ÅAC Microtec

Aerospace & defence

29 May 2018

Space to grow

ÅAC Microtec has delivered an impressive Q118 performance, the first quarter to include a contribution from Clyde Space since its acquisition in January. Progress of the ongoing business was strong and Clyde's initial two-month contribution appears in line with previous indications for the year. Management has indicated FY18 revenue of SEK85m, which implies further progress. Healthy order intake and the prospect of rapid growth in small satellite deployment should enable the group to leverage its high-quality manufacturing capacity further improving the move into positive EBITDA in Q418. Share price pressure since the merger appears to be largely technical, which may provide an opportunity for new investors.

Q1 includes Clyde Space

Net sales SEK16.4m (Q117 SEK3.8m); this includes two months of Clyde Space, acquired in January 2018, which contributed SEK10.1m. The EBITDA loss was SEK3.7m (Q117 SEK4.1m). The loss after tax was SEK12.6m (Q117 SEK5.4m), including a net loss for Clyde Space of SEK 0.019m. Available cash at 31 March was SEK53.6m (Q117 SEK60.4m). The key event in Q118 was the purchase of Clyde Space in January for SEK376m, of which SEK354m was satisfied by issuing 30.5m shares to Clyde shareholders. It is consolidated from February. Management guidance for FY18 is for sales of SEK85m and a positive EBITDA in Q418.

Full range of satellite solutions

Following its effective merger with Clyde Space in the UK, ÅAC Microtec now offers a full range of end-to-end satellite solutions using small satellites weighing from 1kg to 50kg. The nano- and micro-satellite technologies are expected to see substantial growth in utilisation for low earth orbit missions, most likely deployed in constellations. Mission capability is advancing with technological development and the key application for communications markets is nascent. As lower-cost launch capabilities develop, there is expected to be strong growth in the number of satellites deployed. ÅAC has the ambition to dominate the small satellite market through both organic growth and further acquisitions.

Valuation: Rapid growth expected

The consensus data for AAC is current but represents just one forecast. The availability of peers is limited to established satellite builders and launch propulsion providers. As AAC moves into profitability the rating should trend towards these.

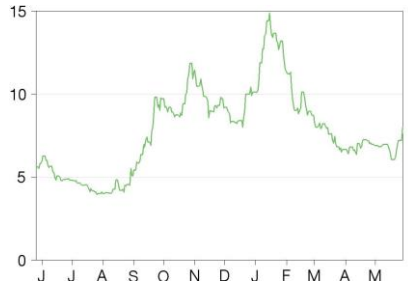
Consensus estimates

Year end	Revenue (SEKm)	EBITDA (SEKm)	EPS (SEK)	DPS (SEK)	P/E (x)	Yield (%)
12/16	26.7	(16.7)	(6.01)	0.0	N/A	N/A
12/17	17.5	(21.4)	(0.85)	0.0	N/A	N/A
12/18e	85.0	(19.0)	(0.91)	0.0	N/A	N/A
12/19e	142.0	8.0	(0.38)	0.0	N/A	N/A

Source: Company reports, Bloomberg consensus estimates (one provider)

Price	SEK8.00
Market cap	SEK550m

Share price graph



Share details

Code	AAC
Listing	Nasdaq FN Stockholm
Shares in issue	68.72m
Last reported cash as at 31 March 2018	SEK53.6m

Business description

Based in Sweden, ÅAC Microtec is a world leader in small satellite end-to-end solutions following the January 2018 merger with Clyde Space in Scotland. Both companies supply a range of technology components to larger satellite manufacturers globally.

Bull

- An early mover in the small satellite market with strong and established technology development capabilities from both ÅAC and Clyde.
- Strong demand growth expected as LEO constellations disrupt the established norm.
- Support from Swedish space agency and the commercial approach adopted in the UK.

Bear

- Adoption and deployment rates so far relatively low, especially in communications markets.
- Launch options still limited and expensive and project delays historically common in space.
- Likely to be a competitive space given the number of CubeSat developers around the globe.

