

Grand Venture Technology Ltd

Bloomberg: GVTL SP | Reuters: GRAN.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

14 Apr 2022

DBS is supported by the Research Talent Development Grant Scheme which aims to groom research talent to expand research coverage of small-mid cap SGX listed companies

BUY

(Initiating Coverage)

Last Traded Price (13 Apr 2022): S\$0.97 (STI : 3,342.22)

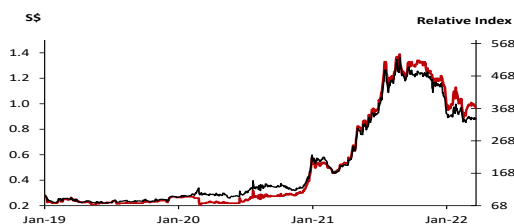
Price Target 12-mth: S\$1.50 (56% upside)

Potential Catalyst: New customers, margins expansion, M&As

Analyst

Lee Keng LING +65 6682 3703 leekeng@db.com

Singapore Research Team grouperesearch@db.com

Price Relative**Forecasts and Valuation**

FY Dec (\$m)	2020A	2021A	2022F	2023F
Revenue	61.4	116	145	178
EBITDA	14.2	31.5	40.1	48.9
Pre-tax Profit	6.03	20.9	26.9	34.0
Net Profit	5.22	17.6	21.9	27.6
Net Pft (Pre Ex.)	5.22	17.6	21.9	27.6
EPS (S cts)	2.23	5.31	6.62	8.35
EPS Pre Ex. (S cts)	2.23	5.31	6.62	8.35
EPS Gth (%)	68	138	25	26
EPS Gth Pre Ex (%)	68	138	25	26
Diluted EPS (S cts)	2.23	5.31	6.62	8.35
Net DPS (S cts)	0.0	0.46	1.32	1.67
BV Per Share (S cts)	15.7	31.6	36.9	43.6
PE (X)	43.3	18.2	14.6	11.6
PE Pre Ex. (X)	43.3	18.2	14.6	11.6
P/Cash Flow (X)	57.2	103.0	11.4	10.6
EV/EBITDA (X)	18.2	10.1	7.9	6.2
Net Div Yield (%)	0.0	0.5	1.4	1.7
P/Book Value (X)	6.1	3.1	2.6	2.2
Net Debt/Equity (X)	0.9	CASH	CASH	CASH
ROAE (%)	15.3	24.8	19.3	20.7

Consensus EPS (S cts):

9.0

11.0

Other Broker Recs:

B: 2

S: 0

H: 0

GIC Industry : Industrials

GIC Sector: Capital Goods

Principal Business: Grand Venture Technology Limited was established in 2012 and it is a manufacturing solutions and services provider for the semiconductor, life sciences, electronics, medical, and industrial automation industries.

Source of all data on this page: Company, DBS BANK, Bloomberg Finance L.P.

A promising high growth venture

- Riding on positive industry outlook; expansion into front-end semiconductor space a key growth driver
- Armed with higher capacity and new capabilities, well poised to take advantage of this industry growth
- Margins expansion from growing scale and efficiencies
- Initiate coverage with BUY, TP of S\$1.50

Riding on positive industry outlook for all three segments; expansion into front-end semiconductor space a key growth driver. The outlook for the Semiconductor industry, which contributed 71.1% to Grand Venture's (GVT) revenue in FY21, remains positive, with revenue CAGR of 39.3% during 2017-2021. GVT services top tier customers in the semiconductor back-end space and is targeting to expand to front-end activities, presenting ample room for growth. The Life Sciences segment will also benefit from growing mass spectrometer demand. Furthermore, advancements in medical technologies will be advantageous to the Electronics and Medical segment.

Well poised to take advantage of industry growth with higher capacity and new capabilities. GVT has been in expansion mode in the last two years. Capex spending, acquisition of new facilities and new capabilities will allow GVT to ramp up production, increase wallet share, and acquire new customers, paving the way for stronger growth ahead.

Margin expansion from growing scale and efficiencies.

Increased capacity and its growing revenue base enable GVT to reap the benefits from economies of scale. We expect GVT to maintain its FY21 net margin of 15.1% – which jumped from 8.5% in FY20 – going forward, supported by expanding capacity and revenue, and Industry 4.0 initiatives.

Valuation:

Initiate coverage with BUY; TP of \$1.50. Our target price is based on 18.0x FY23F earnings, a PE peg close to its historical peak, given robust growth trajectory. It is currently trading at FY23F PEG of ~0.4x, which is attractive vs 1.2x for peers.

Key Risks to Our View:

Prolonged supply chain disruptions; pandemic related lockdowns; rising raw material prices, volatile end market demand.

At A Glance

Issued Capital (m shrs)	339
Mkt. Cap (\$m/US\$m)	327 / 240
Major Shareholders (%)	
NT SPV 12	26.7
Tiam Nam Lee	15.3
Sunshine Ventures Pte	8.8
Free Float (%)	49.2
3m Avg. Daily Val (US\$m)	0.29



Watchlist the stock on Insights Direct to receive prompt updates



Live more, Bank less

Table of Contents

Investment Thesis	3
Valuation & Peers Comparison	8
Key Risks	9
SWOT Analysis	10
Critical Factors	11
Financials	13
Company Background	17
Management & Strategy	21

Investment Thesis

Initiate with BUY, TP: S\$1.50 implies 56% upside. We believe our BUY recommendation is justified, based on GVT's ability to ride on the positive industry outlook, armed with higher capacity and capabilities. The front-end semiconductor space is expected to be a key growth driver and margins are likely to benefit from growing scale and efficiencies.

(1) Riding on positive industry outlook to drive growth in all three key segments – Semiconductor, Life Sciences – Analytical Instruments, and Electronics, Medical and Others

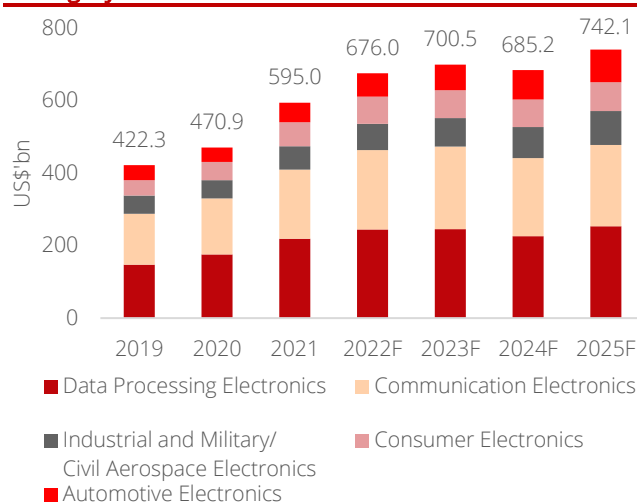
SEMICONDUCTOR

Servicing top tier customers in back-end space; targeting to expand services to front-end activities. In the semiconductor segment, GVT's products and services target leading capital equipment manufacturers for semiconductor and electronics manufacturing, and assembly solutions, which then supports the industrial and computing, communications, automotive, and consumer industries. GVT currently services four of the top six semiconductor players in the back-end space. The group is planning to expand its products offering to players in the front-end space. A successful penetration into this space could present ample room for growth going forward.

Front-end activities such as chip design and wafer fabrication account for 13% and 64% of industry capex respectively. We believe that further expansion into the front end would be a key driver of GVT's growth and we are keeping an eye on new customer acquisitions in the front-end space.

Outlook remains positive for semiconductor, GVT's largest contributor to revenue at 71.1%. The semiconductor segment has been the largest contributor to revenue over the past few years, accounting for 60-75% of group revenue. Outlook for the semiconductor industry remains positive, even after the strong growth in 2020 and 2021, and 2022 is forecasted to be another record-breaking year for the semiconductor industry. According to forecasts by Gartner, semiconductor revenue is expected to grow to US\$676 billion in 2022, registering a year-on-year growth rate of 13.62%. Though revenue growth is expected to see a slower CAGR of 1.3% in 2023-2025 vs the 8.2% CAGR in 2020-2025, revenue is still expected to be way above the pre-COVID level.

Semiconductor Revenue by Electronic Equipment Category



Charts/graphics created by DBS Bank based on Gartner research.

Source: Gartner, Inc., Semiconductor and Electronics Forecast Database, Worldwide, 1Q22

Update, Ben Lee, et al, 31 March 2022.

The US three-month semiconductor equipment billings increased 46% y-o-y in December 2021. This is the 27th consecutive y-o-y increase and we remain confident of the structural uptrend driven by the 5G, Internet of Things (IoT), Electric Vehicle (EVs), Artificial Intelligence (AI) sectors as well as the exacerbation caused by the COVID-19 pandemic.

World Semiconductor Trade Statistics (WSTS) has predicted that the global semiconductor market will grow by 8.8% in 2022 while IC Insights has also given a bullish outlook, expecting total semiconductor sales to grow by 11% in 2022 to reach another record high.

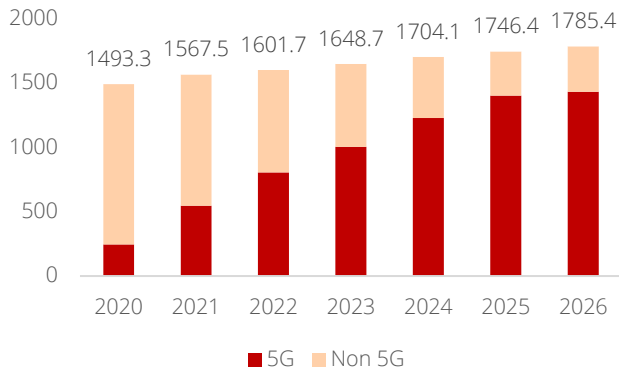
The global push towards digitalisation will continue to support the semiconductor industry in areas such as **5G, IoT, EVs, autonomous vehicles, AI, and investment in data centers.**

Growth of 5G is expected to increase semiconductor dollar content in areas such as radio frequency front end components, power management integrated circuits, memory, and higher ASP 5G chipsets. Most 4G phones have a lower DRAM of 6Gbit or 8Gbit compared to 5G handsets with a higher DRAM content of 8Gbit or 12 Gbit.

