



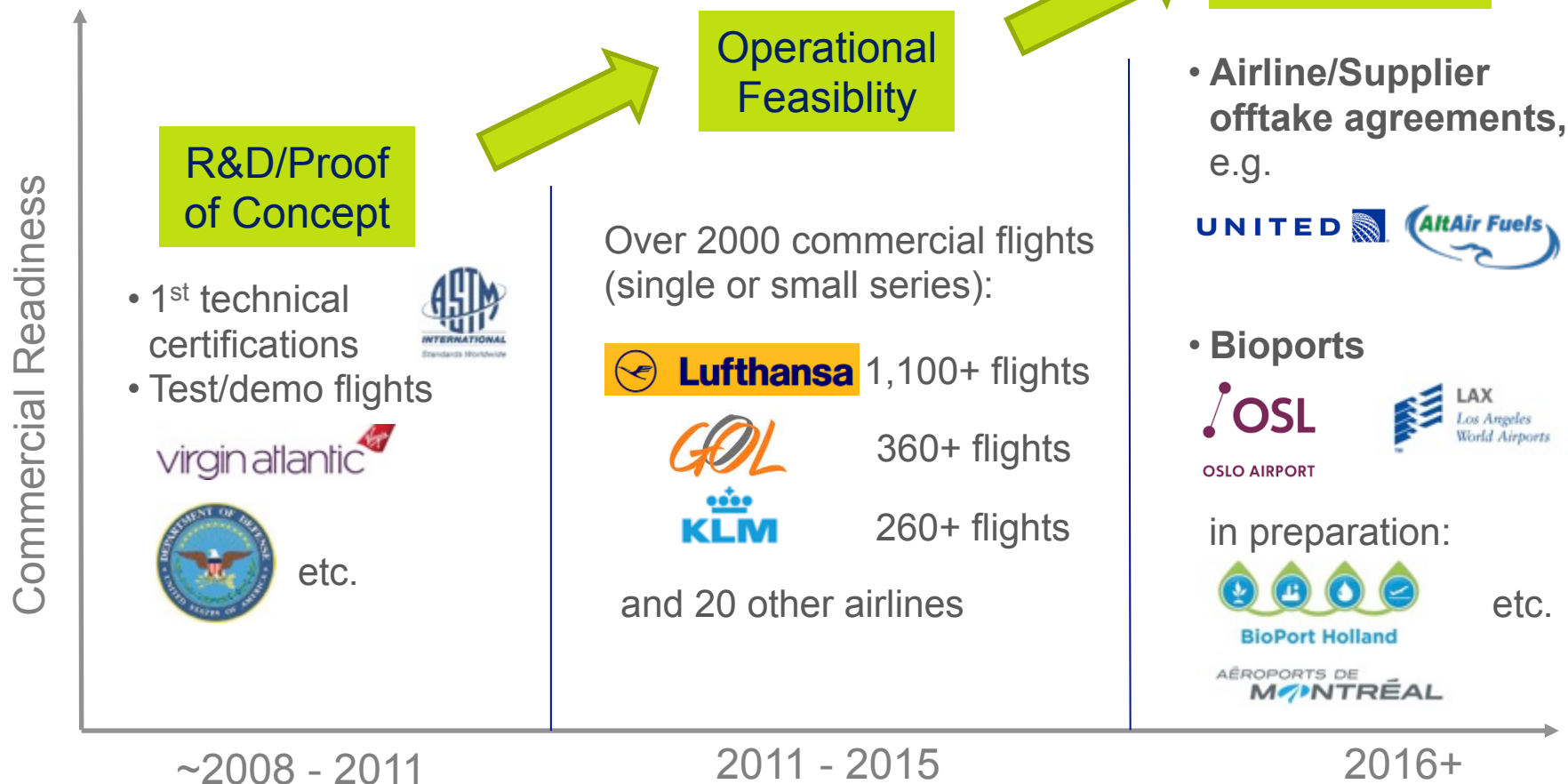
# Progress of Alternative Fuels Deployment in Aviation

