



MTAR TECHNOLOGIES LIMITED

Issue highlights

- ❑ **MTAR Technologies Limited (“MTAR Technologies”)** was incorporated on November 11, 1999. The company is a leading precision engineering solutions company engaged in the manufacture of mission critical precision components with close tolerances (5-10 microns), and in critical assemblies, to serve projects of high national importance, through their precision machining, assembly, testing, quality control, and specialized fabrication competencies, some of which have been indigenously developed and manufactured.
- ❑ The company primarily serve customers in the **nuclear, space and defence, and clean energy sectors**. Since inception, they have strived to grow continually, contributing to the Indian civilian nuclear power programme, Indian space programme, Indian defence and aerospace sector, global defence and aerospace sector, as well as to the global clean energy sector.
- ❑ MTAR Technologies lays special emphasis on research and development (“**R&D**”) of their manufacturing processes as it allows them to evolve their own process technologies thereby enabling them to achieve design specifications with accuracy irrespective of the size of the products.
- ❑ In addition, they also focus on clean energy as one of their key customer sectors and are accordingly, involved in the manufacture of power units, specifically **hot boxes**, and in the development and manufacture of **hydrogen boxes** and **electrolyzers**, to serve Bloom Energy Inc., United States (“**Bloom Energy**”) with which, they have been associated with, for over 9 years.
- ❑ **The aggregate Order Book as on December 31, 2020 was ₹336.19 crore**, comprising Order Book in the clean energy sector of ₹ 80.19 crore, the nuclear sector of ₹ 93.19 crore and the space and defence sectors of ₹ 160.61 crore respectively.

Brief Financial Details*

(₹ In Cr)

| | As at Dec'31, | | As at Mar' 31, | | |
|---------------------------|---------------|----------|----------------|----------|----------|
| | 2020(09) | 2019(09) | 2020(12) | 2019(12) | 2018(12) |
| Equity Share Capital | 26.76 | 28.21 | 26.76 | 28.21 | 28.21 |
| Reserves as stated | 218.86 | 211.04 | 198.32 | 206.77 | 177.31 |
| Net worth as stated | 245.62 | 239.26 | 225.08 | 234.98 | 205.52 |
| Revenue from Operations | 177.27 | 152.18 | 213.77 | 183.67 | 159.60 |
| Revenue Growth (%) | 16.49% | - | 16.39% | 15.08% | - |
| EBITDA as stated | 53.75 | 44.59 | 62.33 | 55.96 | 32.82 |
| EBITDA (%) as stated | 30.20% | 29.08% | 28.57% | 30.10% | 20.44% |
| Profit Before Tax | 39.60 | 32.76 | 45.53 | 41.56 | 17.16 |
| Net Profit for the period | 28.07 | 22.45 | 31.32 | 39.20 | 5.42 |
| Net Profit (%) | 15.83% | 14.75% | 14.65% | 21.34% | 3.40% |
| EPS (₹) | 10.49 | 7.96 | 11.11 | 13.89 | 1.92 |
| RoNW (%) | 11.43% | 9.38% | 13.91% | 16.68% | 2.64% |
| NAV(₹) | 91.79 | 84.80 | 84.11 | 83.29 | 72.84 |
| ROCE | 14.20% | 13.90% | 19.78% | 16.96% | 9.59% |
| Debt Equity Ratio | 0.27 | 0.07 | 0.13 | 0.12 | 0.10 |

Source: RHP ***Unconsolidated Summary**, EBITDA % to Total Revenue. Ratios calculated for Dec'31, 2020 and Dec'31, 2019 are not annualized.

Issue Details

Issue of upto 10,372,419 Equity Shares.
(Fresh Issue of upto 2,148,149 Equity shares and Offer for sale of upto 8,224,270 Equity shares)

Issue summary

Issue size: ₹ 595.38 – 596.41 Cr

No. of shares : 10,372,419 Equity Shares

Face value: ₹ 10

Price band : ₹ 574 - 575

Bid Lot: 26 Shares and in multiple thereof

Post Issue Implied Market Cap =

₹ 1,766 Cr – 1,769 Cr

BRLMs: JM Financial, IIFL Securities

Registrar: KFin Technologies Pvt. Ltd.