Forecasts by Gartner indicate that the proportion of 5G phones will grow from 35% in 2021 to 80% by 2026. Given that communication electronics accounted for 31% of the

NAND and 39% of the DRAM markets in 2021, we expect the increasing share of 5G to be a significant contributor to semiconductor demand.

Mobile phone sales by end technology (millions)

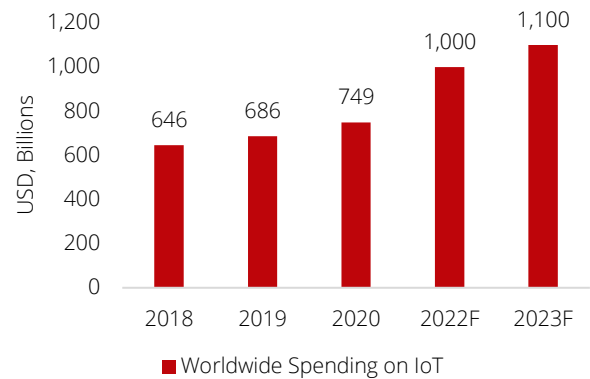


Charts/graphics created by DBS Bank based on Gartner research.
Source: Gartner, Inc., Mobile Phones, Worldwide, 1Q22
Update, Ranjit Atwal, et al, 30 March 2022.

Non-5G: CDMA 1x EV-DO Revision A, CDMA 2000 1x, CDMA 2000 1x EV-DO, EDGE, GSM, GSM/CDMA2000 1x, LTE, TD-LTE, HSXPA

Digital transformation and the shift towards IoT will increase demand for more advanced chips. This will be led by higher demand for integrated circuits, sensors, memory, and microcontrollers. Research by Transforma Insights shows that the global IoT market will jump from US\$441bn in 2021 to US\$1.06 trillion in 2030, registering a CAGR of 10.2%. Worldwide spending on IoT is expected to rise at a CAGR of 13.7%, reaching US\$1100 billion by 2023. Furthermore, Industry 4.0 and the growth in smart cities is also expected to spur demand for IoT with the increasing need of connected devices. Consequently, advanced chips will be in higher demand.

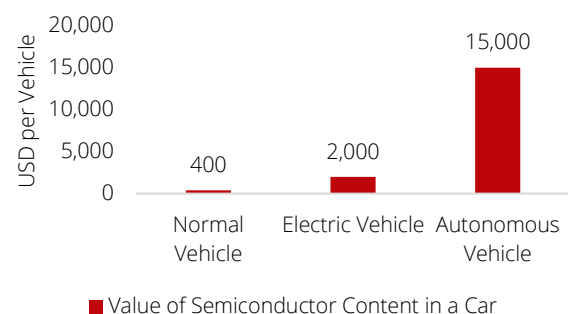
Worldwide spending on IoT



Source: IDC, Statista, DBS Bank

Advanced automotive, electric vehicles and autonomous vehicles to contribute to demand for semiconductor automotive chips. The value of chips in each vehicle has been rising steadily on the back of technological advancements such as voice recognition, blind-spot detection, and automatic emergency braking. The EV market is also set to grow by more than 20% in the next 10 years, led by the push towards sustainability. Although still in its infancy stages, the autonomous vehicle industry is starting to gain traction, and potential in the space is huge. According to Semico Research, the semiconductor content in electric vehicles and autonomous vehicles is 5x and 37.5x than that of a normal vehicle, implying that automotive chips are expected to be in strong demand due to innovations in the automotive space.

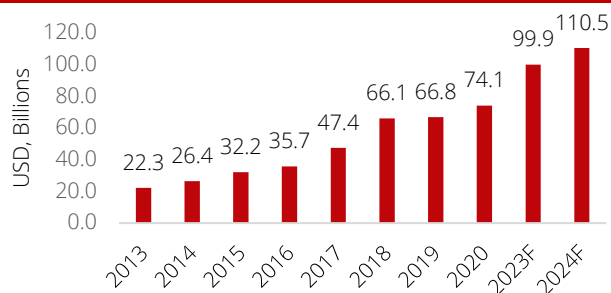
Value of semiconductor content the highest in autonomous vehicles



Source: Semico Research, DBS bank

Increased spending on hyperscale data centers drive demand for data center chips. IDC forecasts show that global spending on Cloud IT infrastructure will grow at a CAGR of 10.5%, reaching US\$110.5bn in 2024. Statista also projects that global revenue from the sale of servers will rise to US\$111 bn in 2025 at a CAGR of 6.7%. This will then lead to higher requirements for data center chips.

Global Spending on Cloud IT Infrastructure

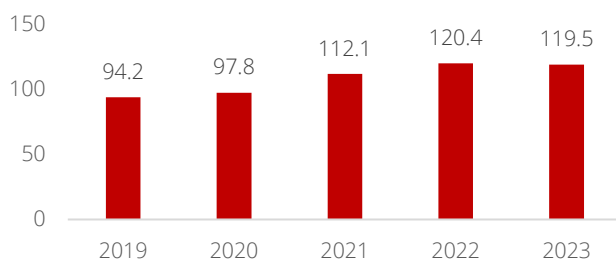


■ Global Spending on Cloud IT Infrastructure

Source: IDC, Statista, DBS Bank

GVT supported by long term industry growth evidenced by global fab equipment spending. SEMI predicts that global fab equipment spending is also expected to cross the US\$100 million mark to a record high of US\$107 billion in 2022. Fab equipment spending in 2023 is also forecast to be near the US\$100 million mark, supporting long term industry growth.

Fabrication Capacity (million)



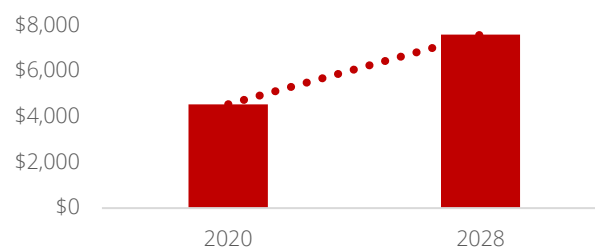
Source: SEMI, Bloomberg Finance L.P., DBS Bank

LIFE SCIENCES – ANALYTICAL INSTRUMENTS

Growing mass spectrometry market to support demand for parts. The analytical life sciences segment contributed 15.8% to total revenue in FY21. GVT manufactures and supplies key components of mass spectrometers such as vacuum chambers and complex parts of the ion source and mass filters. The uses of mass spectrometers include analytical life sciences research, food and beverage testing, clinical diagnosis, and pharmaceutical applications.

According to Verified Market Research, the mass spectrometer market is projected to grow from US\$4551.27 million to US\$7597.17 million between 2020 and 2028 at a CAGR of 6.4%. Marketsandmarkets similarly forecast that the mass spectrometry market size will grow at a CAGR of 6.5%. This implies that there would be a healthy demand for mass spectrometry components.

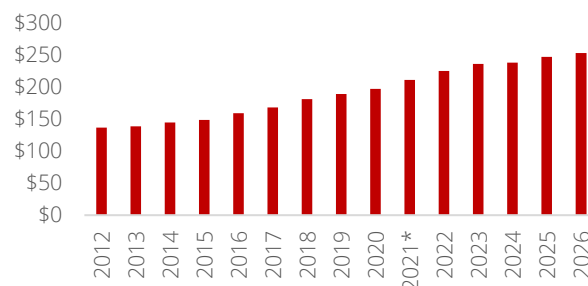
Mass Spectrometry market to grow at a CAGR of 6.5%



Source: Verified Market Research, DBS Bank

Analytical life sciences segment buoyed by increasing pharmaceutical R&D. According to Evaluate, global spending on pharmaceutical research and development will increase from US\$212 billion to US\$254 billion in 2026. The pharmaceutical industry held the largest share in the end user market in 2020, and expected to remain dominant till 2025. In the pharmaceutical industry, mass spectrometry is an important analytical tool in vaccine production, drug discovery, pharmacokinetics, late-stage development, and clinical trials. Hence, increased spending on pharmaceutical research and development is said to be a key driver of the mass spectrometry market.

Total global pharmaceutical R&D spending 2012-2026 (US\$ bil)



Source: Statista, EvaluatePharma, DBS Bank

Mass spectrometer component demand supported by food safety testing market. In the food safety testing market, mass spectrometry is used to trace organic contaminants, molecular profiling, and food authentication. MarketsandMarkets predicts that the food safety testing market will grow from US\$19.5 billion in 2021 to US\$28.6 billion by 2026 at a CAGR of 7.9%. This would be led by population growth and the resultant increase in food demand, as well as growing awareness of foodborne diseases. Essentially, the growing concerns over food safety will bring about higher demand for components of mass spectrometers.

ELECTRONICS, MEDICAL, AND OTHERS

In the electronics, medical, and others segment, GVT is involved in manufacturing consumable parts, assembly of

complex modules for industrial automation and manufacturing. Moreover, GVT is also involved in the manufacturing and assembly of surgical microscopes.

Surgical microscope demand bolstered by increase in minimally invasive surgeries. Minimally invasive surgeries have been gaining popularity with faster recovery periods and lower costs. In addition, medical advancements and an ageing population will act as key drivers of minimally invasive surgeries. Surgical microscopes have become crucial tools for minimally invasive surgeries in the areas of otorhinolaryngology, neurology, ophthalmic surgery, and dental surgery. Grandview Research estimates that the global surgical microscope market value will grow at a CAGR of 11.1% between 2021 and 2028. We expect that the healthy demand for surgical microscopes would benefit GVT as it will lead to a higher demand of components and key modules of surgical microscopes.

