



## Space coming to Earth

We initiate coverage of AAC Clyde Space, the small satellite spacecraft and service provider, with a Buy recommendation and 12-month target price of SEK 10 per share, supported by unjustifiably low EV/sales ratios and our DCF valuation of SEK 20 per share. The emerging space market offers impressive growth opportunities and AAC Clyde Space is in pole position in the nanosatellite market. The urgent need for Earth monitoring to observe climate change and improve weather forecasts, using Space Data as a Service (SDaaS) from nanosatellites, is a powerful market driver. We expect the company to reach SEK 538m in sales in 2024 and positive operating cash flow in 2022.

### Race in space

SpaceX, deploying the broadband satellite network Starlink, will be a major driver of growth in the new emerging space market and fuel growth for AAC Clyde Space and other space companies. With a strong foothold in the nanosatellite market, with deliveries to approximately one third of the installed base of 1,000 satellites, we expect AAC Clyde Space to show a sales CAGR of nearly 50% in our forecast period of 2020 to 2025.

### Equity rocketship

The combination of being a not so well-known microcap stock, strong sales growth backed by a large order backlog and prospects for positive operating cashflow in 2022 all point to a strong investment case for AAC Clyde Space. From a sentiment point of view, the space sector is set to attract increasing interest in the coming years, with the IPO of SpaceX or Starlink as a main event. Our target price of SEK 10 per share, upside potential of 3x from the current level, should be ignited by sales growth in coming quarters and the de-risking of our 2022-2023 estimates.

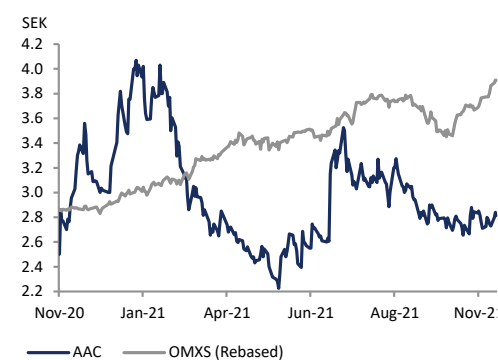
SEKm	2020	2021e	2022e	2023e	2024e
Revenues	119	197	284	388	538
EBITDA	(27)	(20)	28	70	118
EBIT adj	(38)	(38)	8	48	94
EBIT margin adj	-	-	2.9%	12.4%	17.5%
EPS	(0.31)	(0.23)	0.04	0.25	0.50
EPS adj	(0.31)	(0.23)	0.04	0.25	0.50
DPS	-	-	-	-	-
EV/EBITDA	-	-	16.7	6.9	4.0
EV/EBIT adj	-	-	56.9	10.0	5.0
P/E adj	-	-	76.7	11.3	5.7
P/B	0.71	0.84	0.83	0.78	0.68
ROE (%)	-	-	1.1	7.1	12.8
Div yield (%)	-	-	-	-	-
Net debt	(44)	(79)	(52)	(44)	(57)

Source: Pareto

Target price (SEK)	10.0
Share price (SEK)	2.8

Ticker	AACM.ST, AAC SS
Sector	Hardware & Equipment
Shares fully diluted (m)	186.4
Market cap (SEKm)	525
Net debt (SEKm)	-79
Minority interests (SEKm)	0
Enterprise value 21e (SEKm)	445
Free float (%)	80

### Performance



Source: Factset

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## Investment case

### Space coming to Earth

*We initiate coverage with a 12-month price target of SEK 10 per share and Buy rating*

*About to capture a sizeable share of the nanosatellite space industry*

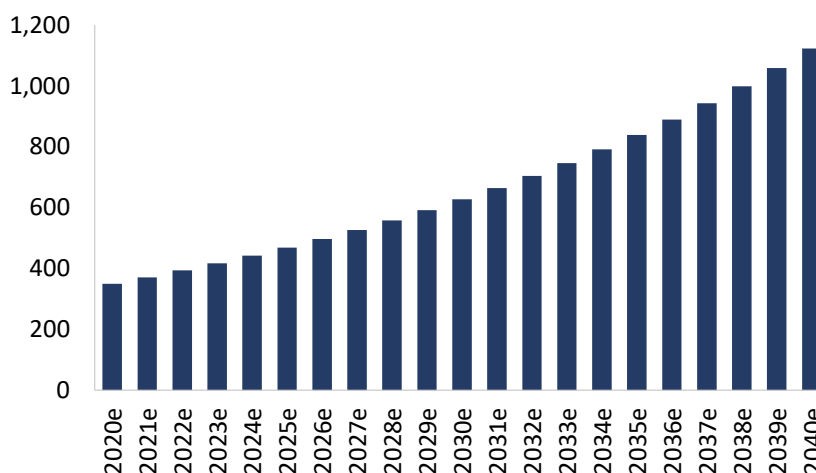
We initiate coverage of AAC Clyde Space, the small satellite spacecraft and service provider, with a Buy recommendation and 12-month target price of SEK 10 per share. This implies upside potential of 3x from the current share price of SEK 2.8. Looking a number of years into the future, a successful expansion of the AAC Clyde Space business scope, which would lower the discount rate, could propel the stock to around SEK 30 per share, or 10x or more the current value.

AAC Clyde Space is about to capture a sizeable share of the nanosatellite space industry, growing sales by some 65% this year to nearly SEK 200m, becoming cash flow positive in 2022 and reaching nearly SEK 750m in sales by 2025, according to our forecasts. The company has great support from a SEK 400m-strong backlog, with a vast majority share being recognised in 2022-2023, and which lowers the risk in the medium-term perspective. With a market-leading position in the nanosatellite market, a top-of-the-line product offering platform and extensive knowledge and history, we see AAC Clyde Space as a winner in the nanosatellite space industry. We would like to highlight the following three key arguments in support of our Buy recommendation on AAC Clyde Space.

#### 1) Race in space

The Satellite Industry Association (SIA) estimated the 2020 global space industry to be worth USD 371bn, and it is expected to grow to around USD 1.2trn by 2040, according to Space Foundation.

#### The global space market (USDbn)



Source: Space Foundation, Satellite Industry Association, Pareto Securities Equity Research

*SpaceX an important driver of growth*

Broadband satellite networks, deploying low-Earth orbit (LEO) satellite systems, will be the largest subsegment in space, growing at an expected rate of 30-40% through to 2040. SpaceX and Amazon, building the Starlink and Kuiper broadband satellite networks, respectively, will reduce the launch cost of satellites through expanding volumes, benefiting all satellite companies.

The nanosatellite market, a subsector of the global space market, has tremendous growth opportunities, coming from low levels, in many cases replacing larger, more expensive, satellites and systems in higher orbit. The overall global nanosatellite and microsatellite market size is expected to grow from USD 2.1bn in 2020 to USD 5.9bn in 2026, a CAGR of 25%, according to data

by research firm Market Research. Of great interest here for AAC Clyde Space is the Earth observation part of the nanosatellite market. Here we may see stronger growth from a low level to several hundreds USD in the next five years. The combination of Earth observation and Space Data as a Service (SDaaS) is of special interest to AAC Clyde Space with potential to boost growth.

*Exceptional sales growth expected*

With a strong foothold in the nanosatellite market, with deliveries already to around one third of the installed base of 1,000 satellites, we expect AAC Clyde Space to show a sales CAGR of nearly 50% in our forecast period of 2020 to 2025.

## 2) ESG enabler

One of the most compelling parts of the AAC Clyde Space offering is that of SDaaS, which can be used for Earth observation for the purpose of monitoring and controlling climate change. In an SDaaS contract, AAC Clyde Space owns the spacecraft and charges the customer a monthly fee for the delivery of data files. The contract includes mission analysis and design, specification of payloads (the object or entity being carried by the launch vehicle), production of the satellite, administration of launch services and finally satellite operations and space data delivery.

SDaaS is very suitable for weather satellite and Earth observation applications and AAC Clyde Space is one of the first companies to offer this service. SDaaS may account for an increasing share of the nanosatellite market as more businesses discover this model to be cost efficient and convenient. In June, AAC Clyde Space closed its largest order to date in SDaaS with the SEK 100m (USD 12m) contract from Canadian Earth observation company Wyvern Inc, comprising three AAC Clyde Space EPIC satellites with hyperspectral payloads over a four-year period.

*Earth observation is core ESG*

Monitoring the Earth's temperature and other data can be done with new satellite platforms and payloads that improve accuracy and forecasting abilities. To be able to keep a good track of global warming and climate change has many ESG benefits. We have highlighted in bold the areas within ESG which we believe could potentially be covered by Earth observation applications.