Analysts

Andy Chambers +44 (0) 20 3681 2525

Annabel Hewson +44 (0) 20 3077 5700

industrials@edisongroup.com

Edison profile page

Investment case

Following the recent acquisition of Clyde Space in the UK, ÅAC Microtec is well positioned to pursue its strategic ambition to become the leading provider of satellites, systems and services in the small satellite market leveraging off the key elements of developing micro technology capabilities and reducing costs of development, launch and operation. These are satellites weighing less than 500kg, compared to larger traditional satellite platforms that weigh up to around 4 tonnes. As an emerging technology that is set to reduce costs of operation and ownership for customers, the small satellite market appears set for strong growth.

In common with computer markets, the pace of technological development in the satellite market witnessed in increased capability with reduced size and thus weight of components is rapid. With the emergence over the last 20 years of nanosatellite technologies that weigh less than 10kg, notably the modular CubeSat configurations initially developed for academic purposes, the differentiation in the service offering to customers is likely to be significant. Due to international regulatory agreements concerning transmission of bandwidths, it is unlikely to replace the dominant geostationary earth orbit satellites that provide the bulk of communications services delivery around the world. However, an offering of a potential alternative to customers seeking a lower cost, dedicated satellite network with potential for global coverage through a constellation of low earth orbit (LEO) satellites is likely to be a compelling alternative.

The market for small satellites is expected to grow rapidly over the next decade. More than 6,000 small satellites may be launched in that period (Exhibit 1) as the market transitions increasingly towards communications network deployments. A major facilitator for this is expected to be an increasing number of launch vehicle options that are expected to reduce launch costs substantially compared to current models. Several are expected to be suited to LEO small satellite payloads.

As the length of operational missions in LEO is expected to be five or six years before the satellites re-enter the earth's atmosphere and burn up, once an orbital system is established there should be a reasonably constant flow of replacement satellites. With continuing technological development this should also provide the ability to upgrade networks.

Since adopting the strategy to concentrate on this market in 2014, the company has listed on the Nasdaq FirstNorth exchange in Stockholm and made its first transformational acquisition.

The purchase of Clyde Space for SEK376m in early 2018 is regarded by management as an effective merger. Also founded in 2005 and based in Glasgow, Scotland, Clyde has developed a leading position in CubeSat development. CubeSats are 10cm cubes packed with technology (1U) that can be added in modular series to form 1U, 3U or 12U satellite packages weighing up to 20kg including solar panels for power. Clyde adds to the 50kg range already offered by ÅAC and its executives have been appointed to key strategic roles in the enlarged company, with Will Whitehorn, previously a non-executive director of Clyde, joining the ÅAC board.

Clearly there are many risks in the successful achievement of the strategy including the notorious deferrals and delays apparent in many space programmes, including new launch systems. The adoption of proposed LEO constellations, especially by communications customers, should be a key factor in the growth of the segment.

ÅAC Microtec has positioned itself to develop its strategy through the purchase of Clyde and the capital raise of SEK50m in February 2018. The company has the funding to pursue additional organic and M&A opportunities should they arise. The failure to secure a lock-in on the newly issued equity has created a negative technical situation that may be essentially a vicious circle. However, the disruption to the share price provides an opportunity for new investors to secure a position in a venture that has the potential to disrupt traditional satellite markets.

