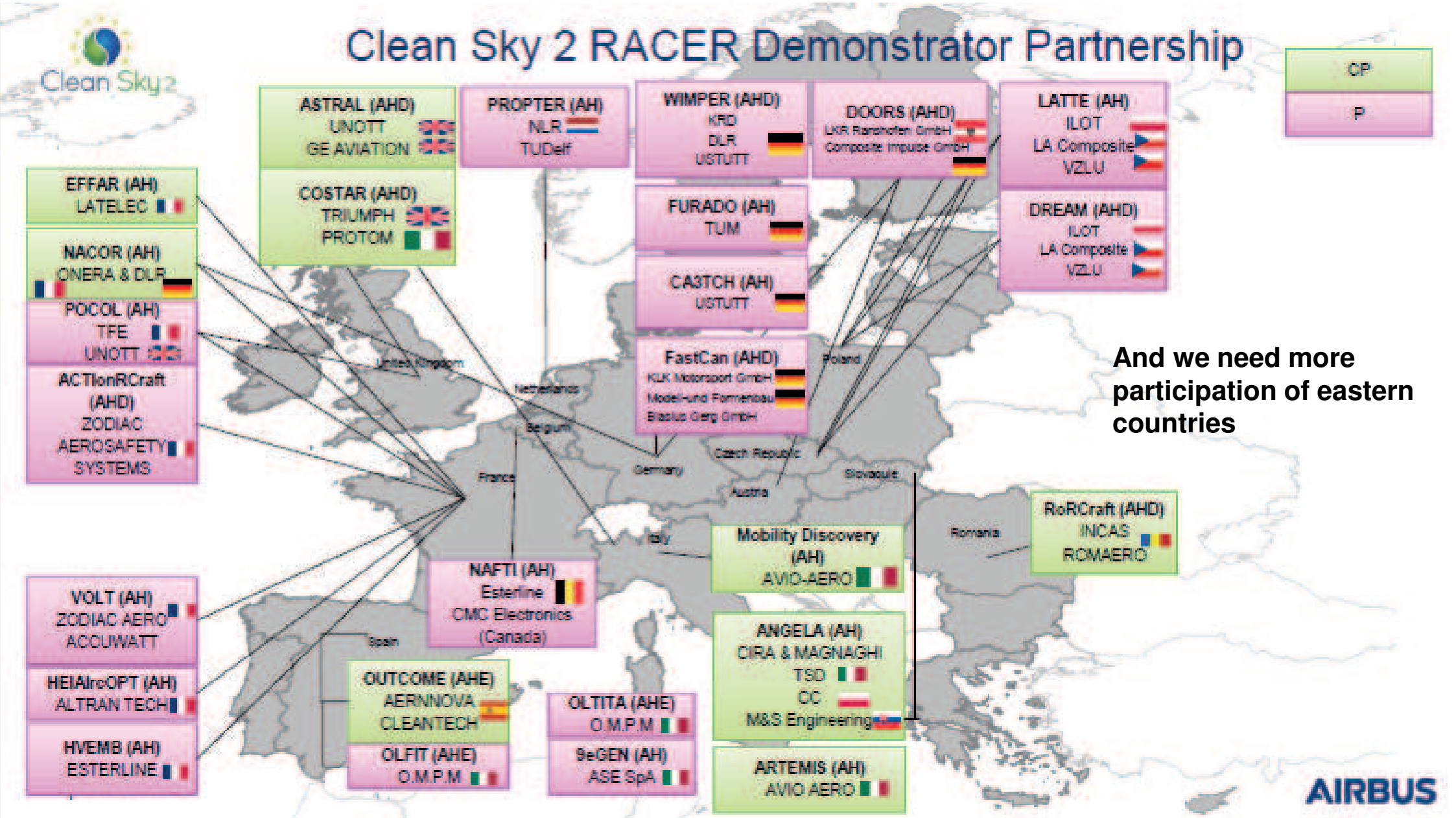
E-ecs

Laminar wing demo on A340

Composite fuselage on ATR72

Clean Sky 2, new objectives with new demonstrators





And we need more participation of eastern countries

BLADE "*Breakthrough Laminar Aircraft Demonstrator in Europe*".

Expected benefit :
reduce the **aircraft drag** (up to 8% for a short range) and then decrease **fuel burn** (Short Range Aircraft is up to 5% net fuel burn saving on an 800nm mission).

21 partners, under the leadership of Airbus

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Vision: Clean Sky 3

- More **digital**:
  - Artificial intelligence
  - In-flight data
  - Big data analytics.
  - Digitalization of the shopfloor
  - More openness

- More **electrification**:
  - Electric and hybrid-electric propulsion
  - Quieter and cleaner aircraft
  - Access to new markets and applications, e.g. Urban air mobility

- Speed up to a **new pace** of innovation
  - Focus on clear objectives
  - Prioritize larger and already more complex systems (focus on the most relevant technologies with a high degree of maturation)
  - Remain sufficiently flexible to the unknowns

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Thank you

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