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RESEARCH

Global Invacom Group

20th December 2021

Highly undervalued and cash generative provider of satellite ground equipment set for sharp recovery over the medium-term

Global Invacom is a fully integrated satellite equipment business which provides a complete range of satellite ground equipment and electronics to a blue-chip customer base. Its products include antennas, LNB receivers, transceivers, fibre distribution equipment, transmitters, switches and video distribution components, along with manufacturing services for the defence and healthcare sectors. The group is the world's only full-service outdoor unit supplier, focused on the high growth Data Over Satellite market.

■ Globally diversified and full service satellite ground equipment specialist

Following a number of acquisitions and mergers over the years, the Global Invacom Group is now made up of a number of companies that together provide a complete solution for satellite communications, making it the world's only full-service outdoor unit supplier. The company carries out activities from R&D through to design, manufacture and distribution of its products, with its main operations in the US, UK and Asia.

■ Positioned for growth in the booming Data Over Satellite/satellite internet market

The investment case is driven by the opportunity to meet an increasing global demand for data and connectivity using satellite solutions. In 2020 Global Invacom made the strategic decision to take advantage of this by focussing its product set on the Data Over Satellite market, one which is seeing significant investment from companies including Amazon and Elon Musk's SpaceX which are launching Low Earth Orbit (LEO) satellites. In a July 2021 report, Allied Market Research valued the global satellite internet market at \$2.93 billion in 2020, expecting it to reach \$18.59 billion by 2030, growing at a CAGR of 20.4%. The rapid increase of LEO satellites bodes well for Global Invacom, helped by the June 2019 acquisition of Apexsat, a company which specialises in steerable earth station solutions and motorised & transportable antenna systems.

■ EV/EBITDA and net asset based valuations suggest significant upside

We base our valuation on the average EV/EBITDA multiple of the company's profit-making, London-listed Telecoms Equipment sector peers. Conservatively discounting the multiple by 30%, we derive a fair value target price of 17.25p per share, suggesting 165% upside from current levels. Providing significant backing to the valuation are tangible net assets totaling 9.03p per share as at 30th June 2021, 39% higher than the current share price. We initiate coverage of Global Invacom with a target price of 17.25p and stance of **Conviction Buy**.

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

CONVICTION BUY
Price target – 17.25p



Key data

EPIC	GINV
Share price	6.5p
52 week low/high	6p/9p
Listing	AIM, SGX
Shares in issue	271,662,227
Market Cap	£17.66m
Sector	Telecoms Equipment

12 month share price chart



Analyst details

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IMPORTANT: Global Invacom is a research client of Align Research. For full disclaimer & risk warning information please refer to the last page of this document.

Corporate Background

Global Invacom (GINV) is a global designer, manufacturer and provider of satellite communications equipment and electronics, being the only full-service outdoor unit supplier of satellite antenna products and electronic services for Ku-band and Ka-band frequency platforms. The business has a history going back to 1985 when founder Roger Pannell started Global Communications, manufacturing and selling electronics products such as RF (radio frequency) multi-switches with his wife from the garage of their family home. Following a period of sustained growth, Global Invacom came about in 2009 following the merger of Global Communications and Invacom Ltd, a deal which brought together a major supplier of RF switches and the Sky TV link with a specialist in LNB (low-noise block) and VSAT (Very Small Aperture Terminals) design and manufacture.

In July 2014 Global Invacom listed on AIM following an oversubscribed placing which raised £8.8 million for the company at a price of 19.75p per share. This added to an existing listing on the Mainboard of the Singapore Exchange (SGX) which was gained in 2012 following the reverse takeover of Radiance Group. The additional listing supported the company's ambitions to enhance its international profile and take advantage of growth opportunities. Since then, there have been no significant further equity issues, with the company funding itself via internally generated funds and modest amounts of borrowings.

Global provider of satellite communications equipment

Following a number of acquisitions and mergers over the years, the Global Invacom group is now made up of a number of companies that together provide a complete solution for satellite communications, making it the world's only full-service outdoor unit supplier. Its main activities include the design, manufacture and supply of a full range of satellite ground equipment – equipment used in locations on Earth which are used to communicate with satellites in orbit. The two areas of focus are Data Over Satellite (DOS) and Direct To Home (DTH), discussed in more detail on page 4.

Key products include antennas, LNB receivers, transceivers, fibre distribution equipment, transmitters, switches and video distribution components. Along with the core communications market, the company also sells products into additional markets including healthcare and defence. Customers in the Direct to Home segment include some of the world's largest satellite broadcasters including Sky Group in the UK, Shaw in Canada, Astro in Malaysia and Dish Network of the US. Major Data Over Satellite clients include Hughes Network Systems, Viasat and Gilat Satellite Networks.

Operations span a number of the world's key markets including Singapore, China, Indonesia, Philippines, Malaysia, Israel, UK and the company's main market by revenues, the US. In the UK, there are facilities in Accrington, Stockport, Stevenage, Chelmsford and Newton Abbot with the EMEA Head Office in Canterbury. Global Invacom also owns 73 patents, with a further 27 pending and 9 applied for. Global sales and distribution teams are located in the US, EMEA (Europe, the Middle East and Africa) and Asia to ensure sales and technical information is available in the same time zones as its customers.



