

AAC Clyde Space

Q321 results

Aerospace & defence

24 January 2022

Price

SEK2.70 SEK519m

Market cap

Shares in issue

SEK12.50/£, SEK9.26/\$

Net cash (SEKm) at 30 September 2021 (excluding lease liabilities of SEK11.3m)

EK12.50/£, SEK9.26/

(excluding lease liabilities of SEK11.3m)

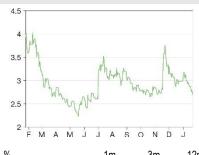
192.3m

Free float 87%
Code AAC

Primary exchange Nasdaq First Growth Market

Secondary exchange OTCQX

Share price performance



%	1m	3m	12m
Abs	(7.9)	(1.3)	(31.6)
Rel (local)	(3.6)	1.2	(42.2)
52-week high/low	SE	SEK4.03	

Business description

Headquartered in Sweden, AAC Clyde Space is a world leader in nanosatellite end-to-end solutions, subsystems, platforms, services and components, including supply to third parties. It has production and development operations in Sweden, Scotland, the Netherlands and the United States and a start up in Africa.

Next events

FY21 results

17 February 2022

Analyst

Andy Chambers

+44 (0)20 3681 2525

industrials@edisongroup.com

Edison profile page

AAC Clyde Space is a research client of Edison Investment Research Limited

Preparing to AACcelerate growth

AAC Clyde Space continues to make progress, although supplier issues constrained Q321. Management has developed a detailed growth plan to take sales from the SEK500m level targeted for FY24 to c SEK2.3bn by 2030, double our previous long-term model assumptions. We increase our loss estimates for FY21 partly due to accelerated investment and the supply chain delays. Our FY22 EBITDA is reduced by 8% to SEK23.5m. The investment is to support the higher growth, which increases our longer-term estimates. Our DCF valuation increases to SEK7.3 per share.

Year end	Revenue (SEKm)	PBT* (SEKm)	EPS* (SEK)	DPS (SEK)	P/E (x)	Yield (%)
12/19	66.4	(38.2)	(0.45)	0.0	N/A	N/A
12/20	98.4	(26.7)	(0.26)	0.0	N/A	N/A
12/21e	202.1	(32.0)	(0.17)	0.0	N/A	N/A
12/22e	292.7	8.1	0.04	0.0	67.5	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Q321 constrained but guidance maintained

Subsystem supplier delays have dented sales momentum in Q321 and while these may persist in Q421, we expect some recovery of the shortfall as deferred revenues are recognised. In addition, the company has higher depreciation and amortisation than we had assumed and additional costs relating to investing in the growing team and operational under-recovery during the period. As a result, we maintain our FY1 revenue expectations but increase our EBITDA loss to SEK15.3m (from SEK2.0m). Similarly, our revenue expectations for FY22 are unchanged but costs reduce our EBITDA estimate 8% to SEK23.5m from SEK25.4m. The order book of SEK406m remains above 2x FY21 revenues providing management with good medium-term visibility, and underpinning growth.

Services growth drives target of SEK2.3bn sales

Management previously outlined its target for revenues of SEK500m by FY24 and has now disclosed that it has a detailed plan to then quadruple sales by 2030. The increased geographical footprint and integration of technical capabilities around the globe should enable AAC to participate in increasingly complex external projects. However, the ambition for c \$250m (SEK2.3bn) revenues in 2030 is mainly driven by growth in space data as a service (SDaaS) revenues, which should reach c \$150m (SEK1.4bn) under the plan. The services growth is underpinned by the intention to build, own and operate constellations of nanosatellites covering the maritime, climate and weather domains to provide customers with access to more accurate and timely data. The company continues to build the senior management, sales and marketing team, and the infrastructure required to support the growth.

Valuation: DCF increased due to higher growth

Our DCF valuation is based on our assumptions with the growth trajectory that management has now indicated. There are of course opportunities for the cash performance to exceed these, not least as we cap growth in 2027 reducing the terminal value. We maintain our methodology as we feel it is a prudent approach for growth companies, and it currently returns a value of SEK7.3 per share.



