

Avanti Communications

Bouncing signals

Initiation of coverage

Fixed satellite services

4 February 2016

Price 138p

Market cap £203m

US\$1.42/£

Net debt (\$m) at 31 December 2015 481

Shares in issue 147.4m

Free float 100%

Code AVN

Primary exchange AIM

Secondary exchange N/A

Avanti Communications is a play on the growing demand for high-throughput data transmission for broadband in EMEA, using its Ka-band satellite network. With capacity already successfully deployed, the company is in a revenue build phase having financed two new satellites. If H216 recurring revenue guidance is achieved, it augurs well for future cash delivery and therefore the value of the currently debt-encumbered equity.

Year end	Revenue (\$m)	PBT* (\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/14	65.6	(93.0)	(85.2)	0.0	N/A	N/A
06/15	85.2	(73.3)	(61.4)	0.0	N/A	N/A
06/16e	86.7	(77.8)	(52.8)	0.0	N/A	N/A
06/17e	126.3	(39.6)	(26.7)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding exceptional items.

Filling capacity to build cash flows

Avanti has successfully developed a Ka-band satellite network covering the EMEA region, where connectivity for broadband is underserved. With future capacity expansion funded, the clear focus for management now is to build the revenue streams by filling existing capacity through its growing, prestigious customer base. It has guided to a 50% increase in recurring revenues before FX for FY16, implying significant progress. Expectations for H2 suggest an average fill rate closer to 32% (ex-HYLAS 2-B). H2 will be augmented by initial revenues from the recently added HYLAS 2-B platform. An average fill rate of c 40% on HYLAS 1 and HYLAS 2 is needed for cash break-even before capex, which we expect to be achieved by the end of FY18. Gross cash of \$163m and liquidity headroom of \$71m provides sufficient funding to complete the new satellite construction projects HYLAS 3 & 4.

New capacity should accelerate progress

With both HYLAS 3 and HYLAS 4 satellites due for launch in 2017, the company should have the ability to further increase cash generation substantially. HYLAS 4 in particular will add 28MHz of capacity equating to ultimate potential revenue streams of \$672m (although only likely to be filled 75%) pa. Total fleet revenue potential would be more than \$1.1bn. Even allowing for the cost of future satellite builds, the company should be highly cash generative from FY19.

Valuation: Long-term cash value

Based on the achievement of our growth assumptions, the DCF value of 427p (adjusted for future satellite capex) should start to be reflected in valuations. Avanti has some way to go to match the ratings of more mature peers, notably Eutelsat and SES in Europe. Its current EV of \$762m would require an EBITDA generation of c \$82m to match peer FY17e EV/EBITDA multiples of around 9.3x. We currently forecast this to be exceeded in FY18, just as free cash starts to reduce net debt. An EV only matching net space asset value, excluding any value attributable to orbital slots, compared to more than 2.6x for peers suggests substantial potential upside as risk retires.

Share price performance



%	1m	3m	12m
Abs	(19.3)	(43.5)	(38.94)
Rel (local)	(13.4)	(38.4)	(29.9)
52-week high/low		264p	107.5p

Business description

Avanti Communications is a London-based fixed satellite services (FSS) provider. It sells satellite data communications services to service providers to key markets in Enterprise, Broadband, Carrier Services and Government. It has Ka-band capacity on four satellites, with two launches due in 2017.

Next event

Q3 trading statement

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Avanti Communications is a research client of Edison Investment Research Limited

Investment summary: A developing cash story

Company description: Building a satellite network

Avanti Communications Group is a fixed satellite services (FSS) company that sells wholesale broadband capacity to service providers in the UK and EMEA (Europe, the Middle East and Africa). It currently owns and operates three satellites in geostationary orbit, HYLAS 1 and 2 and Artemis (acquired from the European Space Agency [ESA] for zero consideration in December 2013). In September 2015 Avanti also obtained indefeasible rights for 3GHz of satellite payload from SES on Astra 5B in exchange spectrum rights for regions that Avanti will not service with HYLAS 2, adding to revenue-generating capacity. Known as HYLAS 2-B, it should start to contribute to revenues in H216. Avanti has two new, fully funded satellites under construction, HYLAS 3 and HYLAS 4. When launched (expected in 2017), these will extend Avanti's capacity by 32GHz to 52GHz, with a revenue-generating potential of c \$1.2bn assuming a price of \$2,000 per MHz per month. To support the satellites and provide a low-cost, full service model to its customers, Avanti has built a ground-based infrastructure of four gateway earth stations (GES) in Cornwall, Turkey, Cyprus and Germany. Two further GESs are under construction in Africa.

Valuation: Strong long-term FCF prospects

Alongside equity, Avanti has utilised the high-yield US\$ bond market to finance the new satellites. However, it should be noted that the current yield on Avanti's bond has increased in line with the fall in the US high-yield bond market (Exhibit 2). The interest Avanti has to service on the \$645m bonds remains fixed at 10% until redemption in 2019. We expect Avanti to demonstrate its strong cash-generative credentials as capex falls sharply after FY18. The bond allows Avanti \$71m of further debt should this be required, which we feel provides sufficient liquidity to deliver the new satellite capacities by FY18. Avanti should then become strongly cash generative.