### ESG factors – Potential positive impact from Earth observation

ESG		
Environmental	Social	Governance
<b>GHG Emissions</b>	<b>Diversity and Equal Opportunities</b>	<b>Code of Conduct</b>
<b>Energy Use and Efficiency</b>	<b>Poverty and Community Impact</b>	<b>Accountability</b>
<b>Air Pollutants</b>	Supply Chain Management	<b>Transparency and Disclosure</b>
<b>Water Use</b>	Customer Privacy	Board Diversity and Structure
Waste Management	<b>Local Communities</b>	Bribery and Corruption
<b>Use of Ecosystem</b>	Freedom of Association	<b>Stakeholder Engagement</b>
<b>Innovation in Environment</b>	<b>Human Rights</b>	Shareholder Rights

Source: Pareto Securities Equity Research

Most common and mainstream ESG efforts by corporations include having a fossil-free goal or a recycling ambition. This is universally vital in order to mitigate and reverse CO<sub>2</sub> emissions by exiting fossil fuel usage. Here, it will be key to improve Earth observation capabilities. To be able to measure and track climate change and global warming will give policymakers a powerful tool to control and regulate the progress of the climate on planet Earth.

This will at the same time save large sums of money for governments, agencies and private enterprises as they will be able to better forecast, mitigate and even prevent many environmental disasters, such as floods, thunderstorms and hurricanes, droughts and air and water pollution. In respect of ESG issues regarding the divide between the developed world and emerging markets, Earth

*AAC Clyde Space in pole-position in the ongoing race in space*

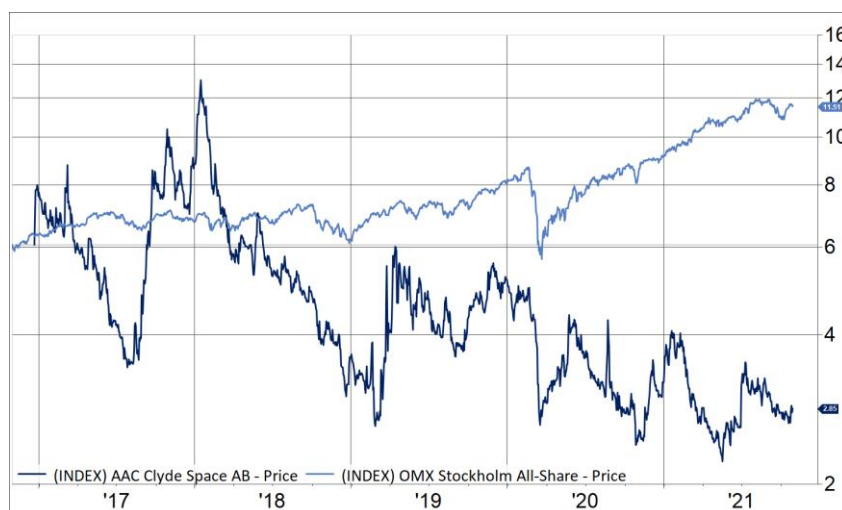
observation may help in terms of accountability, transparency and disclosure, to the benefit of many poorer nations damaged by climate change on a global scale.

It is easy to see why AAC Clyde Space is in pole position in the nanosatellite market in the ongoing race in space. As we have discussed, demand drivers are strong for space data from governments, agencies and private enterprises. Being the first player in the field to offer SDaaS has given AAC Clyde Space a headstart. We expect AAC Clyde Space to achieve over SEK 100m in SDaaS revenues by 2024, recording exponential revenue growth in the coming years. We expect the Wyvern contract alone to account for some SEK 25m, or around 25%, of SDaaS revenues in 2024. The value of recurring SDaaS revenues increases the multiple valuation scope for the shares of AAC Clyde Space.

### 3) Equity rocketship

The combination of a not so well-known microcap stock, exploding sales growth backed by a large order backlog and prospects for positive cash flow in 2022 all point to a strong case for the shares of AAC Clyde Space.

#### AAC Clyde Space – Share price past five years (SEK per share) vs OMX



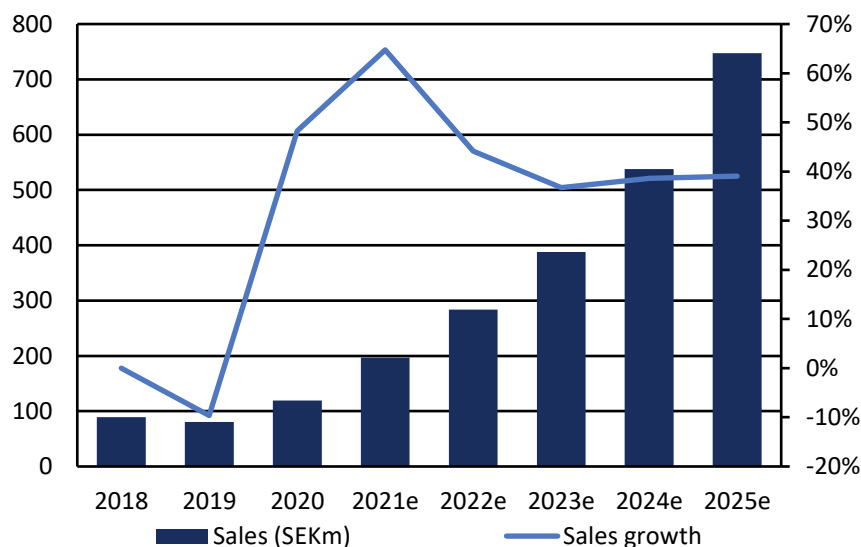
Source: FactSet, Pareto Securities Equity Research

*Underperformance has come to an inflexion point, we believe*

Looking at the historical share price performance, AAC Clyde Space has underperformed the market during its five-year history on the stock market. The Scottish company Clyde Space was acquired in early 2018 for total proceeds of USD 35m, for the most part paid in shares. This created an overhang of shares, from owners acquired companies of Clyde Space who wanted to exit, which has impacted the share price over time. Another obvious negative factor is of course the number of years with negative cash flow and the periodic need to raise additional funding.

Things are now about to change, in our view. Any further potential oversupply of shares from may come down as the company is now entering a new growth phase. We expect revenues to grow from around SEK 200m in 2021 to nearly SEK 300m in 2022, and this should mark the first year in the company's history of positive operating cash flow. AAC Clyde Space's growth prospects in the short to medium term are backed up by an impressive order book of more than SEK 400m as of mid-2021, which is around four times 2020 sales and includes some SEK 130m in acquired order book from the latest acquisition, Omnisys Instruments.

## AAC Clyde Space – Sales (SEKm) and sales growth



Source: Pareto Securities Equity Research, company data

*A disconnect between earnings forecasts and valuation*

While we are clearly bullish on the outlook for growth and profitability of AAC Clyde Space, there is a clear disconnect with the stock valuation, where our scenario is far from reflected in the share price. The main reasons for this may be that the share price has been volatile due to the above-mentioned funding frequency and the shareholder overhang, the company and the stock is still too small to be widely known and we think investors are yet to wake up to the rapid development in the space market.

## AAC Clyde Space – Valuation multiples 2023e

Share Price	SEK	EV/sales	EV/EBITDA	EV/EBIT
Current share price	2.8	1.3	7.0	10.1
Target price	10	4.7	26.1	37.9
DCF valuation	20	9.4	52.1	75.7

Source: Pareto Securities Equity Research

*An equity rocketship about to launch*

Our target price for AAC Clyde Space of SEK 10 per share has upside potential of 3x from the current share price and is supported by our DCF valuation of SEK 20 per share and EV/sales 2023E of 1.3x. The table above illustrates what the standalone valuation multiples are estimated to be in a year from today and looking at the prospective 2023 earnings forecasts. At SEK 10 per share, the EV/sales multiple is below 5x and EV/EBIT of 38x. This is hardly demanding for a high-growth, profitable and emerging technology company. We would not be surprised to see the shares of AAC Clyde Space transform into an equity rocketship over the coming 12 months.

## Risks to our investment case

*Some risks to consider*

We would like to take the opportunity to highlight that our positive scenario for AAC Clyde Space could be altered by unexpected events and risks. New competition, technology failure and regulatory disruption are risk factors. Additional funding needs could surface but should, in our view, be less disruptive as the company is coming from a position of being close to positive operating cash flow. Furthermore, the loss of key personnel, supply chain disruptions or an expensive acquisition could potentially falsify our current positive stance on AAC Clyde Space.

## Company overview

### A leading nanosatellite player

*Market-leading services, products and space access*

The AAC Clyde Space group specialises in advanced nanosatellite spacecraft mission services and reliable subsystems. The company provides market-leading new space products, services and solutions for governments and commercial and educational organisations to access high-quality data in a timely manner. The space data has a variety of applications, such as weather forecasting, precision farming, marine vessel efficiency, air and water pollution control and mitigation, and wildfire detection.

