



Co-funded by  
the European Union

SUPPORTED BY  
**sesar**  
JOINT UNDERTAKING

THALES

# CONCERTO

Traffic Flows Optimization



David Antonello

Head of ATM Green Operations

THALES



# Challenge

**How to ensure that multiple trajectory optimization relying on contrail avoidance will**

- ▶ Lead to a **total** climate impact reduction
- ▶ Be **economically** acceptable for Airspace users
- ▶ Be **operationally** viable for ATM actors

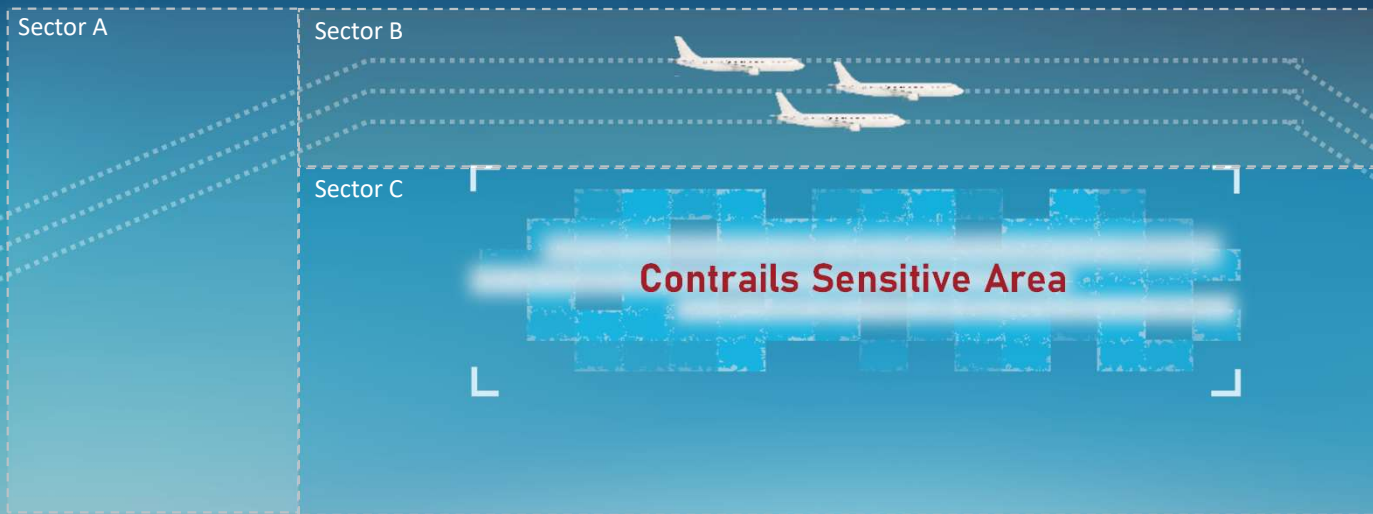
# Contrails



# Contrails Mitigation by Airlines



# Contrails Mitigation by Airlines



**ATC IMPACT** (Capacity, Complexity, Predictability)

# Contrails Mitigation With CONCERTO



To Act Locally, on Limited Flights with High Climate Impact & Mitigation Potential

# Contrails Mitigation Strategy

**A Collaborative Decision Making Process**

ATM & AUs

**Balance Climate, AU & ATM Stakes**

Trade Off

**A Scalable Deployment**

Start Local

**A Climate Monitoring & Mitigation at Traffic Flows**

Global

# Northern Europe Focus



- ▶ **10<sub>x</sub>** ANSPs
- ▶ **> 6M** flights /year
- ▶ **> 16 000** flights /day
- ▶ **> 50%** of European traffic
- ▶ **Highly** subject to Contrail

