

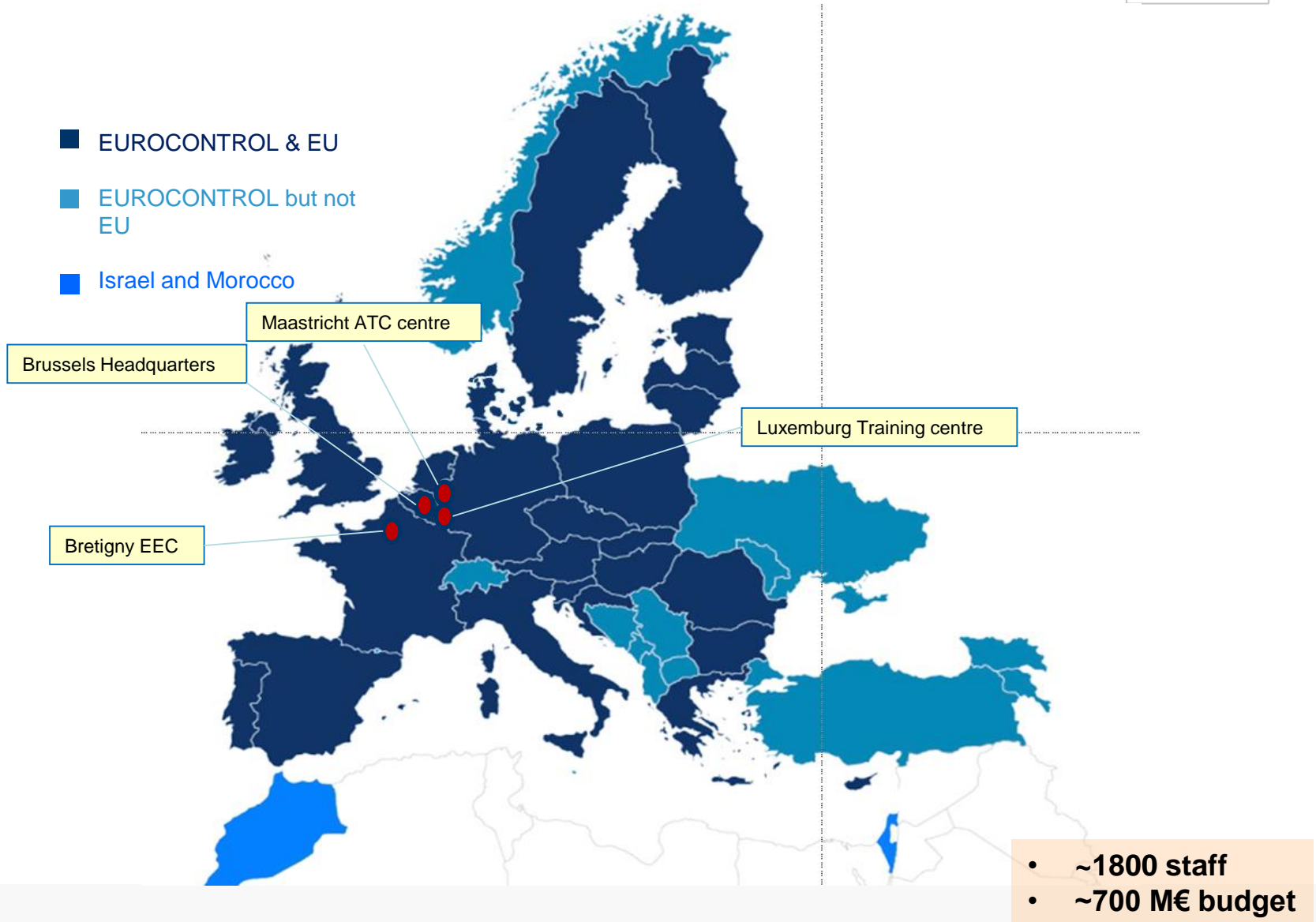


EUROCONTROL General Presentation

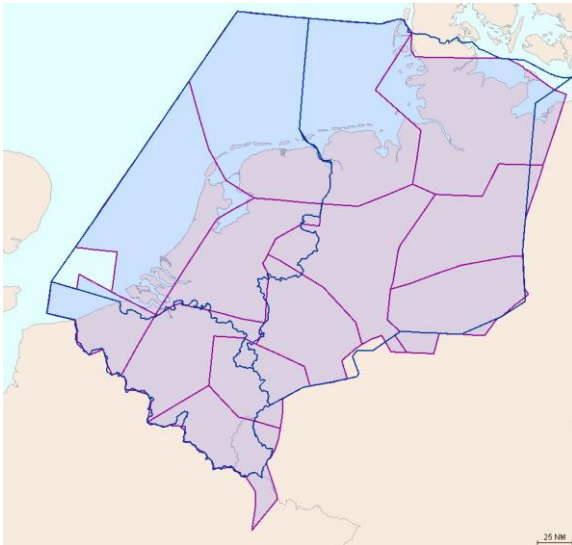
COPERNICUS & AERIAL PLATFORMS WORKSHOP –
13 September 2018

Philippe MERLO
Director ATM EUROCONTROL

EUROCONTROL Today

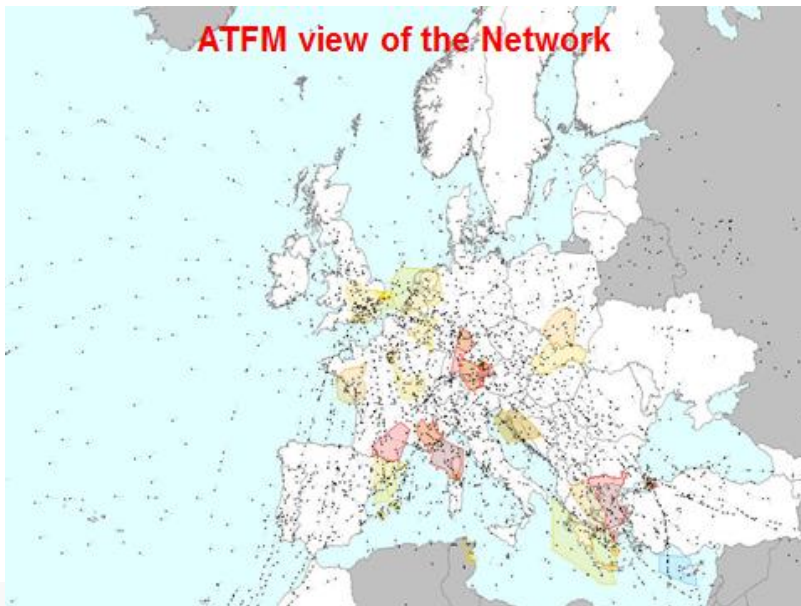


Maastricht Upper Area Control Centre



- **260,000 km² over Belgium, the Netherlands, Luxembourg and North-West Germany**
- **Densest airspace in Europe**
- **More than 1.5 million flights controlled (2013)**
- **Annual costs (2013): € 138 M**
- **3rd largest control centre in Europe**
- **6th largest ANSP in Europe**
- **Highest controller productivity in Europe**
- **One of the most cost-effective ANSPs**

Network Manager



European ATM Network :

- 43 States (41+2)
- 1750 Sectors – 68 en-route centres
- 520 Airports
- 1940 Aircraft Operators
- 6,700+ connected end-users
- Peak traffic – 35,937 flights /day
- 10,600,000+ flights a year