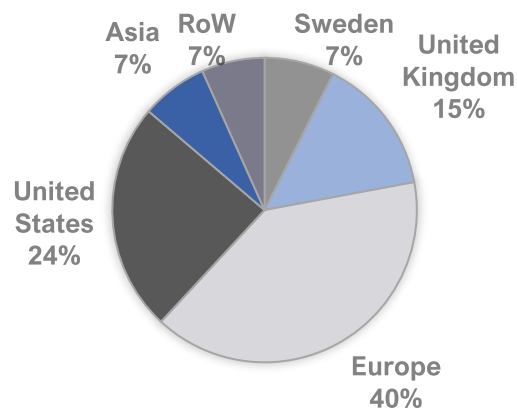
The global small satellite market is growing fast, driven by technological development, falling costs and increasing demand for space data. AAC Clyde Space has over 15 years of experience and track record in the space industry and has proven its products in around one third of the installed base of smaller satellites.

*Omnisys Instruments is the latest acquisition to the AAC Clyde Space group*

The group has six subsidiaries with its main operations in AAC Clyde Space in Sweden, followed by AAC Clyde Space in Scotland, Hyperion in the Netherlands, SpaceQuest in the US, Omnisys Instruments in Sweden and AAC Space Africa in South Africa. The shares of AAC Clyde Space have been listed in Sweden since 2016 and are currently on Nasdaq First North Premier Growth Market and have been listed in the US since 2020 on the OTCQX market.

AAC Clyde Space's customer base includes both government organisations such as NASA, European Space Agency, UK Space Agency and US Air Force Academy as well as private space companies and start-ups such as Orbital Micro Systems, Intuitive Machines, OHB Sweden, NSLComm and Orbcomm.

### AAC Clyde Space – Geographical sales distribution 2020



Source: Company data

The company has financial goals of reaching SEK 500m in sales in 2024, SEK 200m in sales this year and to achieve positive operating cash flow in 2022. Today, the company divides its business into three divisions: Space Data as a Service, Space Missions and Space Products and Components.

### Space Data as a Service

*A new segment is emerging*

Space Data as a Service (SDaaS) consists of timely, high-quality data from space delivered directly to the customer. AAC Clyde Space builds, owns and operates the satellite, delivering only the data to the customer. The default customer invoicing entails an initial upfront payment and then monthly payments for the extent of the contract period, typically four years.

The SDaaS offering includes an end-to-end solution where the customer gets the choice of custom-built satellites to suit any requirement. AAC Clyde Space claims world-leading capabilities in mission analysis and design, payloads, manufacturing, testing and delivery, launch services including unrivalled access to space, insurance and regulations and lastly to operate the spacecraft and deliver the data to the customer.

### Space Missions

*Wide range of CubeSats on offer*

Space Missions are fully assembled micro and nanosatellite platforms in the weight categories of up to 50kg and are customised for direct sale or with the full package of mission design, manufacturing and integration of all components and ground and launch services. The turnkey alternative offers the customer full flexibility as to design and customisation of the spacecraft.

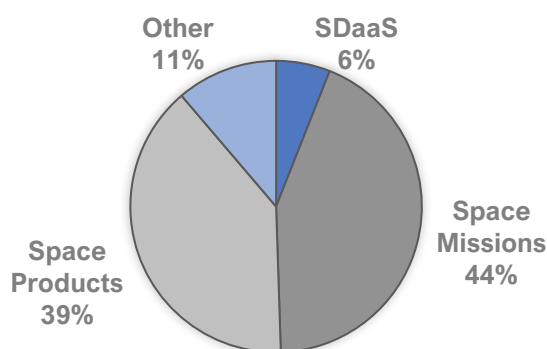
AAC Clyde Space's EPIC Spacecraft platform combines decades of heritage from the widely used CubeSat subsystems, with a 100% success rate in delivering CubeSat missions. One CubeSat measures 10x10x10cm. The company manufactures the following satellites: EPIC-12U and 16U (the most capable spacecraft in terms of power, pointing and data delivery), EPIC-6U (very capable without too high a launch cost), EPIC-3U (the most flown CubeSat, industry leading for its size, used in applications such as internet of things, IoT, and Earth observation) and EPIC-1U (the original CubeSat with many applications in a small package, used for demos and education among other things). The price of an EPIC spacecraft ranges from around USD 1m up to some USD 3m and the launch cost varies between USD 200k and USD 300k.

### Space Products & Components

*Market leader in products and components*

AAC Clyde Space manufactures a full range of off-the-shelf products as well as tailor-made subsystems for cube and nanosatellites of up to 500kg in weight. Space products are used in AAC Clyde Space's own satellite production but also sold directly to other satellite manufacturing companies. Space products include command and data handling, batteries, electrical power systems, communications, solar arrays and structures. AAC Clyde Space has an estimated market share of space products of over 30%, having delivered products and components to around one third of the installed base of small satellites.

#### AAC Clyde Space – Divisional sales breakdown 2021E



*Source: Pareto Securities Equity Research*



## The new space economy

### A new market is taking off

*Space in transformation*

The space industry is in the middle of a widespread transformation, as the past decade has seen a number of young companies begin to seek to profit in an area where most of the money previously was made from military contracts or expensive communications satellites.

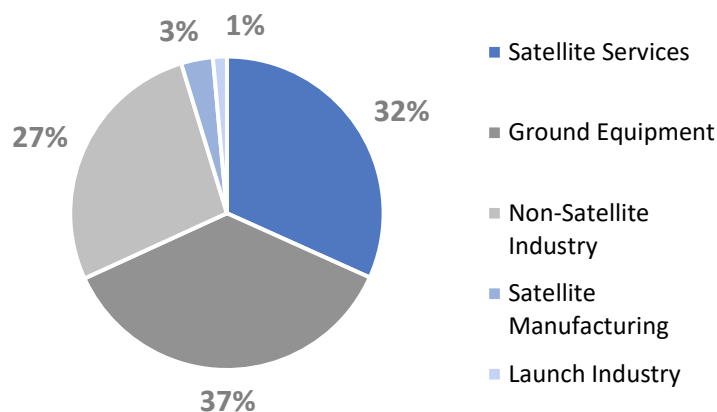
The Satellite Industry Association (SIA) estimated the 2020 global space industry to be worth USD 371bn, and it is expected to grow to around USD 1.2trn by 2040, according to Space Foundation. The global space market is still largely dominated by large aerospace and defence companies, serving government-funded interests. The space industry legacy players are Boeing and Lockheed Martin, followed by newer companies like SpaceX, Blue Origin and Virgin Galactic.

### Space subsectors

*Satellite Services includes many new areas*

The global space industry consists of three larger main category subsectors and two smaller subsectors. Firstly, the Satellite Services business is worth USD 118bn and includes telecommunications such as television, telephone, broadband, aviation, maritime and road and rail, and remote sensing including areas such as agriculture, change detection, disaster mitigation, metrology, resources, earth science, space science and national security.

#### The breakdown of the USD 371bn global space industry in 2020



Source: Satellite Industry Association

The Ground Equipment slice of the pie is worth USD 135bn and consists of network equipment such as gateways and VSATs, network operating centres and satellite news-gathering equipment, and consumer equipment such as satellite television, radio and broadband equipment and global navigation satellite systems.

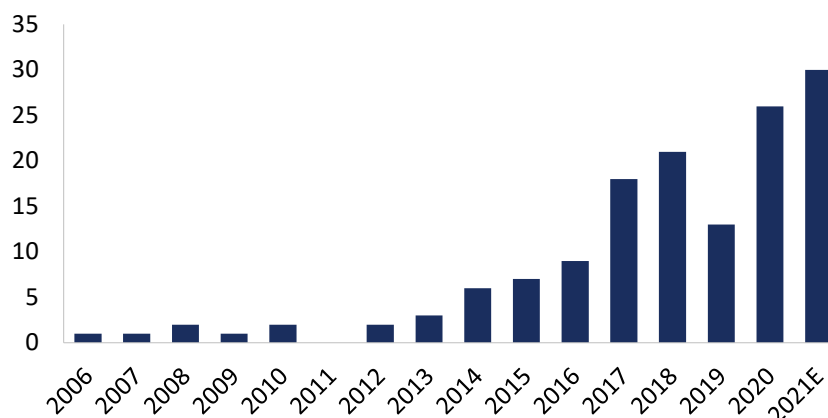
*Government agencies are part of the Non-Satellite Industry subsector*

The Non-Satellite Industry part of the global space industry is worth around USD 100bn and consists mainly of government space budgets and commercial human space flight. Lastly, the two smaller subsectors of Satellite Manufacturing and the Launch Industry were valued at USD 12bn and USD 5bn, respectively, in 2020.

