



CANSO Members creating capacity in Europe.

CANSO is the global voice of air traffic management and together CANSO Members work to address key industry issues and champion innovation. With air traffic in Europe at an all time high – with traffic growth in 2018 outstripping estimates for most air navigation service providers (ANSP) – CANSO ANSP Members in the region are implementing a range of measures to accommodate rising demand and create much-needed capacity, both now and in the future.

CANSO Member: Avinor Air Navigation Services

Avinor owns and operates 46 airports in Norway, 12 of which in cooperation with the Military Services. Avinor is also responsible for providing air navigation services within Norwegian airspace, in a safe, efficient and orderly way.



Air traffic growth in Norway



Traffic

Actual traffic in terms of en-route service units **increased 25.3%** during 2012-2019 (RP1+RP2)



Cost reduction

Actual reduction in terms of unit rates during 2012-2019 (RP1+RP2): **Reduction of -32%**



Punctuality

Average delay per flight (YTD 2019): **0.005 minutes**



Environment

91.1% of all departures from Oslo airport had an uninterrupted continuous climb to cruise level in 2018.

How Avinor Air Navigation Services is improving capacity

Measures to improve domestic capacity – now to two years



System improvements

- ▶ Continue the implementation of WAM and ADS-B Surveillance
- ▶ Currently constructing the world's largest remote tower centre in Bodø, Norway which will serve 15 airports



Airspace changes

- ▶ We are planning to introduce new upper sector in the southern part of Norway. This will increase capacity in the airspace, through multilayer vertical split
- ▶ 2020: Implement new curved approaches to Oslo airport. This will improve the environmental impact of arrivals to the airport



Ops procedural changes

- ▶ 2015-2017 – Implementation of Northern Europe Free Route Airspace (NEFRA). Applies 24/7 over FL 095/135/285
- ▶ Implemented ADS-B surveillance in oceanic airspace between Norway and Svalbard
- ▶ Among Europe's leading ANSPs on vertical flight efficiency to medium and large sized airports



People related improvements (training/rostering)

- ▶ 40% female applicants to the air traffic control education in 2019
- ▶ Flexible staff planning and rostering balancing resources to demand hour by hour



Cross-border initiatives

- ▶ Cross-border TMA with Finland (Q4 2016), and Sweden (from Q4 2019)
- ▶ Offshore traffic – Cross border collaboration with the UK
- ▶ 2015-2017 – Fully implemented the Northern Europe Free Route Airspace (NEFRA) together with NEFAB and NUAC partners
- ▶ Avinor Air Navigation Services is a member of NEFAB (Northern Europe Functional Airspace Block) and the Borealis Alliance
- ▶ Avinor Air Navigation Services is a part of iTEC Alliance with 7 other countries working on a new ATM system

Measures to improve domestic capacity – three to five years



System improvements

- ▶ **2020**
Full implementation of WAM and ADS surveillance in Norway
- ▶ **2023**
Planning to implement the iTEC 2.5 platform as our new ATM system
- ▶ **2023**
Voice over IP (VOIP) to be implemented



Cross-border initiatives

- ▶ **2018-2022**
Planning to expand the Free Route Airspace to include BOREALIS member ANSPs