



With green aviation, we build the future.

POWER UP!

Join forces for an innovation center with research and advanced technology development in the Oslo area with 1.4 million inhabitants.

U R B A N
SKY

An innovation center for Norwegian aviation

■ ■ Norwegian aviation is calling for a center for research, innovation and technology development. On 15 March 2024, the Government can present the news that they will prioritize NOK 1 billion in the National Transport Plan (NTP) for an accelerated phasing-in of zero- and low-emission aviation in Norway.

Avinor and CAA announce on 24 April 2024 that they will establish a test and innovation center for green aviation.

The transition to green aviation makes it possible to use Norway as an arena to “create national values, competitiveness and sustainable public solutions of great value for both Norway and the world”, according to SINTEF.



Starting 6 October 2023 : Finance Minister Trygve Slagsvold Vedum (Sp) presents the state budget for 2024, which forms the basis for establishing an innovation center for green aviation. Photo: AIR24

“Norway is a country that is ideally suited for **testing and piloting** new and environmentally friendly aircraft, and in the long term, when aviation has gone through the green shift, air travel will be the most environmentally friendly way to travel”, states Transport Minister Jon-Ivar Nygård (Ap).

Electric commuter in first test flight

27 September 2022



PHOTO: EVIATION

Universal Hydrogen with first test flight

March 2, 2023



PHOTO: UNIVERSAL HYDROGEN

SAS and Airbus are collaborating on ZEROe



ILLUSTRATION: AIRBUS

At the start of the hybrid-electric aviation industry

Launched June 14, 2023



ILLUSTRATION: ELFY

The Elfly group presents NOEMI

Launched June 14, 2023



ILLUSTRATION: ELFY

The Elfly group presents NOEMI



ILLUSTRATION: EMBRAER

Energia H2 gas turbine from Embraer



ILLUSTRATION: EMBRAER X

EVE from Eve Air Mobility and EmbraerX



PHOTO: AIRBUS HELICOPTERS

CityAirbus NextGen multicopter from Airbus



ILLUSTRATION: HEART AEROSPACE/SAS

SAS with ES-30 from Heart Aerospace

Electric Regional Aircraft from Aura Aero



ILLUSTRATION: AURA AERO

Plans for the AURA factory in Toulouse



ILLUSTRATION: AURA AERO

Rolls-Royce Electrical Norway 25 years



PHOTO: ROLLS-ROYCE

Hamar airport



Kjeller airport



Voss airport



The airports at Hamar, Kjeller and Voss are all threatened by housing development. With the government's desire to accelerate the phasing in of low and zero emission aviation, airports can become central to creating easier everyday journeys and increased competitiveness for business. Photo: Blueskies, Urban Sky and Morgan Mackay

Airports are the cornerstones of aviation

■ ■ **The government** is calling for faster phasing in of green aviation. Airports at Hamar, Kjeller and Bømoen (Voss) can contribute to easier everyday travel and increased competitiveness.

Other local public airports of great value are Geiteryggen (Skien), Notodden and Lista (Farsund).

Airports are the cornerstones of aviation, according to Airbus. In a January 2021 report, NASA highlights the value of local airports and concludes that Regional Air Mobility will "fundamentally change how we travel" by bringing increased comfort, greater flexibility and safety to air travel.

During a breakfast meeting in Oslo on 24 April 2024, Avinor and the Norwegian Civil Aviation Authority announced that they will establish a test and innovation center for green aviation. So far, they have not decided on one location. The need and potential is greatest in the Oslo area with 1.4 million inhabitants.