Company description: Leader in small satellite systems

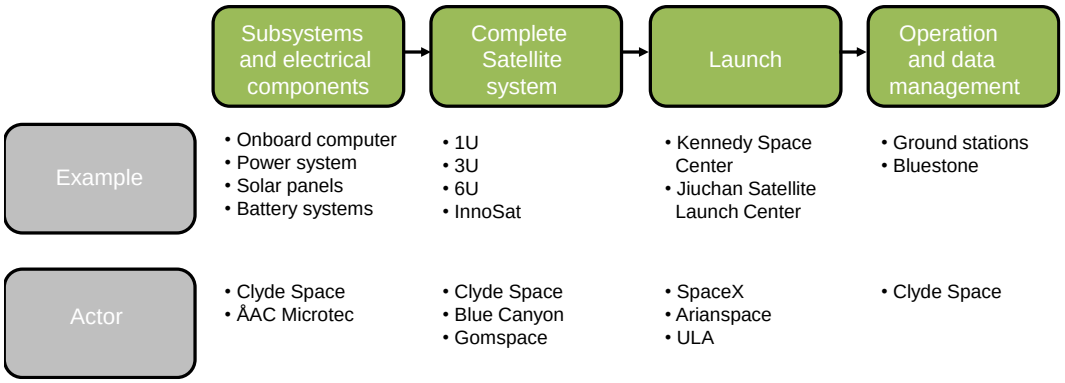
Formed in 2005 as a spin out from the Ångström Laboratory at the University of Uppsala in Sweden, the company was initially known as Ångström Aerospace Corporation and involved in the development of high-quality avionics products using microelectromechanical systems (MEMS). In 2015 the decision was taken to outsource loss-making MEMS production and focus on the commercial development of the space components and subsystems including the aspiration to build complete small satellites and networks. As a result, ÅAC Microtec has developed into a world leader in the design, development, deployment and operation of small satellites and networks, in addition to supplying technological components and subsystems to larger satellite systems.

ÅAC was listed on the Nasdaq First North market of the Swedish Stock Exchange on 21 December 2016. Fouriertransform, a wholly owned subsidiary of Swedish venture capital company Saminvest, formed by the Swedish state to invest in domestic businesses, invested SEK25m in the company in 2014 and holds a 14.4% share today. The company raised SEK120m from the listing, enabling it to pursue both organic opportunities as well as strategic M&A.

In January 2018 the company acquired Clyde Space based in Glasgow, Scotland, for a total consideration of SEK376m. The purchase extended the product offering into the nanosatellite category, which is expected to be a highly disruptive segment in the offering of satellite constellations. Clyde introduces a strong position in CubeSat markets to the group. These are 10cm cubes (1U) packed with microelectronics and power systems which can be modularly expanded to form 3U, 6U and 12U satellite packages that provide a disproportionately favourable increase in payload capacity. Having focused on its strategy of providing standardised products for the segment, Clyde now has a presence on more than 30% of already deployed CubeSats with over 2,000 components and subsystems delivered providing an outstanding validating installed base. Around 70% of its revenues are repeat business. It has also developed high-quality manufacturing capable of delivering 10 satellite platforms a month, a rate of production that may not seem spectacular but is a transformation from traditional satellite manufacturing.

The chart in Exhibit 1 was published at the time of the merger to demonstrate where Clyde Space and ÅAC Microtec focus in the satellite supply chain and how complementary the businesses are.

Exhibit 1: Overview of market segments and key players



Source: Company reports

The merged company, now called ÅAC Clyde commercially to reflect the combined offering, will operate through two business segments, Satellite Platforms & Space Systems and Subsystems & Components.

Key to the growth of the group is the development of the small satellite market. Small satellites is a collective term given to all satellites that weigh up to 500kg. The overall can be broken down into the following defined sub-segments:

- Minisatellites weighing between 100kg and 500kg

- Microsatellites weighing between 10kg and 100kg
- Nanosatellites weighing between 1kg and 10kg
- Picosatelites weighing less than 1kg

Historically the length of construction and deployment periods, prohibitive costs and a lack of available launch options have all been significant barriers in the traditional satellite market. While cost against capability has progressively improved at a fast rate, the overall market structure has been little changed in recent decades. The emergence and development of microtechnology has provided the opportunity for a step change in the provision of satellite services. CubeSats in particular continue to develop from the base established for academic and research purposes. Technology has developed to include sufficiently powered measurement instruments and radio transmitters to perform functions previously carried out by much larger platforms. The challenge has been to fit ever-improving capability into the same standardised and constrained configurations and both ÅAC and Clyde have been at the forefront in this regard.