Accelerating the hybrid New Space model

Interest and investment in New Space continues to gather pace, and AAC Clyde Space remains at the forefront of the development of low earth orbit (LEO) nanosatellite constellations and supporting subsystems for both its own use and as a supplier to third-party small satellite manufacturers and operators. The low-cost nature of the small satellite segment continues to provide the opportunity for new customers to access space data for a variety of applications ranging from the earth observation and scientific community, to maritime domain awareness, weather and climate analysis as well as communications including the Internet of Things (IoT).

SDaaS strategy evolves to constellation ownership

As the importance of space data continues to grow to analyse and resolve issues in multiple domains on the planet, the emergence of low-cost access in an increasingly competitive LEO environment continues to gather pace. The enlarged group already includes such a constellation at SpaceQuest. The appointment of its founder Dino Lorenzini as group chief scientific officer seems a natural development as AAC Clyde Space moves to deploying its own nanosatellite constellations to address weather, climate and maritime domains. In this respect the additional capabilities of Omnisys and Hyperion enhance the group's ability to develop appropriate satellite buses, systems and payloads. All of the acquisitions have continued to deliver positive EBITDA contributions.

In addition, 2021 has been a year of significant geographic expansion with additional manufacturing resource added in both Europe and the dominant US market. The opening of a South African-based subsidiary to address the growing African space market further extends the group's global reach.

Financial roadmap becoming clearer

Although the pandemic has been a constraint on growth over the last two years, positive momentum continues as evidenced by the growth of the order backlog this year. Included in the intake was the company's largest SDaaS contract to date for SEK100m for Wyvern of Canada.

Of the SEK500m management revenue target in FY24 by, SEK100m is expected to be generated by SDaaS compared to our estimate of less than c SEK20m in FY21. Management's new growth plan expects SDaaS revenue to grow to a targeted SEK1.35bn (\$250m) by 2030. We have upgraded our long-term model assumptions to incorporate the new information and to mirror the top-line development being indicated by management. Our expectation is that SDaaS will deliver EBITDA margins in excess of 40% compared to mission and product margins in the region of 15–20%.

The rapid growth of SDaaS should provide strong leverage on the relatively fixed operational cost base. Clearly building its own constellations of tens of satellites (from five currently) requires significant recurring investment in intangible development costs that ultimately transfer to space assets with relatively short operational lives of around five years. We expect EBITDA margins to improve progressively despite the investment in supporting infrastructure and headcount that has already commenced in FY21.

New Space is a competitive and increasingly crowded environment but AAC Clyde Space is an early and leading entrant in its segment with growing technology capabilities. With an experienced and growing management team, AAC Clyde Space appears well positioned to achieve its goals although operational risks cannot be ignored. Our upgraded discounted cash flow (DCF) value currently stands at SEK7.3 per share but we believe the methodology remains conservative as it



excludes longer-term growth. As AAC moves into profits, other financial metrics should start to reflect its future potential.

Muted Q321 result but strong progress year to date

Overall Q321 looked strong at the top-line level with net sales rising by 23% to SEK33.7m (Q320: SEK27.4m), but this masked a contraction in the ongoing operations in Glasgow and Sweden. Clyde Space in Glasgow and AAC Clyde Space in Sweden saw a 38% decline in net sales to SEK17.0m (Q320: SEK27.4m). Space Mission sales were still constrained by pandemic effects especially on systems suppliers, with Space Products also affected with sales in Sweden falling SEK4.3m partly offset by the introduction of Space Mission sales, which totalled SEK1.5m in Q321. The EBITDA loss at Clyde Space grew to SEK7.5m following a near breakeven H121 contribution.

The acquisitions of Omnisys, SpaceQuest and Hyperion all made strong initial contributions with healthy sales and positive EBITDA. Omnisys made a first third-quarter net sales contribution of SEK9.4m, with SpaceQuest net sales of SEK5.3m and Hyperion adding net sales of SEK2.0m during Q321. The Q321 initial EBITDA contributions also remained positive with Omnisys generating SEK0.2m, SpaceQuest SEK1.7m and Hyperion SEK0.8m.