The current equity valuation does not reflect the improved FCF expectation. We believe that demonstrating positive momentum in recurring revenues through FY16 should start to improve recognition of the cash potential. With a largely fixed cost base and the gearing effect of accelerating capacity and sales growth from committed satellite investments, our risk-adjusted, DCF-based model indicates a value of 427p. This should increase further as risk retires, reducing the WACC significantly. In time, we would expect Avanti to match its peer group valuations of 2.6x EV/net space assets and 9.3x FY17e EV/EBITDA, suggesting substantial upside potential.

Financials: All about the filling

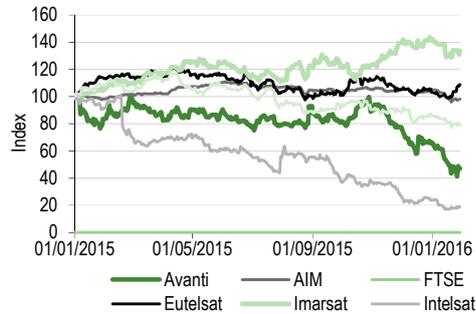
In its current phase of significant launched capacity, the key for Avanti is gaining sufficient customer traction to progressively and sufficiently grow revenues and move to a profitable and cash-generative position. To date, this has proved a slower process than had been expected, but reaffirmation in the H116 trading update of expected growth of 50% in recurring broadband revenues for the current financial year would provide sales momentum in H216, which should fuel further top-line progress in FY17. We expect Avanti to be FCF positive towards the end of FY18, with a significant inflow in FY19 as the new satellite revenue streams start to build.

Sensitivities: Cash flow geared to demand growth

Clearly, a slower than forecast fill rate would reduce top-line growth and lead to a less satisfactory cash performance. However, the converse is also true. There are clearly risks involved in the deployment of new capacity: technological risk in the build phase, the launch itself, and the commissioning in orbit. All these could delay additional broadband sales from coming on stream.

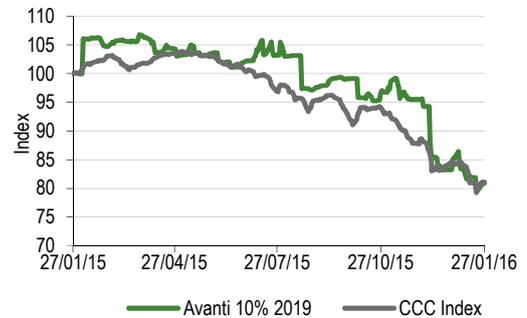
Company description: Broadband for all

Exhibit 1: FSS share prices indexed



Source: Bloomberg

Exhibit 2: Avanti 10% bond vs high-yield index (indexed)



Source: Bloomberg

Avanti is building a Ka-band satellite network to service broadband connectivity for underserved markets and remote locations in EMEA. In these markets it has been a first mover, although the technology has become mainstream in the US. It sells satellite capacity wholesale to regional service providers, which use the acquired bandwidth to service their customer base. Avanti offers a full service model, utilising a ground-based network infrastructure and web-based network management tools to provide stability, reliability and efficiency at a lower cost to enterprise customers, governments (including military), broadband service providers and telecom operators.

Avanti's model requires a high level of upfront capital investment in both ground- and space-based infrastructure. The ground-based facilities are lower cost and, once built, can be leveraged across several satellites, providing a relatively stable fixed operational cost base. We do not expect further significant ground capex to be required for the existing and currently proposed fleet of satellites.

Satellites are very high capital cost and high risk until successfully positioned and commissioned in geostationary orbit. As there is a physical limitation on geostationary orbit positions, the satellites are normally fuelled for a period of at least 15 years, after which time they will be taken out of service and replaced.

It should be noted that geostationary orbital slots are limited, and are registered and overseen by the International Telecommunications Union (ITU), which allows operators rights in perpetuity once a slot and spectrum has been allocated. Providing the slot is used, the maintained register provides significant frequency protection. Artemis provided Avanti with its third orbital position at 21.5°E, adding to HYLAS 1 at 33.5°W and HYLAS 2 at 31.0°E. Avanti must place a satellite in that slot within three years of its deorbiting to maintain its rights. Several satellites can be co-located on orbital slots by the same company if frequencies do not interfere. This gives Avanti the potential to develop its network in the long term.

These slots have a value, as they can effectively be traded. Intelsat, the largest global satellite company based in the US, includes them on its balance sheets as a non-depreciating intangible asset at around \$60m per slot. This implies an unrecognised asset value for Avanti of \$180m.

For the intended rate of investment return to be achieved, it is therefore important to fill the satellite capacity as quickly as possible, while maintaining pricing stability. In this respect achieving adoption of new technology becomes a key factor. Filling the satellites should provide rapidly growing recurring revenue streams applied to the fixed cost base, which should healthily cover operating and finance charges. Revenue potential is clearly modular with large capacities installed on a few

satellite platforms. Avanti remains in the early stage of developing capacity fill and thus revenue growth, and is certainly behind some of its early expectations.

