EDISON

AAC Clyde Space

SDaaS set to grow

FY22 results

Aerospace and defence

AAC Clyde Space continued to experience supply chain delays in Q422, which further constrained performance. An aborted acquisition also incurred an exceptional cost that depressed statutory profits. However, despite project delays, order intake has remained healthy. With an element of deferred revenue recovery adding to FY23 plans, management expects substantial growth, generating positive EBITDA and operating cash flow.

Year end	Revenue (SEKm)	PBT* (SEKm)	EPS* (SEK)	DPS (SEK)	P/E (x)	Yield (%)
12/21	180.0	(27.0)	(0.14)	0.0	N/A	N/A
12/22	196.7	(23.8)	(0.11)	0.0	N/A	N/A
12/23e	355.1	0.6	0.00	0.0	N/A	N/A
12/24e	483.6	44.9	0.21	0.0	7.1	NA

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

FY22 constrained by supply chain delays

Supply chain issues continued into Q422, with supplier delays compromising anticipated delivery of subsystems and delaying projects. Despite a healthy seasonal pick-up in Q422 revenues to SEK60.3m (Q421: SEK62.1m), these were some SEK13m short of management expectations from Q322. The impact was most apparent in sales of Space Products from AAC Clyde in Sweden and Space Missions work at Clyde Space in Glasgow. The more recent acquisitions made healthy sales progress in both Q422 and for FY23, with strong EBITDA margins at SpaceQuest (29%) and Omnisys (18%). In addition, the group's cash performance was better than expected, with a year-end net cash balance of SEK52.1m.

Medium- and long-term growth targets remain

While the supply chain issues appear to be persistent, management has initiated mitigating actions such as inventory buffers, which should moderate some of the shortages. We expect space data as a service (SDaaS) revenue to accelerate sharply in 2023 and 2024 as more AAC-owned and operated constellation satellites are deployed by both SpaceQuest and Clyde Space, with Kelpie-1 deployed on 3 January for ORBCOMM. As AAC Clyde Space converts its existing backlogs into space assets and data revenues, new order intake is likely to increase in importance to replenish Space Missions and Space Products workloads, as well as developing the stream of data sales.

Valuation: Earnings metrics of increasing relevance

We introduce our FY24 estimates and expect strong progress towards the management revenue target of SEK500m. As higher-margin SDaaS sales accelerate, so should profitability and cash generation. As a result, more traditional earnings metrics should become more meaningful, with a single-digit P/E multiple in FY24 looking undemanding. Our capped DCF has been rolled forward to a 2023 basis and now returns a value of SEK8.0/share (SEK7.2/share previously), as start up cash outflow is replaced by stronger future generation.

6 March 2023

Price	**SEK1.50**
Market cap	**SEK307m**
	SEK/$1, SEK/£1
Adjusted net cash (SEKm) at 31 December 2022 (excluding leases of SEK16.5m)	52.1
Shares in issue	204.8m
Free float	89%
Code	AAC
Primary exchange	Nasdaq First North Premier Growth Market
Secondary exchange	OTCQX

Share price performance

%	1m	3m	12m
Abs	(0.7)	(2.3)	(30.9)
Rel (local)	2.1	(7.6)	(32.8)
52-week high/low	SEK2.37	SEK1.22	

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, as well as a start-up in Africa.

Next events

FY22 report and accounts	27 April 2023
AGM and Q123 results	25 May 2023

Analysts

Andy Chambers +44 (0)20 3077 5700

Natalya Davies +44 (0)20 3077 5700

industrials@edisongroup.com

Edison profile page

FY22 results constrained by supply chain issues

AAC's performance in FY22 was constrained by persistent supply chain issues that continued to delay projects and defer revenue recognition into the current year. These continued in Q422, leading to a shortfall against expected revenues indicated by management at Q322 for SEK210m in FY22. With operating costs, depreciation and amortisation increasing broadly in line with our estimates, the revenue shortfall dropped almost directly through to adjusted EBITDA losses (excluding exceptional M&A costs) and adjusted EBIT losses (before acquired intangible amortisation). The reported EBITDA loss was further increased by the exceptional cost of SEK8.6m for an acquisition that did not proceed.

