

# Presentation to Underwriters

February 2020



# Agenda

- Ownership and regulatory structure
- Aviation in Norway
- Passengers and flight movements
- Financial performance
- Key projects





# Regulatory environment

## Regulatory requirements



- ✓ Regulates Aeronautical revenues
- ✓ No funding from the Norwegian state
- ✓ Single till principle
- ✓ Category 3 company:  
Regulatory and political objectives

## Shareholder policies and objectives



- ✓ Dividend policy: 50 % of result after tax
- ✓ Return on investment:  
ROIC: 5.1 % (after tax)  
Equity: 9.0 %  
Min.: 40 % Equity / Equity + Net Interest Bearing Debt
- ✓ Strong and good relationship to the owner
- ✓ Quarterly meetings between MTC and Avinor



# Norwegian State ownership - goals

## Category 1

- the highest possible return over time and where the state no longer has a justification for ownership

- Flytoget AS (100 %)
- GIEK Kredittforsikring AS (100 %)
- Mesta AS (100 %)
- Entra ASA (100 %)
- Baneservice AS (100 %)
- Ambita AS (100 %)

## Category 2

- the highest possible return over time, and where the state has special grounds for ownership

- Statkraft SF (100 %)
- Norsk Hydro ASA (34,26 %)
- Nammo AS (50 %)
- Kongsberg Gruppen ASA ( 50 %)
- Equinor ASA (67 %)
- Telenor ASA (53,97 %)

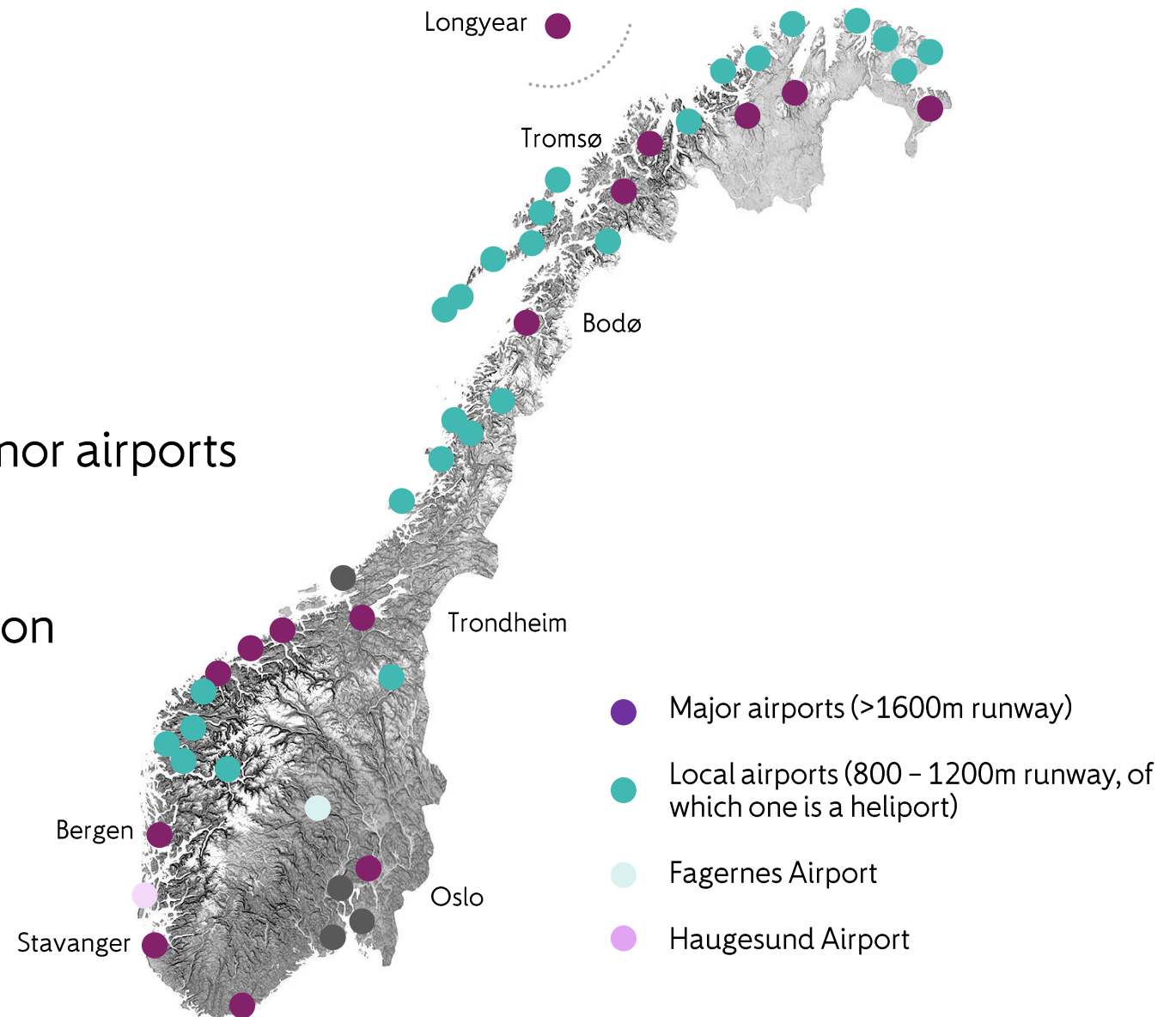
## Category 3

- the most effective achievement of sectoral policy objectives

- **Avinor AS (100 %)**
- Nye Veier AS (100%)
- Bane NOR SF (100 %)
- AS Vinmonopolet (100 %)
- Norsk Helsenett SF (100 %)
- Statskog SF (100 %)

# Aviation in Norway

- Population: 5.357 million
- 2 700 km coast line
- Owns 45 airports / operates 43 Avinor airports
- 54.7 million passenger per year
- Cost and time-efficient transportation with challenging topography



# Handling services and fuel

## **Svalbard Lufthavn AS**

Responsible for aircraft handling

## **Avinor AS**

Ground handling – not responsible

De-icing facilities at Oslo airport (June 2020)

## **Persons with reduced Mobility**

Avinor follows the Regulation EC 1107/2006 and a Norwegian regulation

## **Fuel**

- Avinor is still under negotiation for a new fuel agreement with Air BP covering smaller airports



