



**SPACE  
NORWAY**

# Annual Report

2021

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# 1

## Introduction

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# Letter from the CEO

Satellites represent a critical and vital infrastructure for an increasing number of pivotal societal tasks. New capabilities within broadband communication, navigation, weather forecasting, earth observation as well as for military purposes have led most sectors to depend on satellite-based services.



↑ Photo: SpaceX

Such capabilities also play an important part in the monitoring of environmental change and environmentally harmful emissions. Through our subsidiary Kongsberg Satellite Services, KSAT, the company contributes in the important efforts to detect oil spills and efforts to stop tropical deforestation<sup>1</sup>.

Norway’s coastline is the longest in Europe, our ocean areas are approximately seven times larger than our total land area and the High North is of key strategic importance to Norway. As a result, Norway has a significantly greater need for satellite-based capabilities than most other countries in Europe. Therefore, Norway has pioneered the exploitation of space for societal benefits. Modern satellite-based capacities are required to enforce sovereignty, provide communication, search and rescue as well as for surveillance of our areas of interest. Furthermore, satellite-based services can represent redundant capabilities in the event of disruption in the terrestrial communications networks, in normal times but also in the event of a crisis situation.

In 2019, the Norwegian Government presented the “Space report<sup>2</sup>”, a strategic assessment of the space sector in Norway. The paper concluded on the strategic importance of outer space for Norway and its expected increased importance in years ahead. The Norwegian Armed Forces is increasingly dependent on satellite capabilities to deliver on its mandate. Space Norway delivers important technology, infrastructure and solutions also to the Norwegian Armed Forces. In the autumn of 2021, the Minister of Defence Frank Bakke-Jensen and the Norwegian Defence Chief Eirik Kristoffersen visited Space Norway

<sup>1</sup>Space Norway owns 50% of KSAT

<sup>2</sup>Report to Storting (Parliament) Meld. St. 10 (2019..2020) High-flying satellites – down-to-earth uses



Chief of Defence Eirik Kristoffersen visited Space Norway on September 16th, 2021. The Norwegian Armed Forces is one of three customers for satellite-based broadband in the Arctic under development. On the left, CEO of Space Norway Jostein Rønneberg, on the right, Defence Chief Eirik Kristoffersen.

Photo: Space Norway

to receive information and participate in talks about the development of space-based solutions and systems delivered by the company.

Space Norway is a satellite operator set up to own, build and develop strategic space systems serving Norwegian societal needs. Such systems represent the basis for services covering many requirements that are vital to the Norwegian society - in normal times but also in the event of a crisis situation. Through our ownership of KSAT, the company has a leading position within ground station services for the downloading and distribution of satellite data. Space Norway is 100% state owned and represents a key part of the government’s activities and ownerships in the space sector.

It is inspiring to see that the company’s efforts provide tangible results



« Space Norway has been given an important mandate for the Norwegian society. To deliver on this mandate, we must be able to understand future needs and requirements, demonstrate technological know-how and secure feasibility in all our projects. »

←  
Jostein Rønneberg, CEO  
Photo: Nina Holtan | ninaholtan.no

and benefits for our society. In this context, I would like to highlight three specific examples of our work in the past year.

### Satellite-based broadband in the Arctic

Satellite-based broadband communication is mainly based on geostationary satellites. Geostationary satellites do not provide satisfactory coverage north of the 75° N latitude. Civilian and military users have called attention to unmet needs for reliable and secure broadband in the Arctic. Civilian needs revolve around communication solutions for shipping, aviation, search and rescue operations and commercial activities in northern areas. Norwegian and Allied Forces require secure and reliable communication solutions during operations in the Arctic.

Space Norway reached an important milestone in 2019 when, after several years of preparation and analysis, we started the Arctic Satellite Broadband Mission (ASBM) programme. The ASBM programme consists of two satellites in high elliptic orbit over the Arctic. The high elliptic orbit enables the establishment of 24/7 coverage north of 75° N latitude. With an investment of approximately USD 450 million, this programme is Norway's largest satellite project to date.

In 2021, the programme reached its building phase and progress is good despite another year affected by the ongoing global pandemic. The satellite platform and several of the components are finished. Some of the sub-contractors experience logistical challenges resulting in a few months' delay for launch. The ground station with its three 9 meter antennae have been completed and tested. The operations

team has been recruited and are in training and establishing systems and procedures for satellite operation. The satellite and ground-based infrastructures are expected to be operational in 2023.

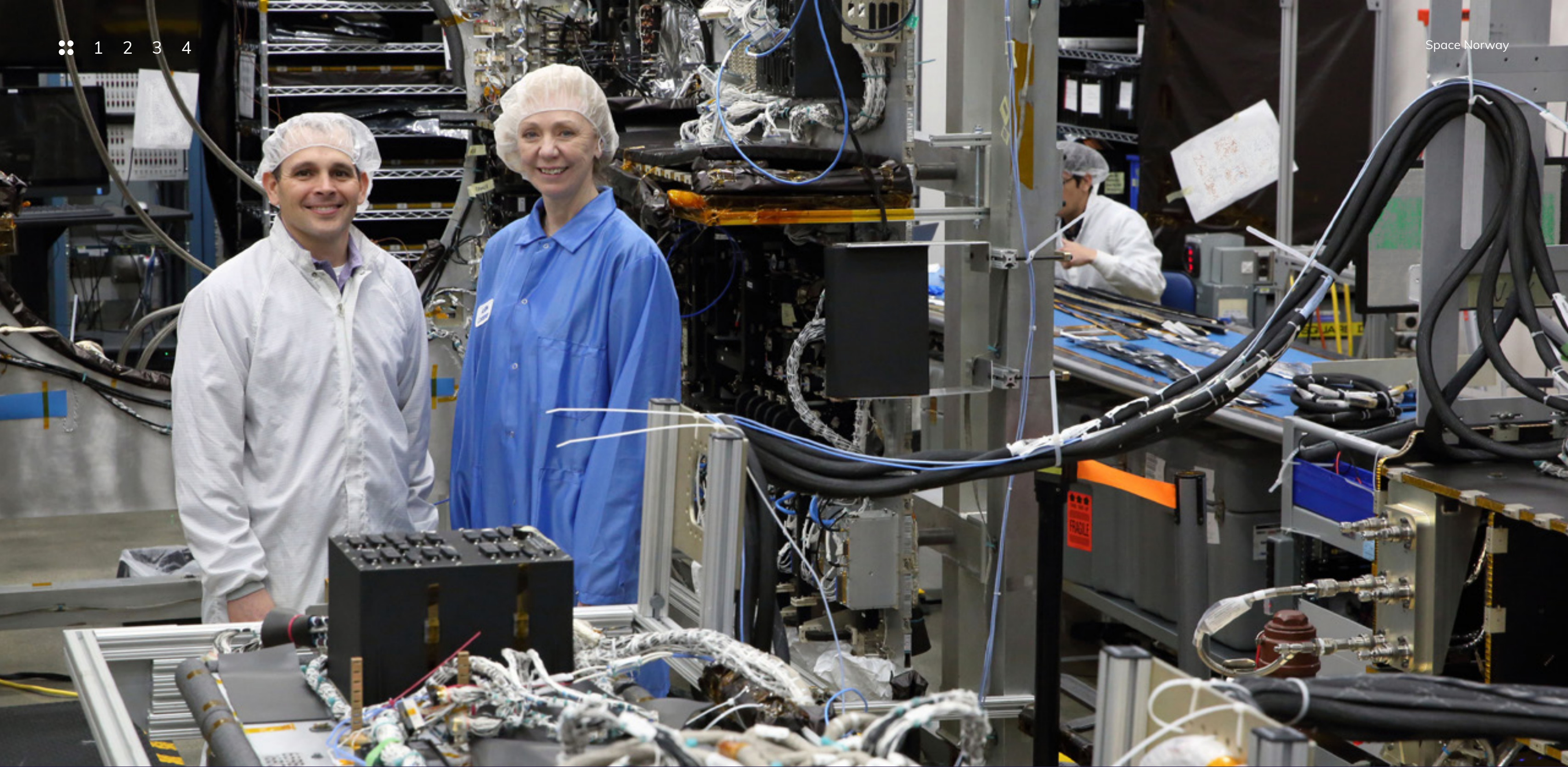
### Delivery to the EU Commission

As a result of excellent cooperation with the Norwegian Space Agency, Space Norway signed a contract with the EU Commission for the delivery of space radiation information from space. The detection system will be installed on one of our ASBM satellites and will be used as a basis for the EU Commission's planning of radiation protection for the next generation of Galileo satellites<sup>3</sup>. This radiation detection payload has been developed by the Norwegian technology company IDEAS and is being built in cooperation with ESA, the European Space Agency.

### Development of satellite-based radar surveillance over Norwegian waters

Norway manages waters that are seven times larger than our land area. Monitoring ships in these waters is demanding in terms of cost and resources. Norway represents NATO in the north and has a special responsibility for surveillance of these northern areas. Being able to monitor these vast areas is very challenging and costly using available systems today. Satellites are capable of monitoring and finding ships over extensive areas of ocean in a significantly more cost-effective way. In partnership with KSAT and Norwegian technology companies we

<sup>3</sup> Galileo is a system for satellite navigation established by the EU and ESA (European Space Agency). The system is an alternative to the US military controlled GPS system and the Russian GLONASS.



↑ The building of a satellite demands precision. It requires manual work with the strictest procedures for quality checks in every step of the process. The picture above is from the construction of the ASBM-1 satellite. To the left: Programme director Jeremy Novasad from Northrop Grumman. To the right: Oddveig Tretterud, Space Project Director in Space Norway and head of our field office in USA.



have developed a concept and a solution for ocean surveillance using small radar satellites. The decision to build a test and demonstration satellite for this concept is expected in 2022. Through 2021 we have cooperated with the Norwegian Armed Forces and our partners in developing technology and systems that reduce technical risks with the test and demonstration satellite. This work has been successful and continues into the first half of 2022. If the satellite performs as expected, it will contribute to a significantly improved maritime situational awareness and enhanced Norwegian Coast Guard's and Armed Forces' operations.

### **The Svalbard fibreoptic cable**

On January 7th, 2022, a breakage/interruption on one of our two fibreoptic cables securing communication between Svalbard and the mainland was detected. The incident received high media attention, demonstrating the importance of this connection and importantly, the risk assessments and security measures in the management of critical infrastructure. Seeing that the connection has two cables and redundancy, operations continued as normal, but for some time, the connection ran without backup capacity. The connection was re-established within short time and backup capacity was reinstalled. During the whole incident and through the repair process, central government, the Norwegian Communications Authority (NKOM), the Svalbard governor and the end users maintained close contact.

The recently published Report to the Storting (Parliament) on electronic communication<sup>4</sup> lists Space Norway as an important part of Norway's basic digital infrastructure. In order to achieve our mission, Space Norway depends on a highly qualified workforce with deep insights into a variety of topics like; understanding future user needs, knowing existing and developing technologies, routines and capabilities for secure operations, and we must show regulatory expertise. We need to network and know the suppliers nationally and internationally. In addition, excellent program and project management capabilities are essential to ensuring effective project execution, as well as the capability to secure substantial funding for future investments. It is gratifying to see that Space Norway can attract skilled and motivated employees who contribute to successfully achieving our objectives. Our activities result in assignments for several Norwegian suppliers and ensure growth and development for Norwegian technology companies throughout the space industry.

We enter 2022 with an order backlog for the group of more than NOK 7,5 billion and an organisation employing highly motivated and skilled people. This is a solid platform for the future of our company and our ability to deliver strategic space-related capabilities serving Norwegian societal needs. I look forward to a new inspiring year with our talented colleagues.

Space Norway – in space for Norway!

**Jostein Rønneberg**  
CEO

<sup>4</sup> Report to Storting (Parliament) Meld. St 28 (2020-2021)

# The Space Norway history

Norway was an early mover in adopting space technology, primarily because of the need for maritime communication and surveillance of vast ocean areas. The Norwegian space industry has focused on developing useful space-based services and has served as an instrument for preserving Norwegian interests. Space Norway is the result of a forward-looking Norwegian Space Agency in an early phase of space exploration.



↑ Antennas for communication with satellites at the Tromsø Telemetristation in 1967. Photo: KSAT

## Some milestones from the Space Norway history are:

**1967**

Tromsø Telemetristasjon (TTS) is established by the Royal Norwegian Council for Scientific and Industrial Research to benefit from Tromsø's favourable geographic location for the download of data from satellites in polar orbits.

**1995**

The Norwegian Space Agency organises parts of its activities as limited liability companies. Tromsø Satellite Station AS is set up to manage operational activities, and Norsk Romsenter Eiendom AS (today Space Norway AS) is set up as the owner of the infrastructure.

**2003/04**

Svalbard is in a geographically advantageous location for downloading data from satellites in polar orbits. Efficient transfer of large volumes of data to the mainland became a prerequisite for enabling further development of the Svalbard business. The Norwegian Space Agency therefore took the initiative to establish a 1,400-kilometre subsea fibreoptic cable connection between the mainland and Svalbard. Space Norway was given the assignment to establish the connection and own and operate this important infrastructure. The fibre connection became operational in January 2004 and is now a prerequisite for KSAT's activities on Svalbard as well as for the Longyearbyen community in general.

**1987**

The Norwegian Space Agency (NRS) is established in 1987 when Norway becomes a member of the European Space Agency (ESA). TTS and its activities are incorporated into the Norwegian Space Agency in 1991.

**2002**

In 2002 Space Norway separated out its Svalbard satellite infrastructure business into a new subsidiary named Satellite Services AS. This company subsequently merged with Kongsberg Gruppen's activities on Svalbard and the merged company was named Kongsberg Satellite Services (KSAT). Since its formation in 2002 KSAT has been a 50/50 joint venture between Space Norway and Kongsberg Gruppen.

**2013/14**

The company is formally given its current name, Space Norway. At the end of 2013, the ownership of Space Norway is transferred from the Norwegian Space Agency to the Norwegian Ministry of Trade, Industry and Fisheries.

**2016**

KSAT and Space Norway launches a pre-project to develop a new satellite-based radar system for ocean surveillance.

**2019**

Space Norway finalized all contracts for and initiates the Arctic Satellite Broadband Mission (ASBM), an important milestone in the company's history. With an investment budget of approx. USD 450 million, ASBM is the largest satellite programme rolled out in Norway. Two satellites in a highly elliptical orbit will provide broadband coverage north of 65° N. Launch of the satellites is planned for 2023 carried by a SpaceX Falcon 9 rocket.

**2005**

Space Norway finances the first antenna for satellite communication with the Troll Station in Antarctica.

**2015**

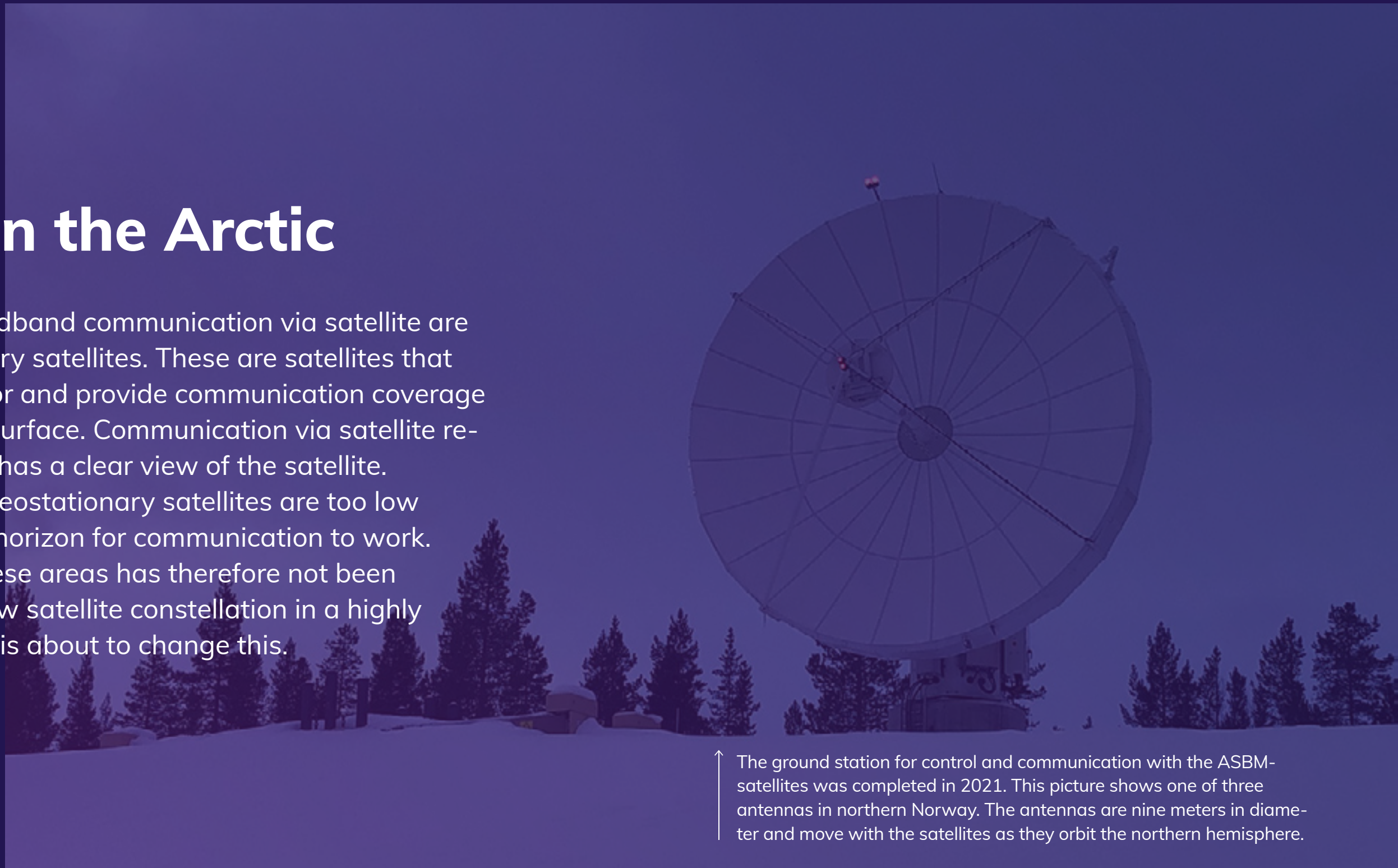
Space Norway acquires a transponder on Telenor's Thor 7 satellite dedicated to a communications link with the Troll Station in Antarctica. This enables KSAT to downlink information from satellites passing across the South Pole. Space Norway worked with KSAT and Telenor Satellite in 2013/2014 to realise the dedicated communications solution onboard Telenor's Thor 7 satellite. The communications link is leased to KSAT which is the only operator able to offer communications with satellites at both the North and South Poles.

**2018**

The Norwegian Parliament approves conditional equity financing for the realisation of broadband communication in the Arctic.

# Broadband in the Arctic

Traditional solutions for broadband communication via satellite are mainly based on geostationary satellites. These are satellites that are located above the equator and provide communication coverage to large parts of the Earth's surface. Communication via satellite requires that the user terminal has a clear view of the satellite. In areas north of the 75° N, geostationary satellites are too low above – or even below – the horizon for communication to work. Broadband via satellite in these areas has therefore not been possible. Space Norway's new satellite constellation in a highly elliptical orbit over the Arctic is about to change this.



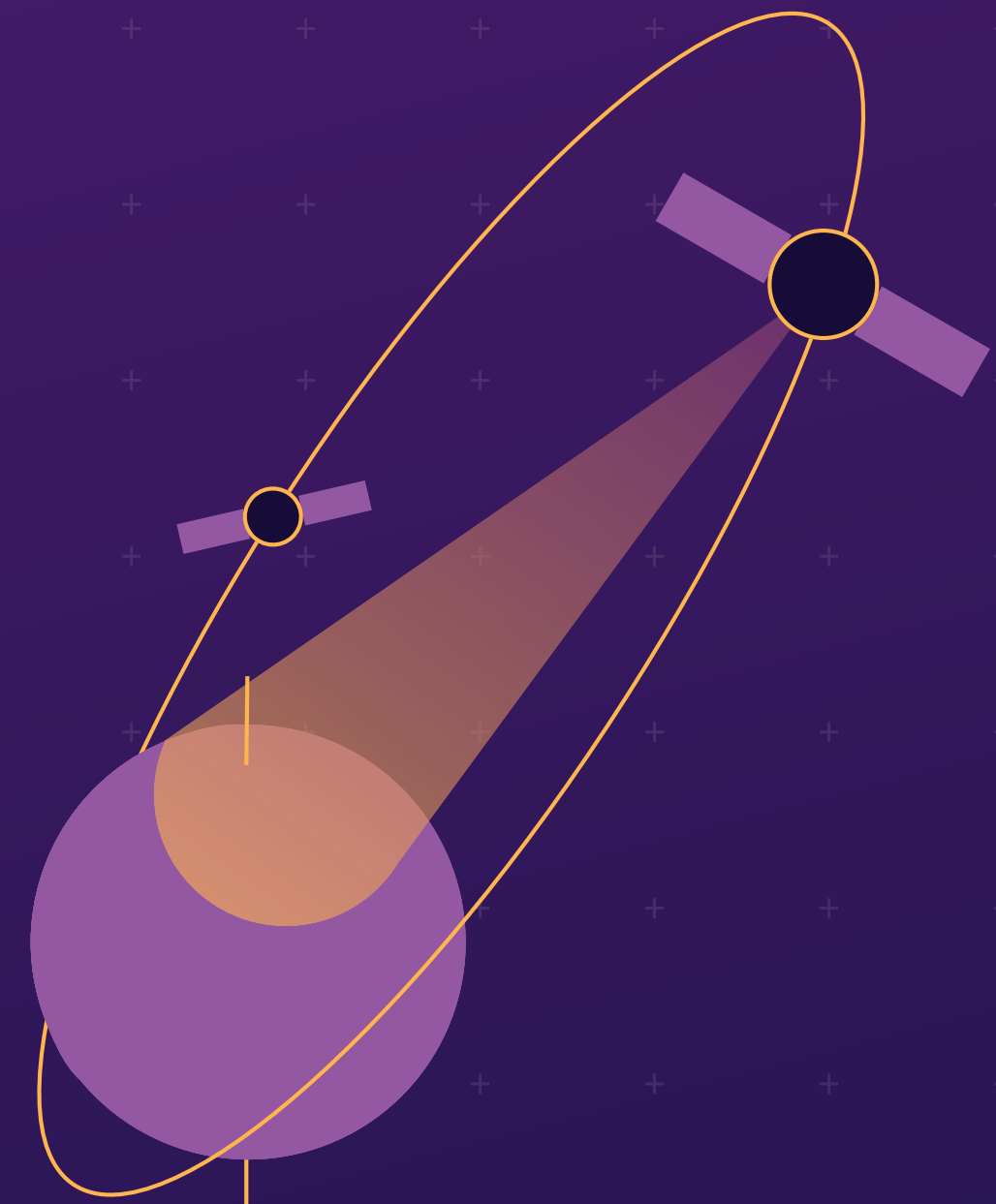
↑ The ground station for control and communication with the ASBM-satellites was completed in 2021. This picture shows one of three antennas in northern Norway. The antennas are nine meters in diameter and move with the satellites as they orbit the northern hemisphere.