7<sup>th</sup> ISCC Global Sustainability Conference  
Brussels, 15 February 2017  
Thomas Rötger, IATA

To represent, lead and serve the airline industry

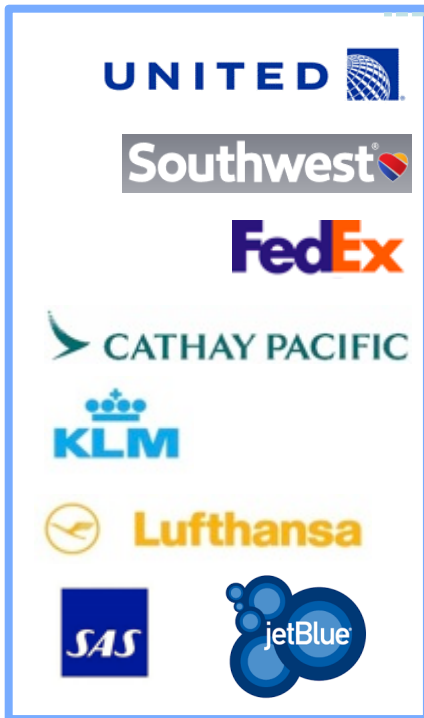


# Airlines supporting sustainable jet fuel commercialisation



# Reaching Commercial Scale

## Airline/supplier offtake agreements



- First bioport with regular operations: Oslo Airport started 22 Jan 2016
- United/AltAir operations started 11 March 2016
- Largest agreement (United/ Fulcrum) over 270'000 t/year
- In addition, strong investments by US government (incl. military)

# Requirements for sustainable aviation fuels (SAF)

## ➤ Drop-in

- Can be blended with existing jet fuel
- No need for adaptation of aircraft / engines nor parallel infrastructure
- Technically certified as equivalent to conventional jet fuel

## ➤ Sustainability

- Essential requirement for majority of airline customers
- Globally harmonized acceptance criteria needed

## ➤ Economic viability

- Bridge the cost gap with Jet A-1 fuel
- Ensure a level policy play field between road and air
- Effective political support needed for sustainable jet fuel deployment

## ➤ Cooperation

- Engagement of producers, suppliers, aviation industry and governments, EC and ICAO is essential



# Incentives and regulations for SAF

## ➤ EU situation



- Renewable Energy Directive (RED): 10% renewable transport fuel in 2020
- RED II draft provides specific incentives for advanced biofuels for aviation
- Biofuel meeting RED is exempted from EU ETS
- So far only the Netherlands recognize SAF as eligible
  - New opportunities with RED II