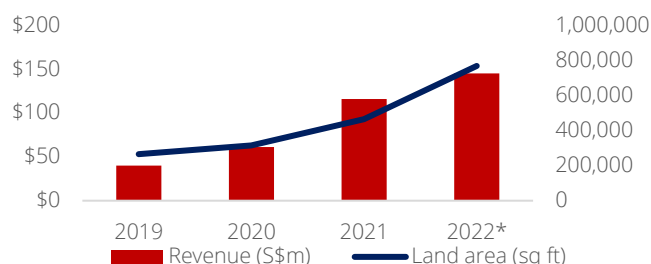
(2) Well poised to take advantage of industry growth with higher capacity and acquisition of new capabilities.

To ride on the growing industries, GVT has been in expansion mode in the last two years. Capex spending, the acquisition of new facilities and new capabilities will allow GVT to ramp up production, increase wallet share, and acquire new customers, paving the way for stronger growth ahead.

Fund raising exercise to enhance capabilities; room to further strengthen financials. GVT has raised a total of S\$57m from two private placements in 2021, including a S\$30m investment from Novo Tellus, a Singapore-based private equity fund to fund part of the expansion plans. With plans to acquire new customers and entry into new segments, including servicing the front-end semiconductor customers, we would not rule out further fund-raising exercises.

Boosting land area by 65% to 769,477 sqft with acquisitions of Penang facility, Formach, and J-Dragon, which translates to higher capacity. GVT acquired a property with a land area of 69,950 sqft in February 2020 and this was followed by another industrial leasehold property measuring 74,056 sqft in March 2021. The third Malaysia facility that occupies a 74,000 sqft plot of land was acquired in January 2022. With the three facilities in close proximity to each other, GVT intends to refurbish and merge the existing facilities to form an integrated manufacturing hub with an aggregate floor area of more than 350,000 sqft by 3Q22.

Revenue vs Land Area



Source: Company, DBS Bank

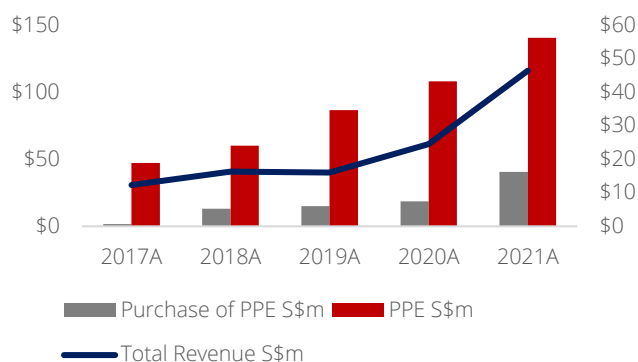
As at March 2022, the total land area stands at 769,477 sqft after factoring the third Penang facility, Formach, and J-Dragon acquisitions.

Foray into aerospace industry with acquisition of J-Dragon. J-Dragon is a precision engineering company located in Suzhou, China. J-Dragon has a high mix low volume business model, a built-up area of factory 5000 sqm (53820 sqft) and its capabilities lie in the design, development, and manufacturing of modules, parts, and tooling for the aerospace, semiconductor, and medical industries. The acquisition was completed in 1Q22 and should enable GVT to gain access to the engineering capabilities, know-how, patents, and partner network of J-Dragon. In addition, the acquisition facilitates GVT's foray into the aerospace sector and allows GVT to acquire new customers across the semiconductor and medical diagnostics sectors.

Formach acquisition increases production capacity in precision sheet metal fabrication. Formach is a precision sheet manufacturer located in Johor, Malaysia. Formach has a 90,000 sq ft factory and engages in machine structure weldment, the manufacture of sheet metal, and the provision of electro-mechanical machine assembly services. Acquiring Formach would allow GVT to add additional production capacity in precision sheet metal manufacturing, expedite time to market, and speed up the onboarding of new customers. Moreover, the additional capacity is expected to increase its presence in the semiconductor and life sciences segments.

Capex spending to drive growth. The recent acquisitions have led to higher capex spending. This in turn should translate to higher revenue and net income.

Revenue vs Purchase of PPE



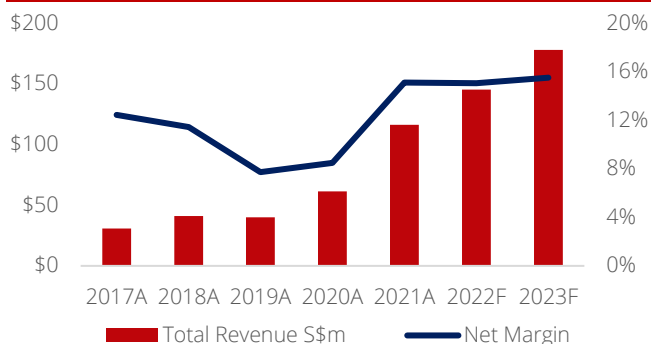
Source: Company, DBS Bank

(3) Margins expansion from growing scale and efficiencies

Reaping benefits from economies of scale. Increased capacity and growing revenue allow GVT to enjoy cost advantages with increased output. With higher production, GVT is able to reap the benefits of economies of scale.

FY21 margins soared to 15.1% on improved utilisation and greater economies of scale. Although general and administrative expenses have been increasing on an absolute basis, its proportion as a percentage of sales have been declining from 20.3% to 15.5% to 10.8% in FY19, FY20, and FY21 respectively. Going forward, we expect a larger revenue base to contribute to greater economies of scale which supports margins.

Total revenue vs Net margins



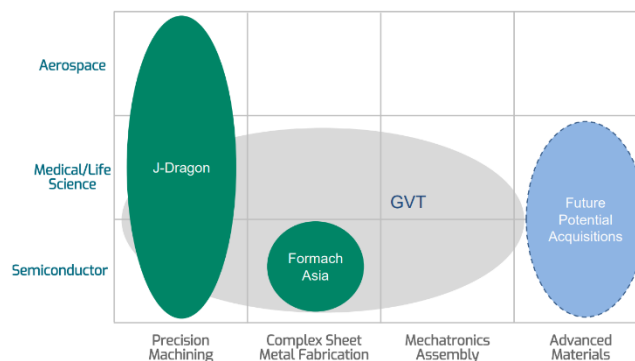
Source: Company, DBS Bank

Margins to be propped by industry 4.0 (i4) initiatives. As of 4Q21, the i4 line has been rolled out to Singapore factories to alleviate the high labour costs and labour shortages in Singapore. The i4 initiative allows GVT to scale profitably by driving automation of production activities such as material handling, fabrication, tool change, and quality inspection. For example, the i4.0 enables workers to assess machine efficiency and stock levels in real time, allowing engineers to make informed decisions based on data. The automation of mundane works such as loading of parts, manual recording of data, and changing of tools also allows workers to switch to higher value-added works, enhance efficiency, productivity, and resilience in business operations. For the above reasons, we believe that i4 implementation can partially offset the higher costs associated with inflation and margin pressures

(4) Potential catalysts: strategic M&As to expand capabilities and customer diversification

There is a possibility of future acquisitions especially in the areas of advanced materials such as quartz, ceramics, and engineering plastics. Acquiring capabilities in advanced materials through mergers and acquisitions will benefit the semiconductor, life sciences, and medical segments, which strengthens the competitive positioning of GVT.

Strategic M&A roadmap



Source: Company

Valuation & Peers Comparison

Initiate coverage with BUY, TP S\$1.50. Our target price is based on a PE peg near its historical peak of 18.0x or +2SD of its average PE since listing. We peg this to FY23F earnings to better reflect the group's expanded capacity and capabilities as the third Penang facility would only be ready by 3Q22 while the completion of the J-Dragon and Formach acquisitions only occurred in 1Q22.

Although GVT appears to be trading at a premium compared to its peers, it is undervalued based on a PE to growth (PEG) basis which takes into account the expected growth rate in EPS. GVT trades at an attractive PEG of 0.4x vs peers of 1.2x (0.80x excluding outlier Micro-mechanics Holdings).

Key assumptions

We have assumed revenue growth of 25.0%/22.5% for FY22F/FY23F. FY22 is forecast to be another record-breaking

year for the semiconductor industry with a 13.6% year on year growth rate, after an explosive growth of 26.3% in 2021. We have projected FY23 revenue growth rates in line with the company's expansion plans and capacity increases. Increased capacity and a growing revenue base enable GVT to reap the benefits of economies of scale. We expect FY21's net margin of 15.1% (from 8.5% in FY20) to be sustainable supported by expanding capacity and revenue, and also industry 4.0 initiatives.

GVT is currently trading at a forward PE of 11x, near its mean. Riding on the industry growth, alongside higher capacity, acquisition of synergistic capabilities, and economies of scale, we believe that our peg of 18.0x FY23F earnings is justified.

Forward PE Band (x)



Source: Bloomberg Finance L.P., DBS Bank

Peer Valuation

Bloomberg Ticker	Company Name	Market Cap (S\$m)	Price	Target Price	Upside	PE FY1	PE FY2	EPS FY1	EPS FY2	EPS Growth	PEG FY2
GVTL	Grand Venture Technology	324.0	0.96	1.50	57.4%	14.4	11.4	0.066	0.083	26.1	0.4
UMSH	UMS Holdings	786.8	1.18	1.70	44.1%	11.8	10.6	0.100	0.111	11.1	1.0
FRKN	Freunden Group	666.2	1.56	2.09	34.0%	10.1	8.9	0.155	0.175	12.9	0.7
AEM	AEM Holdings	1462.7	4.73	6.04	27.7%	11.8	10.6	0.402	0.447	11.2	0.9
ISDN	ISDN Holdings	269.8	0.62	0.96	56.1%	8.9	7.9	0.069	0.078	13.0	0.6
MMH	Micro-Mechanics Holdings	443.5	3.19	4.05	27.0%	22.0	20.4	0.145	0.156	7.6	2.7
AVI	Avi-Tech Holdings	59.9	0.35	0.42	20.0%	11.7	11.7	0.030	0.030	0.0	nm
Average						12.7	11.7	0.2	0.2	9.3	1.2

Target price and earnings forecast for ISDN and Avi-Tech based on consensus data

Source: Bloomberg Finance L.P., DBS Bank

Key Risks

Supply chain constraints

Supply chain disruptions may lead to longer lead times for GVT's customers as it gets harder to secure materials. In addition, supply chain disruptions may make it harder for GVT to procure materials for their orders. GVT has sufficient inventory for 6-9 months of orders, but extended supply chain disruptions will pose the risk of more business disruptions.