Reduced ice coverage in the Arctic has led to increased shipping traffic and other activities in the Arctic. It is estimated that up to 80% of all ship traffic in the Arctic takes place in waters within the Norwegian economic zone or within the responsibility zone for search and rescue missions. Furthermore, there is an increase in the commercial air transport above the Arctic with transatlantic flights crossing the polar region. Several nations are increasing their activities in the Arctic, and the geopolitical and environmental significance of the area is increasing. For decades, there has been an unmet need for satellite-based broadband communications in the Arctic. In partnership with the Norwegian Armed Forces, Inmarsat and the U.S. Space Force, Space Norway will now establish such communication services.

On announcement of the ASBM programme, CEO of Space Norway Jostein Rønneberg stated:

*«In close collaboration with Inmarsat, the authorities in Norway and the United States, we are now establishing a strategically important capacity for everyone operating in the Arctic and requiring reliable access to broadband communication. Our focus in this programme is the value it creates for users such as fishermen, scientists, rescue services, the coastguard, our own and allied armed forces and others.»*

For many years Space Norway has worked on the study, assessment and financing of satellite-based broadband in the Arctic. The Arctic Satellite Broadband Mission (ASBM) programme was given the go-ahead in 2019. Space Norway will own and operate the satellite



system and is responsible for system specification, design, procurement and program management. The investment budget is approx. USD 450 million (approx. NOK 3.8 billion). So far, ASBM is the largest satellite programme ever rolled out in Norway. The programme is fully financed by a combination of equity, bank loans and prepayment from our partners.

Construction of the satellites at Northrop Grumman's plant in Dulles, Virginia, began in 2019, and the satellites are scheduled to be operational in 2023. The satellite constellation consists of two satellites that will be launched into a highly elliptical orbit over the Arctic. The lowest and highest points of the orbit above Earth will be 8,100 and 43,500 kilometres respectively. Each orbit for the two satellites takes 16 hours, and each satellite will provide broadband coverage across the Arctic for up to ten hours per orbit. Together, the two satellites will provide continuous 24/7 broadband north of 65° N latitude.

The satellites are about the size of a van (approx. 3m x 3m x 4m) and weigh 2 tons each without fuel. With full fuel tanks, the two satellites weigh a total of 7,200 kilos when launched. Each satellite measures 27 metres end to end when its solar panels are unfolded.

The satellites carry payloads supporting our three partners Inmarsat, the US Space Force and the Norwegian Armed Forces. An agreement has been signed with SpaceX for launch with a Falcon 9 launch vehicle. Launch from the Vandenberg Air Force Base in California is scheduled for 2023.

As per agreement with Space Norway, KSAT is establishing the ground segment for the programme. Three new 9-meter antennas are ready



↑ Falcon 9 during launch.  
Photo: SpaceX

in northern-Norway for communication with the satellites, and three additional antennas will be built during 2022.

The Falcon 9 rocket from SpaceX is the world's first reusable launch vehicle. Lifting capacity to geostationary transfer orbit is 8.3 tons, and for low orbit (550 km) it is more than 22 tons. The rocket is 70 metres tall and has a diameter of 3.7 metres. The satellites are placed on top of each other inside a capsule (fairing) measuring 13 x 5.2 metres on top of the rocket.

Launch is performed in two stages. The first stage is powered by nine Merlin engines using liquid oxygen and kerosene. The second stage is powered by one Merlin engine that can be started and stopped multiple times and is used to place the satellites in the correct transfer orbit. From there, the satellites will move into orbit using their own fuel system. This manoeuvre takes approx. 10 days.

# Key figures for the group\*

**↑4 328 683**  
Total assets

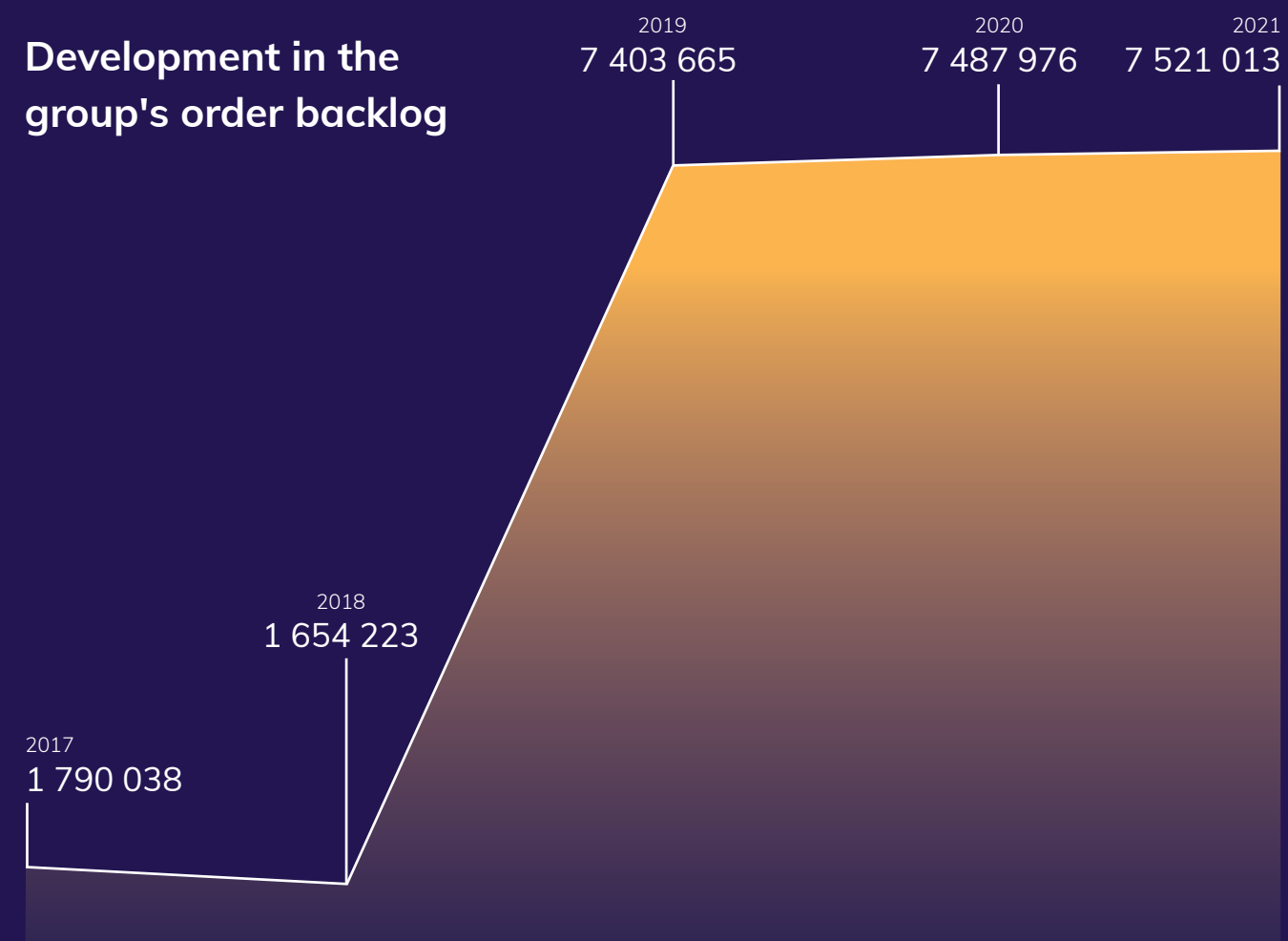
**↑1 308 572**  
Total equity

**↑11%**  
Operating margin

**↑42**  
Employees\*\*

**↑155 648**  
EBITDA

**↓16 498**  
Net income



\* All numbers in NOK 1000  
\*\* Employees including KSAT: 337

## Companies in the group

**STATSAT**  
Statsat AS

100% ownership

**HEOSAT**  
Space Norway  
HEOSAT AS

100% ownership

**KSAT**  
Kongsberg Satellite  
Services AS

50% ownership

Key figures for the group	2017	2018	2019	2020	2021
Revenues	426 556	476 029	513 684	547 383	654 088
EBITDA	137 769	131 301	178 754	168 674	155 648
Operating profit	87 739	75 080	111 900	97 553	73 456
<b>Net income</b>	<b>34 638</b>	<b>41 639</b>	<b>109 675</b>	<b>185 744</b>	<b>16 498</b>
EBITDA margin	32 %	28 %	35 %	31 %	24 %
Operating margin	21 %	16 %	22 %	18 %	11 %
Earnings per share	13,3	16,0	42,2	71,4	6,3
Return on equity	7,4 %	8,2 %	19 %	23 %	1 %
<b>Order backlog</b>	<b>1 790 038</b>	<b>1 654 223</b>	<b>7 403 665</b>	<b>7 487 976</b>	<b>7 521 013</b>

\* All numbers in NOK 1000



Key figures for the group, financial position*	2017	2018	2019	2020	2021
Total non-current assets	473 195	530 914	1 298 910	2 536 003	3 330 918
Of which construction in progress	-	-	697 665	1 802 389	2 432 084
Total current assets	309 128	323 633	547 291	959 120	997 766
<b>Total assets</b>	<b>782 323</b>	<b>854 547</b>	<b>1 846 200</b>	<b>3 495 124</b>	<b>4 328 683</b>
<b>Total equity</b>	<b>487 779</b>	<b>530 248</b>	<b>639 978</b>	<b>980 012</b>	<b>1 308 572</b>
Annual investments in new infrastructure	73 164	112 088	834 849	1 308 214	877 107
<b>Equity ratio (%)</b>	<b>62 %</b>	<b>62 %</b>	<b>35 %</b>	<b>28 %</b>	<b>30 %</b>

Accounting figures for 2019-21 9 have been audited. Accounting figures for 2017-2018 have been restated according to current consolidation principles to show historical development. The company accounts for 2016-18 have been audited, but the pro-forma restated figures for 2016-2018 presented in the tables have not been audited.

Selected key performance indicators (KPIs)*	2017	2018	2019	2020	2021
Uptime Svalbard fibre connection	100 %	100 %	99,995 %	100 %	100 %
Uptime AIS satellites	97,2 %	92,0 %	96,1 %	98,7 %	97,5 %
Uptime satellite connection to Antarctica	100 %	100 %	100 %	100 %	100 %
Non-current assets per employee	7 181	5 767	30 341	49 155	62 185
Operating expenses in % of non-current assets	53,4 %	79,0 %	10,3 %	8,2 %	4,8 %
Sickness absence rate	2,64 %	1,21 %	2,32 %	2,01 %	1,4 %
<b>Number of employees, year end</b>	<b>19</b>	<b>22</b>	<b>27</b>	<b>39</b>	<b>42</b>

Key figures for Space Norway and its subsidiaries in which the company has a controlling interest. KSAT, the joint venture, is not included in the table above.

\* All numbers in NOK 1000

## Definitions:

EBITDA: Earnings before interest, taxes, depreciation and amortisation

EBITDA margin: EBITDA / revenues

Operating margin: operating profit / revenues

Earnings per share: Net income / number of shares in parent company

Return on equity: Net income / average book equity

Order backlog: orders based on contracts entered into that have not been effected at the time of reporting. For the group, the gross profit method is also applied as a basis for calculating the order backlog so that it includes 50% of the order backlog in the joint venture KSAT. For contracts in foreign currency, conversion to Norwegian kroner is based on the exchange rate as of 31 December.

Equity ratio: book equity December 31<sup>st</sup> / total assets December 31<sup>st</sup>

Fixed assets per employee: (book value of fixed assets – financial fixed assets) / number of employees at the end of the year.

Operating expenses in % of fixed assets: operating expenses excluding depreciation and write-downs in % of the book value of fixed assets at the end of the year.

# 2

## **This is Space Norway**

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# The importance of the space industry to Norwegian society

Space Norway's assets and operations includes technology and infrastructure in an area where the Norwegian Government has a need for control and supervision. Space Norway is 100% owned by the Norwegian Ministry of Trade, Industry and Fisheries and represents a key part of the Norwegian Government's activities and assets in the space sector. This chapter provides a brief description of operations and assets in the group.



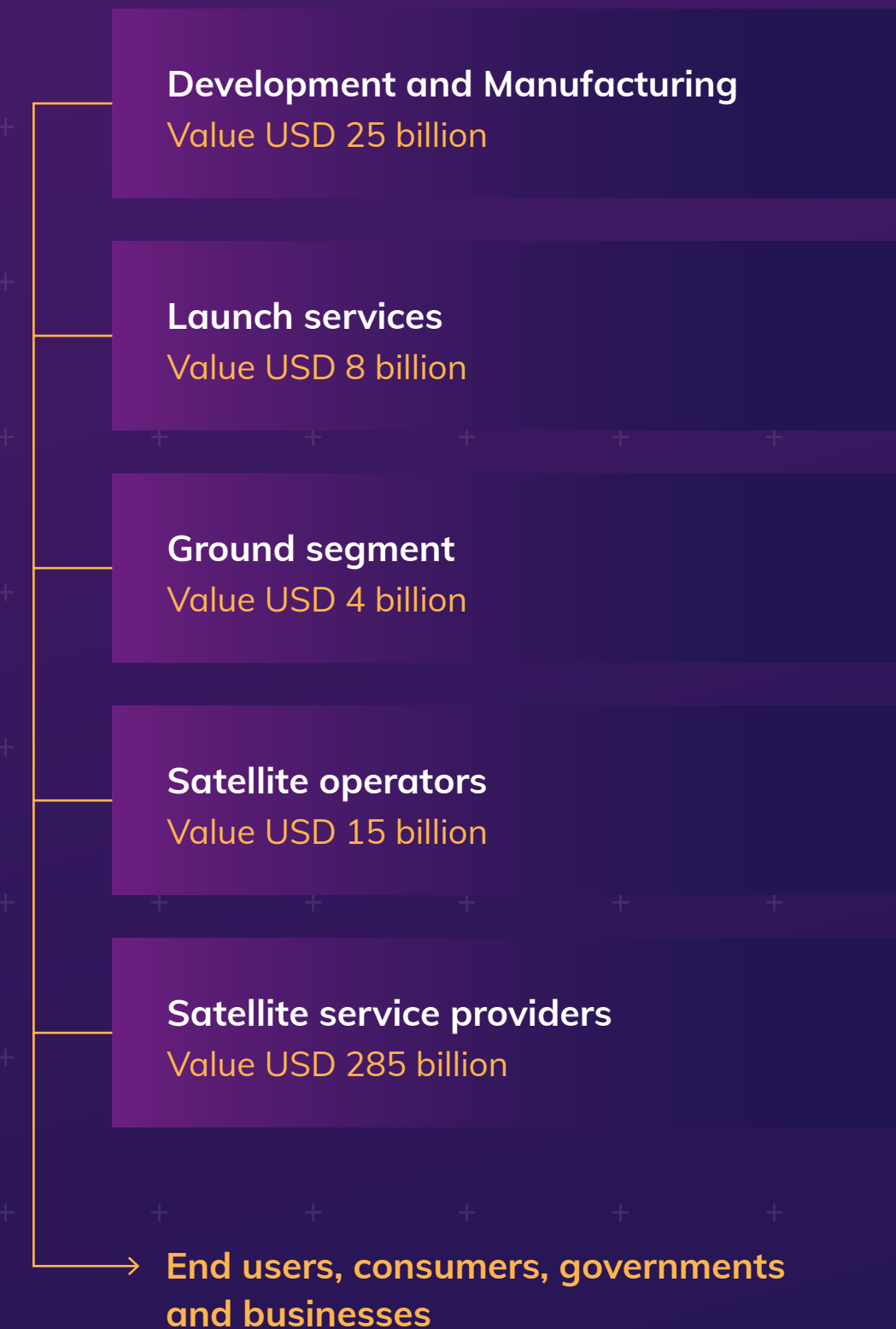
↑ Picture of antennas for communication with satellites at the KSAT ground station in Svalbard. Photo: KSAT

## Value chain for satellite based services

A range of important and critical societal functions depend on information from satellites. Examples are navigation, communication and broadband in areas without terrestrial networks, dissemination of emergency messages, television broadcasts, rescue services, weather forecasts, surveillance of land and ocean and for military purposes. In 2021, the consulting firm Euroconsult estimated the value of the satellite industry globally to be USD 370 billion, of which government activity represents USD 92 billion. Euroconsult estimates the space industry to grow to USD 642 billion by 2030, an annual growth rate of 6,3%. In “The Space Economy Report 2021”, Euroconsult presents the space industry value chain as shown to the right<sup>5</sup>.

Space Norway’s role is to manage and develop strategic space infrastructure to serve important Norwegian societal needs. In the value chain above, Space Norway is a satellite operator. This part of the value chain is characterised by large and complex development projects, long-term customer contracts, significant invested capital, and a relatively low return on average capital employed (ROACE). Space Norway provides infrastructure services at wholesale level to a limited number of major customers, who in turn serve a wide range of end customers. Through the jointly controlled subsidiary KSAT, the group is also represented in the ground segment and downstream information processing and product delivery sectors. KSAT is the world’s largest provider of ground station services for communicating with, controlling and downloading data from satellites in polar orbits.

<sup>5</sup> Euroconsult, «The Space Economy Report 2021»



## The importance of the space industry to the Norwegian society

Norway was an early mover with respect to the use of satellites and space. This was partly due to our particular geographical location and specific user needs. Maritime safety and ocean surveillance were particularly important user needs. Norway acquired in 1974 the first domestic satellite system in Western Europe, Norway became the second country to establish satellite television broadcasting and was for a long time the leading country in Europe within maritime satellite communications. Following the establishment of the Norwegian Exclusive Economic Zone in 1977, Norway also became a pioneer in utilising radar satellites to search for ships and oil spills through cloud cover and in the dark.

The strategic importance of space-based infrastructure is increasing. One key reason is the importance for the exercise of authority (sovereignty) and ability to provide societally critical services. As a result of developments and changes to the space sector, the Norwegian Government published an updated strategic space policy review in 2019<sup>6</sup>. The previous space policy review was released in 2013<sup>7</sup>.

In the report, the Government emphasises that Norwegian public investment in space is a tool for leveraging Norwegian interests. The review defines the following four goals for Norwegian space activities:

1. Promoting profitable businesses, growth, and employment
2. Meeting important societal and user needs

<sup>6</sup> Report to the Parliament 10 (2019-2020) High-flying satellites – down-to-earth uses

<sup>7</sup> Report to the Parliament 32 (2012-2013) Between heaven and earth: Norwegian space policy for business and public benefit

«The fact that the Norwegian Government chooses to publish a new strategic review now is due to the current rapid development in the space sector, the strategic importance of space and satellite-based services for Norwegian society, and the strategic importance of space for the Armed Forces, civilian life and future value creation.»<sup>8</sup>

<sup>8</sup> Report to the Parliament 10 Chapter 1

3. Ensuring satisfactory security for important space infrastructure
4. Securing Norwegian foreign, security and defence policy interests in space related activities

Society's dependence on electronic communications infrastructure, including satellite-based communications, is increasing. The Space Review states that space infrastructure is playing an increasingly important role in safeguarding basic national functions, and potential interruptions in this infrastructure may therefore have serious consequences.

The strategic importance of the space sector is expected to increase in the future. Norway must be able to identify its own user needs, develop solutions and control infrastructure of particularly wide-ranging national importance. The review emphasises that the space industry by itself represents a strategic competence base for safeguarding critical functions for the nation.

The importance of national ownership and control of space infrastructure is recognised in most countries. The COVID-19 pandemic and the actions of some nations to secure scarce goods in times of crisis, serve as a reminder that the importance of national control is often not evident until a crisis occurs. The ASBM programme under the auspices of Space Norway is highlighted in the Space Review as an example of national self-sufficiency.



# Space Norway's strategic priorities

Space Norway is 100% owned by the Norwegian Ministry of Trade, Industry and Fisheries (NFD) and represents a key part of the Norwegian Government's activities and assets in the space sector. Space Norway's assets and operations include technology and infrastructure in an area where the Norwegian Government has a need for control and supervision. As part of the control mechanisms, the company has been made subject to the Norwegian Security Act. Space Norway is a company in which the Norwegian Government's priority as owner is to attain the most cost-effective operations. The company is financed entirely through its own income and does not receive grants from the Norwegian Government.



The state ownership report<sup>9</sup> emphasises the purpose of the Norwegian Government's ownership:

“The Norwegian Government’s reason for its ownership of Space Norway is the management and continued development of security-critical space-related infrastructure supporting important Norwegian societal needs. The Government’s aim as owner is to offer cost-effective and properly managed space-related infrastructure supporting important Norwegian societal needs.”

The group’s vision is: “*We deliver tomorrow’s space systems for Norwegian societal needs*”. Space systems are defined as platforms and infrastructure working together in space. The company’s overall strategic priorities are based on the Government’s above defined purpose and are briefly discussed below.

### Establish and develop strategic space related infrastructure

The group’s mandate is to provide services for important Norwegian civilian and military functions. The group’s success requires both comprehensive technological insight as well as a good understanding of future user requirements and Norwegian political priorities. The Space industry is experiencing increased activity and is characterised by a high degree of innovation. A good understanding of tomorrow’s technology is consequently required to make the right investment decisions today.

<sup>9</sup> Report to the Parliament 8 (2019-2020)



↑ Illustration of the NorSat-3 satellite. Photo: Norwegian Space Agency

In the coming years, a significant increase in the number of active satellites is expected, especially small satellites in low earth orbit (LEO<sup>10</sup>). Rights to, and use of frequencies for satellite communication is a limited resource. The strategic value of existing satellite systems with allocated frequency rights is expected to increase in the coming years. In light of this, frequency coordination becomes an increasingly important and time-consuming discipline.

### Cross-sectoral partnerships

Norwegian users of space related services cover a wide range of civilian and military entities. Development of single purpose satellites are often discouragingly expensive. Space Norway's expertise and its national and international relations enables development of tailored "dual/multi use" solutions by joining needs from different users on a single platform. This can represent significant savings in terms of reduced investment (CAPEX) per user/function. In this regard, the ASBM programme serves as a good example. In this programme Space Norway has combined commercial broadband with military payloads for the US Space Force and the Norwegian Armed Forces. Without Space Norway's facilitation of this partnership, the Arctic broadband capabilities would be significantly more expensive for the users of the system.

### Properly managed space-related infrastructure

Satellite services are used in many critical societal functions such as rescue services, communications, navigation, defence, earth observation and surveillance. Interruptions or loss of satellite services could have major conse-

quences for life and health and could also lead to extensive economic losses. The strategic importance of outer space in the implementation of security policies is increasing. In this respect Norway has a particular responsibility in the High North. Space Norway is responsible for space infrastructure that supports long-term bilateral Norwegian obligations. Furthermore, Space Norway's activities are subject to the Norwegian Security Act and the Norwegian Electronic Communications Act. This requires high standards within security and risk management capabilities. The group's expertise related to strategic matters, risk assessment and security measures is high and expected to further grow in the future.

### Efficient operations

The space industry in general is characterised by the need for large investments and a highly skilled workforce. A high level of expertise is a prerequisite for the ability to develop new solutions. Space Norway is growing. In particular the ASBM programme represents a significant growth boost. Continuous streamlining of the organization is a priority, and gradually increasing efficiency is expected as the group continues to grow. Access to equity and debt for financing new programmes will be of key importance to achieving the group's strategic goals.

### Contributing to the development of Norwegian technology and space industry

The national space review<sup>6</sup> emphasises the strategic importance of space and satellite-based services for the Norwegian society at large, for future value creation, as well as its strategic importance for

<sup>10</sup> LEO means Low Earth Orbit and represents a distance of up to 2,000 kilometres above the Earth's surface.