### Satellite broadband boom

*The vast majority of growth will come in broadband satellites*

The vast majority of the market growth will come from broadband satellite networks, deployed by companies such as SpaceX, Amazon and OneWeb. Just looking at the ambitious programme being carried out by SpaceX, the number of rocket launches has more than tripled in the past five years to some 30 this year. That is roughly one rocket every two weeks. Each rocket can carry some 60 satellites into orbit.

**SpaceX – Number of rocket launches**

Source: SpaceX, Pareto Securities Equity Research

The Starlink network has to date placed in excess of 1,700 broadband satellites into orbit. The network will eventually comprise of tens of thousands of satellites. The network is running a beta version in the US, Canada and the UK and had signed 500,000 broadband customers by early summer of this year.

**A paradigm shift**

There is a paradigm shift going on in the space industry where technological advances are driving new satellite capabilities and lowering costs, both of which will drive demand. We will also go from more customised production to standardised production, from large expensive satellites (GEO) to smaller and cheaper satellites (LEO), from single satellite deployment to satellite constellation deployment (SpaceX) and also from only government applications to include a spectrum of satellites for both governments and private corporations.

**The nanosatellite market**

The global small satellite, including nano and microsattelites, market is expected to grow by 25% per year between 2020 and 2026, according to reports from Research and Markets. North America, the US specifically, is the most prominent region for the small satellite market. The presence of major players and intense competition among them make North America the most technologically advanced region. The companies in the region secure contracts from end users such as defence, commercial companies and government agencies for the manufacture of their satellites.

*Small satellite market to grow by 25% per year between 2020 and 2026*

*Earth observation is a key area in the Nanosatellite market*

The global nanosatellite market is gaining widespread importance owing to the utilisation of ready and available components off the shelf, COTS and also the general rising demand for data and applications of IoT and small networks. The nanosatellite market may grow faster than the overall small satellite market. Looking at the application of Earth observation, the growth rate may be even higher. Technological development has enabled longer, more accurate and more timely weather forecasts. This is driving demand from both governments and private enterprises for more space data and rapid growth is hence expected for the foreseeable future.

There are several applications for space data, all of which in one form or another are aimed at improving life on Earth, such as weather forecasting, precision farming, water pollution mitigation, air pollution control, wildfire detection, marine vessel monitoring, healthcare access and internet of things. Many of these applications are critical in order to solve key environmental issues on planet Earth.

#### Nanosatellite market – Competitive landscape

Company	Country	Core Market	Vertically Integrated	Subsystems Supplier	Platform Supplier	Space Data as a Service
<b>AAC Clyde Space</b>	<b>Sweden</b>	<b>Global</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
GomSpace	Denmark	Global	Yes	Yes	Yes	No
Blue Canyon	US	Global	Yes	Yes	Yes	No
Tyvak	US	US/Global	Yes	No	Yes	No
NanoAvionics	US	Global	Yes	Yes	Yes	No
SFL/UTIAS	Canada	Global	Yes	No	Yes	No
ISISPACE	Netherlands	Global	Yes	Yes	Yes	No

Source: Company data, Pareto Securities Equity Research

#### Growth market with fierce competition

The competition of AAC Clyde Space is fierce. Many of its closest competitors are North American and have a global presence. In Denmark, we find GomSpace, which is a head-to-head competitor of AAC Clyde Space with an estimated market share of around 15%. One important key feature is that, so far, AAC Clyde Space has a headstart in SDaaS. Thanks to AAC Clyde Space's long history, experience and product reliability in delivering space products and components, the company claims some 30% market share in the installed base of nanosatellites. With the recent acquisitions of SpaceQuest in the US and Omnisys Instruments in Sweden, we believe AAC Clyde Space will be able to capture around 20% of the market opportunity in the next few years.

## Three use cases

### Satellite applications

*Several applications within Earth observation*

Governments, private companies and other organisations are demanding new services applications from space data as technology evolves and costs come down. Historically, Earth imaging has been a large application. Now, Earth observation is growing in size. This includes weather forecasting, wildfire detection, air and water pollution measuring, marine vessel tracking and precision farming. Furthermore, governments, defence organisations and space agencies are demanding a range of services, such as dedicated broadband and machine to machine and IoT data, for monitoring, planning and regulation. In this section, we describe some of the best use cases and clients to date for AAC Clyde Space's offering.

### Space weather forecasting – Orbital Micro Systems (OMS)

*Space weather data is core in ESG*

AAC Clyde Space has built CubeSats to be used in OMS's Global Environmental Monitoring System (GEMS). The satellite gathers temperature and humidity levels at multiple altitudes as it orbits the Earth. Near real-time weather and Earth data is available to meet the needs of businesses, such as aviation, insurance, agriculture, governments, and environmental organisations and agencies.

### Narrowband connectivity for IoT – Eutelsat

*Space connectivity ready for take-off*

Eutelsat operates a fleet of LEO satellites (called ELO = Eutelsat LEO for Objects). ELO will offer global IoT coverage, enabling objects to transmit data, irrespective of their location. ELO will fully demonstrate the link and overlap between terrestrial networks and satellite technology. The contract is key for AAC Clyde Space as proof of concept.

### Tracking marine vessels – Orbcomm

*Asset tracking increases efficiency*

AIS or Automatic Identification System data can be used for individual vessels and fleets. Orbcomm's satellite AIS Service has placed an order for Space Data as a Service. The services offered by Orbcomm include maritime domain awareness, search and rescue as well as environmental monitoring and maritime intelligence. Orbcomm will benefit from more comprehensive global coverage, enhanced performance and very high vessel detection.

## Forecasts

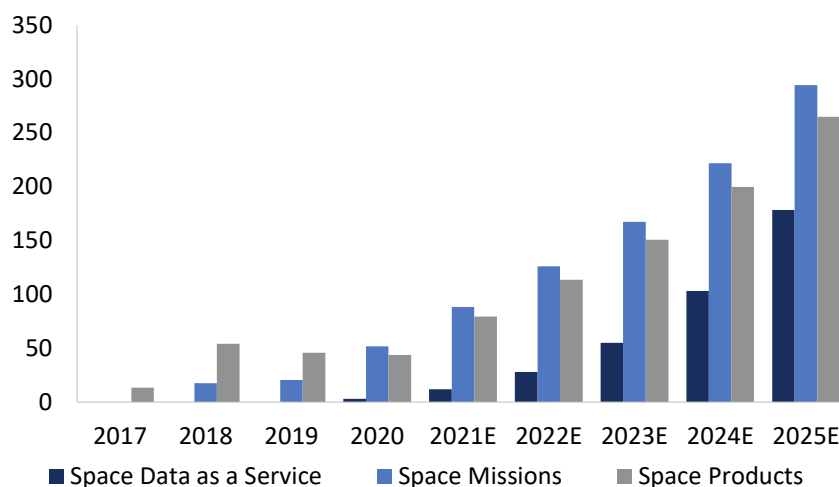
### Exponential growth in Space Data as a Service

*SDaaS to account for over 20% of sales in 2025E*

Out of sales of SEK 119m in 2020, the two dominant components were Space Missions with SEK 52m and Space Products and Components with SEK 44m, while Space Data as a Service only accounted for SEK 3m.

Looking ahead, we have projected the share of Space Data as a Service to grow exponentially by a CAGR of 125% and amount to SEK 178m in 2025, representing a share of sales of 23%. Space Missions sales are expected to grow 41% during the forecast period to amount to SEK 285m in 2025, and, lastly, Space Products should see growth of around 40% per year, amounting to SEK 257m in 2025.

#### AAC Clyde Space - Sales by division (SEKm), 2017-2025E



Source: Pareto Securities Equity Research, company data

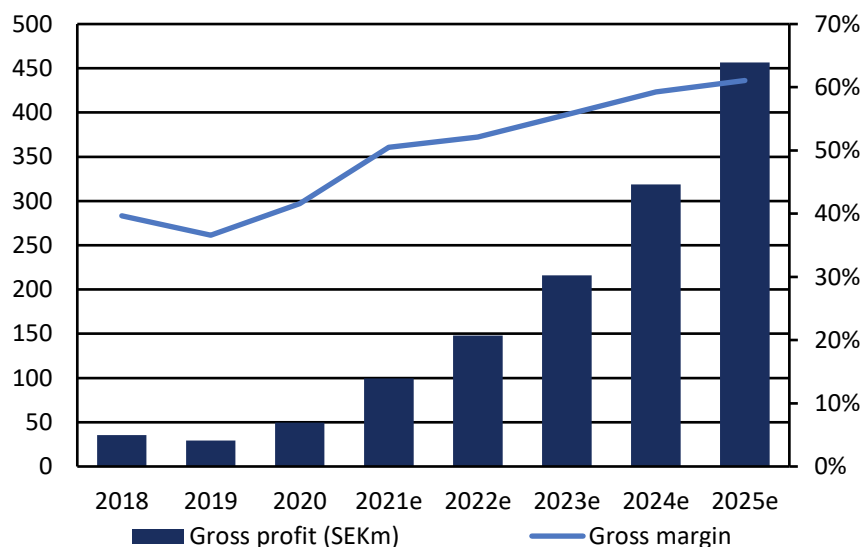
### Earnings projections

*Projected 22% EBIT margin by 2025*

Our group gross profit margin projections of around 50% in 2021 are expected to climb to some 60% in 2025. Here, we have assumed 90% gross margins for Space Data as a Service and 48-52% for Space Missions and Space Products. With a greater share of Space Data as a Service, group gross margins will rise over time.