Ka-band satellite technology

As demand for broadband data transmission increases rapidly with the use of fixed and mobile devices, higher throughput speeds appear to be the primary way of increasing transmission rates. Ka-band technology offers a higher data throughput than traditional satellite signal bands, including the widely used Ku-band, commonly used for video broadcasting. The lower-frequency L-band tends to be used for global mobile communications markets by operators like Inmarsat in shipping and aviation.

Satellite connectivity comes into its own when terrestrial options are too expensive or technologically constrained to develop. Widely dispersed, low-density populations like those apparent in many parts of Africa are ideally suited to such servicing. However, it should be noted that Avanti has just been awarded a contract by BT to help provide higher-speed broadband connectivity to remoter and other underserved households in the UK.

Ka-band transmissions are delivered by more focused, sometimes steerable beams, which have a higher data throughput than traditional satellite bands. This makes them ideal for deployment as high-throughput satellites (HTS), which are being increasingly deployed, providing an element of flexibility in the network to develop areas of rising demand more readily.

Ka-band has inherent advantages over other satellite bandwidths: higher data throughput, reuse of frequencies, lower cost per MB and a large addressable market including consumer broadband.

Satellite infrastructure

Avanti's satellites are highly adaptable. Its Ka-band designs produce highly adaptable satellites, hence the name HYLAS. The reason for the adaptability is that predicting geographical demand patterns is far from easy. The relatively narrow angle of beam width for Ka-band transponders, even compared to Ku-band beams, requires the positioning to be optimised to service demand levels efficiently.

Current satellite fleet

Launched in November 2010, HYLAS 1 became fully operational in April 2011, with capacity of 3GHz predominantly servicing Northern Europe. It was the first Ka-band satellite in Europe and its eight beams allow for bandwidth changing in orbit to enhance flexibility.

HYLAS 2 was launched in August 2010 and provided an additional 11GHz of Ka-band capacity. It has 44 beams, 24 of which can be active at any one time and two of which are on a steerable platform enabling flexibility in geographic capacity deployment.

Exhibit 3: Avanti satellite platforms key data

	Launch date	Orbital position	Footprint	Ka-band capacity (GHz)	Builder	Construction & launch costs (\$m)	Insurance coverage (\$m)
HYLAS 1	Nov-10	33.5 W	Europe	3	Astrium	234	176
HYLAS 2	Aug-12	31.0 E	EMEA	11	Orbital Sciences	407	306
Artemis	Jul-01	21.5 E	EMEA	3		612*	60
HYLAS 2-B	2013	31.5 E	MEA	3		35**	
HYLAS 3	2017	31.0 E	MEA	4	OHB System	91	
HYLAS 4	2017	N/A	EMEA	28	Orbital ATK	300	

Source: Avanti Communications. Note: *Original cost for ESA, zero cost to Avanti. **Lease carrying value.

Artemis was acquired in December 2013 from the ESA for zero cost. It has various bandwidth capabilities including optical, but only provides limited Ka-band capability that Avanti is able to market. Management expects to be able to maintain Artemis in orbit for another two years.

HYLAS 2-B is the marketing name for a hosted 3GHz Ka-band capacity on SES's Astra 5B satellite. Acquired for the remaining 13-year life of the satellite as part of an arrangement to settle disputes in September 2015, the additional capacity in part compensates for the loss of the incremental bandwidth that should have been provided by the delayed HYLAS 3 (see below).

Satellites under construction

HYLAS 3 is a hosted payload on board ESA's EDRS-C satellite with a capacity of 4GHz. Now due to be launched in Q217, deployment has been delayed by issues with the main ESA payload. The package has eight beams on one steerable antenna and will be positioned at 31.0E.

HYLAS 4 is Avanti's most capable Ka-band satellite to date. Being built by Orbital ATK in the US, it is currently scheduled for launch by Ariane in Q117. It has a capacity of 28GHz, dwarfing previous HYLAS capabilities, with 70 fixed and steerable beams. The hybrid propulsion system should allow at least 20 years of service. One of the key features of HYLAS 4 is the sharply reduced capital cost per GHz of capacity. As shown in Exhibit 5, each generation of platform is providing cheaper bandwidth.

Exhibit 4: HYLAS satellite capacities (GHZ)*

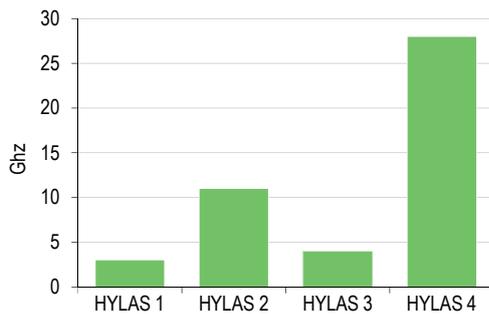
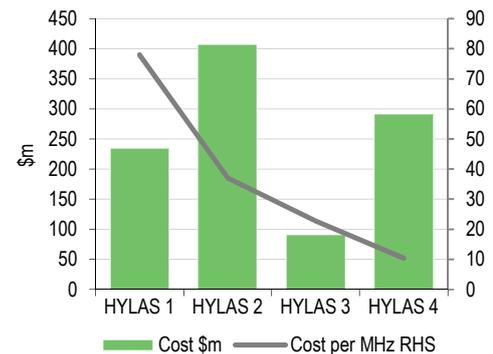


Exhibit 5: HYLAS capital cost, cost per GHz*



Source: Avanti Communications, Edison Investment Research. Note: *Includes Avanti-designed satellites only.