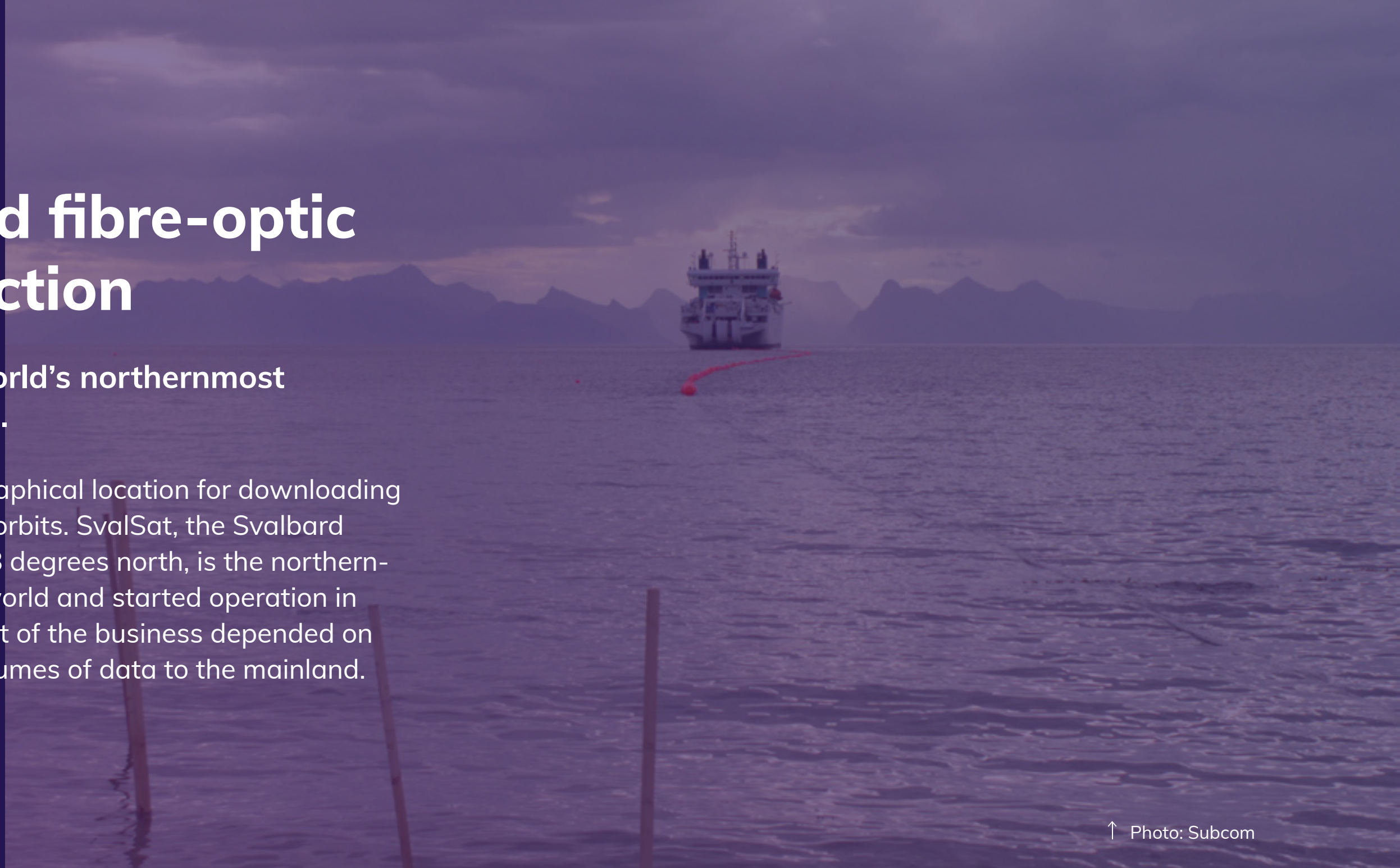
military purposes. Priorities are to secure Norwegian foreign, security and defence policy interests in space. Space Norway is responsible for contributing to the fulfilment of the objectives of the national Space Strategy, e.g., by ensuring adequate security of important space infrastructure, delivering solutions that meet societal and user needs, and by contracting qualified Norwegian subcontractors and promoting growth for the national space industry. Through the ASMB and MicroSAR programs, orders for over NOK 600 million have been made with Norwegian technology companies. Furthermore, these programmes attract highly skilled employees who constantly develop their competence. The programmes contribute to national self-sufficiency and provide strategic capabilities under Norwegian control. In the ASBM programme Space Norway has entered into a significant agreement with KSAT for establishing and operating the ground segment of the programme. This alone creates 13 new jobs in Tromsø.



# The Svalbard fibre-optic cable connection

The story behind the world's northernmost subsea fibre connection.

Svalbard has an ideal geographical location for downloading data from satellites in polar orbits. SvalSat, the Svalbard satellite ground station at 78 degrees north, is the northernmost ground station in the world and started operation in 1997. However, development of the business depended on efficient transfer of large volumes of data to the mainland.



↑ Photo: Subcom

The station is located at Platåberget outside Longyearbyen. Satellite data were initially transmitted to customers via a geostationary satellite. However, small capacity for data transmission via satellite was a limiting factor. Around 2001, it became clear that SvalSat's future development was entirely dependent on the efficient transfer of large volumes of data to the mainland.

At this time, SvalSat was part of Norsk Romsenter Eiendom AS (later renamed Space Norway AS), a company owned by Stiftelsen Norsk Romsenter (NRS). NRS was concerned that SvalSat would lose out on commercial opportunities because of the lack of fibre connection to mainland Norway. NRS believed that a subsea fibre connection would be essential to ensure the future development of SvalSat's activities. The telecommunications operator at Svalbard saw no commercial basis for investing in an approximately 1,400-kilometre subsea fibre optic cable connection. In 2002, NRS initiated its own assessment and planning of a fibre connection from Longyearbyen to the mainland, with the objective of establishing such connection without any government financing.

With Space Norway as a tool, NRS succeeded in this project. Financing was secured through a combination of long-term contracts, debt, prepayments from key customers, and funding from Space Norway. Customers and partners included NASA, NOAA, KSAT, Andøya Rocket Range, Telenor and Uninett<sup>11</sup>. The construction was done in 2003 and the fibre connection became operational in January 2004.

<sup>11</sup> NASA is the National Aeronautics and Space Administration, and NOAA is the National Oceanic and Atmospheric Administration, a department under the United States Department of Trade. KSAT is Kongsberg Satellite Services



SvalSat, KSAT's station on Svalbard, currently has more than 100 operational antennas.  
Photo: KSAT



↑ Photo: Nina Holtan | ninaholtan.no

↑ Director of infrastructure Dag Stølan (to the right) and advisor Jens Olav Frorud (to the left). Dag shows a segment of the fibre optic cable connecting Svalbard with the mainland.

The fibre connection has been of important strategic value for the growth and development of KSAT. SvalSat is now the world's largest ground station for downloading data from satellites in polar orbits. Today, both KSAT and Space Norway are two successful spin-off businesses from NRS (Norwegian Space Agency).

The fibre connection consists of two separate cables that connect Longyearbyen to mainland Norway. The distance of approx. 1,400 km corresponds roughly to the distance between Oslo and Paris. The cables are buried approximately 2 metres in selected areas to protect against destruction by fish trawling and anchoring of ships. The sea depth reaches as much as 1,670 metres just west of Svalbard. At the time of construction, it was the world's deepest fibreoptic cable. Tyco Communications (now SubCom) was the contractor for the project. The anticipated technical service life of the cables is 25 years. It is now 19 years since the cables became operational. The operating track record of the Svalbard connection has been excellent with few incidents that have led to interruptions of the service. During the period 2018-20, Space Norway carried out significant security related up-grades to the fibre connection.

The primary motivation for establishing the fibreoptic cable in 2004 was to ensure the growth and development of the satellite business at SvalSat. Today, the fibre connection also represents a critical resource for the society at Svalbard and enables modern electronic communication services. These are services necessary to maintain and develop society as well as Norwegian presence on the archipelago. The fibre connection is considered part of the national critical infrastructure.



↑ Illustration of the fibre optic cable enabling efficient transfer of large volumes of data to the mainland.

National and international companies and entities depend on a functioning fibre connection to Svalbard. Information downloaded at SvalSat and distributed via the fibre connection is important for a number of purposes such as weather forecasting services, surveillance of ship traffic, environmental monitoring, development of ice maps for the Arctic and communication services in the critical phases of rocket launches<sup>12</sup>. The connection is also important for KSAT's contribution to Galileo, Europe's satellite-based navigation system<sup>13</sup>. Space Norway offer transmission capacity at wholesale level to a small number of customers, who in turn provide communication services in the retail and commercial markets. End customers and users of the fibre connection include a wide spectre of businesses: the society in general, the coastal radio service, Helsenett, Avinor, the Governor of Svalbard, including police and SAR (Search And Rescue) resources, local government in Longyearbyen, the Norwegian Coastal Administration with services for maritime security, EUMETSAT<sup>14</sup>, NASA, NOAA, Galileo, Iridium, ESA, the Norwegian Mapping Authority as well as university and research units on the archipelago such as UNIS, the Nansen Environmental and Remote Sensing Center and the Norwegian Institute of Marine Research etc.

<sup>12</sup> LEOP, Launch and early operations phase

<sup>13</sup> Galileo is a satellite navigation system set up by the European Union and the European Space Agency. The system has been designed as an alternative to the military and American-controlled Global Positioning System (GPS) and the Russian GLONASS

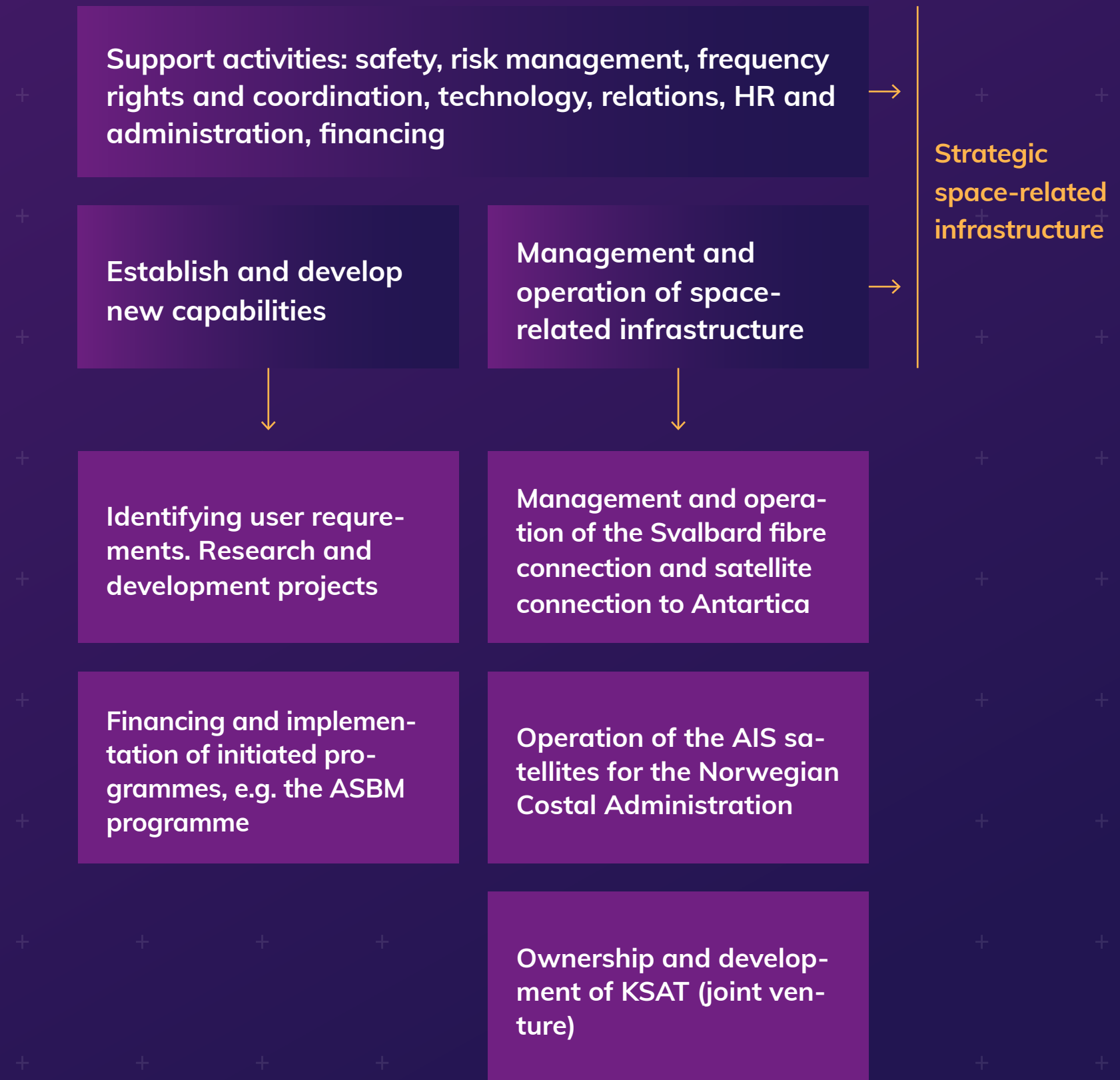
<sup>14</sup> EUMETSAT is the European organisation for meteorological satellites





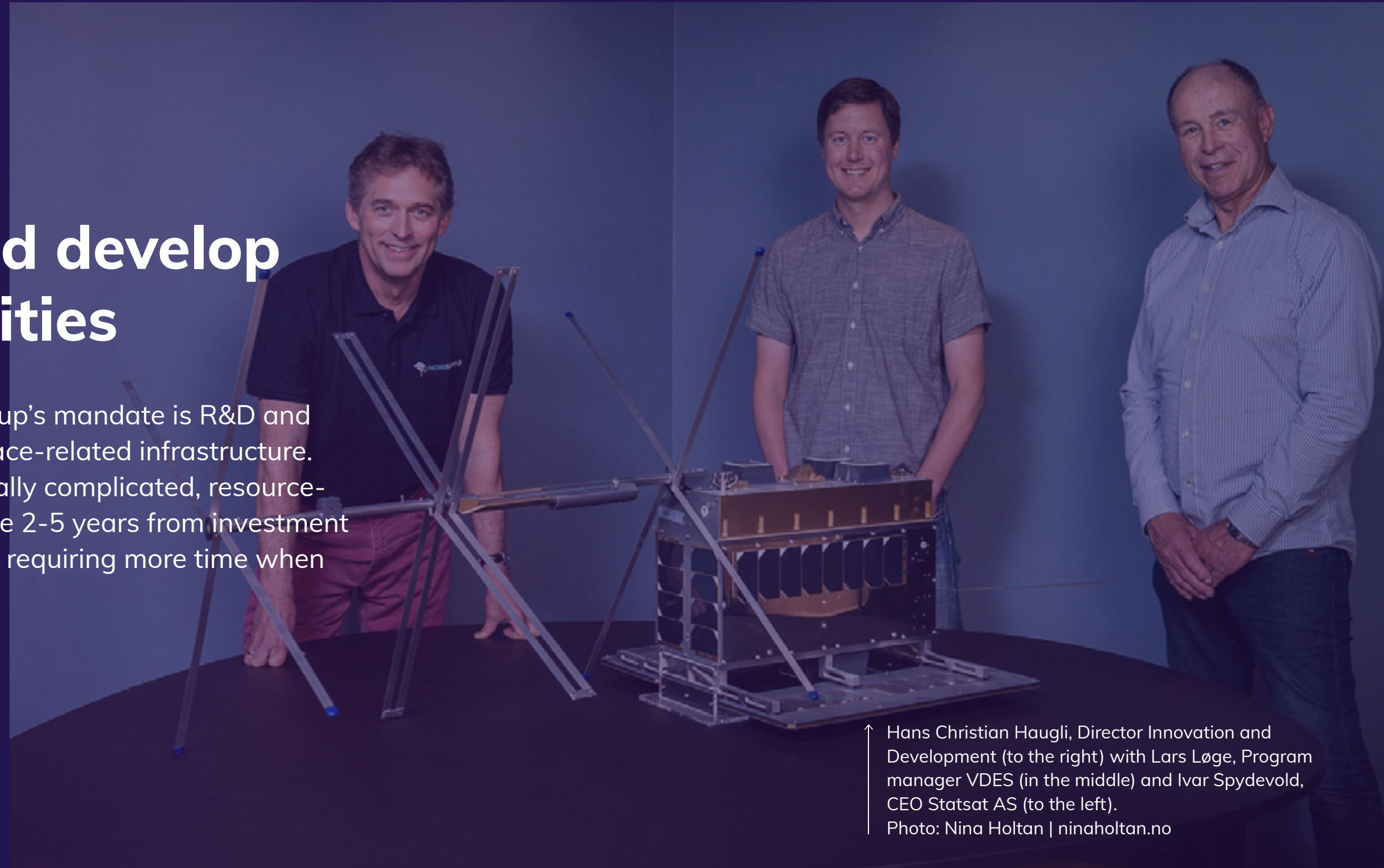
# Business units

Activities in Space Norway have increased significantly in recent years, in line with the development and implementation of several important space programmes. Activities are split into two main categories, a) establishment and development of new infrastructure and b) sustainable management and operation of space-related infrastructure. The group's main activities are illustrated in the figure to the right.



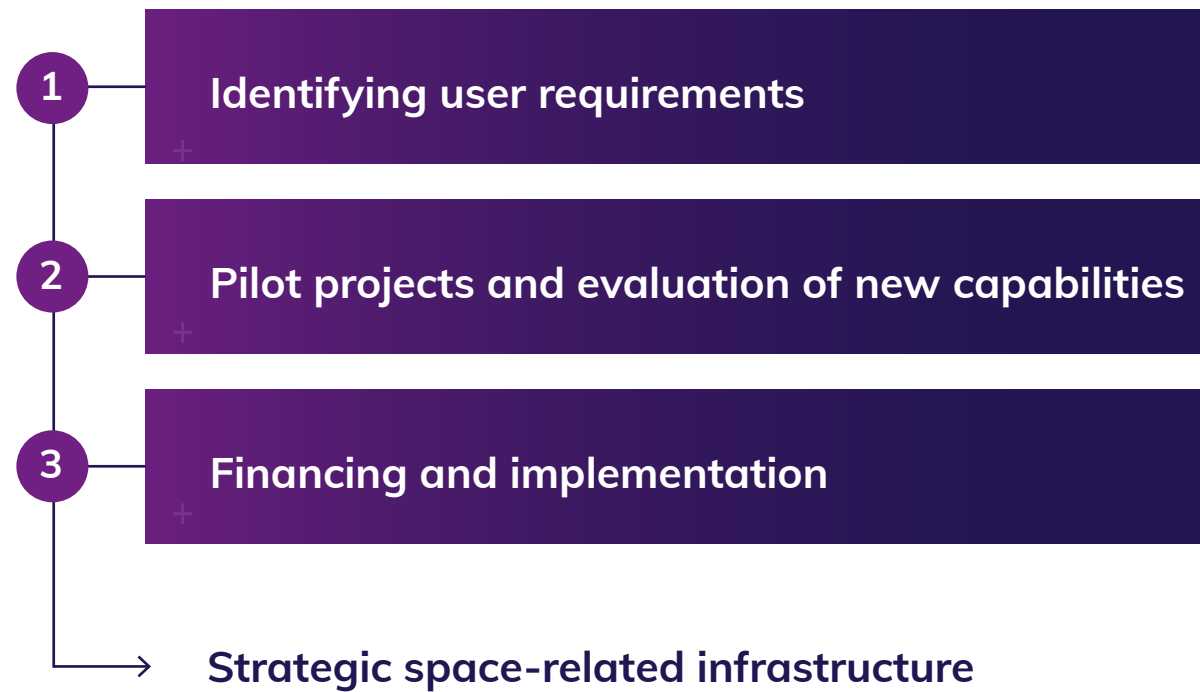
# Establish and develop new capabilities

An important part of the group's mandate is R&D and development of strategic space-related infrastructure. Satellite projects are technically complicated, resource-intensive and typically require 2-5 years from investment decision to launch/operation, requiring more time when new technology is involved.



↑ Hans Christian Haugli, Director Innovation and Development (to the right) with Lars Løge, Program manager VDES (in the middle) and Ivar Spydevold, CEO Statsat AS (to the left).  
Photo: Nina Holtan | ninaholtan.no

Development projects at Space Norway are normally structured according to the following three steps.



## Step 1

### Identifying user requirements

Space Norway engages in continuous dialogue with relevant user groups to identify future needs for satellite-based capabilities. Identified user requirements are assessed according to usefulness, technical feasibility and risk prior to initiation of a possible pilot project. Examples of user groups are the Norwegian Armed Forces, the Norwegian Coastal Administration, the rescue services as well as agencies/users in ministries that are involved in or are responsible for satellite-based infrastructure and services etc. The technical and industrial competence in Space Norway represents an important basis for evaluating future satellite-based capabilities in collaboration with relevant user groups.

## Step 2

### Pilot projects and evaluation of new capabilities

Defined requirements are assessed in relation to current technological solutions and cost-benefit considerations. The ASBM programme is based on a specific and unmet need for satellite-based broadband in the Arctic. An initial cost-benefit analysis showed that the programme was too expensive for a single user. In the evaluation phase, Space Norway succeeded with significantly improving the cost-benefit ratio by negotiating a joint project between three users and thus forming a basis for an economically feasible project. In Step 2, analyses of utility, risk and a financial analysis are undertaken for all projects that are recommended for step 3, implementation.

## Step 3

### Financing and implementation

When a project is initiated, a project organisation is set up to run the project. An approved programme may, if beneficial, be structured as a separate limited liability company. The project organisation is staffed with applicable resources and expertise, such as technical, security, regulatory, project management, negotiation and financing. Space Norway also ensures that an appropriate and cost-effective operations organisation is put in place prior to launch and operations of new capabilities.

## Development activities in Step 2 – capabilities for maritime surveillance and emergency preparedness

In 2021, the activities in Step 2 were mainly associated with two development projects focusing on maritime surveillance and emergency preparedness in the High North. The two most important projects are MicroSAR and VDES. MicroSAR is a development project in cooperation with KSAT and FFI on maritime surveillance based on small radar satellites. If realised, this project will provide a very capable radar capacity for surveillance of Norwegian waters. The project has defined a technical solution and identified suppliers of critical components. The payloads are developed and manufactured in Norway. The decision on whether to build a test and demonstration satellite is expected in 2022. In 2021, through cooperation with the Armed Forces and our partners, we have developed technology and systems to reduce technical risk with the test and demonstration satellite. If the capacity is realized with expected performance, the project will contribute to a significantly improved situational awareness and cost effective use of and increased capacity for the Coast Guard and the Armed Forces operative units. The plan is to establish a Norwegian constellation of MicroSAR satellites. Depending on user needs, this may well become one of Norway's largest satellite constellations.

VDES (VHF Data Exchange System) is regarded as the next generation AIS. The system uses the same frequency bands and allows for two-way communication with ships via satellite (as opposed to the broadcast-only system of AIS). The requirement specification for the VDES payload was developed by Space Norway and designed and manufactured by Kongsberg Seatex in collaboration with Space Norway. With the advantages of

the VDES system, there is reason to expect that the system will become an important communication platform for global ship traffic and a vital contribution to increased maritime safety. Please also refer to a separate article in this report with more details on the VDES project.