High energy cost

The Russia-Ukraine crisis has kept oil prices elevated for this year, which may result in higher energy costs for GVT. Nonetheless, GVT has entered into fixed energy contracts to hedge against rising energy prices.

Risk of lockdowns from COVID-19

While countries such as Singapore has transitioned to a "living with COVID" approach, China continues with its zero-COVID policy. There is a risk of a drop in output should the Chinese factories be forced to shut. Underutilisation of existing capacity may then lead to lower margins due to higher fixed costs per unit.

No long-term supply agreements with customers and suppliers

In FY21, the top 10 customers contributed to 85% of sales. In general, the industry does not have long term supply

agreements between suppliers and customers. Should a major customer decrease or cease orders with GVT, there can be significant impact to the top-and bottom line.

Raw material price risk

An increase in raw material prices may result in lower gross profit margins if GVT is unable to pass on price increases to its customers. The main raw materials that GVT uses are aluminium and steel. GVT generally does not enter long term arrangements with its suppliers with respect to pricing.

Exposure to customers' end markets

The end markets are susceptible to industry cycles. During industry downturns, GVT's customers may delay investments in factory production lines or new capital equipment. This in turn translates to a lower derived demand for components and assembly services.

Foreign currency risk

GVT has transactional currency exposure from sales and purchases that are not denoted in the functional currencies. Around 73% of GVT's sales are denoted in foreign currencies and 69% of costs are denoted in the respective functional currencies. In 2021, GVT recognised S\$0.322 million net gain in foreign exchange, amounting to 2% of profit after tax.

SWOT Analysis

Strengths	Weakness
<ul style="list-style-type: none"> • Strong and sticky relationships with key blue-chip customers. GVT serves a blue-chip customer base of global equipment manufacturers. In the semiconductor back-end space, they serve 4 in the top 6. In the analytical life sciences segment, they serve 3 in the top 10. The products that GVT supplies are made according to certain product specifications, thus the customer base tends to be sticky in nature. • Diversified revenue stream across 3 segments. GVT serves a diversified customer base across three main segments which makes the company less susceptible to downturns in any of the segments • High barriers to entry. Heavy capital investments and specialised capabilities are required for GVT's businesses which creates a higher barrier to entry. GVT's capabilities in sub-micron machining is not easily replicable. • Increased productivity with i4 plans. GVT has an Industry 4.0 roadmap that will drive greater efficiency and resilience in its operations. 	<ul style="list-style-type: none"> • Dependent on relationship with major customers. Generally, the industry does not have long term supply agreements between suppliers and customers. Should a major customer decrease or cease orders with GVT, there can be significant impact on the top-and bottom lines. • Reliance on foreign workers subjects GVT to foreign worker policies. There is a significant reliance on foreign workers in Singapore and Malaysia where there is a limited local workforce. This means that GVT is subject to any immigration and employment policies by manpower ministries that may affect the number of issued employment passes and work permits or foreign worker levy.
Opportunities	Threats
<ul style="list-style-type: none"> • Ample room to ride on the growing industries with added capacities and capabilities. Land area increased by 65% to 769,477 sqft over the past two years with acquisition of Penang facility, Formach, and J-Dragon, which translates to higher capacity. • Industry growth to support GVT's 3 main segments. 5G, IoT, electric vehicles, autonomous vehicles, AI, and investment in data centres will support semiconductor industry growth. Additionally, the analytical life sciences segment is similarly experiencing strong growth on the back of a growing mass spectrometry and high-performance liquid chromatography (HPLC) market. Finally, the thriving global electronics manufacturing services market and rising demand of minimally invasive surgeries will support sales in the third segment. • Opportunities for cross selling as existing capabilities can be applied across different segments. • Strengthening competitive position with mergers and acquisitions. There is a possibility of future acquisitions especially in the areas of advanced materials such as quartz, ceramics, and engineering plastics. 	<ul style="list-style-type: none"> • Supply chain disruptions. Supply chain disruptions may lead to longer lead times of GVT's customers and may make it harder for GVT to procure materials for their orders. • Exposure to customers' end markets. The end markets are susceptible to industry cycles. During industry downturns, GVT's customers may delay investments in factory production lines or new capital equipment. This in turn translates to lower demand for components and assembly services. • Intense competition and pricing pressures. GVT may face substantial competition given that it operates in a highly competitive industry. More intense competition may result in pricing pressure and lower profit margins. Moreover, GVT's customers also face pricing pressure from their end customers. Customers may in turn exert pricing pressures on GVT.

Source: DBS Bank

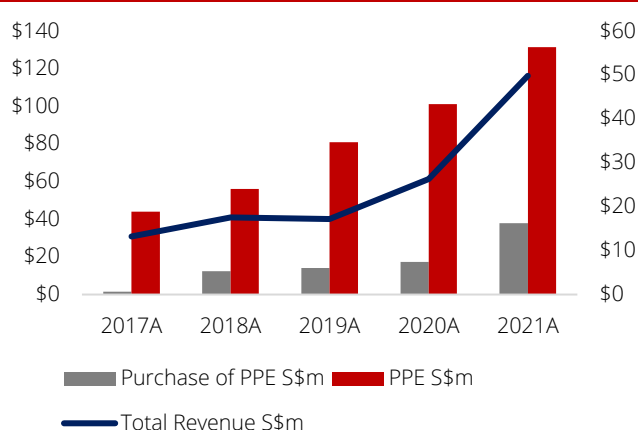
Critical Factors

Capacity expansion and capex

Level of capital expenditure indicative of growth

GVT has been investing heavily into property, plant, and equipment. Based on an analysis of its fixed assets, the largest components are leasehold properties and plant, machinery, and equipment. Capital investments help to foster growth of the business by allowing the company to execute its strategic plans for capacity expansion or increased productivity through automation and digitalisation. This in turn translates to higher revenue and net income.

Revenue vs Purchase of PPE



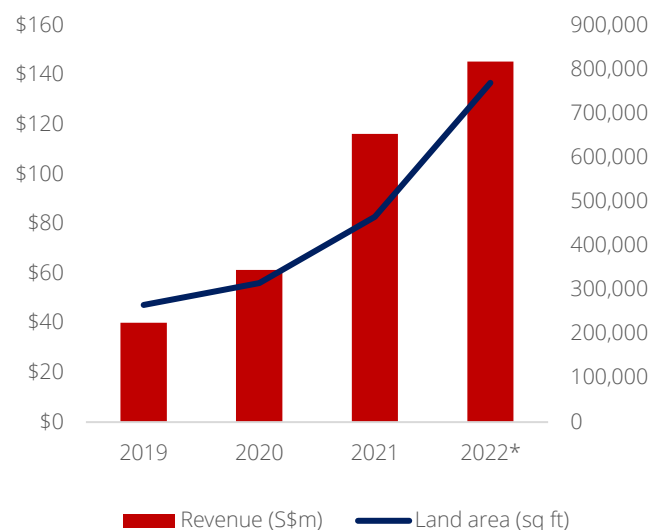
Source: Company, DBS Bank

Capacity expansion dependent on available land area. GVT has facilities across three strategic sites in Singapore, Malaysia (Penang and Johor Bahru), and China (Suzhou). The total land area has more than doubled from 315,216 sqft in 2019 to 769,477 sqft in 2022. As of August 2021, GVT had a factory floor area of 380k sqft across its sites in Singapore, Malaysia, and China. As of February 2022, the factory floor area has risen by almost 42% to 540k sqft, implying capacity increase which would underpin its aggressive growth ahead.

Country	Land Area (sq ft)	Activities
Singapore	86,376	Corporate Headquarters Precision Machining Assembly and Testing
Malaysia	406,477	Precision Machining Sheet Metal Fabrication Assembly and Testing
China	276,264	Precision Machining Assembly and Testing

Source: Company, DBS Bank

Revenue vs Land Area



Source: Company, DBS Bank

Margins

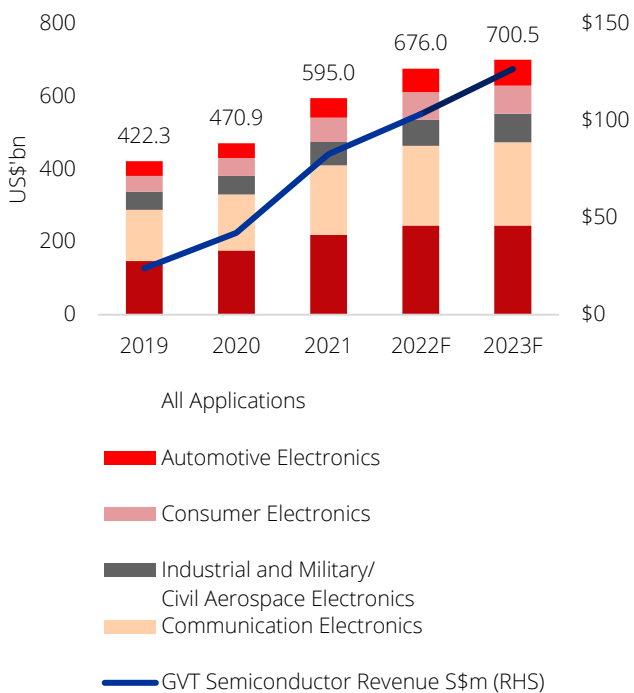
Increased capacity and its growing revenue base enable GVT to reap the benefits from economies of scale. We expect GVT to maintain its FY21 net margin of 15.1%, which jumped from 8.5% in FY20, going forward, supported by expanding capacity and revenue, and industry 4.0 initiatives.