Filling the capacity

Clearly, this is the key driver for the Avanti model in its current phase. While new capacity is being constructed, the existing capacity is more than sufficient to provide significant revenue growth for the company. Given an expectation that pricing should remain stable, at least at the targeted \$2,000 per MHz per month we assume, we use capacity fill as our main revenue forecasting driver.

Revenue model

To model Avanti, it is necessary to make some assumptions about the fill of deployed capacity which, according to commentary from the company, is starting to improve on average, having reached 25-30% in H116. Progress towards the 85% fill target for each satellite goal has been slower than originally anticipated and we therefore assume a progressive development of average capacity fill rate. This generates revenue growth rates that peak at 53% in FY19, falling to 7% by FY25.

The leased capacity aboard HYLAS 2-B is expected to start generating revenue from H216, with a remaining life of more than 13 years. Again, we have assumed only a slow fill of the available

capacity, which we would hope will prove conservative. The additions of HYLAS 4 and HYLAS 3 in CY17 are only likely to start making revenue contributions in the second half of FY18. The fill of HYLAS 4 capacity is assumed to take longer due to its large 28GHz capacity, although adoption of Ka-band services should be better established and accelerating by the time of its deployment.

At the assumed price, the revenue-generating capacities of each platform can be calculated as per Exhibit 6. Applying a fill rate to each platform can then be used to generate a model of expected broadband revenues. We are expecting a sharp increase in HYLAS 1 fill rate, as recent contract announcements should lead to better utilisation of a relatively small capacity offering.

Exhibit 6: Avanti broadband revenue model								
	2013	2014	2015	2016e	2017e	2018e	2019e	2020e
Revenues (\$m)								
Hylas 1	11.0	11.9	13.7	25.6	38.9	43.9	50.4	54.0
Hylas 2	10.1	31.7	39.6	50.2	68.6	105.6	145.2	178.2
Hylas 2-B				3.6	10.4	15.8	21.6	28.8
Artemis		0.2	1.1	1.1	1.1	0.3	0.0	0.0
Hylas 3						4.8	12.0	19.2
Hylas 4						3.4	37.0	84.0
Broadband revenues	21.1	43.8	54.4	80.5	119.1	173.8	266.2	364.2
Maximum capacity (\$m)								
Hylas 1	72	72	72	72	72	72	72	72
Hylas2	264	264	264	264	264	264	264	264
Hylas2-B				72	72	72	72	72
Artemis		16	16	16	16	16		
Hylas 3						96	96	96
Hylas 4						672	672	672
Total	336	352	352	424	424	1192	1176	1176
Utilisation (avg. through period)								
Hylas 1	15%	17%	19%	36%	54%	61%	70%	75%
Hylas2	5%	12%	15%	19%	26%	40%	55%	68%
Hylas2-B				5%	15%	22%	30%	40%
Artemis	0%	1%	4%	7%	7%	5%	1%	0%
Hylas 3	0%	0%	0%	0%	0%	5%	13%	20%
Hylas 4	0%	0%	0%	0%	0%	1%	6%	13%
Fleet	6%	12%	15%	19%	28%	15%	23%	31%

Source: Edison Investment Research estimates

For example, Avanti announced on 7 December 2015 that it had signed a contract with BT under the British government's Universal Service Commitment. It will provide government subsidies for high-speed satellite broadband installation to consumers in up to 300k homes currently limited at 2Mbps bandwidth. As one of two satellite capacity providers, assuming a 50% share of a one-third take-up rate by eligible customers, it could add \$20m to annual sales. By itself, this would equate to more than 25% fill of HYLAS 1's capacity.

Further contract wins in Q2 were announced to provide connectivity for Telkom of South Africa, TerniEnergia of Italy, Bentley Walker of the UK and Smart Rural in the Iberian peninsula.

Avanti has continued to build its 180-strong customer base with improving quality, including major telecoms players such as BT, Vodafone, Telkom, TelOne and many governments including the UK. Indeed, the period-end order backlog has developed positively in Q2, rising from \$379m to \$410m despite an adverse FX impact. While the company has indicated a reduction in the importance of backlog as a key indicator as the number of framework contracts signed with major customers has increased, this is at least an encouraging sign after weakness in recent periods.

Avanti is successfully pursuing a pioneering Ka-band strategy that appears increasingly vindicated. In October 2015 Eutelsat, a major competitor, ordered a new Ka-band, high-throughput satellite from Thales Alenia Space to be launched in 2019, to service additional broadband demand in sub-Saharan Africa, fully aware of Avanti's growing Ka-band offering. Where Avanti led, other industry players are now following.

Management

The executive management team (see page 12) has been in place since 2007 and therefore has a comprehensive understanding of what needs to be delivered to ensure the success of the business model. While the execution and delivery since inception has at times missed milestones, Avanti has delivered a highly advanced and operational satellite network that appears well regarded by prestigious customers, both commercial and institutional, including the UK government among others. The addition of the highly respected Paul Walsh as non-executive chairman in early 2014 strengthened the oversight of developments as the remaining challenges are addressed.

