

STRATEGIC FRAMEWORK ANDØY

CATALYST FOR NORWAY'S NEW SPACE ECONOMY



Final Report
October, 2023



Andøy Municipality



Innovasjon
Norge



Nordland County

FOREWORD

Innovation Norway hopes *Strategic Framework Andøy* will be an inspiration and guide. The report considers how the soon-to-be completed Andøya Spaceport can act as a catalyst for wider economic development, and how this growth can sustainably be delivered in Andøy. The emerging New Space Economy provides a unique opportunity for development and growth, not only for Andøy, but for the county and the nation.

In cooperation with Nordland County and Andøy Municipality, Innovation Norway Nordland engaged an international team of strategic masterplanners, economists, and tourism experts in 2022. Over 15 months, the team led four interdisciplinary workshops and undertook interviews and other engagements with dozens of representatives from key sectors, including the space industry, tourism, and fisheries as well as local and regional authorities, political leaders and academia. We are grateful for their contributions, without which this project would not have been possible.

This final report condenses the team's findings. The conclusions are compelling. Most importantly, they represent an emerging multi-stakeholder consensus which we hope will build confidence and momentum for the leaders and planners who will take the initiative forward in the coming months and years.

Norway's shifting economic landscape is an important backdrop to this work. As Norway progressively reduces its dependence on the oil and gas sector, it faces the challenge of cultivating new economic drivers that maintain a favourable trade balance, while also yielding significant benefits for local and regional communities.

The commercialisation of the space industry and the advancement of small satellite technologies are emerging beacons of promise; Morgan Stanley's projections anticipate a colossal \$1 trillion USD in revenue by 2040. This opportunity is captured in Hurdalsplattformen, the current Government's (2023) political steering platform. It asserts the ambition to facilitate a complete Norwegian space-related value chain.

Our objective is clear - to establish Andøy and Norway as leaders in the New Space Economy, an ambition not bound by political lines or sector-specific interests. Achieving this is a collaborative effort involving nationwide stakeholders, forward-thinking investors, businesses with vision, and local communities.

Strategic Framework Andøy tells a compelling story that goes beyond short-term economic progress. It recommends priorities for sustainable growth, cooperation with parallel space-industry clusters, value chain development, and the need for supporting infrastructure. The report's approach to development anticipates social benefits for local and regional communities and acknowledges the need for balance. Safeguarding and sharing the island's heritage and rich environmental assets contribute to the potential of the emerging space endeavours.

We hope the report's Vision supports Norway's success in the global space industry and charts a path towards a strong and interesting future for Andøy and its people.

Monica Ahjee, Direktør
Innovation Norway

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Reader's note: This report is not a statutory document. It does not propose a fixed plan for how the New Space Economy will evolve in Norway, nor how local development in Andøy will be delivered. Established processes, such as economic strategies, planning decisions, etc., will be undertaken by National, County and Municipal Authorities, who will ultimately determine the way in which this opportunity is developed and delivered. Forward-looking projections or estimates stated in this document, where not otherwise labelled, are based upon interpretations or assessments of available information at the time of writing, and we accept no responsibility for the realisation of any projection, opinion or estimate.

1 THE VISION

Andøya Spaceport is Norway's most direct foray into the New Space Economy, a burgeoning industry that is expected to reach a revenue of more than 1 trillion USD by 2040.

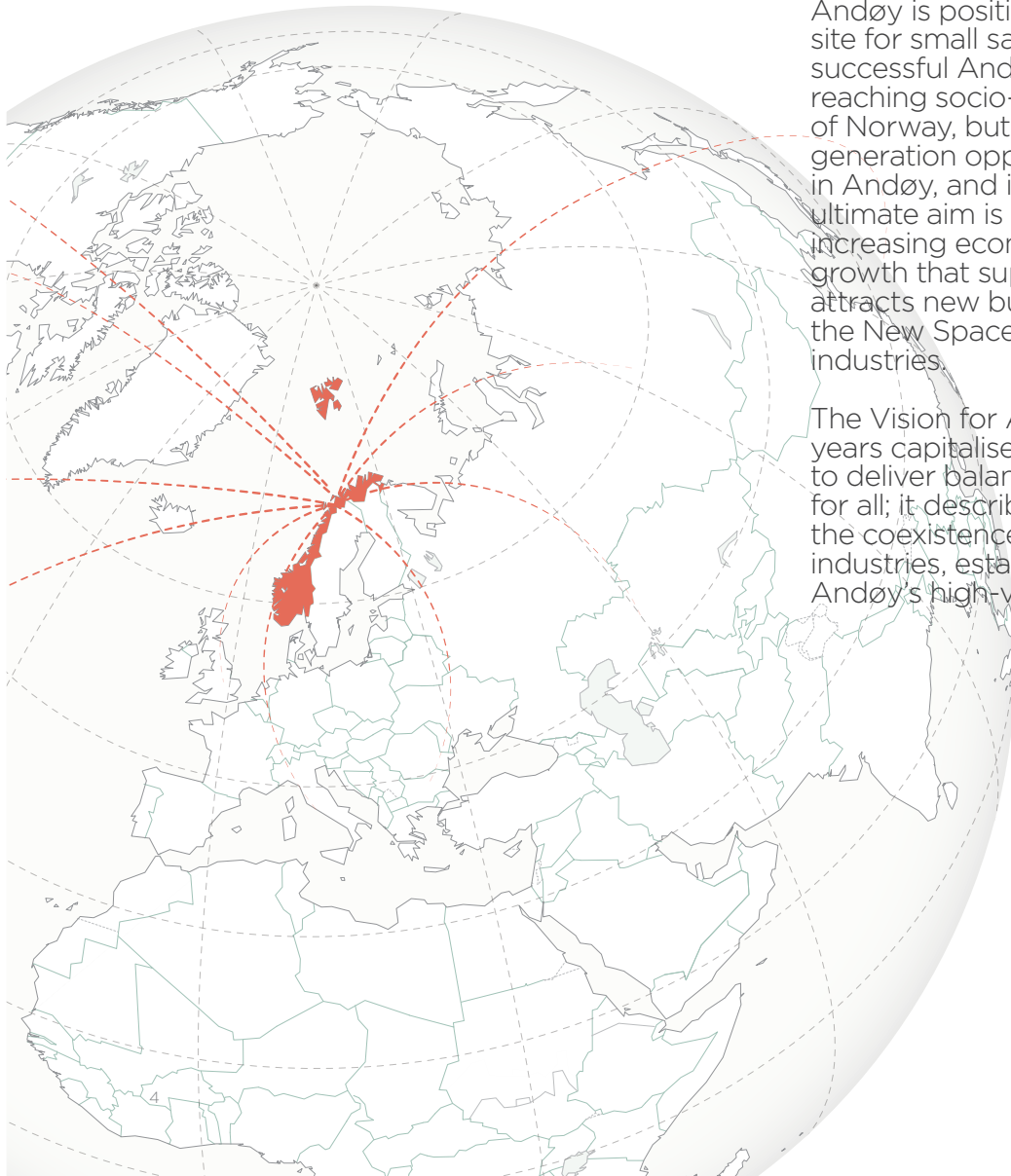
The space industry has been present in the Municipality of Andøy for decades - attracting some of the most renowned organisations in the world for launch services and atmospheric research. With NOK 365m of recent funding from the Norwegian Government, a new commercial spaceport is now under construction. When complete, Andøya Spaceport will serve launch vehicles designed to deliver payloads of up to 1.5 metric tons and have the capacity to launch 30 orbital rockets per year. Commercial operations are expected to begin in 2024.

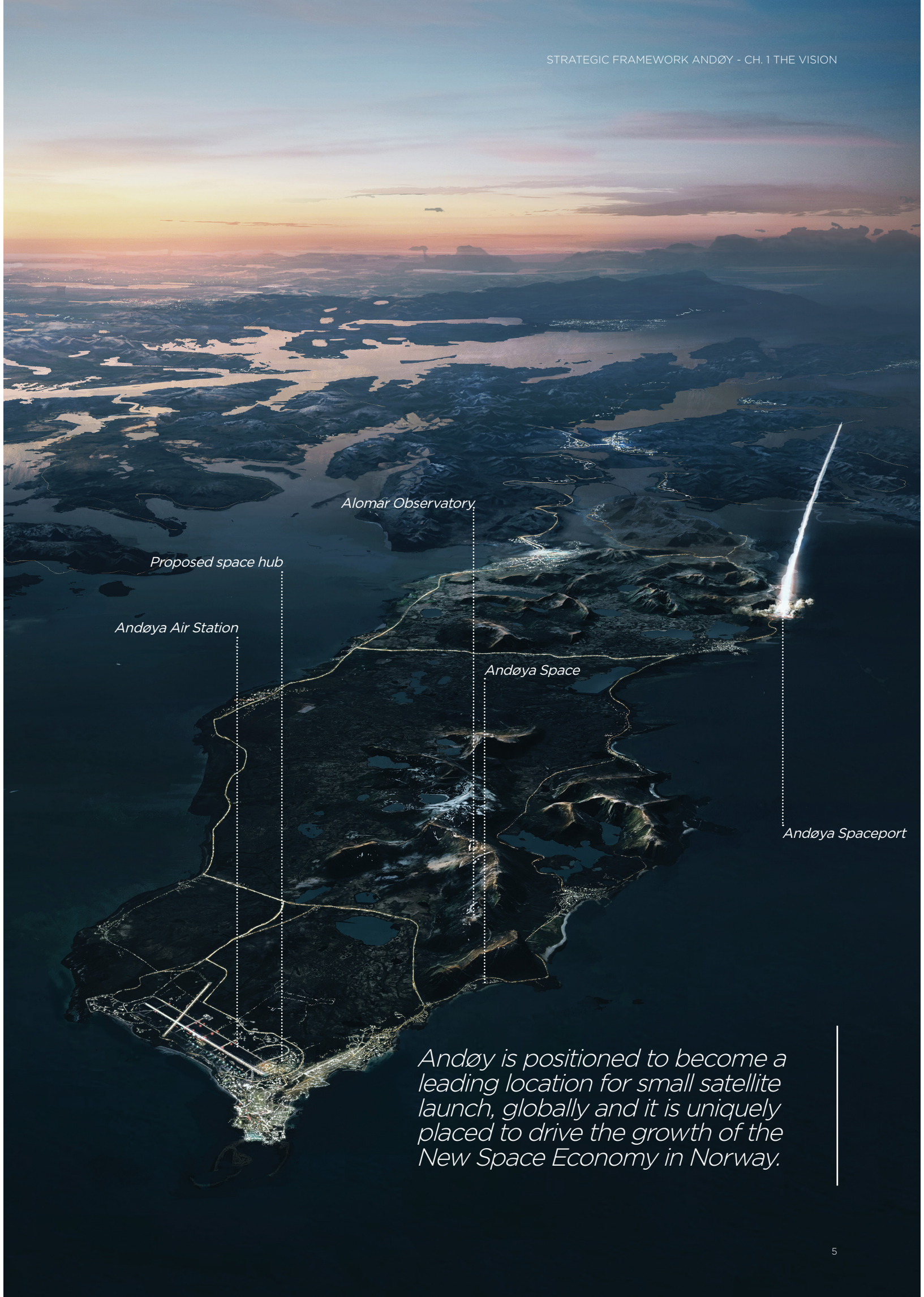
With:

- 60 years of experience in the industry;
- Unparalleled access to polar and solar-synchronous orbits;
- A planned innovation hub focused on New Space;
- A well-established national and regional space value chain, and research and education network;
- Local, regional and national funding and policy in place;
- Excellent access via land, sea and air;
- New essential infrastructure being planned; and,
- A new Local Plan under development that will provide guidance and a policy framework for development over the next 10 years,

Andøy is positioned to become a leading site for small satellite launches globally. A successful Andøya Spaceport will have wide-reaching socio-economic impacts across all of Norway, but in particular, it is a once-in-a-generation opportunity for positive change in Andøy, and in Northern Norway. Here, the ultimate aim is to create a virtuous cycle of increasing economic activity and population growth that supports existing enterprises and attracts new businesses to the area, both in the New Space Economy and in traditional industries.

The Vision for Andøy over the next 20+ years capitalises on the New Space Economy to deliver balanced growth and benefits for all; it describes a future that insists on the coexistence of New Space, traditional industries, established communities, as well as Andøy's high-value natural environment.





Alomår Observatory

Proposed space hub

Andøya Air Station

Andøya Space

Andøya Spaceport

Andøy is positioned to become a leading location for small satellite launch, globally and it is uniquely placed to drive the growth of the New Space Economy in Norway.

2 CONTEXT



The Municipality of Andøy sits in Nordland County in Northern Norway, 300 kilometres inside the Arctic Circle. Located between Gavl fjorden and Andfjorden, it consists of the island of Andøya, the northernmost island in the Vesterålen Archipelago and the northern portion of Hinnøya, the largest and most populous island in Norway.

The area's history is deeply rooted in its unique geographical position. The warm current of the Gulf Stream, close proximity to the continental shelf and Bleiksdjupet, one of Europe's largest submarine canyons, combine to create a rich and unique marine environment just off the coast. The resulting abundance of sealife has supported human settlements for millenia and played a crucial role in its development as a key area of Viking trade, expansion and exploration.

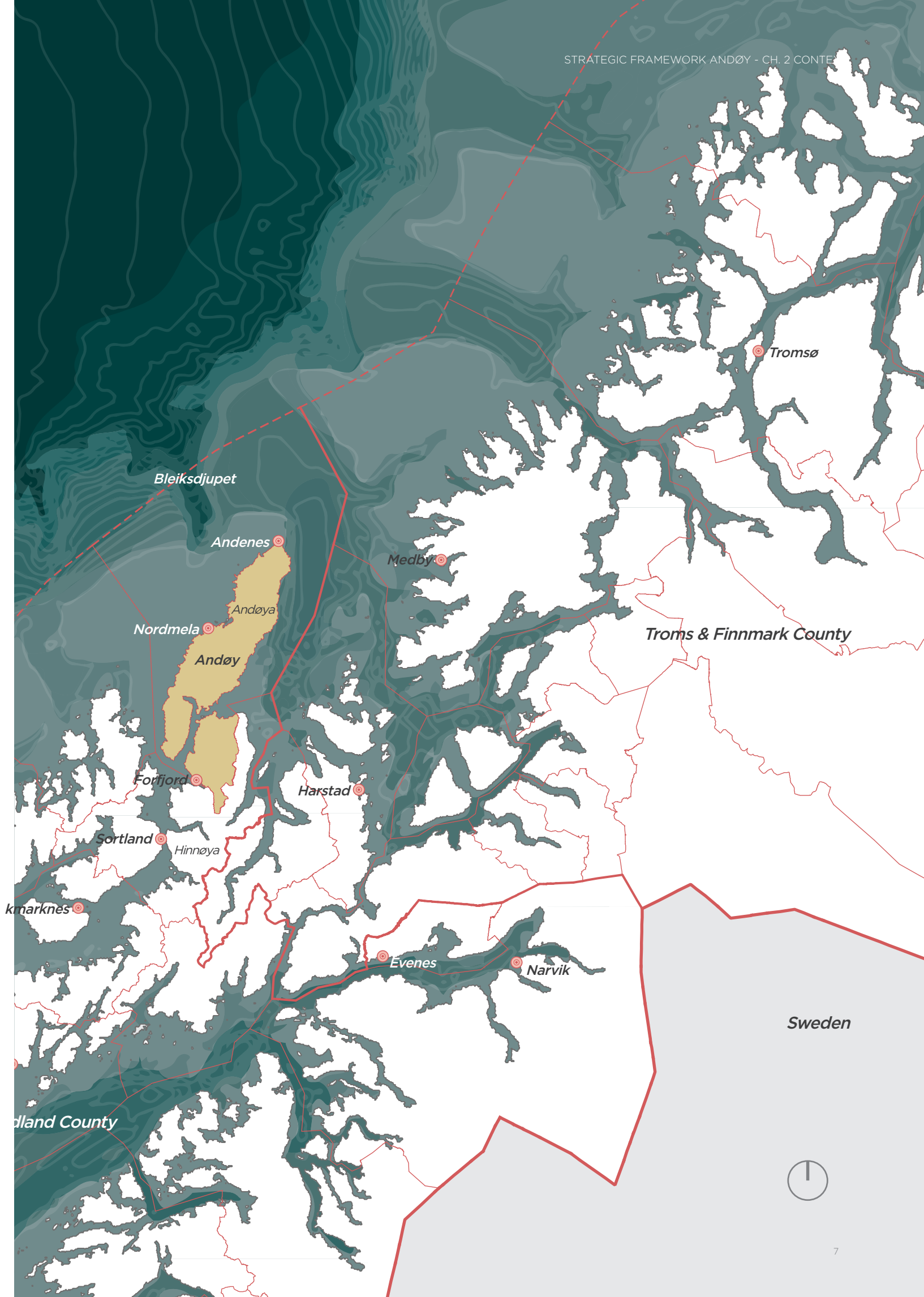
Continental Shelf

Stokm

Svolvær

Nord

Reine



Environment

Andøy's natural environment is unique. It is a place of wild natural beauty and rich ecological value.

Steep mountains stretch up to 700m, with the most prominent concentrations on Hinnøya and the southern and northwestern portions of Andøya. The mountains form a dramatic backdrop for coastal areas which offer a mix of marshes, rocky shores and white sandy beaches. Much of the inland areas consist of peat bogs, moors and heaths that provide enormous environmental benefits, such as

freshwater provision and flood protection (as well as the region's famous cloudberries in the summer). Together, they form a large interconnected ecological network across the Municipality that supports a variety of flora and fauna.

Where freshwater rivers and springs are found, fir, birch and willow woodlands appear, accompanied by lush scrub and grasses. This patchwork of terrestrial landscapes, coupled with the richness of nearby marine ecosystems creates extremely valuable



habitats for a wide range of animals, including elk, otters, harbour seals, and a huge variety of birds. White-tailed eagles, kittiwakes, cormorants and puffins are among the more than 225 species of birds that nest in Andøy. On its own, the skerry of Bleiksøya, just off the west coast of Andøya, is home to 80,000 mating pairs of puffins each summer.

Situated near the edge of the continental shelf, the ocean waters near Andøy also attract vast numbers of whales. Sperm whales are commonly sighted year-round, whilst orcas,

porpoises and humpback, minke, pilot and fin whales migrate seasonally. The waters around Andøy constitute one of the richest marine environments in Europe and one of the best places in the world to see whales in their natural habitat.

Andøy also sits in the auroral zone, the region around the North Pole that produces the Aurora Borealis. Auroras form any time between the autumn and early spring and draw people from around the world for both research and tourism.

45% of Andøya and its surrounding waters are recognised as being important or very important habitat

People

Andøy has well-established communities with residents that have a passion for the place and its history. However, the broader trend of people moving to larger towns and cities, and a reduction in jobs at Andøya Air Station (the local military base), has seen the population decrease over the last decades. Today, slightly less than 5,000 residents live in Andøy, approximately 40% fewer than its peak population in the late 1970s.

Andøy's working age population has also been in decline and skews toward older demographics, however both Nordland County and Andøy Municipality are committed to bringing more working-age people to live in Andøy through a range of measures.

Approximately 1 in 10 people are immigrants, with around half from countries in the EU/EEA, Great Britain, the USA, Canada, Australia and New Zealand. The Municipality has also welcomed a significant number of refugees from Asia and Africa and, more recently, from Ukraine.

Place

Stretching 60km end to end, Andøy is a small Municipality measuring approximately 650 sq.km. With the exception of a few smaller towns on Hinnøya, most of the population lives on Andøya, with the vast majority settled along the coasts. The west coast is connected by FV7702, much of which is comprised of the National Scenic Route, 1 of 18 roads in Norway that combines architecture, art installations and some of the most beautiful scenery anywhere in the country. Here, Nordmela, Stave, Bø and the larger town of Bleik lie open to the Norwegian Sea. On the east coast, Risøyhamn, Åse and Dverberg enjoy milder conditions along Anfjorden and are connected via, Route 82, the main road connecting to Hinnøya and other towns and cities in the region.