# Air Navigation Services

## Tower operations



Air Traffic Control is provided at all large and regional airports except for Vigra and Kjevik subject to Saerco are able to take over the business. Services provided are either Tower or combined Tower/Approach control

AFIS at local airports

## Area Control

Norway ACC, one unit, three locations, four sector groups

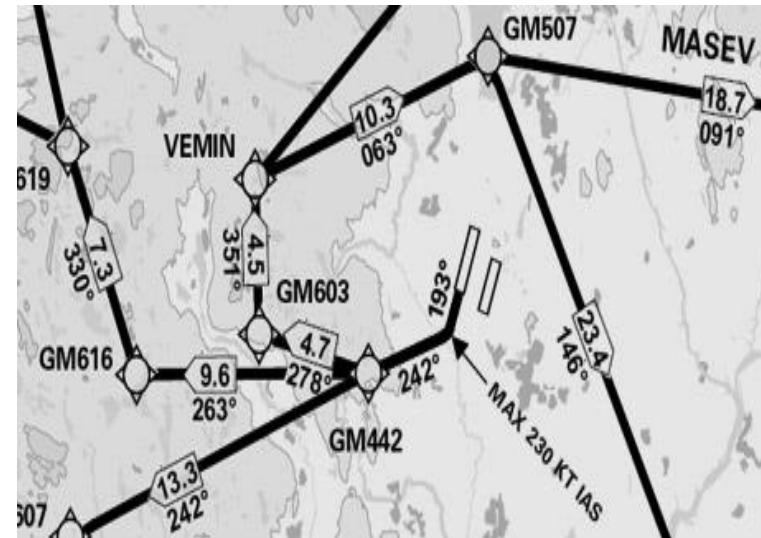
North, West, East and TMA

- Bodø
- Stavanger
- Oslo (Røyken)

Avinor Flysikring AS is certified in accordance with EC 1035/2011, valid until 1 June 2024

# Avinor Group - Consulting services

- Various types of consultancy services to other Norwegian non-Avinor airports including Military airports. Typical consultancy areas are Safety Assessments, Airspace design and Engineering (equipment) solutions
- Information Management – operational procedures e.g. landing/take-off procedures, including relevant publication of these
- Other type of consultancy services – e.g. ATM security, Cyber security, Staffing solutions, Incident analysis



WARNING  
SEGMENT  
DISTANCE  
FROM  
EXTENDED  
RWY CL TO  
GM442 IS LESS  
THAN THE  
AVERAGE  
FLIGHT PATH.