Operations

Background

Put simply, satellite communication refers to the exchange of information between any two stations based on Earth via a satellite in space. Electromagnetic waves used as carrier signals transfer information such as voice, audio and other data from one ground station to the satellite and then back to another ground station. Satellite communications make use of bands within the microwave range of the electromagnetic spectrum which each have names dependent on their wavelength. The Ku and Ka bands are mostly used by commercial communications satellites, with the higher the frequency, the smaller the receiving antenna dish can be. There are numerous applications of the technology across a range of industries including radio and TV broadcasting, military, weather forecasting, communications and internet connection.

Some of the main types of equipment used on the ground in satellite communications include:

Antenna – a parabolic (curved) dish designed to receive/transmit information via radio waves from/to a communication satellite. The electromagnetic waves are only a few trillionths of a watt by the time they reach an antenna so the dish amplifies these, without adding significant noise.

Feed horn – the feed horn is a horn shaped antenna used to gather the reflected signals from the dish and transfer them to a Low Noise Block.

Low Noise Block (LNB) – a receiving device which converts the waves to a signal which is sent through a cable to the receiver.

Receivers - a device that de-scrambles encrypted signals and converts them into a recognisable format to be sent to a device such as a TV or computer.

Waveguides – a hollow metal tube which acts as a conduit to carry and guide waves.

Mount – a structure which supports the antenna system in its fixed position such as attached to the side of a building or on the ground.

Global Invacom's current focus is on two main product areas in the satellite communications market. The first product area is **Data Over Satellite (DOS)**, which refers to products used in the market for receiving, transmitting and distributing data from satellites in orbit. These products include antenna systems, feed assemblies, support structures and electronics. Discussed in more detail on page 9, Global Invacom sees significant growth opportunities in this market, driven by the increasing demand for data and the need for connectivity in developing countries and rural communities where fibre or cable data solutions are not a viable option.

The second main market is **Direct to Home (DTH)** where Global Invacom designs, manufactures and sells a range of satellite antennas and electronics for receiving and distributing satellite TV and terrestrial signals. The company is a major supplier of consumer satellite antennas and electronics including Low Noise Blocks for receiving satellite TV signals. It also provides fibre and coaxial products used in the distribution of these signals across entire buildings or even thousands of homes from a single satellite antenna. In recent times, the group's DTH products have continued to generate steady levels of sales, albeit at lower levels than previously.

Positioning for growth in Data Over Satellite

In early 2020, management undertook a comprehensive strategic review of the business, positioning it to take advantage of the higher growth Data Over Satellite market, supported by the more stable Direct to Home market. The review included a detailed analysis of the operating environment and a group wide production cost assessment, alongside a review of the company's facilities in China.

There were a number of changes made as a result of the review, with the headline being that the company decided to expand the range and reach of its DOS product set in order to capitalise on significant opportunities in emerging markets. During the course of 2020 the company also restructured its development, sales and marketing teams to focus on DOS products, leaving a small team focused on DTH.

Another key point was that the decision was made to move to a more asset-light production model in order to reduce costs and improve margins. The main strategic decision in this respect was to close the existing manufacturing operations in Shanghai, made following an increase in production costs in China, along with the implementation of tariffs on Chinese products exported to the US. These operations were then moved to a third-party vendor in the Philippines, with ongoing productivity improvements and more investment in R&D made at US subsidiary Global Skyware to widen the range of DTH and DOS products. The changes are expected to deliver meaningful annualised savings in 2021 and beyond, while also reducing exposure to the US/China trade disputes.

The Global Invacom investment case is driven by the fact that the company's products are helping to meet the increasing global demand for data and connectivity using satellite solutions. While the business has faced many challenges over the past two years or so due to the coronavirus pandemic, the pandemic has in fact highlighted the requirement for constant connectivity amongst businesses, consumers and other organisations. Service providers are increasingly seeking satellite solutions to meet this demand, especially where traditional fibre and cable networks aren't adequate. As such, we believe the company looks well placed to make a strong recovery over the coming years.

Business structure

Since its early years Global Invacom has been a highly acquisitive business, with the listed entity Global Invacom Group Ltd being the owner of a number of subsidiary companies. The group companies now provide a complete solution for satellite communications through the development and making of antennas, electronics for transmitting, receiving and distribution of signals, mounts and mechanisms for positioning and tracking signals and waveguides. An outline of the current corporate structure is presented below, with the key subsidiaries discussed in more detail.



Global Invacom Limited

Global Invacom Limited (GIL) is one of the group's major subsidiaries, having its origins in the original Global Communications (UK) business and making \$37 million of revenues in the last full financial year (just over a third of the group total). Its main activity is the design, development and distribution of electronics and signal distribution for the satellite ground equipment market.

GIL is the centre of development for the company's LNB and switch designs for the Direct To Home market. Along with Global Foxcom in Israel, it develops fibre solutions, focussing on the distribution of satellite TV signals to multiple dwellings or recipients and also the distribution of these signals in High Definition using Wi-Fi. The business also undertakes advanced research & development, looking to identify emerging technologies and their relevance and potential application in the satellite ground equipment market.