Andenes, situated at the northernmost end of Andøya, is the heart of the island and home to approximately half of Andøy's population. Andøya Airport lies just a short drive from the Town Centre and is immediately adjacent to Andøya Air Station which occupies a large swathe of land stretching along Andøya's

northern coast. Andenes is also the centre of the Municipality's fishing and tourism industries, and contains much of its primary social infrastructure such as schools and health facilities.

Economy

Fishing was historically the largest industry in Andøy. At the beginning of the 20th century, Andenes was one of the largest fishing ports in Norway. While no longer as dominant, it remains a vital economic activity, employing nearly 10% of the workforce and in more recent years has increased productivity with the application of new technologies.

Agriculture also has a long tradition, and continues to be an important way of life in Andøy. Local livestock and produce support the community and beyond with fresh food grown sustainably. The agricultural industry also plays a key role in the preservation of rural settlements and the continuity of the cultural landscape. Both of these industries are key expressions of Andøy's cultural history, and integral to its identity; through collaboration, innovation and more efficient operations, there is significant potential to expand their markets.

Industrial businesses, transport, finance, and other business activities account for about 40% of jobs in Andøy. These businesses encompass a wide spectrum, ranging from fish processing and finance to retail and real estate.

There is also significant investment in aquaculture. Anfjord Salmon AS, located on Andøya, has developed an innovative shore-based farming technology and is expected to grow significantly in the years ahead. Its ambition is to build and operate the most sustainable aquaculture facility in the world.

The tourism industry plays an increasingly important role in the Andøy economy. Hiking, biking, fishing and ski-touring, together with the experience of the Northern Lights and world-class whale safaris, are the primary attractions. However, there is also growing interest in agritourism and gastrotourism, which capitalises on Andøy's heritage of fishing and farming.

Andenes is the largest town in Andøy and home to more than half its population.



Space Industry

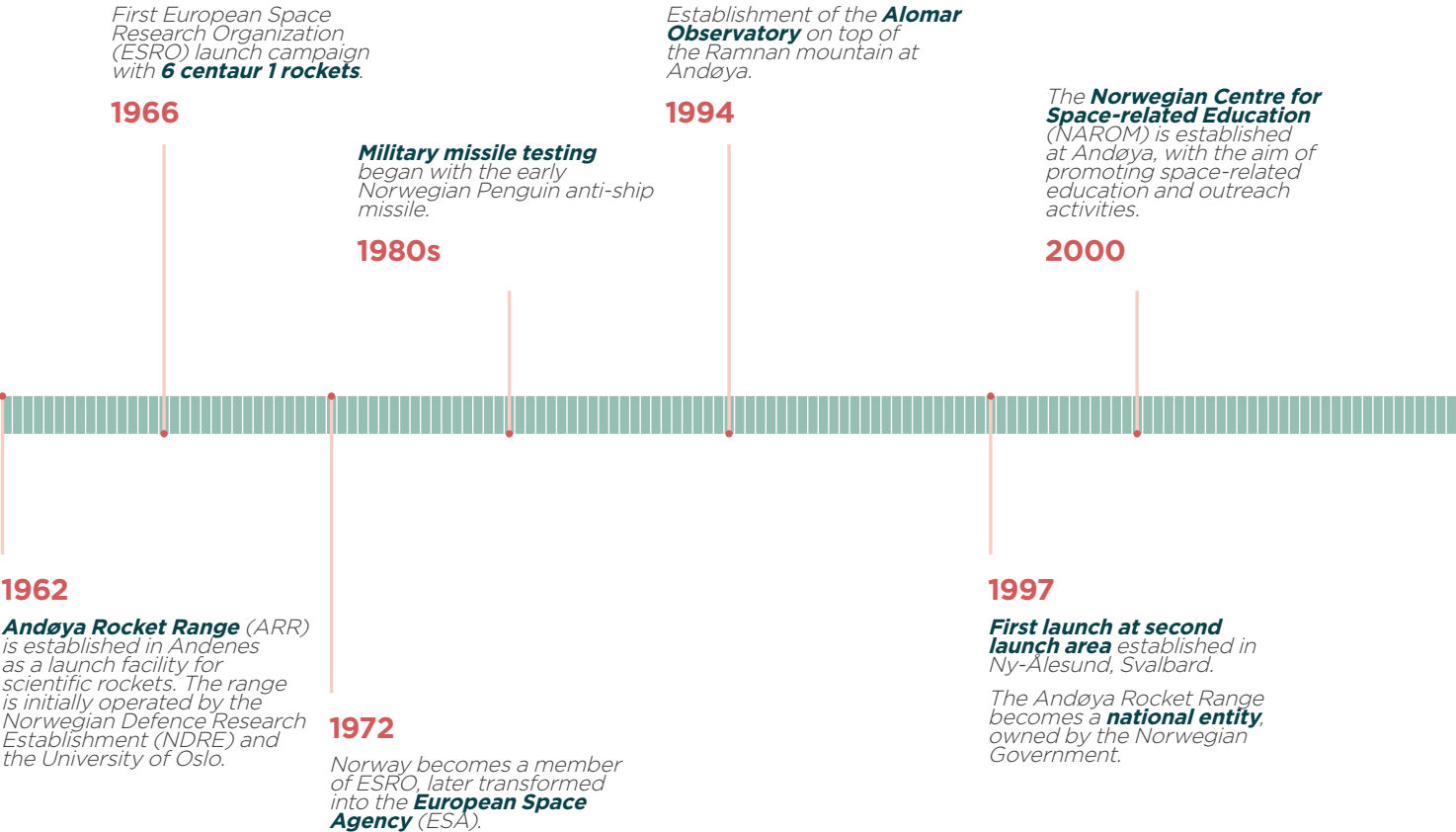
Since 1962, the year Andøya Space hosted the inaugural launch of a Norwegian civilian suborbital research rocket, Andøy has been an important part of the global space industry. In the intervening decades, it has launched more than 1,200 sounding rockets for clients such as NASA, ESA, JAXA and DLR. Together with several ground-based instrumentation installations and the Alomar Observatory, this has enabled international scientists to explore both space and the Arctic atmosphere.

Andøya Space enables customers to safely test, launch, fly, research and create new technology. It builds and launches advanced sounding rockets and operates two launch sites, Andenes and Svalbard, and provides a range of services through its four business divisions: Andøya Spaceport, Andøya Space Defence, Andøya Space Education, and Andøya Space Sub-Orbital.

Andøya Space has a 25,000 sq.km. danger area and an impact and dispersion area in the Norwegian Sea that has been used to conduct full-scale tests of heat shields for spacecraft, technology for hypersonic vehicles, advanced missile systems, large unmanned aircraft and of hybrid propulsion for rocket motors.

Some of the opportunities associated with Andøya Space can be attributed to Andøya’s unique geographical advantages: The location provides:

- Access to both polar and solar-synchronous orbits (SSO);
- A safe launch location with substantial downrange impact area with minimal air and maritime traffic;
- Strategic position in the night-time auroral zone enabling optimal observations and research opportunities; and,



Andøya Space Timeline

- Proximity to a large, well-connected airfield at Andenes.

With the NOK 365m of investment provided by Norwegian Government, Andøya Space is currently developing the Andøya Spaceport, a commercial spaceport that will deliver the technical infrastructure and services to facilitate the launch of small sized satellites (up to 1.5 metric tons). It will have the capacity to launch 30 orbital rockets per year when fully operational, and will be among Europe's first commercial launch sites for light launch vehicles.

ISAR Aerospace, a launch service provider that has secured exclusive access for a period of up to 20 years to one of the spaceport's launch pads, is ambitiously planning the first test flight of its Spectrum launch vehicle in

2023 and is expected to begin commercial operations in 2024.

Another venture on Andøya, co-owned by SIVA, Nordland County, Andøya Space and Andøy Teknologipark AS, is Newspace North. Its objective is to draw together the knowledge, skills and experience of various business industries, educational institutions and new startups to nurture a New Space innovation ecosystem anchored on Andøya. Newspace North is currently exploring suitable locations for its headquarters in Andenes.

The decades of experience, technical expertise and range of services on offer, together with the locational advantages, are attracting global interest, and ensure that Andøya Space will play a central role in the advancement of the space industry in Norway.

The Norwegian government launches the **Norwegian Space Policy**, outlining the country's strategic goals in space.

2010

ARR is rebranded as **Andøya Space Centre**, reflecting its broader focus beyond sounding rockets and expanding into various space-related activities.

2013

Andøya Space Centre is rebranded as **Andøya Space**.

The Norwegian government announces plans to invest in the development of a **microsatellite launch capability at Andøya Spaceport**.

2020

ISAR Aerospace is ambitiously planning the first test flight of its **Spectrum launch vehicle**.

2023

2012

A drone built by **Andøya Space** performed one of the world's longest civilian beyond radio-line-of-sight (BRLOS) drone flights, relying solely on satellite communications.

2018

Andøya Spaceport is established as a **commercial spaceport**, with plans for future launches of satellites and suborbital vehicles. It aims to support both scientific research and commercial activities.

2021

Andøya Spaceport signs agreements with multiple commercial space companies, positioning itself as a **key player in the emerging European commercial space industry**.

Funding from the Norwegian government on the New Space Economy is approved.

A Place in Transition

Until relatively recently, the Norwegian Military was the largest employer in Andøy due to the Andøya Air Station in Andenes. Its strategic location along the coast in the far north of Norway, made the military base an important post for national and regional security. From the 1950s to the 1970s it drove significant growth and contributed to a peak population of approximately 8,000 inhabitants.

However, in 2016, the Norwegian Military announced that the base would be closed, and significant job losses ensued. However, the closure of the Air Base has not yet occurred and, in part, due to recent geo-political conflict,

there is some lack of clarity on the future of the military's presence on the island.

The decision to close the base led to Andøy receiving "omstillingsstatus", or restructuring status, from Central Government and the subsequent creation of the Andøy Fund. The Fund holds NOK 250m and will support Andøy Municipality in the delivery of various initiatives. Agreed upon areas of investment include, social infrastructure, transport, tourism, culture and housing development. Funds have also been set aside to support industry and the development of a New Space innovation hub. These investments are intended to boost local growth and offset the impact of the closure

NOK 250m have been allocated to assist the transition of the Municipality.



of Andøya Air Station. The objectives are to enhance the Municipality's appeal as a place to live and work or start a business, promote a more sustainable future, and ultimately, to enhance the quality of life of its residents.

The Norwegian Defence Estates Agency, Forsvarsbygg, have agreed a budget of NOK 167m this year to develop strategies and plans for the future operation of Andøya Air Station which will include the development of plans to release non-essential military land for commercial and industrial development. An additional NOK 310m has also been proposed in the state budget for 2024 for further investments related to the airport and airstrip.

These are major announcements that should ultimately lead to the release of land required for industrial expansion and the development of the New Space innovation hub.

Looking ahead, Andøy has the chance to capitalise on new economic opportunities. Leveraging substantial global investment in the rapidly expanding commercial space sector, in conjunction with the development of Andøya Spaceport, has the potential to bring substantial investment, innovation, and prosperity to Andøy, the region, and the nation.



3 THE NEW SPACE ECONOMY

Since the start of space age in the late 1950s, national space entities, such as NASA and ESA, have been launching satellites into orbit.

The impact of these satellites has reshaped the way we live our lives on Earth. Communication satellites enable long-distance telecommunications, broadcasting and navigation. Weather satellites enhance our understanding and prediction of weather patterns. Earth observation satellites provide vital data for environmental monitoring, resource management, and disaster response.

In recent years, significant changes in the industry have created opportunities for business to play a larger role. The pace of technological innovation has continued to accelerate, the size of satellites have been reduced, and the costs and risks to develop and launch satellites have fallen. Together with increasing demand, commercial space industry players have emerged, such as Arianespace, SpaceX, Andøya Spaceport and ISAR Aerospace. Private corporations such as these, together with new applications in a broad range of industries, have given rise to the New Space Economy.

According to recent research from the Massachusetts Institute of Technology (MIT), the New Space Economy will:

- Enhance business access to space through private financing and innovative borrowing and investment methods;
- Advance research on Earth's ecosystems, climate change impact, and sustainability to safeguard our environment and natural resources;
- Facilitate new technologies for various industries, including agriculture, fisheries, and telecommunications;
- Foster the development of dual-purpose products that benefit life on Earth while advancing space exploration; and,
- Deliver essential services, like telecommunications and geolocation, ensuring seamless communication and greater safety for all.

Today, recent credible estimates more than 6,000 active satellites in space, and that number is expected to more than triple over the next decade. With the acceleration of technological advancement, what may have once required several years may now be accomplished in just one, and soon even within months. For countries and businesses aspiring to capitalize on this opportunity, two critical considerations emerge:

- Leveraging prior experience and expertise in the space industry to capture the market; and,
- Utilising all assets - capital, knowledge, regulations, and location - to compete in a global market.

The New Space Economy is set to grow significantly. Space is becoming fundamental to the supply chain for more and more sectors - industry, agriculture, mining, security, logistics and others. Over time, it is also expected that there will be a greater need for satellites in the medical and pharmaceutical sectors, energy, and environmental monitoring.

New Space businesses will require a faster pace from order-to-launch to remain competitive. This could radically change how the industry operates around the world.

The New Space Economy will grow fastest where there is a supportive policy and regulatory environment, existing market expertise, and the means to launch quickly and safely. Norway's, and Andøy's ability in particular, to build on their assets will help them capture a greater share of the New Space market.



4x Growth in satellites
over last decade
(but only x 2 in mass)



1,700 Satellites to be
launched on average, **every**
year by 2030



75% of satellite manufacturing
and launch markets value
from **governments**



Satellites have improved
in **functionality** and
reduced in size



Cost and risk to produce
satellites **is falling**

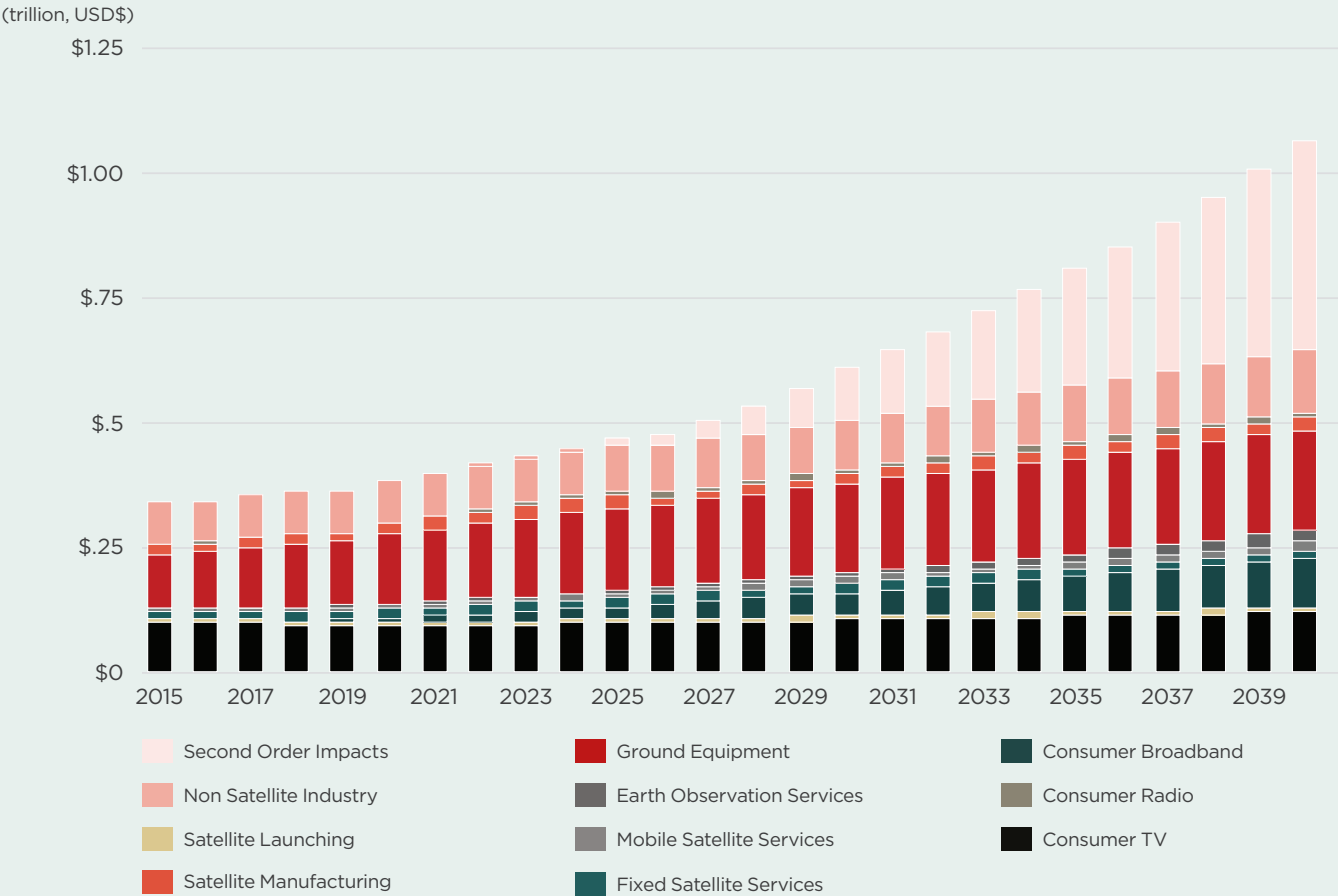


The pace from order-to
launch **is quickening**



Private sector increasingly
needs satellites to
conduct business

2021-2030 Influential trends for the satellite industry, Source: Euroconsult (2021)



The Global Space Economy total revenue (trillion USD), Haver Analytics, Morgan Stanley Research

The New Space Value Chain

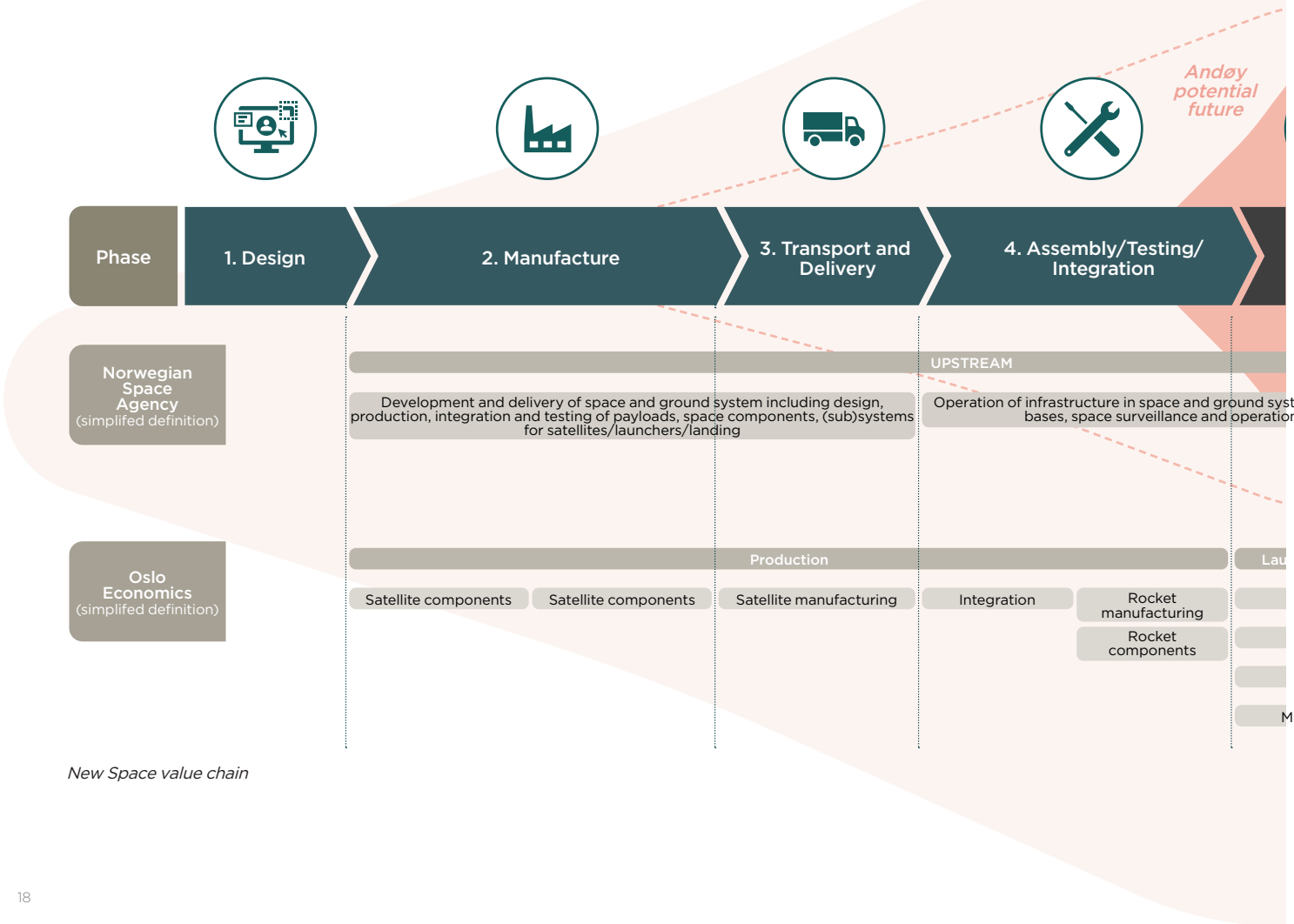
There is no set definition of the New Space Economy value chain. There are, however, several working descriptions that articulate the wide range of activities that are required. Below, a new definition based on the Norwegian Space Agency's definition, Oslo Economics' definition, and insights developed during the engagement of this project is proposed. Andøy's current and potential future roles are highlighted in pink.