While SDaaS revenues remain small at present, the order backlog has increased and the strategy has evolved to capture a growing share of the potential market for space data.

SEKm	2020			2021				%
	H120	Q320	9M20	H121	Q321	9M21	Q321 vs Q320	change 9 months
AAC	14.8	8.2	22.99	19.8	5.4	25.21	(34%)	10%
Clyde	27.6	19.1	46.73	31.6	11.6	43.13	(40%)	(8%)
Hyperion				8.0	2.0	10.00	, ,	
SpaceQuest				9.4	5.3	14.61		
Omnisys				15.5	9.4	24.88		
Net sales	42.4	27.4	69.72	84.2	33.7	117.8	23%	69%
SDaaS	2.4	0.0	2.4	8.3	4.2	12.5		432%
Space Missions	20.9	15.2	36.2	24.3	9.9	34.2	(35%)	(5%)
Space Products	19.1	12.1	31.2	50.2	19.5	69.7	61%	123%
Licence income	0.0	0.0	0.0	1.4	0.0	1.4		
Net sales	42.4	27.3	69.7	84.2	33.7	117.8	23%	69%
Other operating income	5.8	2.6	8.5	6.4	3.7	10.0	39%	19%
Development work capitalised	4.9	2.1	7.0	5.4	4.0	9.4	90%	34%
Group income	53.1	32.1	85.2	96.0	41.3	137.3	29%	61%
Raw materials & subcontractors	(22.6)	(14.9)	(37.5)	(35.3)	(16.5)	(51.8)	11%	38%
Personnel costs	(28.9)	(14.0)	(42.9)	(48.0)	(25.6)	(73.6)	83%	71%
Other external expenses	(1.0)	(4.4)	(5.4)	(11.8)	(8.5)	(20.3)	91%	272%
Other operating expenses	(5.1)	(0.9)	(6.0)	(3.2)	(8.0)	(4.0)	(14%)	(33%)
Acquisition expenses	(9.3)		(9.3)	(1.7)		(1.7)		(82%)
EBITDA reported	(13.7)	(2.2)	(15.9)	(3.9)	(10.0)	(14.0)	363%	(12%)
Depreciation and Amortisation	(5.7)	(2.7)	(8.5)	(9.8)	(6.8)	(16.7)	149%	97%
EBIT	(19.5)	(4.9)	(24.4)	(13.8)	(16.9)	(30.6)	244%	26%
PBT	(20.3)	(5.0)	(25.3)	(14.5)	(18.4)	(32.9)	270%	30%
Net income	(20.0)	(4.9)	(24.9)	(13.6)	(17.6)	(31.2)	262%	25%
EPS (SEK)	(0.21)		(0.26)	(0.08)		(0.18)		0%
Net cash at period end	34.9		31.2	101.4		108.1		246%
Lease liabilities	(9.3)		(8.4)	(12.6)		(11.3)		34%
Total net financial assets*	25.6		22.8	88.8		96.8		324%

On the cost side, the group has been investing in the development of the team and support infrastructure in advance of the anticipated growth. It has also invested in team structures to support growth including a new group management structure introduced in October 2021.



Personnel costs have therefore increased more rapidly than we anticipated and overhead recovery has been affected by slower project progression and lower completions. We regard this as an acceleration of personnel investment rather than a dramatic increase in long-term team numbers with some of the cost brought forward from anticipated increases in FY22.

Key highlights of the first nine months of FY21 (9M21) were:

- Group net sales rose 69% to SEK117.8m (9M20: SEK69.7m). SDaaS grew to SEK9.2m (9M20: SEK2.4) including the addition of SpaceQuest revenues in the segment during 2021 year to date. Space Products reflected the bulk of the overall acquisition contribution, more than doubling to SEK69.7m (9M20 SEK31.2m). Space Mission's performance continued to be constrained by delays from subsystems suppliers that have deferred project deliveries and, but grew 4% to SEK37.5m (9M20: SEK36.2m).
- Group EBITDA loss decreased to SEK14.0m (9M20 loss: SEK15.9m) as the positive contribution from the acquisitions of SEK11.0m more than offset acquisition costs for Omnisys of SEK1.7m. and partially offset the increased losses of the continuing businesses in Sweden and Glasgow. Clyde Space saw its EBITDA loss increase to SEK12.3m (9M20 loss: SEK7.6m) as programme work was constrained by supply chain issues and inflation of costs while AAC Clyde Space's EBITDA loss in Sweden was SEK10.8m (9M20 loss: SEK8.3m) before acquisition costs of SEK1.7m. The start-up operation in South Africa made an initial SEK0.2m loss (started in Q321).
- The loss before tax of SEK32.9m was 30% higher than in (9M20 SEK25.3m).
- Adjusted net cash (excluding leases of SEK11.3m) at Q321 was SEK108.1m compared to SEK62.2m at the start of the year. It benefited from the net capital raised after the payment of the cash element of the Omnisys acquisition and another strong operating cash inflow of SEK16.4m in Q321, largely reflecting increased prepayments from customers. For 9M21 the net cash inflow increased to SEK44.9m compared to an outflow of SEK20.6m in 9M20.
- The pandemic has also led to delays in project initiation across the industry and was in part the cause of subdued order intake in Q321. As a result, the order backlog fell modestly to SEK406m from its record high at H121 of SEK413m. It still represents more than two years of FY21 estimated net sales.

Exhibit 2: AAC Clyde Space net sales split by segment activity, 9M21 SEK117.8m

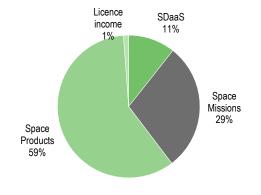
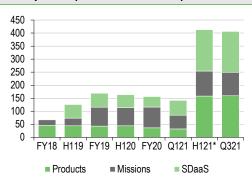


Exhibit 3: AAC Clyde Space order backlog development (SEK406m at 9M21)



Source: AAC Clyde Space reports

Source: AAC Clyde Space reports. Note: *Split estimated by Edison.

AAC Clyde Space won significant orders won in Q321:

- It was selected by satellite manufacturer OHB Sweden to deliver core avionics worth c €797k (c SEK8.2m) to ESA's Arctic Weather Satellite.
- It was awarded a contract worth €320k (c SEK3.3m) to deliver the Sirius Command and Data Handling system to a new client.



Management developments

The group has strengthened and restructured its leadership team to support growth. Stefania Mandirola joined in October as COO and Kulwinder Bhumbra was appointed HR director in November 2021. Peter Anderson, who has been with the company for six years, was appointed chief commercial officer in September 2021, and Dr Andrew Carrel joined in May as VP future programmes to provide leadership in developing the SDaaS opportunity. Luis Gomes (CEO), Mats Thideman (deputy CEO and CFO) and Andrew Strain (CTO) retain their positions under the new leadership structure with Dr Dino Lorenzini, the founder of SpaceQuest, transitioning to chief scientific officer for the group.

The change to the US leadership team saw Dr Lorenzini's position as CEO of SpaceQuest and head of Americas filled by Chris Fauquier, who has been promoted internally from COO. The new management team of AAC Space Africa bring over 40 years of experience to the group with two pioneers of the African CubeSat industry, Dr Robert Van Zyl and Francois Visser, assuming the positions of managing director and technical director, respectively.

Earnings revisions

The accelerated costs and contract delays have led us to increase reduce our loss before tax estimates by SEK18.1m in FY21 and by SEK8.0m in FY22. We are expecting some catch up in Q421 as deferred revenues are recognised although supply chain issues remain a global problem and could push some project work into FY22. We still expect the company to move to a positive EBITDA in FY22 and to be cash positive by FY23. We will introduce FY23 estimates after the company reports FY21 results on 17 February 2022.