ACC Clyde Space should break even on EBITDA and operating cash flow during the course of 2022, based on our projections. In 2025, we expect the company to achieve 22% operating margin, including spending around SEK 200m on personnel and S,G&A costs. The next few quarters should show strong sales growth y/y, although one has to have some oversight with potential changes in the periodisation of revenue recognition. In the upcoming Q3 2021 earnings release on 25 November, we expect the company to post sales of SEK 40m, up from some SEK 32m in Q3 2020.

## AAC Clyde Space - Gross profit (SEKm) and margin, 2018-2025E

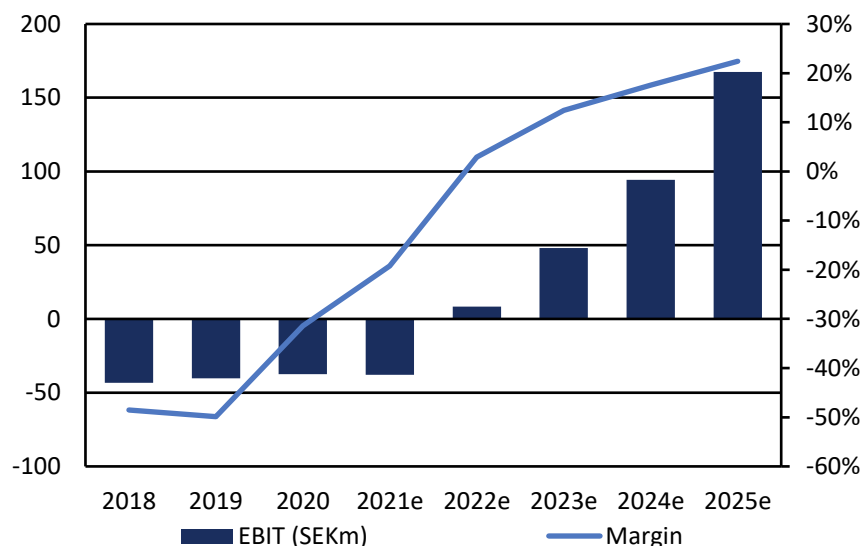


Source: Pareto Securities Equity Research, company data

Operating cash flow of  
SEK 132m by 2025

In 2025, we estimate that operating cash flow will amount to SEK 132m with overall working capital needs of SEK 54m. With investment needs of SEK 70m, we estimate free cash flow will amount to SEK 62m. The cash position in 2025 should amount to some SEK 156m, which includes a SEK 100m increase in debt during the forecast period 2020 to 2025. The potential future need for further capital raises should be a small hurdle for AAC Clyde Space as the company moves into profit and positive operating cash generation.

## AAC Clyde Space - Operating profit (SEKm) and margin, 2018-2025E



Source: Pareto Securities Equity Research, company data

## Valuation

### DCF valuation

Despite looking at the valuation of relevant peers and standalone valuation metrics and multiples, we lean on our DCF valuation as the basis for our recommendation and target price. The reason for this is that AAC Clyde Space is still lossmaking and relying on its sales growth, making comparisons possible with peers at the same stage on EV/sales, but more difficult on other parameters.

*Deep discount to intrinsic value*

In line with the arguments of the oversupply of shares and investors' perception of risk, it is unsurprising to find a valuation discount in AAC Clyde Space. However, the magnitude of the valuation discrepancy between our assessment of its intrinsic value and the current share price is on the extreme side.

### AAC Clyde Space - DCF valuation

DCF Summary					
	2020	2021E	2022E	2025E	2030E
Sales	119	197	284	747	2,819
<b>EBIT</b>	<b>-38</b>	<b>-38</b>	<b>8</b>	<b>168</b>	<b>675</b>
Taxes	1	0	0	-6	-137
NOPAT	-37	-38	8	162	538
Capex	-17	-17	-18	-35	-107
Net working capital	14	-12	-19	-54	-103
<b>Free Cash Flow</b>	<b>-30</b>	<b>-49</b>	<b>-8</b>	<b>99</b>	<b>386</b>
<b>Assumptions terminal value</b>			<b>Valuation output</b>		
Terminal year	2039			PV Forecast	596
WACC	12.0%			PV Normalization	1,460
Sales growth	2.0%			PV Terminal	1,546
EBITDA margin	16.0%			Enterprise value	3,602
EBIT margin	15.0%			Net debt	-79
Tax rate	22.0%			Equity value	3,681
Capex to fixed assets	10.0%			<b>DCF per share SEK</b>	<b>20</b>

Source: Pareto Securities Equity Research

*DCF of SEK 20 per share using a WACC of 12% and EBIT margin of 15%*

Given our base case of sales growth and earnings projections through to 2025, a discount rate (WACC) of 12% and a steady-state margin assumption (EBIT) of 15%, we arrive at a DCF value for AAC Clyde Space of SEK 20 per share.

### AAC Clyde Space - DCF valuation sensitivity

SEK per share	Steady state margin (EBIT)			
	13%	15%	17%	20%
Discount rate (WACC)				
8%	38.2	42.3	46.5	52.8
10%	25.4	27.8	30.3	34.0
12%	18.2	20.0	21.3	23.7
14%	13.7	14.7	15.8	17.3

Source: Pareto Securities Equity Research

Our target price for AAC Clyde Space of SEK 10 per share, upside potential of around 3x from the current share price of SEK 2.8 per share, is supported by our DCF valuation of SEK 20 per share and EV/sales 2022 and 2023 of 1.7x and 1.3x respectively.

When we calculate DCF sensitivity to both the discount rate, ranging from 8% to 14%, and the assumed long-term EBIT margin, ranging from 13% to 20%, we arrive at a valuation range for AAC Clyde Space of SEK 14 to SEK 53 per share.

For instance, given a richer margin assumption of 17% and lowering the discount rate to 10% implies a value of SEK 30 per share – which is more than 10x the current share price.

### Dispersed space peers

*GomSpace among the most relevant peers*

Of the listed peers, we find Spire Global, Maxar Technologies and GomSpace to be the most relevant for comparison purposes to AAC Clyde Space as these companies are the closest to being pure players in their respective fields. The peer valuation table (FactSet) valuation metric for EV/sales 2022E for AAC Clyde Space of 1.4x does not really indicate that this is a high-growth tech company.

Looking at the rather dispersed peer table, we can see some sort of correlation between high current growth/expected growth and high EV/sales multiples. In our view, an EV/sales level of between 4x and 10x would be justified for AAC Clyde Space if our scenario outlined in this report is realised. In addition, EV/EBIT multiples of 30-40x for 2023E do rhyme better with a sales CAGR of nearly 50% for 2020 to 2025, rather than the current 2023E multiple of just below 10x.