1. *Design* includes organisations and skill sets that design and engineer satellites, rockets and related components, as well as the systems - mechanical or digital - required for successful launch and operation.

2. *Manufacturing* typically refers to advanced manufacturing of rockets and satellites (or component parts of either); it often learns and evolves from products and processes in other industries, such as aviation or telecommunications.

3. *Transport and delivery* of rockets and satellites from where they are designed and manufactured to where they need to be tested, finally assembled, and eventually launched. Today, testing facilities are not necessarily near launch, so specialised transport services are required to safely ship complex components, often by land, but also by air and sea.

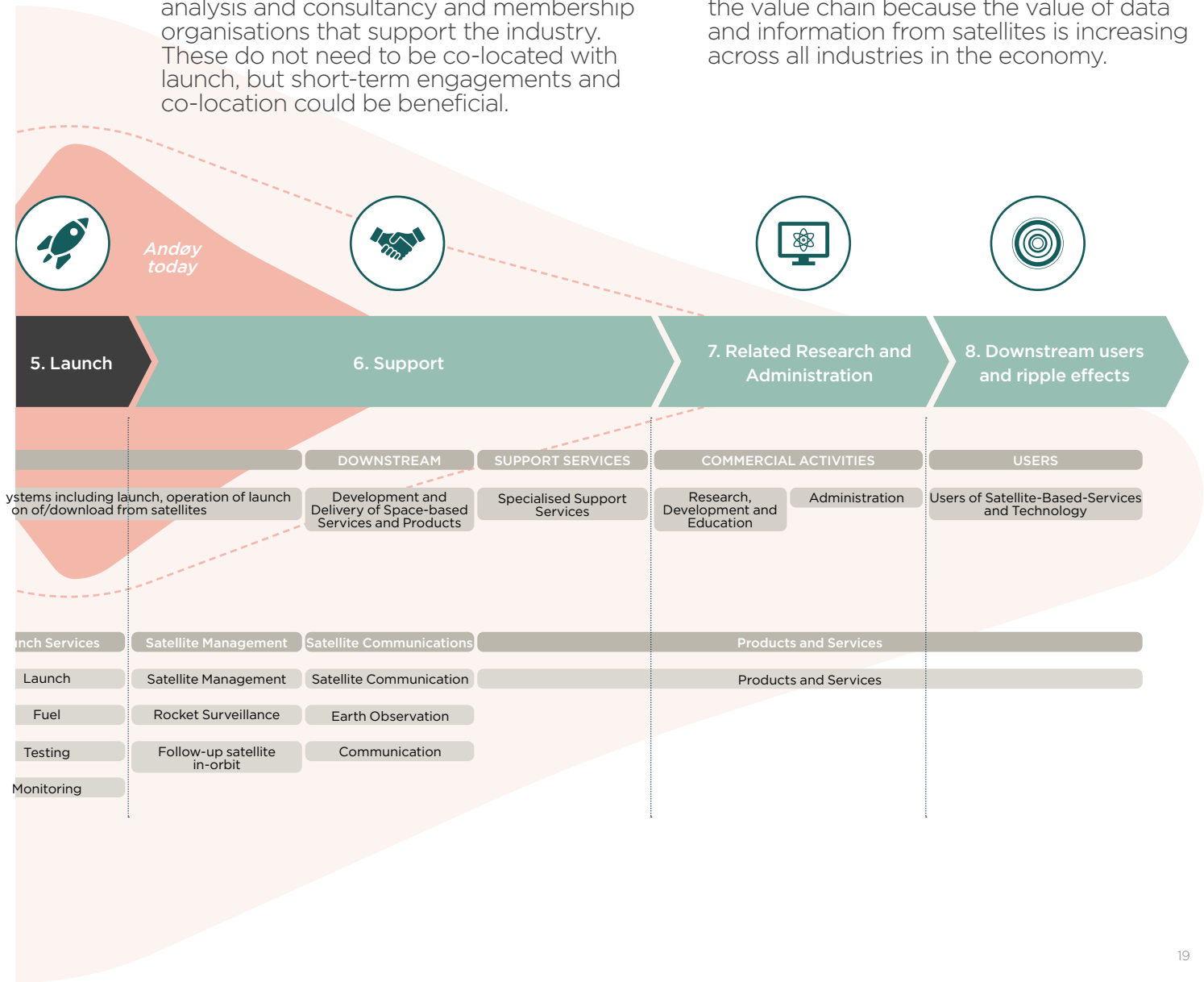
4. *Testing, assembly and integration* are very important parts of the value chain which support safe and successful launch. As the pace from order-to-launch increases, more testing will need to be closer to launch to reduce transport times. The New Space Economy could see more teams co-locating near launch sites temporarily for these activities if the right equipment and facilities are in place.



5. *Launch* sits at the centre of the value chain. There are only so many launch sites in the world, and each launch facility specialises in different types of orbit and has different capabilities and capacity. Launch from Andøya is uniquely positioned to support polar orbit and sun-synchronous orbit. Andøya Spaceport provides the technical infrastructure, launch pads and buildings for launch providers to bring their launch vehicles to the spaceport.

6. *Support* involves a wide range of activities including the development and delivery of space-based services and products and other specialised support services such as insurance, financial and legal services, software and ICT, market analysis and consultancy and membership organisations that support the industry. These do not need to be co-located with launch, but short-term engagements and co-location could be beneficial.
7. *Research and administration* focuses on organisations that conduct research, including basic and applied research using data and signals from satellites. This can include educational activities, innovation centres, and university-led research. The administration component includes regulation, supervision and permitting of safe launch as well as managing and representing the industry in national and international forums.

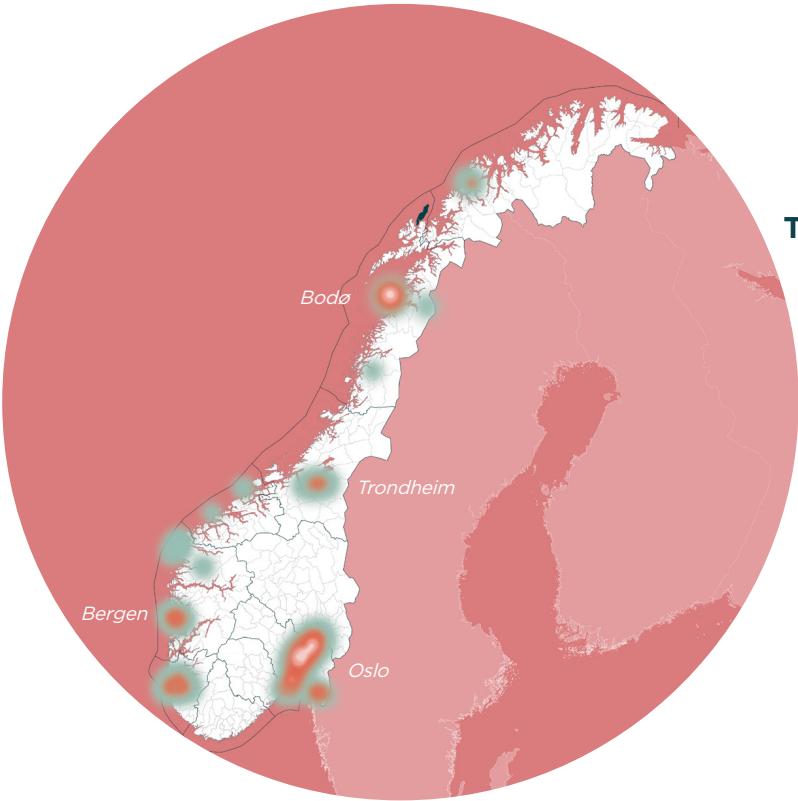
8. *Downstream users* refer to the users of satellite services and technologies for everything from supporting fisheries to monitoring climate change to uses in medicine, geo-location, security, and so forth. This is potentially the largest part of the value chain because the value of data and information from satellites is increasing across all industries in the economy.



The individual parts of the value chain have different location drivers - the place, economy, skills, policies or other factors that determine their location. The four maps below provide a best estimate of the density of jobs in space-related activities in Norway.

Design and Manufacturing

Design and manufacturing require large pools of skilled workers with specific education and training; those stages also require access to physical capital (specific tools, machinery and buildings) and financial capital (banks, venture capital and other financial intermediaries). Today, these activities are focused in the South of Norway—Oslo, Stavanger and Bergen—as well as in Trondheim. In the future, the efficiency required for faster times from order-to-launch could drive some design and manufacturing activities to co-locate near launch.



Transport, Testing, Assembly and Integration

Transport, testing, assembly and integration activities are usually closer to launch sites to support safe final assembly. However, testing takes place in specialist facilities where the equipment is established. Today, these activities are centred around the major economic centres of Oslo, Bergen and Trondheim, but more concentrations also exist in the North, closer to Andøya Space, major research institutions, and businesses.

Launch

Launch planning, launch and related support activities are located at launch sites. These activities are required to be located near the rocket and its payload. This supports successful launch, maintains security and safety before and during launch, and aids the recovery of jettisoned components. These services must locate in Andøy. *Note: Only broader definitions of aerospace activity are available, so this map overestimates the launch activities taking place outside of Andøy.*



Research, Administration and Users

Research, administration and satellite users can choose to locate anywhere in the world where they can access satellite data and transmissions. These activities are dispersed around the major economic and knowledge centres in Norway across all regions.

Note: Data used to estimate current space-related employment cannot isolate activities solely related to the space industry. Thus a wider definition, with related skills and activities, is used in these maps to illustrate the reach and concentration of space-related jobs, skills and activities.

National, Regional and Local Value Chain

Norway has the talent, capital, technology, institutions, networks, and locational advantage to lead New Space in Europe, but the successful development of a full New Space Economy value chain will require a national, collective effort.

At a national level design and manufacturing firms for launch vehicles, satellites, communications systems and other space technology are well-established. Industry has strong connections with universities and research institutions that puts them on the forefront of new technologies and design processes. Businesses are building the financial, legal and other administrative acumen to manage the development of New Space. Downstream users are growing quickly; from monitoring of fisheries and Arctic conditions to geolocation services, demand for New Space data and services is growing.

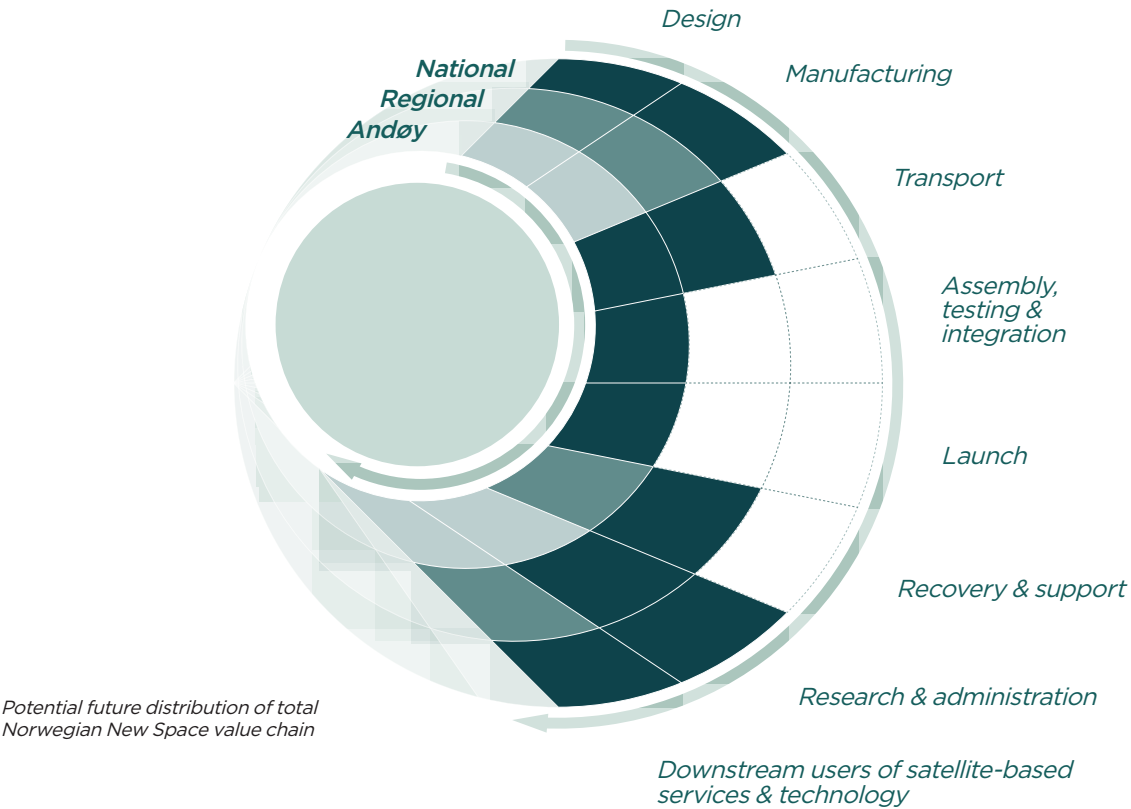
In the North, those same capabilities exist, with a particular focus on research and satellite facilities. As the New Space Economy grows, the North's role in activities along the value chain will grow. Proximity to launch activities in Andøy, strengthening existing skills in research, design and manufacturing

components, and bolstering links to universities will increase Northern Norway's competitiveness.

Andøya Space sits at the nexus of the New Space Economy. It's locational advantages and experience in launch will attract businesses and researchers from around the world. The increased pace from order-to-launch means that more parts of the value chain could start to co-locate in Andøy, permanently or temporarily, to support launch missions; final assembly, testing, integration and transport are likely to grow there in the future.

While the usage of data and satellite services can occur from anywhere, local talent and the excellent internet speeds available could encourage additional researchers and downstream users to locate to Andøy for specific projects.

Across Norway, all regions must play a part in growing the New Space value chain. The foundations are in place and, if existing strengths are further developed, the total value chain is in a strong position to thrive.





4 THE NATIONAL OPPORTUNITY

Although a small country, Norway is a leading actor in several global industries such as oil and gas, seafood, and energy-intensive high-value manufacturing. Each of these industries have evolved over time by using natural assets sustainably and harnessing innovation to enhance productivity and competitive advantage. Today, the New Space Economy holds comparable promise.

Adapting and Driving Growth

The Norwegian Government's support for the New Space Economy is essential to ensure safe launch, foster international collaboration, and rapidly cultivate a thriving business ecosystem. From the broadest ambitions of the Government's platform, to more targeted strategies, Norway has set a clear and supportive foundation for building a leading New Space Economy.

Hurdalsplattformen (the Government platform for Jonas Gahr Støre's Government) sets the ambition to facilitate a complete Norwegian industrial value chain for space-based infrastructure and services for small satellites, including in the Andøy-Narvik-Tromsø-Svalbard axis. It also aims to develop the "whole of Norway" and "invest in knowledge and practical learning throughout life." The goals set out in Hurdalsplattformen include:

- A national center for space observations in Tromsø; and,
- A national innovation center for space-based industries on Andøya (Andøya Spaceport).

The Norwegian Satellite Strategy sets out key moves for the country to build its advantage in the New Space Economy, including:

- Predictable and good framework conditions for the sector, regulations for launching small satellites and enabling business to access secure data and contracts;
- Supporting competition for international space programmes, including participation in EU space programmes;
- Facilitating coordination and technology transfer;

- Using Norway's geographical advantage; and,
- Strengthening space-related subjects and research at Norwegian universities.

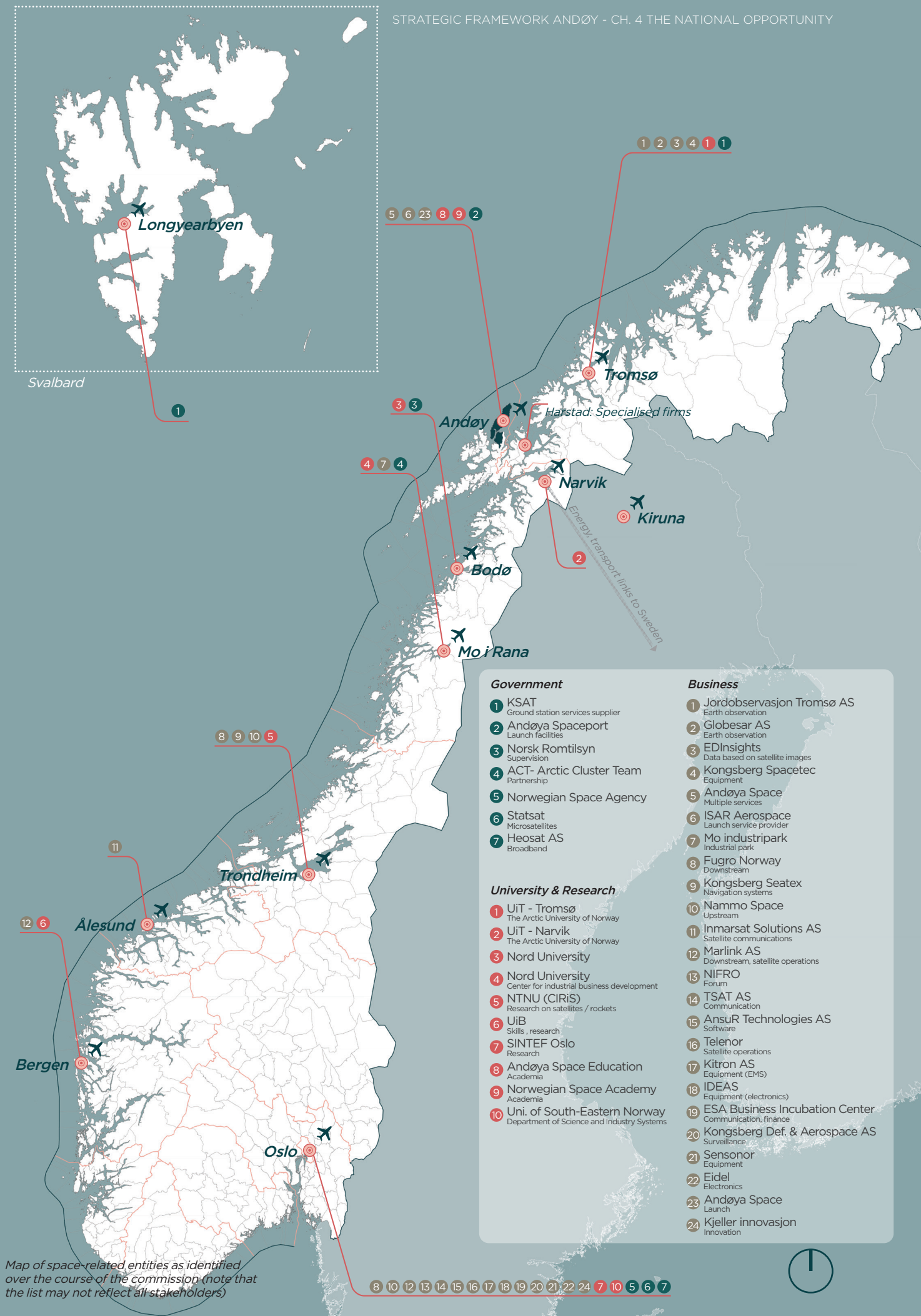
In addition, Norwegian Innovation Clusters is a state-funded cluster program that will contribute to value creation through sustainable innovation. Kjeller Innovasjon, KPB, and KUPA, in collaboration with Innovation Norway, are spearheading the establishment of the Norwegian Space cluster. Such a cluster could build on the wide-ranging expertise across the national space value chain, to make the most of the geographical advantages and business strengths in each part of Norway.