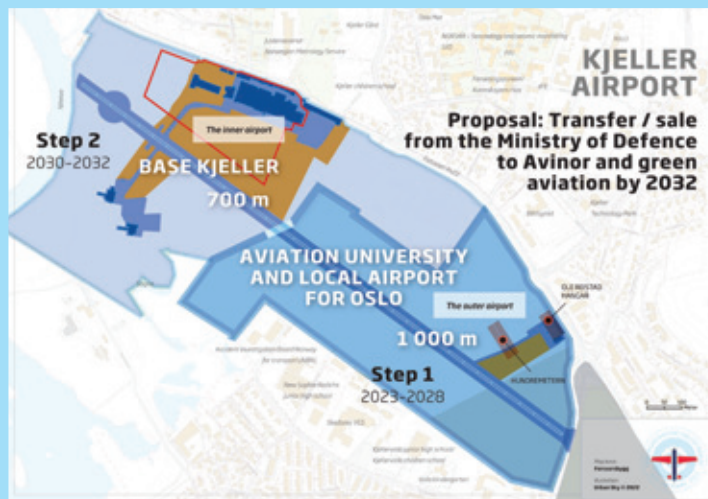
KJELLER – A UNIQUE CENTER FOR INNOVATION IN NORWEGIAN AVIATION

■ ■ With the phasing in of decarbonised aviation in Norway, local and regional airports will gain new value. To succeed, a gathering of forces is needed.

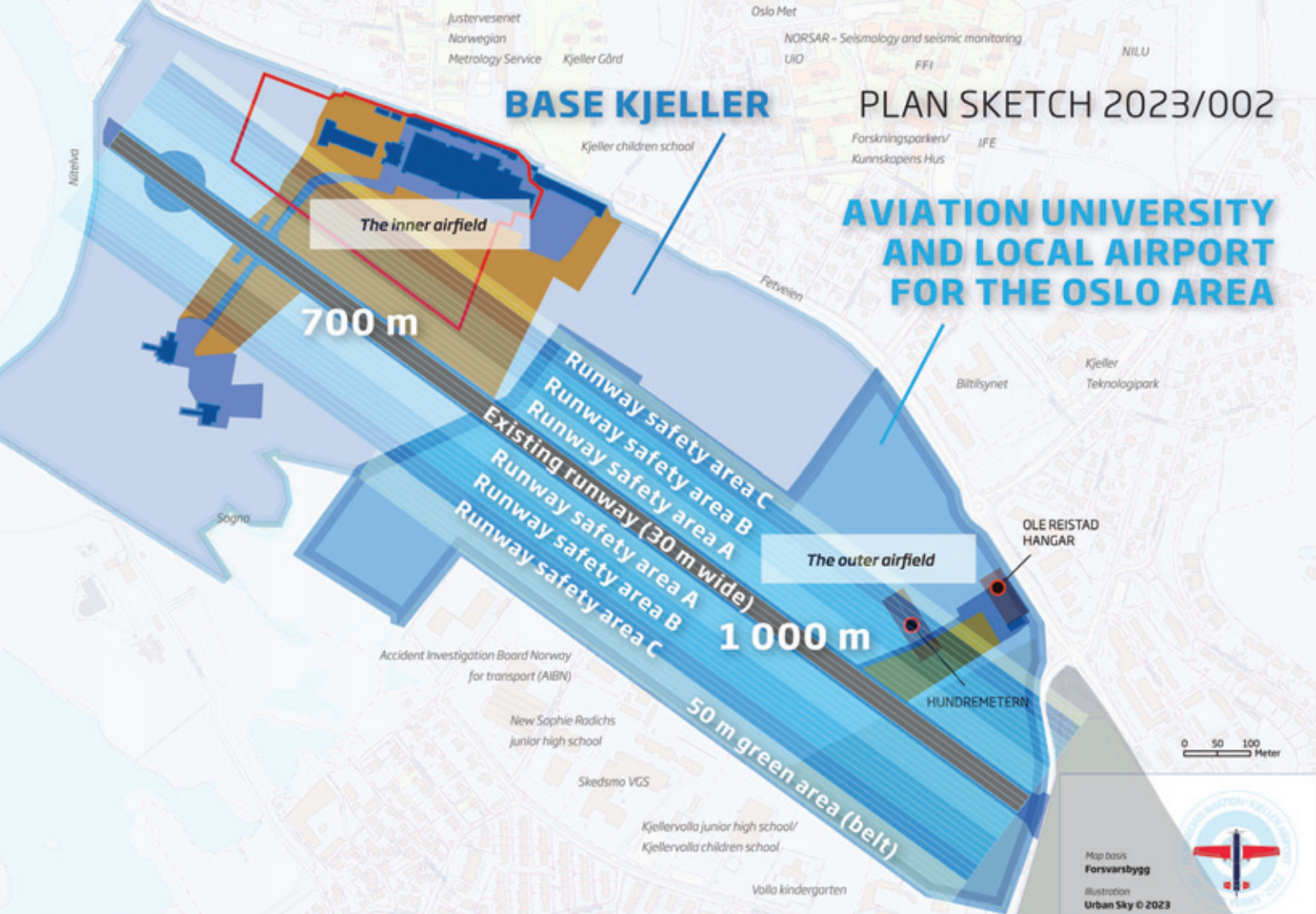
Kjeller is a unique center and the origin of one of the country's largest innovation environments. Since 2018, the historic area has been a base for electric aircraft.