Satellite Acquisition Corporation (Global Skyware)

The group's largest subsidiary by revenues is the US based Satellite Acquisition Corporation, bought by the group in August 2015, with the deal being the company's largest at the time and rapidly expanding its presence in the DOS market. Trading as Global Skyware, the business is a leader in developing, designing and manufacturing Very Small Aperture Terminals (VSAT) - a two-way satellite ground station with a dish antenna reflector that is typically between 0.74m and 2.4m. Global Skyware is the only fully vertically integrated high volume producer of metal and sheet molded compound antennas in the world. The company has been designing and making antennas for C, Ku, Ka bands and more for over 40 years in Smithfield, North Carolina. Following the closure of the Shanghai plant, Global Skyware now has the group's largest internal production facility.



Global Skyware: 74cm Ka and Ku Band Receiver Transmitter (RxTx) Antenna System & Ku-Band and C-Band VSAT RF BUC. Source: Company

Global Skyware Limited

Global Skyware Limited is a UK based designer, manufacturer and distributor of products for the reception, transmission and distribution of wireless HD signals. The company is a global leader in advanced satellite RF electronics, with operations on three continents and extensive expertise in the world's most in-demand satellite communications technologies. Global Skyware Limited's flagship VSAT products include the market's leading enterprise 1.5W and 3W Ka-Band transceiver, and the world's most versatile 5W Ka-Band transceiver with electronic polarization switching.

The acquisition of certain assets from Skyware Technologies in September 2018 further strengthened the company's DOS range, adding electronics to complement the antenna technology. Based in Stockport, the business designs and manufactures integrated transmitter/receivers for DOS applications.

The Waveguide Solution Limited

Acquired by Global Invacom in 2012, The Waveguide Solution Limited specialises in the design and manufacture of flexible and rigid waveguides. The company uses industry standard CAD software and provides full RF microwave and mechanical design capability and offers an extensive range of standard & custom components. The company is located in a purpose built factory in Newton Abbot which has dedicated microwave testing facilities, clean assembly areas, mechanical inspection areas and a comprehensive machining facility.

Global Invacom Manufacturing (UK)

In November 2013, Global Invacom completed the acquisition of Raven Manufacturing Limited, now called Global Invacom Manufacturing (UK) Limited, Based in Accrington in the UK, the business manufactures satellite dishes and brackets and in the last financial year was one of the group's major Europe based revenue generators, making £6.9 million of sales.

OnePath Networks Limited

In November 2014 Global Invacom completed the acquisition of Israel-based OnePath Networks Ltd, trading as Foxcom. The business is a manufacturer of advanced RF optical solutions for the commercial, government and military & defence markets. Its fibre optic links are deployed around the world on military platforms including fixed, mobile, land-based, airborne and maritime.



Outdoor Unit (ODU) 4004 - an outdoor enclosure providing weatherproof protection for Sat-Light Interfacility Links (IFL), built for extreme environments and rugged tactical use. Source: Company

Apexsat

In June 2019 Global Invacom bought the technology of the Apexsat group of companies to manufacture products for the burgeoning Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) satellite communication constellations market and SATCOM On The Pause (SOTP) tracking two ways systems. Apexsat specialises in the design and manufacture of steerable earth station solutions, and motorised and transportable antenna systems. Apexsat has developed its own multifunctional command and control systems with integrated tracking and positioning software, which is widely recognised as one of the most technologically advanced in the industry.

Fibre TV to Home Limited

Global Invacom has a 49% stake in Fibre TV to Home Limited (FTTH), a company which provides end to end TV Services, Digital Terrestrial TV & Digital Audio Broadcast Radio Digital TV and radio solutions for housing developments, apartment blocks and offices. Based in Stevenage, FTTH has installed and support a number of fibre IRS installations into major housing developments and count a number of the major internet service providers and housing developers as customers.

Global Invacom (Shanghai) Co., Ltd

This is the most recently formed company, being set up in December 2020 via Global Invacom Manufacturing Pte. Ltd. Located in the Free Trade Zone of Pudong New Area, Shanghai, China, its main activities are the provision of supply chain services, product quality and engineering support for the wider group. This was in line with the company's strategic decision to retain an experienced core team in China post the closure of the Shanghai production facility to ensure continuity of supply chain, quality assurance and relations with key suppliers across Asia.

Market Background

As one of the world's leading suppliers of satellite communications equipment, we believe Global Invacom looks well placed to take advantage of a number of industry trends which are driving growth in the global satellite market. The over-riding trend is the increasing demand for data worldwide and associated investment being made in satellite & space technology which can deliver data to individual users, businesses and other organisations. Global Invacom believes that its products will play an important role in meeting this demand as service providers adopt satellite solutions.

While historically satellite internet has generally been considered to be slower and less reliable than cable/fibre based internet, it does have several advantages. Perhaps the most important of these is that it can be accessed anywhere in the world, from arid desert to snowy mountain top, as it doesn't require physical cable connections and other infrastructure which is taken for granted in urban settings. This is important for connecting rural communities which are still significantly underserved by internet service providers. According to market research provider Fact.MR, 72% of urban households around the world have access to the internet, but in rural areas this falls to just 38%.

A recent report from Speedtest Intelligence found that in Q1 2021, no satellite internet provider in the US could match fixed broadband providers in terms of latency or median download speeds. Its report suggested that SpaceX's Starlink was the only satellite internet provider in the country with fixed broadband like latency figures and median download speeds fast enough to handle most of the needs of modern online life at 97.23 Mbps. Low latency (the time it takes for data to be transferred between its original source and its destination) is important for common internet applications such as voice and video calling, gaming and live streaming.