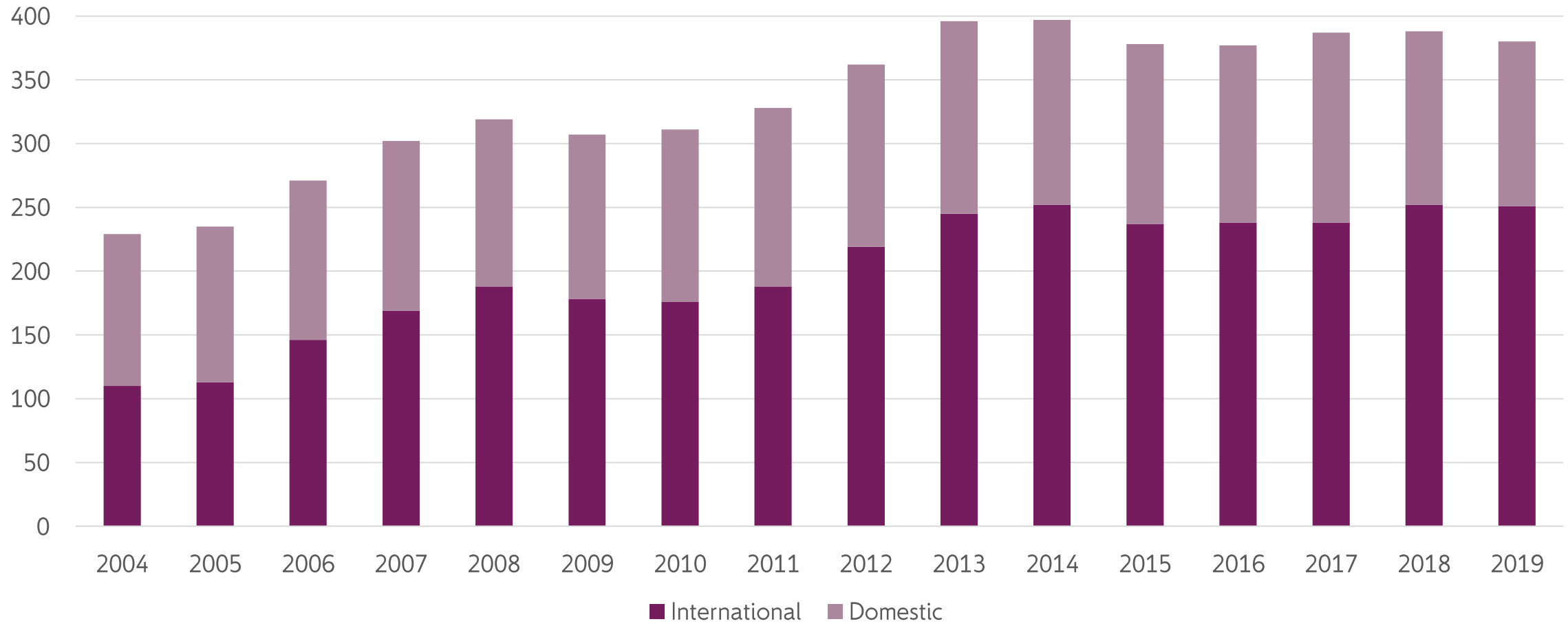


# Traffic volume 2019 - 2018

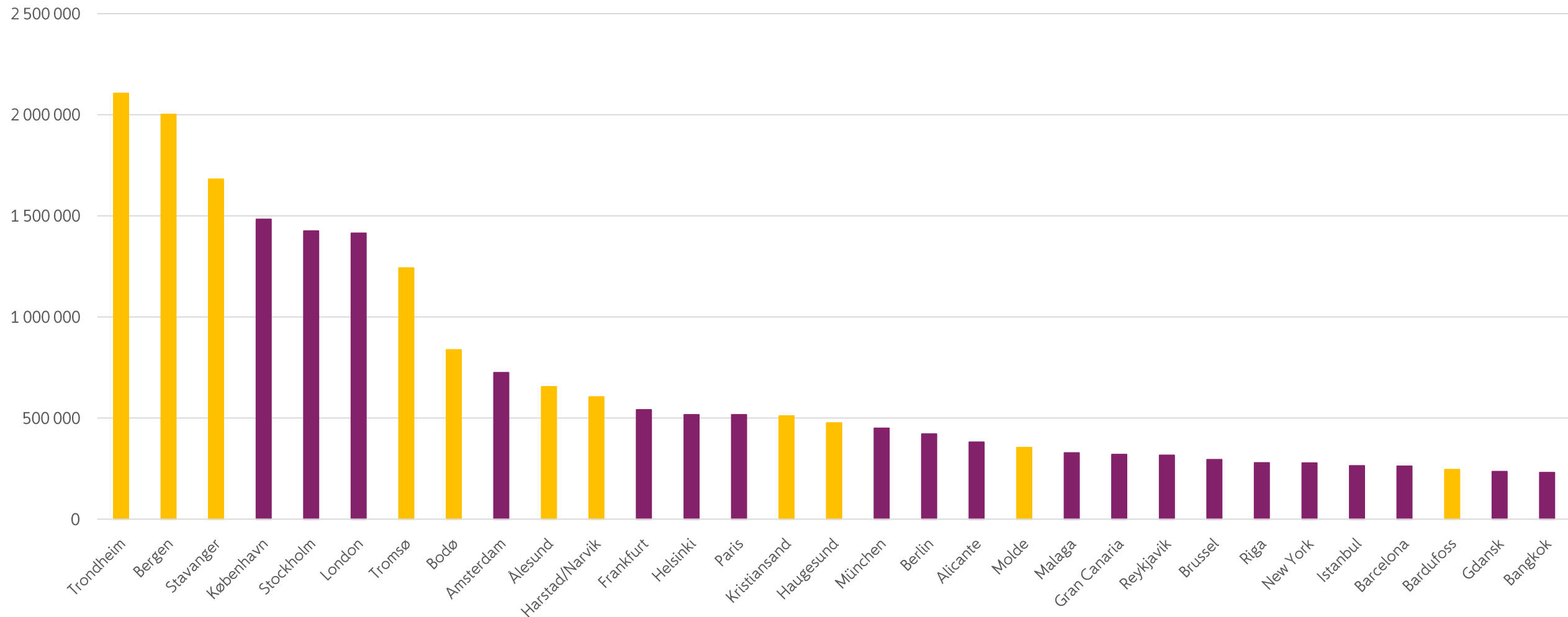
	2019	2018	Change
Passengers			
Total	54 099 013	54 397 000	- 0.55 %
Domestic	30 731 711	31 345 000	- 0.4 %
International	22 774 526	22 523 000	1.8 %
Offshore	592 776	528 000	12.2 %
Movements			
Total	756 024	758 000	- 0.26 %
Domestic	442 165	451 000	- 1.96 %
International	193 075	187 000	3.25 %
Offshore	42 084	39 000	7.91 %
Overflights			
	78 700	81 000	-2.8%

- Increased passenger volume
- As a result of larger aircraft and improved cabin factor, the number of aircraft movements is stable or down
- Reduced number of enroute service units

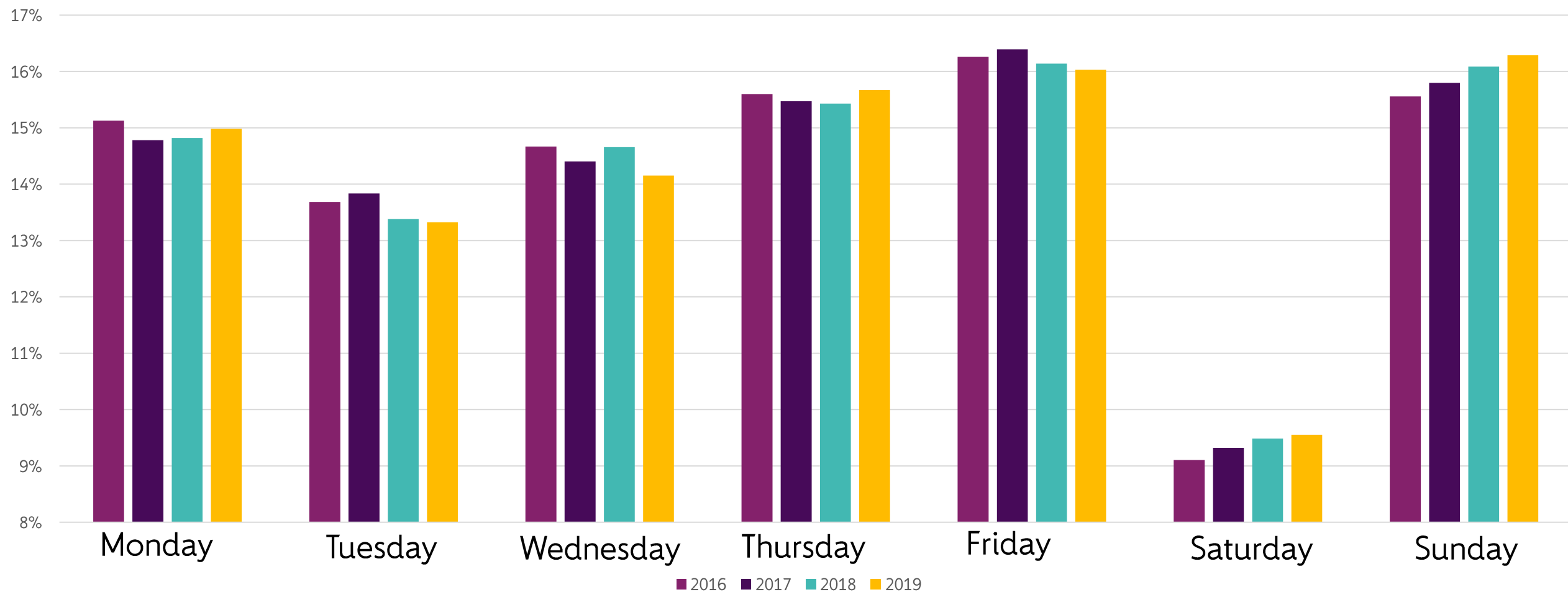
# Number of direct routes from Avinor's airports



