




# Norwegian aviation -possibilities and challenges

Torbjørn Lothe, Director General, Federation of Norwegian Aviation Industries  
18. September 2019

# The aviation industry makes a major contribution to Norway's economy

- According to IATA, the Norwegian aviation industry contribution is as follows:
  - Supporting 160 000 jobs
  - Economic contribution of 153 billion NOK
  - Equivalent to 4,8 percent of Norway's GDP
  - Norway is the 13th largest aviation market in Europe
  - Air connectivity grew 19 percent since 2013

			
	PASSENGERS	GDP	JOBS
<b>2017</b>	28.4 bn	€16.14 bn NOK152.9bn	159,490
<b>2037</b>	Current Trends	€21.2 bn NOK200.5bn	172,665
	Upside	€22.2 bn NOK210.5bn	181,344
	Downside	€18.8 bn NOK178bn	153,117

# The air transport sector makes a major contribution to Norway's economy

- **Aviation is a key enabler for continued economic growth**

- The tourist industry is based on well-functioning aviation services
- Aviation outweighs the distance disadvantage of the districts
- Local airports attract various types of businesses

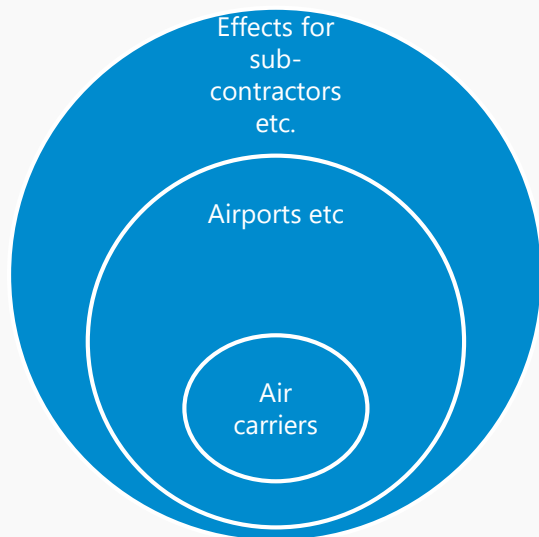
- **Aviation is a prerequisite for a decentralized settlement**

- Patients from all over the country have free hospital choice (350,000 patient trips annually)
- Families keep in touch with each other over great distances
- Weekly commuting is possible
- 156,000 trips between universities
- 280,000 sports and cultural trips

# Aviation is of great importance for the tourist industry in Norway

- According to Menon Economics (2017), approx. 4.5 million foreign tourists travels to Norway by air
- In total, air travelers account for 70 percent of all foreign commercial/hotel guest nights in Norway
- Norwegian, SAS and Widerøe transported 2.15 million foreign passengers to Norway (2017)
- This provides an additional turnover for Norwegian businesses of just over NOK 20 billion
- The additional turnover lays the foundation for close to 26,000 jobs and NOK 15.7 billion in value

# Aviation creates growth and welfare



- The economic impact of aviation is great
- For Norway, the significance of aviation is of extra importance due to:
  - Long distances
  - It makes it possible to live in sparsely populated areas
  - Connects Norway to the international business market
- Tourism is an important and growing industry for the whole country
  - "Northern light tourism" one example
- Connects Norway
- Still, many people are negative to flying

# To be ashamed of flying – does it contribute to a better climate?

- NHO Luftfart has conducted a survey in Norway
  - On average, the population believes that global aviation accounts for 18 percent of total CO2 emissions on earth
  - Half of the population believe that aviation accounts for more than 10 percent of greenhouse gas emissions on earth (correct answer 2%)
- Still: Few say they will stop flying due to “flyskam”
  - 73 percent say they do not feel ashamed of flying
  - 26 percent say they to a great extent are ashamed of flying
  - Men feel less ashamed than women
  - Those with a higher education are more ashamed than those with a lower education
  - Young people are more ashamed than older people