Demand for space-based information remains the fundamental driver, with lower costs and increased capabilities of small satellites providing new alternative solutions, especially through constellation configurations covering the globe with up to 200 satellites. The development of the market is expected to be facilitated by an increasing number of new lower-cost launch systems as well as availability of venture capital support for space-based ventures.

Strategy

The company's declared strategy is to dominate the market for small satellites between 1kg and 50kg in weight. It offers an end-to-end satellite solution to potential customers from system and satellite design, manufacture and launch to operation. It also intends to continue to develop and supply subsystems and components to larger satellite projects and maintain strong relationships with global space agencies.

The key elements to delivering this strategy are likely to include:

- A commercial focus on constellation customers seeking to launch LEO networks of satellites.
- Continued product range development through improved technology and performance.
- Develop production capacity to meet rapid increases in demand as they emerge.
- Reduce costs substantially through standardisation of platforms and subsystems.
- Develop the offer of Satellite as a Service incorporating the end-to-end provision of satellite and networks from analysis and mission design to deployment and operation in service.

ÅAC Microtec has an opportunity to provide solutions and the offer of Satellite as a Service is a good example of how the company can bring its industry expertise to allow non-space players into the space. Just as Software as a Service has become an established way of working today, Satellite as a Service would allow the users to focus on business delivery while ÅAC Microtec provides access to the space economy and ecosystem.

Acquisition of Clyde Space

The purchase of Clyde Space with sales of c. SEK60m completed on the 30 January and has been consolidated since the start of February. This was funded by the issue of 30.5m shares at SEK11.62 per share to shareholders and £2m (SEK22m) of cash for a total consideration of SEK376m. As mentioned, following the deal, ÅAC also raised SEK50m before expenses through a placing at SEK7.65 per share. As a result, Clyde shareholders own around 44% of the enlarged share capital of the group.

The rationale for the deal is clear as it makes the combined company a leading player in the small satellite segment, offering end-to-end solutions to customers. The development by ÅAC of Innosat,

a 50kg satellite, is now joined by Clyde's range of CubeSat platforms including 1U, 3U, 6U and 12U offerings weighing from around 1kg up to around 20kg. The company also benefits from the combined range of subsystem and components available for both its own and third-party satellite systems, including larger platforms.

As ÅAC and Clyde integrate and leverage the combined expertise in standardised microtechnology solutions for space applications, we expect the group to consolidate and grow its market position.

Q1 trading performance

Q118 includes the following highlights:

- Net sales SEK16.4m (Q117 SEK3.8m), including two months of Clyde Space, acquired in January 2018, which equates to SEK10.1m.
- EBITDA loss of SEK3.7m (Q117 SEK4.1m).
- Loss after tax of SEK12.6m (Q117 SEK5.4m) of which net loss of Clyde Space of SEK0.019m. The Q118 report includes a SEK0.226m tax credit.
- Available cash at March 31 SEK53.6m (Q117 SEK60.4m)

The key event in the quarter was the acquisition in January 2018 of Clyde Space for SEK376m. The acquisition was paid for with £2m cash and 30,466,326 newly issued shares. The company recognised SEK385m in goodwill to be depreciated over 10 years under existing accounting standards. However, the company intends to adopt IFRS standards from Q318 at which time the goodwill will be restated and no longer depreciated just tested for impairment annually. It will also partly be converted to acquired intangible assets subject to purchase price allocation (PPA intangibles) which would be amortised over appropriate periods. Clyde is consolidated from February 2018. Goodwill depreciation of SEK6.8m in Q118 is included in EBIT in Exhibit 2 below.