# 30 largest direct routes in 2019 at Oslo airport



# Traffic per week day at Oslo airport (2016 – 2019)



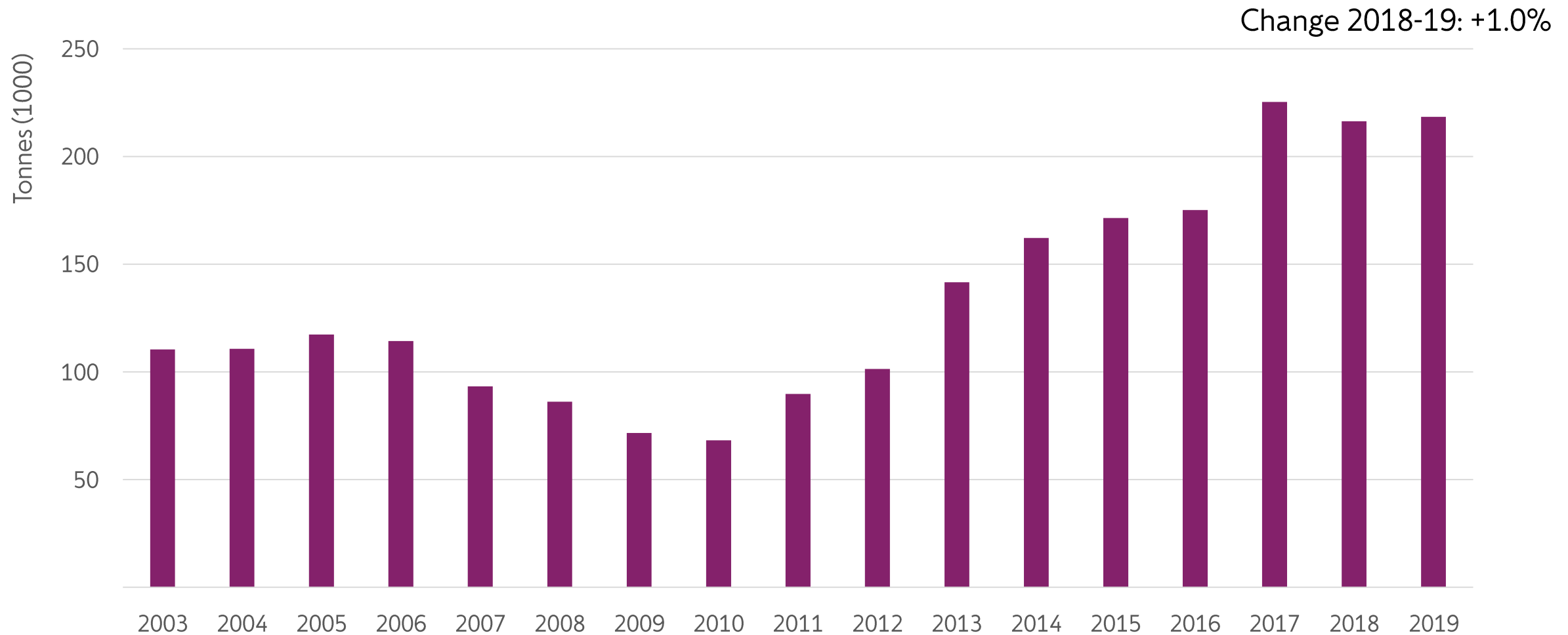


# Commercial aircraft movements (Avinor)

Change 2018-19:  
-1.6% (-1.1% adjusted for HAU)