# Are people willing to pay for their environmental footprint?

- When asked how much they were willing to pay extra on a trip to Scandinavia/Northern Europe (price of ticket approx. 1500 NOK):
  - 40% said that they will not pay anything extra for “redemption”
  - 24% less than 100 NOK
  - 17% between NOK 100 and NOK 400
  - 6% between NOK 400 and NOK 1000
  - 2% over NOK 1000
- So: low enthusiasm to pay extra for their environmental footprint
  - most people do not know that they are already paying indirectly through the EU ETS-system and via airline fares
  - actual willingness to pay is often lower than stated willingness to pay when asked

# To be ashamed of flying – does it contribute to a better climate?

- The aviation climate debate - a symptom of increasing climate awareness
- However, giving poor conscience to people flying is a derailment of the important climate debate
  - It does not help to solve the basic challenges - reducing CO<sub>2</sub>-emissions with effective measures
- The industry takes responsibility for its greenhouse gas emissions
- Important to highlight what is actually being done by the industry
- What more can/should be done by the industry?
- And what tools do we need to get there?
- **The industry need financial incentives**



# Emissions from Norwegian aviation

- Greenhouse gas emissions from Norwegian domestic aviation (SSB) in 2017 corresponded to 2.4 percent of total domestic emissions
- Greenhouse gas emissions from foreign air traffic amounted to 1.67 million tonnes of CO<sub>2</sub> equivalents in 2017
- Total greenhouse gas emission from all jet fuel for civil purposes sold at Norwegian airports corresponds to approx. 5 per cent of Norway's total emissions
- Total CO<sub>2</sub> emissions from global aviation (IATA) amount to 859 million tonnes - about two percent of global CO<sub>2</sub> emissions



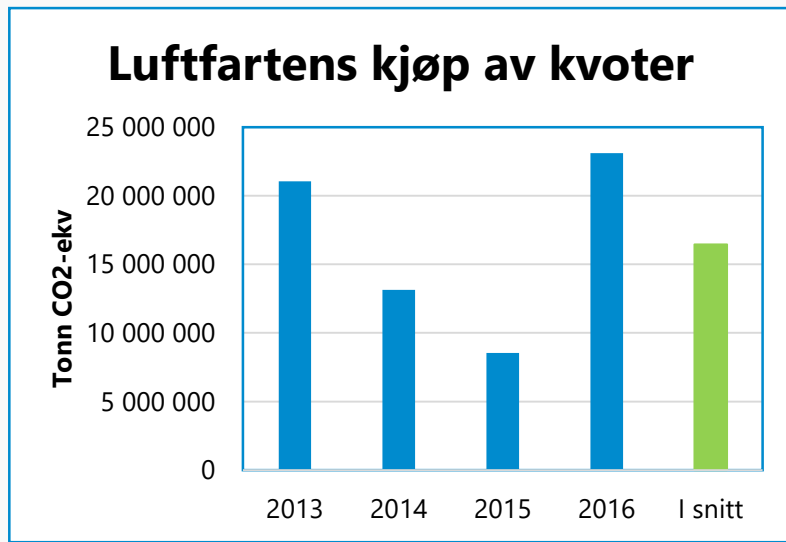
# Aviation included in the EU ETS from 2012

- **For the aviation sector:**
- Given less quotas than required
  - The airlines must buy the extra needed
- Most flights within EU/EEA are covered by the EU ETS
- On March 1, 2019, quotas are traded for approx. NOK 215 per tonne
- Available quotas until 2030 are to be reduced (-43% compared to 2005)
- Will give increased quota prices and lead to higher costs for Norwegian air carriers
- Strong(er) incentives for developing new technologies

## **From 2021, a global scheme will be introduced under UN auspices (CORSA)**

- ICAO has decided, as a sector target for international aviation, carbon neutral growth from 2020
- Agreement to introduce a greenhouse gas emission allowance system from international aviation
- The first phase of the mechanism (first six years from 2021) will be voluntary for the states
- 78 states, including Norway, have announced voluntary participation in this phase
- Air traffic between these states accounts for approx. 75 percent of international air traffic
- Emissions above the 2020 level must be offset by other cuts

# EU ETS works



“The system has so far contributed to reducing the carbon footprint of the aviation sector by more than 17 million tons per year, with compliance covering over 99.5% of emissions.”