From past to **FUTURE**

■ ■ The transition to low and zero-emission aviation creates new needs and opportunities in the Oslo area.



Kjeller has been a sandbox for new technology for over 100 years in Norway, since 2018 as a center for test and innovation with electric aircraft.



Recommends 2x130 m wide safety zones

■ The Norconsult ROS analysis recommends to increase the distances between the runway and buildings, "for example by 130 or 260 metres" to reduce vulnerability.

■ The plan sketch above shows how runway safety area (RSA) A (50 m), B (50 m) and C (30 m) provide space for a 50-metre-wide green belt next to schools and kindergarten.

UK Minister for State, Industry and Economic Security, Nusrat Ghani, with opening remarks at the ZERAC23 conference in Oslo on 20 September 2023.
Photo: AIR24



Transport Minister Jon-Ivar Nygård (Ap) presented the government's new aviation strategy adopted by the Storting on 2 May. According to the government, there is a great need for an accelerated phasing in of greener aviation.
Photo: Clean Sky

"The need for an accelerated transition"

■ ■ **"The need** for an accelerated transition to greener aviation is evident" [...] "Zero or low emission regional aviation solutions can be of significant value and even unlock new markets", says Norsk Industri.

The climate program Green Aviation and Ministry of Transport (SD) organized the conference ZERAC23 in Oslo on 20 September, on instruments for faster phasing in of green aviation.

SD will speed up the transition to decarbonised aviation so that the first commercial zero- and low-emission aircraft can be phased into the short-haul airports as soon as technology permits.

The results The results from a consultation carried out in the autumn of 2023 have been followed up by the government in the work with NTP 2025-2036, which was presented by the government on 15 March 2024.

Preserve the past. Create the future.



URBAN
SKY

NOK 1 billion for green aviation

■ ■ Finance Minister Trygve Slagsvold Vedum (Sp) and the Government have prioritized over NOK 1 billion in the National Transport Plan (NTP) for an accelerated phasing in of zero- and low-emission aviation in Norway. Currently, a funding package is missing to develop Kjeller as a local airport in the Oslo area. With the separation of Viken county municipality, the number of inhabitants in the new Akershus county municipality and Oslo will amount to 1.4 million inhabitants.



First in the Nordics with Integral E from Aura Aero



PHOTO: AURA AERO

NLF signs "Letter of Intent" during AERO 2024 in Friedrichshafen



Network around local airport for Oslo

AVIATION

- Airlines
- Helicopter companies
- Air traffic control
- Tourism

AIRPORTS

- Runways / helipads
- Terminal facilities
- Skyports
- Public transport
- Parking

THE STATE

- The Storting
- The government
- Ministries
- Directorates

SOCIETY

- Organizations
- County municipalities
- Municipalities
- Norway / Norden
- Europa