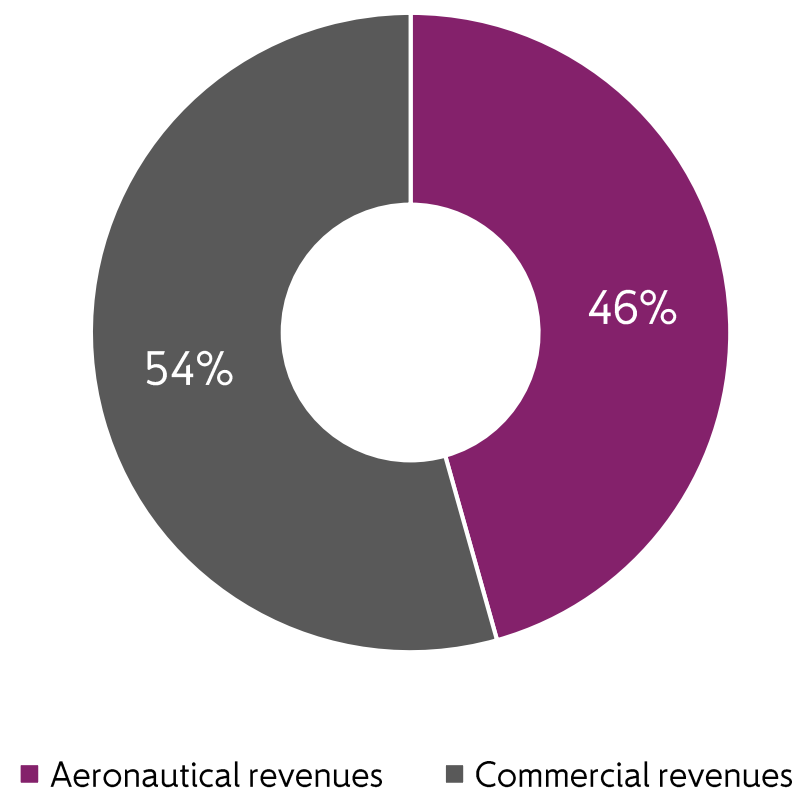
# Freight & mail Oslo airport



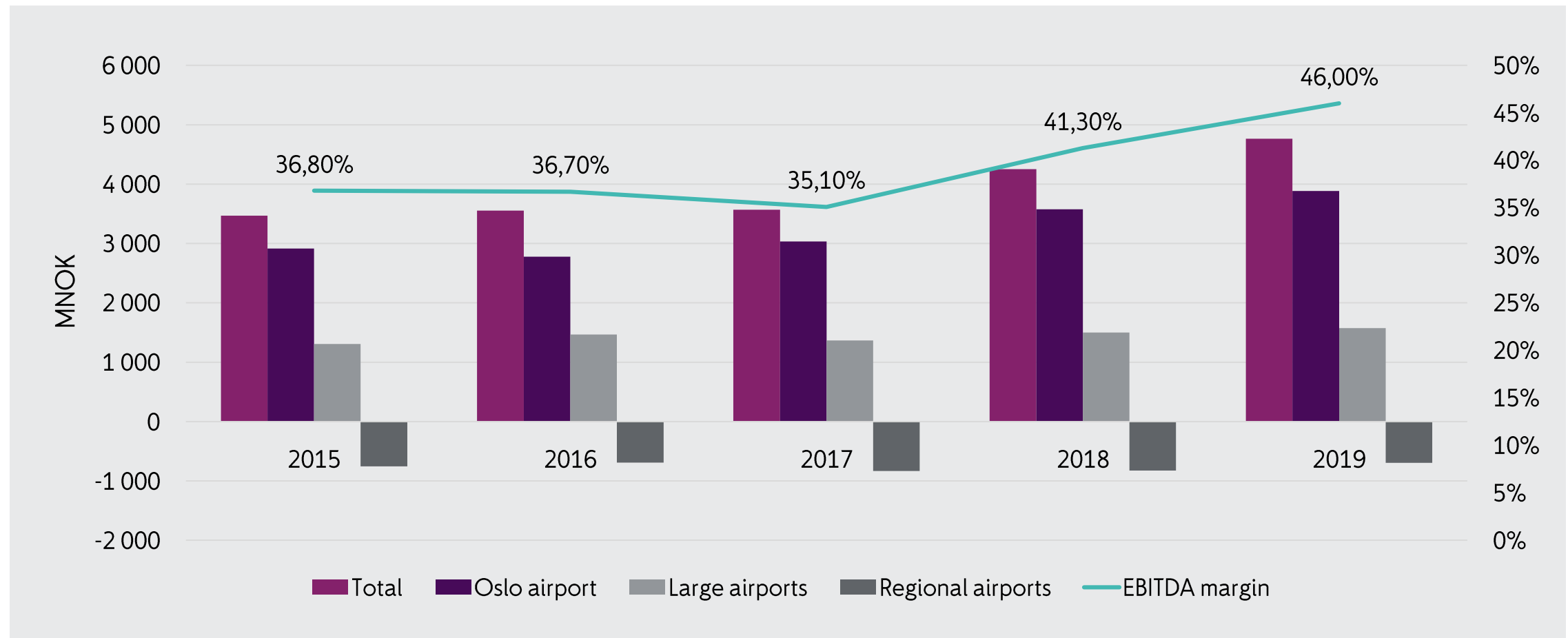
# Group revenues

MNOK	2019	2018
Aeronautical revenues	5 379	5 513
Commercial revenues	6 406	6 211
Total:	11 785	11 724
Revenue divided between Avinor AS, Oslo airport and Avinor Flysikring AS		
Avinor AS excluding Oslo airport	5 309	5 250
Oslo airport	5 982	5 918
Avinor Flysikring AS	2 100	2 107
Inter-segment income	-1 606	-1 555
Total:	11 785	11 720

Revenue distribution 2019 MNOK



# EBITDA airports 2015 - 2019





# Key Projects



# Oslo Airport

## Non-Schengen

Extension of Non-Schengen part of terminal started in January 2019, planned completion by Summer 2022 (work on two last passenger bridges starts in 2022, planned completion in 2024)



# Tromsø airport

New terminal in Tromsø is approved by the board of Avinor AS

10 000 sq meters

Construction start autumn 2020 and completion date within 2023

Total cost 920 million kroner



# Driverless vehicles

## R&D project

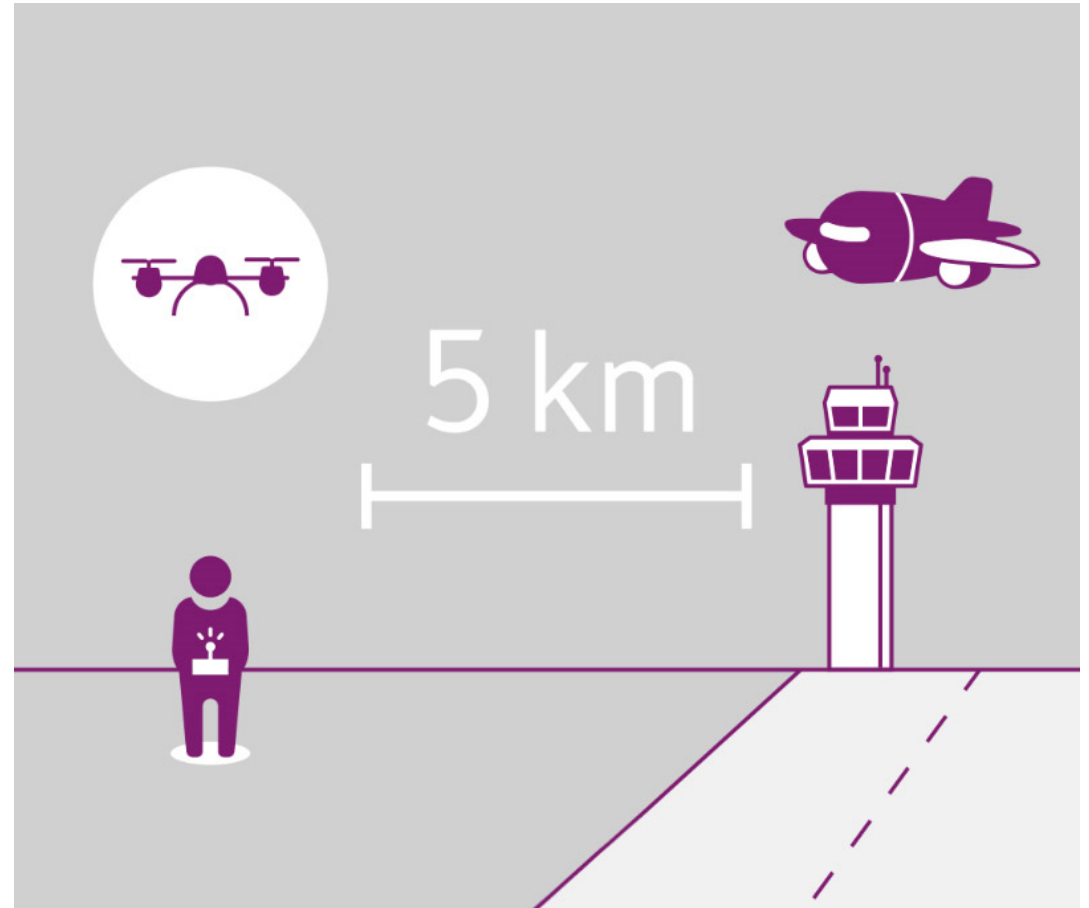
- Collecting data by test driving with a driver in the front seat and designing a system based on these data is completed
- Next step is to evaluate the result for planning of the implementation