Higher utilisation rates to support margins. Beyond capacity, utilisation rates also play an important role in indicating whether existing capacity is used to create value. Between 2015 and 2017, utilisation rates have increased from 67.7% to 74.8%, suggesting reduction of idle time and enhanced productivity. Increased utilisation rate alongside rising capacity indicates that company production has been rising. In FY21, utilisation rates were maximised, and fixed costs were optimised, which enabled GVT to produce a higher volume at improved net margins of 15.1% compared to 8.5% in 2020.

Worldwide Semiconductor revenue

With more than 70% of total sales attributed to the semiconductor segment, total worldwide semiconductor revenue can affect GVT's revenue significantly.

GVT Semiconductor Revenue vs Industry Revenue



In 2019, the semiconductor market's revenue dropped 11% to US\$422 billion on softened demand due to global trade tensions. Consequently, GVT's semiconductor revenue also fell 22.2% from S\$31 million in 2018 to S\$24 million in 2019.

When the semiconductor market's revenue picked up 11.5% in 2020 and a further 26.3% in 2021, GVT's revenue from the semiconductor segment climbed by 77% and 96% respectively. With the semiconductor revenue forecast to rise another 14% to US\$676 billion in 2022 and 4% further in 2023, we project GVT's revenue to grow by 25.0% in 2022 and 22.5% in 2023, riding on the industry uptrend.

In general, the growth of GVT's revenue can be tied to the semiconductor industry revenue. However, we have also observed that the magnitude of growth has been exceeding the industry growth rates because of GVT's aggressive capacity expansion plans.

Charts/graphics created by DBS Bank based on Gartner research.

Source: Gartner, Inc., Semiconductor and Electronics Forecast Database, Worldwide, 1Q22

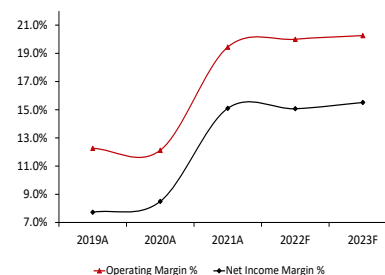
Update, Ben Lee, et al, 31 March 2022.

Financials

Income Statement (\$m)

FY Dec	2018A	2019A	2020A	2021A	2022F	2023F
Revenue	41.0	40.1	61.4	116	145	178
Cost of Goods Sold	(26.2)	(25.2)	(42.5)	(78.6)	(96.8)	(118)
Gross Profit	14.8	14.9	18.9	37.7	48.5	60.0
Other Opng (Exp)/Inc	(8.0)	(10.0)	(11.5)	(15.1)	(19.5)	(23.9)
Operating Profit	6.82	4.91	7.44	22.6	29.1	36.1
Other Non Opng	0.0	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	(0.9)	(1.1)	(1.4)	(1.7)	(2.1)	(2.1)
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	5.90	3.84	6.03	20.9	26.9	34.0
Tax	(1.2)	(0.8)	(0.8)	(3.3)	(5.0)	(6.3)
Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0
Preference Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	4.69	3.10	5.22	17.6	21.9	27.6
Net Profit before	4.69	3.10	5.22	17.6	21.9	27.6
EBITDA	10.5	9.84	14.2	31.5	40.1	48.9
Growth						
Revenue Gth (%)	32.9	(2.3)	53.2	89.3	25.0	22.5
EBITDA Gth (%)	48.3	(6.1)	44.1	121.9	27.4	22.0
Opg Profit Gth (%)	75.1	(28.0)	51.5	203.7	28.6	24.1
Net Profit Gth (Pre-ex)	22.1	(33.9)	68.4	236.6	24.7	26.1
Margins & Ratio						
Gross Margins (%)	36.2	37.2	30.8	32.4	33.4	33.7
Opg Profit Margin (%)	16.6	12.3	12.1	19.4	20.0	20.3
Net Profit Margin (%)	11.4	7.7	8.5	15.1	15.1	15.5
ROAE (%)	40.9	13.0	15.3	24.8	19.3	20.7
ROA (%)	10.4	5.0	6.2	12.7	11.2	12.3
ROCE (%)	10.8	4.0	5.3	13.4	12.0	13.8
Div Payout Ratio (%)	0.0	0.0	0.0	8.7	20.0	20.0
Net Interest Cover (x)	7.4	4.6	5.3	13.2	13.6	17.1

Margins Trend



Source: Company, DBS Bank

Interim Income Statement (\$m)

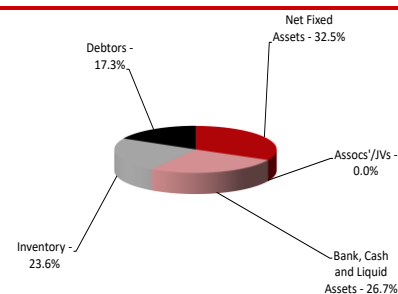
FY Dec	1H1H	2H2019	1H2020	2H2020	1H2021	2H2021
Revenue	18.1	22.0	26.9	34.5	53.5	62.7
Cost of Goods Sold	(11.2)	(13.9)	(18.9)	(23.6)	(35.8)	(42.8)
Gross Profit	6.86	8.06	8.03	10.9	17.7	20.0
Other Oper. (Exp)/Inc	(4.5)	(5.5)	(4.8)	(6.7)	(6.4)	(8.7)
Operating Profit	2.37	2.55	3.28	4.16	11.4	11.2
Other Non Opg	0.0	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	(0.5)	(0.6)	(0.7)	(0.7)	(0.9)	(0.9)
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	1.89	1.96	2.58	3.45	10.5	10.4
Tax	(0.4)	(0.4)	(0.4)	(0.5)	(2.0)	(1.3)
Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	1.52	1.58	2.22	2.99	8.51	9.05
Net profit bef Except.	1.52	1.58	2.22	2.99	8.51	9.05
EBITDA	2.37	2.55	3.28	4.16	11.4	11.2
Growth						
Revenue Gth (%)	(5.6)	21.7	22.3	28.2	55.2	17.1
EBITDA Gth (%)	(1.9)	7.8	28.8	26.8	173.2	(1.2)
Opg Profit Gth (%)	(1.9)	7.8	28.8	26.8	173.2	(1.2)
Net Profit Gth (%)	(16.2)	3.9	40.9	34.6	184.3	6.3
Margins						
Gross Margins (%)	37.9	36.6	29.8	31.6	33.1	31.8
Opg Profit Margins (%)	13.1	11.6	12.2	12.1	21.2	17.9
Net Profit Margins (%)	8.4	7.2	8.3	8.7	15.9	14.4

Source: Company, DBS Bank

Balance Sheet (\$\$m)

FY Dec	2018A	2019A	2020A	2021A	2022F	2023F
Net Fixed Assets	24.1	34.7	43.4	56.4	65.3	67.5
Invt in Associates & JVs	0.0	0.0	0.0	0.0	0.0	0.0
Other LT Assets	3.58	3.76	3.06	5.40	5.38	5.36
Cash & ST Invt	2.47	5.77	7.49	46.3	50.0	59.5
Inventory	10.6	15.7	20.9	40.9	45.0	54.8
Debtors	9.57	13.0	17.9	30.0	40.3	49.4
Other Current Assets	1.09	0.70	1.69	3.84	3.84	3.84
Total Assets	51.4	73.6	94.4	183	210	240
ST Debt	10.3	12.3	10.6	16.3	16.3	16.3
Creditor	10.8	10.7	13.2	25.1	34.5	43.0
Other Current Liab	0.13	1.00	1.02	1.85	1.85	1.85
LT Debt	8.51	9.19	29.1	29.6	29.6	29.6
Other LT Liabilities	5.60	8.93	3.62	5.57	5.57	5.57
Shareholder's Equity	16.1	31.5	36.9	105	122	144
Minority Interests	0.0	0.0	0.0	0.0	0.0	0.0
Total Cap. & Liab.	51.4	73.6	94.4	183	210	240
Non-Cash Wkg. Capital	10.3	17.7	26.3	47.9	52.8	63.2
Net Cash/(Debt)	(16.3)	(15.7)	(32.2)	0.54	4.20	13.7
Debtors Turn (avg days)	81.2	102.8	91.8	75.2	88.4	92.0
Creditors Turn (avg)	145.1	193.8	122.1	100.2	126.8	134.6
Inventory Turn (avg)	136.9	237.0	187.1	161.9	182.8	173.2
Asset Turnover (x)	0.9	0.6	0.7	0.8	0.7	0.8
Current Ratio (x)	1.1	1.5	1.9	2.8	2.6	2.7
Quick Ratio (x)	0.6	0.8	1.0	1.8	1.7	1.8
Net Debt/Equity (X)	1.0	0.5	0.9	CASH	CASH	CASH
Net Debt/Equity ex MI	1.0	0.5	0.9	CASH	CASH	CASH
Capex to Debt (%)	28.1	28.1	18.7	35.5	43.7	32.8

Asset Breakdown



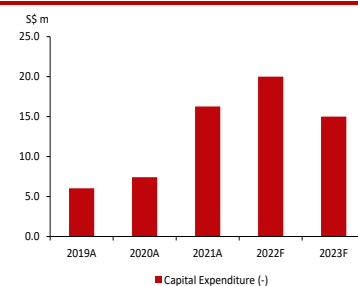
Source: Company, DBS Bank

Cash Flow Statement (\$m)