Exhibit 2: Q118 results

SEKm	Q117	Q118	% Q1 change	FY17
ÅAC Microtec	3.765	6.303	67%	
Clyde Space		10.118		
Net sales	**3.765**	**16.421**		**13.282**
EBITDA	(4.115)	(3.685)	-10%	(21.399)
EBIT	(5.407)	(12.803)		(27.027)
ÅAC Microtec		(12.632)		
Clyde Space		(0.019)		
Net income	**(5.448)**	**(12.613)**		**(27.096)**
EPS	(0.17)	(0.22)		(0.85)
Net cash	60.441	53.617		37.203

Source: Company reports

The acquisition brings in Craig Clark as chief strategy officer and Andrew Strain as chief technology officer to the ÅAC management team. The company now has the capability to produce up to 10 satellites per month, with the required test equipment in house and has six satellites in concurrent assembly in the clean room.

The acquisition has facilitated the award of the company's first 'launch and operate' contract from NSL Comm in March. Since the end of Q1, the following contracts have been placed:

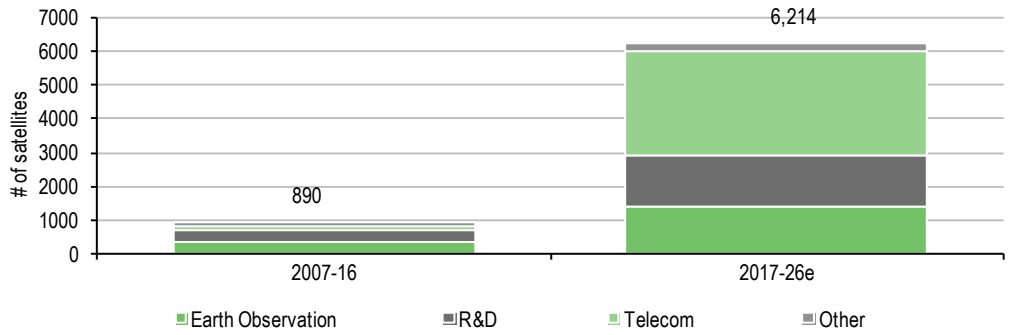
Exhibit 3: Orders signed since Q118

Customer	Order (Value where given)	Comment
Sirius Avionics	Tracking order (SEK2.5m) delivered in two rounds	Repeat order (first order in November 2017) showing recurring business in Japanese market
AISTech	Several components for 10 satellites (SEK5.6m)	First order from a new customer with plans to deploy a large constellation
South American customer	Large (+50) batch of battery systems (SEK7.2m with SEK4.9m option)	South America-based large constellation operator with potential for future orders
York Space	Technical support and delivery of battery subsystem.	Pilot for follow on orders, plus it further strengthens relationship with a very valuable partner
LCF Enterprises	Tests in orbit, commissioning and operations for DaVinci mission (SEK2.6m)	A new end to end launch and operations contract for the DaVinci mission, confirming satellite as a service concept

Source: Company reports

Market overview

Exhibit 4: Number of small satellites historic and forecast (2007 to 2026e)



Source: Euroconsult Prospects for the small satellite market, 3rd Edition 2017

According to ÅAC's recently released 2017 annual report and accounts referencing Euroconsult's *Prospects for the Small Satellite Market* report released in 2017, the size of the global market for small satellites is expected to total $30.1bn over the next decade (2017-2026). It reflects 6,214 anticipated small satellite deployments and compares to just $6.9bn over the previous 10-year period when 890 small satellites were launched. A sharp increase in launches has been apparent in recent years with an average of around 140 deployments per year with more than 100 launches in each year compared to an average of just 35 per year over the previous five years with the most deployments in any single year being 40. A large part of the growth is expected to come from the increased demand for constellations of satellites. The global market for space related services is expected to grow from around $8bn currently to c $37bn in 2030. Given ÅAC Clyde's market leading position, its participation in the market expansion appears likely.

The end-market adoption of the small satellites technologies is also expected to change the landscape of the market. As a sector, telecommunications customers are expected to provide the greatest growth as they start to exploit the new propositions offered. The expectation is that telecoms operators, including military applications, will account for 50% of small satellite deployments (c 3,100) over the coming period, which compares to less than 10% in the previous decade. More academically based research and earth observation satellites should continue to grow but from higher bases and at a slower overall pace.