The Economic Geography

The New Space Economy in Norway will be established through a national ecosystem of university and research institutions, businesses (private and state-owned enterprises), government (local, county, and national), and networks. Together, these players will shape an industry through technology, research, regulation, financing, and launch-related development.

University and Research Institutions

The main drivers of primary technological innovation are universities and research institutions, which both compete and collaborate to drive innovation and deliver creative solutions. Universities and research institutions are deeply interlinked, collaborating in multiple EU- and domestically funded projects. They provide valuable resources and develop innovative tools and technologies for space education and New Space business alike.



Business

Businesses deliver services and products across the entire value chain. Just a few examples include:

- Manufacturing, electronics and equipment, propulsion systems and fluidic components, sensors, cable systems for space and manufacturing technologies;
- Communications;
- Launch;
- Satellite operation and ground network;
- Navigation systems; and,
- Earth observation services.

Government

Effective regulation is essential to ensure safety, security, and coordination for public benefit from New Space.

Government also plays an enabling role. Central Government must provide funding, resources, policies, and public support for programmes that will enable New Space to grow. The support from local authorities, such as Nordland County and Andøy Municipality will be central to delivering the infrastructure, and supporting networks that aid the industry.

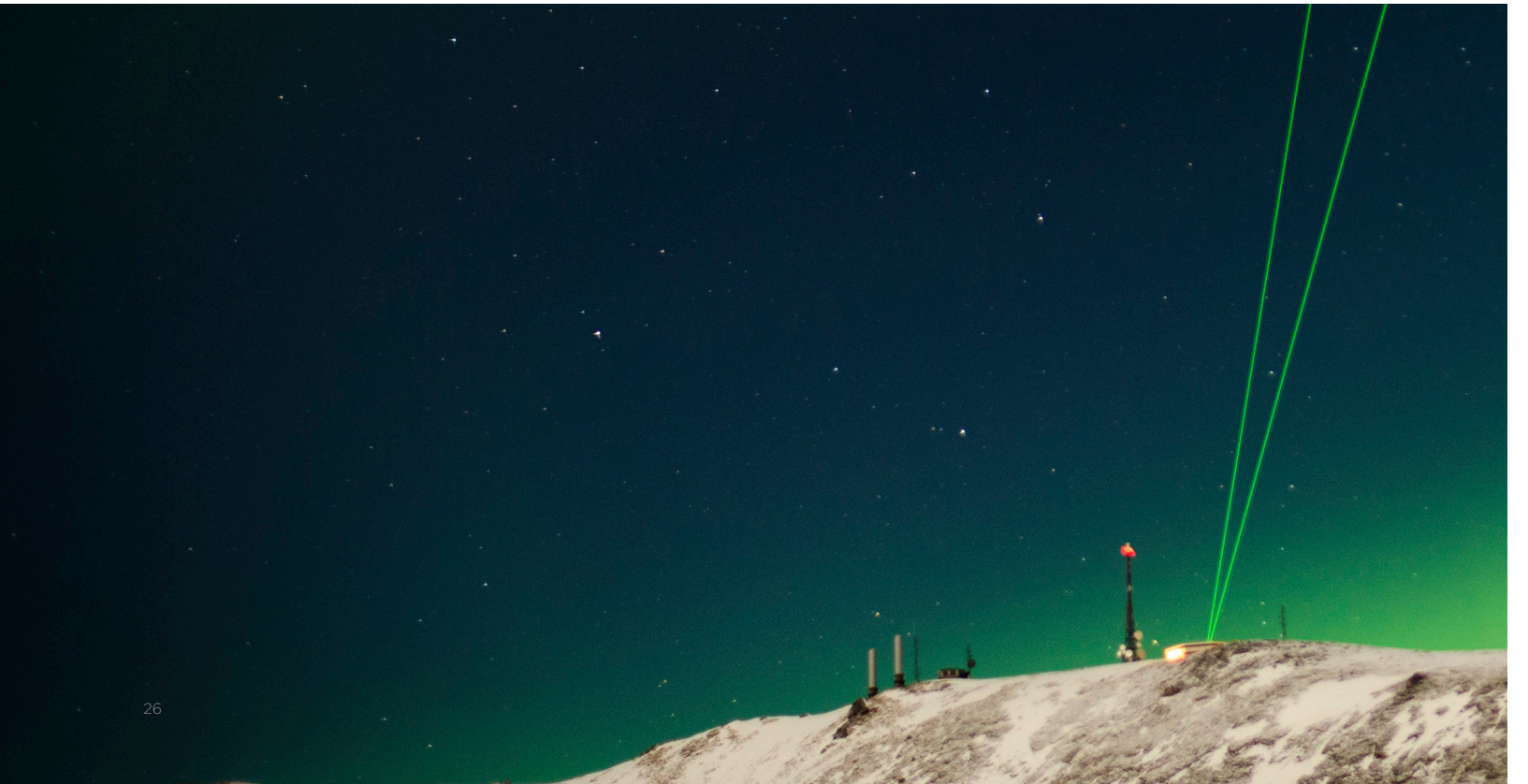
Networks

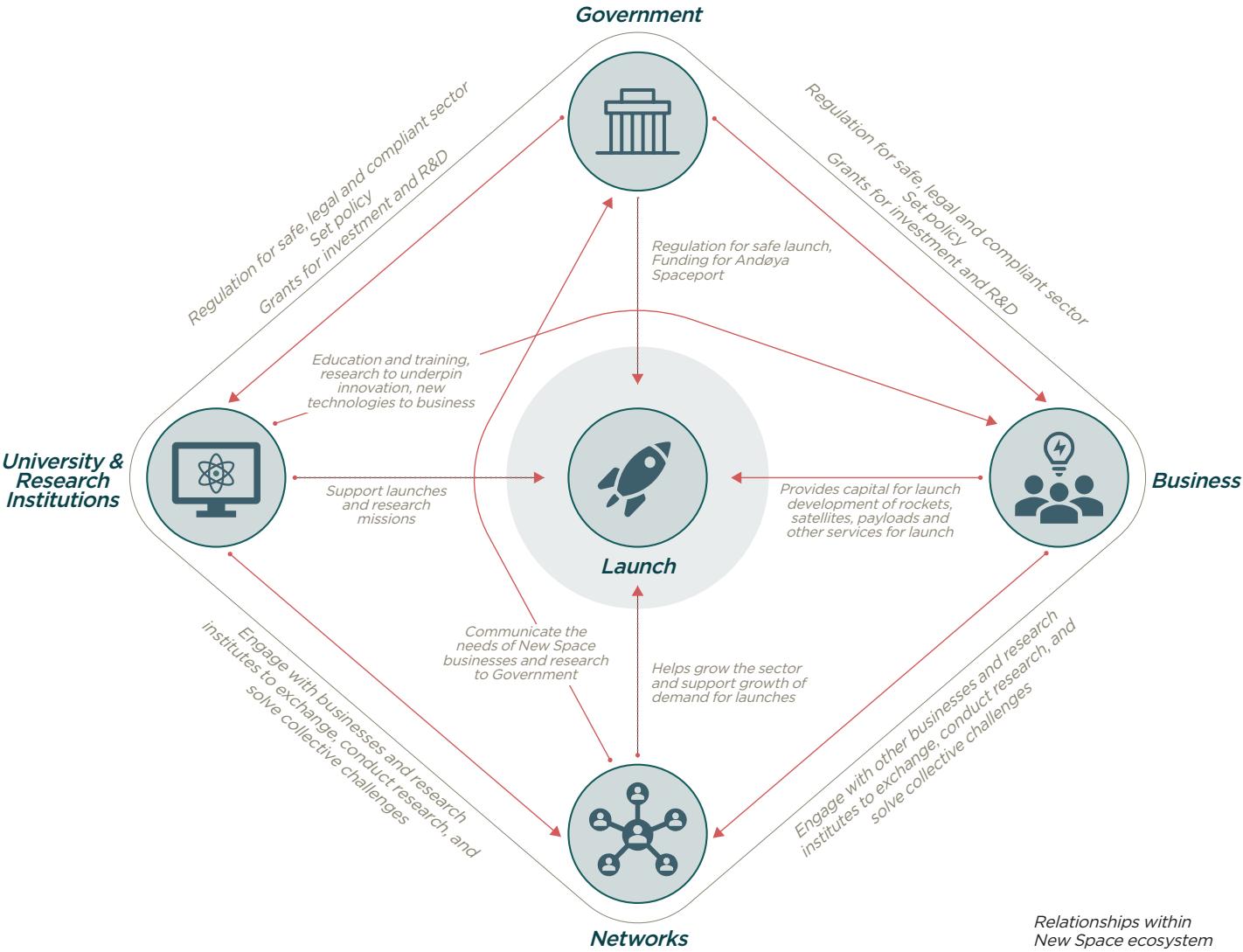
Networks of research facilities and business clusters require collaboration that can monitor the development of the field, communicate the needs of the industry to the government, and promote the appropriate partnerships.

Newspace North, a business owned by Andøya Municipality, Nordland County, Siva and Andøya Space, has the ambition to become a centre for space related innovation in Andøya, providing support to new businesses and academic institutions. Together with other key stakeholders, such as Andøya Space, it will play an important role in building relationships between launch and wider activities in Andøy, the rest of Norway, and in the wider global market.

Key Priority Actions (full list of Key Actions from pg. 64)

1. Agree the role of the New Space cluster in Norway, coordinate efforts of national and local clustering and hub development initiatives with agreed purposes and defined roles. (Key Action 1.1)
2. Set an agreed ambition of Norway’s market share of the New Space Economy, with an economic development strategy to support growth of the sector. (Key Action 3.2)
3. Establish a lead organisation to build a brand for New Space sector in Norway and promote coordination between the industry and government. (Key Action 3.1)





5 THE REGIONAL OPPORTUNITY

Northern Norway is a vast and diverse region with a range of natural assets, settlements, and industries, including many of the country’s future growth sectors.

Context

Including Svalbard, the Government has named the northern region its “most important strategic investment area”. There is clear political ambition to support population growth and continued sustainable development in the North.

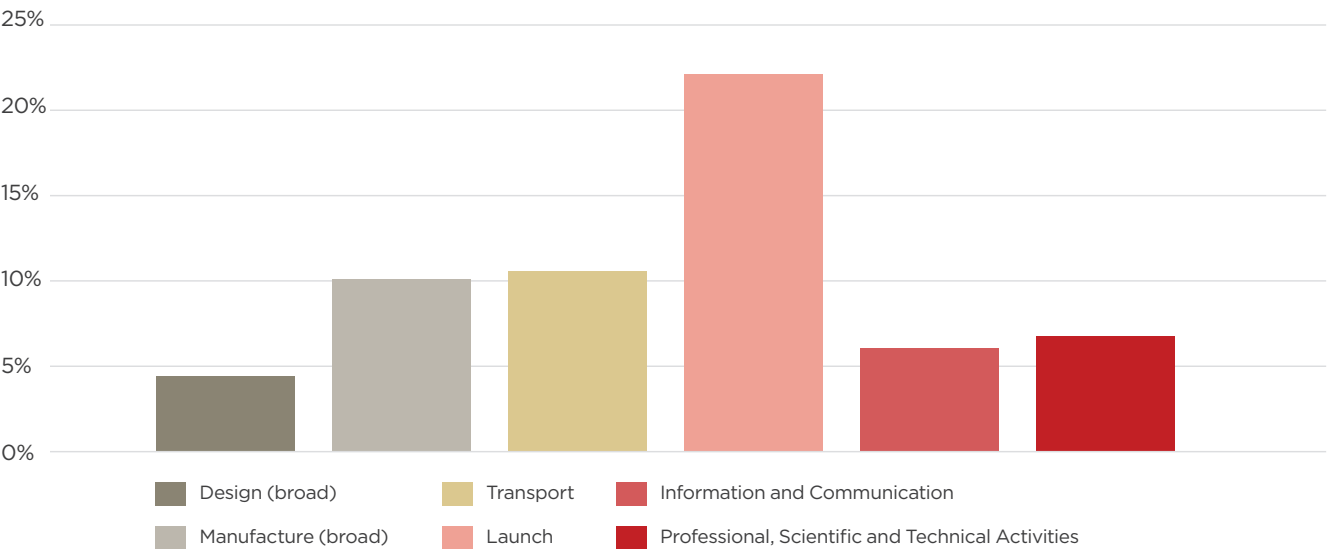
The Northern economy is heavily export-oriented and growing, exporting NOK 51.4bn in 2022, a 34% increase from 2021. Over 95% of this value came from the metal and chemical industries and seafood. In addition to high export values, businesses had a total turnover of NOK 249bn in 2022, an all-time high, and over the last decade, business growth in Nordland has outpaced the national average. In addition to the exporting industries, traditional manufacturing, construction, retail, transport, tourism and hospitality have seen good growth. Tromsø, the city of northern lights, saw the tourism industry increase more than fivefold in the years leading up to 2020. The unique

landscape of the Lofoten and Vesterålen region is a global tourist destination that sees more than half a million tourists a year.

In New Space Economy, the North already has a share in each stage of the value chain. Launch activities are obviously present in Andøy, and SvalSat on Svalbard provides critical ground infrastructure for a number of international customers including NASA, ESA, EUMETSAT and NOAA, among others. The North has a foothold in all the skills and businesses upstream and downstream, with high potential to grow.

Education and research infrastructure is strong. UiT, Norway’s Arctic University, and Nord University have main campuses in Tromsø and Bodø, as well as decentralised campuses spread across the region. This provides an asset for space-related research, education and innovation, but also an important contribution to the labour market.

In sum, Northern Norway has a breadth of industries, infrastructure and natural assets to attract, retain and grow businesses. It possesses strong business and knowledge networks, and its economic strengths are primed to carry over into the development of the New Space Economy.



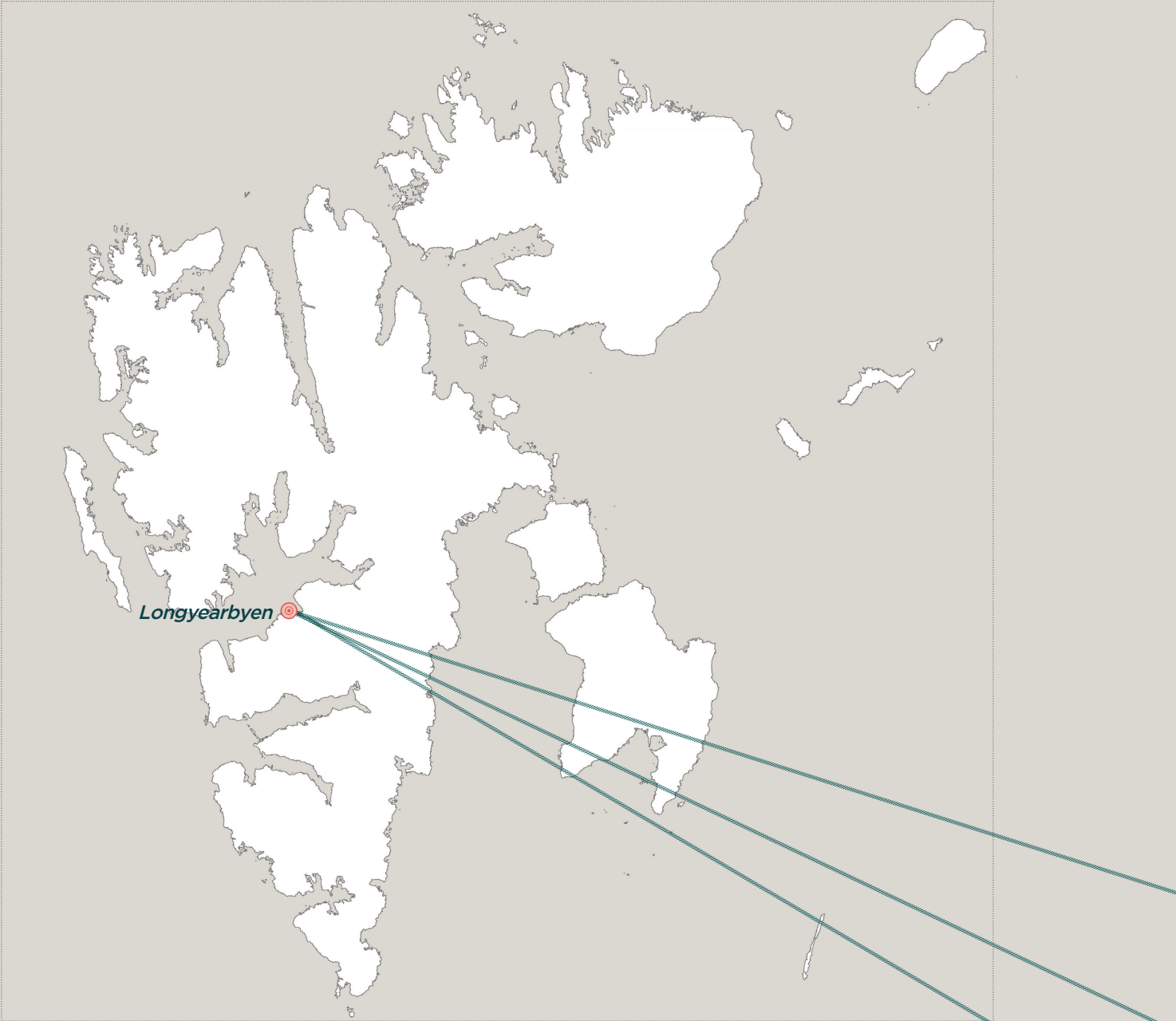
Mapping of the New Space Economy, Share of Sector, Northern Norway

Note: Data used to estimate current space-related employment cannot isolate activities solely related to the space industry. Thus a wider definition, with related skills and activities, is used in these maps to illustrate the reach and concentration of space-related jobs, skills and activities.