FY Dec	2018A	2019A	2020A	2021A	2022F	2023F
Pre-Tax Profit	5.90	3.84	6.03	20.9	26.9	34.0
Dep. & Amort.	3.66	4.93	6.74	8.88	11.0	12.9
Tax Paid	(0.7)	(0.6)	(0.7)	(1.6)	(5.0)	(6.3)
Assoc. & JV Inc/(loss)	0.0	0.0	0.0	0.0	0.0	0.0
Chg in Wkg.Cap.	(4.7)	(7.4)	(8.7)	(21.8)	(4.9)	(10.4)
Other Operating CF	2.00	(2.0)	0.58	(3.3)	0.0	0.0
Net Operating CF	6.18	(1.2)	3.96	3.10	28.0	30.0
Capital Exp.(net)	(5.3)	(6.0)	(7.4)	(16.3)	(20.0)	(15.0)
Other Invts.(net)	0.0	0.0	0.0	0.0	0.0	0.0
Invts in Assoc. & JV	0.0	0.0	0.0	0.0	0.0	0.0
Div from Assoc & JV	(0.8)	0.0	0.0	0.0	0.0	0.0
Other Investing CF	0.01	0.34	0.09	0.30	0.0	0.0
Net Investing CF	(6.0)	(5.7)	(7.3)	(16.0)	(20.0)	(15.0)
Div Paid	0.0	0.0	0.0	(1.5)	(4.4)	(5.5)
Chg in Gross Debt	0.97	(0.5)	9.64	5.33	0.0	0.0
Capital Issues	1.20	13.2	0.0	51.1	0.0	0.0
Other Financing CF	(1.7)	(2.2)	(4.6)	(3.1)	0.0	0.0
Net Financing CF	0.49	10.5	5.02	51.8	(4.4)	(5.5)
Currency Adjustments	0.0	0.0	0.08	0.07	0.0	0.0
Chg in Cash	0.64	3.56	1.72	39.0	3.66	9.52
Opg CFPS (\$ cts)	5.82	2.65	5.40	7.52	9.96	12.2
Free CFPS (\$ cts)	0.48	(3.1)	(1.5)	(4.0)	2.43	4.55

Source: Company, DBS Bank

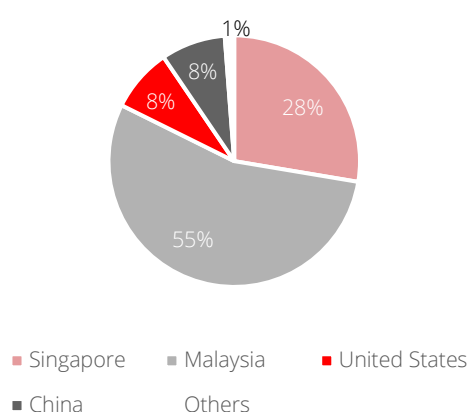
Capital Expenditure



Company Background

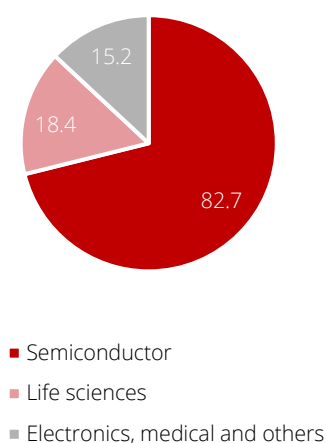
Corporate History. Grand Venture Technology Limited (GVT) was established in 2012 and is a manufacturing solutions and services provider for the semiconductor, life sciences, electronics, medical, and industrial automation industries. Its manufacturing plants are located in Singapore, Malaysia, and China with a total factory floor area of 540k sqft. The customer base includes established blue-chip companies in the semiconductor back-end and analytical life sciences industries.

Revenue by geographical segment (%) – FY21



Source: Company, DBS Bank

Revenue by business segment (%) – FY21



Source: Company, DBS Bank

Semiconductor segment

In the semiconductor segment, GVT's products and services target leading capital equipment manufacturers for semiconductor and electronics manufacturing, and assembly solutions, which then supports industrial and

computing, communications, automotive, and consumer industries. GVT's products and services span across the front-end and back-end.

GVT manufactures and supplies key and high precision components such as cooldown plate bases, hinge brackets, chamber lids, and SFD type pivots for chemical vapour disposition equipment in the front end. For the back-end, GVT manufactures and supplies key and high precision components such as machine bases and assemblies complex modules such as linear guides that are used in manufacturing die bonders, wedge bonders equipment, and wire bonders. For back-end testing, GVT manufactures and supplies key and high precision components such as bridge plate bases and assemblies complex modules like zero insertion force assemblies.

Manufacturing the above products requires capabilities such as precision machining, sheet metal manufacturing, vacuum parts manufacturing, and the assembly of complex modules.

Analytical life sciences segment

In the analytical life sciences segment, GVT manufactures and supplies key components of mass spectrometers. These includes complex parts of the mass filters and ion source as well as vacuum chambers and interfaces. GVT also assembles key modules of ion source for mass spectrometers. The main applications of mass spectrometers are in pharmaceuticals, life sciences, environmental testing, forensic analysis, clinical diagnosis and food and beverage testing.

GVT also manufactures manifolds, valves, and plugs, key components of high-performance liquid chromatography instruments that are used in pharmaceutical applications, food and beverage testing, clinical diagnosis, forensics screening, and environmental testing.

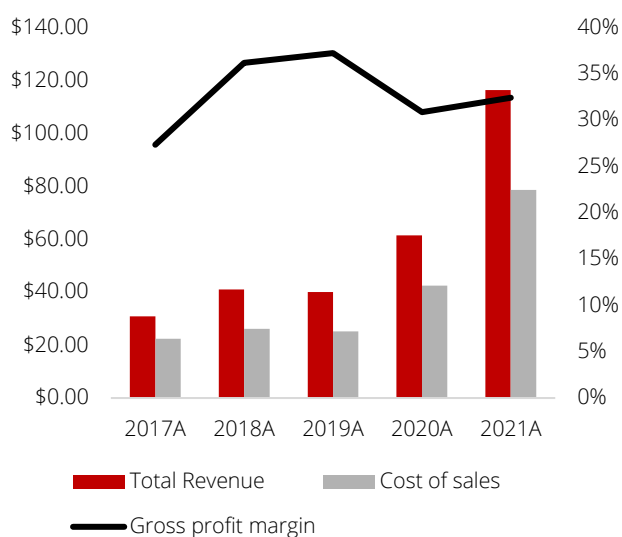
Manufacturing the above products requires sub-micron machining, ultra-high vacuum production processing, class 10,000 cleanroom modular assembly, and vacuum parts manufacturing.

Electronics, medical, and others segment.

In the electronics, medical, and others segment, GVT is involved in manufacturing consumable parts, the assembly of complex modules for industrial automation and manufacturing, as well as the manufacturing and assembly of surgical microscopes.

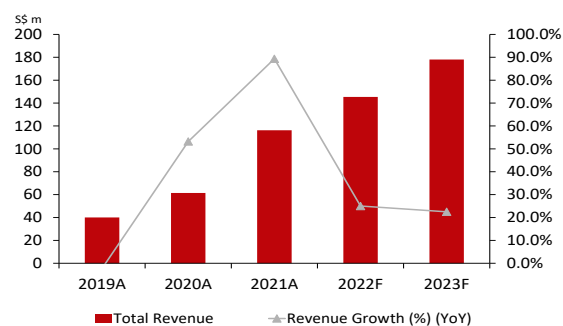
Manufacturing the above products requires precision machining, complex sheet metal manufacturing and the assembly of complex modules.