Sensitivities

As with all telecommunications ventures, and possibly more so given the nature of space investment, there is a clear risk that technology may fail or perform poorly. To address this Avanti utilises a high-quality supply chain with strong track records of delivery.

The requirement for expensive assets to be placed in space adds another technological risk, as highlighted by some recent launch failures for other parties' payloads. Avanti's use of Ariane space launchers for its two proposed launches in 2017 is supported by a strong launch record, while asset values and business losses are covered by insurance.

Before its redemption in October 2019 or refinancing, Avanti must service the full interest charge on the bonds at a known fixed cost of 10%, while still spending heavily on the new satellite build. However, we expect cash generation and liquidity to develop rapidly from FY18. Avanti has more than \$71m of undrawn liquidity headroom under the bond agreement. Any risk therefore predominantly relates to the generation of recurring revenues. A sensitivity analysis is included in the Valuation section below.

The announcement from Eutelsat of further direct competition in sub-Saharan Africa Ka-band connectivity may be regarded as a threat. However, since Avanti is clearly the first mover and one of the few players in the region today, we feel that Eutelsat's comments that market demand warrants its deployment are actually encouraging. Demand for broadband data bandwidth on high-throughput satellites is expected to grow at very high rates. There are a variety of potential indirect competitive offerings, but these are yet to be proven in scale, connectivity, reliability and cost. Many require ultimate broadband connectivity in remote regions in any event.

Clearly, if demand fails to meet expectations, or indeed exceeds it, then revenues and cash flows will be affected to broadly the same extent. A sensitivity analysis to lower revenue generation is included in the Valuation section below.

Valuation

Building out a high capital cost, space and ground-based infrastructure is by nature a risky undertaking. The technological and regulatory challenges are significant in themselves, and adding the innovative high-throughput Ka-band features extend these further for early movers such as Avanti. The long-term nature of the model development to self-sustaining free cash generation also adds a financing risk to the equation. Currently, Avanti is two years from delivering the recurring cash flows required to sustain and grow the business. When the business model has developed sufficiently to instil confidence in future financing, risk discounts should fall and allow equity valuation to more fully reflect future cash generation and future shareholder cash distributions.

Long-term cash potential: Capped DCF valuation method

As Avanti has yet to deliver positive earnings and cash flows, direct comparison of most metrics with peers is limited. However, with a relatively fixed operating cost base, cash flow should develop alongside revenue growth. Since these are largely dependent on forecasting capacity fill rate, we utilise a DCF based on our central assessment of uptake of capacity.

Due to the previously noted risks to delivering the model, we use a WACC of 12.2% to discount these cash flows, reflecting the fixed rate nature of the debt burden, together with an equity risk premium of 15% over an assumed risk-free rate of 4%. It should be noted that we have added \$50m to capex from FY19 to reflect the fact that if successful Avanti is entirely likely to maintain and replace satellite capacity. Nevertheless, the derived value of 427p indicates that a successful execution of the model could deliver significant value to equity holders.

Exhibit 7: Avanti Communications capped DCF (WACC 12.2%, zero terminal growth)							
(\$m)	2016e	2017e	2018e	2019e	2020e	2021e	Terminal
EBIT*	(29.8)	8.6	45.1	118.6	215.9	302.0	
Depreciation & Amortisation	46.2	46.2	62.5	69.4	67.9	68.3	
Working Capital	1.4	(0.6)	2.9	5.6	(3.7)	(3.2)	
Operating cash flow	17.8	54.2	110.5	193.6	280.1	367.1	
Capex	(99.7)	(74.5)	(74.7)	(63.8)	(66.9)	(68.8)	
Taxation	0.0	0.0	0.0	0.0	0.0	0.0	
Provisions	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(0.3)	
Cash flow pre divs & interest	(82.1)	(20.6)	35.6	129.5	213.0	298.0	2,063.7
Discount factor	0.95	0.85	0.76	0.68	0.60	0.54	0.54
Discounted cash flows	(78.4)	(17.5)	27.0	87.5	128.2	159.9	1,107.1
Cumulative DCF	(78.4)	(95.9)	(68.9)	18.6	146.8	306.7	
Enterprise DCF							1,413.8
Net cash/(debt)**							(520.2)
Less: Minorities							(1.9)
Estimated equity value							891.7
Shares issued (m)							147
Estimated equity value/share (\$)							6.07
\$/£							1.42
Estimated equity value/share (p)							427

Source: Edison Investment Research estimates. Note: *EBIT excludes other income. **Adjusted for FY16 bond and equity issues.

Clearly, if Avanti successfully delivers its potential, the risk premium and WACC could fall substantially, as could debt interest costs when the existing bonds come to be refinanced. As indicated in Exhibit 8, even if we assume zero growth, with a more normal WACC of 8%, there is further substantial upside potential.