But satellite internet is quickly catching up with cable and fibre internet, helped by the use of so called Low Earth Orbit (LEO) satellites - defined by the European Space Agency as those operating at altitudes between 160km and 1,000km above the Earth. These contrast with geostationary (GEO) satellites, which, placed at 35,786km above the equator, are synchronised with the orbit of the Earth so the ground is fixed below it. Because LEO satellites are in a low orbit, the round-trip data time between the user and the satellite is much lower than with GEO satellites, thus reducing latency and increasing download speeds. Unlike GEO's, LEO's are not fixed in relation to the Earth's orbit, so to gather data the receiving dish on Earth (known as a tracker) must move to follow their path.

To give some high level figures, according to the Union of Concerned Scientists, as at 1st September 2021 there were 4,450 active satellites in orbit around Earth. But this is set to grow sharply, with a June 2019 article from MIT Technology Review forecasting that by 2025 as many as 1,100 satellites could be launching every year, up from just 365 in 2018.

These figures don't even include launches by Elon Musk's SpaceX, which as we write has launched c.1,900 LEO broadband satellites as part of its Starlink "constellation", including c.900 in 2021 to date. The company is looking to launch 12,000 satellites by 2027 and as many as 42,000 in the longer term as it looks to provide download speeds equivalent to those of cable at between 100 Mb/s and 200 Mb/s and latency as low as 20 milliseconds.

Elsewhere in the industry, Amazon's Project Kuiper is looking to launch 3,236 LEO satellites using frequencies in the Ka-band to provide high-capacity, low-latency broadband communications services to tens of millions of unserved and underserved consumers and businesses, with investment of at least \$10 billion committed. Meanwhile, UK's Oneweb plans to launch 648 LEO satellites and expects its services to be available with global coverage by the end of 2022.

It is developments like these that prompted Morgan Stanley, in its July 2020 report *Space: Investing in the Final Frontier*, to forecast that revenue generated by the global space industry would rise from \$350 billion in 2016, to \$1 trillion by 2040. The investment bank estimates that satellite broadband will represent 50% of the projected growth and as much as 70% in its most bullish scenario. Elsewhere, in a July 2021 report Allied Market Research valued the global satellite internet market at \$2.93 billion in 2020, expecting it to reach \$18.59 billion by 2030, growing at a CAGR of 20.4%.

The rapid increase of LEO satellites, along with MEO satellites (those orbiting at levels between LEO and GEO satellites) bodes well for Global Invacom, helped by the June 2019 acquisition of Apexsat, a company which specialises in the design and manufacture of steerable earth station solutions, and motorised and transportable antenna systems.

To give some other industry forecasts, according to a July 2021 report from Fortune Business Insights, the global satellite communication market was valued at \$23.4 billion in 2020 and is expected to grow at a CAGR of 9.07% to reach \$46.5 billion by 2028. Meanwhile, amid the pandemic, the related rise in remote working and the need for greater connectivity, Global Industry Analysts Inc. are looking for the global market for Satellite Ground Station Equipment to grow from \$10.3 billion in 2020 to \$14.4 billion by 2026 at a CAGR of 5.6%.

Financials

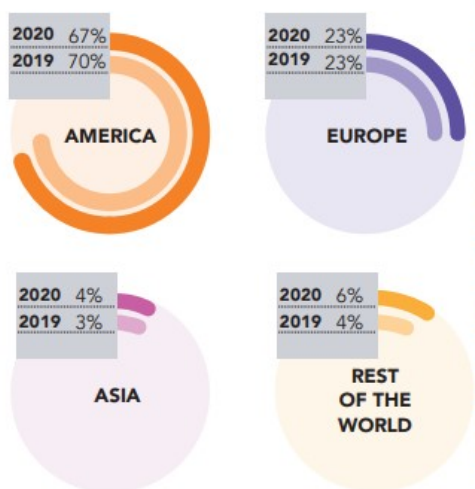
2020 full year results

The last full financial year was a tough one for Global Invacom as its operations were affected by the fallout of the global pandemic, with order volumes from customers falling throughout the year. The company also experienced a number of other challenges including component shortages, disrupted design resources and lower production efficiency due to social distancing measures. While the majority of manufacturing sites remained operational, mitigated to an extent by the company's diversified geographical base and its classification as an essential supplier, widespread supply chain disruption caused delays in forward sales.

The overall result was that revenues for the year to 31st December 2020 fell by 23.4% to \$103.06 million. Sales in the core Satellite Communications segment were down by 21.5% at \$101.46 million, with Contract Manufacturing (the China based business which focused on third-party printed circuit board assembly, logistics and module assembly & testing) down from \$5.25 million to \$1.6 million.

By geography, the US remained the company's most important market at 67% of total revenues, although these fell by 26% to \$69.25 million. Europe remained flat at 23% of total sales, with income falling by 23% to \$23.88 million. While Asian revenues were relatively flat at \$4.19 million, their proportion of the total rose from 3% to 4%. The only geography showing absolute and relative growth was the Rest of the World, with revenues up by 3.7% at \$5.74 million and rising from 4% to 6% of total sales.