*SvalSat is the world's largest
commercial antenna park.*



*SvalSat, Svalbard
© Kilian Munch*



Svalbard

Location	Key assets
Narvik	• Norway's only study programme in Satellite Technology (UiT)
Tromsø	• Kongsberg Satellite Services (KSAT) • Centre for Integrated Remote Sensing and Forecasting for Arctic Operations (CIRFA) • National Centre for Earth Observation
Andøy	• Centre for launch of rockets and small satellites • Key infrastructure and skills • Forthcoming space innovation hub
Svalbard	• Svalbard Satellite Station (SvalSat), today the world's largest polar satellite station

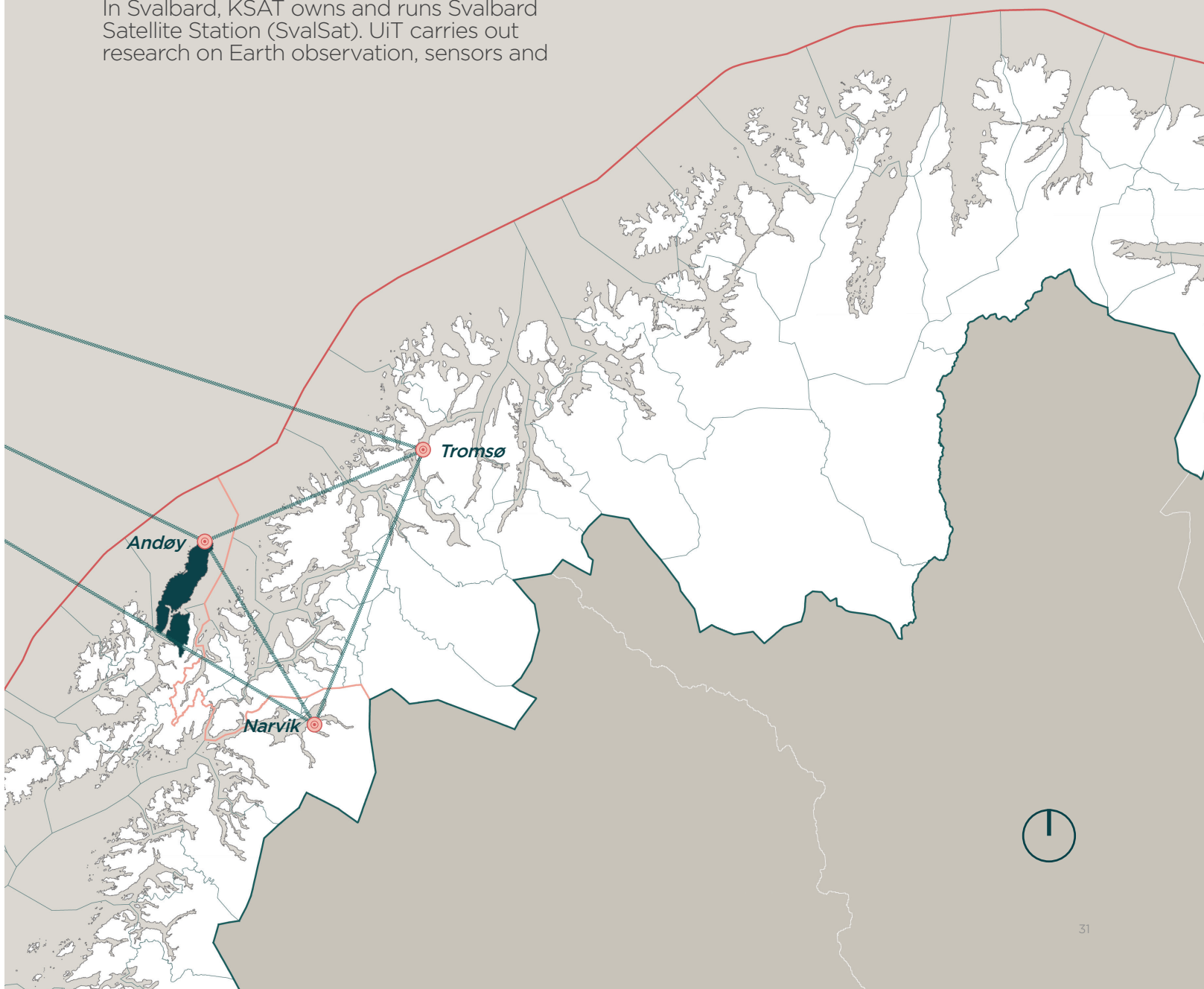
The Andøy-Narvik-Tromsø-Svalbard Axis

In the field of Earth observation, a complete value chain has already been established across the hubs in the “Andøy-Narvik-Tromsø-Svalbard axis”. The actors involved are key building blocks as the value chain expands and develops in the New Space Economy.

Tromsø is home to the headquarters of Kongsberg Satellite Services (KSAT), a world-leading service provider for receiving satellite data. They offer services such as Telemetry, Tracking and Command (TT&C), data acquisition, hosting services, Launch and Early Orbit Phase (LEOP) and launcher support, sounding rocket support and data handling, in addition to data used for Earth observation. Managed from Tromsø and Svalbard, KSAT accesses over 200 antennas from 23 different locations in the world.

In Svalbard, KSAT owns and runs Svalbard Satellite Station (SvalSat). UiT carries out research on Earth observation, sensors and

satellite technology. The main campus in Tromsø has a strong research environment on space physics and Earth observation. It is also home to CIRFA, a national centre of research excellence and a knowledge hub for Arctic monitoring technologies. The centre uses satellite remote sensing for detecting, analysing, and predicting ocean surface conditions such as sea ice, icebergs, currents, temperature, wind, and marine pollution. This is further developed into new products to support safe maritime activities in the Arctic. UiT is also co-owner of the forthcoming national centre for Earth Observation located in Tromsø. The centre's main aim is to support public and private institutions in making use of satellite data in developing new products and services.



UiT's campus in the city of Narvik is also a key asset in the value chain, having educated highly qualified candidates to the space industry for the last 25 years. It currently offers BSc and MSc degrees in Satellite Technology and a masters in Aerospace Control Engineering. Students are currently developing a satellite to be launched from Andøya that will monitor space debris.

In addition, there are important end-users of earth observation data, such as the Polar Institute of Norway and the Meteorological Institute, alongside Norce, a research institute carrying out applied research. A new piece of international research infrastructure, EISCAT 3D, is under construction. This radar system is designed to investigate how the Earth's atmosphere is coupled to space, but it will also be suitable for space weather forecasts, the detection of space debris, and climate research.

These businesses and institutions already form a robust partnership with Andøya Space and encompass significant activities across the space value chain. Norway's northern space industry cluster has been instrumental in establishing the country's position in the European and global market.

The entities in the Andøy-Narvik-Tromsø-Svalbard Axis provide a robust foundation to further develop in the areas of research, technology, innovation, and education. The axis will connect to other places in the region and beyond, like Bodø and the green industry hub of Helgeland, expanding as the New Space Economy develops. Together, they have a collective power to attract a wide range of industry partners, talent and capital to the region.

A Step-Change in Coordination

As the New Space Economy develops, more businesses and research institutions across the value chain should emerge and grow in Nordland and Northern Norway.

In the upstream domain, there will be opportunities associated with the design and manufacture of smaller space-related components. Specialist firms and suppliers will also be required for the transportation of satellites, rockets, and other equipment.

In the downstream domain, data collection and management, research and other satellite-based services will continue to grow and be supported by universities and businesses. Additional specialist businesses in launch recovery and support will also be in demand, especially as the frequency of launches increases.

The expansion of the New Space Economy across the North will require a step-change in collaboration, dissemination and engagement across geography and the industry. In order to connect to the value chain, local and regional actors will need to better engage with each other and with the broader national industry. Research institutions will require investment to grow and to connect to wider research and innovation in Norway and internationally. Knowledge about the New Space industry should also be made more accessible, so the opportunity is well-known among relevant firms and existing clusters.

Coordination will also be required to determine whether current activities should be expanded in the future, including the provision of additional launch pads in the North.

Northern Norway already attracts specialists from around the world to its universities, research institutions and businesses. However, with the intensifying competition in the New Space Economy, it will be essential to exert additional effort to make the region a more appealing destination for the most talented and promising individuals from Norway and beyond. This requires systemic work with attraction, immigration and community inclusion.

Business and research connections across the North will require two core types of engagement.

First, 'pipelines,' or ways of engagement, conducting research and sharing knowledge virtually; this must be aided by shared aims, networks, language and values. With development, Newspace North and others will play an important role in supporting trusting mutually beneficial relationships that can operate over distance.

Second, co-location and clustering are important for innovative work. Regional flights serviced by Andøya Airport are regular, but an increase in frequency, affordability and routes will be required to bring people closer together for face-to-face engagement in Andøy and elsewhere in the North. Having a flexible place for the industry to engage and collaborate in Andøy will be critical for building a New Space innovation hub and its network. This is further explored in Chapter 6 *Andøy's Opportunity*.

Key Priority Actions (full list of Key Actions from pg. 64)

1. Communicate the opportunities of the New Space sector to relevant stakeholders. Disseminate information about the New Space industry to relevant companies in the region of Northern Norway to have more related companies connect to the value chain. **(Key Action 4.2)**
2. Support downstream businesses to access the New Space market, especially businesses with a focus on sustainability, net zero, and climate change. This should be done in close collaboration with the main stakeholders in the "Andøy-Narvik-Tromsø-Svalbard-Axis". **(Key Action 4.3)**
3. Secure opportunities for university students and young people to understand the New Space sector and its opportunity. **(Key Action 4.4)**



ISAR Aerospace has signed an agreement with Andøya Space to secure exclusive access for a period of up to 20 years to one of its launch pads.

© ISAR Aerospace

6 ANDØY'S OPPORTUNITY

The growth of the New Space Economy brings with it an opportunity for significant change in Andøy - accelerating the creation of jobs and new businesses, helping to revitalise town centres, and opening up new avenues for space and tourism.

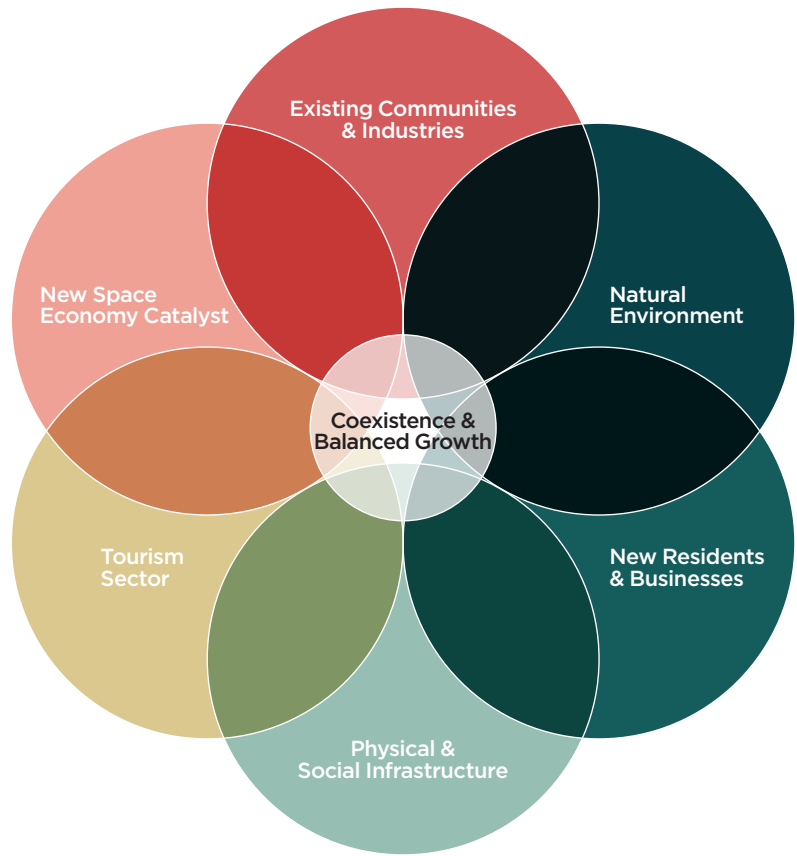
However, the approach to growth must consider new commercial and residential development and the new residents and workers alongside existing communities, existing businesses, and critically, the natural environment. Coexistence is a prerequisite for success, and a balanced approach to growth must be delivered in such a way that all citizens share the benefits.

The growth strategy for Andøy must encompass six key drivers to achieve sustainable coexistence: the transformative impact of the New Space Economy; existing communities, industries, and enterprises; new residents and business prospects; the tourism sector; the distinctive natural environment of Andøy; and the essential social and physical infrastructure necessary to support the population.

Achieving the County & Municipality Vision

In its Planning Strategy, Nordland County sets out long-term objectives for how growth should be achieved. The establishment of the centre of the New Space Economy, along with the ensuing broader opportunities for growth in Andøy, align with these principal objectives. Specifically, it involves attracting innovative and sustainable enterprises that contribute to the green transition, bolstering skilled worker positions, and fostering higher education and research hubs that, together, positively contribute to regional, social and economic life.

The New Space innovation hub will attract and help grow businesses with highly skilled workers, and it will build partnerships with national and regional institutions. In addition, much of the New Space industry actively undertakes research on the impacts of climate change, and monitoring of the Earth, which has led to new innovations in sustainable fishing, aquaculture and farming, which could further support the green transition. These activities directly support the County and Municipality's economic, social and environmental aims.





Quality infrastructure (road, energy) to support transport and logistics



Increased demand for launch services from the private sector and for responsive launch for security



Increased pace from order-to-launch could attract more firms closer to launch activities for efficiency



Access to **quality industrial facilities, equipment and capabilities**



Access to **skills and the ability to recruit** expertise from abroad



Supportive business environment and services through Newspace North to attract businesses, including start-ups and spin-out

Factors that will increase market demand in Andøy (1)
Factors that will attract New Space businesses to Andøy (2)

The Andøy Planning Strategy also sets out strategies to shape future development and which align with the potential growth shown on page 37, including:

- Developing Andøy as a sustainable tourist destination;
- Supporting high living standards with high levels of education and economic development in industry, aquaculture, tourism, and high-tech companies; and,
- Identifying areas for new housing and commercial activity

The Andøy Advantage in New Space

While most launch sites around the world are simply a place to launch satellites, Andøy offers a different proposition. Due to its extensive experience in launch and robust networks focused on research and innovation, Andøy presents an exceptionally advantageous setting for launch vehicle and satellite firms, along with downstream actors, to establish a collaborative presence.

The increased pace of order-to-launch, and the expected advantages of co-locating some value chain activities close to launch, will create the opportunity to bring a wide range of businesses and jobs to Andøy. These will be focused around:

- Transport of rockets, satellites and other materials;
- Assembly, testing and integration;
- Launch and launch services; and,
- Recovery and support services.

In order to secure more upstream and downstream activities, local stakeholders are investing in factors that will attract business and investment. Andøy Municipality and Nordland County are investing in high-quality infrastructure required for transport and logistics. Innovation Norway and Newspace North will play a critical role enabling a supportive business environment and access to talent that are central to the success of the innovation hub in Andøy. New, high-quality commercial facilities will be developed as well.

The innovation hub will comprise a dedicated and secure site where launch vehicle and satellite enterprises can conduct pre-launch business. This specialised environment will facilitate planning, testing, as well as offer business support and administrative services. Additionally, provisions will be made for post-launch activities. The innovation hub will also provide an avenue for researchers interested in temporary or permanent work space to engage and collaborate with other industry participants. It will be the central hub of knowledge and innovation for the New Space Economy in the Norway.

Impacts on Andøy

The growth of the New Space Economy will create direct impacts (jobs and businesses in the New Space Economy), indirect impacts (jobs and businesses supporting the space industry), and induced effects (greater spending in the local economy as a result of the direct and indirect impacts).

The frequency of launches will influence both job creation and business investment. As launch frequency rises, Andøy will see increases of temporary and permanent space industry teams for transport, logistics, assembly, testing, integration, and launch services. Over time, new firms will be drawn to Andøy for some manufacturing, satellite management, communications, and Earth observation.

The growth of the New Space Economy will have wide-reaching impacts across the local economy, including:

- Increased numbers of tourists who are interested in seeing launch and the wealth of other visitor attractions;
- Increased demand for restaurants, shops and leisure activities
- Partners and families of those attracted to working in Andøy who bring skills within their own industries;
- Other industries (such as professional services) may be attracted to Andøy because of the increased economic activity or expertise brought by New Space;
- Transferable skills and knowledge from space to defense (and space defense);
- Increased demand for more local services (education, health and social services); and,
- The need for cooperation and coexistence with the military and fisheries who share the ocean around the launch area.

This will create a virtuous cycle of increasing population and economic activity that supports existing enterprises and attracts new businesses to the area, both in the New Space Economy and in traditional industries.

Over the coming decades, Andøy could see its population return to its previous peak of 7,000 – 8,000 residents. This includes jobs in the New Space Economy as well as in existing sectors. Collectively, Andøy has the potential

to generate 1,500 to 2,100 new jobs by 2040, spanning various industries in both the private and public sector.

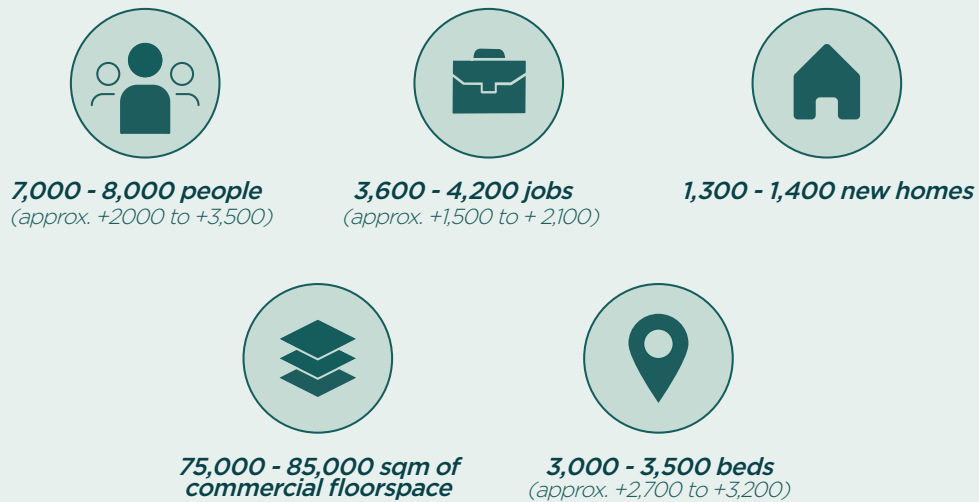
This growth must also continue to support coexistence. Fishing and defense, for example, will need to engage with the growth in space activity for safe launch over the ocean. Growth of New Space should not be at the expense of other industries.

In order to achieve growth in New Space and the wider economy, Andøy must create space industry-specific infrastructure, such as the innovation hub, as well as additional public transport and utilities investments, new housing, commercial space, and additional amenities and services for communities. Improvements to roads and ports will also be required to support the transport of goods and the movement of people.