- FY22 revenues were up just 9% at SEK196.7m (FY21: SEK180.0m), which included a full year contribution from Omnisys compared to eight months and the start-up of AAC Space Africa in Q221. Both AAC Clyde in Sweden and Clyde Space in Glasgow were affected by supplier issues and project delays, with revenues falling 16% and 5% respectively. AAC, in particular, had a challenging Q422, with revenues falling to SEK2.9m (FY21: SEK 16.2m) as component shortages deferred product deliveries to customers. Clyde Space was up in Q422 at SEK22.0m (Q421: SEK18.4m), although the business mix was unusually skewed to space products due to the deferral of Space Missions projects into FY23. Both are expected to recover deferred revenues and achieve strong underlying growth in FY23.
- The acquisitions made in the last few years (Hyperion, SpaceQuest and Omnisys) increased aggregate revenues by 29% to SEK99.3m (FY21: SEK77.0m). All three made healthy progress, notably SpaceQuest in the US, where revenues grew 63%. The South African start-up, AAC Space Africa, made a first full year SEK3.6m contribution.

Exhibit 1: AAC Clyde Space FY22 results summary

Year to Dec (SEKm)	FY19	FY20	FY21	FY22	% change FY22 vs FY21
By Business	-	-	-	-	-
AAC	26.4	28.0	41.4	34.8	(16.1%)
Clyde	40.1	68.0	61.5	59.2	(3.8%)
Hyperion		2.4	13.9	15.5	11.4%
SpaceQuest		0.0	19.2	31.4	63.3%
Omnisys			43.8	52.2	19.2%
AAC Space Africa				3.6	
Total group net sales	**66.4**	**98.4**	**180.0**	**196.7**	**9.3%**
By activity					-
SDaaS		3.1	12.8	16.9	31.9%
Space Missions	20.4	51.6	57.5	36.2	(37.1%)
Space Products	45.9	43.7	108.2	139.8	29.2%
Licence & royalties income	0.1	0.0	1.4	3.8	172.4%
Total group net sales	**66.4**	**98.4**	**180.0**	**196.7**	**9.3%**
Other operating income	11.2	12.7	17.2	25.2	46.4%
Own work capitalised	3.0	8.3	13.6	21.8	59.8%
Total group income	**80.6**	**119.5**	**210.8**	**243.7**	**15.6%**
Raw materials & subcontractors	(27.4)	(50.3)	(83.2)	(82.8)	(0.5%)
Personnel costs	(51.8)	(59.4)	(106.0)	(140.8)	32.8%
Other external expenses	(23.7)	(19.5)	(28.8)	(43.4)	50.7%
Other operating expenses	(5.0)	(7.8)	(5.2)	(6.7)	29.2%
EBITDA (company adjusted*)	**(27.3)**	**(17.5)**	**(12.4)**	**(30.0)**	**141.7%**
EBIT (underlying)**	**(37.4)**	**(25.5)**	**(22.8)**	**(41.7)**	**82.4%**
Underlying PBT	**(38.2)**	**(26.7)**	**(27.0)**	**(23.8)**	**(11.9%)**
EPS - underlying (SEK)	**(0.45)**	**(0.26)**	**(0.14)**	**(0.11)**	**(20.4%)**
Adjusted net cash	51.6	62.2	95.5	52.1	(45.4%)

Source: Company reports. Note: *Before exceptional items. **Before exceptionals and PPA intangible amortisation.

- The adjusted EBITDA loss increased to SEK30.0m (FY21 loss: SEK12.4m) and reported EBITDA increased to SEK38.6m (FY21 loss: SEK14.9m). The FY22 adjustment comprises the SEK8.6m costs incurred for an aborted acquisition (FY21 aggregate: SEK2.7m). The increased adjusted EBITDA loss resulted from under-recovery of the ongoing investment in personnel costs and infrastructure to support future growth as revenues were deferred.