## ➤ US situation



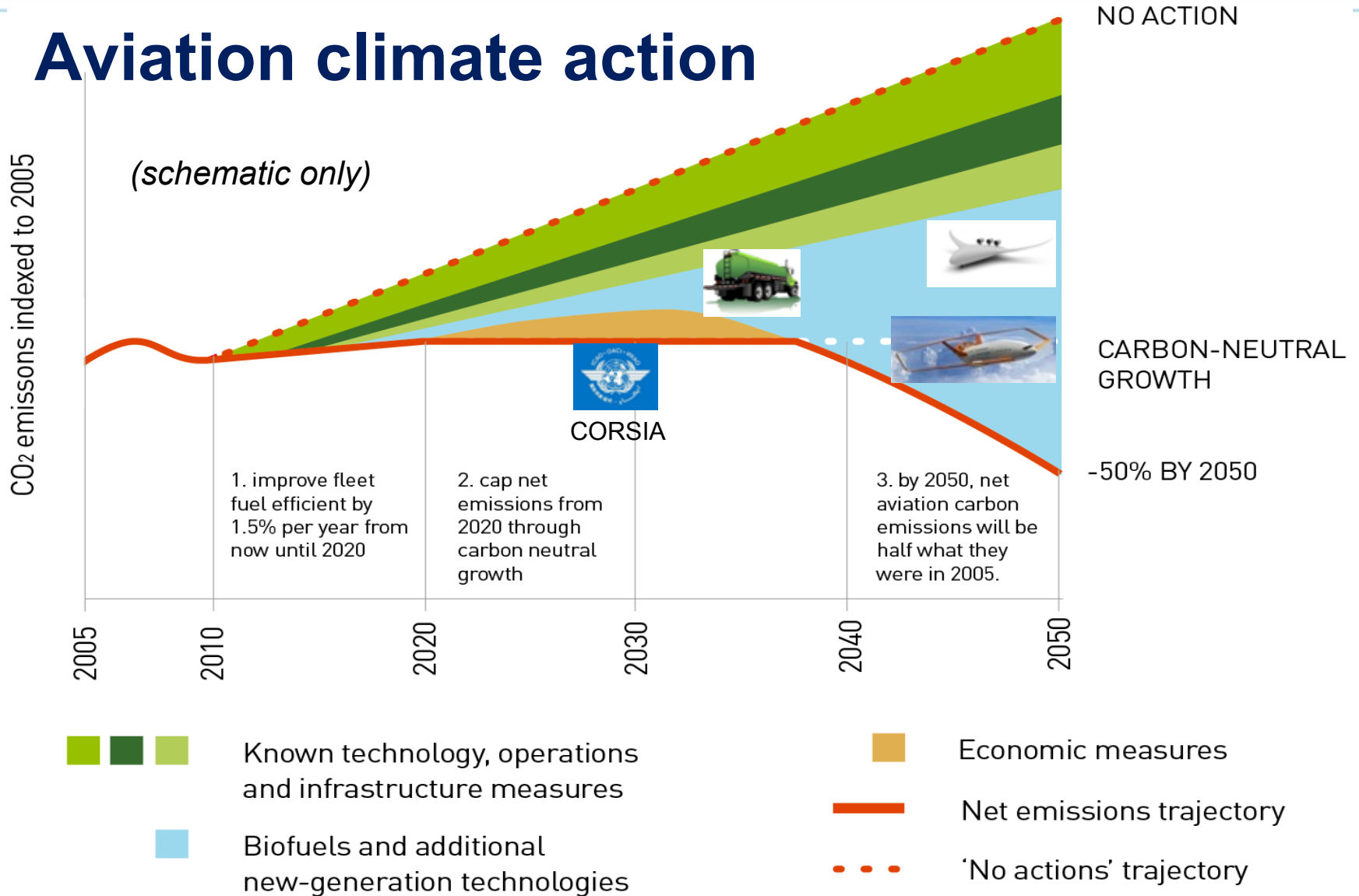
- Quite effective combination of production and use incentives
  - **Largest deployment projects are in US**
  - Offtake agreements at competitive prices