Space Norway attains some external R&D contributions related to specific development projects. The accounts related to development projects are included in the parent company's profit and loss statement.

## Development activities in Step 3 – roll-out of the ASBM programme

The Arctic Satellite Broadband Mission (ASBM) programme is in the implementation phase, Step 3, with regards to previous process description. A decision to initiate the programme was made in 2019. The programme consists of two satellites with associated ground segments. The satellites will follow a highly elliptical orbit over the Arctic and will provide continuous broadband coverage north of the 65° N latitude. The satellites and payloads are under construction at Northrop Grumman in the United States. Each satellite weighs about 2 tons and measures 3x3x4 metres. With solar panels in extended position, the wingspan is 27 metres. One of the payloads, a radiation monitor, is being built by the Norwegian company IDEAS in collaboration with the Norwegian Space Agency and ESA.

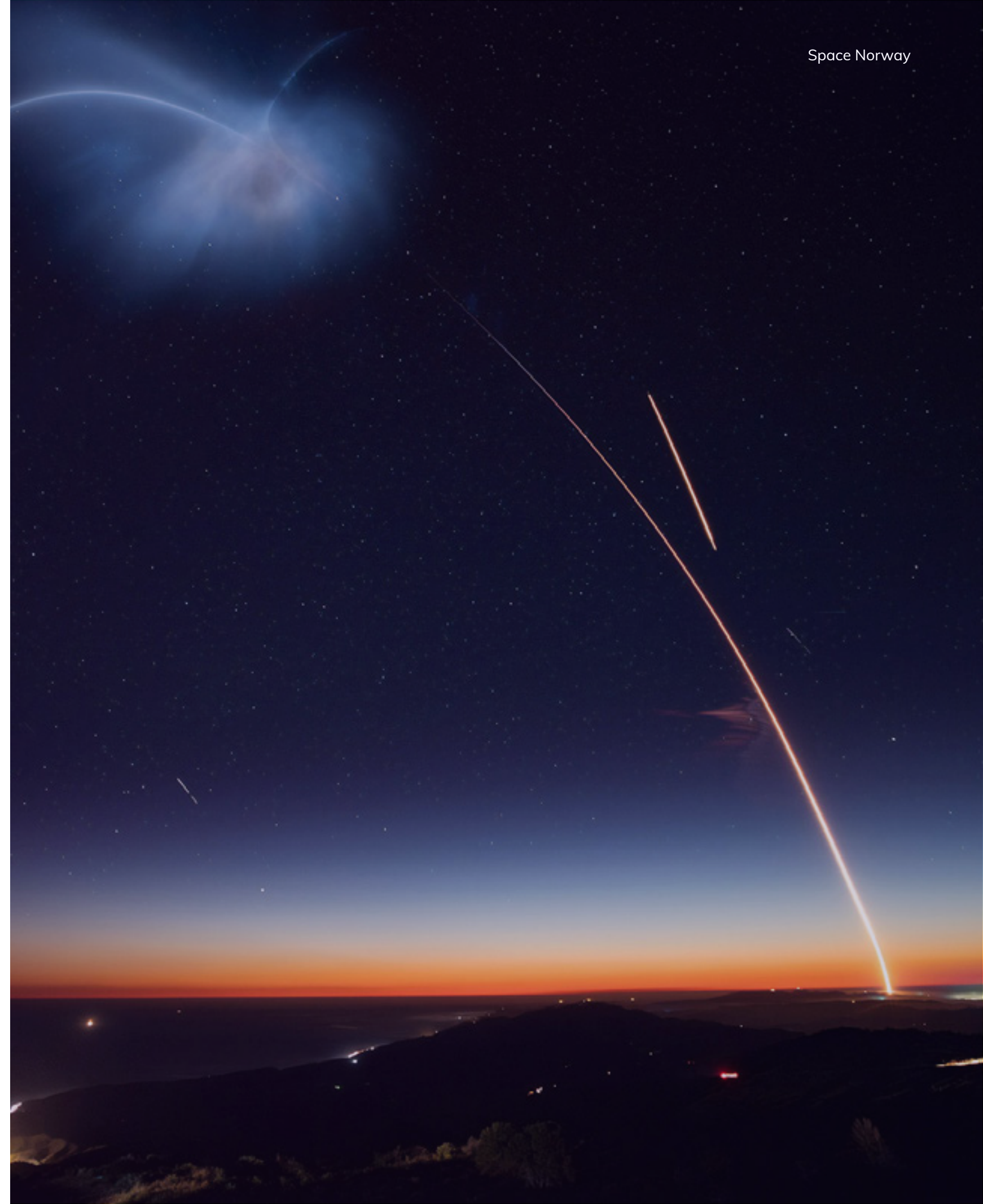
An agreement has been made with SpaceX for launch on a Falcon 9 rocket. In 2019, an agreement was entered into with KSAT for construction of the ground segment for the programme. In parallel with the construction of the satellites, Space Norway and KSAT are jointly

establishing a satellite control centre in Tromsø, Norway for the operation of the satellites when they become operational in 2023. In 2021, the programme was well into the building phase and progress is good, despite another year affected by the pandemic. The satellites are scheduled to be operational in 2023 even though some sub-contractors experience delays. The satellite platform and several of the components are already completed, the Tromsø operations team has been recruited and is well into its training and establishment of systems and procedures for satellite operations.

With a total investment of approx. USD 450 million, this programme is Norway’s largest satellite project to date. The programme is fully financed by a combination of equity, bank loans and prepayments from our partners. The order backlog at the end of 2021 is USD 624 million. Expected annual revenues when the satellites are operational will be approx. USD 41 million. Development and operations are organised in the 100% owned subsidiary Space Norway HEOSAT AS. Key financial figures are shown in the table below.  
 ovedtall fremgår av tabellen nedenfor.

Key figures - Space Norway Heosat AS	2021	2020
Revenues	-	-
Other operating expenses	25 979	104 775
Operating profit	-25 979	-104 775
Net financial expences (income)	22 356	-114 289
<b>Net income (loss)</b>	<b>- 55 687</b>	<b>7 871</b>
Capitalized investments for the period	2 432 084	1 104 724
<b>Total assets</b>	<b>3 069 712</b>	<b>2 157 297</b>

Figures in NOK 1000

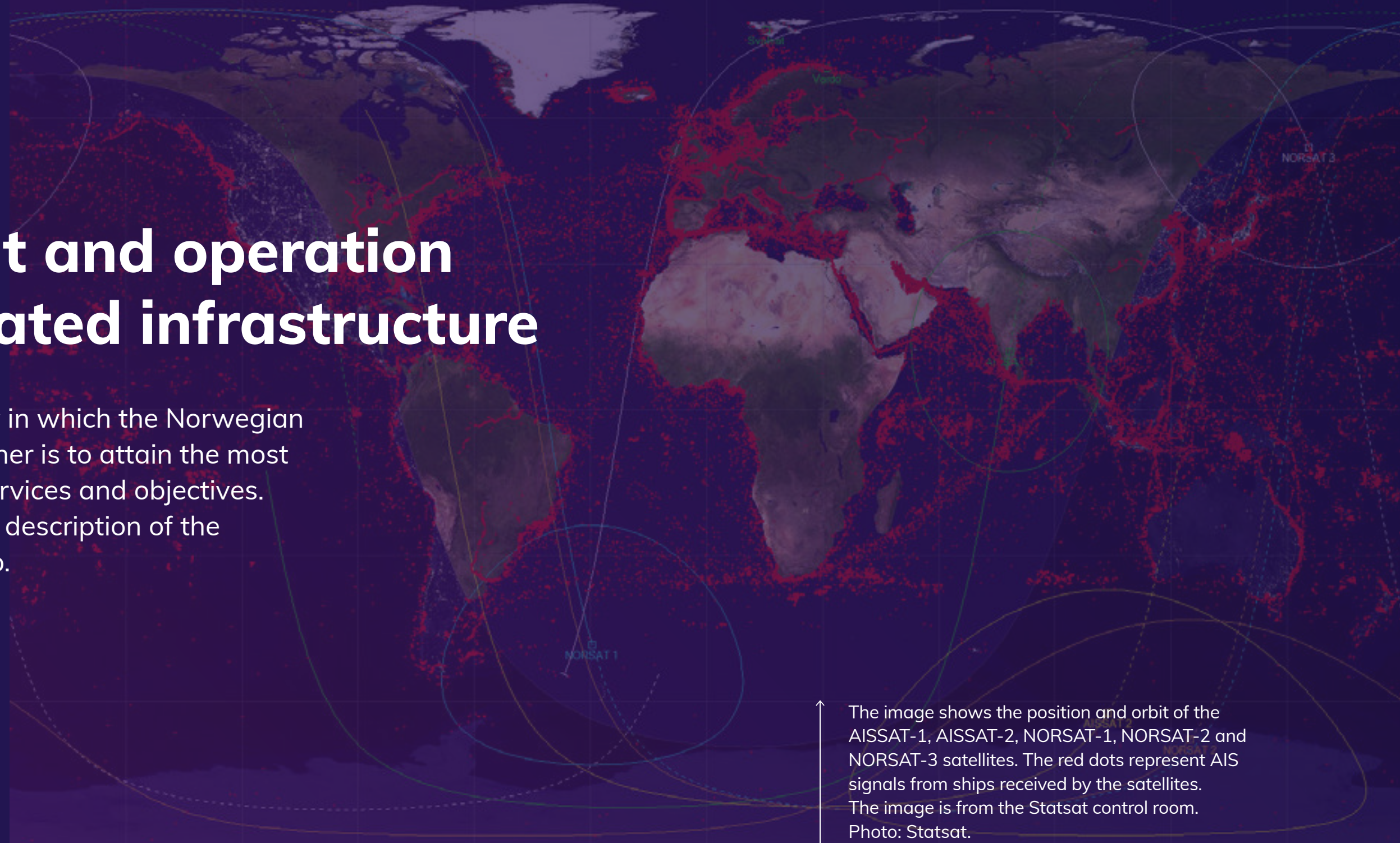


Members of our team working on the ASBM programme.  
From the left: Tord Skoe Fredriksen, Natalie Forseth, Jens  
Hallvard Klette, Arne Jørgen Mæland and Birger Johansen.  
Photo: Nina Holtan



# Management and operation of space-related infrastructure

Space Norway is a company in which the Norwegian Government's priority as owner is to attain the most cost-effective provision of services and objectives. This chapter provides a brief description of the operative assets in the group.



↑ The image shows the position and orbit of the AISSAT-1, AISSAT-2, NORRSAT-1, NORRSAT-2 and NORRSAT-3 satellites. The red dots represent AIS signals from ships received by the satellites. The image is from the Statsat control room. Photo: Statsat.



## Fibre connection to Svalbard and satellite connection to Antarctica

The fibreoptic cable connection to Svalbard became operational in January 2004. The distance between Svalbard and the mainland is roughly 1,400 kilometres. The connection consists of two separate fibreoptic cables and represents significant transmission capacity. The connection represents necessary infrastructure for distribution of data downloaded from the KSAT satellite station at Svalbard. It also represents a critical resource for the society at Svalbard and provides it with modern e-com services. The fibre connection is defined as critical infrastructure.

Ownership and operations are organised in the parent company of the group, Space Norway AS. Income is based on wholesale of transmission capacity to a few major customers, where capacities of 10 or 100 Gbps are offered. The customers are KSAT, Telenor and Uninett. The pricing of services from the fibre connection is largely based on previously entered contracts and does not represent updated cost figures for operation of the Svalbard fibre connection, therefore the fibre connection operations represent a deficit for the group.

In January 2022, an interruption occurred on one of the two connections. The fibre consists of two redundant connections between Longyearbyen and Harstad. This means that the Svalbard fibre remains fully operational in the event of one of the two connections failing, however running without backup capacity. Without this redundancy, Svalbard would have lost its mainland connection. In cooperation with Subcom, the error has been temporarily amended and redundancy for this connection is re-established. Efforts are now being made to prepare a final repair of the damage with a specialised offshore subsea cable repair vessel.

Space Norway also provides the Troll Station in Antarctica with a satellite broadband connection. The capacity is delivered via a long-term lease of a dedicated capacity on the Thor 7 satellite. The satellite is owned and operated by Telenor Satellite, a subsidiary of Telenor ASA. The capacity is sub-leased in its entirety to KSAT. The accounts related to the Svalbard fibre connection and satellite connection to Antarctica are included in the parent company's profit and loss accounts.

## The KSAT joint venture

KSAT is a joint venture owned 50/50 by Space Norway and Kongsberg Defence and Aerospace, a division of the publicly listed company Kongsberg Gruppen ASA. KSAT is a provider of services related to the operation and reception of data from satellites, as well as the use of satellite-based information in global services.

KSAT is a world leader in its category and has two main business areas. Ground station services account for approximately 81% of turnover, and services based on satellite information constitute the remaining part. In 2021, antenna capacity was increased, and at the end of the year KSAT operated approximately 260 antennas and made approximately 75,000 satellite contacts per month. The company's operations include ground stations for communication with satellites, and for reception and processing of data in near real time and also services related to the use of such data. KSAT focuses especially on maritime applications. KSAT is headquartered in Tromsø with offices at Svalbard, in Oslo, Stockholm and Denver.

KSAT and its subsidiaries continue to realise growth both in terms of turnover and profit. Revenues in 2021 were NOK 1232 million compared to NOK 1034 million in 2020, an increase of approximately 19%. 82% of the revenues came from customers outside Norway. KSAT has through

2021 delivered high-resolution satellite imagery for monitoring of the world’s rainforests through a contract with the Ministry of Climate and Environment. In 2021, new orders constituted approximately NOK 1277 million. An excellent and unique infrastructure (pole-to-pole), increasing need for satellite-based services and an efficient organisation are among the key reasons for the positive trend for the company. KSAT has long-term contracts with most of the world’s leading space organisations in addition to important commercial players. The customer base is stable with a long-term perspective. This means that the business can focus on continued growth, innovative improvement and the establishment of new business areas. Key figures for the past two financial years are shown in the table below.

KSAT accounts are consolidated in Space Norway group accounts in accordance with the gross profit method<sup>15</sup>

Kongsberg Satellite Services, group	2021	2020
Revenues	1 232 423	1 033 917
EBITDA	475 297	423 596
Operating profit	337 702	305 276
Net income	274 183	248 268
Total non-current assets	1 438 336	1 090 019
Total current assets	537 789	804 426
Total assets	1 976 125	1 894 446
Total equity	1 177 574	1 030 624
Total liabilities	798 551	863 821
Order backlog	3 633 500	3 387 000
Number of employees, year end	295	236

Figures in NOK 1000

<sup>15</sup>According to the gross profit method, the participant accounts for its share of income, expenses, assets and liabilities

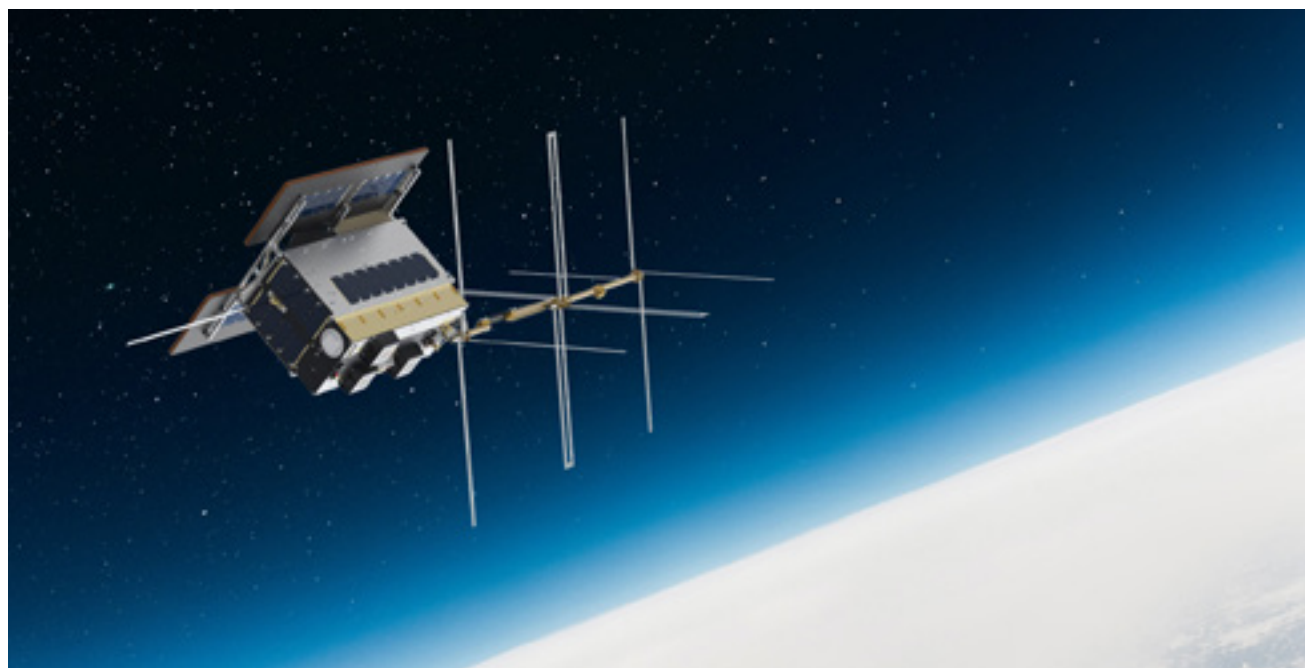


Installation of antenna no. 100 at SvalSat, the KSAT ground station on Svalbard. Photo: KSAT.

## Operation of the Norwegian Coastal Administration’s AIS satellites, Statsat AS

Statsat AS was founded in 2013 and is a 100% owned subsidiary. The company’s scope is limited to providing services to government entities on public contracts between entities in the public sector. The business is mainly related to the operation and renewal of the Norwegian Coastal Administration’s AIS satellites. These are satellites used for maritime surveillance and they retrieve AIS signals from global ship traffic. Its value chain consists of AIS payloads partly situated on the Norwegian Coastal Administration’s own satellites and partly onboard other satellites, and it includes the Norwegian Coastal Administration’s own ground segment in Vardø.

AIS is an anti-collision system for ships regulated by the International Maritime Organisation (IMO). When using AIS, ships send information



about position, velocity, direction and more. In 2021, the satellite fleet in operation was increased by the satellite NorSat-3. Per the end of 2021, it consists of five microsattellites in polar orbits, between 595 and 625 kilometres above sea level.

The satellites are operated by Statsat, which has developed software for cost-effective and automated monitoring and operations of the satellites. The monitoring system identifies and performs automatic repairs of recognisable errors as well as controls and performs automated download and processing of data from satellite to ground station. The satellites are small (mass is between 10 and 20 kilos) and are therefore considered to be micro-satellites. They are cost-effective satellites well suited for their specific purposes. Data from the satellites are downloaded by ground stations in Vardø and Svalbard.

In 2021, Statsat’s turnover increased compared to the previous year. To a large extent, this was due to revenues from an ESA project where Statsat was project manager, while most of the work was done by subcontractors. This central invoicing together with temporary high external IT costs explains the profit decline despite the increased revenues. These effects are considered temporary.

Statsat AS	2021	2020
Revenues	10 087	8 063
EBITDA	-244	661
Operating profit	-263	652
Net income	-196	508
Number of employees, year end	3	4

Figures in NOK 1000

# 3

## Board and Management

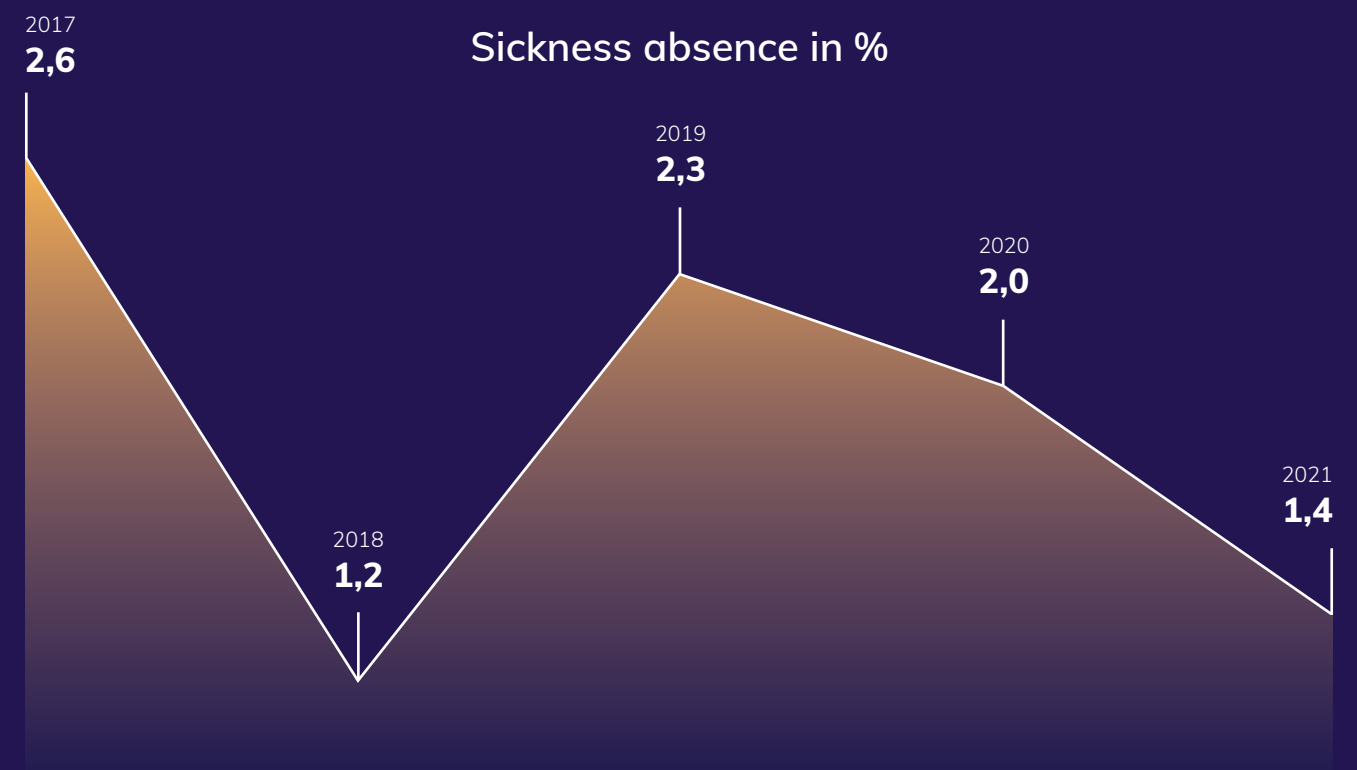
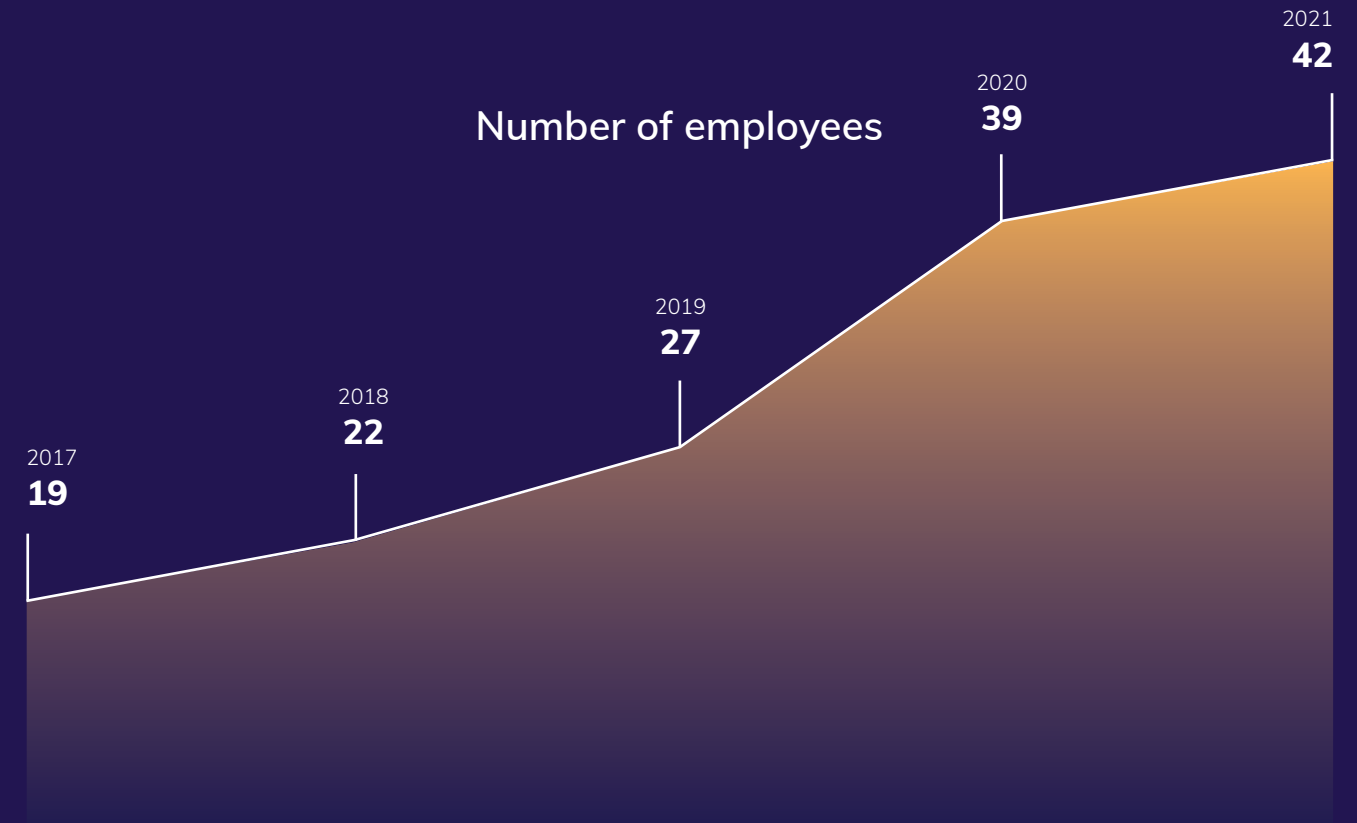
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# Organisation