Exhibit 2: AAC Clyde Space adjusted EBITDA by subsidiary

SEKm	Q421	Q422	FY21	FY22
AAC Clyde Space	(0.1)	(0.5)	(11.8)	(12.1)
Clyde Space	1.6	(15.6)	(10.7)	(33.6)
Hyperion	(1.7)	1.0	0.8	0.7
SpaceQuest	0.4	2.3	5.2	9.3
Omnisys	1.7	2.6	5.4	9.4
AAC Space Africa	(1.1)	(1.2)	(1.3)	(3.6)
Total	**0.7**	**(11.5)**	**(12.4)**	**(30.0)**

Source: Company reports

- Clyde Space was particularly badly hit by project deferrals, with its FY22 loss almost trebling, while AAC Clyde in Sweden modestly increased its loss. Hyperion maintained its contribution and there was strong progress at both SpaceQuest and Omnisys. AAC Space Africa incurred an initial EBITDA loss of SEK1.3m.
- The group's net financial income in Q422 and for FY23 benefited from restatements of additional considerations for both SpaceQuest and Omnisys under IAS 32 and IFRS 9. As a result, net financial income was SEK10.7m in Q422 and SEK17.9m for the full year.
- The group continued to invest in future growth opportunities, with SEK40.9m invested in fixed assets during the year of which SEK27.7m was in intangible assets, primarily development costs. We expect the level of investment to continue to rise as the number of AAC-owned and operated satellites grows for an increasing number of constellations.
- The remaining third of the Omnisys warrants were converted as expected during Q422, with 5.78m shares issued. The share count in AAC Clyde Space is therefore 204.8m.

Transitioning to SDaaS delivery

While FY22 proved to be a more challenging year than expected, the company continues to progress its strategy and FY23 should see the deployment of a number of self-owned and operated low Earth Orbit data acquisition nanosatellites that we expect to transform the financial dynamics of the group. Some of these will be additional satellites for SpaceQuest's existing fleet incorporating updated and upgraded technologies. In addition, the first VDES satellites should be launched during 2023, which should stimulate high-margin data sales to third parties within months of deployment.

Order development remains positive. In Q422, order intake included:

- An agreement to progress into the final phase of the xSPANCION project, the demonstration phase. This will begin with a phase 3A, focused on scaling constellation production capacity and delivering data services to users. The value of this phase is c SEK35.8m, with the UK Space Agency contributing half.
- Following a SEK11.6m order for a Starbuck power system received in Q322, the company received a follow-on order worth SEK10.9m for a Sirius computer from Astroscale, for inclusion in its end-of-life space debris removal service, ELSA-M. A further order was subsequently received for additional hardware worth c SEK7.7m, taking the total content to c SEK30.2m.
- A five-year contract worth c SEK6.2m to maintain radiometers in the telescopes of the Atacama Large Millimeter/submillimeter Array in Chile.

- A one-year extension contract to operate the SeaHawk satellite, worth c SEK1.9m, with an option for a further two-year extension.
- A c SEK8.8m order from Intuitive Machines for subsystems for its IM-3 mission. It is AAC's third order for the lunar landing mission.

Momentum has continued into FY23, with satellites launched including the first Kelpie-1 satellite for ORBCOMM that will provide AIS (automatic identification system) data under an exclusive SDaaS contract to support its business. The loss of Amber-1 on the failed UK launch in early January has no financial impact on AAC. New business won includes a follow-on order worth SEK2.6m from Space Forge, which also lost a demonstration platform on the Virgin launch. The second platform should be deployed in H223.

On 1 March 2023 AAC Clyde Space announced it had shipped the first of three 6U EPIC VIEW satellites for the delivery of hyperspectral imagery data to Wyvern of Canada under a c SEK105m four-year SDaaS contract with annual extensions thereafter. Wyvern specialises in Earth observation and will first offer the data to the agricultural sector to help optimise yields and detect invasive plants, pests and changes in soil makeup. Launch is planned for April 2023 with data delivery commencing in Q223. The further two satellites are also expected to be launched in FY23. AAC Clyde Space will own and operate the satellites.