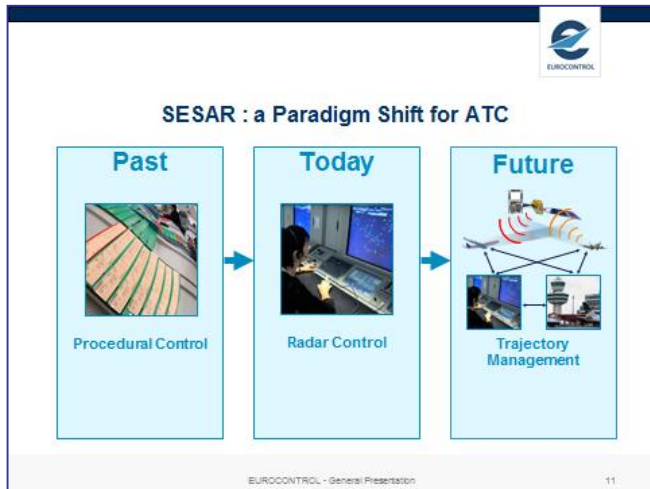
Main functions :

- Manage Air Traffic Flows
- Develop integrated Route Network
- Coordination with other regions
- Management of crises (EACCC)

EUROCONTROL as main European R&D ATM centre



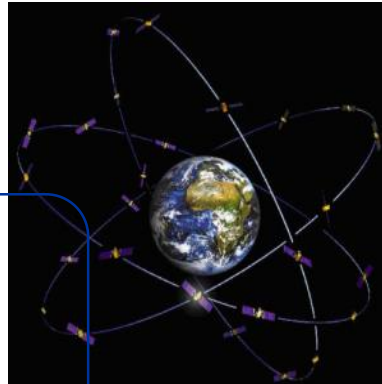
- Able to federate European ATM (ATM Master Plan)
- ATM expertise more efficient concentrated than scattered
- Sharing R&D costs (expert teams, validation tools)/Member States
- Leverage Network Manager and MUAC operational experience
- Enables to discuss with US/FAA on equal footing
- EUROCONTROL founding member and main contributor of SESAR JU



Satellites Applications for ATM

GLOBAL TRACKING

ADS-B / ADS-C



GNSS

Global Positioning

Performance Based Navigation (PBN)

Ground Based Augmentation System (GBAS) precision approach

Aircraft Surveillance application (ADS-B positioning)

Time synchronisation and distribution

EARTH OBSERVATION AND WEATHER

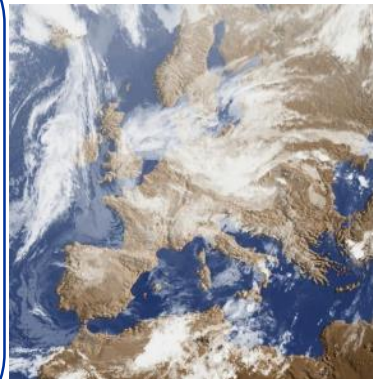
Atmosphere knowledge

Hazards and weather forecast

Ash cloud prediction-monitoring

Contrails monitoring

Optimal flight planning



SATCOM

Current and future COM services

Data / voice communication

New ATM Satellite-based services for all flight domains

ADS-C

RPAS (telecommand and payload)