## Team

### Air Navigation Service Providers (ANSPs)



### Airline & Flight Planning



### Industrial



### Academics



### Weather Provider



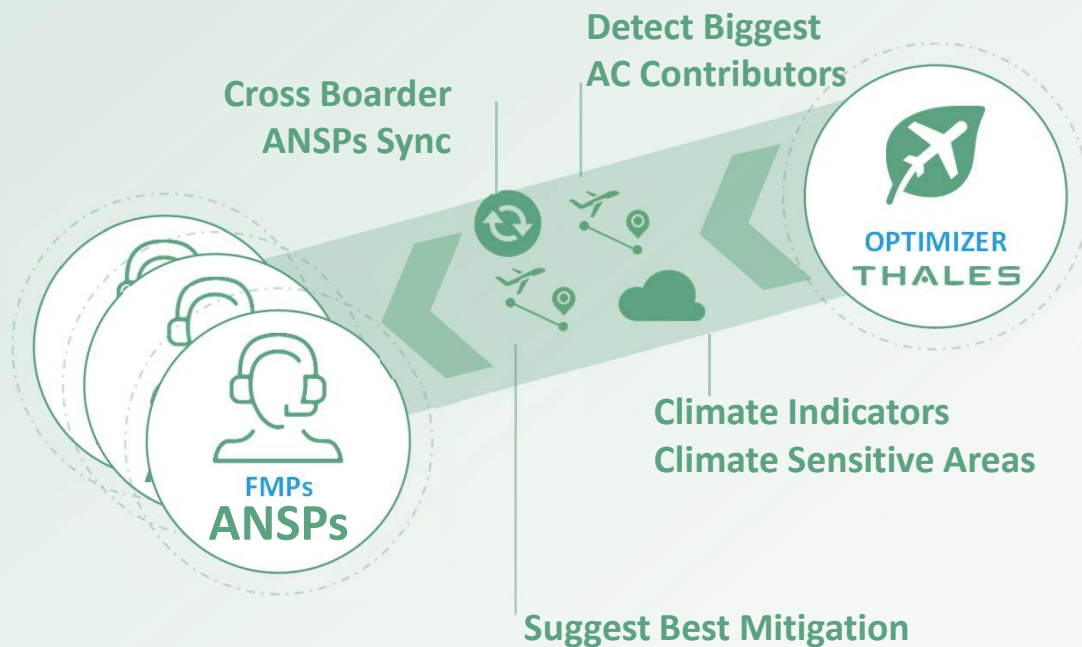
# The Traffic Flow Optimizer

## 1. For AUs & Flight Planning



# The Traffic Flow Optimizer

## 2. For ANSPs

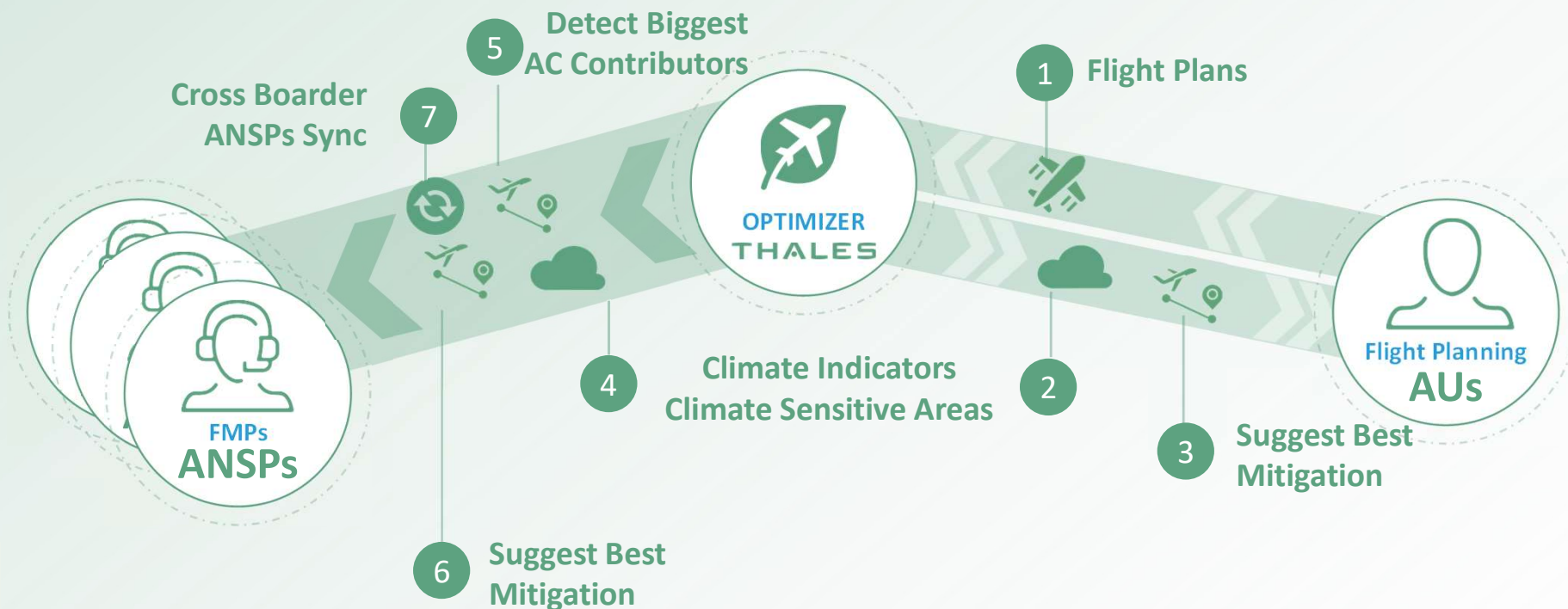