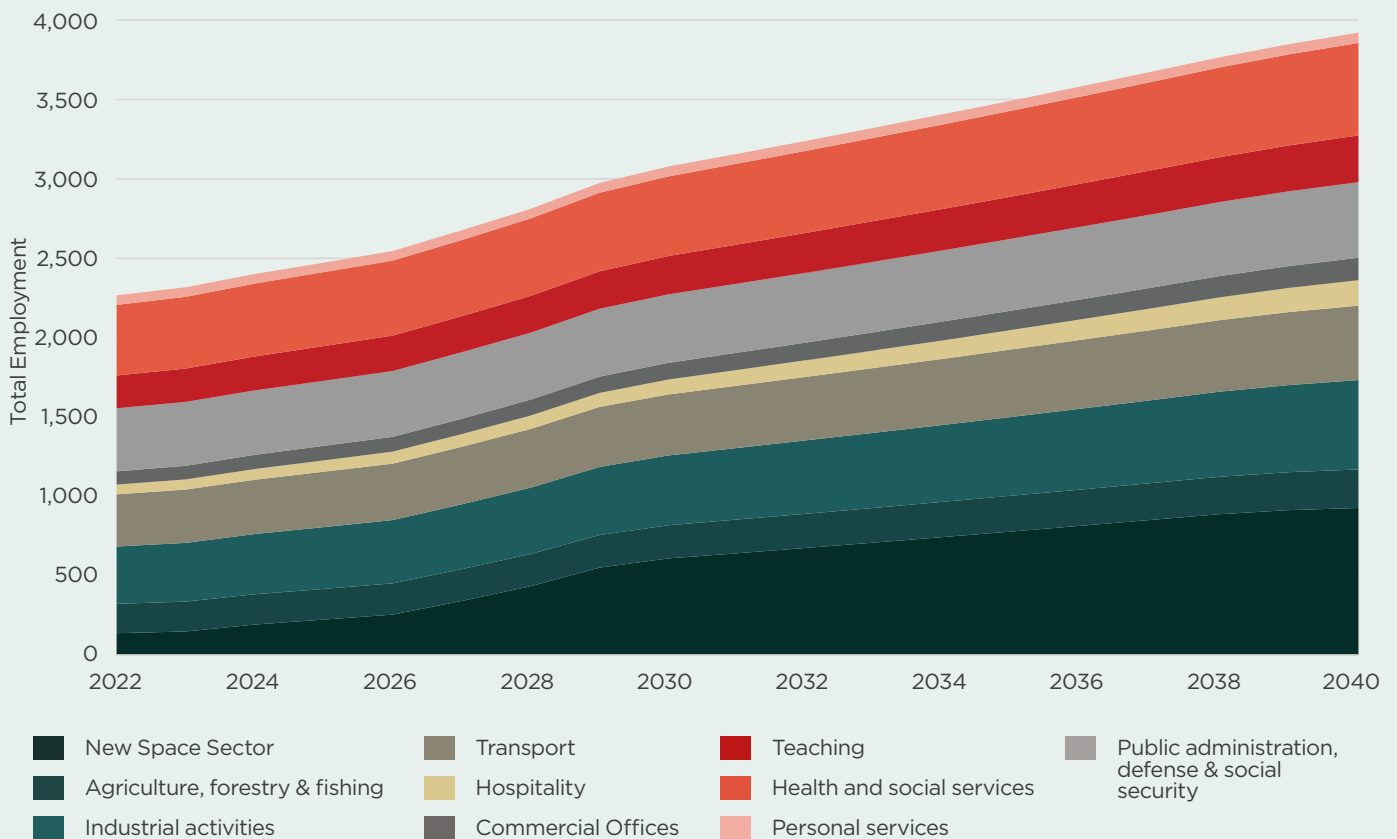
The New Space Economy offers clear opportunities for Andøy. While the innovation hub and Andøya Spaceport play a central role in this potential, the comprehensive and equitable development of Andøy as a flourishing environment, for all its inhabitants and enterprises, is equally crucial.

Key Priority Actions (full list of Key Actions from pg. 64)

1. Ensure a well-functioning co-existence between launch activities, military testing and drills, fisheries, tourism and local communities. (Key Action 5.3)
2. Develop the business case for land to be released by the military adjacent to the airport, to help secure the future area of commercial and industrial expansion. (Key Action 5.2)
3. Develop a continuing business and community engagement strategy and business support strategy. (Key Action 5.12)
4. Develop Newspace North, with key partners, securing its capacity to coordinate the space cluster locally and facilitate business and investment. (Key Action 4.1)
5. Develop and institute the “Rings of Andøy” as a conceptual masterplanning framework for tourism development and visitor management. (Key Action 5.13)



Vision of total growth in Andøy to 2040



Vision of employment growth in Andøy to 2040



Andenes

Bleik

Stave

Nordmela

Andøya Spaceport

Bø

Andøy's Growth

To grow sustainably, most new development must be delivered in and around already established towns such as Bleik, Dverberg and Nordmela, but with a particular focus in Andenes and Risøyhamn.

These two towns serve as the gateways, via road, sea and air, onto Andøya and must be further consolidated as the main business, cultural and population centres. High-level studies suggest that the majority of residential development required to accommodate an increased population can be provided within already established urban areas.

With increases in population and business activity, improvements to transport infrastructure will be required and are likely to include upgraded roads, higher frequency transport services (bus, ferries and flights) and an increased focus on sustainable travel routes to support healthier lifestyles and a reduction in the reliance on private vehicles.

A larger population and stronger economy will also support the development of new social infrastructure. Better schools, opportunities for continuous education and life-long competency development are key priorities of both the County and Municipal Governments. So, too, are increases in cultural and leisure activities. The bi-polar approach (Risøyhamn and Andenes) to growth coupled with transport improvements will allow all residents better access to these types of key services in under 20 minutes by car. Economic growth, together with improved transport and social infrastructure, will drive a regeneration of Andøy that is both inclusive and more sustainable.

In July, funding streams for new housing development, and improvements to mobility, public realm and social infrastructure were approved by the Municipality through the Andøy Fund.



Over the next 20 years, new jobs and homes, new tourism offers, and a major expansion to the harbour, will drive the regeneration of Andenes Town Centre.







Andenes

As the largest town, Andenes is central to the future success of Andøy. An increase in population brings with it opportunities to create a more active and vibrant Town Centre. New homes, such as townhouses, flats and maisonettes can be developed with a greater concentration of retail and amenity to create a more animated mixed-use environment. Designed with more consistent and active frontages, this can also encourage an increase in active travel along key routes, all of which support a more pedestrian-friendly Town Centre.

There are already a number of key projects on the horizon that will help to drive growth. Long-term plans are being developed to significantly expand Andenes's harbour, not only for the commercial fishing industry, but also to improve the town's relationship to the water, opening up opportunities for enhanced commercial activities, leisure, recreation and tourism.

Plans are also being developed for a unique new attraction called The Whale. Designed by world-renowned architects, the new centre combines aspects of natural history, research and art to create a unique visitor attraction that is expected to have a significant impact on tourism. The project has just recently secured funds from the Municipality and is awaiting a decision on additional funding from Central Government. With successful integration of The Whale into the wider urban fabric of Andenes, there is an opportunity to connect a number of cultural and touristic assets and improve the overall experience of the Town Centre.

The specific distribution of growth will soon be explored in two statutory plans. The Municipality's Kommuneplan sets out Andøy's spatial vision over the next 10 years, while a Sub-plan for Andenes will set local parameters for physical development in its Town Centre. Key areas that will be addressed in the Sub-plan include improvements to mobility and traffic, urban spaces, retail and cultural environments, housing, and finally, green networks and how they can better support more active, outdoor lifestyles.

Together, these projects have the capacity to deliver transformational change to Andenes and the wider Municipality.

Andenes port expansion

Increased frequency of ferry routes all year round

Active waterfront combining leisure, recreation and industry

Whale safari

Andenes Frytarn

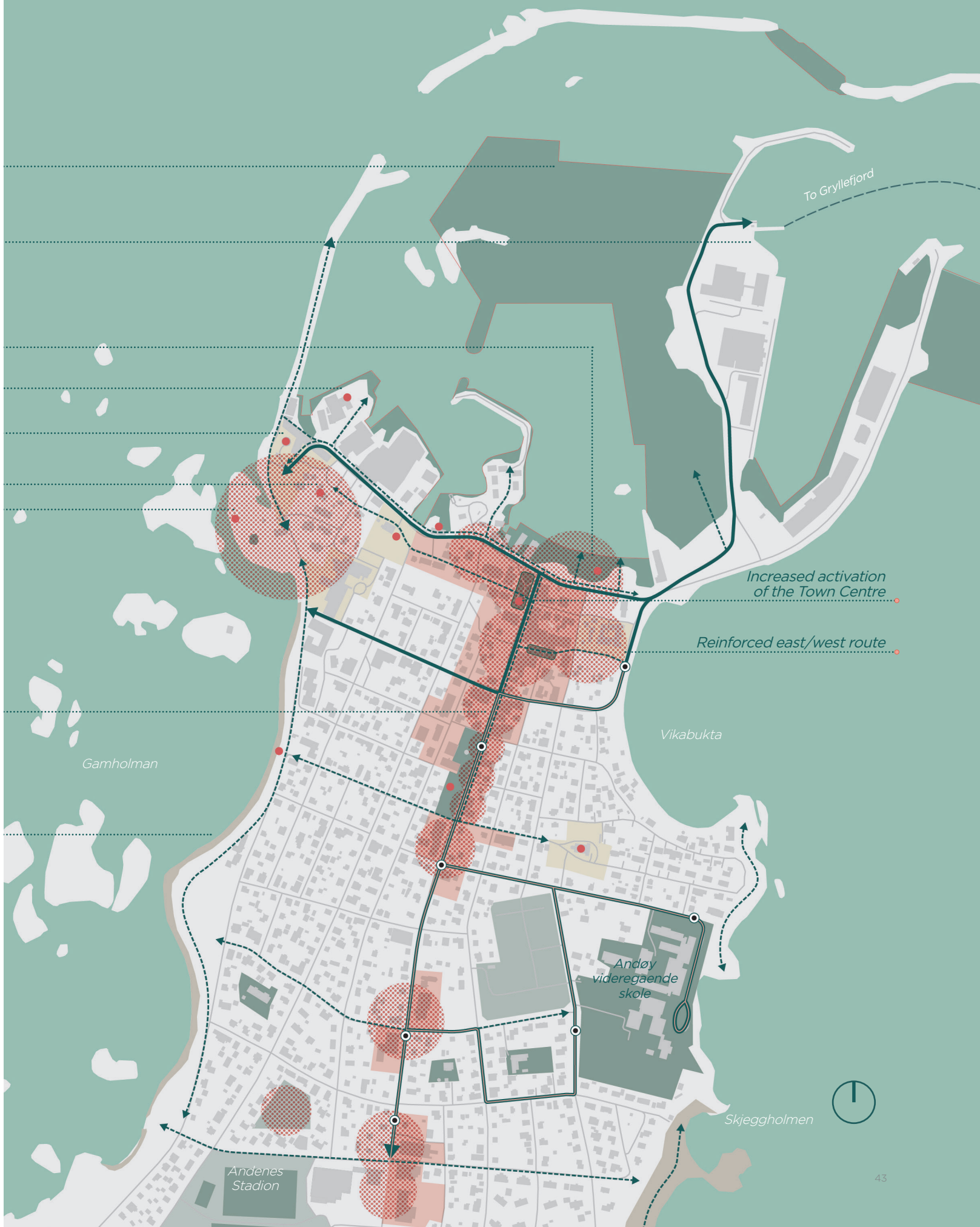
Andøy Museum

The Whale

Densification along the high street

Improved accessibility to the waterfront and nature

- Suggested connection improvements
- Suggested pedestrian connection improvements
- Existing bus stops
- Destinations
- Andenes Harbour expansion
- Suggested densification areas
- Kommuneplan - Town Centre
- Kommuneplan - Public/Private service provision
- Kommuneplan - Sport facilities & open spaces



The New Space Innovation Hub

Just two minutes drive from the centre of Andenes Town Centre lies Andøya Air Station. Though there was an announcement from Central Government in 2016 that the Air Station would be decommissioned, budgeting questions on a new base in Evenes and more recently, geo-political unrest, raised questions as to what would be done with the base.

In 2022 Norway's Minister of Finance confirmed that the base would become a permanent military reception base for allied forces, though maritime surveillance and military aircraft would be shifted to the new base in Evenes. More recently, in May of this year, it was announced that the Defence Estates Agency (Forsvarsbygg) have agreed a budget of NOK 167m to explore the future shape and function of the base. This includes the development of a strategy to release non-essential military land (500 acres in the first instance) to facilitate businesses linked with Andøya Space.

This is a major announcement that provides both confidence and momentum for the space industry.

The Municipality has begun a spatial planning exercise to understand how legacy uses could best be incorporated in northern areas of the base. In addition, feasibility studies are being developed by Andøy Teknologipark AS and Andøya Space which explore how Newspace North, Andøya Space and a future expanded innovation hub could best be sited on likely to be released land.

The site under consideration has sufficient space to house the hub and, at the same time, delivers several favourable synergies.

To echo the sentiments of Bruce Katz and Julie Wagner from the Brookings Institute, areas of innovation thrive on proximity. Employees seek urban environments that are pedestrian and cycle-friendly, stimulating, and where chance encounters with colleagues lead to idea-sharing. With access to essential services, amenities, and housing nearby, a focused New Space innovation hub in Andenes has all the fundamental conditions needed to thrive.

Positioned directly adjacent to Andenes Airport, this site enjoys convenient and consistent air connectivity to Bodø, Tromsø, Stokmarknes, Harstad/Narvik, and Oslo. This connectivity not only facilitates seamless access for business and technical expertise, but also fosters collaboration with educational and commercial hubs at both regional and national levels.

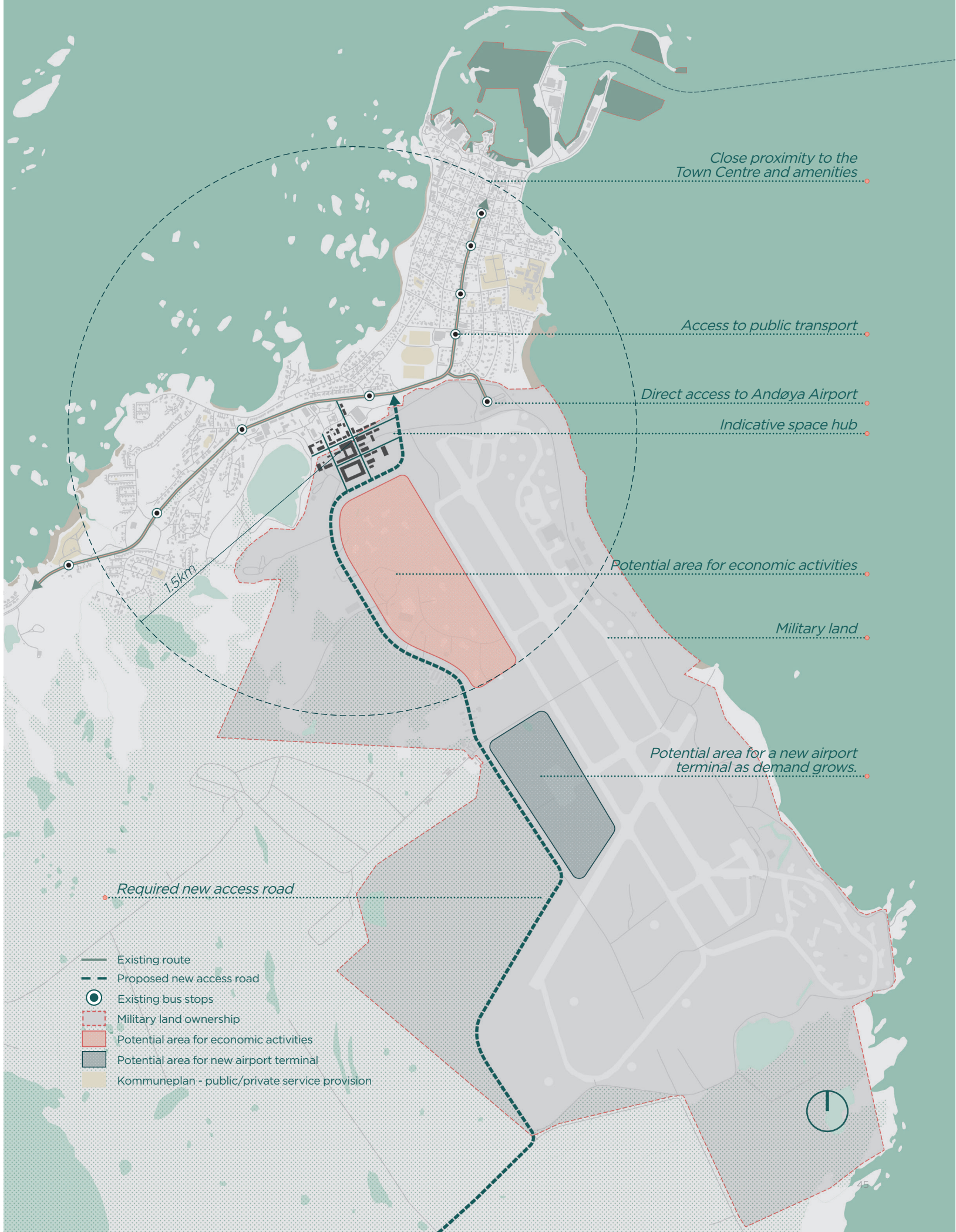
The runway at the airport is also among a dozen in the country large enough to accommodate jetliners, making it suitable for potential air freight services that can deliver technological or time-sensitive cargo. Looking ahead, as population and demand grow, the scale of the site also offers Avinor, the airport owners, and flight operators (currently Widerøe) the potential to expand their facilities.

Selecting this location reflects a commitment to sustainable land management, a primary goal of the County, as it eliminates the need to acquire previously undeveloped land. Much of the site already contains existing utilities and infrastructure, leading to reduced environmental impacts, lower capital expenditures, and accelerated development schedules. Moreover, the commercialisation of non-essential land also allows the military to reduce its operational area, lowering both management and operational costs.

Lastly, the site's adjacency to the Air Station will help create a more controlled and secure environment for businesses, while also facilitating Andøya Space Defense's weapons systems testing services.

This location for the innovation hub offers unparalleled advantages compared to any other potential sites. The efficiencies and synergies are substantial and would be advantageous for all the key stakeholders involved.

There is also the opportunity, once land is secured, for key governmental and industry stakeholders, such as Andøy Municipality and Andøya Space, to consider the formal development of a Norwegian space industry cluster, with accreditation following EU standards for cluster certification.





The New Space innovation hub in Andenes presents a singular opportunity for economic growth in Andøy, and is central to establishing Norway as a leader in the global New Space Economy.





Risøyhamn

In the future, Risøyhamn is also expected to support a substantial portion of Andøy's growth. It serves as the sole land-based link to Hinnøya and the wider region via the Andøybrua. This makes it the gateway to Andøya for all travellers journeying by road. Risøyhamn is also one of the 34 towns and cities along the Hurtigruten ferry route, a service that has facilitated coastal connectivity since the 19th century.

Risøyhamn is significantly different from Andenes; it is quieter and is much lower in population, but its strategic position makes it an ideal location for industrial, commercial and residential development.

Significant areas of land have already been zoned for industrial uses as part of the previous Kommuneplan and this has led to the development of new port infrastructure. Presently, the port exports coral sand; however, there is potential for future expansion. Its utilization is under consideration in conjunction with the expansion of the New Space Economy, which could see the port playing a role in delivering goods and providing logistics services. If in the future Andøya Space opts for sea-based launch the port could also play a role in providing support services.

New residential development and densification should be considered in already established areas, particularly between Route 82 and Risøyhamn's coastal road, the FV7704. Here, there are significant development opportunities that can plug into existing utility networks at the same time as supporting existing social infrastructure assets such as Risøyhamn Skole.

The waterfront onto Anfjorden also presents an opportunity for Town Centre intensification and regeneration, and could provide an excellent location for new retail, services and amenities.

From a touristic perspective, new holiday homes have recently been developed to the west of the Town Centre and it provides excellent access to the wilder, southern parts of Andøya like Skjoldehamn/Sandnes. A new Andøy tourism centre would be well positioned intersection of Route 82 and the FV7706, just as visitors arrive on the island.