The Space Norway organisation is characterised by growth and development. The decision in 2019 to implement the ASBM programme was an important milestone and a key driver for growth and development of the organisation. Space Norway experienced an increased need for strengthening its resource base and additional hiring was required for project management, technical expertise, security, regulatory, financing, legal as well as general administrative functions. Efficient and safe operation of space infrastructure requires industry experience and cutting-edge expertise in what is a specialised niche. Space Norway places great emphasis on offering a positive work environment to attract and retain skilled personnel.

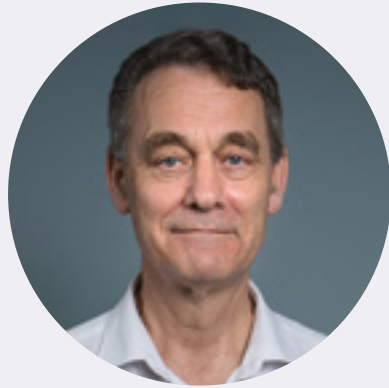
Increasing the percentage of women in the company is important. The company's policy is to strive for a gender balance when recruiting where applicant qualifications are otherwise equal. At the end of 2021, Space Norway and its 100% owned subsidiaries had a total of 42 employees. At the end of 2021, KSAT had a total of 295 employees. Sickness absence was low in 2021 at 1.4% in Space Norway and its 100% owned subsidiaries, a decrease of 0.6 percentage points. For KSAT, the sickness absence was 1.8%.

\*) numbers in figures are for Space Norway and its 100% owned subsidiaries.



\*) Numbers in figures are for Space Norway and its 100% owned subsidiaries.

# Space Norway Executive Management



**Jostein Rønneberg**  
Group CEO and CEO of  
Space Norway AS



**Gro Undrum**  
CFO



**Dag H. Stølan**  
CSO and Director  
Infrastructure



**Kjell-Ove Orderud Skare**  
Programme Director ASBM



**Hans-Christian Haugli**  
Director Innovation and  
Development



**Torstein Losnedahl**  
Group Legal Counsel



**Knut Myrvang**  
CFO Space Norway HEOSAT  
AS



**Ivar Spydevold**  
CEO Statsat AS

Foto: Nina Holtan | [ninaholtan.no](http://ninaholtan.no)

# Sustainable value creation at Space Norway

In the state ownership report (Report to the Parliament 8, 2019- 2020), the Norwegian Government set out its expectations of state-owned companies. The report sets high expectations for sustainability and responsible business operations. An introduction to Space Norway's focus and priorities in sustainable development can be found below.

Sustainability is becoming increasingly important throughout society as well as for individual enterprises. In the state ownership report (Report to the Parliament 8, 2019-2020), the Norwegian Government set out its expectations of state-owned companies. The report sets high expectations for sustainability and responsible business operations in state-owned companies. The report also states that these initiatives should be tailored to the company's type of operations, uniqueness, risk and size. Space Norway is committed to sustainable and responsible development and the strive to fulfil the expectations set out in the report. In Space Norway, sustainability and responsible business operations are an ongoing process with the objective to continuously improve over time. It is also a recognition that the company's capacity for efforts on sustainability initiatives is closely related to healthy financial results.

In 2015, the UN adopted 17 main goals and 169 targets for sustainable global development<sup>16</sup>. The goals shall function as a common global guideline for countries, for the business community at large and for society in general. The goals bring awareness to areas in need of sustainability and improvement. They also constitute an excellent framework for individual businesses to prioritise areas in which they can make a difference. Space Norway considers all 17 goals to be important and has identified five prioritised goals with particular emphasis in its day-to-day business operations.

The five prioritised UN Sustainable Development Goals at Space Norway are:



### Goal 5, Gender equality

Space Norway regards increasing the percentage of women in the company as important. The company's policy is to strive for a gender balance when recruiting new employees where the qualifications of the applicants are otherwise equal.

<sup>16</sup>THE 17 GOALS | Sustainable Development (un.org)





**Goal 8, Decent work and economic growth**

Space Norway emphasises a good working environment characterised by respect, openness and job satisfaction. An internal regulation for ethics and anti-corruption has been prepared and is reviewed with all employees at least twice a year. A whistle-blowing procedure has also been prepared, which is discussed with all employees at least twice a year. Spring of 2020, a separate working environment committee consisting of four members was established. Furthermore, a tailored Supplier Code of Conduct document, which forms the basis for major procurement contracts, has been set up.



**Goal 9, Industry, innovation, and infrastructure**

Operation and development of robust and secure infrastructure represents the core of Space Norway’s business. The fibre connection to Svalbard is a critical resource that supplies the community on the archipelago with modern ecom-services. It is also vital to KSAT’s operations for the distribution of data from satellites in polar orbits that are downloaded via the ground station network on Svalbard. Such data are important to end users in provision of weather forecasting services, environmental monitoring and contributions to Europe’s Galileo navigation system. Space Norway also contributes with development of critical infrastructure by establishing a new satellite-based broadband in the Arctic, and through innovation and development of a satellite-based system for digitisation of the shipping industry as well as satellite-based radar monitoring of oceans in the High North.



**Goal 12, Responsible consumption and production**

Emphasis is placed on awareness and continuous improvement related to consumption in daily operations. The company’s main activities have a limited impact on the external environment in the form of emissions and pollution. Space Norway encourages its employees in their daily work to use resources as efficiently as possible, limit their waste, use recycling schemes and reduce activity that generates greenhouse gas emissions. Furthermore, management assesses the consequences for climate and sustainability related to new projects and investment decisions. The capabilities offered by Space Norway’s provides end-users the opportunity to use new environmentally friendly services, an example being satellite-based ocean monitoring enabling a potential reduction in the use of traditional airplanes and ships.



**Goal 14, Life below water**

Reduced ice cap in the Arctic is resulting in increased ship traffic and other activities in these vulnerable areas. The rise in traffic increases the risk of accidents and pollution. The need for surveillance, communication and security in these waters is therefore increasing. Norway has a particular responsibility for facilitating safe and environmentally sustainable activity in Norwegian waters. The infrastructure that Space Norway develops and operates contributes to enhanced information, communication, and safety at sea. The infrastructure supports services like weather forecasting, distribution of updated ice maps, detection of pollution, monitoring of ship traffic etc. These services can reduce the risk of accidents and improve coordination and execution of search and rescue operations.

# The Board of Directors of Space Norway

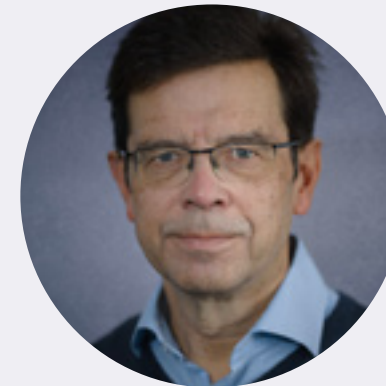


## Svein Olav Munkeby

Chairman of the Board  
born 1967

Master of Management (NTNU)  
Global Management (INSEAD)

**Munkeby** has extensive management experience from IT, telecom and energy sectors such as NTE, Statkraft, Telenor, Bravida and the Glen Dimplex Group. Today Munkeby is the Executive Vice President of NTE and Managing Director of NTE Market. He is also Chairman of the Board for the K-Lund Group, and holds board positions in NTE Telecom, NTE Electro, Hark Technologies, Sensortech and Renewable Energy Cluster. He has previously been member of the board and leader of the innovation committee for the Research Centre on Zero Emission Neighbourhoods in Smart Cities (FME ZEN) and for the Norwegian venture investment fund ProVenture. Munkeby has a Master of Management degree from NTNU with a specialization within strategy, business development and innovation management, as well as a education from INSEAD. Additionally he holds an engineering- and economics degree from NTNU.



## Tore Olaf Rimmereid

Member of the Board  
born 1962

Master of Business Administration and certified financial analyst, Norwegian School of Management

**Rimmereid** is currently project director at Hafslund Eco. He has previously been CEO of E-CO Energi, Deputy CEO of Hafslund E-CO and Director of Administration and Finance at NRK. He has also held leading positions in banking and finance, including CFO of SpareBank1 Gruppen and bank manager at Kreditkassen (now part of Nordea).

Rimmereid was a member/deputy chairman of the board of DNB from 2007 to 2020. Rimmereid currently also holds a number of other board positions.

# The Board of Directors of Space Norway



**Ann-Kari Heier**

Member of the Board  
born 1966

MSc, Norwegian University of Science and Technology,  
Technical Cybernetics

**Heier** works as COO at Telenor Maritime AS. She has more than 30 years' experience from industry and international research institutions such as CERN and ESA. She has hands-on experience of development work on and management of technically and commercially demanding projects. For the past 15 years, Ann-Kari has held various executive management roles in the supplier industry for the maritime and offshore industries. Heier is also a board member of NHO Agder and Maritimt Forum Sør.



**Siri Løvlund**

Member of the Board  
born 1978

MSc, Norwegian University of Science and Technology,  
Electronics and Telecommunication

**Løvlund** is the CEO of Nordix Data AS, a 100% owned subsidiary of Telenor Norge AS. She has more than 15 years' experience within the satellite- and telecom industry. Løvlund has worked for many years in Telenor on large international projects across the group, both within technology development and innovation. She acted for a period as COO for Norsk Helsenett before returning to Telenor as CEO for Nordix Data AS. Løvlund has previously been member of the board for Telenor Svalbard AS.

Photo: Nina Holtanholtan | ninaholtan.no

# The Board of Directors of Space Norway



## Morten Haga Lunde

Member of the Board  
born 1960

### Lieutenant General

**Lunde** has since August 2021 worked with the Norwegian Shipowners' Association, with the Contingency Planning division, as a special council. Lunde was from January 2016 until November 2020 Head of the Norwegian Intelligence Service. He has also been Head of the Norwegian Joint Headquarters, the operational commando-center of the Norwegian Armed Forces, in Bodø from 2013 till 2016. Lunde has 41 years' service from the Air Force and Norwegian Armed Forces, including division manager for operations and contingency planning with the Ministry of Defence. Lunde has flight operational background from the P-3 Orion surveillance plane, C-130 Herkules and Sea King rescue helicopter.



## Christina Aas

Member of the Board,  
Employee Representative  
born 1984

### MSc, TU Delft, Space Systems Engineering

**Aas** works as project manager at Space Norway AS. Aas was elected as a Member of the BoD in April 2021. She has a bachelor's degree in Mathematics and Physics from the Norwegian University of Science and Technology and a master's degree in Aerospace Engineering from Delft University of Technology in the Netherlands. Her previous experience includes being the founder and CEO of Science & Technology in Oslo as well as board positions in Norwegian Industrial Forum for Space Activities (NIFRO) and Andøya Space Center.

Photo: Nina Holtanholtan | ninaholtan.no

# Digitisation of shipping

The VHF Data Exchange System (VDES) is a system under development designed to contribute to e-navigation and digitisation of shipping. In 2015, Space Norway, in partnership with Kongsberg Seatex and FFI, won a contract for the development of a prototype VDES payload. Since then, the company has established a leading role internationally in specification, development and testing of the VDES system. The focus has been on the system's satellite component. With the advantages of the VDES system, there is reason to expect that the system will become an important communication platform for global shipping and an important contribution to increased safety and digitisation of shipping.

↑ Space Norway plays a leading role in the development of a new satellite system for communication with ships

The Automatic Identification System (AIS) was introduced by the UN's maritime organisation IMO<sup>17</sup> to enhance safety at sea. AIS sends information about position, course, velocity and the ship's identity using VHF radio signals. All ships above 300 gross tons are required to use AIS. The system is mainly an anti-collision system that provides information directly to each ship about nearby traffic as well as warnings of risks for collision or close passage. The system also provides a detailed real-time snapshot of ship traffic within a region and is utilised by the Norwegian Coastal Administration for monitoring traffic in its areas of responsibility. However, the ground level range of the system is limited to receiving station's visibility above the horizon. For an AIS base station on land, this usually means a maximum range of approximately 70-100 kilometres. Areas further from coastal stations, such as open oceans and Arctic waters, are therefore beyond reach of land-based AIS base stations. This represents a challenge for the Norwegian authorities' ability to monitor traffic and exert control in our waters.

In 2005, the Board of the Norwegian Space Agency invited Norwegian companies to propose satellite-based AIS-solutions, where a project proposal from the Norwegian Defence Research Establishment (FFI) for an AIS receiver in space won the competition. AISSat-1, Norway's first national surveillance satellite, was developed in a partnership between FFI, the Norwegian Coastal Administration, the Norwegian Space Agency and Kongsberg Seatex. The satellite was launched in 2010, proving that satellite reception of AIS signals using small and cost-effective micro-satellites was feasible. According to Arve Dimmen, director of maritime safety at the Norwegian Coastal Administration in 2010, it was like turning on the lights at sea - they could now "see" ships across vast ocean regions. With AISSat-1,

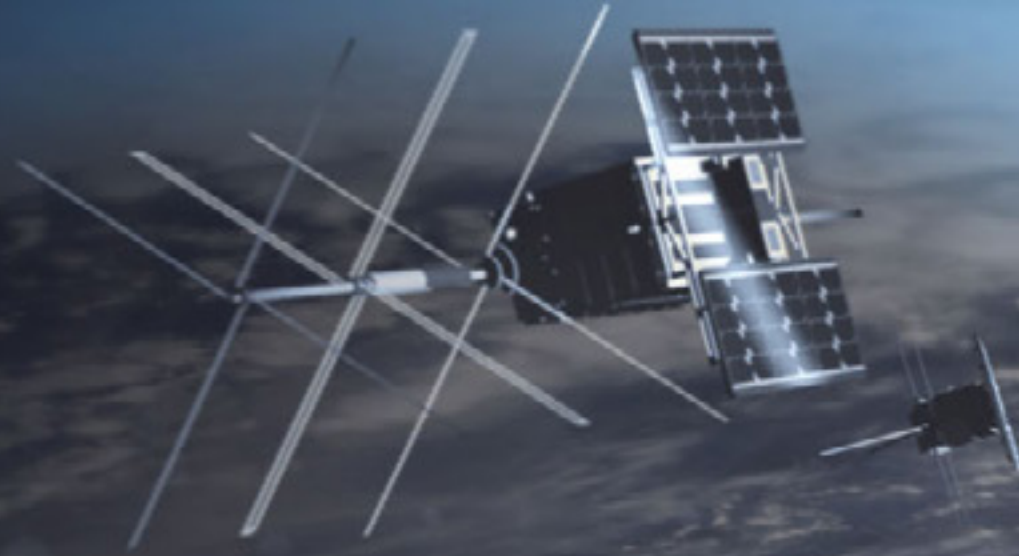
Norway became one of the first nations in the world to operationalise satellite-based reception of AIS signals. The Norwegian Coastal Administration currently owns five AIS satellites. Space Norway subsidiary Statsat is responsible for the operation of the satellites, and Kongsberg Seatex supplies the technology for signal reception.

The VHF Data Exchange System (VDES) is a system under development designed to contribute to e-navigation (digitisation of shipping). IMO and IALA<sup>18</sup> have been the driving force behind this technology. VDES will be enable two-way, low-speed communications with ships around the world, including the Arctic region. VDES can be seen as next generation AIS and operates within the same frequency range. This concept allows for a single terminal onboard each ship to handle both AIS and VDES. The system specification for VDES<sup>19</sup> was adapted for satellite-based communications and completed by International Telecommunications Union (ITU) in 2021, as a result of an initiative by IALA and ESA in 2014. A major advantage is that there is no need for new antennas on board ships or on land as the system uses existing VHF antennas. By supplementing coverage from land-based stations with coverage from satellites, VDES will in the future provide a seamless, global system for low-speed communication to/from ships.

In 2015, Space Norway, in partnership with Kongsberg Seatex and FFI, won a contract for the development of a prototype VDES payload, which has been demonstrated on vessels in the Arctic oceans. The company has established a leading role internationally in specification, development and testing of the satellite-based VDES system.

<sup>17</sup> IMO is the International Maritime Organisation  
<sup>18</sup> IALA is the International Association of Maritime Aids to Navigation and Lighthouse Authorities  
<sup>19</sup> ITU-R M.2092-(1)

Illustration: NorSat-1 and 2 in orbit above Norway. The satellites are micro-satellites that only weigh 16 kilos and measure 20x20x40 cm, excluding antennas and solar panels. NorSat-2 is the world's first satellite with a payload for VDES communication.





Communication via satellites requires access to suitable frequency bands, which is a limited natural resource. Allocation and coordination of frequencies is managed through the ITU, a UN organisation where member countries participate and influence how, and for what use, frequencies are allocated. Allocation and coordination of frequencies is a complex process where a number of different interests are taken into account.

Space Norway has made a significant effort in international bodies such as CEPT<sup>20</sup>, ITU and IALA in the preparatory work leading up to the allocation of frequencies and standardisation of the VDES system. Lars Løge from Space Norway acted as coordinator for Europe (CEPT) on the issue of frequency allocation for VDES both in preparation for and during the World Radiocommunications Conference in 2019 (WRC-19). Norway – through a partnership between Space Norway and the Norwegian Communications Authority – was instrumental in achieving frequency allocation for VDES at WRC-19. This would not have been possible without comprehensive efforts in the form of system development, measurements and testing of VDES signals on NorSat-2, supported by ESA, the Norwegian Space Agency, the Norwegian Coastal Administration and the Norwegian Maritime Authority.

Space Norway contributes in the specification, development and demonstration of VDES-based services. Here are some examples:

- Satellite-based retransmission of AIS messages for increased situational awareness and navigation in the Arctic
- Broadcasting of ice maps to ships
- Distribution of search patterns in connection with rescue operations at sea

- Ship reporting, also in partnership with EMSA (European Maritime Safety Agency)
- Broadcasting of EGNOS correction data and next generation GPS and Galileo integrity messages for better and safer positioning
- Precise time and position via VDES
- Real-time quality monitoring system

Space Norway has developed a ship antenna concept that will increase its capacity 5-10-fold. Together with the industry, Space Norway has won an ESA tender to industrialise this concept, partnering with antenna manufacturer Comrod and Kongsberg Seatex.

Space Norway works closely with our partners at Kongsberg Seatex, EMSA and the Norwegian Coastal Administration, with support from the Norwegian Space Agency and ESA, in making VDES an operational capacity. Norway is a world leader in this area and the only nation that currently has an operational VDES satellite in orbit. Space Norway has additionally acquired an updated and more capable VDES payload from Kongsberg Seatex, which will be one of the payloads on the Norwegian Space Agency's satellite NorSat-TD, planned for launch in 2023.

The industry collaboration has been close and productive, and Kongsberg Seatex is positioned as a leading international supplier of both ship equipment and satellite payloads for VDES. With the advantages of the VDES system, there is reason to expect that the system will become an important communication platform for global ship traffic and an important contribution to increased safety and digitisation of the shipping industry.

<sup>20</sup> European Conference of Postal and Telecommunications Administrations

MS Polarsyssel during testing of VDES signals from  
NorSat-2 near Svalbard in 2020.  
↓  
Photo: Svalbard Governor



# 4

## Annual Accounts Space Norway AS

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# Board of directors' report 2021<sup>21</sup>



↓ Photo: Nina Holtan  
ninaholtan.no

<sup>21</sup> Please note that the English version of the Board of Directors report 2021 is a translation of the official and approved Norwegian report.

The group comprises Space Norway AS, the parent company, and the 100% owned subsidiaries Statsat AS and Space Norway HEOSAT AS (HEOSAT) as well as a 50% shareholding in Kongsberg Satellite Services AS (KSAT). KSAT has been consolidated into the group based on the gross profit method.

Space Norway AS is 100% owned by the Norwegian Ministry of Trade, Industry and Fisheries. The company is a sectoral policy company established to develop and operate space-related infrastructure to meet the needs of Norwegian users and to contribute to value creation based on space activities in Norway. The company identifies and develops new opportunities and projects with a long-term horizon and collaborates with other national communications- and space operators. The High North is the company's key geographical focus area.

The company is financed in its entirety by its own income and does not receive grants from the Norwegian Government. The company is managed according to standard business principles.

## Business units and market

Space Norway AS owns and operates the fibre connection between mainland Norway and Svalbard, and is responsible for ensuring communications with this remote archipelago. In addition to distributing satellite data to customers around the world, the fibre-optic cable system is the main communication line between Svalbard and the outside world. The Svalbard fibre connection became operational in January 2004. The connection has proven to be an important catalyst for space-related business development and has brought social benefits to the general community on Svalbard.