### Space companies – Peer valuations

SPACE COMPANIES	Pure Space/Subsector	MCAP SEKm	EV/Sales			EV/EBITDA			EV/EBIT			Sales growth		
			2021E	2022E	2023E	2021E	2022E	2023E	2021E	2022E	2023E	2021E	2022E	2023E
AAC Clyde Space	Yes/Satellite Services	529	2.0x	1.4x	n.a.	neg	16.2x	n.a.	neg	47.2x	n.a.	105%	45%	n.a.
<b>Nordic Space Peers</b>														
GomSpace Group	Yes/Satellite Services	647	2.7x	1.9x	1.4x	514.0x	14.2x	6.2x	neg	97.2x	10.0x	14%	37%	36%
Ovzon	Yes/Satellite Services	2,707	14.5x	9.3x	3.8x	neg	neg	6.8x	neg	neg	9.1x	12%	56%	149%
<b>International Space Companies</b>														
Boeing	No/Space Travel	1,176,003	2.6x	2.0x	1.9x	40.2x	18.7x	15.8x	83.1x	25.4x	20.2x	15%	33%	5%
Lockheed Martin	No/Space Travel	831,866	1.5x	1.5x	1.5x	9.8x	9.8x	9.6x	11.2x	11.3x	11.2x	3%	0%	1%
Northrop Grumman Corp.	No/Space Diversified	498,196	1.8x	1.7x	1.7x	12.4x	12.8x	12.3x	11.1x	17.2x	15.9x	-2%	3%	4%
L3Harris Technologies	No/Space Security	382,567	2.7x	2.7x	2.6x	12.2x	12.1x	11.7x	14.6x	14.3x	13.5x	-1%	1%	5%
DISH Network	Yes/Satellite TV	92,015	1.3x	1.3x	1.3x	5.7x	6.4x	6.8x	7.0x	8.7x	9.5x	16%	-1%	1%
Iridium Communications	Yes/Satellite Com	48,597	11.1x	10.4x	9.8x	18.3x	16.9x	15.8x	160.5x	102.6x	86.5x	5%	7%	6%
Virgin Galactic	Yes/Space Travel	41,888	1291.3x	486.7x	104.5x	neg	neg	neg	neg	neg	neg	1227%	165%	366%
Aerofjet Rocketdyne	Yes/Space Rockets	31,268	1.5x	1.4x	n.a.	11.0x	10.8x	n.a.	13.1x	12.3x	n.a.	5%	5%	n.a.
Maxar Technologies	Yes/Satellite Services	19,749	2.5x	2.3x	2.1x	10.2x	9.0x	7.7x	34.9x	23.3x	14.6x	2%	6%	8%
BlackSky Global	Yes/Satellite Services	9,343	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spire Global Inc	Yes/Satellite Operator	6,487	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	68%	91%
AST Spacemobile	Yes/Satellite Operator	5,717	36.4x	28.6x	3.1x	neg	neg	11.8x	neg	neg	neg	n.a.	27%	826%
Gilat Satellite Networks	Yes/Satellite Services	3,848	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	39%	32%	n.a.
Astrocast SA	Yes/Satellite Services	2,177	177.9x	21.2x	6.7x	neg	neg	neg	neg	neg	neg	123%	738%	216%
<b>Average</b>			<b>119.1x</b>	<b>43.9x</b>	<b>11.7x</b>	<b>70.4x</b>	<b>12.3x</b>	<b>10.5x</b>	<b>41.9x</b>	<b>34.7x</b>	<b>21.2x</b>	<b>112%</b>	<b>78%</b>	<b>132%</b>
<b>Median</b>			<b>2.7x</b>	<b>2.3x</b>	<b>2.4x</b>	<b>12.2x</b>	<b>12.1x</b>	<b>10.7x</b>	<b>13.9x</b>	<b>17.2x</b>	<b>13.5x</b>	<b>12%</b>	<b>27%</b>	<b>8%</b>

Source: FactSet

We have set our target price at SEK 10 per share, representing a 50% discount to our base-case DCF valuation of SEK 20 per share. In our view, the upside potential of 3x to our target price merely reflects the deep valuation discount and high market risk premium currently applied to the AAC Clyde Space shares.

*In our view, the shares are near an inflexion point – we initiate with a Buy rating and TP of SEK 10*

We believe the AAC Clyde Space is nearing an inflexion point where investor sentiment will turn positive, as the company delivers on its sales targets and achieves positive operating cash flow in 2022E, while at the same time the history of a stock overhang is becoming a thing of the past. We initiate coverage of AAC Clyde Space with a Buy rating and target price of SEK 10 per share.



## SWOT analysis

<p><b>Strengths</b></p> <ul style="list-style-type: none"><li>Long space history and reputation</li><li>First-mover advantage in SDaaS</li><li>Largest installed base of satellites</li></ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"><li>Still lossmaking</li><li>Financial limitations to SDaaS growth</li><li>Need to expand production capacity</li></ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"><li>To strengthen the lead in SDaaS</li><li>Gain share on track record and history</li><li>Piggy-back on SpaceX expansion</li></ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"><li>New competition and/or new technology</li><li>Financial constraints to space start-ups</li><li>Technical failure or disruption</li><li>Space regulation (space debris)</li></ul>

Source: Pareto Securities Equity Research

<b>PROFIT &amp; LOSS (fiscal year) (SEKm)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021e</b>	<b>2022e</b>	<b>2023e</b>	<b>2024e</b>
<b>Revenues</b>	<b>13</b>	<b>89</b>	<b>81</b>	<b>119</b>	<b>197</b>	<b>284</b>	<b>388</b>	<b>538</b>
Growth Revenues	165.6%	571.4%	(9.6%)	48.2%	64.7%	44.1%	36.8%	38.6%
<b>EBITDA</b>	<b>(60)</b>	<b>(28)</b>	<b>(27)</b>	<b>(27)</b>	<b>(20)</b>	<b>28</b>	<b>70</b>	<b>118</b>
Depreciation & amortisation	-	(15)	(13)	(11)	(18)	(20)	(22)	(24)
<b>EBIT</b>	<b>(60)</b>	<b>(43)</b>	<b>(40)</b>	<b>(38)</b>	<b>(38)</b>	<b>8</b>	<b>48</b>	<b>94</b>
EBIT adjusted	(60)	(43)	(40)	(38)	(38)	8	48	94
Net interest	-	(0)	(1)	(1)	(1)	(1)	(2)	(2)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>(60)</b>	<b>(44)</b>	<b>(41)</b>	<b>(39)</b>	<b>(39)</b>	<b>7</b>	<b>46</b>	<b>93</b>
Taxes	-	1	0	1	-	-	-	-
Minority interest	-	-	-	-	-	-	-	-
<b>Net profit</b>	<b>(60)</b>	<b>(43)</b>	<b>(41)</b>	<b>(38)</b>	<b>(39)</b>	<b>7</b>	<b>46</b>	<b>93</b>
EPS reported	(0.87)	(0.62)	(0.42)	(0.31)	(0.23)	0.04	0.25	0.50
<b>EPS adjusted</b>	<b>(0.87)</b>	<b>(0.62)</b>	<b>(0.42)</b>	<b>(0.31)</b>	<b>(0.23)</b>	<b>0.04</b>	<b>0.25</b>	<b>0.50</b>
Growth EPS adjusted	-chg	+chg	+chg	+chg	+chg	+chg	579.3%	99.2%
DPS	-	-	-	-	-	-	-	-
<b>BALANCE SHEET (SEKm)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021e</b>	<b>2022e</b>	<b>2023e</b>	<b>2024e</b>
Tangible non current assets	-	4	18	29	40	50	62	78
Other non-current assets	-	393	419	494	499	505	516	532
Other current assets	-	44	56	51	75	108	147	204
Cash & equivalents	-	12	52	62	98	101	123	156
<b>Total assets</b>	<b>-</b>	<b>453</b>	<b>545</b>	<b>636</b>	<b>712</b>	<b>763</b>	<b>848</b>	<b>970</b>
Total equity	-	412	466	558	622	629	675	768
Interest-bearing non-current debt	-	-	-	-	-	-	-	-
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	-	41	79	78	90	135	173	203
<b>Total liabilities &amp; equity</b>	<b>-</b>	<b>453</b>	<b>545</b>	<b>636</b>	<b>712</b>	<b>763</b>	<b>848</b>	<b>970</b>
<b>CASH FLOW (SEKm)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021e</b>	<b>2022e</b>	<b>2023e</b>	<b>2024e</b>
Cash earnings	-	(29)	(28)	(28)	(21)	27	68	117
Change in working capital	-	(20)	12	14	(12)	(19)	(31)	(47)
Cash flow from investments	-	(20)	(14)	(18)	(34)	(36)	(45)	(56)
Cash flow from financing	-	44	60	46	100	30	30	20
Net cash flow	-	(25)	30	13	33	2	22	33
<b>CAPITALIZATION &amp; VALUATION (SEKm)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021e</b>	<b>2022e</b>	<b>2023e</b>	<b>2024e</b>
<b>Share price (SEK end)</b>	<b>8.8</b>	<b>3.60</b>	<b>5.2</b>	<b>3.22</b>	<b>2.82</b>	<b>2.82</b>	<b>2.82</b>	<b>2.82</b>
Number of shares end period	69	69	96	123	186	186	186	186
Net interest bearing debt	-	(7)	(36)	(44)	(79)	(52)	(44)	(57)
<b>Enterprise value</b>	<b>606</b>	<b>241</b>	<b>460</b>	<b>352</b>	<b>445</b>	<b>473</b>	<b>481</b>	<b>468</b>
EV/Sales	45.7	2.7	5.7	3.0	2.3	1.7	1.2	0.9
<b>EV/EBITDA</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.7</b>	<b>6.9</b>	<b>4.0</b>
EV/EBIT	-	-	-	-	-	56.9	10.0	5.0
EV/EBIT adjusted	-	-	-	-	-	56.9	10.0	5.0
P/E reported	-	-	-	-	-	76.7	11.3	5.7
<b>P/E adjusted</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>76.7</b>	<b>11.3</b>	<b>5.7</b>
P/B	-	0.6	1.1	0.7	0.8	0.8	0.8	0.7
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021e</b>	<b>2022e</b>	<b>2023e</b>	<b>2024e</b>
ROE adjusted (%)	-	-	-	-	-	1.1	7.1	12.8
Dividend yield (%)	-	-	-	-	-	-	-	-
EBITDA margin (%)	-	-	-	-	-	10.0	18.0	22.0
EBIT margin (%)	-	-	-	-	-	2.9	12.4	17.5
EBIT margin adj(%)	-	-	-	-	-	2.9	12.4	17.5
NIBD/EBITDA	-	0.24	1.34	1.63	4.04	(1.82)	(0.63)	(0.48)
EBITDA/Net interest	-	-	-	-	-	19.24	44.35	70.64