Apart from the existing satellite offerings, which should continue to dominate in areas such as Ku band and Ka band high capacity data transmission, there are a number of emerging companies in the small satellite market. These include but are not limited to:

- Blue Canyon Technologies (BCT) is a US company founded in 2008 manufacturing subsystems for CubeSats.

- Gomspace, based in Denmark, was formed in 2007 and develops CubeSats and radio communications payloads. It was listed on the Nasdaq Nordic exchange in 2016.
- Innovative Solutions in Space a Netherlands-based company founded in 2006 focusing on subsystems for satellites weighing up to 30kg.
- Nanoavionics is a Lithuanian company founded in 2014 focused on developing integrated CubeSats.
- Tyvak is a US company that, among other things, provides launch products and subsystems for nanosatellites and CubeSats.
- York Space Systems in the US, founded in 2015, and develops and manufactures standardised satellite platforms, and with which ÅAC has an established relationship as a supplier.

ÅAC Clyde also continues to work with some of the world's leading space agencies. In addition to those in Sweden and the UK, it also collaborated in 2017 with NASA, the European Space Agency (ESA) and the Japanese Space Agency, JAXA.

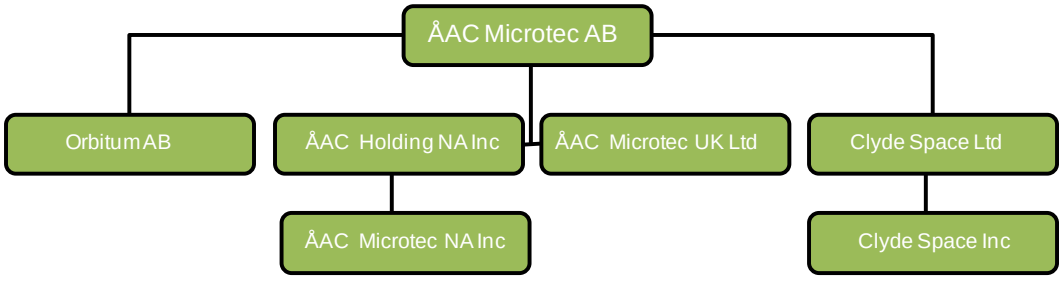
Management and organisation

Management

Alfonso Barreiro joined ÅAC as CEO in August 2017, bringing 20 years of experience in the industry. Alfonso has held roles as VP business development for Earth Observation at UrtheCast and strategic development within Elecnor Deimos group. He also has background from the ESA and SAINCO. Mats Thideman has held the role of CFO since 2014 and has been interim CEO of ÅAC since before Alfonso Barreiro took office. Mats has a long industrial experience at Åkerströms, Image Systems, TracTechnology and most recently Cortus Energy. The Clyde Space merger adds to the industry pedigree. Chief strategy officer Craig Clark will be involved in the strategic development of the group and founded Clyde Space in 2005. Chief technical officer Andrew Strain has over 10 years of experience in the design, development and delivery of small satellites.

Organisation

Exhibit 5: Group structure



Source: Company reports

Shareholders

Exhibit 6: Shareholder structure

Shareholder	# of shares	%
Ubs Wm Uk Client Holdings	18,256,183	26.6%
Fouriertransform	9,888,788	14.4%
Cbldn-Barclays Bank	8,664,795	12.6%
Rp Ventures	2,724,350	4.0%
Försäkringsaktiebolaget, Avanza Pension	2,259,901	3.3%
Bny Mellon Sa/Nv (Former Bny), W8imy	1,905,762	2.8%
Nordnet Pensionsförsäkring	1,838,289	2.7%
Rbc Investor Services Trust	1,668,387	2.4%
Uppsala Universitet Holding	757,650	1.1%
Kock, John	640,367	0.9%
Others	20,114,652	29.3%
Total	**68,719,124**	**100%**

Source: Company reports

Financials

Although we are not making financial forecasts, in the table below we reflect a historic summary P&L for both companies. Clearly, the acquisition of Clyde transforms the business scale with revenues this year now indicated by management to reach SEK85m, which we feel reflects the underlying progress at both companies.