Total revenue, cost of sales, and gross profit margin



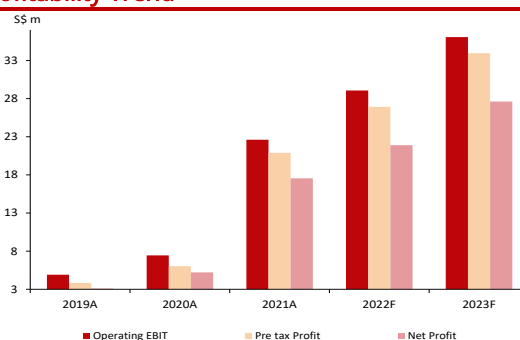
Source: Company, DBS Bank

Sales Trend



Source: Company, DBS Bank

Profitability Trend



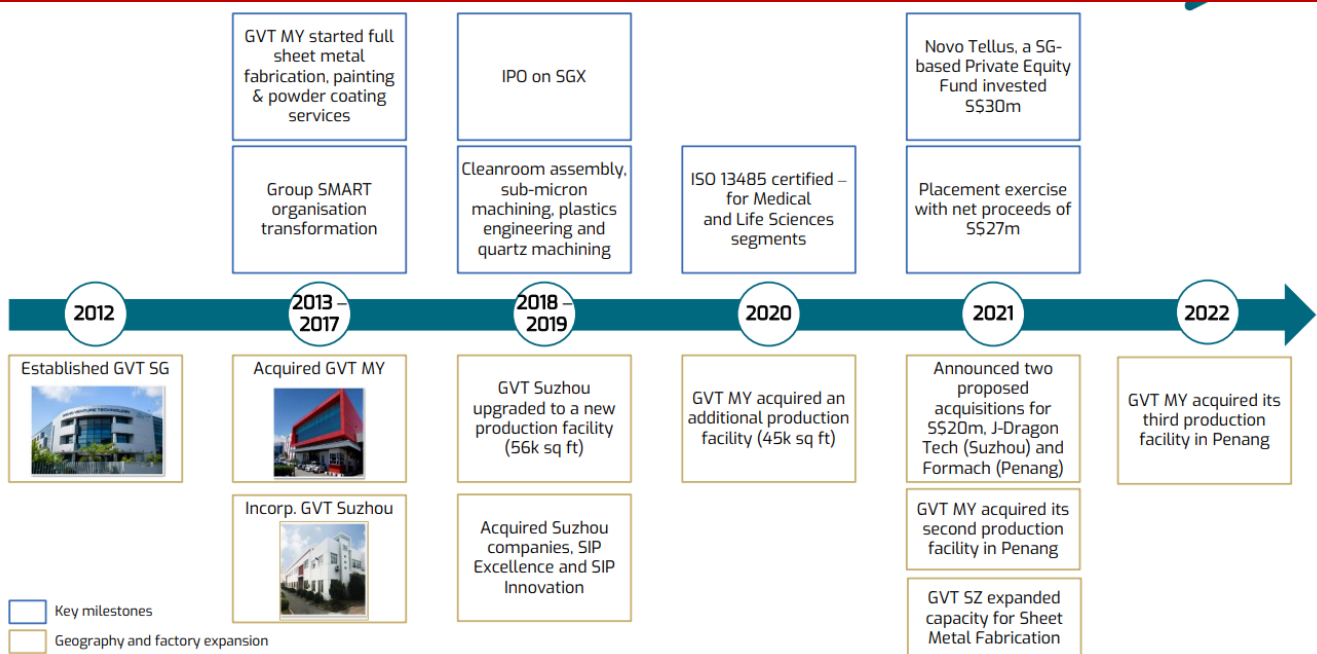
Source: Company, DBS Bank

Differentiated capabilities can be cross sold to differentiated customer base

Capabilities	Semiconductor	Life Sciences	Medical, Electronics & Others (Inc. Industrial Automation)
Design for Manufacturability / Assembly	✓	✓	✓
Ultra Precision Machining (Sub-micron)	●	✓	●
High Precision Machining	✓	✓	✓
Vacuum Parts Manufacturing	✓	✓	
Ultra-high Vacuum Production Processing	●	✓	
Engineering Plastic, Ceramics & Quartz Machining	✓	✓	✓
Complex Sheet Metal Fabrication	✓	✓	✓
Assembly (Medium / High Complexity)	✓	✓	✓
Assembly (High Complexity in Class 10K Cleanrooms)	●	✓	
Customized Engineering Solutions	✓	✓	✓
Examples of mission critical end-products which GVT produces components & key modules for	Equipment for Front & Back-end Processes	Single & Hybrid Mass Spectrometers	Surgical Microscopes, SMT Feeder Systems

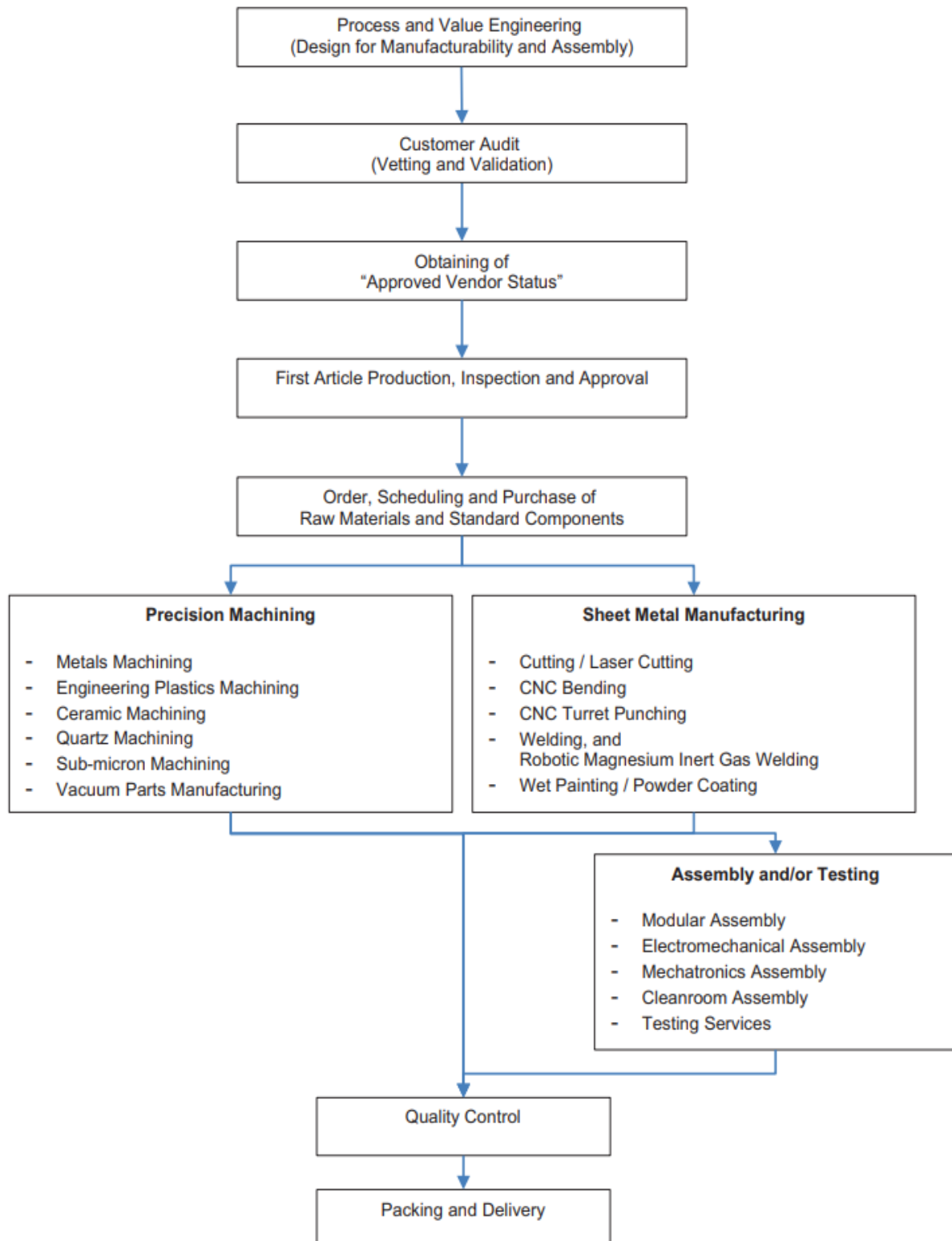
Source: Company

Company History



Source: Company

Business Process



Source: Company

Management & Strategy

Name	Background and experiences
Ng Wai Yuen "Julian", CEO & Executive Director	<ul style="list-style-type: none"> Mr Julian Ng is CEO and Executive Director and is responsible for the overall management and growth of the Group. He was appointed to the Board on 22 September 2015 and was last re-elected on 28 April 2020. Mr Ng has over 20 years of experience in the manufacturing and precision engineering industries. Mr Ng began his career in 1993 as a Research Specialist with Singapore's Ministry of Defence. He then joined Norelco Centreline Pte Ltd in 1999 and rose to the position of Sales and Marketing Manager. In 2005, Mr Ng left to establish Achieve Manufacturing Solutions Pte. Ltd., which specialised in manufacturing and precision engineering. The assets of Achieve Manufacturing Solutions Pte. Ltd. were subsequently acquired by Eng Tic Lee Engineering (S) Pte Ltd in 2005 and pursuant thereto, Eng Tic Lee Engineering (S) Pte Ltd was renamed Eng Tic Lee Achieve Pte Ltd, and Mr Ng joined Eng Tic Lee Achieve Pte Ltd as its Sales and Marketing Director. Eng Tic Lee Achieve Pte Ltd was eventually listed in 2007 as ETLA Limited, and Mr Ng remained its sales and marketing director until 2014 when he left to join GVT as the Sales and Marketing Director. Mr Ng holds a Diploma in Shipbuilding & Offshore Engineering from Ngee Ann Polytechnic, Singapore
Robby Sucipto, CFO	<ul style="list-style-type: none"> Mr Robby Sucipto joined the Group as CFO in March 2020 and is responsible for the accounting, financial administration, analysis and planning, and compliance and reporting obligations of the Group. Backed by Big 4 experience in financial audits and M&As, Mr Sucipto has more than 13 years of experience in delivering value add to the finance and accounting function. He previously served in Ernst & Young, KPMG, a group company of Hitachi Ltd and Singapore-listed Company, Pacific Star Development Limited. Mr Sucipto graduated with a Bachelor of Commerce (Double Major, Finance and Accounting) from Monash University, Australia. He is a member of Institute of Singapore Chartered Accountants and a certified Internal Auditor for ISO9001:2015, ISO14001:2015 and OHSAS18001.
Tan Chun Siong, COO	<ul style="list-style-type: none"> Mr Tan Chun Siong is the COO and he assists the CEO and Executive Director, Mr Julian Ng, in overseeing the Group's operations. He joined the Group in February 2014. Mr Tan has over 19 years of experience in the manufacturing and precision engineering industries. In 2004, Mr Tan joined Eng Tic Lee Engineering (S) Pte Ltd as its project manager. Eng Tic Lee Engineering (S) Pte. Ltd. was subsequently renamed Eng Tic Lee Achieve Pte Ltd, and was eventually listed in 2007 as ETLA Limited, and Mr Tan advanced and remained as its General Manager until 2014 when he left to join GVT as Operations Director. Mr Tan was appointed as COO in 2018. Mr Tan holds a Diploma in Mechanical Engineering from Singapore Polytechnic.
Kong Sang Wah, MD (Malaysia)	<ul style="list-style-type: none"> Kong Sang Wah is Managing Director (Malaysia) and he assists the CEO and Executive Director, Mr Julian Ng, with the overall management and growth of Grand Venture Technology Sdn. Bhd. ("GVT Malaysia"). Mr Kong has over 30 years of experience in the manufacturing and precision engineering industries. In 1993, Mr Kong left to start Centrepoint Precision Engineering, a Malaysian partnership engaged in precision engineering, with Group Senior Director of Sales, Mr Saw Yip Hooi. This was followed by Centretechnics Engineering Works (PG) Sdn. Bhd. in 1994. Mr Kong then joined CF Engineering Sdn. Bhd. in 1995 as an Operations Manager, before returning to Centretechnics Engineering Works (PG) Sdn. Bhd. in 1997 as its Managing Director. Mr Kong then joined Norelco Centreline (PG) Sdn. Bhd. in 2000 as its Managing Director before moving to Norelco Centreline (M) Sdn. Bhd. in 2003 to be its director, and