Potential areas for residential development and densification

Holiday and leisure facilities

Route 82

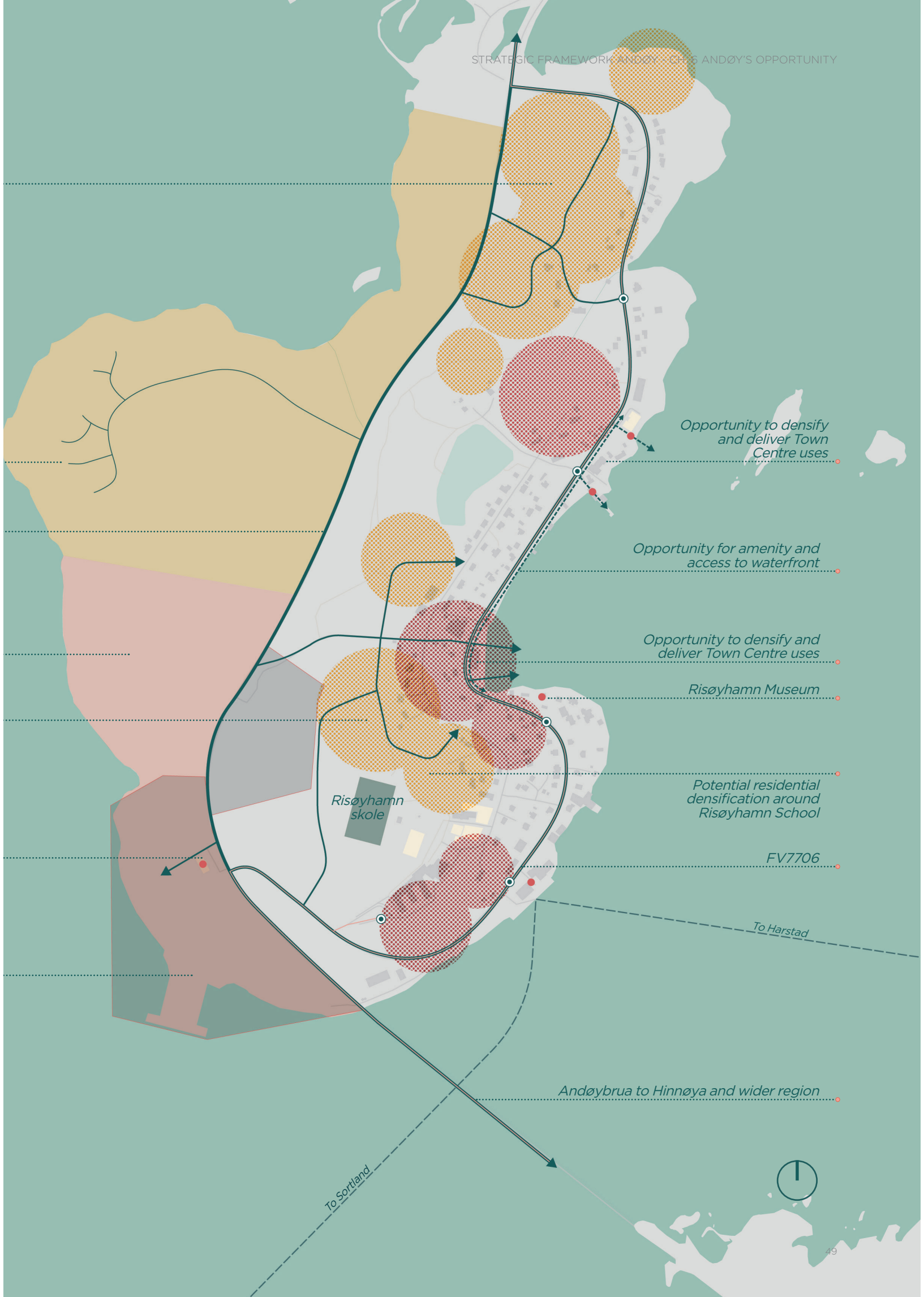
New economic activities

Potential areas for residential development and densification

Potential location for new tourism centre

Risøyhamn industrial port expansion

- Suggested connection improvements
- Suggested pedestrian connection improvements
- Existing bus stops
- Destinations
- Risøyhamn Harbour expansion
- Suggested densification areas
- Suggested areas of residential expansion
- Kommuneplan - Industrial / commercial activities
- Kommuneplan - Public/Private service provision
- Kommuneplan - Sport facilities & open spaces



Sustainable development

Currently in Andøy, homes are generally comprised of single family houses of a very low density, meaning the proportion of building and the level of occupancy is very low in comparison to the size of the land on which it sits. This is very typical in rural areas like Andøy, where historically it allowed families to use the land for farming, gardening, and raising livestock.

However, if Andøy is to achieve substantial growth in the future, and ultimately realise carbon net zero by 2050, then it must deliver new sustainable housing typologies at higher densities that offer different living options.

New employment opportunities, across established industries and the New Space Economy, will demand more diverse options that appeal to a broad spectrum of working-age individuals encompassing different family sizes, budgets and lifestyles. A greater variety of housing, available for sale and for rent, will also support older and younger demographics already living on the island, providing homes that better suit their needs.

Homes located closer together can deliver numerous advantages. Infrastructure such as roads, water supply, sewage systems, and utilities are more efficiently distributed, reducing the cost of extending these services

over long distances - it can also reduce the cost of living by providing better insulated homes.

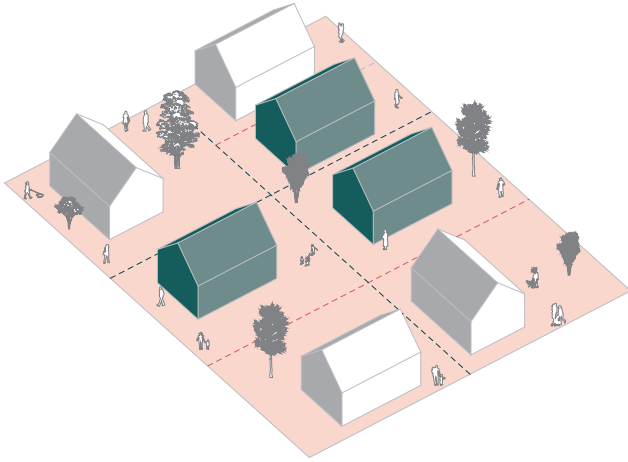
Land management is improved, preventing sprawl and reducing the need to encroach upon natural habitats, agricultural land and areas of environmental value. Higher densities also support better public transport, social services, commercial activities and recreational areas.

There is, of course, a desire to maintain the majority of the existing housing stock and the history and identity of the place. Many people move to areas such as Andøy specifically because they want more space or privacy, or a more immediate connection to nature, but to meet the needs of existing and future residents, areas must be identified where new ways of living can be delivered.

In the context of a growing economy, the delivery of a wider variety of housing typologies and tenures will attract more new residents, increase housing options for existing residents, and can help to provide better services. It will support more active urban centres and crucially, better safeguard the environment and help to deliver a more sustainable future for Andøy.

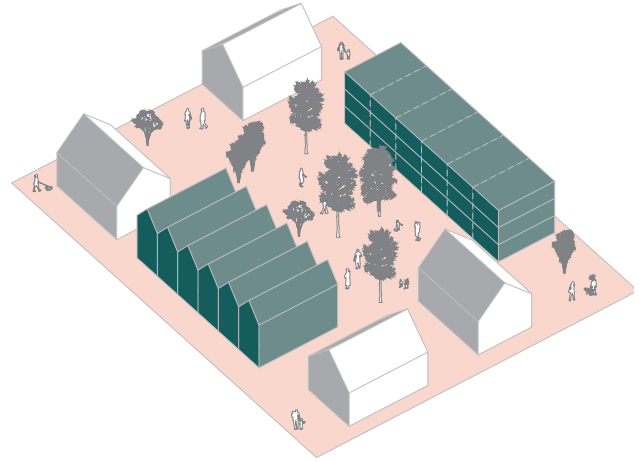


*Kvistgårdhusene,
Tegnestuen Vandkunsten
© Julie Vøge*



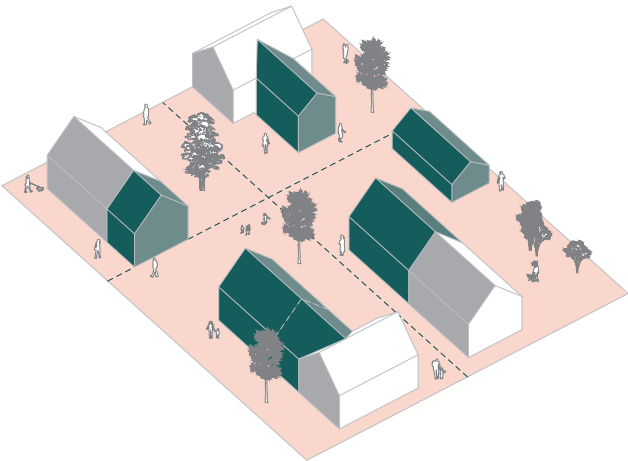
Infill

Subdividing existing parcels and identifying disused and underutilised spaces for development will enable the delivery of additional homes in the Town Centre. Other infill initiatives could potentially transform obsolete infrastructure, such as redundant roads, into viable spaces for new housing projects.



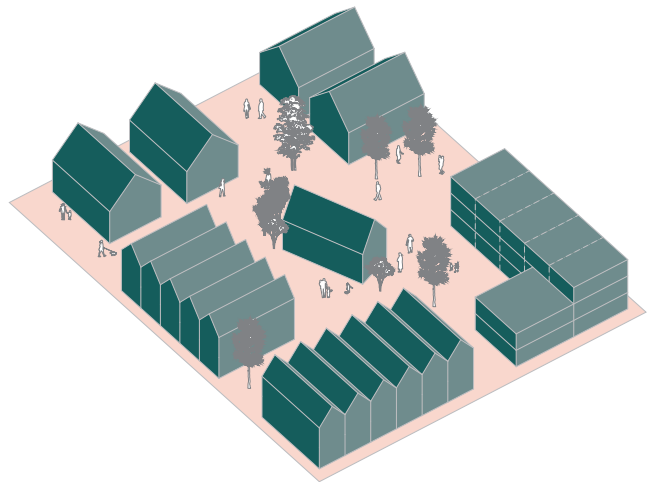
New Urban Typologies

The introduction of new typologies, such as flats, maisonettes and town houses, can deliver higher densities without compromising the quality and character of Andøy. Density does not equal height. These types of dwellings can also encourage a greater sense of community and better support the integration of new residents.



Retrofit

Adapting pre-existing buildings to suit contemporary lifestyles, whether for individual or multiple households, represents a strategy that respects history and character, while reducing the carbon footprint associated with building from scratch. The significant amount of military housing on Andøya may provide an excellent opportunity for such an approach.



New Development Areas

While a majority of housing development can be delivered within existing urban areas, new residential areas are likely to be needed. These must be forward-looking, low-impact developments, employing a full range of sustainability measures, from active travel provision and water management to modern methods of construction, local food production and community facilities.



New housing that is sustainable and responsive to the natural environment is required to support more diverse residents and growing communities.



Andenes Harbour expansion

Improved road infrastructure (currently within Andøya)

Transport infrastructure

With a growing population, it is expected that infrastructure improvements will be made in several key areas.

Public transport infrastructure must deliver higher bus, ferry and flight frequencies as demand increases. Presently, an improved bus service would enhance mobility for many in the Municipality. It could also reduce the reliance on private vehicles, and lower carbon emissions. In tandem with improved public transport, expanded active travel routes would support healthier lifestyles, improve Town Centres and provide better access to nature.

In terms of road infrastructure, Oklveien, stretching between Dverberg and Nordmela, is likely to require upgrades to provide greater network resilience once Andøya Spaceport begins operation. This would remove potential pressure from the National Scenic Route and allow greater freedom of movement during launch events (when road closures around the launch site will occur). Another road, tracing the southern perimeter of Andøya Air Station, is also central to Andøy's growth. With upgrades, this road would provide access to the released military land and deliver a needed alternative to Route 82, which frequently faces closures due to strong winds.

The Spaceport and its launch pads are currently under construction to the south of Nordmela and on course to launch their first orbital rocket in 2024.

The expansion of ports in Risøyhamn and Andenes offer significant, longer-term opportunities for established and emerging industries. The Andenes Port expansion would also create the opportunity to reimagine the town's relationship to the water.

As in most places in Norway, electricity is provided sustainably through hydroelectric dams. Currently there is sufficient capacity, however with increased development there may be a need to identify additional sustainable sources of power in the future.

Infrastructure delivery is expected to be aligned with demand, however a significant portion of the Andøy Fund has already been earmarked for a range of improvements to physical and social infrastructure.

National Scenic Route

Andøya Spaceport

Risøyhamn Harbour expansion



Andøya Air Station)

To Gryllefjord

Increased flights
Andøya Airport

Route 82

Public transport
improvements
across Andøy

Okleveien road improvements

To Sortland

To Harstad

- Primary roads
- National Scenic Route
- Required road improvements
- Improved public transport routes
- Spaceport launch safety zone
- Harbour expansion
- Primary energy infrastructure
- Energy distribution network

Environment

The quality of Andøy's environment and its inherent ecological value is unquestionable and integral to the identity of the place and its inhabitants. It is an asset that significantly contributes to the physical health and mental well-being of its population and it will also play an important role in attracting new residents, businesses and tourists. These considerations, combined with global commitments to combat climate change, underscore the necessity of safeguarding Andøy's natural environment.

The anticipated economic growth and resulting increase in transient and resident populations will, undoubtedly, impact nature in Andøy. However growth, if managed correctly, can help facilitate the preservation and restoration of the area's natural assets.

One clear action lies in identifying, and ultimately encouraging Central Government to designate additional areas for protection. Some areas that should be considered are indicated on the map in blue and reflect a range of natural environments that are important for their, habitats, landscape quality and ability to store carbon.

Another consideration is the creation of a voluntary climate compensation fund by the Municipality. This fund would enable local developers and businesses aligned with the UN Sustainable Development Goals (UNSDG's) to provide compensation for changes to land use or as a means of offsetting their carbon emissions. The gathered resources, combined with potential funds from national and EU nature restoration schemes (i.e. LULUCF), could then be used to preserve and restore sensitive natural environments, such as peat bogs, back to their natural state.

An additional fund, set up to account for rising tourism figures, could be centred around regenerative eco-tourism. A voluntary mechanism could allocate a portion of profits from participating enterprises to the conservation and regeneration of the natural environment. Subsequently, businesses could promote themselves to potential clientele as environmentally mindful and contributors to this initiative.

In an additional measure, the Municipality aims to achieve area neutrality by 2032, meaning no new land will be opened for development without compensatory nature restoration.

Bleik beach sand dunes – high-value natural landscape

Bleiksøya Nature Reserve – NNR / Emerald Network

Bleikmorenen Nature Reserve – NNR

Endletvatn Nature Reserve – NNR

Skogvoll Nature Reserve – NNR / Ramsar Site / Emerald Network

Bømyran – High-value landscape element

Sørmela Nature Reserve – NNR

landscape under pressure from hiking and camping

work

Emerald Network

Andmyran - one of Europe's largest peat bogs.

Andøya Key Biodiversity Area

Stormyrå - high-value concentric oceanic marsh

Sellevollvalan - high-value habitat

Åholmen Nature Reserve - NNR

Risøyhamn Nature Reserve - NNR

- Protected areas
- Key biodiversity areas
- Protection plan for waterways
- Waterways
- Hiking trails
- Potential marine protection area
- Peat bogs
- Andmyran
- Areas to be considered for future protection



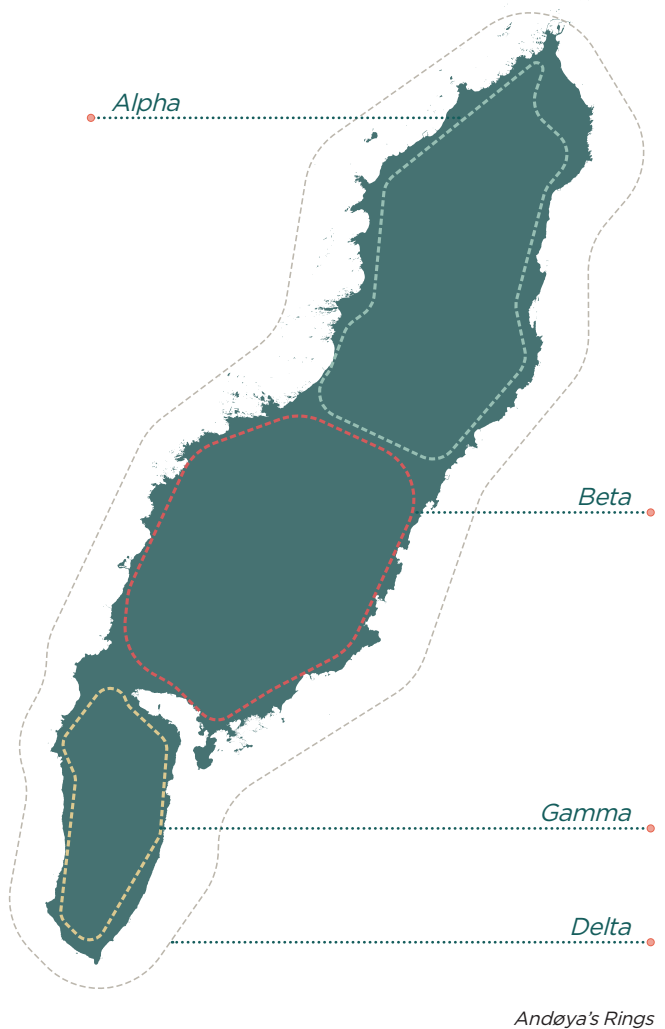
Tourism

The concept for tourism in Andøya centres on the establishment of equitable opportunity. Catalytic projects strategically initiated in communities and businesses across the entirety of Andøya will proactively drive demand for accommodation, catering, retail and other supportive commercial operations throughout the island, and across the Andøybrua to the southern most parts of Andøy Municipality on Hinnøya.

This will be delivered by considering the island as a series of four Rings. Each ring is a complete circuit with its own 'DNA' and market positioning. Concurrently, the Rings are interconnected and fully integrated with one another. This allows visitors to focus on one or all four depending on time, means of transport, and their primary interests.

These catalytic projects will be placed along each Ring, and designed to:

- Expand diversity of attractions, as well as, weather resiliency in order to build year-round visitor demand. These will include space-related tourism, built attractions such as The Whale, an Andfjord Salmon Visitor Centre, and additional wildlife experiences that sensitively take advantage of the area's rich biodiversity. Agrotourism and gastronomic experiences are also expected to grow. Claiming a portion of 'Aurora' tourism from Tromsø will also be one of the most efficient and significant methods of attracting visitorship, particularly from abroad;
- Provide access to natural amenities (mountains, fishing, whales, etc.). This is, and will remain, the most valuable driver for tourism to Andøya. Establishing activities and attractions, for those looking for both passive and active interactions with nature is vital. This must be carefully balanced with the conservation of Andøy's sensitive natural environment and responsive to the DNA of the different Rings and regions of the island. Sustainability and resilience are key values that should be highlighted directly to visitors and used as a strength in all marketing;



- Carefully introduce the development of diverse accommodation on the island. A variety of typologies will be positioned according to each Ring's DNA to ensure sustainable practices and marketability.

Benefits of an Expanded Scenic Route

The rings capitalise on the momentum of the demand already established by the existing Andøya Scenic Route, and the benefits of scenic routes in general as a touristic asset. The route will focus tourism at gateway nodes and places designed to cope with demand, providing a framework for enhanced visitor management. Simultaneously it will disperse wealth across the island, preserve natural assets, and provide marketable alternative itinerary options when launch-related road closures are in place.

The realisation of these catalytic projects will require consideration of the following enablers:

Increased Job Opportunities

Sourcing staff will be a large challenge that can be strategically overcome. Carefully balancing new built works and increased attractions, with proper infrastructure and accommodation will attract and retain a full-time working population to the island. Once again, equitably spreading the attractions throughout the territory with an emphasis on variety and diversity will be key.