<b>PROFIT &amp; LOSS (fiscal year) (SEKm)</b>	<b>1Q'20</b>	<b>2Q'20</b>	<b>3Q'20</b>	<b>4Q'20</b>	<b>1Q'21</b>	<b>2Q'21</b>	<b>3Q'21e</b>	<b>4Q'21e</b>
<b>Revenues</b>	<b>29</b>	<b>24</b>	<b>32</b>	<b>34</b>	<b>42</b>	<b>54</b>	<b>40</b>	<b>61</b>
<b>EBITDA</b>	<b>(6)</b>	<b>(8)</b>	<b>(2)</b>	<b>(11)</b>	<b>(0)</b>	<b>(3)</b>	<b>(7)</b>	<b>(9)</b>
Depreciation & amortisation	(3)	(3)	(3)	(2)	(4)	(6)	(4)	(4)
<b>EBIT</b>	<b>(9)</b>	<b>(10)</b>	<b>(5)</b>	<b>(13)</b>	<b>(4)</b>	<b>(9)</b>	<b>(11)</b>	<b>(13)</b>
Net interest	(1)	(0)	(0)	(0)	0	(1)	(0)	(0)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>(10)</b>	<b>(11)</b>	<b>(5)</b>	<b>(13)</b>	<b>(4)</b>	<b>(10)</b>	<b>(11)</b>	<b>(13)</b>
Taxes	0	0	0	0	0	0	-	(1)
<b>Net profit</b>	<b>(9)</b>	<b>(11)</b>	<b>(5)</b>	<b>(13)</b>	<b>(4)</b>	<b>(10)</b>	<b>(11)</b>	<b>(14)</b>
<b>BALANCE SHEET (SEKm)</b>	<b>1Q'20</b>	<b>2Q'20</b>	<b>3Q'20</b>	<b>4Q'20</b>	<b>1Q'21</b>	<b>2Q'21</b>	<b>3Q'21e</b>	<b>4Q'21e</b>
Tangible non current assets	17	16	15	29	28	33	40	40
Other non-current assets	425	404	410	494	527	624	590	499
Other current assets	63	44	48	51	69	95	95	75
Cash & equivalents	42	35	31	62	37	102	70	98
<b>Total assets</b>	<b>547</b>	<b>499</b>	<b>504</b>	<b>636</b>	<b>661</b>	<b>855</b>	<b>795</b>	<b>712</b>
Total equity	461	429	425	558	570	688	647	622
Interest-bearing non-current debt	-	-	-	-	-	-	-	-
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	86	70	79	78	91	166	148	90
<b>Total liabilities &amp; equity</b>	<b>547</b>	<b>499</b>	<b>504</b>	<b>636</b>	<b>661</b>	<b>855</b>	<b>795</b>	<b>712</b>
<b>CASH FLOW (SEKm)</b>	<b>1Q'20</b>	<b>2Q'20</b>	<b>3Q'20</b>	<b>4Q'20</b>	<b>1Q'21</b>	<b>2Q'21</b>	<b>3Q'21e</b>	<b>4Q'21e</b>
Cash earnings	6	(5)	(12)	(17)	(0)	(4)	(7)	(9)
Change in working capital	9	5	6	(6)	(20)	11	(14)	12
Cash flow from investments	(28)	(9)	(9)	28	(10)	(10)	(10)	(4)
Cash flow from financing	(1)	48	(1)	30	-	-	-	-
Net cash flow	(15)	38	(16)	6	(31)	(3)	(32)	99
<b>CAPITALIZATION &amp; VALUATION (SEKm)</b>	<b>1Q'20</b>	<b>2Q'20</b>	<b>3Q'20</b>	<b>4Q'20</b>	<b>1Q'21</b>	<b>2Q'21</b>	<b>3Q'21e</b>	<b>4Q'21e</b>
<b>Share price (SEK end)</b>	<b>3.00</b>	<b>3.59</b>	<b>2.84</b>	<b>3.22</b>	<b>2.76</b>	<b>2.61</b>	<b>2.79</b>	<b>2.82</b>
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>1Q'20</b>	<b>2Q'20</b>	<b>3Q'20</b>	<b>4Q'20</b>	<b>1Q'21</b>	<b>2Q'21</b>	<b>3Q'21e</b>	<b>4Q'21e</b>
EBITDA margin (%)	-	-	-	-	-	-	-	-
EBIT margin (%)	-	-	-	-	-	-	-	-
EBITDA/Net interest	-	-	-	-	-	-	-	-

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	"Hold"	Pareto Securities Research expects this financial instrument's total return to be between -10% and 10% over the next 12 months
	"Sell"	Pareto Securities Research expects this financial instrument's total return to be negative by more than 10% over the next 12 months

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## Appendix A

Disclosure requirements in accordance with Commission Delegated Regulation (EU) 2016/958 and the FINRA Rule 2241

The below list shows companies where Pareto Securities AS - together with affiliated companies and/or persons - owns a net long position of the shares exceeding 0,5 % of the total issued share capital in any company where a recommendation has been produced or distributed by Pareto Securities AS.

Companies	No. of shares	Holdings in %	Companies	No. of shares	Holdings in %
Bonheur	240,945	0.57%	SpareBank 1Østfold Akershus	1,232,229	9.95%
Pareto Bank	15,311,980	21.92%	SpareBank 1Østlandet	3,833,163	3.61%
Selvaag Bolig	3,729,704	3.98%	Sparebanken Møre	305,239	3.09%
Sparebank 1Nord-Norge	4,287,282	4.27%	Sparebanken Sør	433,744	2.77%
SpareBank 1Ringerike Hadel	100,000	0.64%	Sparebanken Vest	6,861,616	6.39%
Sparebank 1SMN	1,970,442	1.52%	NEXT Biometrics	510,901	0.56%
Sparebank 1SR-Bank	1,856,679	0.73%	SpareBank 1Sørøst-Norge	177,1308	2.81%

Pareto Securities AS may hold financial instruments in companies where a recommendation has been produced or distributed by Pareto Securities AS in connection with rendering investment services, including Market Making.

Please find below an overview of material interests in shares held by employees in Pareto Securities AS, in companies where a recommendation has been produced or distributed by Pareto Securities AS. "By material interest" means holdings exceeding a value of NOK 50 000.

Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings
AF Gruppen	0	1,825	Fjordkraft Holding	0	21,317	Okeanis Eco Tankers	0	2,000
Aker ASA	500	3,075	Flex LNG	0	4,817	Orkla	0	20,983
Aker BP	0	17,942	Frontline	0	79,748	Panoro Energy	0	29,844
Aker Carbon Capture	0	12,221	Gjensidige Forsikring	0	7,734	Pareto Bank	0	1,341,634
Aker Clean Hydrogen	0	132,000	Grieg Seafood	0	9,127	Pexip Holding	0	85,163
Aker Horizons	0	125,848	Hafnia Ltd.	0	10,000	Protector Forsikring	0	14,000
Aker Offshore Wind	0	164,028	Huddly	0	908,173	Pryme	0	4,000
American Shipping Co.	0	13,300	HydrogenPro	0	37,552	Quantafuel	0	5,797
Aprila Bank ASA	0	22,675	Ice Fish Farm	0	2,000	REC Silicon	0	39,716
Archer	0	30,170	ice Group ASA	0	200,000	Sallmar	0	2,799
ArcticZymes Technologies	0	684	Kalera	0	54,027	Sandnes Sparebank	0	4,013
Atlantic Sapphire	0	1,607	Kitron	0	18,386	Scatec	0	30,412
Austevoll Seafood	0	3,600	Komplett Bank	0	159,400	Sparebank 1Nord-Norge	0	3,350
AutoStore	0	1,345	Kongsberg Gruppen	0	36,023	Sparebank 1SMN	0	12,740
B2Holding AS	0	13,940	KWS	75	75	Sparebank 1SR-Bank	0	15,170
Belships	0	12,800	Lerøy Seafood Group	0	39,328	SpareBank 1Østfold Akershus	0	1,252
Bonheur	0	32,075	Meltwater	0	24,000	SpareBank 1Østlandet	0	9,621
Borregaard ASA	0	650	Mercell	0	24,863	Sparebanken Sør	0	16,435
Bouvet	0	2,940	Mowi	0	486	Sparebanken Vest	0	16,735
BRABank	0	31,499	MPC Container Ships	0	66,144	Sparebanken Øst	0	1,500
BW Energy	0	56,765	NEXT Biometrics	0	510,901	Stolt-Nielsen	0	1,817
BW Offshore	0	16,076	NORBIT ASA	0	1,656	Storebrand	0	25,698
Circa Group	0	11,250	Nordic Semiconductor	0	5,391	Subsea 7	0	12,493
Cloudberry Clean Energy	0	100,000	Noreco	0	790	Telenor	0	10,552
DNB	0	48,639	Norse Atlantic	0	20,000	TGS-NOPEC	0	600
DNO	0	151,978	Norsk Hydro	0	94,189	Vow	0	8,681
Elkem	0	39,047	Norske Skog	0	98,499	Wallenius Wilhelmsen	0	17,800
ELOP	0	111,000	Northern Drilling Ltd.	0	77,319	XXL	0	20,923
Entra	0	9,806	NTS	0	2,172	Yara	0	15,428
Equinor	0	2,589	Ocean Yield	0	32,650	Zaptec	0	14,000
Euopris	0	13,208	OHT	0	4,000			