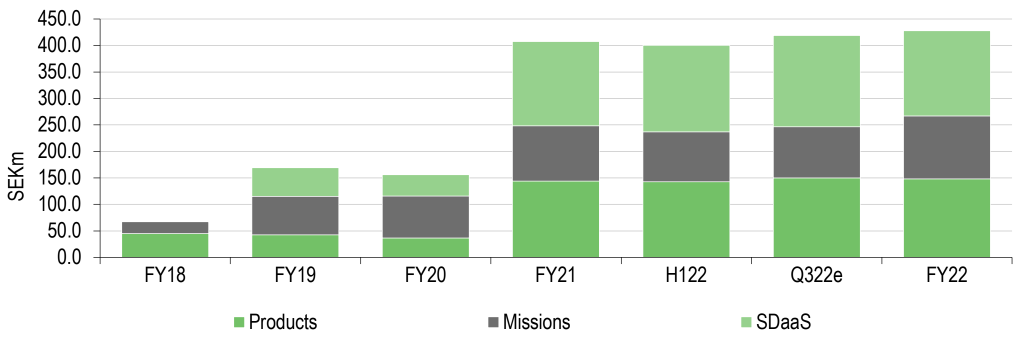
AAC Hyperion is part of a consortium that has been selected by the European Defence Fund to develop a less than 100kg geosynchronous equatorial orbit (GEO) satellite for space situational awareness. The Naucrates satellite is to be designed so as not to be trackable from ground radar, optical telescope or radio telescope and will be placed in orbit beyond the normal GEO satellites.

Other orders already won this year include:

- A contract worth c SEK6.1m for reaction wheels to be used on a number of small satellites from a US blue-chip company.
- AAC SpaceQuest is to procure and resell c SEK16.6m of products to another US blue-chip company over the next 12 months.
- A significant order for satellite subsystems worth c SEK23.8 m from a US development company supplying spacecraft and other multi-mission systems to be delivered in FY23.

The order backlog stood at a record SEK427.8m at the year end, up by 5%, albeit slightly inflated due to the delivery delays.

Exhibit 3: AAC Clyde space order backlog development



Source: Company reports, Edison Investment Research estimates

With an element of catch-up from deferred FY22 projects and systems deliveries, we expect the backlog to support our growth expectations for the group. These appear to have been further underpinned by the recent order activity. We expect to see additional healthy order intake in the current year, with the newly deployed satellites providing verification of the SDaaS offering.

Our FY23 revenue expectations are broadly unchanged at SEK355m, with high-margin SDaaS revenues expected to grow sharply. In line with management expectations, our EBITDA is positive and we expect operating cash inflow to increase, albeit investment to support growth is likely to lead to a FY23 reduction in net cash.

We also introduce our forecasts for FY24, which see revenues approaching the previously indicated management expectation of SEK500m. With cost base investment having already been initiated, we expect costs to rise at a slower pace than sales, providing significant operating leverage. In turn, we expect that to drive net cash flow into positive territory in FY24, despite ongoing increases in investment to support growth.