CULTURAL HERITAGE

- Riksantikvaren
- Kulturmiljøforbundet
- Fartsmuseiforeningene
- Historielag
- Europa Nostra

CLIMATE

- New flight systems
- Decarbonization
- UN Sustainability Goals
- Digitization

EDUCATION

- Drone pilots
- Sports pilots
- Private pilots (PPL)
- Airliner pilots (ATPL)

SCIENCE-RESEARCH

- Business
- Universities
- Institutes
- Colleges
- Startup

TECHNOLOGY

- Hydrogen
- Electricification
- Hybrid solutions
- Battery operation
- SAF

INNOVATION

- Business
- Research Council of Norway
- Innovation Norge
- Science parks
- Ecosystems

DEVELOPMENT / TESTING

- Climate-neutral aircraft
- Battery and electric motor
- Hybrid solutions
- Aircraft systems
- Hydrogen

POTENTIAL

- A local airport for business and 1 million Greater Oslo residents
- DEVELOPMENT: 1.047.000 + 1.000 m runway length + GPS approach + Runway lights
- HYDROGEN: Airport used plans for virtual innovation arena for Norwegian aviation
- FORERUNN PROJEKT: Max 20-40 km travel distance from Oslo center to local airports
- SAFETY:
 - Sectoral security
 - Emerging standards
 - Education
- FLYING LIBERTY:
 - Aviation safety
 - Aviation culture
 - Strong presence
 - High competence

■ ■ Further development of local airports can contribute to the acceleration of the green shift in aviation. It will create more dynamism in research, innovation and technology between aircraft manufacturers, airlines, academia, business and tourism.

■ ■ The Storting will strengthen the short-haul network in the new aviation strategy. Local airports have proven valuable in efforts to save lives and reduce flood damage, as a result of storm "Hans" in August. Availability is important for increased social security.

Aquila A211 at Kjeller flyplass in 2014



PHOTO: URBAN SKY



Integral S at Toulouse Francatzal Airport in 2023



PHOTO: AURA AERO

Isaac Newton

Isaac Newton – english mathematician,
physicist and inventor

Roald Amundsen

Roald Amundsen – polar researcher,
aviation pioneer and innovator

Wilhelm Mohr

Wilhelm Mohr – fighter pilot, lieutenant general
and founding father of the air force (RNoAF)



Become a sponsor of the innovation centre!

■ ■ The sponsorship is part of the **Amundsen Guild**, inspired by three fundamental laws of motion from Isaac Newton in 1687, aviation pioneer Roald Amundsen and the founder of the air force in Norway, Wilhelm Mohr.

The future is electric. Join the establishment of an innovation center and financing package to develop Kjeller as a local airport in the Oslo area for 1.4 mill. residents.

Roald Amundsen came from lecture tours in USA to Kjeller in 1913 and is Norway's first student pilot. On 11 June 1914, he obtained international pilot license no. 1.

For Roald Amundsen, who in 1914 donated the trainer MF S.3 Longhorn to RNoAF, it was the start of **the race to the North Pole**. The aviator badge is a testimony of skills after completed training. The wing grants rights to learn more.