This overview is updated monthly (last updated 15.11.2021).

\*Analyst holdings refer to positions held by the Pareto Securities AS analyst covering the company.

## Appendix B

### Disclosure requirements in accordance with Article 6(1)(c)(iii) of Commission Delegated Regulation (EU) 2016/958

Overview over issuers of financial instruments where Pareto Securities AS have prepared or distributed investment recommendation, where Pareto Securities AS have been lead manager/co-lead manager or have rendered publicly known not immaterial investment banking services over the previous 12 months:

24SevenOffice Scandinavia	EcoOnline	KLP	PHM Group	Wheel.me
2G Energy	ELOP	KMC Properties	Ping Petroleum UK Limited	Xeneta AS
Avanzia Bank S.A.	Endur ASA	Komplett ASA	poLight	ZTL Payment Solution AS
Aker ASA	Energy Israel Finance Ltd.	Komplett Bank	Pronofa AS	Ørn Software
Aker Clean Hydrogen	Enviv AS (Bookis)	Kraft Bank	Proximar Seafood	
Aker Horizons	Fertiberia S.A.R.L.	Lakers Holding AS	Pryme	
Akershus Energi	Flexistore AS	Lerøy Seafood Group	Pyrum Innovations	
Akva Group	FREYR Battery	Lumarine AS	REC Silicon	
Arcane Crypto	Funkwerk AG	Maha Energy	Saga Robotics	
Arctic Fish	Gjensidige Forsikring	Malorama Holding AS	Salmon Evolution	
Arendals Fossekompani	Golden Ocean Group	Mathesa Bostadsbolaget AB	Seafire AB	
Attensi	Goliath Offshore	Meltwater	Seajacks	
Barramundi Group Pte. Ltd.	Grøntvedt AS	Mercell	SFL Corporation Ltd	
Belships	Hagal AS	Modex AS	SGL TransGroup International A/S	
BioInvent	Halodi Robotics AS	Mutarese SE & Co. KGaA	Shamaran Petroleum	
Biomega Group AS	Heimdall Power	Müller Medien GmbH (United Vertica)	Siccar Point Energy	
Bonheur	HKN Energy Ltd	Navios Maritime Acquisitions	Skitude	
Bulk Infrastructure Holding	Hofseth BioCare	Next Biometrics Group	Smart Wires Inc.	
BW Energy	House of Control	Nordic Halibut	Strandline Resources Limited	
BWLPG	Huddly	Noreco	Talos Energy Inc	
Cavai AS	Ice Group Scandinavia Holdings AS	Norlandia Health & Care Group AS	Tise AS	
CentralNic Group PLC	Idavang A/S	Norse Atlantic	Trønderenergi AS	
Circa Group	Immunopharma	Norske Skog	Vegfinans AS	
CloudBerry Clean Energy	JP/Politiken's Forlag	Norwegian Block Exchange	Viking ACQ1 AS, SPAC	
Dampskibsselskabet NORDEN A/S	Kalera	Panoro Energy	Vow	
DLT	Kentech Global Plc	Pelagia Holding AS	Waldorf Production UK Ltd	
DNO	Keppel FELS Limited	PetroNor E&P	Watercircles Forsikring	
Documaster AS	Kistosplc.	PetroTal	West Coast Salmon	

*This overview is updated monthly (this overview is for the period 31.10.2020 – 31.10.2021).*

## Appendix C

### Disclosure requirements in accordance with Article 6(3) of Commission Delegated Regulation (EU) 2016/958

#### Distribution of recommendations

Recommendation	% distribution
Buy	70%
Hold	28%
Sell	3%

#### Distribution of recommendations (transactions\*)

Recommendation	% distribution
Buy	95%
Hold	5%
Sell	0%

\* Companies under coverage with which Pareto Securities Group has on-going or completed public investment banking services in the previous 12 months.

This overview is updated monthly (last updated 15.11.2021).

## Appendix D

This section applies to research reports prepared by Pareto Securities AB.

### Disclosure of positions in financial instruments

The beneficial holding of the Pareto Group is 1 % or more of the total share capital of the following companies included in Pareto Securities AB's research coverage universe: None

The Pareto Group has material holdings of other financial instruments than shares issued by the following companies included in Pareto Securities AB's research coverage universe: None

### Disclosure of assignments and mandates

Overview over issuers of financial instruments where Pareto Securities AB has prepared or distributed investment recommendation, where Pareto Securities AB has been lead manager or co-lead manager or has rendered publicly known not immaterial investment banking services over the previous twelve months:

24SevenOffice Scandinavia AB	Climeon AB	Implantica	Re.NewCell
AAC Clyde Space	Egetis Therapeutics	Isofol Medical AB	Studentbostäder i Norden
Azelio	Green Landscaping Group AB	Linkfire A/S	Surgical Science
Bionvent	Hexatronix	LMK Group	Swedencare AB
Biovica International	Hexicon	Maha Energy	Vicore Pharma
Cibus Nordic Real Estate AB	Josemaria Resources	Media & Games Invest plc.	VNV Global

Members of the Pareto Group provide market making or other liquidity providing services to the following companies included in Pareto Securities AB's research coverage universe:

Africa Energy Corp.	Logistri Fastighets AB	Minesto	Shamran Petroleum
ByggPartner i Dalarna Holding	Magnolia Bostad	Saltängen Property Invest	Surgical Science
Cibus Nordic Real Estate	Media & Games Invest plc.	SciBase Holding	Tethys Oil
Isofol Medical	Mentice AB	Sedana Medical	Vostok Emerging Finance

Members of the Pareto Group have entered into agreements concerning the inclusion of the company in question in Pareto Securities AB's research coverage universe with the following companies: None

Member of the Pareto Group is providing Business Management services to the following companies:

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Bonåsudden	Delarka	Logistri	Sydsvenska Hem

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## Appendix E

### Disclosure requirements in accordance with Article 6(1)(c)(i) of Commission Delegated Regulation (EU) 2016/958

#### Designated Sponsor

Pareto Securities acts as a designated sponsor for the following companies, including the provision of bid and ask offers. Therefore, we regularly possess shares of the company in our proprietary trading books. Pareto Securities receives a commission from the company for the provision of the designated sponsor services.

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Biotest *	Gigaset *	MLP *	Surteco Group *
CORESTATE Capital Holding S.A.	Heidelberg Pharma *	mutares	Syzygy AG *
Daldrup & Söhne	Intershop Communications AG	OVH Holding AG	TAKKT AG
Demire	Leifheit	Procredit Holding *	Viscom *
Epigenomics AG*	Logwin *	PSI SOFTWARE AG *	
Gesco *	Manz AG *	PWO *	
Gerry Weber	MAX Automation SE	S&T AG *	

\* The designated sponsor services include a contractually agreed provision of research services.

## Appendix F

### Disclosure requirements in accordance with Article 6(1)(c)(iv) of Commission Delegated Regulation (EU) 2016/958

#### Sponsored Research

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Adler Modemaerkte	Dermapharm Holding SE	Intershop Communications AG	mutares
Baywa	Enapter	Leifheit	OHB SE
BB Biotech	Expres2ion Biotechnologies	MAX Automation SE	OVH Holding AG
CLIQ Digital	Gerry Weber	Merkur Bank	Siegfried Holding AG
Daldrup & Söhne	Hypoport AG	Mynarc	

This overview is updated monthly (last updated 15.11.2021).