## ➤ International (ICAO)

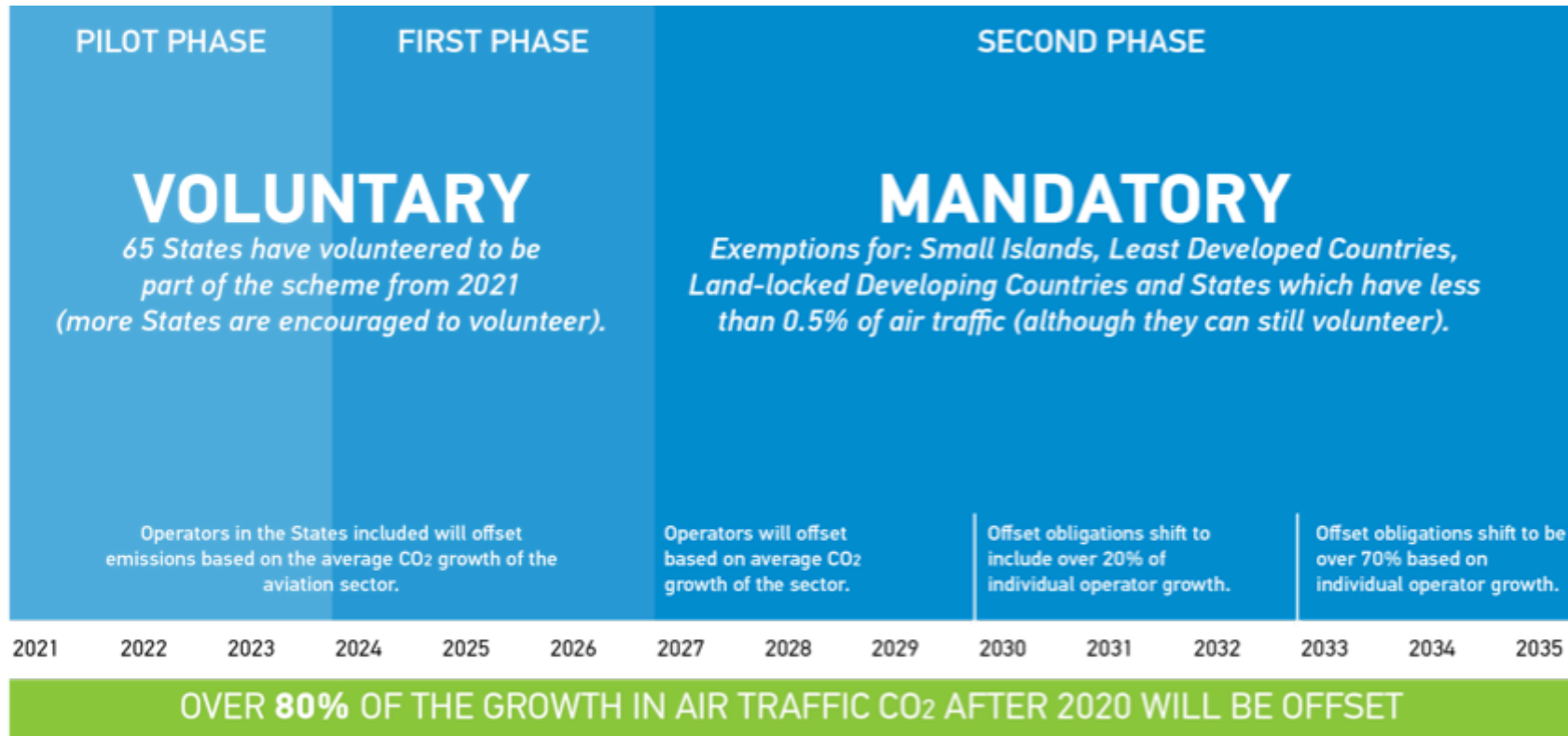


- Global market-based mechanism (CORSA) planned to recognize emissions reduction from SAF use → reduces operators' obligations
- Harmonized sustainability framework under development