Wilhelm Mohr

Gabriel Berg

Celebrating an aviation pioneer

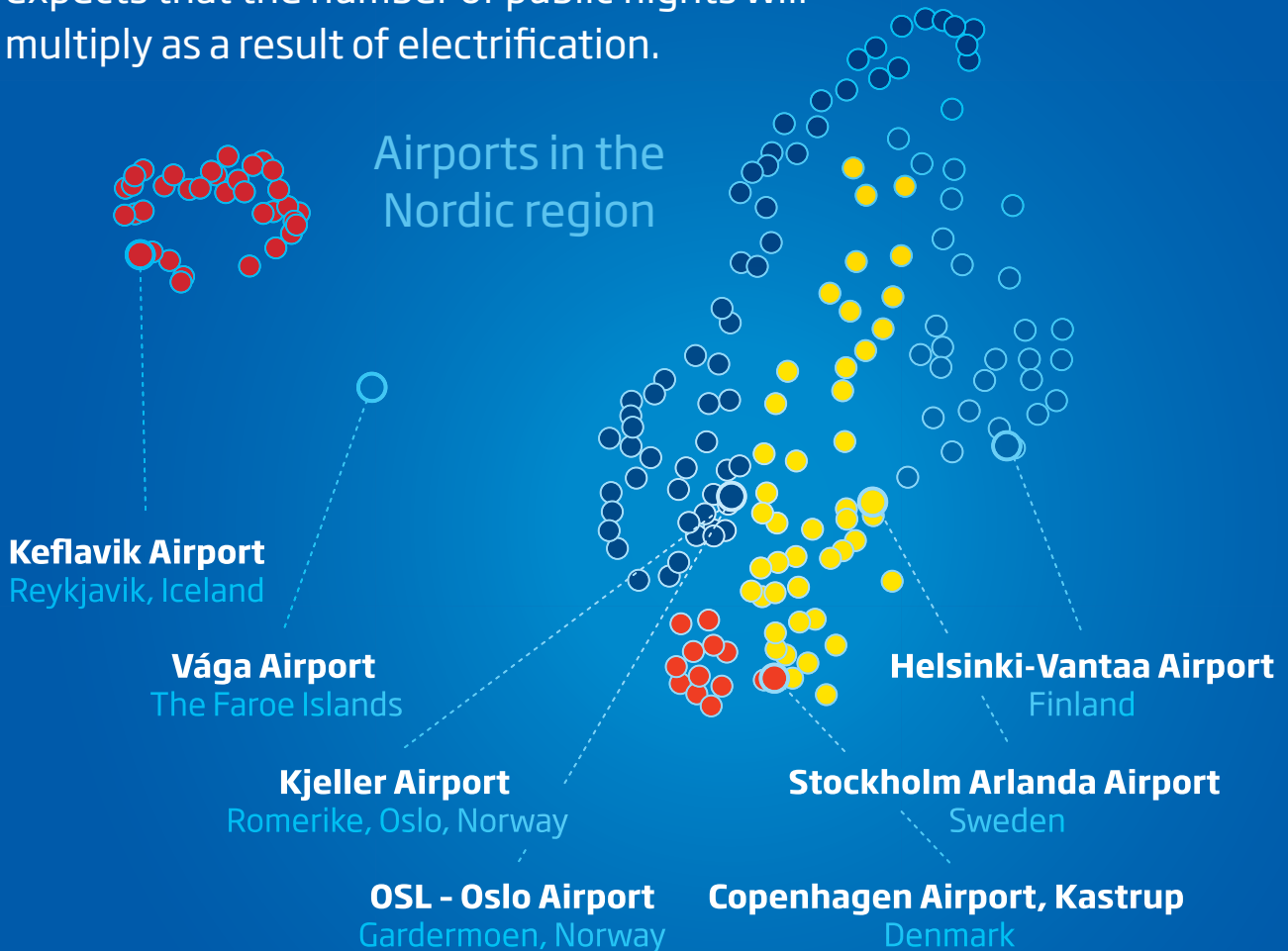
■ ■ On 11 June 2014, Lieutenant General Wilhelm Mohr and Gabriel K. Berg were the main characters in the 100-year celebration of Roald Amundsen's international flight certificate no. 1. As in 1914, there was a return trip from Kjeller to Gardermoen, this time also with two training aircraft from the Air Force. Pilots were Anders Håkensen in Saab Safir, Ketil Knotten in Fairchild Cornell and Hans Petter Fure in Birddog.

Green aviation starts at the flight schools



Aviation to quadruple in 2050?

■ ■ Forecasts from Eurocontrol and Clean Aviation JU in the EU indicate a possible quadrupling of air traffic in the decades leading up to 2050. The Norwegian Air Sports Federation expects that the number of public flights will multiply as a result of electrification.