Exhibit 4: AAC Clyde Space estimates revisions

SEKm	2022e	2022			2023e		2024e
	Prior	Actual	% change	Prior	New	% change	New
By Business							
AAC	49.6	34.8	(29.9%)	72.3	66.0	(8.7%)	89.3
Clyde	56.1	59.2	5.4%	130.1	145.9	12.2%	207.1
Hyperion	14.6	15.5	6.1%	19.0	20.2	6.1%	24.2
SpaceQuest	31.7	31.4	(1.0%)	41.3	40.8	(1.0%)	53.1
Omnisys	57.0	52.2	(8.3%)	74.1	67.9	(8.3%)	84.9
AAC Space Africa	5.0	3.6		20.0	14.3		25.0
Total group net sales	**214.1**	**196.7**	**(8.1%)**	**356.7**	**355.1**	**(0.4%)**	**483.6**
By activity							
SDaaS	19.0	16.9	(10.9%)	55.0	55.0	0.0%	101.0
Space Missions	53.7	36.2	(32.6%)	113.6	74.7	(34.2%)	88.0
Space Products	137.7	139.8	1.6%	186.1	225.4	21.1%	294.6
Licence & royalties income	3.8	3.8	0.0%	2.0	0.0	(100.0%)	0.0
Total group net sales	**214.1**	**196.7**	**(8.1%)**	**356.7**	**355.1**	**(0.4%)**	**483.6**
Other operating income	17.3	25.2	45.9%	7.3	7.3		3.0
Own work capitalised	22.5	21.8	(3.2%)	37.2	38.0		58.3
Total group income	**253.9**	**243.7**	**(4.0%)**	**401.2**	**400.4**	**(0.2%)**	**540.0**
Raw materials & subcontractors	(85.6)	(82.8)	(3.3%)	(149.8)	(149.1)	(0.4%)	(200.7)
Personnel costs	(136.2)	(140.8)	3.4%	(165.0)	(165.4)	0.2%	(190.3)
Other external expenses	(42.4)	(43.4)	2.4%	(60.6)	(60.4)	(0.4%)	(72.5)
Other operating expenses	(5.0)	(6.7)		0.0	(3.6)		(4.8)
EBITDA (adjusted)	**(15.3)**	**(30.0)**	**95.9%**	**25.7**	**21.9**	**(14.8%)**	**71.5**
EBIT (Pre PPA amortisation)	**(31.7)**	**(41.7)**	**31.2%**	**6.0**	**(2.5)**	**(141.0%)**	**42.8**
Underlying PBT	**(24.9)**	**(23.8)**	**(4.4%)**	**4.9**	**0.6**	**(87.8%)**	**44.9**
EPS - underlying continuing (SEK)	**(0.12)**	**(0.11)**	**(3.9%)**	**0.02**	**0.00**	**(87.8%)**	**0.21**
DPS (SEK)	0.0	0.0		0.0	0.0		0.0
Adjusted net cash/(debt)	28.6	52.1	81.9%	(3.6)	25.5	N/M	61.2

Source: Edison Investment Research estimates

In terms of valuation, our capped DCF has been rolled forward to FY23. As we would expect given the nature of the company and its model, the increasing cash flows lead to a significant increment in value as weaker historic cash flow is replaced by stronger future generation. It is also aided by the better than expected starting net cash level, which adds more than SEK0.11/share to the value.

The sensitivity of the value to terminal growth rates and WACC is shown in Exhibit 5 below, with the WACC calculated at 12%. The returned value is SEK8.0/share (SEK7.2/share previously).

Exhibit 5: AAC Clyde Space DCF sensitivity to WACC and terminal growth rate (SEK/share)

WACC	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%	13.0%	14.0%	15.0%
Terminal value growth rate									
0%	15.9	13.5	11.6	10.2	9.0	**8.0**	7.2	6.5	5.9
1%	18.2	15.2	12.9	11.2	9.8	8.6	7.7	6.9	6.3
2%	21.6	17.4	14.5	12.4	10.7	9.4	8.3	7.4	6.7
3%	26.5	20.6	16.7	13.9	11.9	10.3	9.0	8.0	7.1

Source: Edison Investment Research estimates

We also note that the more traditional earnings-based metrics are becoming more meaningful, with a single-digit P/E anticipated for FY24 at an early stage of the growth trajectory.