Exhibit 8: DCF sensitivity analysis to WACC and terminal growth (p)						
WACC	8%	10%	12%	14%	15%	
Terminal value growth rate						
0%	928	636	444	309	256	
1%	1081	724	499	346	287	
2%	1286	834	566	390	323	
3%	1573	976	647	441	365	
4%	2003	1165	749	503	414	

Source: Edison Investment Research estimates

The highly geared nature of the model to revenue generation makes the valuation highly sensitive to revenue growth rates. Below we include a sensitivity table of reduced rates of revenue growth. At a WACC of 12%, revenue growth rates would have to be a factor of c 34% lower than those assumed in our DCF projection each year for the equity to be worthless, although this is adjusted to assume no additional satellite capex is undertaken beyond HYLAS 4, ie adding back the long-term \$50m capex burden. The current share price reflects growth rates some 28% below our estimates.

Exhibit 9: DCF sensitivity to reduced revenue growth rates (p)

Revenue growth rate reduction pa	10%	20%	30%	40%	50%
WACC					
10%	818	511	238	-3	-216
11%	696	415	165	-56	-251
12%	596	336	105	-99	-280
13%	511	270	55	-135	-302
14%	439	214	14	-164	-321
15%	377	166	-22	-189	-336

Source: Edison Investment Research estimates

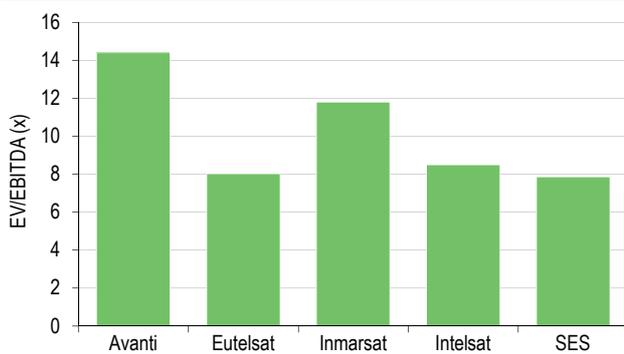
Peer comparison: Avanti should start to conform

Avanti's European peers are the more mature Eutelsat, Inmarsat and SES. All generate strong gross margins and display strong cash generation despite continuous development of their fleets. Eutelsat and SES are expected to launch three satellites each this year and Inmarsat two.

Avanti is too early in its revenue build phase to make meaningful comparisons, although interestingly Bloomberg consensus EV/EBITDA multiples for FY17 are much more closely aligned than has been the case to date. It should be noted that being more mature, we do not expect the major FSS peers to grow earnings at the rate Avanti should to the end of the decade. As its net debt falls, this should lead to a sharp increase in the equity component of the enterprise value.

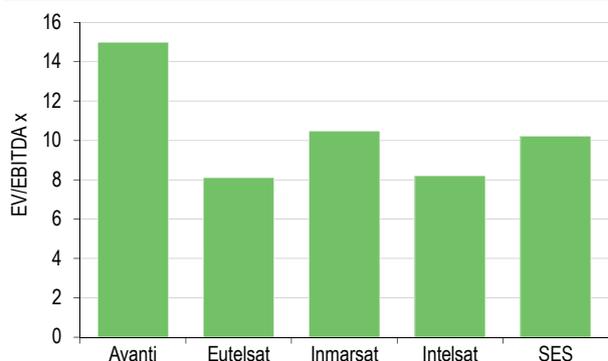
A further comparison that can be made is to look at the fully depreciated net asset value of the space assets relative to the enterprise value. Clearly, the majors are more developed, but looking at the most recently announced values, Avanti has a very low valuation relative to the majors.

Exhibit 10: FSS peers – EV/EBITDA FY17e



Source: Bloomberg consensus data

Exhibit 11: FSS – EV/space net asset values



Source: Company reports

Financials

FY15 revenues were enhanced by the spectrum sale to SES as part of the agreement that also led to the leasing of HYLAS 2-B. Management has reaffirmed its view that recurring revenues will grow 50% in FY16 before FX to around \$86m, and our broadband sales of \$81m should be augmented by equipment and terminal sales of around \$6m. Recurring revenues continued to grow strongly in FY15, rising by 24% despite some elements of customer transitioning.

As Avanti's future is predicated on growing broadband revenues, we do not include non-recurring sales in our forecasts. By nature these are unpredictable in timing and financial structure. Each of the last two financial years has benefited from abnormal revenue items. In support of prospective projects in Africa in Q414, Avanti sold a large amount of equipment and terminals. FY14 also had the remaining sales associated with the original ESA Spectrum provision on HYLAS 1, which had facilitated the initial funding support. The FY15 results benefited from the £25.1m sale of spectrum on HYLAS 2 (as valued) but, while this bore no direct cost, it also generated no cash (Exhibit 12).

With the first half having delivered \$31m despite lower equipment sales, by implication the second half should see revenues increase substantially. The average H2 capacity fill rate inferred from this would be around 31%, excluding HYLAS 2-B. Given that our FY17 revenue forecast is derived from an average fill rate of 32% on the same basis, we believe our forecasts for growth look attainable.