Innovation in SCANDINAVIA

■ ■ The map shows a selection of technology development, education, research and **innovation powerhouses** related to the transition to green aviation in Scandinavia.

■ ■ In Norway, national resources such as Innovation Norway, Enova, Norwegian Research Council and EksFin (Export Financing Norway) can be highlighted. Vinnova is Sweden's innovation authority that offers funding through Horizon Europe. Interreg Sweden-Norway is an EU program for cross-border cooperation.

Bergen
NORCE Norwegian Research Center
Flesland

Stavanger
Equinor, Forus, AeroNorway, Sola
Innovation Park Stavanger

Kongsberg
Kongsberg Group, GKN Aerospace

Horten

Jarlsberg
Elfly Group

Norway **Sandefjord, Torp**
Pilot, EHC

Halden
Smart Innovation

Arendal
Kitron, Morrow Batteries, OSM Aviation

Grimstad
Sørlandets Teknologipark
UiA, Campus Grimstad

Kristiansand
Universitetet i Agder (UiA)
Campus Kristiansand

Århus

København

Lunds universitet

Malmö



Narvik
Aker, Aker Horizons, Teco 2030

Bodø
CAA - Civil Aviation Authority of Norway
Widerøe

Mo i Rana
Freyr Battery

Trondheim
NTNU, SINTEF, SIVA
Rolls-Royce Electrical Norway
Siemens Energy

Rena
TMBN Telemark Battalion
FSK The Norwegian Armed Forces' special command
The Norwegian special forces

Lillehammer
Jørstadmoen, Cyberforsvaret

Skellefteå
Northvolt Ett

Gjøvik, Raufoss
Raufoss Industripark
NTNU, Nammo

Elverum
Terningsmoen

Oslo
Avinor, Oslo Science City, UiO, NHO, LO
Oslo Science Park, Innovasjon Norway
The Research Council of Norway, Eksfin

Lysaker, Høvik, Fornebu
DNV, Norwegian

Kjeller
FFI, IFE, Kjeller Science Park, FLO
FMA Air Capacities, Kjeller airport
Kunnskapsbyen Lillestrøm
Kjeller Technology Park
Kongsberg defence & aerospace, KAMS,
Kongsberg Aviation Maintenance Services