In 2021, Space Norway implemented measures to reduce the vulnerability of the Svalbard fibre connection. The company worked closely with relevant Norwegian authorities to achieve this. Income is based on wholesale of capacity to trusted long-term customers.

In 2011, Norsk Romsenter Eiendom (later to be renamed 'Space Norway') signed a contract with Telenor Satellite Broadcasting to lease capacity on one of the transponders on the Thor 7 satellite. The transponder and antenna were designed at the initiative of the company to provide cost-effective data transfer from the Troll scientific station in Antarctica to Norway. Thor 7 was launched in 2015 and has a service life of approx. 15 years. The capacity is sub-leased to KSAT.

The subsidiary Statsat AS is responsible for the development and operation of small satellites for governmental use. The business is mainly related to the operation and renewal of the Norwegian Coastal Administration's fleet of AIS satellites. The assignment is reviewed annually, but long-term plans for maintenance and continued operations have been established.

The subsidiary Space Norway HEOSAT AS (HEOSAT) was registered in 2019 and is a single purpose company with the goal to establish broadband communication in the Arctic by launching two satellites into a highly elliptical orbit with a corresponding ground segment. The capacity has been sold in its entirety to the Norwegian Armed Forces, the US Space Force and Inmarsat. The programme is fully funded by a combination of prepayments, bank loans and equity. The satellites are under construction at Northrop Grumman in the United States and are expected to become operational in 2023. During the period up to 2023, the group will incur significant costs related to the development,

construction and launch of the satellites. The order backlog for HEOSAT is USD 624 million and the estimated annual income when the satellites become operational is USD 41.7 million.

KSAT is a joint venture owned 50/50 by Space Norway AS and Kongsberg Defence & Aerospace AS. KSAT is the world's largest supplier of ground station services for control of and downloading data from satellites in polar orbits. At the end of 2021, KSAT operated approx. 260 antennas and conducted approx. 75,000 satellite contacts per month. KSAT supplies services to space programmes, such as Galileo and Copernicus, which are important ESA/EU-funded programmes. KSAT has demonstrated excellent growth and margins over many years. In 2021, turnover was NOK 1,232 million (2020: NOK 1,034 million). In 2021, 82% of the turnover was from customers outside Norway. The order intake (backlog) in 2021 was over NOK 1.2 billion. Operating profit before depreciation and amortisation (EBITDA) was NOK 475 million (2020: NOK 424 million). Excellent and unique infrastructure (pole-to-pole, including ground stations both on Svalbard and at the Troll station in Antarctica), increasing market for satellite-based services and an efficient organisation are key reasons for the positive trend.

### Summary of income statement and financial position

The group's turnover in 2021 was NOK 654 million, an increase from NOK 547.4 million in 2020. This growth is mainly due to revenue growth in KSAT. The group's operating profit (EBIT) was NOK 73.5 million compared to NOK 97.6 million the previous year. An important reason for the decline is a significant increase in capitalized costs relating to the ASBM programme in HEOSAT, from NOK 104.8 million in 2020 to NOK 630 million in 2021.

Net financial items represent NOK -27.7 million on a group basis, a decline from NOK 114.3 million in 2020. The main reason is a currency effect in HEOSAT caused by lower advance payments from customers. The payment is in USD to match investments in USD, but as the group accounts are in NOK, currency fluctuations will affect the group's net financial items.

Pre-tax profits (EBT) were NOK 45.8 million in 2021, a reduction from NOK 211.9 million in 2020. Tax is expensed at NOK 29.3 million and represents a tax burden of 38%. The group's net profits after tax were NOK 16.5 million, a decrease from NOK 185.7 million in 2020.

At the end of 2021, total assets in the group amounted to NOK 4.33 billion, an increase from NOK 3.5 billion at the end of 2020. Capitalized investment costs in HEOSAT related to the construction of the company's two satellites is the primary contributor to this increase. Construction work in progress represented NOK 2.4 billion, an increase from NOK 1.8 billion in 2020. The joint venture, KSAT, represented NOK 1,080 million of the consolidated total assets at the end of 2021. The group's current assets represented NOK 998 million by the end of 2021, an increase from NOK 959 million in 2020.

Total equity at the end of 2021 was NOK 1,308 million, which is an increase from NOK 980 million at the end of 2020. The equity ratio at the end of 2021 was 30%, which is an increase from 26% in 2020. The group's long-term debt as of 31 December 2021 was NOK 2.7 billion, of which NOK 2.1 billion (or 78%) is related to the HEOSAT subsidiary. Long-term debt in HEOSAT at the end of 2021 consisted entirely of pre-payments from customers. Short-term debt at the end of 2021 was NOK 336 million, a reduction from NOK 380 million at the end of 2020.

Net cash flow from operational activities was NOK 84.9 million in 2021 compared to NOK 402.6 million in 2020. Cash flow from investment activities was NOK -0.858 billion in 2021 compared to NOK -1.233 billion in 2020. Lower payments related to the construction of the HEOSAT satellites constituted most of this difference. Cash flow from financing activities was NOK 0.849 billion in 2021. The net change in the cash position for the group was NOK 75.7 million in 2021 and the cash position at the end of 2021 was NOK 747.9 million.

The investment programme ASBM, in the HEOSAT subsidiary, will also represent significant cash expenditures in 2022 and 2023. There is no basis for dividends from the parent company during this investment phase. A large part of the group's cash and cash equivalents relates to committed future payments of contracts in HEOSAT. The Board of Directors (BoD) considers the liquidity to be satisfactory.

Space Norway AS is the parent company of the group. It was decided during the Annual General Meeting held November 25th, 2020, to increase the company share capital with NOK 154 million. The capital increase was reported completed/ registered in the Register of Business Enterprises (Brønnøysundregistrene) April 13th, 2021. The share capital increase was made by increasing the share price to NOK 7 per share, and in addition a premium of NOK 53.4 was paid per share. During the Annual General Meeting held November 23rd, 2021, it was decided to further increase the company share capital with NOK 313 million. The share capital increase was made by increasing the share price to NOK 19, and in addition a premium of NOK 108.45 was paid per share.

The parent company's net profits after tax in 2021 was NOK 21.8 million. The BoD proposes to retain the entire net profit for other equity. Subsequently, the total equity for the parent company will amount to NOK 657 million, corresponding to an equity ratio of 54%. Pursuant to Section 3-3 of the Norwegian Accounting Act, it is confirmed that the assumption of continued operations forms the basis of the presented financial statements.

Considering the stage the company is in, the BoD finds the results to be satisfactory. The BoD is of the opinion that the annual accounts provide a true picture of the company's and the group's assets and liabilities, financial position and profits at the end of the year.

## Tax policy

The company and its 100% owned subsidiaries have all their operations in Norway and operate in accordance with Norwegian tax legislation and tax rules. With the implementation of the ASBM project, HEOSAT will have some limited activity in the United States. KSAT has activity in several locations in the world. The company's main activity is subject to Norwegian tax legislation and activities in other parts of the world follow local tax legislation.

## Innovation and development

An important part of the group's mandate is the development of security-critical space-related infrastructure. There is ongoing continuous work to identify, study and develop new projects relevant for Norwegian user needs.

The group's activities in the development of broadband capacity in the Arctic were in 2019 transferred to the subsidiary HEOSAT. The project will be operational from 2023 onwards. Other development activities include a project to develop and demonstrate maritime surveillance services with advanced radar technology. This is performed in close collaboration with Norwegian government bodies. Furthermore, there are collaboration projects with the European Space Agency (ESA) and Norwegian technology companies on the development and testing of satellite-based solutions for maritime surveillance, maritime safety and emergency preparedness. These activities contribute to further building expertise both within the company and with our partners.

## Employees

In line with the BoD plans, Space Norway AS has in 2021 continued the development of the organisation and attracted additional expertise to ensure completion of existing commitments and for developing new space-related infrastructure projects.

At the end of 2021, Space Norway AS and its 100% owned subsidiaries had 42 employees and KSAT had 256 employees. The proportion of women in KSAT was 25% and 12% in the parent company including its 100% owned subsidiaries. The parent company's management team consists of two men and one woman. Sickness absence in 2021 was 1.8% for KSAT and 1.38% for the other companies.

Other staff resources are contracted on a consultancy basis. Salary levels at Space Norway AS are not market leading, but competitive. The company seeks to meet the requirement for gender equality for new recruitments.

## Risk management and internal controls

The group focuses on controlling risk in activities and projects, and no new projects or activities are initiated without a risk assessment, in particular the financial risks. Internal controls have been established in routines and processes where the division of labour and clear responsibilities and authority are key.

The basis for an effective and systematic risk management process is a good understanding of the risk factors affecting the group. The BoD and the administration prioritise to continuously update a comprehensive overview of applicable risk factors. Some of the most important risk factors for the group and the industry can be found below.

### Market risk

The market for the services provided by the group is characterised by long and relatively stable contracts. All capacity on the ASBM programme has been pre-sold to reliable customers. At the end of 2021, the order backlog in HEOSAT represented USD 624 million. The ASBM programme is expected to be operational from 2023 onwards. At the end of 2021, KSAT, the joint venture, had a satisfactory order backlog.

### Operational disruptions

The group has delivery obligations to customers, and any operational disruption may lead to losses and additional costs related to repairs. For the fibre connection to Svalbard, the group has an obligation to restore the connection in the event of failure. In the event of a disruption in the Svalbard fibre connection a guarantee consortium has been established regulating the financial contribution from certain customers for the



repair costs. The ASBM programme is planned to be operational from 2023 onwards. Risks include events such as delays, launch failure and subpar performance of the satellites. At the end of 2021, the company has taken out insurance for both launch and first year in orbit-insurance.

### **The COVID-19 pandemic**

The COVID-19 pandemic continued into 2021 and has to some extent affected work processes internally in the group as well as with sub-contractors and customers. Despite the fact that vaccination programmes have been rolled out, uncertainty is still associated with the further course of the pandemic and its consequences for the group. The effects experienced by the group have been limited with no significant disruptions or sickness absence in its operations. The pandemic has so far led to limited delays in the progress of the group's projects, but the risks for further delays have increased.

### **Project risk**

The group focuses on assessing and controlling risk in its activities and projects. The ASBM programme is the group's largest project and represents risks related to financial, technical and operational matters, as well as progress. Regular financial, technical and legal audits are performed under the auspices of the Norwegian Ministry of Trade, Industry and Fisheries using external advisors. At the end of 2021, the ASBM programme is about four to five months delayed.

### **IT security, data breaches and sabotage**

Threats to IT systems are a growing challenge for both the commercial and public sectors. The group's operational capability is largely dependent on various IT systems being operational without interruption.

Any disruption due to accidents, errors, sabotage or hacking of systems may lead to operational delay, loss of information, loss of reputation and significant negative financial consequences. The group's activities within technology and security-critical infrastructure involves a particular focus on this area. In the autumn of 2021, a new, more secure IT platform was rolled out.

### **Anti-corruption and whistleblowing**

The group has zero tolerance for corruption and has established rules and guidelines for ethics and anti-corruption. The rules are reviewed with employees at least twice a year, and a separate whistle-blowing procedure has been established. However, such routines and practices are not a guarantee that individuals in the group will at all times follow the requirements and guidelines incumbent on the group. If individuals violate laws, ethical requirements and other rules, this may still lead to losses and liability for the group.

### **Currency risk**

The business is exposed to changes in exchange rates, primarily the exchange rates of the Norwegian krone to the US dollar (USD) and the euro (EUR). The group's policy is to currency hedge significant contracts. Income and costs/investments on the ASBM programme are mainly based in USD, with the exception of contracts for the construction and operation of the ground segment in Norway which are in NOK. Investments in USD are currency hedged during the construction period. Currency hedging has not yet been established for the operating phase. Advance payments received from customers in the ASBM programme are in USD. Our accounts are prepared in NOK, and the exchange rate between NOK/USD will have an accounting currency effect. ESA projects (EUR) and future

operating income related to the ASBM programme (USD) are not currency hedged. The joint venture KSAT receives a large part of its income in USD and EUR and is therefore exposed to currency risk. KSAT safeguards its contractual income streams through futures contracts.

### **Interest rate risk**

With the exception of the HEOSAT subsidiary, the group has little interest-bearing debt. The HEOSAT subsidiary has established a loan facility of up to USD 100 million, which is utilized in line with investments in the programme. As per end of 2021, the loan facility has not yet been drawn upon. Of this facility, 75% is secured at a fixed interest rate and 25% at a floating interest rate. The company also has a short-term credit facility of USD 10 million.

The joint venture KSAT has a net positive cash position.

### **Liquidity risk**

Space Norway is the parent company in the group. A significant part of the group's profits and cash flow are created in subsidiaries and joint ventures. The parent company's liquidity supply is therefore based on income in the parent company as well as group contributions or dividends from subsidiaries in the group. In 2019, the Norwegian Government decided to provide up to USD 101 million in paid-in equity in connection with the ASBM programme. This capital will be provided over several years. The ASBM programme is fully financed by a combination of equity, bank loans and advance payments from customers.

### **Credit risk**

The group's customers represent a mixture of public and large private business groups, and losses on receivables have historically been low.

### **Resource risk**

The group holds good expertise among its staff, but the resources are scarce and there is continuous need to interchange use of resources across the organisation to meet needs arising. There is a high workload lasting for a long time now. In case of illness, or if key personnel should decide to leave, the group is vulnerable. This is to some extent compensated through hiring of external resources.

### **Health, safety and environment**

The group's activities do not pollute the external environment.

The company will launch two ASBM-satellites. In relation to this, it has during the fall of 2021 been conducted an extensive analysis with regards to handling of the two satellites past their expected operational life. The two ASBM-satellites are planned with a launch during 2023 and have an expected operational life of 15 years. Past end of life the planned remaining fuel will be utilized to perform a final manoeuvre to bring the satellites down into a lower orbit where they will eventually disintegrate upon re-entry into the atmosphere. It is highly probable that all parts of the satellites will burn up during re-entry, but if some components should remain intact they will hit the Earth's surface in an uninhabited region of the ocean south of 60°S.

The company has chosen to use SpaceX for the launch of the satellites. SpaceX utilizes rockets that are reusable and thus environmentally friendly.

Our development of VDES-services in particular, but also other satellite-based services under development at Space Norway, will contribute to more efficient search and rescue actions as well as provide more efficient routing and navigation for ships.

The company has established guidelines and routines to prevent corruption and other ethically adverse events. In 2021, the company did not have any cases or warnings related to corruption or other ethical matters.

The group has not experienced any accidents in 2021.

The coronavirus situation has not affected the company negatively in 2021, but we recognise that it has increased the risk of delays. Employees have mainly worked from home in accordance with government recommendations.

Space Norway aims to be an attractive workplace with a diverse and inclusive working environment characterised by honesty, respect, courage, openness and interaction. The company wishes to strengthen diversity, including recruiting more women to achieve a better gender balance. The group is located in modern and functional premises at Skøyen in Oslo and a good working environment has been established. There have been no injuries or accidents. Sickness absence was low in 2021, reported at 1.38%. In 2021 three meetings have been held with the working environment committee. It has been decided that the committee shall meet at least twice per year.

↓ The image shows the Norwegian Coastal Administration's antenna in Vardø. The antenna is used for communication with the AIS satellites. Source: Statsat.



Regular meetings have also been held between the trade union (Tekna) and management.

### Shareholder relations

The share capital consists of 2,600,000 shares, each with a nominal value of NOK 19. All shares are owned by the Norwegian Ministry of Trade, Industry and Fisheries. The company's Articles of Association were updated in November 2020.

### The board of directors

As of 31 December, the Board of Directors (BoD) comprises six members. During spring of 2021 an employee representative was voted into the BoD. During the summer of 2021 two board members were replaced and a new member was voted into the BoD during September. Seven board meetings were held in 2021. The work of the BoD is based on decided rules of procedures. The most important matters decided by the BoD are the company's strategies, goal and profit steering, budgets and accounting with subsequent budget control, significant investment topics and authority granted to the administration. Other matters reviewed by the BoD are mainly status reports on significant areas of business as well as risk assessments.

The BoD follows the Norwegian Code of Practice for Corporate Governance. Members of the BoD are elected for two years at a time.

In 2021, the company continued the process of defining business objectives and key performance indicators.

Rules of procedures have been established for the BoD and the CEO with emphasis on a clear division of responsibilities and tasks. The BoD reviews its work and expertise annually.

The company has taken out liability insurance for the members of the BoD and upper management, for NOK 50 million, for the mother company as well as the two 100% owned subsidiaries. The insurance is valid worldwide.

### Financial prospects

Based on the above, the company's and the group's market, credit and financial risk are considered to be moderate.

The BoD believes that the company and the group are well positioned for the future. 2021 was a satisfactory year for the company and the group. With the projects being implemented, the net operating profit is expected to be lower in 2022 than 2021.

The coronavirus situation that arose in March 2020 and continued into 2021 has not had a significant impact on the group's operations. Going forward, the situation needs to be assessed as the pandemic develops, especially in the United States, and assessed with respect to potential delays involving major suppliers. Sub-contractor holdups may lead to overall project delays.

### Incidents after balance sheet date

January 7th, 2022, there was a power outage on one of the two fibre-optic cables going to Svalbard and the fibre connection was without redundancy. A temporary power supply was established in the end of January 2022 at Svalbard and redundancy was re-established on a temporary basis. A permanent repair will be made during the spring of 2022. The financial implication of the incident is estimated at NOK 30-50 million.

*Skøyen, Juni 2022*



**Svein Olav Munkeby**  
Chairman of the Board



**Tore Olaf Rimmereid**  
Member of the Board



**Ann-Kari Heier**  
Member of the Board



**Morten Haga Lunde**  
Member of the Board



**Siri Løvlund**  
Member of the Board



**Per Atle Våland**  
Member of the Board



**Jostein Rønneberg**  
CEO

Photo: Nina Holtan | ninaholtan.no

# Statement of equality



## Space Norway AS – Equality statement for 2021

The Space Norway group consists of the parent company Space Norway AS and the 100% owned subsidiaries Space Norway HEOSAT AS and Statsat AS, as well as the 50% owned joint venture Kongsberg Satellite Services AS (KSAT).

The “core” of the group consists of the parent company and the two 100% owned subsidiaries.

In the further statement we report on the conditions within the “core” of the group. Regarding the 50% owned joint venture KSAT, we refer to KSATs own reporting on equality measures.

### Employees and salary conditions

Space Norway AS had as per 31.12.2021 the following:



During 2021 there were no temporary or part-time employees employed within the core.

The company upper management consists of two men and one woman. The company overall management team consists of additional 4 men.

The average salary in these two management teams is 1.3 MNOK. If we disregard the salary for the managing director, which is at a slightly higher level than the rest of the management team, there is no difference in salary between men and women. For the other 4 women employed in the company, responsibility and competence are decisive for their salary levels.

In the further assessment of salary levels, we consider the following groups of employees:

#### Project managers

Responsible for progress and execution of tasks in a defined project with established budget and schedule frameworks.

#### Technical specialists

staff functions with specialist expertise within domains such as legal, regulatory, finance, IT, etc.

#### Senior engineers

Engineers with extensive (more than 10 years) and broad experience from multiple domains within the industry.

#### Engineers

Engineers with 0-10 years' experience.

When comparing men and women in the project managers group, we find that they hold equivalent salary levels. There are no women in the senior engineers group. When comparing men and women in the engineers' group, we find that women hold a slightly lower salary level, but this is due to less years of experience and a recently completed education. When comparing based on experience there is no difference between men and women in the employee group of engineers.

The salaries are settled each year with Tekna, the employee union with the highest number of members within the company. Management thereafter considers possible individual adjustments as per input from Tekna and yearly reviews between managers and employees.

### Taking out parental leave

During 2021 one woman and two men have taken out parental leave. As a company we comply with Norwegian government regulations for leaves of absence and all three employees have been granted the parental leave they have applied for.

### Benefits and additions

The managing director has a fixed tax-free driving allowance with limited scope. We pay commuters allowance according to government guidelines and as per individual arrangements.

The company does not have any other arrangements for benefits or bonuses.

### Equality efforts

The goal of our equality efforts is echoed in the company strategy, procedures and routines. We have established a separate routine for notifications to prevent harassment and gender-based violence. During the annual employee interviews, it is encouraged to bring up any conditions the employee is discontented with, either inequality, harassment or any other conditions of concern. Equality efforts and non-discrimination actions are furthermore included in the overall personnel policies.

During the hiring process the primary criterion for evaluating candidates is their competence. Secondary we require candidates who can be authorized and cleared for security-sensitive tasks, and who can communicate in the company's primary business language Norwegian. The domain in which the company operates is traditionally sparse with women, but this trend is improving slightly. The company guideline for vacancy hirings is to always invite women for an interview if their skill-set and competencies are adequate as per the vacancy description.

During 2021 the company did not have any employees with special needs or handicaps, and therefore no particular measures have been taken with regards to the physical outfitting of the office. However, in one section of the office there is a handicap toilet available and an entrance without door frame for easy access with wheelchair in case any future prospective employees should have the need.

Our employees have access to a shared cafeteria in the office building. In the cafeteria they serve gluten free food and, after agreement, food accounting for particular food allergies.



## Diversity

The majority of our employees have Norwegian origins, however there are some employees with other national backgrounds.

## Efforts going forward

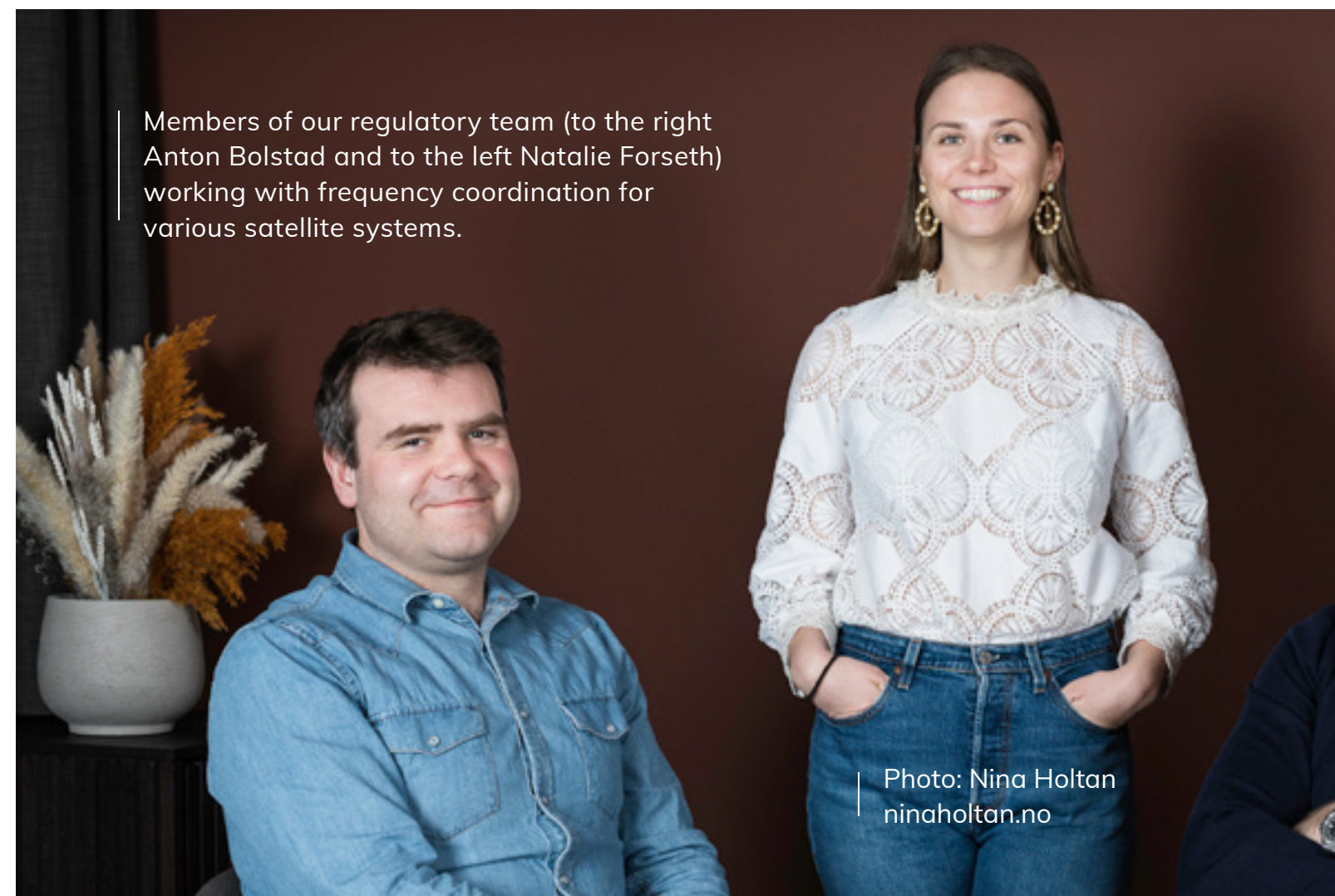
In the company strategy there is a clearly stated goal for equality. Upon every vacancy advertisement we continue to strive towards reaching this goal while simultaneously complying with the vacancy-specific competence and security regulation requirements necessary.