Exhibit 12: Avanti Communications revenue development

(\$m)	2013	2014	2015	2016e	2017e
Satellite broadband	21.1	43.8	54.4	80.5	119.1
ESA	7.0	5.3	0.0	0.0	0.0
Terminals	4.0	6.6	5.7	6.3	7.2
Non-recurring revenues		10.0	25.1	0.0	0.0
Total revenues	32.1	65.6	85.2	86.7	126.3

Source: Company reports and Edison Investment Research estimates

On the cost side, the employment costs are expected to inflate modestly as more sales and support staff have already been engaged, largely in anticipation of the additional capacity being added next year. Current employee numbers are c 233, and we expect this to be broadly maintained in FY17.

Exhibit 13: Avanti Communications cost estimates

(\$m)	2013	2014	2015	2016e	2017e
PPE Depreciation	1.2	2.2	2.1	2.1	2.3
Amortisation of intangibles	0.2	0.2	0.2	0.2	0.2
R&D written off	0.1	0.0	0.0	0.0	0.0
Employee benefit expense	16.0	19.3	20.0	20.9	22.1
Operating lease expenses	1.1	2.6	2.3	2.2	2.4
Other overhead costs	9.9	10.5	11.0	8.9	8.8
Overhead	28.5	34.9	35.6	34.4	35.8
Space asset depreciation	38.5	47.3	45.8	45.2	45.0
ESA grant release	(1.4)	(1.5)	(1.4)	(1.3)	(1.3)
Satellite services	8.0	18.8	13.4	17.3	18.9
Materials purchased	4.8	11.3	6.8	6.9	5.8
Subcontractors	3.4	7.4	11.4	7.8	5.7
Other cost of sales	4.6	3.4	7.8	6.2	7.8
Total operating costs	58.0	86.7	83.8	82.1	81.9
Total costs	86.5	121.6	119.4	116.5	117.7
Total EBIT *	(54.3)	(56.0)	(34.2)	(29.8)	8.6

Source: Company reports, Edison Investment Research estimates. Note: *Excluding other operating income.

Space asset depreciation is relatively stable as satellites are depreciated over 15 years from their launch, although there can be a modest currency effect, as HYLAS 1 is valued in euros. There will be a further step-up in depreciation when the satellites are deployed next year. Ground station assets are not expected to grow and most of the original elements will be fully depreciated by FY19.

Exhibit 14: Route to free cash flow generation

(\$m)	2015	2016e	2017e	2018e	2019e	2020e
Recurring revenues	60.1	86.7	126.3	182.1	275.7	374.7
Cash costs	(72.7)	(70.3)	(71.6)	(74.6)	(87.7)	(90.8)
Interest	(54.4)	(64.4)	(64.5)	(64.5)	(61.5)	(41.1)
Cash tax	0.0	0.0	0.0	0.0	0.0	0.0
Working capital & other	4.5	2.8	0.8	4.3	7.0	-2.3
Cash flow before capex	(62.5)	(45.2)	(8.9)	47.3	133.5	240.5
Capex	(102.0)	(99.7)	(74.5)	(74.7)	(13.8)	(16.9)
FCF	(164.5)	(144.9)	(83.5)	(27.3)	119.7	223.6

Source: Edison Investment Research estimates

We do not expect Avanti to generate positive net income in the forecast period, despite a positive EBIT in FY17e. Avanti also has a deferred tax asset in its balance sheet and carries capital allowances that should shelter it from tax for at least three years once it is profitable. Losses should reduce sharply as revenues grow in future years and we currently expect a positive EPS to be delivered in FY19.

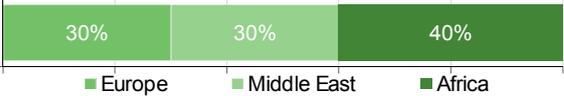
Due to the high gearing effect of adding satellite revenues to a broadly fixed cash base, cash flow before capex should turn positive in FY18. With satellite build and launch costs dropping away in FY19 following the launches of HYLAS 3 and HYLAS 4, we expect Avanti to turn FCF positive from that point as revenues build and the gross margins trend towards peer levels, see Exhibit 14.

At present, Avanti's debt is composed exclusively of the \$645m of high-yield bonds. Although highly geared, one of the features of the model is that Avanti has a strong fixed asset content in the form of the satellites themselves. Being fully operational, in position and fully insured provides an intrinsic value in the fixed assets. The \$180m value of the perpetuity rights to orbital positions is not reflected in the balance sheet.