Rygge
Luftforsvaret, KAMS

Västerås
ABB, Northvolt, Bombardier Innovation
OSM Aviation

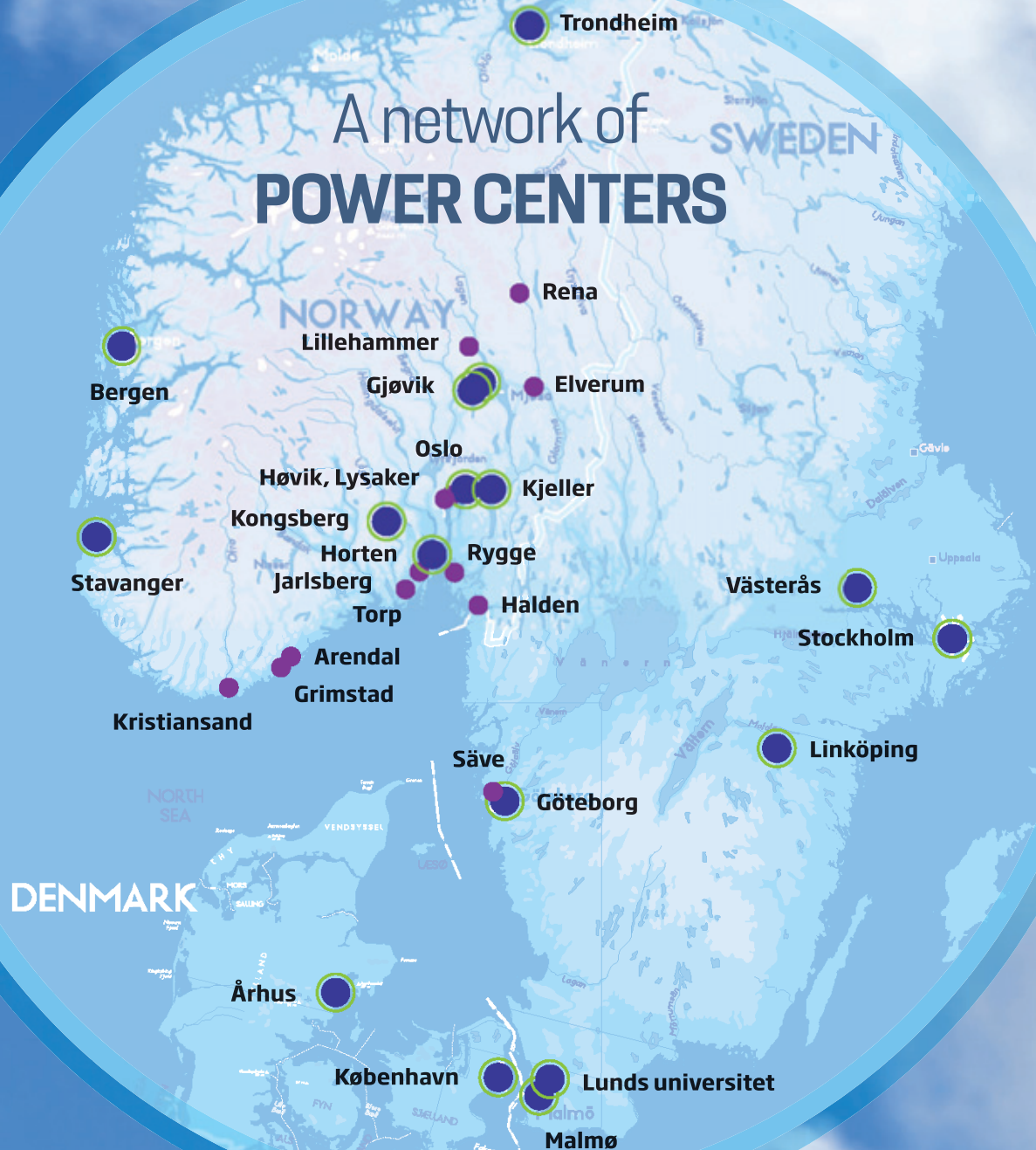
Stockholm
SAS, SAAB

Säve
Heart Aerospace

Linköping
Saab Airport

Göteborg
Chalmers tekniska högskole
RISE Research Institutes of Sweden
Volvo

A network of **POWER CENTERS**



Fly smart. Fly regional.

■ ■ The number of flights may quadruple by 2050, with a need for more airports, according to estimates from Eurocontrol and Clean Aviation JU in the EU.

■ ■ A report from Avinor in 2021-2022 writes off the NATO base at Rygge and privately owned Eggemoen at Hønefoss as future local airports for the Oslo area. For the first time, Avinor is assessing whether Kjeller can be further developed as a current and future-oriented alternative as a local airport.

■ ■ The choice of a new local airport is still between Rakkestad, Jarlsberg, Kjeller, the 3rd runway at OSL or the construction of new infrastructure near the center of Oslo.

■ ■ The government's first priority in the new aviation strategy is "an efficient everyday life for the population and business".