Management has also indicated that the improvement in turnover should lead to a positive EBITDA contribution in Q418, paving the way for a potentially positive full-year result in FY19. Assuming the anticipated small satellite market growth manifests, and the company successfully wins an appropriate share of nanosatellite contract awards, providing operational leverage into the manufacturing operations, then continued rapid growth in revenues and EBITDA should result.

Exhibit 7: Summary profit and loss accounts for ÅAC and Clyde Space (FY15-FY17)

	FY15	YE April 2015	FY16	Proforma YE Dec 16	Jan-Sept 2017	Jan-Sept 2017	Jan-Sept 2017	Jan-Sept 2017	FY17
	ÅAC Microtec	Clyde Space	ÅAC Microtec	Clyde Space	ÅAC Microtec	Clyde Space	Clyde Space	Group Proforma	ÅAC Microtec
	SEKm	£m	SEKm	£m	SEKm	£m	SEKm	SEKm	SEKm
Net sales	**23.938**	**4.065**	**22.826**	**5.371**	**11.053**	**3.541**	**38.902**	**49.955**	**13.282**
Raw mats and subcontractors	(7.750)	(1.593)	(7.555)	(1.813)	(4.432)	(1.125)	(12.355)	(16.787)	(4.952)
Personnel expenses	(23.573)	(2.040)	(24.100)	(2.936)	(14.293)	(2.359)	(25.916)	(40.209)	(20.505)
Other external costs	(9.824)	(0.551)	(11.574)	(0.748)	(9.436)	(0.604)	(6.631)	(16.067)	(13.035
Other operating expenses	(0.434)	(0.006)	(0.182)	0.064	(0.253)	(0.038)	(0.42)	(0.673)	(0.365)
Total operating expenses	(41.581)	(4.190)	(43.411)	(5.433)	(28.414)	(4.126)	(45.322)	(73.736)	(38.857)
EBITDA	**(16.666)**	**0.473**	**(16.740)**	**0.417**	**(14.126)**	**(0.030)**	**(0.328)**	**(14.454)**	**(21.399)**
Depreciation and amortisation	(1.985)	(0.084)	(5.875)	(0.164)	(3.809)	(0.168)	(1.846)	(27.423)	(5.628)
EBIT	**(18.651**	**0.389**	**(22.615)**	**0.253**	**(17.935)**	**(0.198)**	**(2.174)**	**(41.877)**	**(27.027)**
Interest and other	(0.859)	(0.007)	(1.688)	(0.005)	(0.049)	(0.006)	(0.061)	(0.110)	(0.048)
Tax	(0.007)	0.083	(0.014)	0.058	(0.006)	0.243	0	(0.006)	(0.021)
Net profit	**(19.517)**	**0.465**	**(24.317)**	**0.306**	**(17.990)**	**0.039**	**(2.235)**	**(41.993)**	**(27.096)**

Source: Company reports

The balance sheet has been strengthened by theSEK50m targeted share placing, and while cash burn continued in the first quarter, there should be progress towards free cash generation over the next two years. End Q1 cash was SEK53.6m.The prospect of medium term financial self-sufficiency is likely to be subject to further M&A activity which remains a strategic capital allocation target for the company.

Valuation

The rapid growth of the group should mean that EV-based metrics fall rapidly towards more normal levels for space-based activities. There is no directly comparable quoted small satellite company that provides forward-looking metrics, as Gomspace is also in a commercial start-up phase. This means that a consideration of the valuations afforded to more established space equipment manufacturing companies in Europe and the US is, in our view, the most appropriate and available.