Exhibit 15: Financial summary

	\$m	2013	2014	2015	2016e	2017e
Year end 30 June		IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue		32.1	65.6	85.2	86.7	126.3
Cost of Sales		(58.0)	(86.7)	(83.8)	(82.1)	(81.9)
Gross Profit		(25.8)	(21.1)	1.4	4.6	44.4
EBITDA		(14.3)	(5.8)	13.9	17.8	56.1
Operating Profit (before amort. and except.)		(52.6)	(53.9)	(32.6)	(28.2)	10.1
Intangible Amortisation		(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Exceptionals		0.0	5.3	0.0	0.0	0.0
Other		0.0	0.0	0.0	0.0	0.0
Operating Profit		(52.8)	(48.7)	(32.8)	(28.4)	10.0
Net Interest		(6.1)	(38.9)	(40.5)	(49.4)	(49.5)
Profit Before Tax (norm)		(58.9)	(93.0)	(73.3)	(77.8)	(39.6)
Profit Before Tax (FRS 3)		(58.9)	(87.7)	(73.3)	(77.8)	(39.6)
Tax		10.6	0.0	0.0	0.0	0.0
Profit After Tax (norm)		(48.3)	(92.0)	(73.3)	(77.8)	(39.6)
Profit After Tax (FRS 3)		(48.3)	(87.7)	(73.3)	(77.8)	(39.6)
Average Number of Shares Outstanding (m)		107.3	107.4	119.0	146.9	147.4
EPS - normalised (p)		(44.5)	(85.2)	(61.4)	(52.8)	(26.7)
EPS - normalised and fully diluted (p)		(44.5)	(85.2)	(61.4)	(52.8)	(26.7)
EPS - (IFRS) (p)		(44.5)	(81.2)	(61.4)	(52.8)	(26.7)
Dividend per share (p)		0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		-80.5	-32.1	1.6	5.3	35.2
EBITDA Margin (%)		-44.6	-8.8	16.3	20.6	44.4
Operating Margin (before GW and except.) (%)		-163.7	-82.1	-38.2	-32.5	8.0
BALANCE SHEET						
Fixed Assets		646.2	645.9	721.5	790.0	833.4
Intangible Assets		13.5	14.0	11.0	10.8	10.6
Tangible Assets		613.8	610.9	691.0	759.7	803.2
Investments		18.9	21.1	19.5	19.5	19.5
Current Assets		83.9	235.7	160.3	135.8	57.3
Stocks		4.5	1.7	2.6	2.5	3.5
Debtors		7.9	21.0	17.8	13.9	15.2
Cash		58.7	195.3	122.2	105.5	22.5
Other		12.8	17.6	17.7	13.9	16.2
Current Liabilities		(55.1)	(44.4)	(36.6)	(25.5)	(29.4)
Creditors		(28.0)	(39.9)	(31.9)	(25.5)	(29.4)
Short term borrowings		(27.0)	(4.5)	(4.7)	0.0	0.0
Long term Liabilities		(307.7)	(527.7)	(540.5)	(662.1)	(662.5)
Long term borrowings		(286.0)	(512.4)	(523.7)	(645.3)	(645.7)
Other long term liabilities		(21.7)	(15.3)	(16.8)	(16.8)	(16.8)
Net Assets		367.3	309.4	304.7	238.2	198.7
CASH FLOW						
Operating Cash Flow		(27.1)	5.1	(8.1)	19.2	55.6
Net Interest		(7.9)	(39.0)	(54.4)	(64.4)	(64.5)
Tax		10.6	0.0	0.0	0.0	0.0
Capex		(73.8)	(25.8)	(102.0)	(99.7)	(74.5)
Acquisitions/disposals		0.0	0.0	0.0	0.0	0.0
Financing		(1.9)	(7.6)	80.0	11.3	0.0
Dividends		0.0	0.0	0.0	0.0	0.0
Net Cash Flow		(100.1)	(67.3)	(84.5)	(133.6)	(83.5)
Opening net debt/(cash)		154.3	254.4	321.7	406.2	539.8
HP finance leases initiated		0.0	0.0	0.0	0.0	0.0
Other		0.0	(0.0)	0.0	0.0	0.0
Closing net debt/(cash)		254.4	321.7	406.2	539.8	623.2

Source: Company reports; Edison Investment research estimates

Contact details	Revenue by geography								
Avanti Communications Group Cobham House 20 Black Friars Lane London. EC4V 6EB United Kingdom +44 (0)20 7749 1600 www.avantiplc.com	 <table border="1"> <thead> <tr> <th>Geography</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Europe</td> <td>30%</td> </tr> <tr> <td>Middle East</td> <td>30%</td> </tr> <tr> <td>Africa</td> <td>40%</td> </tr> </tbody> </table>	Geography	Percentage	Europe	30%	Middle East	30%	Africa	40%
Geography	Percentage								
Europe	30%								
Middle East	30%								
Africa	40%								
Management team									
CEO: David Williams	CFO: Nigel Fox								
David was a co-founder of the company in 2002 and CEO when Avanti was floated on the AIM market in 2007. Previously, he spent 10 years working in the City on a number of telecoms financing projects with Chase Manhattan, CIBC and Babcock & Brown.	Nigel is a chartered accountant and has been CFO at Avanti since 2007, having previously held a number of senior finance positions including CFO at Climax Group, group financial controller at ARC International, finance director of Ruberoid Building Products and group financial controller of Ruberoid.								
Chairman: Paul Walsh									
Previously the CEO of Diageo for almost 13 years until July 2013, Paul Walsh has also been non-executive chairman of Compass Group since February 2014. He began his career at Grand Metropolitan in 1982. He was appointed chairman of Avanti in March 2014.									
Principal shareholders	(%)								
M&G Investment Managers	18.6%								
Solus Alternative Asset Management	11.0%								
Mast Capital Management	10.2%								
Capital Group	5.9%								
GIC	5.6%								
Par Investments	5.4%								
Caledonia Investments	4.5%								
Avanti Communications Group EBT	3.6%								
Companies named in this report									
Eutelsat Communications (ETL FP), Inmarsat (ISAT LN), Intelsat (I US), SES (SESG FP)									

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