DRONES & NEW ENTRANTS AT ALL ALTITUDES

Need for ATM to evolve and adapt



STM

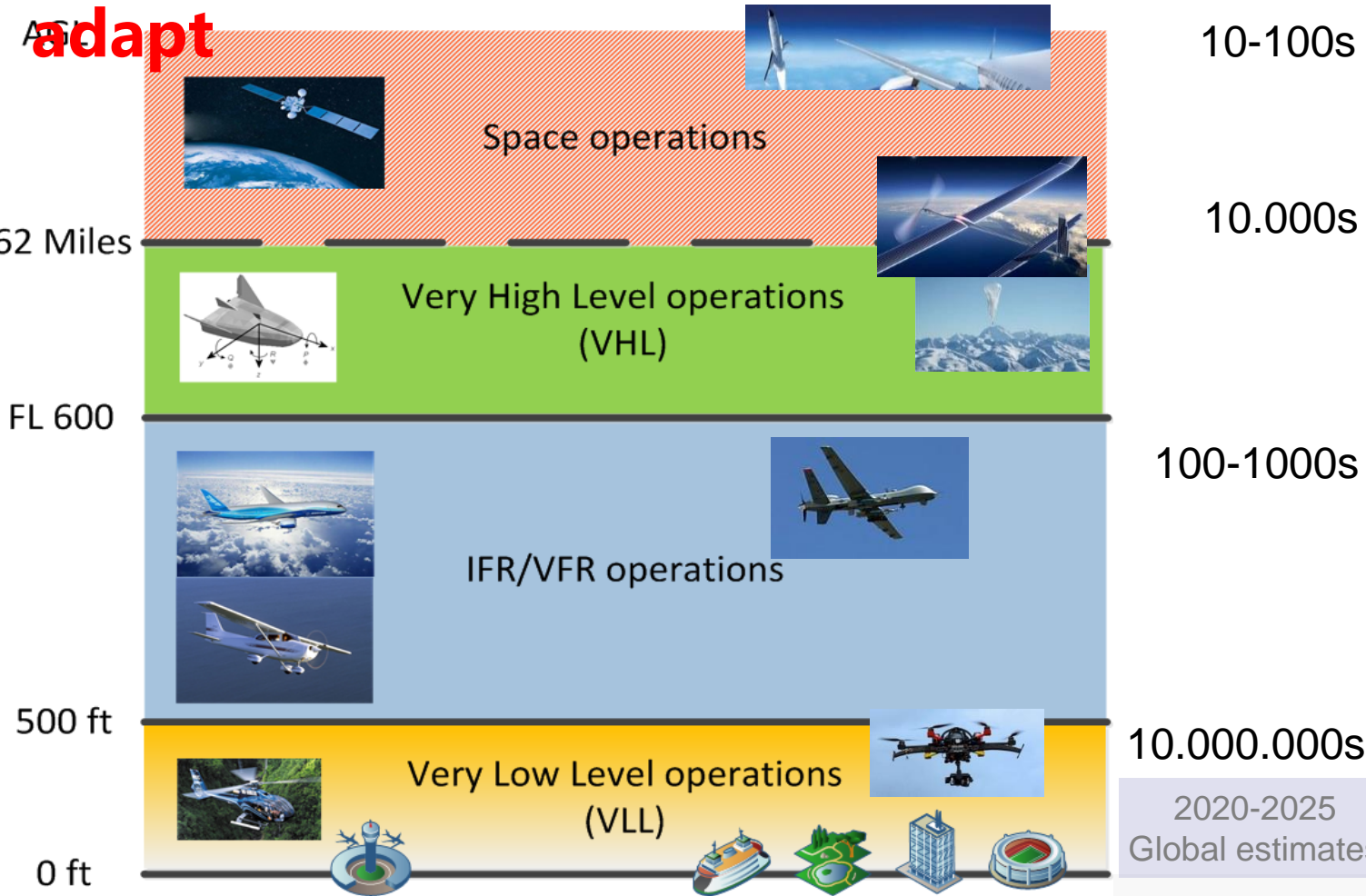
100 km / 62 Miles



ATM



UTM





EUROCONTROL

General Presentation

Philippe MERLO
Director ATM EUROCONTROL

Enabling benefits from Space to aviation users and the ATM network



SAT COM
Commercial Services

GNSS systems

- GPS
- GLONASS
- GALILEO (including PRS)
- BEIDOU
- RAIM
- SBAS/ EGNOS
- GBAS



Nav operations (PBN, SBAS, GBAS)

Sat COM operations

Global Tracking

RPAS

Military and special users secure operations

CNS combined use

Satellite threats and mitigation

Aviation spectrum

EUROCONTROL's expertise and values



- ✓ **ATM all domain expertise including space & spectrum**
- ✓ **Impartiality & Performance oriented**
In serving the interest of all stakeholders
- ✓ **European wide perspective & global interactions with other regions**
- ✓ **Civil-military dimension**
- ✓ **Partnership with EU, aviation stakeholders, industry, FAA and ICAO**
- ✓ **Coordination with ESA (Agreement of Cooperation) covering GNSS and SATCOM aspects**
- ✓ **Centralised Services.**