# Aviation climate action



# How does CORSIA work?



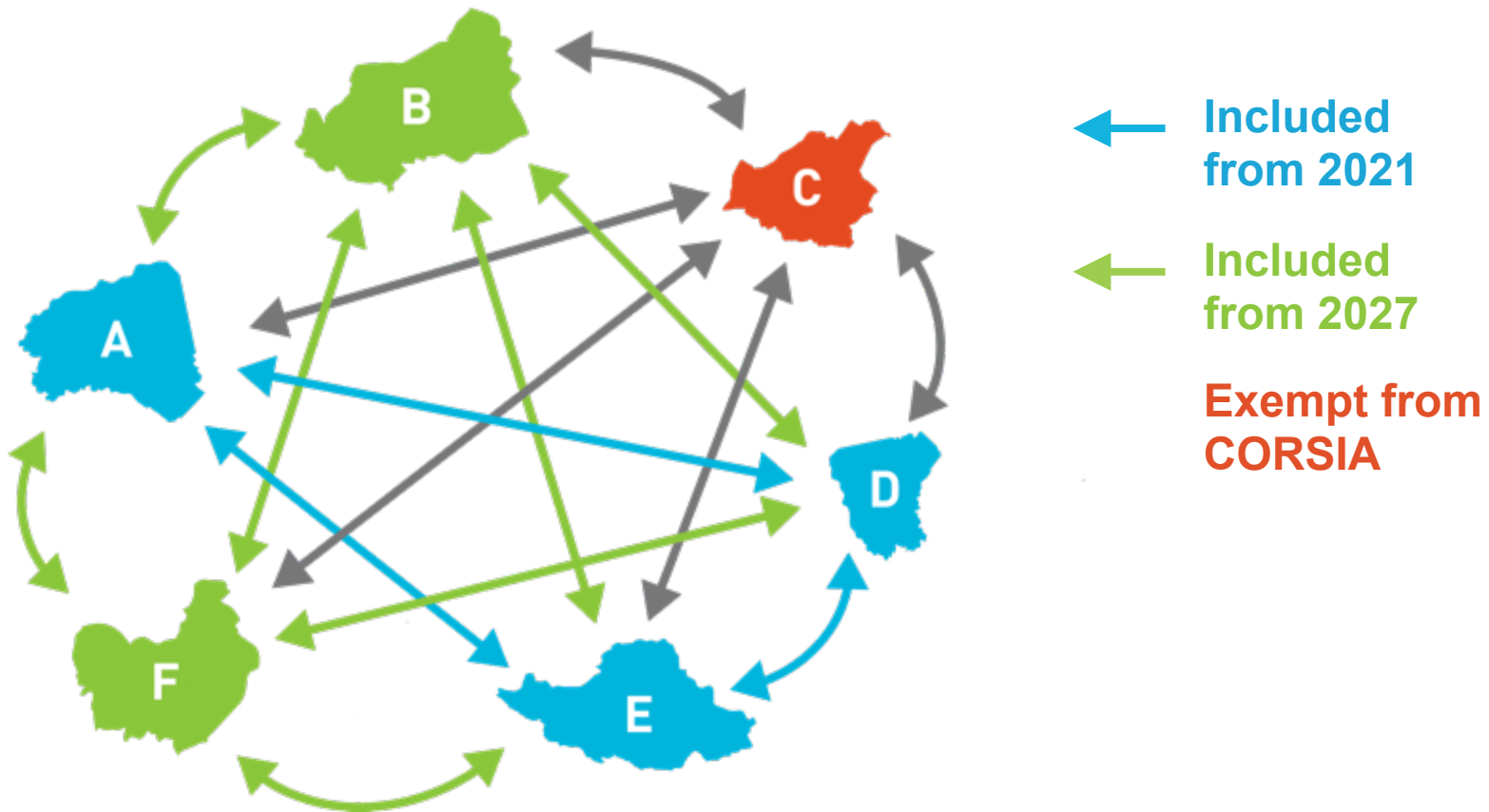
# States included in the first (voluntary) phases



AS OF 12 OCTOBER 2016, **66 STATES** HAVE VOLUNTEERED TO BE PART OF CORSIA FROM THE STAR8.



## Route-based approach means market distortion is limited



# Alternative Fuels in the CORSIA Context

- ICAO is developing recommendations for the recognition of SAF CO<sub>2</sub> emissions reduction under CORSIA
- Global nature of the ICAO CORSIA → requires a globally harmonized view of sustainability criteria
- Excellent opportunity for international aviation to define a globally recognized framework for sustainability of alternative fuels
- Build as much as possible upon existing sustainability standards and frameworks
  - Sustainability criteria (environmental, social, economic)
  - Compliance mechanism

## Sustainable jet fuels – Airline perspective

- Airlines support sustainable jet fuels as a major instrument to meeting aviation's long-term emissions reduction goals
- Since early 2016, continuous supply starting:
  - Airline/supplier offtake agreements (mostly US)
  - Bioports (e.g. OSL, LAX)
- Today's barriers are economic rather than technical
- Sustainability is key requirement for most aviation customers
- Positive political and legislative framework needed
  - Offtake agreements can be at competitive price with right support
  - De-risk investments, encourage production
  - Effective in US
  - ICAO Global Market-based Measure CORSIA
  - New opportunity with RED II



**Thank you!**

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