REVENUE BY GEOGRAPHICAL SEGMENTS



REVENUE BY BUSINESS SEGMENTS



Global Invacom revenue analysis - 2020 vs 2019. Source: Company

Despite the challenges, the company remained profitable for three out of four quarters and for the year as a whole, with certain cost-saving initiatives implemented in 2020 helping to boost margins. On a statutory basis gross profits grew by 7% to \$25.7 million despite the revenue fall. However, we note that the 2019 accounts did include a \$4.1 million impairment cost related to the closure of the Shanghai manufacturing facility, which was completed in July. Gross margins (up from 17.9% to 24.9%) were also helped by a more profitable product mix, manufacturing efficiencies and cost reduction programs.

Administrative expenses fell to \$23.0 million from \$27.4 million due to a reduction in travelling, marketing and trade shows during the pandemic. Following total non-recurring charges of \$16.3 million recognised in 2019 the net profit for 2020 was up from a loss of \$12.3 million at \$2.61 million on a statutory basis but was down from \$4 million on an adjusted basis.

Global Invacom has historically been a highly cash generative business operationally, with \$9.59 million being generated from operations in 2020, well ahead of net profits of \$2.61 million. The major non-cash items added back to cashflow included \$2.65 million of PPE depreciation, \$2.26 million of depreciation related to right-of-use assets and \$2.66 million of inventory value write backs. Working capital cashflow was also positive, with an \$8.85 million reduction in trade receivables following increased customer receipts in the second half, offset by a \$5.19 million outflow from a reduction in trade and other payables. Capex for the year was just under \$2 million, with a \$5.79 million outflow from financing activities as a result of the paying back of borrowings and lease liabilities. The net effect was an increase in cash & cash equivalents of \$2.32 million to \$11.27 million. Net cash, less borrowings of \$3.9 million stood at \$7.4 million at the period end.

Interim results

The most recent set of results were for the six months to 30th June 2021, a period which continued to see disruption to global supply chains as a result of the ongoing COVID-19 pandemic. Revenues for the period were down by 23% at \$40.4 million, all coming from the Satellite Communications segment following the closure of the China based Contract Manufacturing business. During the period the company saw continued demand for Direct to Home products via its key customer in the US but at lower levels than in previous years. Meanwhile, demand for Data Over Satellite products continued to grow, driven by ongoing demand for connectivity and data delivery through the pandemic.

The key US market saw the biggest revenue falls in the period, down by 35% to \$23.17 million. Asia and Europe also saw falls, down by 40% to \$1.21 million and 9% to \$11 million respectively. These were offset by continued strong growth in the Rest of the World segment, which saw revenues rise by 79% to \$5.07 million.

At the gross profit level margins slipped slightly, from 23.4% to 21.7% following higher materials, shipping and logistics costs. This led to gross profits falling from \$12.35 million to \$8.79 million. Boosted by \$1.48 million of other income mainly related to gains on the disposal of equipment, lower finance costs and the benefits of cost cutting measures, net losses for the period were limited to \$1.18 million against a \$0.34 million net profit in the first half of 2020. Restructuring continues across the business to reduce costs, with excess headcount removed in non-core functions and a reduction in administrative costs.

Cash flow for the half was affected by working capital changes, with a \$2.7 million increase in trade receivables, \$2.42 million fall in trade and other payables and \$1.1 million fall in inventories leading to an overall \$3.21 million operating outflow. At the period end cash stood at \$9.44 million, with borrowings of \$6.2 million leaving a net cash position of \$3.24 million.

Management

Anthony Taylor - Executive Chairman

Anthony Taylor was appointed as an Executive Director in August 2010 and then Executive Chairman of the Board of Directors and Chief Executive Officer in October 2010. Mr Taylor is the Managing Director of Global Invacom Limited and is also a director of Global Invacom Holdings Limited and other group subsidiaries. His entire professional career has been spent working within international high technology businesses with diverse commercial propositions which include semiconductors, automotive electronics, military and satellite-related products. He also has over 21 years of experience in senior executive leadership roles and has formally held positions at Harris Semiconductor from 1984 to 1987, and Marconi Electronic Devices from 1987 to 1990 before joining SGS-THOMSON Microelectronics between 1990 and 1999. Mr Taylor was appointed the Chief Executive Officer of TechnoFusion GmbH, where he served from 1999 to 2002 and was the General Manager of Amphenol Limited from 2002 to 2006. He holds a Bachelor of Science Electronics degree with Honours from Coventry University.

Gordon Blaikie - Executive Director

Mr Blaikie joined Global Invacom as Operations Director in July 2012, was promoted to Chief Operating Officer in 2016 and was appointed as an Executive Director in July 2021. As the Group's Chief Operating Officer, he is responsible for the manufacturing entities and sales functions. He works closely with the Board of Directors and other members of the senior management team to strategise, streamline and improve the Group's operating performance. Mr Blaikie has 37 years of experience in manufacturing and operations and was previously the Operations Director for Amphenol, the world's leader in connector manufacturing in both aerospace and military products. Prior to joining Amphenol, he spent 20 years at Clairemont Electronics. Mr Blaikie holds a Diploma in Production and Inventory Management Control.