*EU Commission 3<sup>rd</sup> Feb. 2017*

# The industry is conscious of its' environmental responsibility

- FLEET REPLACEMENT
  - More than 95 per cent of greenhouse gas emissions in aviation come from the aircraft
  - The airlines are constantly working on energy efficiency and fleet replacement
  - Since 2001, greenhouse gas emissions per seat kilometer in Norway have more than halved
- EFFECTIVENESS OF AIR SPACE
  - Efficient airspace optimization and green landings and departures optimization are important measures
  - Free Route Airspace
  - Improved navigation technology
- SUSTAINABLE BIOFUEL
  - Biofuels is a very important measure to reduce greenhouse gas emissions from aviation
  - At present, there is a very limited market for jet biofuels for aviation
- ELECTRIFICATION OF AIRCRAFT
  - An important measure, more long term, will be electrification of various segments of the aviation industry

# A few words on «noise»

- Noise is defined as unwanted sound and can cause sleep disorder, reduced quality of life and reduced health
- According to WHO, noise contributes to at least 1 million health-adjusted years of life annually in Western Europe
- Noise is considered as pollution according to the "Pollution Control Act"

# A few words on «noise»

- WHO has issued new recommendations relating to noise
- These recommendations are sector specific
  - For aviation, sharply sharpened - outdoor noise level 45 dB (A) (before 55dB)
  - WHO also provides its own recommendations for night noise, which is 40 dB (A) for aircraft noise
- Studies show that aircraft noise can be perceived as more troublesome than the same noise level stemming from other sources
- WHO believes that significant health benefits can be achieved by reducing aircraft noise
  - The gains outweigh possible negative effects, such as lower passenger mobility and air cargo
- WHO's recommendations have been met with considerable opposition in aviation organizations
  - The scientific basis is not considered satisfactory and the costs are underestimated
  - Avinor believes that air traffic at OSL must be reduced by 75 percent to meet such recommendations

# A few words on «noise»

- Norway is one of the few countries with significant noise problems from large, heavy helicopters
- The rest of the world is mostly focusing on noise level measurement and improvements for small and medium helicopters - which for them constitutes the biggest noise problem
- Will the helicopter manufacturers be able to deliver more “noise friendly” helicopters suitable for offshore operations
  - Do the producers have the motivation and incentives to do so?
- Consequences if one fails to tackle the noise?
  - Introduction of local noise regulations?

# Carrot or a stick?

- The climate challenge should be solved through international agreements (and most efficient via EU ETS/Corsia)
- Costly oil prices (cost of jet fuel account for between 20-30% of an airline's operating costs) – hence already provide a strong incentive for technology development
- Additional national instruments must stimulate the development and establishment of a market for new, climate-friendly technology
  - Use of sustainable biofuels
  - In the long term, electrification
- Missing the carrot - why "just" a policy for the electrification of the car fleet?
  - CO2-fund for aviation?
  - Increased national taxes are not the way to go
  - Undermines the EU ETS-system
- Norwegian aviation is already heavily taxed
- In addition: Blend-in requirement from 2020 - 0.5 per cent advanced biofuels





## A “healthy” regulatory framework is crucial for a competitive Norwegian aviation industry

- i) Environment – adopt a non-discriminatory policy that works  
and
- ii) Taxes & charges – Should pay for direct and indirect costs and should be taxed “like others”
- iii) Ensure efficient and functional airports- and air navigation services

## ii) Predictable and sensible tax policy

- Norwegian air carriers have experienced several tax increases in recent years
  - Air passenger tax of approx. 2bn pr. year
  - From 1 April 2019, 200 NOK for travel outside Europe and 75 NOK for travel in Europe.
- Domestic CO2 tax of approx. 500 million per year
  - Norway is one of the few countries in the world to impose a CO2 tax on domestic aviation
  - In 2018, this amounted to NOK 1.28 per liter of jet fuel
  - There is no opening legally to put a CO2 tax on foreign air traffic
- Increased VAT to 12 percent (from 8) - Expert committee has proposed increase to 23/25 percent
  - In comparison, transport VAT in Sweden is: 6 percent, Denmark: 0 percent