## Risks/Elements preventing full equality at the workplace

- There are few female applicants to our vacancies
- Women with the required experience and education are in minority
- Several of our positions require some business travelling which during periods can be particularly challenging for employees with younger children
- Based on the nature of Space Norway's work assignments we require employees who can be security-cleared and authorized, making it challenging to hire persons with a foreign national background
- The working language at the company is Norwegian and applicants must be proficient/fluent (C2 level according to the Common European Framework of Reference Languages) in speaking, reading and writing Norwegian

## Measures for increasing equality

- We will continue to pay special attention to any female applicants to future vacancies
- We are initiating a collaboration with Norwegian universities offering relevant degrees for our domain (space technologies and telecommunications) to enlighten about our company, the work we do and future prospects
- We will facilitate, to the extent possible, working conditions for employees with younger children



Members of our regulatory team (to the right Anton Bolstad and to the left Natalie Forseth) working with frequency coordination for various satellite systems.

Photo: Nina Holtan  
ninaholtan.no

# Group and company accounts including financial notes

The group comprises the holding company Space Norway AS including the 100% owned subsidiaries Statsat AS and Space Norway HEOSAT AS (HEOSAT), as well as a 50% ownership in Kongsberg Satellite Services AS (KSAT). KSAT has been consolidated into the group accounts based on the gross profit method.



↑ Photo: SpaceX

## Income statement

		Space Norway AS	
Operating income and expenses	Note	2021	2020
Operating income	1, 10	0	0
Income from communication services	1, 10	27 779 654	27 981 108
Other operating income	1, 10	72 844 989	46 684 015
<b>Total operating income</b>		<b>100 624 643</b>	<b>74 665 123</b>
Cost of materials		9 885 015	9 984 537
Personnel expenses	8	38 151 674	34 235 901
Depreciation	2	13 370 413	12 951 353
Amortisation		0	0
Cost related to communication services		6 378 058	6 173 730
Other operating expenses	5, 8	70 657 816	44 009 597
<b>Total operating expenses</b>		<b>138 442 975</b>	<b>107 355 117</b>
<b>Operating profit</b>		<b>-37 818 332</b>	<b>-32 689 993</b>
<b>Financial income and expenses</b>			
Income from investment in other companies	3	62 500 000	55 000 000
Income from subsidiary		0	7 708 799
Other interest income		34 508	48 158
Other financial income	12	43 690 569	11 862 741
Other interest expenses	4	7 619 824	8 346 699
Other financial expenses	12	39 012 519	1 013 672
<b>Net financial items</b>		<b>59 592 734</b>	<b>65 259 328</b>
<b>Ordinary result before taxes</b>		<b>21 774 402</b>	<b>32 569 335</b>
Taxes	6	0	0
<b>Net income</b>		<b>21 774 402</b>	<b>32 569 335</b>
Transferred to retained earnings	7	21 774 402	32 569 335
<b>Total allocations</b>		<b>21 774 402</b>	<b>32 569 335</b>

		Space Norway Group	
Operating income and expenses	Note	2021	2020*
Operating income	1, 10	594 492 836	498 485 652
Income from communication services	1, 10	24 662 255	24 863 709
Other operating income	1, 10	34 933 356	24 033 616
<b>Total operating income</b>		<b>654 088 447</b>	<b>547 382 977</b>
Cost of materials		133 490 306	88 131 495
Personnel expenses	8	181 328 632	154 163 996
Depreciation	2	82 192 180	71 120 869
Amortisation		0	999 500
Cost related to communication services		7 617 126	7 538 210
Other operating expenses	5,8,14	176 004 305	127 876 091
<b>Total operating expenses</b>		<b>580 632 549</b>	<b>449 830 161</b>
<b>Operating profit</b>		<b>73 455 899</b>	<b>97 552 816</b>
<b>Financial income and expenses</b>			
Income from investment in other companies	3	0	0
Income from subsidiary		0	0
Other interest income		145 880	657 210
Other financial income	12	41 797 768	222 024 796
Other interest expenses	4	16 213 162	9 428 141
Other financial expenses	12	53 387 758	98 920 673
<b>Net financial items</b>		<b>-27 657 272</b>	<b>114 333 192</b>
<b>Ordinary result before taxes</b>		<b>45 798 627</b>	<b>211 886 008</b>
Taxes	6	29 300 221	26 142 490
<b>Net income</b>		<b>16 498 407</b>	<b>185 743 518</b>
Transferred to retained earnings	7	16 498 407	185 743 518
<b>Total allocations</b>		<b>16 498 407</b>	<b>185 743 518</b>

## Statement of financial position

		Space Norway AS	
Assets	Note	31/12/2021	31/12/2020
<b>Fixed assets</b>			
<i>Intangible assets</i>			
Deferred tax assets	6	0	0
<b>Total intangible assets</b>		<b>0</b>	<b>0</b>
<b>Tangible assets</b>			
Operating movable property, furniture, tools, other	2	2 427 367	3 443 936
Buildings and other real estate	2	1 467 040	1 539 880
Machinery and equipment	2	85 966 984	98 247 987
Assets under construction	2		
<b>Total tangible assets</b>		<b>89 861 391</b>	<b>103 231 803</b>
<b>Fixed financial assets</b>			
Investments in group companies	3	476 203 824	163 025 424
Depositum		19 011 082	16 202 811
Other long-term receivables			
<b>Total fixed financial assets</b>		<b>495 214 906</b>	<b>179 228 235</b>
<b>Total fixed assets</b>		<b>585 076 297</b>	<b>282 460 038</b>
<b>Current assets</b>			
<i>Debitors</i>			
Accounts receivables	5	14 982 772	5 034 466
Other short term receivables		<b>71 990 343</b>	<b>87 673 469</b>
<b>Total receivables</b>		<b>86 973 115</b>	<b>92 707 935</b>
Cash and deposits	9	542 282 046	149 808 425
<b>Total current assets</b>		<b>629 255 160</b>	<b>242 516 360</b>
<b>Total assets</b>		<b>1 214 331 457</b>	<b>524 976 397</b>

		Space Norway Group	
Assets	Note	31/12/2021	31/12/2020
<b>Fixed assets</b>			
<i>Intangible assets</i>			
Deferred tax assets	6	15 512 691	14 712 799
<b>Total intangible assets</b>		<b>15 512 691</b>	<b>14 712 799</b>
<b>Tangible assets</b>			
Operating movable property, furniture, tools, other	2	41 105 070	25 550 103
Buildings and other real estate	2	148 941 540	74 235 880
Machinery and equipment	2	575 555 484	519 140 487
Assets under construction	2	<b>2 432 083 828</b>	<b>1 802 388 843</b>
<b>Total tangible assets</b>		<b>3 197 685 922</b>	<b>2 421 315 313</b>
<b>Fixed financial assets</b>			
Investments in group companies	3	25 000	0
Depositum		19 011 082	16 202 811
Other long-term receivables		98 683 056	83 772 275
<b>Total fixed financial assets</b>		<b>117 719 138</b>	<b>99 975 086</b>
<b>Total fixed assets</b>		<b>3 330 917 751</b>	<b>2 536 003 198</b>
<b>Current assets</b>			
<i>Debitors</i>			
Accounts receivables	5	64 358 583	62 391 265
Other short term receivables		<b>185 523 746</b>	<b>224 555 301</b>
<b>Total receivables</b>		<b>249 882 329</b>	<b>286 946 566</b>
Cash and deposits	9	747 883 286	672 173 868
<b>Total current assets</b>		<b>997 765 615</b>	<b>959 120 434</b>
<b>Total assets</b>		<b>4 328 683 366</b>	<b>3 495 123 631</b>



## Statement of financial position cont.

		Space Norway AS	
Equity and liabilities	Note	31.12.2021	31.12.2020
<b>Paid-up equity</b>			
Unregisteres share capital		18 200 000	2 600 000
Share capital	7	31 200 000	154 436 184
Overkurs		420 814 584	0
<b>Total paid-up equity</b>		<b>470 214 584</b>	<b>157 036 184</b>
<b>Retained earnings</b>			
Other equity	7	186 837 009	165 062 607
<b>Total retained earnings</b>		<b>186 837 009</b>	<b>165 062 607</b>
<b>Total equity</b>	<b>7</b>	<b>657 051 593</b>	<b>322 098 791</b>
<b>Liabilities</b>			
Allowances for liabilities			
Other long term liabilities		4 000 000	4 000 000
Liabilities, ASBM		0	0
<b>Liabilities Svalbard fibre optic cable</b>	<b>4</b>		-
<b>Total long term liabilities</b>	<b>4, 5</b>	<b>118 384 241</b>	<b>132 011 465</b>
<b>Sum annen langsiktig gjeld</b>		<b>122 384 241</b>	<b>136 011 465</b>
<b>Short term liabilities</b>			
Trade creditors	5	10 277 212	8 376 485
Value added taxes		4 438 795	2 751 120
Other current liabilities	5	107 001 216	55 738 538
Gjeld til selskap i samme konsern		313 178 400	-
Tax payable		0	0
<b>Total short term liabilities</b>		<b>434 895 623</b>	<b>66 866 143</b>
<b>Total liabilities</b>		<b>557 279 864</b>	<b>202 877 608</b>
<b>Total equity and liabilities</b>		<b>1 214 331 457</b>	<b>524 976 397</b>
Guarantees		38 022 164	31 450 000

		Space Norway Group	
Equity and liabilities	Note	31.12.2021	31.12.2020
<b>Paid-up equity</b>			
Unregisteres share capital		18 200 000	2 600 000
Share capital	7	31 200 000	154 436 184
Overkurs		420 814 584	0
<b>Total paid-up equity</b>		<b>470 214 584</b>	<b>157 036 184</b>
<b>Retained earnings</b>			
Other equity	7	838 357 555	822 976 151
<b>Total retained earnings</b>		<b>838 357 555</b>	<b>822 976 151</b>
<b>Total equity</b>	<b>7</b>	<b>1 308 572 139</b>	<b>980 012 335</b>
<b>Liabilities</b>			
Allowances for liabilities		20 868 000	18 468 000
Other long term liabilities		4 000 000	4 000 000
Liabilities, ASBM		405 692 400	0
<b>Liabilities Svalbard fibre optic cable</b>	<b>4</b>	<b>2 139 131 666</b>	<b>1 985 106 258</b>
<b>Total long term liabilities</b>	<b>4, 5</b>	<b>113 955 911</b>	<b>127 174 128</b>
<b>Sum annen langsiktig gjeld</b>		<b>2 683 647 977</b>	<b>2 134 748 386</b>
<b>Short term liabilities</b>			
Trade creditors	5	37 648 696	85 364 641
Value added taxes		15 510 777	16 989 286
Other current liabilities	5	253 717 276	248 025 568
Gjeld til selskap i samme konsern		0	0
Tax payable		29 586 500	29 983 417
<b>Total short term liabilities</b>		<b>336 463 249</b>	<b>380 362 912</b>
<b>Total liabilities</b>		<b>3 020 111 226</b>	<b>2 515 111 298</b>
<b>Total equity and liabilities</b>		<b>4 328 683 366</b>	<b>3 495 123 631</b>
Guarantees		38 022 164	31 450 000

## Statement of cash flow

Cash flow from operational activities	Space Norway AS		Space Norway group	
	2021	2020	2021	2020*
Profit before tax	21 774 402	32 569 335	45 798 627	211 886 008
- Taxes paid	-	-	-29 983 417	-26 013 256
+ Depreciation	13 370 413	12 951 353	82 192 181	71 120 869
+ Amortisation fixed assets	-	-	-	999 500
+/- Change in trade receivables	-9 948 306	57 877 234	-1 967 318	-4 309 725
+/- Change in trade payables	1 900 727	3 358 922	-47 715 945	57 572 030
+/- Change in other accounts	-10 029 600		10 233 009	-
Net cash flow from operational activities	65 825 209	-6 975 332	26 339 089	91 355 425
Netto kontantstrøm fra operasjonelle aktiviteter	82 892 844	99 781 511	84 896 226	402 610 851
<b>Cash flow from investment activities</b>				
Purchase of property, plant and equipment	-	-2 473 871	-858 631 790	-1 233 469 648
Cash from investments TS				-81 728 275
Dividend				-
Equity investment in Space Norway Heosat AS	-	-155 033 424		
Other investment activities	-	-	-	-
Net cash flow from investment activities	-	-157 507 295	-858 631 790	-1 315 197 923

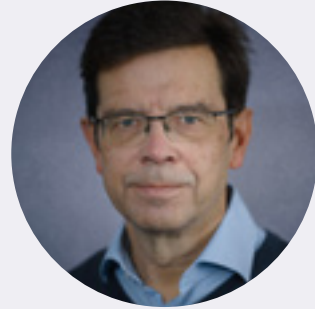
Cash flow from operational activities	Space Norway AS		Space Norway group	
	2021	2020	2021	2020
Proceeds from new long term debt	-	-	385 429 791	-
Change in financing og fibre cable and ASBM	-13 627 224	-12 898 332	140 807 191	1 083 243 634
Proceeds from new equity issue	323 208 000	154 436 184	323 208 000	154 436 184
Net cash flow from financing activities	309 580 776	141 537 852	849 444 982	1 237 679 818
Net change in cash and cash equivalents for the year	392 473 620	83 812 068	75 709 418	325 092 746
Changes due to restated accounts for comparison	-	-		-
+ Cash and cash equivalents at the start of the year	149 808 425	65 996 357	672 173 868	347 081 123
= Cash and cash equivalents at the end of the year	542 282 046	149 808 425	747 883 286	672 173 868

\*Comparable figures for 2020 has been restated, please refer to note 14 for additional information.

Skøyen 29. april 2021



**Svein Olav Munkeby**  
Chairman of the Board



**Tore Olaf Rimmereid**  
Member of the Board



**Ann-Kari Heier**  
Member of the Board



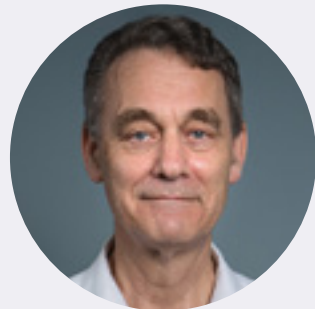
**Morten Haga Lunde**  
Member of the Board



**Siri Løvlund**  
Member of the Board



**Per Atle Våland**  
Member of the Board



**Jostein Rønneberg**  
CEO





## Note 1 Accounting principles

### Consolidation principles

The group consists of:

- Space Norway AS (parent company)
- Statsat AS (subsidiary 100%)
- Space Norway HEOSAT AS (subsidiary) 100%
- Kongsberg Satellite Service AS (owned 50% by Space Norway AS)

The consolidated financial statements have been prepared as if the group were an economic entity. Transactions and balances between the companies in the group is eliminated. The consolidated financial statements have been prepared in accordance with uniform principles, in that subsidiaries follow the same accounting principles as the parent company. Subsidiaries and associated companies are valued according to the cost method in the company accounts of Space Norway AS, StatSat AS and Space Norway Heosat AS are consolidated in their entirety, while KSAT AS is assessed according to the gross method in the consolidated accounts.

### Basic principles

The annual accounts and consolidated accounts consist of the income statement, balance sheet, cash flow statement and notes information and has been prepared in accordance with the Accounting Act and generally accepted accounting principles in Norway as of 31.12.2021.

The annual accounts and consolidated accounts are based on the basic principles of historical cost, comparability, continued operation, congruence and prudence. Transactions are accounted for at the value of the consideration at the time of the transaction. Income is recognized in the income statement when it is earned and expenses compared with earned income. The accounting principles are elaborated below. When actual numbers do not are available at the time of financial reporting, good accounting practice dictates that management calculates a best possible estimate for use in the income statement and balance sheet. Deviations may occur between estimated and actual figures.

In accordance with generally accepted accounting principles, there are some exceptions to the general assessment rules. These the exceptions are commented on in the respective notes. When applying accounting principles and presentation of transactions and other matters, emphasis is placed on economic realities, not only legal form. Contingent losses that are probable and quantifiable are expensed.

### Classification of records

Assets related to the product cycle as well as receivables that are paid within one year are current assets. Other assets are fixed assets. A similar principle is used for debt items.

### Income recognition date

Income is recognized in the income statement when it is earned. Prepayments paid for services that can delivered over several years, is accrued

over the time when the service is considered delivered. Expenses are compared with and expensed at the same time as the income the expenses can be attributed to. Expenses that cannot be directly attributed to income are expensed when incurred.

### **Fixed assets**

Property, plant and equipment are entered in the balance sheet at acquisition cost, less accumulated by - and write-downs. Expenses associated with normal maintenance and repairs will be ongoing expensed. Expenditure on major replacements and renewals that increase the life of fixed assets, activated. Fixed assets that are replaced are expensed. An asset is considered durable if they has a certain economic life, as well as a significant cost price.

### **Construction in progress**

Two satellites with associated ground segments are under construction in the subsidiary Space Norway HEOSAT AS. The value of facilities under construction is booked at cost.

### **Depreciation**

Ordinary depreciation is calculated on a straight-line basis over the economic life of the fixed assets based on historical cost price. Corresponding principles are used as a basis for intangible assets. Depreciation is classified as ordinary operating expenses.

### **Currency**

Receivables and liabilities in foreign currency are converted to Norwegian kroner at the middle exchange rate at the end of the financial year.

### **Deferred tax and tax costs**

Deferred tax is calculated on the basis of temporary differences between accounting and tax values at the end of the financial year. The nominal tax rate is used for calculation. Positive and negative differences are assessed against each other within the same time interval. Certain items are nevertheless considered separately, including present values on acquisitions and pension obligations. Deferred tax assets arise if one has temporary differences that give rise to tax deductions in the future. The tax expense for the year consists of changes in deferred tax and deferred tax assets, together with tax payable for the income year adjusted for errors in previous years' calculations.

### **Cash flow statement**

The cash flow statement has been prepared according to the indirect method. Cash and Cash equivalents include cash, bank deposits and other short-term, liquid investments such as immediately and with insignificant exchange rate risk can be converted to known cash amounts and with due date shorter than three months from the date of acquisition.

### **Correction of previous years' mistake**

Following a re-evaluation of the facts, mistakes in previous years' financial statements for Space Norway Heosat AS were discovered. For more details, see note 7 and 14. The issue refers to costs expensed in 2020 that should have been recorded in the balance sheet. The comparison numbers in the balance sheet and profit and loss for the Group has been corrected since Space Norway Heosat AS is included in the consolidated financial statements for Space Norway AS. The link between the financial statement in 2020 and the comparison numbers in the annual accounts for 2021 is represented in the overview below.

## Note 2 Fixed assets

<b>Space Norway AS:</b>	<b>Machinery and plants</b>	<b>Land, buildings and other property</b>	<b>Operating movable property, furniture etc.</b>	<b>Total</b>
Historical cost as of 1. January 2021	295 407 505	2 010 903	5 761 116	303 179 524
Investments	0	0	0	0
Disposals (at cost)	0			0
<b>Total cost at 31. December 2021</b>	<b>295 407 505</b>	<b>2 010 903</b>	<b>5 761 116</b>	<b>303 179 524</b>
<b>Accumulated depreciation and write-downs at 31. December</b>	<b>209 440 522</b>	<b>543 863</b>	<b>3 333 748</b>	<b>213 318 133</b>
Book value 31. December 2021	85 966 983	1 467 040	2 427 368	89 861 391
Ordinary depreciation for the year	12 281 004	594 624	494 785	<b>13 370 413</b>
Depreciation period (ordinary)	25 år	25 år	5 år	
Depreciation plan	Linær	Linær	Linær	
<b>Group:</b>	<b>Machinery and plants</b>	<b>Land, buildings and other property</b>	<b>Operating movable property, furniture etc.</b>	<b>Total</b>
Historical cost as of 1. January 2021	1 041 603 505	114 332 403	76 282 437	1 802 388 842
Investments	123 417 001	80 134 284	25 385 520	629 694 985
Disposals (at cost)	0	0	-325 000	0
<b>Total cost at 31. December 2021</b>	<b>1 165 020 506</b>	<b>194 466 687</b>	<b>101 342 957</b>	<b>2 432 083 827</b>
<b>Accumulated depreciation and write-downs at 31. December</b>	<b>589 465 022</b>	<b>45 525 147</b>	<b>60 237 887</b>	<b>0</b>
Book value 31. December 2021	575 555 484	148 941 540	41 105 070	2 432 083 827
Ordinary depreciation for the year	67 002 004	5 428 624	9 761 553	0
Write-down for the year	0	0	0	0
Depreciation period (ordinary)	15-25 år	20-50 år	5-10 år	
Depreciation plan	Linær	Linær	Linær	

### Note 3 Shares in other companies

Subsidiary and joint-venture:	Business address	Number of shares outstanding	Number of shares owned	Nominal value per share	Group's share of capital and votes	Book value 31/12/2021
StatSat AS	Oslo	1000	1000	1 000	100%	2 000 000
Space Norway Heosat AS	Oslo	100	100	503 000	100%	471 311 824
Ksat AS	Tromsø	2 000 000	1 000 000	1	50%	2 892 000
<b>Total, shares in other companies</b>						<b>476 203 824</b>

The ownership interest in Ksat AS is assessed according to the gross method in the consolidated accounts.

In 2021, group contributions without tax effect were made to Space Norway Heosat AS, which resulted in an increase in investments in shares of MNOK 33.4. The increase of MNOK 33.4 has been written down as a result of Heosat also making a group contribution to Space Norway.