Regional & National Strategy

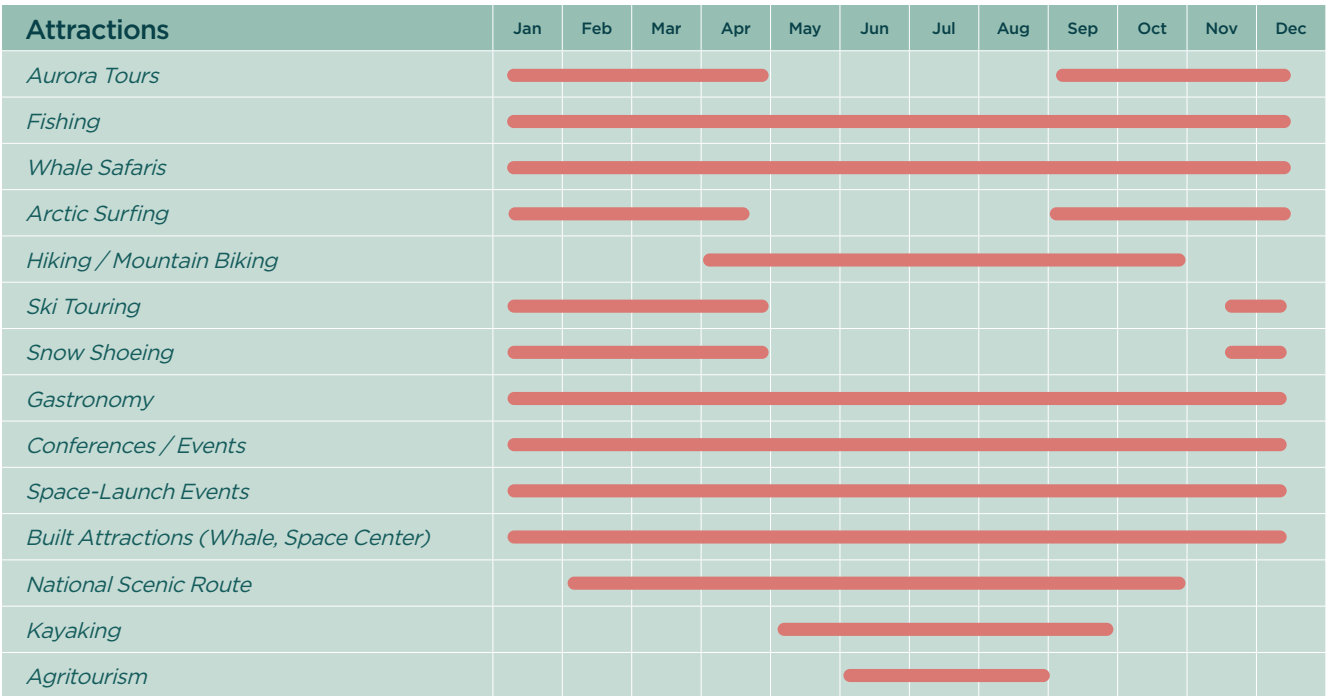
Local administrative boundaries mean little to tourists, and alignment with the thrust of the Vesterålen Tourism Masterplan is strategically prudent. The three ‘Pillars’ of the plan are: (1) Whales & Wildlife, (2) Hikers Paradise, (3) Flourishing Communities. National context must not be ignored as tying into the tourism impact that the region and country has to offer will be even stronger than the sum of their parts.

Value Over Volume

There is great potential for growth in the industry in terms of the number of the businesses. Remembering that tourism operations should be modestly scaled. “A Big Impact, A Small Footprint” is the vision for the tourism national strategy, and this resonates well with sentiments expressed by tourism professionals in Andøya.

Space Tourism

Potential visitor demand for space launches on Andøya are expected to range from 5,000 to 25,000 visitors per year. The geography of the island is such that the Andøy Municipality, working with the local and regional police should restrict access through a ticketed, capacity management approach. The revenue-generating opportunities associated with additional non-seasonal space launch related tourism demand will appeal to local tourism-businesses, but crowd safety and sustainability considerations must also be balanced in the strategic planning process.



Mixing products will help to diversify market appeal and reduce operational risk.

Rings of Andøya

Alpha Ring, 60km

The island's largest portion of tourism infrastructure, with cultural, scientific and natural experiences.

Nodes & Assets:

Andenes, Dverberg, Andfjord, Dark Sky Preserve, Måtind Mountain, Stave, protected lowland marshes, Airport, Whale Watching, Andenes Port.

Enabling initiatives will include enhancements to the urban fabric of Andenes, the provision of additional accommodation, the development of attractions including The Whale, a visitor centre at Andfjord Salmon, the creation of a Dark Sky Preserve, and the implementation of a mountain management plan.

Hotels & Hostels
Private Rentals
Guest Houses/Cabins
Camping & Glamping



Beta Ring, 60km

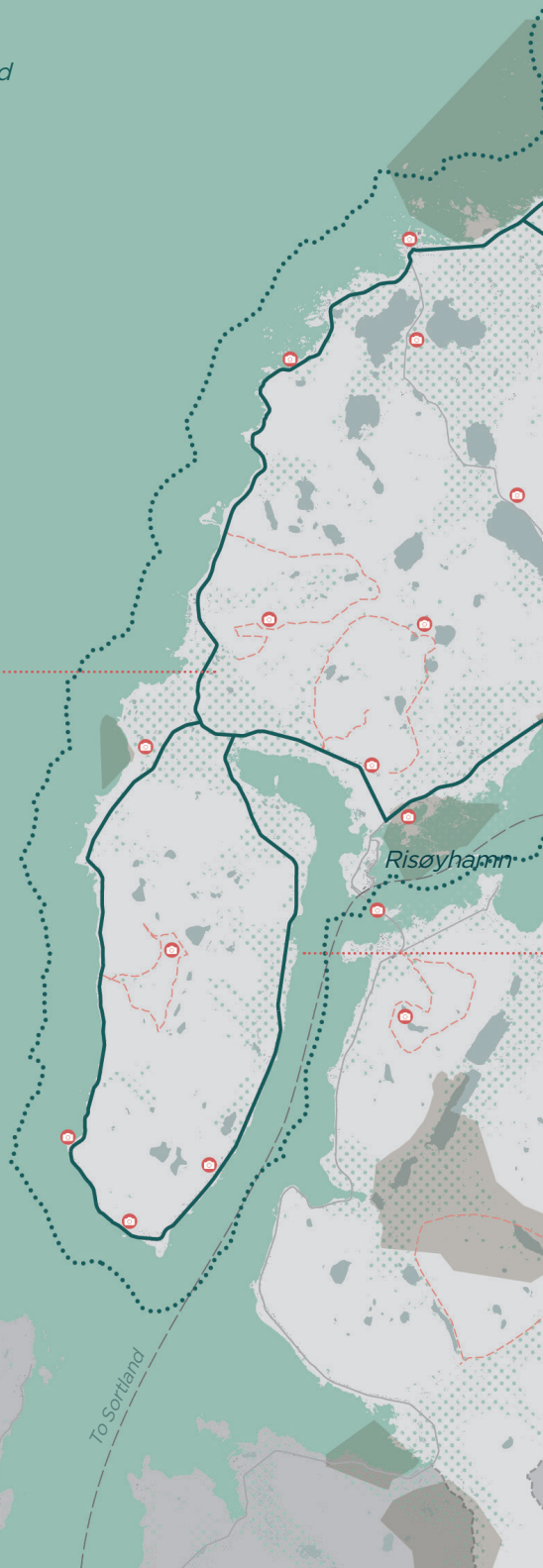
Andøya's gateway to agritourism, landscapes, and Norway's iconic space launch-pad.

Nodes & Assets:

Risøyhamn, Ase, Dverberg, Nordmela, Næss, Bø, Rocket Launch Pads, future Official Visitor Centre, gateway from the mainland.

Risøyhamn will act as the main gateway to the island for tourists travelling by road. A welcome centre will introduce visitors to the opportunities, attractions and sensitivities of the island. The Beta ring will host the broadest range of visitor experiences from forward-looking, space-related operations to agritourism and traditional gastronomy. Enabling initiatives will include advisory support for local micro-businesses and investment in the development of a welcome centre complex.

Hotels & Hostels
Private Rentals
Guest Houses/Cabins
Camping & Glamping



To Gryllefjord

Andenes

Delta Ring*A route to explore Andøya by sea.***Nodes & Assets:***All coastal towns and space launch site.*

There are already a series of ports and small marinas dotted around the island of Andøya, requiring minimal infrastructure investment.

Charter vessel companies will need to collaborate closely with the large-vessel operators, as well as Andøya Space. This Ring will warrant its own dedicated marketing initiative as this represents an innovative product for the region.

Gamma Ring, 36km*Andøya's 'untouched' south; sparsely populated, mountainous and waiting to be explored.***Nodes & Assets:***The highest peaks on the island (Gavltinden or Kvasstinden), Gavlfjorden beaches.*

There is little built development, nor should there be in the future, aside from enhancement to the road infrastructure. Tourist accommodation should be small guesthouses, private rooms, agritourism and camping to support interactions with nature.

Hotels & Hostels
Private Rentals
Guest Houses/Cabins
Camping & Glamping

-  Protected areas
-  Destinations / points of interest
-  Rings of Andøya
-  Hiking trails



"We have so many stories to tell. Andøya has a rich history that has, at its heart, man's relationship with our unique natural environment ."

Local Gallery Owner





7

NEXT STEPS

This report demonstrates the enormous scale of the New Space opportunity. To deliver on its promise, locally, regionally and nationally, now requires action.

Some of the actions must consider planning and the built environment, and the appropriate new infrastructure, housing areas, social infrastructure and amenity that will be required to attract businesses and support growing communities.

Other actions must focus on what is required to grow the New Space Economy across the region and country - the essential integration and collaboration across institutions and businesses in Oslo, Tromsø, Trondheim, Andøy and other key areas of the value chain.

A list of key actions is proposed in the following pages. This initial Action Plan is based on the current needs identified over the course of the project. It is intended to be a living, iterative document that is a tool for discussion and collaboration, and for measuring progress. The New Space Economy is moving forward with tremendous pace and the successful delivery of this opportunity will require regular coordination and alignment across the local, regional and national scales in both the public and private sectors.

The Action Plan is structured around five primary goals:

1. Build consensus among government and industry to create collective movement for New Space;
2. Establish Norway as the New Space leader in Europe;
3. Build on Norway's strengths and reputation to pioneer growth in New Space, capturing growth from the global market;
4. Develop the total value chain for Norway, with Andøy as the nexus; and,
5. Establish a sustainable, liveable and business-friendly New Space Andøy.

ISAR Aerospace is planning the first test flight of its Spectrum launch vehicle in 2023 and commercial activities are expected to begin in 2024. Andøya Space is actively working alongside the Municipality, County and other civic and business leaders, including ISAR Aerospace, to make this the first successful orbital launch from Europe. The countdown in many ways has already started.

Strategic Framework Andøy sets out an agreed an emerging multi-stakeholder consensus that includes a Vision, strategies and proposals for how the New Space Economy could be realised. Now, to seize this opportunity, it is up to those who collaborated in this process (see key stakeholders to the right), the institutions, businesses, governmental organisations and authorities, the community members (as well as those who have yet to be engaged) to take the work forward in a culture of collaboration, innovation, and openness.

Key stakeholders	
Agera	Kupa
Andøy Energi	Local community members
Andøy Kommune	Mo Industripark
Andøya Fiskarlag	Myreze
Andøya Space	Næringsutvikling AS
Andøya Teknologipark AS	Newspace North
Anfjord Salmon	NHO Nordland
BRUS Bodøregionens Utviklingsselskap	Nifro
CAA Norway	Nord Universiteit
Dark Architects	Nordland County
Enoksen Consult	Nordland Fylkeskommune
Futurum	Norwegian Space Agency
High school students	Rheinmetall
Innovation Norway	Selmer
ISAR Aerospace	Siva
Jordobservasjon	Space Guide
Kjeller Innovasjon	Spaceport Norway
KPB	UiT

1 Build consensus among government and industry to create collective movement for New Space

Recommended Action 1.1: Agree the role of the New Space cluster in Norway, coordinate efforts of national and local clustering and hub development initiatives with agreed purposes and defined roles.

Scale	National, Andøy
Opportunities and desired outcomes	Build on the already established National Space Cluster facilitated by KPB, KUPA and Kjeller Innovation and with Andøy as the nexus. Secure Norwegian Cluster status and future funding.
When	Short-term

Recommended Action 1.2: Agree the lead organisation or consortium who will drive forward the New Space Economy opportunities and be held accountable to government and the business community.

Scale	National
Opportunities and desired outcomes	Newspace North is establishing itself as the main actor for New Space in the North, but there needs to be consensus of which body is the 'lead organisation' at a Northern and national level. The lead organisation can, through partnership, develop the place and networks to build the industry.
When	Short-term

Recommended Action 1.3: Agree an investment strategy and communications strategy for promoting the opportunities for New Space in Norway.

Scale	National
Opportunities and desired outcomes	A full communications and investment strategy is developed with industry consensus, including Andøya Space.
When	Short-term

2

Establish Norway as the New Space leader in Europe

Recommended Action 2.1: Andøya Spaceport is the first successful commercial orbital satellite launch in Europe.

Scale	Andøy
Opportunities and desired outcomes	In 2024, ISAR and Andøya Space achieve their first successful launch.
When	Short-term

Recommended Action 2.2: Norway continues meaningful engagement with the European Space Agency programmes.

Scale	National
Opportunities and desired outcomes	Strategic engagement with ESA programme to support all aspects of the value chain and demonstrate Norway’s leadership in New Space.
When	Short, Medium and Long-term

3 Build on Norway’s strengths and reputation to pioneer growth in New Space, capturing growth from the global market

Recommended Action 3.1: Establish a lead organisation with the remit of coordinating across industry to build a brand for New Space sector in Norway and promote coordination between the industry and government.

Scale	National / North / Andøy
Opportunities and desired outcomes	Build on the success of the Norwegian brand for quality, ingenuity and innovation to attract business and investment to the New Space Sector.
When	Short-medium term

Recommended Action 3.2: Set an agreed ambition of market share of the New Space Economy, with an economic development strategy to support growth of the sector.

Scale	National
Opportunities and desired outcomes	Set a vision and ambition for New Space in Norway with a set of recommendations and a detailed action plan to achieve them.
When	Short-term

Recommended Action 3.3: Develop partnership with Ministry of Trade and Innovation Norway to identify any incentives or policies which are required to support investment in New Space, including Cluster policy.

Scale	National / North / Andøy
Opportunities and desired outcomes	Linked to the ambition (above), develop incentives and other policies and programmes that can help overcome any market failures or barriers to investment and growth in New Space.
When	Short-medium term

Recommended Action 3.4: Develop policies and initiatives to strengthen Norwegian companies and research environments within and related to New Space.

Scale	National / North / Andøy
Opportunities and desired outcomes	Develop the home-grown skills and expertise for people in Norway to lead in all parts of the value chain.
When	Short-medium term

4 Develop the total value chain for Norway, with Andøy as the nexus

Recommended Action 4.1: Develop Newspace North, with key partners, securing its capacity to coordinate the space cluster locally and facilitate business and investment.

Scale	North / Andøy
Opportunities and desired outcomes	Newspace North is establishing itself as the main actor for New Space in the North. It can, through partnership, develop the place and networks to build the industry for the North. The local technology park provides important facilities for businesses to co-locate in Andøya for short-, medium- and long-term.
When	Short-medium term

Recommended Action 4.2: Communicate the opportunities of the New Space sector to relevant stakeholders. Disseminate information about the New Space industry to relevant companies in the region of Northern Norway to have more related companies connect to the value chain.

Scale	Nordland County
Opportunities and desired outcomes	More local capacity building and upskilling based on expertise of leading actors in the value chain.
When	Medium to long-term

Recommended Action 4.3: Support downstream businesses to access the New Space market, especially businesses with a focus on sustainability, net zero, and climate change. This should be done in close collaboration with the main stakeholders in the “Andøy-Narvik-Tromsø-Svalbard-Axis”.

Scale	National / North / Andøy
Opportunities and desired outcomes	Drive downstream demand for New Space data and services, to improve innovation, quality and services from Norwegian businesses and reinforce the need for satellites.
When	Medium to long-term

Recommended Action 4.4: Secure opportunities for university students and young people to understand the New Space sector and its opportunity. E.g., business school, innovation studies, IT engineering etc.

Scale	National / North / Andøy
Opportunities and desired outcomes	Facilitating better access to relevant skills in the sector.
When	Medium to long-term

5

Establish a sustainable, liveable and business-friendly New Space Andøy

Recommended Action 5.1: Zoning plan for the Airport

Scale	Andøy
Opportunities and desired outcomes	Clarity on current and future land requirements to give confidence to businesses and investors.
When	Short-term; On going (high-priority)

Recommended Action 5.2: Develop the business case for land to be released by the military adjacent to the airport, to help secure the future area of commercial and industrial expansion.

Scale	Andøy
Opportunities and desired outcomes	Business case should include the strategic rationale for releasing the land at the airport and investing in the Teknologipark, the economic case, financial case, and how it will be procured, governed and managed.
When	Short

Recommended Action 5.3: Ensure a well-functioning co-existence between launch activities, military testing and drills, fisheries, tourism and local communities.

Scale	Andøy
Opportunities and desired outcomes	Enabling multiple sectors to work side by side utilising the locational strengths of Andøy, reducing areas of conflict.
When	Short to medium term

Recommended Action 5.4: Translate Strategic Framework Andøy into Norwegian

Scale	Andøy
Opportunities and desired outcomes	Accessible by a larger audience
When	Short-term

Recommended Action 5.5: Structure plan (including amendments that consider increased housing requirements over time. For example around Risøyhamn)

Scale	Andøy
Opportunities and desired outcomes	Safeguard areas for future housing development - not just commercial / industrial areas. Safeguard new areas for environmental protection and potential designation.
When	Short-term

Recommended Action 5.6: Andenes town centre masterplan (Kommunedel plan)

Scale	Andøy
Opportunities and desired outcomes	Holistic plan that can address need for town centre intensification, new housing, social infrastructure, road infrastructure improvements waterfront and harbour regeneration, tourism offer integration (e.g. the Whale and other cultural/tourism attractions), parking.
When	Short-term; On going

Recommended Action 5.7: Risøyhamn town centre masterplan

Scale	Andøy
Opportunities and desired outcomes	Holistic plan that can address need for town centre intensification, new housing, social infrastructure, road infrastructure improvements waterfront and harbour regeneration, tourism offer integration, parking.
When	Medium-term

Recommended Action 5.8: Andenes and Risøyhamn design codes

Scale	Andøy
Opportunities and desired outcomes	Design guidance for new residential, commercial and other types of development. This could be further expanded to include the whole of the Municipality.
When	Short-medium term

Recommended Action 5.9: Environmental management plan

Scale	Andøy
Opportunities and desired outcomes	Develop a plan which considers the management and funding of environmentally safeguarded areas within Andøy in the context of increased development, population and tourism.
When	Short-medium term

Recommended Action 5.10: Infrastructure Delivery Plan

Scale	Andøy
Opportunities and desired outcomes	• Road infrastructure design development & delivery (Dverberg to Nordmela) (Andenes Airport Rd.) • Habours expansion • Power • Sewage
When	Short-term

Recommended Action 5.11: Architectural competition for new housing typologies

Scale	Andøy
Opportunities and desired outcomes	Clarity on the types of homes that are suitable/desirable for new and existing residents. Should include infill, new development and retrofit
When	On going

Recommended Action 5.12: Develop a continuing business and community engagement strategy and business support strategy.

Scale	Andøy
Opportunities and desired outcomes	Provide information for businesses coming to Andøy short-term and longer-term, with key information on worker accommodation, commercial premises, amenities, travel, etc. More detailed information on how to enquire about business premises and permits for permanent/long-term investments.
When	Short-medium term

Recommended Action 5.13: Develop and institute the “Rings of Andøy” as a conceptual masterplanning framework for tourism development and visitor management.

Scale	Regional, Andøy
Opportunities and desired outcomes	Through engagement with stakeholders across the tourism sector establish a collaborative tourism planning framework that spreads economic opportunity and trickledown benefits throughout the municipality, based on the formation of a series of circular tourist routes.
When	Short-term, Medium-term, Long-term

Recommended Action 5.14: Establish a Tourism Development Corporation (TDC) for the Andøy as a catalytic initiative to both evolve and drive joint investments across a broad range of tourism-related initiatives in the Municipality.

Scale	Regional, Andøy
Opportunities and desired outcomes	The TDC would be a non-profit organisation that functions as a catalyst for tourism development in the Municipality; directing member contributions to carefully selected enhancement projects allowing commercial enterprise to contribute to the positive growth and sustainability of Andøy’s tourism industry.
When	Short-term, Medium-Term

Recommended Action 5.15: Establish as Destination Management Company (DMC) for Andøy building upon local expertise to design and implement events, activities, tours, transportation associated with the effective delivery and management of tourism services and products in the Municipality.

Scale	Regional, Andøy
Opportunities and desired outcomes	Building on local knowledge and grass-roots engagement the DMC works at the heart of the sector, collaborating with public and private sector entities to ensure the delivery of innovative, high quality guest experiences whilst taking a proactive stance towards visitor management, capacity management and the adherence to the principles of sustainable tourism.
When	Short-term, Medium-term, Long-term

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