John Lim Yew Kong - Lead Independent Director

John Lim Yew Kong was appointed as an Independent Director in September 2010. He is the Chairman of the Audit and Risk Committee, Lead Independent Director and a member of the Nominating Committee and Remuneration Committee. Since 1991, Mr Lim was involved extensively in corporate advisory and private equity investments, having worked in AXIA Equity Pte Ltd and two private equity funds covering the ASEAN region. Mr Lim worked in Dowell Schlumberger in the United Kingdom and Arthur Andersen & Co, London between 1984 and 1991. Currently, he is an Independent Non-Executive Director of Karin Technology Holdings Limited and Zico Holdings Inc., which are both listed on the Singapore Exchange. Mr Lim graduated with a Bachelor's degree in Economics from the London School of Economics and Political Science in the United Kingdom. He is a Chartered Accountant of the Institute of Chartered Accountants in England and Wales.

Cosimo Borrelli - Independent Director

Cosimo Borrelli was appointed Non-Executive Director in December 2009 and was the Chairman of the Board of Directors from December 2009 to October 2010. Following the completion of the acquisition of Global Invacom Holdings Limited, Mr Borrelli was re-designated as an Independent Director in August 2012. He is the Chairman of the Nominating Committee and member of the Audit and Risk Committee, as well as the Remuneration Committee.

Mr Borrelli is a Chartered Accountant with over 31 years of experience in formal and informal corporate restructuring, forensic accounting and financial investigations. This experience has included being appointed by courts, lenders and financiers, distressed companies, secured and unsecured creditors, investors and other interested parties. He has a track record in establishing and delivering restructuring and corporate advisory arrangements in numerous industries including financial services, property, telecommunications, retail, manufacturing and professional services.

Mr Borrelli holds a Bachelor's degree in Economics from the University of Adelaide, Australia. He is a member of the Institute of Chartered Accountants in Australia, as well as the Institute of Certified Public Accountants and Institute of Certified Public Accountants Insolvency Interest Group in Hong Kong, and the Insolvency Practitioners Association of Australia.

Wayne Robert Porritt - Independent Director

Mr Porritt is an accomplished global risk professional with significant experience engaging with regulatory authorities across Asia, the United Kingdom and the United States. He has held non-executive board roles in a number of banking, finance and commodity trading businesses and has worked extensively across Asia, Middle East and Africa, particularly in Greater China, South Korea, Thailand and Japan. Mr Porritt has held senior positions at Bank of America and Standard Chartered Bank after starting his career at the State Bank of New South Wales and then Ernst & Young and Société Générale Australia. Over his career, he has specialised in risk, corporate credit, global financial restructuring and insolvency engagements for corporate and financial institutions.

Mr Porritt currently acts as a non-executive board member/council member for a number of entities, including Floatel International, Skylight Financial Solutions and Oxfam Hong Kong. He is also a graduate member of the Australian Institute of Company Directors.

Kenny Sim Mong Keang - Non-Executive Director

Mr Sim is the founder and Chief Executive Officer of both i2 Capital Pte Ltd and Cesk Capital Pte Ltd, specialising in investment and corporate advisory services respectively. He currently serves on the boards of telecommunications company Oden Technology Pte Ltd and property investment firms Maximus Fortune Pte Ltd and ZACD Group Ltd, which is on the Hong Kong Stock Exchange. Mr Sim also founded the Plexus group of companies in 1997, which under his leadership became a regional electronics components distributor with 18 offices across Asia. Prior to founding his current companies, Mr Sim was the Group Managing Director and CEO of SGX Catalist-listed WE Holdings Ltd, acquired in 2011 through a reverse takeover of Westech Electronics Ltd by Plexus Components.

Mr Sim holds a Bachelor of Commerce degree from Murdoch University, Western Australia, and a Diploma in Electronics Engineering from Ngee Ann Polytechnic, Singapore. He currently serves as the Chairman of Bukit Timah Citizens' Consultative Committees.

Key Risks

Pandemic related issues including impact on the global supply chain

Since early 2020, the COVID-19 pandemic has caused a number of problems for Global Invacom including; disruption to global supply chains as a result of government restrictions; the introduction of quarantine and additional checks and measures; and a shortage of available employees at key sites such as ports. This has been mitigated to an extent by the company's broad spread of global operations and its classification as an essential supplier to the communications, healthcare and defence markets. Global Invacom has also experienced problems with the availability of key products, including semi-conductors and capacitors, as a result of supply chain issues. Overall, this has led to a delay in the transport of products from manufacturing facilities to customer sites, along with delays in customer product launches, with such issues continuing to be seen. While some of these issues are being resolved, the company remains exposed to the consequences of any further government actions in reaction to the ongoing pandemic.

Customer concentration

In the last financial year revenues of c.\$79 million (around 77% of the total) came from the group's five largest customers, with the largest single customer accounting for 32.8% of total revenues. In trade receivables c.75.8% of monies owed came from the top five clients. Due to this concentration the loss of a major customer could have a significant impact on the financial results of the company.