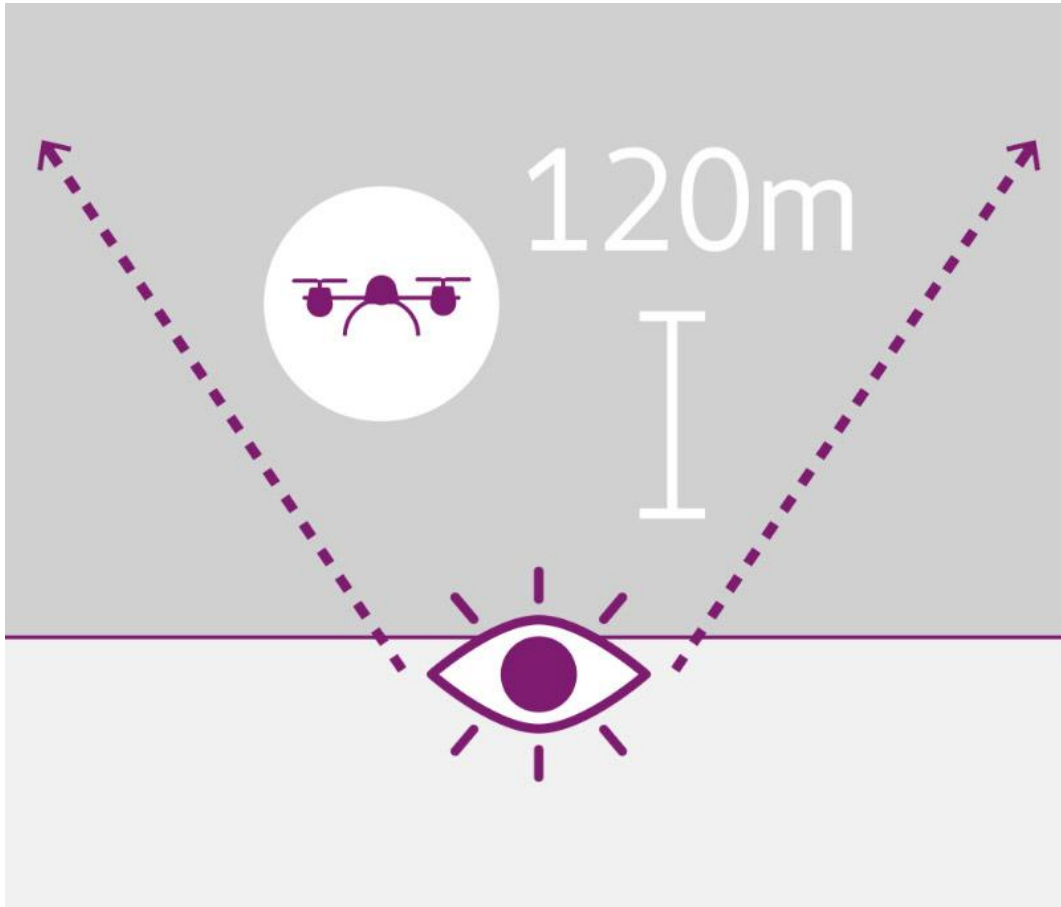


# Drones

- The Aviation Act in Norway are adapted to Regulations concerning aircraft without a pilot on board
- The Regulations cover the use of drones RO1, RO2 and RO3
- Avinor will press charges against any drone operator that are within the 5 km radius of the airport (without permission)



# Drones, continued



- Commercial drone operator has to complete drone courses, and buy a mandatory drone insurance for passenger and third party liability
- Avinor Flysikring AS has purchase an Unmanned Traffic Management system to provide drone operators with easy access to information about no-fly zones and other relevant information. The UTM system will be introduced to Avinor airports in 2020

# Remote Towers (RT)

- Avinor Flysikring AS signed a contract with Kongsberg Defence & Aerospace in 2015
- Contingency Remote Tower Center (CRTC) was established at Bodø in June 2017
- The contract has a scale of implementing RT at 15 airports, with an option of another 21 airport
- Airport #1 - Røst - operational 19.10.2019.
  - Vardø, Hasvik and Berlevåg planned operational 2020.
- Airport #15 is planned to be operational in 2022.
- The Remote Tower Center (RTC) – a new building at Bodø airport is under construction - completed Q2 2020





# Avinor Flysikring AS – other projects

## **New ATM system (en-route) – FAS Project**

- Contract signed June 2016, NATS
- iTEC, Indra
- Planned operational (Southern Norway) 2023
- Northern Norway tbd

## **Free route airspace (FRA)**

- NEFRA FRA full implementation May 2017
- Borealis FRA project

## **New surveillance strategy (NORWAM)**

- WAM implemented in the western and idle parts of Norway
- ADS-B corridor is operational from the mainland Norway to Svalbard as of December 2017
- Primary radars are decommissioned

## **Cyber security programme**

- New and improved measures

# NORWAM – Norwegian Radar, Wam and ADS-B Implementation Program

## AIM

- End of life on a number of conventional radars, which will not meet new operational requirements for surveillance
- Reduce costs related to implementation and maintenance on surveillance equipment