	<p>then Norelco-UMS (M) Sdn. Bhd. in 2005 (also to be its director). In 2008, he joined Ultimate Manufacturing Solutions (M) Sdn. Bhd. as its director and left in 2009 to be a full-time private investor.</p> <ul style="list-style-type: none"> Mr Kong then took over the operations of GVT Malaysia in 2010 with the Group Senior Director of Sales, Mr Saw Yip Hooi, and joined the Group in 2013 pursuant to GVT's acquisition of GVT Malaysia by way of a share swap.
Saw Yip Hooi, Group Senior Director of Sales (Malaysia)	<ul style="list-style-type: none"> Mr Saw Yip Hooi is the Group Senior Director of Sales and he assists the Managing Director (Malaysia), Mr Kong Sang Wah, in driving the growth of GVT Malaysia. Mr Saw has 30 years of experience in the manufacturing and precision engineering industries. In 2008, he joined Ultimate Manufacturing Solutions (M) Sdn. Bhd. as its Sales and Marketing Director and left in 2009 to be a full-time private investor. Mr Saw then took over the operations of GVT Malaysia in 2010 with Managing Director (Malaysia), Mr Kong Sang Wah, and joined the Group in 2013 pursuant to its acquisition of GVT Malaysia by way of a share swap. Mr Saw has Module Certificates in Turning, Milling and Grinding of the National Technical Certificate Grade 3 from the Institute of Technical Education, Singapore and the Vocational and Industrial Training Board of Singapore.
Lu Jin Feng "Alan", General Manager (China)	<ul style="list-style-type: none"> Mr Alan Lu is the General Manager (China) and he assists the CEO and Executive Director, Mr Julian Ng, with the overall management and growth of Grand Venture Technology (Suzhou) Co., Ltd. ("GVT Suzhou"). He joined the Group in January 2018. Mr Lu has over 20 years of experience in the manufacturing and precision engineering industries. Mr Lu began his career in 1997 as a technician and purchaser with Hongguan Technologies Machinery (Suzhou) Co., Ltd. He then joined VDL Enabling Technologies Group of Suzhou Ltd. in 2001 as a purchaser. In 2008, Mr Lu left to start SIP Innovation. This was followed shortly thereafter with SIP Excellence in 2010. Further to the establishment of wholly-owned subsidiary GVT Suzhou, and the subsequent acquisition by GVT Suzhou of the business and assets of SIP Innovation and SIP Excellence, Mr Lu was appointed the General Manager (China) in January 2018. Mr Lu graduated with a Diploma in Turn-mill Machining from the Suzhou Technician Institute, PRC, in 1997.

Source: Company, DBS Bank

DBS Bank recommendations are based on Absolute Total Return* Rating system, defined as follows:

STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

BUY (>15% total return over the next 12 months for small caps, >10% for large caps)

HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)

SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

*Share price appreciation + dividends

Completed Date: 14 Apr 2022 06:50:23 (SGT)

Dissemination Date: 14 Apr 2022 08:52:49 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd..

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets.

Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate¹ does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests² in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or their subsidiaries and/or other affiliates have proprietary position in AEM Holdings recommended in this report as of 31 Mar 2022.

Compensation for investment banking services:

2. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.


Disclosure of previous investment recommendation produced:

3. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed on page 1 of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS"), their subsidiaries and/or other affiliates in the preceding 12 months.

¹ An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

² Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

RESTRICTIONS ON DISTRIBUTION

General	This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.
Australia	<p>This report is being distributed in Australia by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd ("DBSVS") or DBSV HK. DBS Bank Ltd holds Australian Financial Services Licence no. 475946.</p> <p>DBS Bank Ltd, DBSVS and DBSV HK are exempted from the requirement to hold an Australian Financial Services Licence under the Corporation Act 2001 ("CA") in respect of financial services provided to the recipients. Both DBS and DBSVS are regulated by the Monetary Authority of Singapore under the laws of Singapore, and DBSV HK is regulated by the Hong Kong Securities and Futures Commission under the laws of Hong Kong, which differ from Australian laws.</p> <p>Distribution of this report is intended only for "wholesale investors" within the meaning of the CA.</p>
Hong Kong	<p>This report has been prepared by a person(s) who is not licensed by the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities in Hong Kong pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). This report is being distributed in Hong Kong and is attributable to DBS Bank (Hong Kong) Limited ("DBS HK"), a registered institution registered with the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). DBS Bank Ltd., Hong Kong Branch is a limited liability company incorporated in Singapore.</p> <p>For any query regarding the materials herein, please contact Carol Wu (Reg No. AH8283) at dbsvhk@dbs.com</p>
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	<p>This report is distributed in Malaysia by AllianceDBS Research Sdn Bhd ("ADBSR"). Recipients of this report, received from ADBSR are to contact the undersigned at 603-2604 3333 in respect of any matters arising from or in connection with this report. In addition to the General Disclosure/Disclaimer found at the preceding page, recipients of this report are advised that ADBSR (the preparer of this report), its holding company Alliance Investment Bank Berhad, their respective connected and associated corporations, affiliates, their directors, officers, employees, agents and parties related or associated with any of them may have positions in, and may effect transactions in the securities mentioned herein and may also perform or seek to perform broking, investment banking/corporate advisory and other services for the subject companies. They may also have received compensation and/or seek to obtain compensation for broking, investment banking/corporate advisory and other services from the subject companies.</p> <p style="text-align: right;">  Wong Ming Tek, Executive Director, ADBSR </p>
Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 196800306E) or DBSVS (Company Regn No. 198600294G), both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, DBS Bank Ltd accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact DBS Bank Ltd at 6878 8888 for matters arising from, or in connection with the report.

Thailand	<p>This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.</p> <p>For any query regarding the materials herein, please contact [Chanpen Sirithanarattanukul] at [research@th.dbs.com]</p>
United Kingdom	<p>This report is produced by DBS Bank Ltd which is regulated by the Monetary Authority of Singapore.</p> <p>This report is disseminated in the United Kingdom by DBS Vickers Securities (UK) Ltd, ("DBSVUK"). DBSVUK is authorised and regulated by the Financial Conduct Authority in the United Kingdom.</p> <p>In respect of the United Kingdom, this report is solely intended for the clients of DBSVUK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBSVUK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.</p>
Dubai International Financial Centre	<p>This communication is provided to you as a Professional Client or Market Counterparty as defined in the DFSA Rulebook Conduct of Business Module (the "COB Module"), and should not be relied upon or acted on by any person which does not meet the criteria to be classified as a Professional Client or Market Counterparty under the DFSA rules.</p> <p>This communication is from the branch of DBS Bank Ltd operating in the Dubai International Financial Centre (the "DIFC") under the trading name "DBS Bank Ltd. (DIFC Branch)" ("DBS DIFC"), registered with the DIFC Registrar of Companies under number 156 and having its registered office at units 608 - 610, 6th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates.</p> <p>DBS DIFC is regulated by the Dubai Financial Services Authority (the "DFSA") with a DFSA reference number F000164. For more information on DBS DIFC and its affiliates, please see http://www.dbs.com/ae/our-network/default.page.</p> <p>Where this communication contains a research report, this research report is prepared by the entity referred to therein, which may be DBS Bank Ltd or a third party, and is provided to you by DBS DIFC. The research report has not been reviewed or authorised by the DFSA. Such research report is distributed on the express understanding that, whilst the information contained within is believed to be reliable, the information has not been independently verified by DBS DIFC.</p> <p>Unless otherwise indicated, this communication does not constitute an "Offer of Securities to the Public" as defined under Article 12 of the Markets Law (DIFC Law No.1 of 2012) or an "Offer of a Unit of a Fund" as defined under Article 19(2) of the Collective Investment Law (DIFC Law No.2 of 2010).</p> <p>The DFSA has no responsibility for reviewing or verifying this communication or any associated documents in connection with this investment and it is not subject to any form of regulation or approval by the DFSA. Accordingly, the DFSA has not approved this communication or any other associated documents in connection with this investment nor taken any steps to verify the information set out in this communication or any associated documents, and has no responsibility for them. The DFSA has not assessed the suitability of any investments to which the communication relates and, in respect of any Islamic investments (or other investments identified to be Shari'a compliant), neither we nor the DFSA has determined whether they are Shari'a compliant in any way.</p> <p>Any investments which this communication relates to may be illiquid and/or subject to restrictions on their resale. Prospective purchasers should conduct their own due diligence on any investments. If you do not understand the contents of this document you should consult an authorised financial adviser.</p>

United States	This report was prepared by DBS Bank Ltd. DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
Other jurisdictions	In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

DBS Regional Research Offices

HONG KONG

DBS (Hong Kong) Ltd

Contact: Carol Wu
13th Floor One Island East,
18 Westlands Road,
Quarry Bay, Hong Kong
Tel: 852 3668 4181
Fax: 852 2521 1812
e-mail: dbsvhk@db.com

SINGAPORE

DBS Bank Ltd

Contact: Janice Chua
12 Marina Boulevard,
Marina Bay Financial Centre Tower 3
Singapore 018982
Tel: 65 6878 8888
e-mail: groupresearch@db.com
Company Regn. No. 196800306E

INDONESIA

PT DBS Vickers Sekuritas (Indonesia)

Contact: Maynard Priajaya Arif
DBS Bank Tower
Ciputra World 1, 32/F
Jl. Prof. Dr. Satrio Kav. 3-5
Jakarta 12940, Indonesia
Tel: 62 21 3003 4900
Fax: 6221 3003 4943
e-mail: indonesiaresearch@db.com

THAILAND

DBS Vickers Securities (Thailand) Co Ltd

Contact: Chanpen Sirithanarattanukul
989 Siam Piwat Tower Building,
9th, 14th-15th Floor
Rama 1 Road, Pathumwan,
Bangkok Thailand 10330
Tel. 66 2 857 7831
Fax: 66 2 658 1269
e-mail: research@th.db.com
Company Regn. No 0105539127012
Securities and Exchange Commission, Thailand