## Note 4 Financing of fiber cable and ASBM

### Financing of fiber cable

The long-term debt is to the Norwegian Space Center in connection with the investment in fiber cable between Svalbard and the mainland. The company, together with the Norwegian Space Center, has committed to delivering satellite data to NOAA and NASA over a period of 25 years. The receivables from NOAA and NASA as a result of this service were sold to the American financing company Hannon Armstrong, which on the basis of this gave Norsk Romsenter Eiendom AS a loan to invest in the fiber connection. The loan from HannonArmstrong has been repaid. The amount of this item now constitutes the remaining liabilities to NOAA and NASA.

### Financing of ASBM

The long-term debt at the end of 2020 consists of advance payments from customers for the provision of services, which will be used from the time the satellite system becomes operational.

### Advance ASBM

Long-term receivables of MNOK 98 consist of advance payments to KSAT for the construction of antennas and the provision of services, which will be used from the time the satellite system becomes operational.

## Note 5 Transactions with related parties

The company is closely related to all the companies within the Space Norway group:

- Space norway AS (parent company)
- Statsat AS (subsidiary)
- Space Norway HEOSAT AS (subsidiary)
- Kongsberg Sattelite Service AS (owned 50% by Space Norway AS)

Receivables	2021	2020
Accounts receivable	14 362 121	4 132 025
Other receivable	0	-
<b>Total</b>	<b>14 362 121</b>	<b>4 132 025</b>
Liabilities		
Accounts payable	13 564	-
Other short term liabilities	394 419 786	44 882 826
Financing Svalbard fibre optic cable	8 586 659	9 674 675
<b>Total</b>	<b>403 020 009</b>	<b>54 557 501</b>
Transactions		
Revenues from group companies	29 092 626	31 554 856
Purchase from group companies	334 394	985 129

In 2021, the company received a group contribution with a tax effect of NOK 33,387,951 from Space Norway Heosat AS. At the same time, a circle group contribution without tax effect of NOK 33,387,951 has been made. This means that due / good group contributions are NOK 0 at year-end.

## Note 6 Tax expenses

Tax expense — Space Norway AS	2021	2020
Profit before taxes	21 774 402	32 569 335
Permanent differences	-60 563 430	-60 849 477
Change in temporary differences	5 542 799	4 181 290
Group contribution received	<b>33 387 951</b>	<b>7 708 799</b>
To (+) / from (-) deferred tax assets	-141 722	0
<b>Basis for calculating tax expense</b>	<b>0</b>	<b>-16 390 055</b>
Tax expense before group contribution	-7 345 349	0
Effect of group contribution	7 345 349	0
<b>Tax expense for the year (16-22 %)</b>	<b>0</b>	<b>0</b>
<b>Reconciliation of tax expense:</b>		
Tax expense on net income for the year	0	0
Change in deferred tax	0	0
<b>Total tax expense for the year</b>	<b>0</b>	<b>0</b>
<b>Basis for deferred tax assets, differences to be netted:</b>		
Non-current assets	-24 784 370	-19 277 485
Profit-/loss account	143 659	179 574
Other receivables	0	0
Provisions for commitments	-4 000 000	-4 000 000
Financial assets	0	0
Pension liabilities	0	0
Tax loss carry forwards	-194 338 008	-194 479 730
Basis for deferred tax	-222 978 718	-217 577 641
Differences not included in temporary differences	222 978 718	217 577 641
Basis for calculation of deferred tax assets	0	0
<b>Deferred tax assets as of 31. December</b>	<b>0</b>	<b>0</b>

Tax expense — Group	2021	2020*
Profit before taxes	45 798 627	130 157 733
Permanent differences	21 661 448	-59 801 499
Change in temporary differences	10 163 014	22 737 413
Group contribution received	<b>-33 088 500</b>	<b>0</b>
To (+) / from (-) deferred tax assets	-141 722	-1 808 182
<b>Basis for calculating tax expense</b>	<b>44 392 867</b>	<b>91 285 465</b>
Tax expense before group contribution	29 586 500	31 679 346
Effect of group contribution	0	-1 695 929
<b>Tax expense for the year (16-22 %)</b>	<b>29 586 500</b>	<b>29 983 417</b>
<b>Reconciliation of tax expense:</b>		
Tax expense on net income for the year	30 151 000	30 409 417
Change in deferred tax	-850 779	-4 266 927
<b>Total tax expense for the year</b>	<b>29 300 221</b>	<b>26 142 490</b>
<b>Basis for deferred tax assets, differences to be netted:</b>		
Non-current assets	-72 935 889	-64 135 387
Profit-/loss account	-1 162 341	-1 452 926
Other receivables	-2 550 000	-3 226 000
Provisions for commitments	-24 868 000	-22 468 000
Financial assets	417 500	-1 064 500
Pension liabilities	603 000	2 044 000
Tax loss carry forwards	-194 546 585	-194 479 730
Basis for deferred tax	-295 042 315	-284 782 543
Differences not included in temporary differences	222 978 718	217 577 641
Basis for calculation of deferred tax assets	-72 063 596	-67 204 902
<b>Deferred tax assets as of 31. December</b>	<b>-15 512 691</b>	<b>-14 712 798</b>

Parts of the group's operations are conducted in Svalbard, and are taxed at current tax rates or 16%. When calculating deferred tax assets in the balance sheet, a reduced tax rate has been used for fixed assets and other balance sheet items that are directly related to activity on Svalbard.

## Note 7 Equity

The share capital is NOK 49,400,000, divided into 2,600,000 shares.  
All denominations NOK 19.

On 23 November 2016, a capital increase was approved, but not registered, which gives a new nominal value of the shares of NOK 19.

### Ownership share

The Ministry of Trade and Industry owns all the shares in the company and has 100% voting rights.

Space Norway AS	Share capital	Premium fund	Other equity	Total equity
Equity as of 1. January 2020	18 200 000	138 836 184	165 062 607	322 098 791
Resolved, not registered issue of new shares	31 200 000	281 978 400	0	313 178 400
Retained earnings for the year	0	0	21 774 402	21 774 402
<b>Equity as of 31. December 2021</b>	<b>49 400 000</b>	<b>420 814 584</b>	<b>186 837 009</b>	<b>657 051 593</b>

Group	Share capital	Premium fund	Other equity	Total equity
Equity as of 1. January 2021	18 200 000	138 836 184	741 247 875	898 284 059
Resolved, not registered issue of new shares	-	-	81 728 275	81 728 275
Equity as of 1. January 2021	18 200 000	138 836 184	822 976 150	980 012 334
Resolved, not registered issue of new shares	31 200 000	281 978 400	0	313 178 400
Difference related to conversion from TS	-	-	-1 117 000	-1 117 000
Retained earnings for the year	-	-	16 498 407	16 498 407
<b>Equity as of 31. December 2021</b>	<b>49 400 000</b>	<b>420 814 584</b>	<b>838 357 555</b>	<b>1 308 572 139</b>

\* Previously expensed payments to KSAT are considered to be payments for the delivery of future services that are to be expensed from the time the satellite system becomes operational. These cost have been capitalized as of 2021. The effect of MNOK 81.7 has been booked directly towards equity.

## Note 8 Personell expenses and fees

Payroll and pensions	Space Norway AS		Group	
	2021	2020	2021	2020
Wages	27 499 700	24 545 804	143 142 423	130 057 722
Employer's tax including pensions	4 588 687	3 991 995	13 483 722	11 718 868
Pension costs	2 409 144	2 155 192	12 381 349	10 241 342
Other payroll expenses	3 654 143	3 542 909	12 321 138	9 790 721
<b>Total payroll and expenses</b>	<b>38 151 674</b>	<b>34 235 901</b>	<b>181 328 631</b>	<b>161 808 653</b>
Number of employees as of 31. December	28	26	298	261

Personell expenses in Space Norway HEOSAT AS are capitalized as facilities under construction.

	CEO	Board
Wages and remuneration to the board	1 576 499	845 250
Pension costs	98 640	-
Other remuneration	60 000	-

The Space Norway Group follows a moderate wage policy.

The company has an agreement on mandatory occupational pension (OTP) in Storebrand, which covers all employees in the company and the group company.

Fees to external auditor	2020		2021	
	Space Norway AS	Group	Space Norway AS	Group
Ordinær revisjon	138 272	602 073	200 000	601 000
Teknisk bistand regnskap	32 000	32 000	50 000	50 000
Skatte- og avgiftsrådgivning i KSAT	-	1 026 000	-	1 894 500
Annen bistand	114 900	178 900	285 962	497 472
<b>Sum</b>	<b>285 172</b>	<b>1 838 973</b>	<b>535 962</b>	<b>3 042 972</b>

No loans or guarantees have been given to the general manager, board members or other related parties.

The company has no obligations to provide senior executives, board members or chairman of the board separately remuneration in the event of termination or change of employment or position.

The company has no agreements on bonuses, profit sharing or options for the board or senior executives.

The company has no obligations to give the board options / rights that give employees or shop stewards the right to subscription, purchase or sale of shares.



## Note 8 Cont.

### The board's executive salary statement

Senior employees in the group include the CEO and 2 employees. In these guidelines, a compensation scheme means a total salary consisting of one or more of the following elements: Fixed salary, variable salary (including bonus) and other benefits (pension benefits, early retirement schemes, fringe benefits and the like). No severance pay or compensation is practiced in connection with resignation.

### Main principles for determining compensation schemes

Wage levels in Space Norway AS must not be wage-leading but competitive, the compensation schemes must be designed so that no unreasonable compensation arises due to external circumstances which management can not influence. The board shall have an overview of the total value of the individual manager's agreed compensation and ensure that the executive pay schemes do not have adverse effects on the company or weaken the company's reputation.

Persons in the management shall not have special remuneration for board positions in 100% owned subsidiaries in the same group. No variable salary / bonus-based salary or the like is practiced. One-time or period-limited compensation can be given at abnormally high workload.

### Pension benefits

Pension terms for senior executives are on an equal footing with other employees' terms in the company. We have a deposit-based pension scheme in Storebrand.

### Other remuneration

The company covers expenses for mobile phones and by agreement also internet connection at home. The company covers business travel at the expense and diet according to the state's rates. The company does not practice company cars but covers car allowance by agreement. The company has a commuter agreement with employees who commute weekly between home and work at Skøyen. The agreement covers travel between permanent residence and place of work.

Members of executive management and/or board of directors, 2021	Wages and board remuneration	Other remuneration	Pensions	Loan
Chairman of the board	300 000			0
CEO	1 530 415	63 600	95 473	0
Head of infrastructure	1 209 383		95 473	0
CFO	1 269 672	60 457	95 473	0

Overview of salaries, variable salaries and other benefits given to the group management in 2021

Members of executive management and/or board of directors, 2021	Wages and board remuneration	Other remuneration	Pensions	Loan
Chairman of the board	309 000	-	0	0
CEO	1 576 499	60 000	98 640	0
Head of infrastructure	1 245 799	106 317	96 870	0
CFO	1 307 905	4 392	94 961	0

## Note 9 Restricted funds

Of total bank deposits, NOK 1,596,187 is tied to tax deductions due in the parent company and NOK 8,453,531 in the group.

## Note 10 Segment information

	Space Norway AS	Group
Norway	100 624 643	151 030 947
Europe (outside Norway)	0	170 629 000
Asia	0	77 545 000
America	0	253 468 000
Other	0	1 415 500
<b>Total revenues</b>	<b>100 624 643</b>	<b>654 088 447</b>

## Note 11 Security Deposit / Guarantees

The parent company has provided a guarantee and a paid deposit of a total of MUSD 4.2 to the FCC for market access in the USA. If the project the market access is intended to cover is not realized, a deposit / guarantee will be paid be considered lost for the company.

## Note 12 Financial income and financial expenses

	Morselskap		Konsern	
	2021	2020	2021	2020
Foreign currency gains	10 302 618	11 862 741	41 797 768	222 010 797
Group contribution	33 387 951			
Other financial income		-	-	14 000
<b>Total financial income</b>	<b>43 690 569</b>	<b>11 862 741</b>	<b>41 797 768</b>	<b>222 024 797</b>
Foreign currency losses	5 624 568	1 013 659	53 387 757	98 728 160
Impairment of shares	33 387 951			
Other financial expenses	-	13	-	192 513
<b>Total financial expenses</b>	<b>39 012 519</b>	<b>1 013 672</b>	<b>53 387 757</b>	<b>98 920 673</b>

## Note 13 Currency loan

In 2021, Space Norway Heosat AS has entered into a loan agreement for a framework loan of USD 110,000,000. At the end of 2021, USD 46,000,000 of this credit has been used. The loan matures later than 5 years. The debt is converted to Norwegian kroner at the exchange rate on the balance sheet date, which resulted in an unrealized currency loss of MNOK 20.

## Note 14 Correction of previous years' mistakes

"We refer to Note 7 regarding mistakes in previous years' financial statements for Space Norway Heosat AS. The issue refers to costs expensed in 2020 that, after a re-evaluation of the facts, should have been recorded in the balance sheet.

The comparison numbers in the balance sheet and profit and loss for the Group has been corrected since Space Norway Heosat AS is included in the consolidated financial statements for Space Norway AS. The link between the financial statement in 2020 and the comparison numbers in the annual accounts for 2021 is represented in the overview below.

Space Norway Group	2020 as reported	Correction	Restated 2020
<b>Operating income and expenses</b>			
Total operating income	547 382 977		547 382 977
Total operating expenses	531 558 436	-81 728 275	449 830 161
Net financial items	114 333 192		114 333 192
Ordinary result before taxes	130 157 733		211 886 008
<b>Statement of financial position</b>			
Total intangible assets	14 712 799		14 712 799
Fixed assets	2 421 315 313		2 421 315 313
Total fixed financial assets	18 246 811	81 728 275	99 975 086
Short term receivables	286 946 566		286 946 566
Cash and cash equivalents	672 173 868		672 173 868
Total assets	3 413 395 357		3 495 123 632
Total equity	898 284 060	81 728 275	980 012 335
Total long term liabilities	2 134 748 386		2 134 748 386
Total short term liabilities	380 362 912		380 362 912
Total equity and liabilities	3 413 395 358		3 495 123 633
<b>Statement of cash flow</b>			
Profit before tax	130 157 733	81 728 275	211 886 008
Net cash flow from operational activities	320 882 576	81 728 275	402 610 851
Prepaid investments	0	-81 728 275	-81 728 275
Net cash flow from investment activities	-1 233 469 648	-81 728 275	-1 315 197 923

# Auditor's report



↑ Photo: Northrop Grumman



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Til generalforsamlingen i Space Norway AS

## Uavhengig revisors beretning

### Konklusjon

Vi har revidert Space Norway AS' årsregnskap, som består av:

- selskapsregnskapet, som består av balanse per 31. desember 2021, resultatregnskap og kontantstrømoppstilling for regnskapsåret avsluttet per denne datoen og noter til årsregnskapet, herunder et sammendrag av viktige regnskapsprinsipper, og
- konsernregnskapet, som består av balanse per 31. desember 2021, resultatregnskap og kontantstrømoppstilling for regnskapsåret avsluttet per denne datoen og noter til årsregnskapet, herunder et sammendrag av viktige regnskapsprinsipper.

Etter vår mening

- oppfyller årsregnskapet gjeldende lovkrav,
- gir selskapsregnskapet et rettviseende bilde av selskapets finansielle stilling per 31. desember 2021 og av dets resultater og kontantstrømmer for regnskapsåret avsluttet per denne datoen i samsvar med regnskapslovens regler og god regnskapsskikk i Norge, og
- gir konsernregnskapet et rettviseende bilde av konsernets finansielle stilling per 31. desember 2021 og av dets resultater og kontantstrømmer for regnskapsåret avsluttet per denne datoen i samsvar med regnskapslovens regler og god regnskapsskikk i Norge.

### Grunnlag for konklusjonen

Vi har gjennomført revisjonen i samsvar med de internasjonale revisjonsstandardene International Standards on Auditing (ISA-ene). Våre oppgaver og plikter i henhold til disse standardene er beskrevet nedenfor under *Revisors oppgaver og plikter ved revisjonen av årsregnskapet*. Vi er uavhengige av selskapet og konsernet slik det kreves i lov, forskrift og International Code of Ethics for Professional Accountants (inkludert internasjonale uavhengighetsstandarder) utstedt av the International Ethics Standards Board for Accountants (IESBA-reglene), og vi har overholdt våre øvrige etiske forpliktelser i samsvar med disse kravene. Innhentet revisjonsbevis er etter vår vurdering tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon.

### Øvrig informasjon

Styret og daglig leder (ledelsen) er ansvarlige for informasjonen i årsberetningen. Øvrig informasjon omfatter informasjon i årsrapporten bortsett fra årsregnskapet og den tilhørende revisjonsberetningen. Vår konklusjon om årsregnskapet ovenfor dekker ikke informasjonen i årsberetningen.

I forbindelse med revisjonen av årsregnskapet er det vår oppgave å lese årsberetningen. Formålet er å vurdere hvorvidt det foreligger vesentlig inkonsistens mellom årsberetningen og årsregnskapet og den kunnskap vi har opparbeidet oss under revisjonen av årsregnskapet, eller hvorvidt informasjon i årsberetningen ellers fremstår som vesentlig feil. Vi har plikt til å rapportere dersom årsberetningen fremstår som vesentlig feil. Vi har ingenting å rapportere i så henseende.

Basert på kunnskapen vi har opparbeidet oss i revisjonen, mener vi at årsberetningen

- er konsistent med årsregnskapet og
- inneholder de opplysninger som skal gis i henhold til gjeldende lovkrav.

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Statsautoriserte revisorer - medlemmer av Den norske Revisorforening

Offices in:

Oslo	Elverum	Mo i Rana	Stord
Alta	Finnsnes	Molde	Straume
Arendal	Hamar	Skien	Tromsø
Bergen	Haugesund	Sandefjord	Trondheim
Bodø	Knanvik	Sandnessjøen	Tynset
Drammen	Kristiansand	Stavanger	Ålesund

Perneo Dokumentnr: 205DO-KUG57-DMSVF-MNYBU-MQLPC-TDYGB



Uavhengig revisors beretning - Space Norway AS

### Ledelsens ansvar for årsregnskapet

Ledelsen er ansvarlig for å utarbeide årsregnskapet og for at det gir et rettviseende bilde i samsvar med regnskapslovens regler og god regnskapsskikk i Norge. Ledelsen er også ansvarlig for slik intern kontroll som den finner nødvendig for å kunne utarbeide et årsregnskap som ikke inneholder vesentlig feilinformasjon, verken som følge av misligheter eller utilsiktede feil.

Ved utarbeidelsen av årsregnskapet er ledelsen ansvarlig for å ta standpunkt til selskapets og konsernets evne til fortsatt drift og opplyse om forhold av betydning for fortsatt drift. Forutsetningen om fortsatt drift skal legges til grunn for årsregnskapet så lenge det ikke er sannsynlig at virksomheten vil bli avvirket.

### Revisors oppgaver og plikter ved revisjonen av årsregnskapet

Vårt mål er å oppnå betryggende sikkerhet for at årsregnskapet som helhet ikke inneholder vesentlig feilinformasjon, verken som følge av misligheter eller utilsiktede feil, og å avgi en revisjonsberetning som inneholder vår konklusjon. Betryggende sikkerhet er en høy grad av sikkerhet, men ingen garanti for at en revisjon utført i samsvar med ISA-ene, alltid vil avdekke vesentlig feilinformasjon som eksisterer. Feilinformasjon kan oppstå som følge av misligheter eller utilsiktede feil. Feilinformasjon blir vurdert som vesentlig dersom den enkeltvis eller samlet med rimelighet kan forventes å påvirke økonomiske beslutninger som brukerne foretar basert på årsregnskapet.

Som del av en revisjon i samsvar med ISA-ene, utøver vi profesjonelt skjønn og utviser profesjonell skepsis gjennom hele revisjonen. I tillegg:

- identifiserer og vurderer vi risikoen for vesentlig feilinformasjon i regnskapet, enten det skyldes misligheter eller utilsiktede feil. Vi utformer og gjennomfører revisjons handlinger for å håndtere slike risikoer, og innhenter revisjonsbevis som er tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon. Risikoen for at vesentlig feilinformasjon som følge av misligheter ikke blir avdekket, er høyere enn for feilinformasjon som skyldes utilsiktede feil, siden misligheter kan innebære samarbeid, forfalskning, bevisste utelatelser, uriktige fremstillinger eller overstyring av internkontroll.
- opparbeider vi oss en forståelse av den interne kontroll som er relevant for revisjonen, for å utforme revisjons handlinger som er hensiktsmessige etter omstendighetene, men ikke for å gi uttrykk for en mening om effektiviteten av selskapets og konsernets interne kontroll.
- evaluerer vi om de anvendte regnskapsprinsippene er hensiktsmessige og om regnskapsestimatene og tilhørende noteopplysninger utarbeidet av ledelsen er rimelige.
- konkluderer vi på hensiktsmessigheten av ledelsens bruk av fortsatt drift-forutsetningen ved avleggelsen av årsregnskapet, basert på innhentede revisjonsbevis, og hvorvidt det foreligger vesentlig usikkerhet knyttet til hendelser eller forhold som kan skape tvil av betydning om selskapets og konsernets evne til fortsatt drift. Dersom vi konkluderer med at det eksisterer vesentlig usikkerhet, kreves det at vi i revisjonsberetningen henleder oppmerksomheten på tilleggsopplysningene i årsregnskapet, eller, dersom slike tilleggsopplysninger ikke er tilstrekkelige, at vi modifierer vår konklusjon. Våre konklusjoner er basert på revisjonsbevis innhentet inntil datoen for revisjonsberetningen. Etterfølgende hendelser eller forhold kan imidlertid medføre at selskapet og konsernet ikke fortsetter driften.
- evaluerer vi den samlede presentasjonen, strukturen og innholdet i årsregnskapet, inkludert tilleggsopplysningene, og hvorvidt årsregnskapet gir uttrykk for de underliggende transaksjonene og hendelsene på en måte som gir et rettviseende bilde.
- innhenter vi tilstrekkelig og hensiktsmessig revisjonsbevis vedrørende den finansielle informasjonen til enhetene eller forretningsområdene i konsernet for å kunne gi uttrykk for en mening om det konsoliderte regnskapet. Vi er ansvarlige for å lede, følge opp og gjennomføre konsernrevisjonen. Vi alene er ansvarlige for vår revisjonskonklusjon.

Perneo Dokumentnr: 205DO-KUG57-DMSVF-MNYBU-MQLPC-TDYGB



Uavhengig revisors beretning - Space Norway AS

Vi kommuniserer med styret blant annet om det planlagte omfanget av revisjonen og til hvilken tid revisjonsarbeidet skal utføres. Vi utveksler også informasjon om forhold av betydning som vi har avdekket i løpet av revisjonen, herunder om eventuelle svakheter av betydning i den interne kontrollen.

Oslo, 8. juni 2022  
KPMG AS

Øivind Karlsen  
Statsautorisert revisor  
(elektronisk signert)

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**Øivind Karlsen**  
Statsautorisert revisor  
Serienummer: 9578-5997-4-377389  
IP: 80.232.xxx.xxx  
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# Group structure and shareholdings as of 31 December 2021

At the end of 2021, the Space Norway Group comprised the parent company and three subsidiaries. The share capital in the parent company consists of 2,600,000 shares of a nominal value of NOK 19. Space Norway AS is 100% owned by the Norwegian Ministry of Trade, Industry and Fisheries.