## HOW:

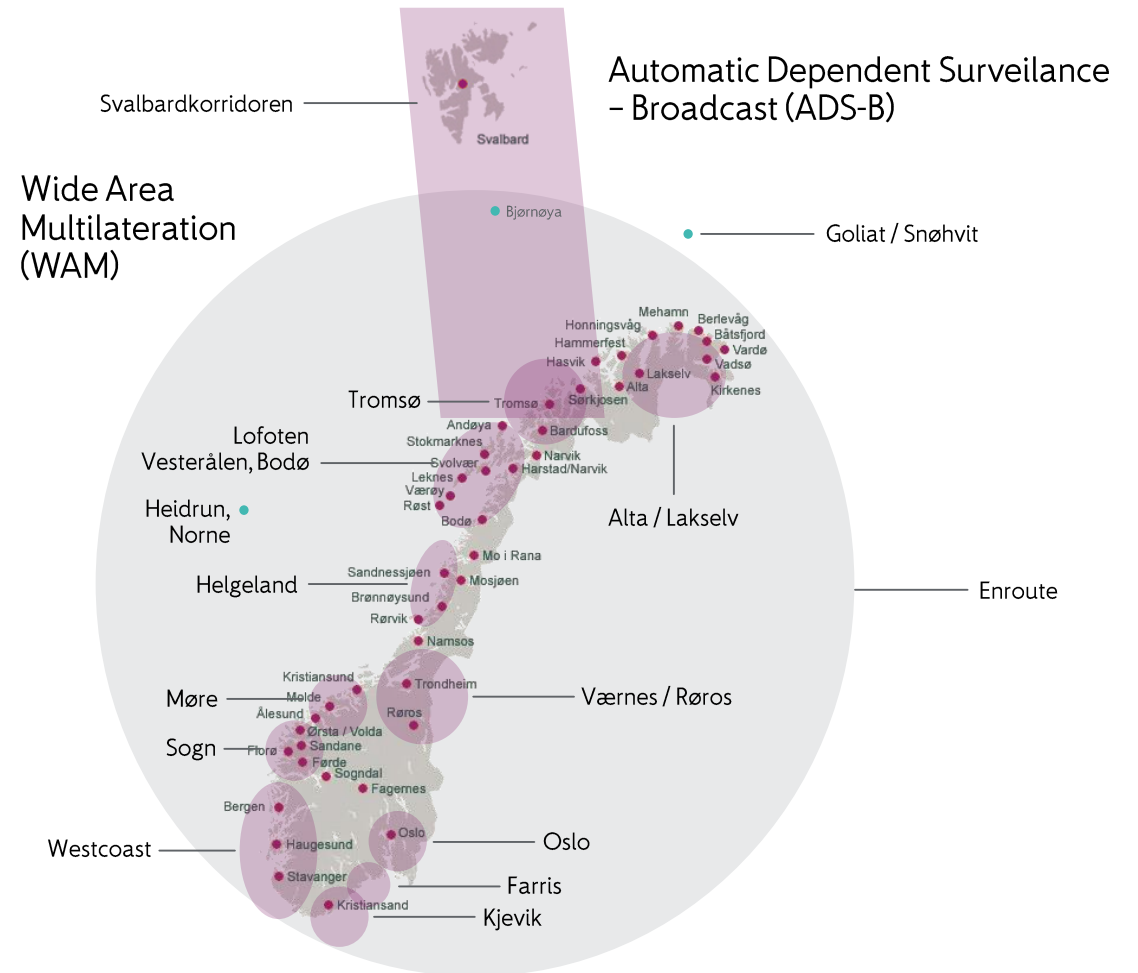
- Safety analysis conducted
  - defining sensor types

- OPS requirement, Business case.  
Technical analysis, overall plan defined
- Implementation of new technology including:
  - Appx 150 new sensors
  - Centralized processing with backup of systems and technology
  - Upgrading of existing systems for new sensors
  - Integration – existing systems
  - Safety approval of new systems
  - Training and operationalization

# NORWAM – Norwegian Radar, Wam and ADS-B Implementation Program

## Benefits:

- Avoiding investments in replacement of traditional sensors.  
New technology = lower cost
- Meeting operational and legal requirements



# Safety (SMS), Quality(QMS), and Risk Management System

“ The Avinor group has developed and implemented an integrated Safety, Security and Quality Management System to ensure that all activities and developments are performed in a planned and controlled manner

“ Authority requirement that all airports and ANS shall have established a QMS based upon ISO 9001 Standard and SMS based upon ICAO Safety Management Manual and security standards.

# Cyber Security

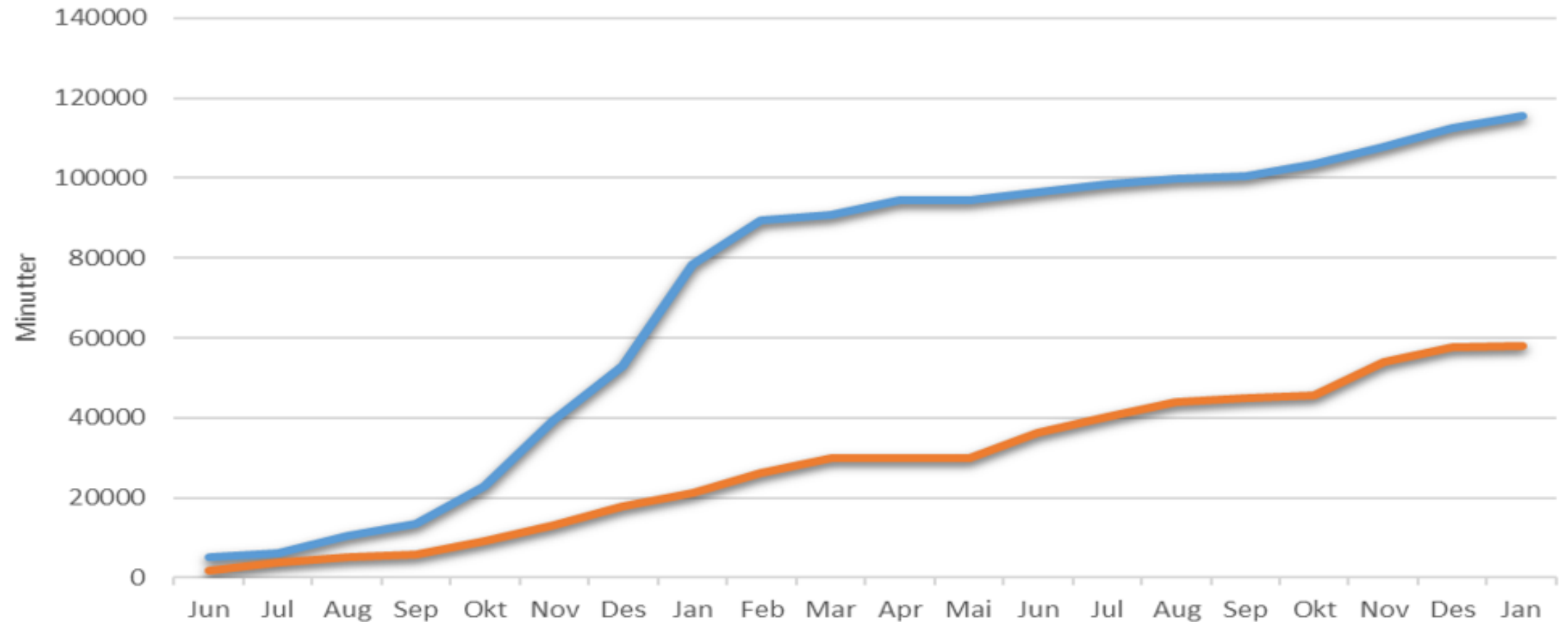
- As required by EU 2017/373 ATM/ANS.OR.B.005, Avinor has established a security management system ensuring the security of operational data we receive, produce, or otherwise employ, to prevent unauthorized access and unlawful disruption of service.
- Avinor have implemented a risk-based approach to cyber security.
- Internal procedure describes the formal process of implementing cyber security risk analyses.
- The change management procedure ensures that any changes in Avinor are assessed to identify possible cyber security risks.
- Subject matter experts are used to control initial assessments from change responsible and projects, and to conduct cyber security risk assessments.