Peer valuation

As reflected in the Q118 trading statement, ÅAC Microtec is still in the early stages of its commercial development and is not yet making positive returns. As such, directly comparing traditional profit metrics is invalid. However, one can deduce that to match the average P/E 2019e multiple of Avio and OHB SE of 17.0x, ÅAC would need to deliver a net profit of SEK28m. If we adjust consensus for the assumed intangibles depreciation and amortisation write-downs arising from business combinations (ie Clyde) of SEK38.5m then the company is expected to reach forecast adjusted net income (our normal definition) of SEK12m in 2019 and SEK29m in 2020, and FY20 PER of 16.3x. Given the anticipated rate of growth we would expect ÅAC multiples to be at a significant premium in the near term to those of the peer group. If the strategy is executed as planned and consensus forecasts are achieved then it would appear this not reflected in the current share price.

Alternatively, to match the 9.3x FY19e EV/EBITDA of the entire peer group, ÅAC would need to generate EBITDA of SEK46m. While this is not in prospect until beyond the available consensus forecast period (it is expected to be SEK32m in 2020), the pace of top-line growth should mean that the metrics continue to decline rapidly in the coming years if the strategy is executed as expected. Thus the rate of convergence should be key in determining near-term fair value, as will longer-term cash-based valuations.

Exhibit 8: Peer group comparison

	Market cap	P/E (x)		EV/EBITDA (x)	
	(m)	2018e	2019e	2018e	2019e
Europe					
Avio	€407	14.8	15.1	9.0	8.7
OHB SE	€611	22.5	19.0	14.3	13.3
Gomspace	SEK1,800	N/M	N/M	N/M	N/M
US					
Aerojet Rocketdyne	US$2,162	27.7	23.5	10.2	9.2
Orbital ATK	US$7,737	19.3	17.1	11.2	10.6
Peer group average		**21.1**	**18.7**	**10.0**	**9.3**
ÅAC Microtec*	SEK480m	(19.6)	38.4	N/A	55.4
Premium/(discount) to peer group		**N/M**	**105%**	**N/M**	**495%**

Source: Bloomberg estimates. Note: Prices as at 24 May 2018. *ÅAC net income before acquired intangibles depreciation and amortisation

Sensitivities

We include some of the key sensitivities for the company. This list is not exhaustive but aims to highlight some of the issues involved not only in operating in the space arena but also in coordinating and managing day-to-day operations following a significant merger.

- **Merger:** the Clyde Space merger increases the addressable market and significantly changes the overall operating nature of the company. The costs may prove to be higher than estimated while the development teams in different geographies may encounter cultural differences. The next 12 months will be critical in determining how the business develops, ensuring it does not miss market opportunities while also focusing on internal change. In addition, the ramp up of the business may be too ambitious.

- **Additional M&A:** the company has the financial resources to develop the business via further acquisition, and hence there is risk in identifying viable targets and integrating them correctly.
- **Market competition:** while much of the technology involved in the small satellite market is at a nascent stage, there is already growing competition in the market. This risk can also extend to key personnel being attracted to competing firms. Developing technology can be considerably demanding on a company's resources, especially when the pace of growth of competition in the market is considerable. To keep pace with the competition may be too optimistic or too costly to enact.
- **Space industry:** while the global space industry is valued at c $350bn today, growth is not without risk. From early-stage development to launch costs, there is inherent risk in a business where the majority of assets are positioned in orbit around the earth. In addition, the space market has essentially transitioned from governmental stewardship to commercial entities and sometimes individuals. As this transition continues, it is likely that new risks will become apparent, for example, the successful entry into service of new, lower-cost launch platforms.
- **Political considerations:** the full implications of Brexit remain unclear, although it has already prompted discussion around Galileo and Copernicus satellite systems. Current discussions may drive an increased focus on UK space spending, especially when national security is in focus, which could play to the strengths of ÅAC Microtec. For now, the Airbus CEO Tom Enders believes Britain should remain part of observation satellite programmes to "ensure security and defence ties are strengthened for the benefit of Europe as a whole, during a period of increasing threats to our security and geopolitical instability."

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
295 Madison Avenue, 18th Floor
10017, New York
US

Sydney +61 (0)2 8249 8342
Level 12, Office 1205
95 Pitt Street, Sydney
NSW 2000, Australia