# Traffic Flows Optimization

THALES

# The Traffic Flow Optimizer

## 3. For All

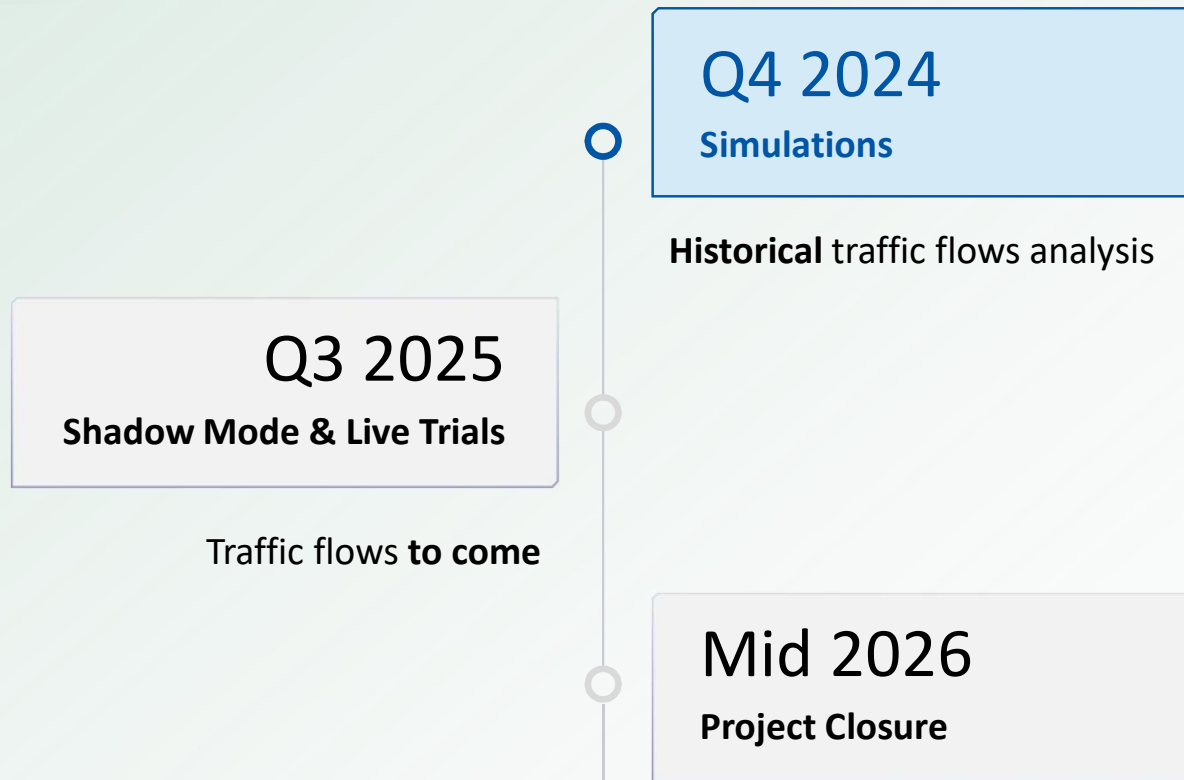


A Collaborative Solution

THALES

## Next Steps

2024-2026



# CONCLUSION

To Act **Locally**,  
at **Traffic Flows** Level,  
on **Limited** Flights  
with High **Climate** Impact  
& High **Mitigation Potential**

Thank You



THALES