# Separation Infringements with ANS contribution

		Separation Infringements with direct ANS contribution		
		2017	2018	2019
CATA		0	0	0
CAT B		9	2	2
CAT C		27	25	21
CAT D		1	0	1
		Separation Infringements with indirect ANS contribution		
CATA		0	0	0
CAT B		0	0	0
CAT C		0	1	1
CAT D		0	0	0

# Reduction in ATM delay at Oslo airport

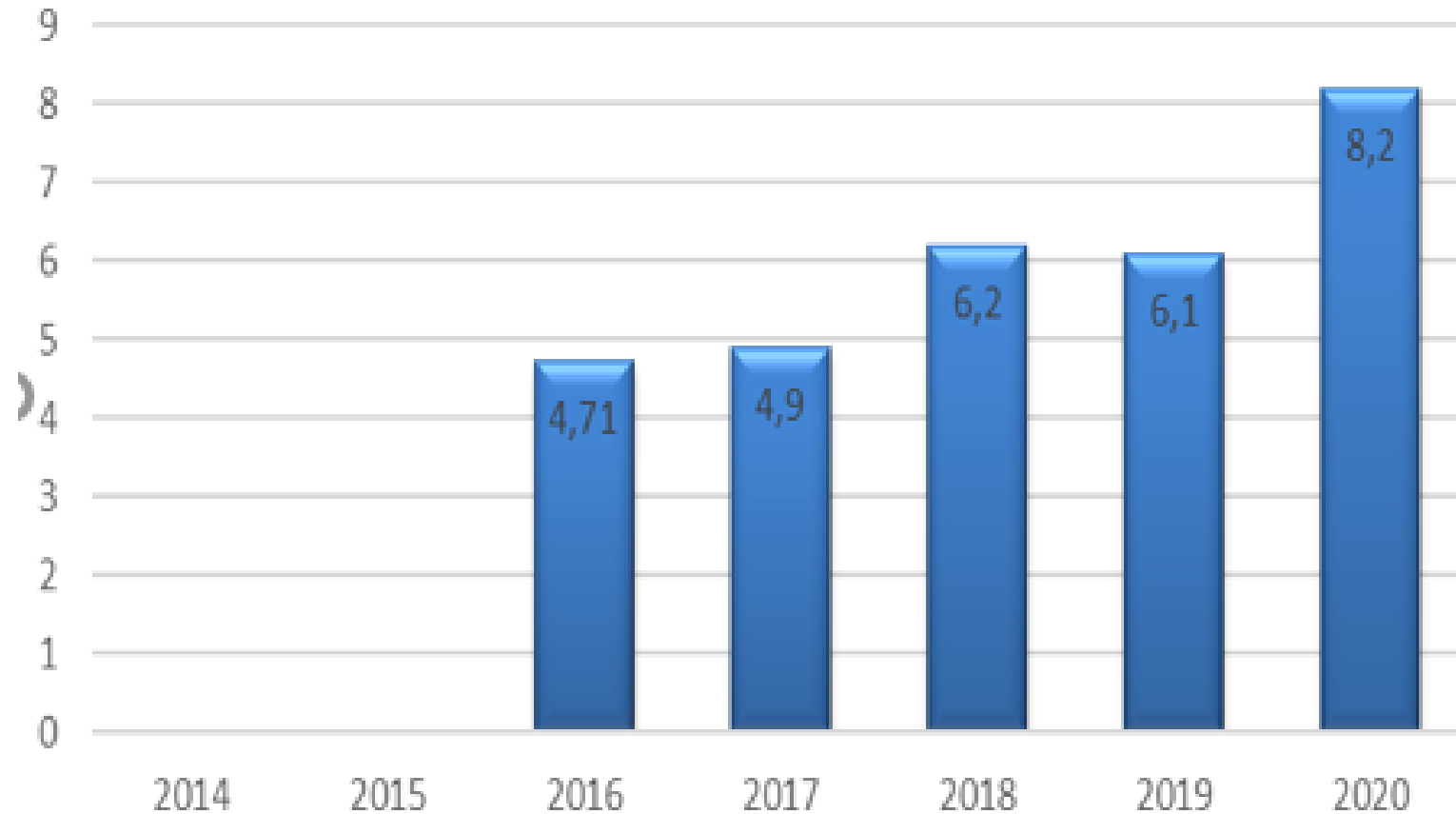
Juni 17-Jan 19 vs. Juni 18-Jan 20





# Curved Approaches – RNP-AR at Oslo airport

Percentage RNP-AR approaches of total number of approaches



# Accidents / incidents

## Number of incidents/accidents last 6 years

2013	3 656 (one serious incident)
2014	3 645 (two serious incidents)
2015	4 583 (two serious incidents)
2016	5 106 (one accident)
2017	4 168 (three serious incidents)
2018	4 406 (no serious incidents or accidents)
2019	5 149 (one serious incident)

The reporting system is encouraging employees to report incidents.

Serious incidents and accidents are incidents/accidents where Avinor have been directly or indirectly involved (according to EU Regulation 996/2010)

Accidents are without personal damage

# Disclaimer

Avinor AS has exercised utmost care in compiling and editing the contents of this document. Nevertheless it is possible that some information is incorrect or incomplete

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