Year to Dec (SEKm)	2021e	2021e		2022e	2022e	
	Prior	New	% change	Prior	New	% change
By Business	_	_	_	_	_	
AAC	41.3	41.3	0.0%	50.2	50.2	0.0%
Clyde	81.6	81.6	0.0%	130.5	130.5	0.0%
Hyperion	19.2	19.2	0.0%	23.1	23.1	0.0%
SpaceQuest	30.0	30.0	0.0%	49.0	49.0	0.0%
Omnisys	30.0	30.0	0.0%	40.0	40.0	0.0%
Total group net sales	202.1	202.1	0.0%	292.7	292.7	0.0%
By activity	_	_	_	_	_	_
SDaaS	18.3	18.3	0.0%	32.6	32.6	0.0%
Space Missions	65.9	65.9	0.0%	112.2	112.2	0.0%
Space Products	116.6	116.6	0.0%	145.9	145.9	0.0%
Licence & royalties income	1.4	1.4	0.0%	2.0	2.0	0.0%
Total group net sales	202.1	202.1	0.0%	292.7	292.7	0.0%
Other operating income	7.3	7.3		7.3	7.3	
Own work capitalised	15.1	15.1		14.8	14.8	
Total group income	224.5	224.5	0.0%	314.8	314.8	0.0%
Raw materials & subcontractors	(86.9)	(91.0)	4.7%	(111.2)	(111.2)	0.0%
Personnel costs	(103.0)	(107.2)	4.1%	(129.2)	(131.1)	1.5%
Other external expenses	(34.4)	(34.4)	0.0%	(49.0)	(49.0)	0.0%
Other operating expenses	(2.3)	(7.3)		0.0	0.0	
EBITDA (company reported)	(2.0)	(15.3)	651.1%	25.4	23.5	(7.7%)
EBIT (Pre PPA amortisation)	(13.3)	(26.9)	103.3%	13.2	10.6	(19.3%)
Underlying PBT	(13.9)	(31.9)	128.9%	16.2	8.2	(49.5%)
EPS - underlying continuing (SEK)	(0.08)	(0.17)	128.9%	0.08	0.04	(49.5%)
DPS (SEK)	0.0	0.0		0.0	0.0	· · · · · ·
Adjusted net cash / (debt)	119.0	102.6	(14.0%)	131.4	108.5	(17.4%)



Valuation

It is clear that space has become an increasingly high-profile sector for investors. That is reflected in the number of new listings and the amount of capital raised during 2021. Many of these companies are now being afforded interesting valuations and ratings.

We continue to use our capped DCF methodology for AAC (consistent with all our companies) as our main fair value reference point as the company has yet to become self financing. The model captures six years of forecasts and then assumes zero growth in the terminal value with capex normalised to depreciation and working capital flows neutralised. We consider this to be conservative as we do not capture continued growth in companies beyond the forecast period, with AAC clearly outlining a higher growth path than we had previously assumed in our model.

Although subject to the usual risks of operating in space markets (delays, operational failures, space debris etc) these should diminish as higher-margin, recurring SDaaS revenues grow. Our calculated WACC of 11.8% reflects the current situation and the DCF returns a value using FY21 as our base year of SEK7.3 per share (from SEK5.5 previously), reflecting higher growth assumptions.

We calculate that if we were to roll forward to our FY22 estimates as the base year, that value would be extended to SEK9.4 per share reflecting the strong cash flow growth anticipated. If we further extend the growth period to include the estimates during the strategic plan to 2030 before capping the growth, the value rises to SEK15.7 per shares. Successful execution of the strategy and achieving estimated margins are key to realising these higher values.

The sensitivity of our DCF model to changes in WACC assumptions and the terminal growth rate are shown in the table below.

Exhibit 5: AAC Clyde Space capped DCF sensitivity to WACC and growth rate (SEK/share)										
WACC	7.0%	8.0%	9.0%	10.0%	11.0%	11.8%	12.0%	13.0%	14.0%	
Terminal growth rate										
0%	13.9	11.8	10.3	9.0	8.0	7.3	7.2	6.5	5.9	
1%	16.0	13.4	11.4	9.9	8.7	7.9	7.8	7.0	6.3	
2%	19.0	15.5	12.9	11.0	9.6	8.6	8.4	7.5	6.7	
3%	23.5	18.4	14.9	12.5	10.7	9.5	9.3	8.2	7.3	
Source: Edison Invest	ment Resear	ch estima	tes							