Inventory obsolescence

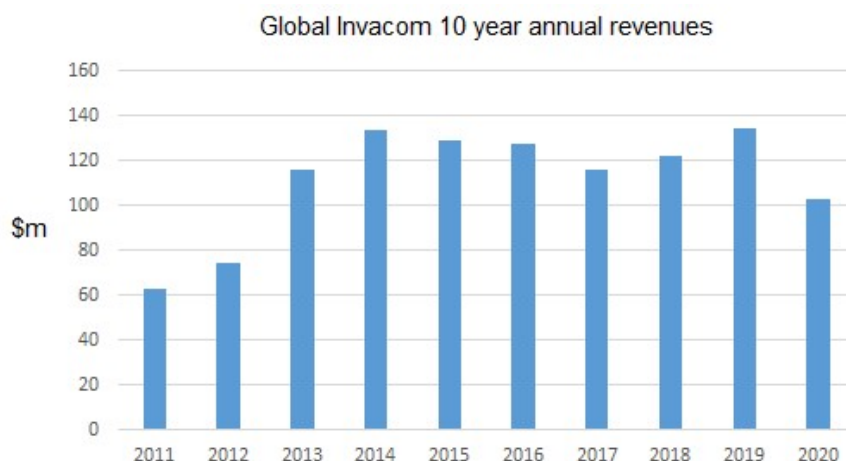
Global Invacom maintains a large inventory balance, which as at 30th June stood at \$25.7 million, amounting to around a third of total assets. The company also operates in an environment in which technical advances are commonplace so there is a risk that slow moving stock and/or technical change could make certain products and gathered inventory obsolete.

Currency risk

The majority of Global Invacom's cash balances, trade receivables and revenues are denominated in US dollars, with other assets denominated in currencies including sterling, the Canadian dollar, Singapore dollar and Malaysian ringgit. Movements in these currencies will affect the company's accounts on translation to reporting currency the US dollar. Currency movements against sterling may also have an effect on the valuation that investors award to the company's AIM listed shares.

Forecasts

Global Invacom saw strong revenue growth in the early years of the last decade following its build by acquisition strategy, along with organic expansion. After a year of consolidation in 2017, revenues resumed on their growth track, reaching an all-time high of \$134.5 million in 2019. However, as discussed above, 2020 saw the well documented pandemic related issues cause revenues to hit an eight year low.



As we approach the end of the 2021 financial year, some of the pandemic related issues remain, including a shortage of certain components and other supply chain issues. However, management believe the company is well-positioned to benefit from the steady ongoing recovery of the global economy and the continued growth of the DOS market, with a sustainable recovery expected over the medium-term.

This belief is reflected in our forecasts for the company. Working with management and considering other sources including company accounts, presentations and wider industry data, we have put together forecasts for the financial years up to and including 2024. Our key assumptions are discussed below.

P&L

Following the revenue falls seen in the first half of the year we expect a recovery in H2 2021 to levels seen in H2 last year. That takes overall revenues for 2021 to \$90.7 million. From then on we expect a steady recovery in sales, reaching \$120.9 million in 2024. For 2022 we also assume \$3.8 million of other income is received via the sale of assets from a now non-core subsidiary. Perhaps conservatively, we are forecasting that gross margins are in the range of c.17-18% over most of the forecast period, down from c.25% in 2020. While lower than historic levels, we assume that higher component, steel and freight prices will have a negative impact on margins.

Administrative costs have fallen sharply since the transfer of production from Shanghai to the Philippines, reflected in total employee numbers falling from 984 in 2018 to 377 in 2020. With further cost cutting measures ongoing we expect additional falls in admin costs in 2021 and 2022, before they flatten out in 2023 and beyond. Given historic tax losses at group level we expect only minimal tax to be paid across the subsidiaries during the forecast period.

Balance sheet and cash flow

Following the closure of the Chinese manufacturing facilities and subsequent transfer to third-parties we expect capital expenditure to be lower than in recent years, at between \$1.55 million to \$2.76 million on an annual basis. Fixed assets, right-of-use assets and intangible assets are then depreciated/amortised in line with the company's existing policies.

For working capital, we forecast that inventory days fall from 124 in 2020 to a more normal 90 days (three months) from 2022 to 2024. Debtor days are expected to remain constant at around 38 days (just over a month), with trade payables also remaining in line with historic levels at 59 days (c.2 months).

Forecast table

Our summary P&L forecasts for 2021 to 2024 are presented below.

\$	2020A	2021E	2022E	2023E	2024E
Revenue	103,058,000	90,724,000	97,105,000	115,526,054	120,866,989
Cost of sales	-77,353,000	-71,009,675	-80,641,080	-95,655,622	-99,365,937
GROSS PROFIT	25,705,000	19,714,325	16,463,920	19,870,432	21,501,053
Other income	2,224,000	1,478,000	3,800,000	0	0
Distribution costs	-182,000	-308,250	-319,000	-302,150	-338,500
Administrative expenses	-22,989,000	-21,754,000	-19,491,029	-19,509,679	-19,018,245
Other operating expenses	-894,000	-52,000	0	0	0
Finance income	22,000	30,000	0	0	0
Finance costs	-762,000	-704,000	-527,341	-476,753	-465,152
PRE-TAX PROFIT/(LOSS)	3,124,000	-1,595,925	-73,450	-418,150	1,679,156
Tax	-515,000	0	-45,000	0	0
NET PROFIT	2,609,000	-1,595,925	-118,450	-418,150	1,679,156
EBITDA	9,588,000	3,918,075	5,164,890	4,845,603	6,902,308
EPS (p)	0.7244	-0.4431	-0.0329	-0.1161	0.4663

Source: Align Research. Exchange rate of £:\$ 1:1.3256837 used throughout.

Our forecasts show that we expect Global Invacom to return into the black at the net profit level by 2024 as revenues continue their recovery. In 2022 a modest loss of \$0.12 million is expected, rising to \$0.42 million in 2023, largely as there is no repeat of the \$3.8 million other income received from the subsidiary sale. In 2024 we are expecting a net profit of \$1.68 million.