EGGEMOEN



JARLSBERG



OSLO



RYGGE
NATO
BASE



KJELLER



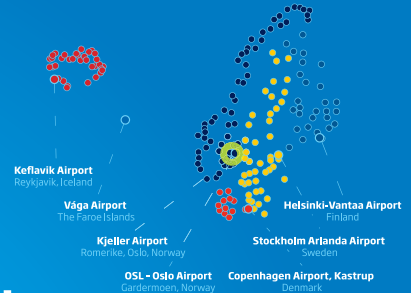
OSL
GARDERMOEN



HAMAR



▼▼ Nordic airports



RAKKESTAD



Take the train to **YOUR LOCAL AIRPORT**

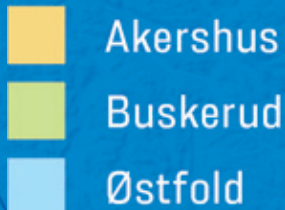
■ ■ If you want to travel as climate-friendly as possible, in a few years you can take the train to your local airport and board a regional plane with low or zero emissions. The first electric passenger planes are expected in 2028-2030. The map shows BANE NOR's train lines in the Oslo area along with existing airports. The future is electric and aviation will eventually become the greenest, most flexible and fastest way to travel.



U R B A N
SKY

Local airport for 1.4 MILL. IN THE OSLO-AREA

■ ■ In 1992, the Storting decided to close down Fornebu and at the same time promised a new full compensation of 30-60 min. from Oslo S. 30 years later, it is still unclear from the government and the Storting what will be the solution and financing of a local airport for 1.4 million in the Oslo area.





Become a sponsor!

■ ■ We have a goal of reaching large parts of Norway's population at several events and through the use of media.

Depending on the chosen package, partners and sponsors will get the opportunity for exposure and network-based value creation.

- Become a sponsor of a new innovation center for Norwegian aviation
- Amundsen Guild for sponsors - a network for innovation and development
- Strengthen the opportunities for travelers and business in Norway
- About EU's climate ambitions, current topics and smart energy solutions
- Promotion via portals and websites
- Presence at relevant arenas and events, with stands, banners and flags
- Use of 'sponsor wings' and pins from Urban Sky
- Special offer to download pictures from image server

For more information, contact and say hello to Urban Sky
Mobile 900 94 157 - urbansky.no/tema/kontakt



PHOTO: URBAN SKY



Roadmap 2.0 was presented by Minister of Industry Jan Christian Vestre (pictured), Jonas Gahr Støre and Geir Pollestad. Photo: AIR24



Transport Minister Jon-Ivar Nygård (Ap) during SD's input seminar for the new National Transport Plan - NTP 2025-2036. Photo: DSS

15 billion for new green projects

■ ■ **The government** launched "Roadmap 2.0 - Green industrial boost" on 28 Sept. and allocates NOK 15 billion to new projects.

The roadmap contains 3 billion in new capital to Nysnø (1.85 billion), Siva (1 billion) and Investinor (150 million), 10 billion in increased guarantees under Eksfin and 1 billion to loan framework under Innovation Norway and 1 billion over 5 years for development within battery projects.

According to the government, "An efficient, environmentally friendly and safe transport system throughout the country in 2050" constitutes the target structure of the National Transport Plan - NTP 2025-2036.

During SD's input seminar for NTP in Oslo on 13 Feb. 2023, two priorities are: 1. "Take care of what we have and build new where we have to" and 2. "Utilize existing capacity and transport offer better."

Flydagen 2023 at Kjeller Airport



Airshows and conferences are arenas for exposure



PHOTO: JOHNNY COSTEDT

PHOTO: URBANSKY



300+ AERIAL PHOTOS OF NORWEGIAN DAMS

Package offer for sponsors

NB. Income goes to finance new emission-free trainers in flight schools.

U R B A N
SKY

► urbansky.no



DOWNLOAD FROM
OUR IMAGE SERVER

Special offer for sponsors,
partners and members

NB. Income goes to finance new emission-free trainers in flight schools.

U R B A N
SKY

▶ urbansky.no



With a license to learn

■ ■ There is a need for an accelerated pace in the green shift to reach the sustainability goals, according to the Government and Norsk Industri. The choices we make today have great significance for the upbringing of our children and young people. With a "license to learn" we can preserve the past and create the future.



Fly the future!

Join the 'dugnad' to accelerate the transition to green aviation with new opportunities for tourism and business for our next generations!

URBAN
SKY



KJELLER AIRPORT

Innovation and technology centre at
the local airport for the Oslo area

kjelleraviation.com