	SEKm	2019	2020	2021e	2022
Year-end 31 December		IFRS	IFRS	IFRS	IFR
PROFIT & LOSS					
Net sales		66.4	98.4	202.1	292
Own work capitalised and other operating income		14.1	21.1	22.4	22
Group income		80.6	119.5	224.5	314
EBITDA		(27.3)	(17.5)	(15.3)	23
Operating Profit (before amort. and except).		(32.7)	(22.2)	(21.1)	16
ntangible Amortisation		(4.6)	(3.3)	(5.8)	(6.
Exceptionals		(2.9)	(12.1)	(8.8)	(6
Other		0.0	0.0	0.0	(
Operating Profit		(40.2)	(37.5)	(35.7)	3
Net Interest		(0.8)	(1.3)	(5.0)	(2
Profit Before Tax (norm)		(38.2)	(26.7)	(32.0)	8
Profit Before Tax (FRS 3)		(41.0)	(38.8)	(40.8)	1
Тах		0.5	0.5	2.0	(0
Profit After Tax (norm)		(37.8)	(26.4)	(30.3)	7
Profit After Tax (FRS 3)		(40.6)	(38.3)	(38.7)	1
Average Number of Shares Outstanding (m)		84.8	102.3	175.3	196
EPS - fully diluted (SEK)		(0.45)	(0.26)	(0.17)	0.
EPS - normalised (SEK)		(0.44)	(0.26)	(0.17)	0.
EPS - (IFRS) (SEK)		(0.44)	(0.37)	(0.17)	0.
Dividend per share (SEK)		0.0	0.0	0.0	(
Dividend per snare (OLK)		0.0	0.0	0.0	
EBITDA Margin (%)		-41.1	-17.8	-7.6	3
Operating Margin (before GW and except.) (%)		-49.3	-22.5	-10.4	
BALANCE SHEET					
Fixed Assets		436.9	523.0	558.2	589
ntangible Assets		418.6	494.3	533.2	56
Tangible Assets		4.1	16.2	15.2	13
Right of use asset		14.2	12.5	9.8	- 1
nvestments		0.0	0.0	0.0	(
Current Assets		108.5	113.3	217.0	244
Stocks		13.1	12.8	39.3	49
Debtors		17.7	9.5	39.3	46
Cash		52.4	62.4	108.0	118
Other		25.2	28.5	30.4	29
Current Liabilities		(60.5)	(56.1)	(105.7)	(127
Creditors		(60.5)	(56.1)	(105.7)	(127
Short term borrowings		0.0	0.0	0.0	(121
Long Term Liabilities		(16.0)	(14.4)	(17.0)	(18
Long term borrowings		(0.8)	(0.3)	(5.4)	(9
Lease liabilities		(14.1)	(12.9)	(10.3)	(7
Other long term liabilities		(1.1)	(1.2)	(1.3)	(1
Vet Assets		468.9	565.8	652.5	687
		400.3	303.0	032.3	001
CASH FLOW					_
Operating Cash Flow		(15.3)	(14.2)	(14.7)	25
Net Interest		(0.8)	(0.7)	(4.8)	(2
[ax		0.4	0.4	1.6	(0
Capex		(13.9)	(17.2)	(16.8)	(17
Acquisitions/disposals		(3.0)	(113.8)	(41.5)	(33
inancing		73.3	156.8	116.7	3
Dividends		0.0	0.0	0.0	
Net Cash Flow		40.7	11.4	40.4	
Opening net debt/(cash) excluding lease liabilities		(10.9)	(51.6)	(62.2)	(102
IP finance leases initiated		0.0	0.0	0.0	
Other		0.1	(0.8)	0.0	
Closing net debt/(cash) excluding lease liabilities		(51.6)	(62.2)	(102.6)	(107
Net financial liabilities including lease liabilities		(37.5)	(49.3)	(92.3)	(100



General disclaimer and copyright

This report has been commissioned by AAC Clyde Space and prepared and issued by Edison, in consideration of a fee payable by AAC Clyde Space. Edison Investment Research standard fees are £60,000 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Copyright: Copyright 2022 Edison Investment Research Limited (Edison).

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person

United States

Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.