## iii) Cost-effective operations - Avinor and Avinor ANS

- Important that Avinor and Avinor ANS continue to streamline their operations and reduce their costs:
- Avinor is a monopolist when it comes to being an airport owner/operator
  - Weak incentives for cutting costs
- Should outsource several operational tasks
- Better coordination of operational tasks at smaller airports
- The Armed Forces must pay all costs related to using Avinor's services
- A need for an independent economic regulator
- Avinor ANS is regulated by the EU SES performance scheme
  - has become more efficient and cost-focused
  - This has had positive effects for airspace users - lower fees, stable services etc.

# Competition works

- It's politically decided that the tower services of Avinor can be outsourced through tendering processes
- So far: tower services at Vigra and Kjevik have been subcontracted
- Contract awarded to Spanish Saerco - 37% percent lower price
- More towers should be outsourced – we ask that a "master plan" is adopted
- Avinor ANS should be completely separated from the Avinor Group
  - This will strengthen the tendering processes
- Real customer/supplier relationship between Avinor and Avinor ANS
- Being part of the same company complicates today's charging system

# Governmental Committee on aviation (Luftfartsutvalg)

- Consequences of globalization
- Liberalization / deregulation
- Increased and tougher competition
- New business models and low cost carriers

How can these trends be reconciled with the transition to the low-emission society, good working conditions and still ensuring a high level of aviation safety?

How can we ensure efficient air transport services - mobility for goods, people and business

# Attending Parties

- Direktør Sverre Quale, Trondheim (leader)
- Professor Frode Steen, Bergen
- Professor Svein Bråthen, Molde
- Seniorforsker Merethe Dotterud Leiren, Oslo
- Strategidirektør Margrethe Snekkerbakken, Oslo
- Leder for prosjekt og strategiske prosesser Jan Petter Steinland , Bodø
- Forbundsleder LO Yngve Carlsen, Ski
- Leder Parat Kabinforbund Anneli Nyberg, Stjørdal
- Direktør NHO Luftfart Torbjørn Lothe, Nesodden
- Spesialrådgiver NHO Luftfart Camilla Rise, Drøbak

# Main points from the industry

- **Environment**

- An effective and rational environmental policy
- Behavioral changes must take place internationally - not only in Norway
- National measures must reinforce international climate regulations
- Need for a financial incentive scheme in Norway to introduce new technology

- **Labor Conditions**

- Labor conditions in Norway are generally exceptionally good
- Social dialogue important and well-functioning
- Should work internationally to remove schemes that may undermine good working conditions (in international aviation) – pay to fly etc.

# Main points from the industry

- **Aviation safety**
  - High level of safety within Norwegian aviation
  - Norwegian airlines have a solid safety culture
  - Basic working conditions within Norwegian aviation have not changed much after EU's de-regulation
  - There are no indications that new business models are affecting flight safety in Norway
  - EASA should assess this on a European level
- **Competition in the Norwegian market**
  - Well functioning market
  - Framework conditions for domestic air carriers should be strengthened
  - The level of taxation should be reduced
  - The "Avinor model" should be assessed and evaluated
  - Avinor - need for an independent economic regulator
  - PSO tendered routes - challenging to stimulate more competition for market access
  - Need for a comprehensive and predictable national aviation policy



# Helicopter offshore – a shielded sector?

- Do we see the same "clouds" for helicopter offshore operations?
- In principle yes, but:
  - Less exposed to global competition, cf. requirements for Norwegian affiliation
- HOFO regulation not implemented into the EEA agreement
- HOFO could probably lead to increased competition also in Norway
  - And as a consequence: reduced safety?
- The European Commission has not yet given its opinion on whether they consider HOFO to be "EEA relevant"





**NHO**  
**LUFTFART**

*Thank you for the attention!*