At this point it is important to note that we believe net profits do not offer a true reflection of the performance of the business. As discussed in the financials section, Global Invacom has historically been a highly cash generative business, with operational inflows being boosted by relatively large non-cash depreciation and amortisation charges. We see net cash rising from \$7.39 million at the end of 2020 to \$12.83 million by the end of 2024, a figure which represents 55% of the current market cap. **As a result of the strong cash flows we believe that an enterprise value to EBITDA (EV/EBITDA) multiple based valuation would best reflect the worth inherent in the company.**

Below we also present some key valuation ratios derived from our analysis.

	2020	2021	2022	2023	2024
Price to sales	0.23	0.26	0.24	0.20	0.19
Price/earnings	9.0	N/A	N/A	N/A	13.9
EV/EBITDA	1.67	3.91	2.24	2.59	1.53
Free cash flow yield	32.52%	8.70%	22.76%	2.71%	14.81%

Source: Align Research

Valuation

Peer derived EV/EBITDA multiple valuation

To establish a credible multiple for our EV/EBITDA valuation we take a look at the wider London listed Telecommunications Equipment peer group. We remove from the peer group three loss making companies along with CloudCoCo Group which, trading on an EV/EBITDA multiple of 58 times, we consider as an outlier.

Name	Market cap (£)	Cash (£)	Debt (£)	Enterprise value (£)	EBITDA (£m)	EV/EBITDA
Aferian	135,396,360	12,823,572	5,204,861	127,777,650	12,597,273	10.14
BATM Advanced Comms.	339,134,180	48,950,591	3,992,657	294,176,246	14,860,257	19.80
Calnex Solutions	108,937,500	13,643,000	0	95,294,500	5,496,000	17.34
Filtronic	23,071,113	2,906,000	966,000	21,131,113	1,773,000	11.92
MTI Wireless Edge	68,136,530	7,032,598	12,824	61,116,756	3,837,265	15.93
Pebble Beach Systems	13,394,823	1,444,000	8,050,000	20,000,823	2,673,000	7.48
Spirent Communications	1,641,915,528	117,976,860	0	1,523,938,668	93,612,074	16.28
					AVERAGE	14.13

Selected London listed Telecommunications Equipment companies. Cash & debt as at last published accounts date, EBITDA for last full financial year. Data sources: Company accounts and Sharepad.co.uk

Our peer analysis shows an average historic EV/EBITDA multiple of 14.13 times. This is well above Global Invacom's historic EV/EBITDA ratio of just 1.67 times, suggesting that the shares are significantly undervalued.

Adding an extra degree of caution to our analysis we discount the average peer figure by a factor of 30% to derive a multiple of 9.89 times. Applying this discounted multiple to our 2024 forecasts implies a market cap for Global Invacom of £65.84 million. Further discounting this back to the end of 2021 at a rate of 12% equates to £46.87 million. **Divided by the current 271,662,227 shares in issue (not including treasury shares) results in a value per share of 17.25p, a figure which we choose to set as our target price.**

Net assets

Providing significant backing to our multiple based valuation is Global Invacom's strong balance sheet. As at 30th June 2021 the company had net assets of \$46.07 million (£34.75 million), or 12.79p per share, some 97% higher than the current market cap. Stripping out goodwill, intangibles and right-of-use assets totaling \$13.55 million (£10.22 million) leaves tangible net assets (TNAV) per share of 9.03p, 39% ahead of the current share price. Our forecasts see TNAV rising over the forecast period, largely as intangibles are replaced by cash, reaching 11.04p per share by end 2024.

	2020	2021	2022	2023	2024
NAV per share (p)	13.03	12.59	12.55	12.44	12.90
TNAV per share (p)	8.94	9.02	9.55	10.00	11.04

Global Invacom year-end NAV and TNAV per share forecasts. Source: Align Research

Conclusion

Global Invacom has an excellent long-term track record, having built up the business from a garage operation to a fully integrated satellite equipment group with operations around the world. Unfortunately, since the beginning of 2020 many events, mainly related to the pandemic, have affected its operations and financial results. But with these issues slowly being resolved, combined with the huge growth opportunities discussed in the Data Over Satellite market, we see excellent potential for a recovery over the next few years.

The highly cash generative nature of the business should be attractive to investors, with the company's free cash flow yield reaching almost 15% in 2024 according to our forecasts as the operating environment settles. This provides opportunities to pay down debt, make further earnings enhancing acquisitions or maybe even pay a dividend – only one has been paid previously in 2015. Compared to its peers, our analysis shows that Global Invacom is significantly undervalued, and we would expect this valuation gap to narrow as the company proves over time that it can meet our forecasts.

While meeting our expectations is a risk to our target price being achieved, we do believe that our forecasts may in fact prove to be conservative. This is especially so at the gross margin level where we have factored in certain price increases which may not come to pass over the forecast period. To illustrate the upside potential here, a one percentage point increase in gross margins from 2022 to 2024 would add almost 1p per share to our 2024 TNAV valuation (11.96p) and take our EV/EBITDA valuation to 20.29p per share.

We initiate coverage of Global Invacom with a target price of 17.25p per share and a stance of Conviction Buy.

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