Exhibit 6: Financial summary

SEKm	2020	2021	2022	2023e	2024e
Year-end 31 December	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Net sales	98.4	180.0	196.7	355.1	483.6
Own work capitalised and other operating income	21.1	30.9	47.0	45.3	56.3
Group income	119.5	210.8	243.7	400.4	540.0
EBITDA	(17.5)	(12.4)	(30.0)	21.9	71.5
Operating Profit (before amort. and except).	(22.2)	(21.9)	(40.5)	8.3	56.4
Intangible Amortisation	(3.3)	(0.9)	(1.2)	(10.7)	(13.6)
Exceptionals	(12.1)	(15.8)	(25.4)	(16.7)	(16.7)
Other	0.0	0.0	0.0	0.0	0.0
Operating Profit	(37.5)	(38.6)	(67.0)	(19.2)	26.1
Net Interest	(1.3)	(4.2)	17.9	3.1	2.1
Profit Before Tax (norm)	(26.7)	(27.0)	(23.8)	0.6	44.9
Profit Before Tax (FRS 3)	(38.8)	(42.8)	(49.1)	(16.1)	28.2
Tax	0.5	3.3	2.6	0.8	(1.4)
Profit After Tax (norm)	(26.4)	(24.9)	(22.5)	0.6	42.7
Profit After Tax (FRS 3)	(38.3)	(39.5)	(46.5)	(15.3)	26.8
Average Number of Shares Outstanding (m)	102.3	173.8	196.9	204.8	204.8
EPS - fully diluted (SEK)	(0.26)	(0.14)	(0.11)	0.00	0.21
EPS - normalised (SEK)	(0.26)	(0.14)	(0.11)	0.00	0.21
EPS - (IFRS) (SEK)	(0.37)	(0.23)	(0.24)	(0.07)	0.13
Dividend per share (SEK)	0.0	0.0	0.0	0.0	0.0
EBITDA Margin (%)	-17.8	-6.9	-15.2	6.2	14.8
Operating Margin (before GW and except.) (%)	-22.5	-12.2	-20.6	2.3	11.7
BALANCE SHEET					
Fixed Assets	523.0	681.0	728.6	740.1	765.1
Intangible Assets	494.3	639.5	665.5	660.9	669.0
Tangible Assets	16.2	26.4	48.6	65.0	82.4
Right of use asset	12.5	15.1	14.6	14.1	13.7
Investments	0.0	0.0	0.0	0.0	0.0
Current Assets	113.3	193.4	152.8	142.7	191.6
Stocks	12.8	13.2	20.2	35.5	45.9
Debtors	9.5	23.0	24.5	39.1	50.5
Cash	62.4	96.1	52.1	25.5	61.2
Other	28.5	61.1	56.0	42.7	33.9
Current Liabilities	(56.1)	(129.2)	(170.2)	(198.5)	(245.1)
Creditors	(56.1)	(128.5)	(170.2)	(198.5)	(245.1)
Short term borrowings	0.0	(0.6)	0.0	0.0	0.0
Long Term Liabilities	(14.4)	(16.6)	(17.8)	(18.1)	(18.6)
Long term borrowings	(0.3)	0.0	0.0	0.0	0.0
Lease liabilities	(12.9)	(15.1)	(16.5)	(17.0)	(17.4)
Other long term liabilities	(1.2)	(1.5)	(1.2)	(1.2)	(1.1)
Net Assets	565.8	728.6	693.5	666.3	693.0
CASH FLOW					
Operating Cash Flow	(14.6)	(37.3)	(13.7)	17.1	100.5
Net Interest	(0.2)	(0.2)	18.8	4.0	3.0
Tax	0.4	2.1	1.3	(0.0)	(2.2)
Capex	(17.2)	(29.2)	(40.9)	(48.6)	(66.4)
Acquisitions/disposals	(6.2)	2.6	(43.6)	0.9	0.9
Financing	49.2	94.1	33.3	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0
Net Cash Flow	11.4	32.0	(44.7)	(26.6)	35.8
Opening net debt/(cash) excluding lease liabilities	(51.6)	(62.2)	(95.5)	(52.1)	(25.5)
HP finance leases initiated	0.0	0.0	0.0	0.0	0.0
Other	(0.8)	1.3	1.3	0.0	0.0
Closing net debt/(cash) excluding lease liabilities	(62.2)	(95.5)	(52.1)	(25.5)	(61.2)
Net financial liabilities including lease liabilities	(49.3)	(80.4)	(35.6)	(8.5)	(43.8)

Source: Company reports, Edison Investment Research estimates

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.

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 or 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.

London | New York | Frankfurt
20 Red Lion Street
London, WC1R 4PS
United Kingdom