Issue opens on: Wednesday, 3rd Mar'2021

Issue closes on: Friday, 5th Mar'2021

Indicative Timetable

| Activity | On or about |
|------------------------------------|-------------|
| Finalisation of Basis of Allotment | 10-03-2021 |
| Refunds/Unblocking ASBA Fund | 12-03-2021 |
| Credit of equity shares to DP A/c | 15-03-2021 |
| Trading commences | 16-03-2021 |

Issue break-up

| | No. of Shares | ₹ In Cr | % of Issue |
|--------------|-------------------|------------------------|-------------|
| QIB | 5,186,209 | 297.69 – 298.21 | 50% |
| NIB | 1,555,862 | 89.31 – 89.46 | 15% |
| Retail | 3,630,346 | 208.38 -208.74 | 35% |
| Total | 10,372,417 | 595.38 – 596.41 | 100% |

Listing : BSE & NSE

Shareholding (No. of Shares)

| Pre issue | Post issue |
|------------|------------|
| 28,611,442 | 30,759,591 |

Shareholding (%)

| | Pre-Issue | Post-Issue |
|-------------------------|----------------|----------------|
| Promoters & Promoter Gr | 62.24% | 50.25% |
| Public | 37.76% | 49.75% |
| Total | 100.00% | 100.00% |

BACKGROUND

Company and Directors

The company was incorporated as 'MTAR Technologies Private Limited' on November 11, 1999. The company was initially constituted on July 23, 1970 as a partnership firm under the name 'M/s Machine Tools Aids and Reconditioning' (the "Partnership Firm") between K. Satyanarayana Reddy and P. Ravindra Reddy.

As on the date, the Promoters of the company are Parvat Srinivas Reddy, P. Leelavathi, K. Shalini, D. Anitha Reddy, C. Usha Reddy, G. Kavitha Reddy, Anushman Reddy, P. Kalpana Reddy, Saranya Loka Reddy, A. Manogna and M. Madhavi and the Promoters hold 14,287,337 Equity Shares in aggregate, representing 53.39% of the issued, subscribed and paid-up Equity Share capital of the company.

The company has undertaken a Pre-IPO Placement of 1,851,851 Equity Shares at a price of Rs.540/- per share, aggregating to ₹ 100 crore as under:

| Name | No. of Equity Shares | Amount (₹ Cr) |
|---------------------------|----------------------|---------------|
| SBI Magnum Global Fund | 425,926 | 23.00 |
| SBI Contra Fund | 425,926 | 23.00 |
| SBI Small Cap Fund | 444,444 | 24.00 |
| Axis Regular Saver Fund | 12,963 | 1.00 |
| Axis Small Cap Fund | 444,444 | 24.00 |
| Axis Children's Gift Fund | 98,148 | 5.00 |
| Total | 1,851,851 | 100.00 |

The average cost of acquisition of Equity Shares held by the other Selling Shareholders is as follows:

| Name | No. of Equity Shares held | Average cost of acquisition per equity share (in ₹)* |
|-----------------------|---------------------------|--|
| Fabmohur Advisors LLP | 8,371,040 | 38.44 |
| P. Simhadri Reddy | 90,975 | 119.64 |

* As certified by M/s Niranjana & Narayan, Chartered Accountants, by way of their certificate dated February 22, 2021.

| Shareholder | Pre-offer | | No. of Shares offered | Post-offer | |
|--|-------------------------|---------------------------------|-----------------------|-------------------------|---------------------------------|
| | Number of Equity Shares | % of Total Equity Share Capital | | Number of Equity Shares | % of Total Equity Share Capital |
| Promoters | | | | | |
| - Parvat Srinivas Reddy | 1,692,903 | 5.92% | 300,000 | 1,392,903 | 4.53% |
| - P. Leelavathi | 2,168,712 | 7.58% | 450,000 | 1,718,712 | 5.59% |
| - K. Shalini | 2,316,483 | 8.10% | 225,000 | 2,091,483 | 6.80% |
| - D. Anitha Reddy | 1,204,047 | 4.21% | 125,000 | 1,079,047 | 3.51% |
| - C. Usha Reddy | 1,204,062 | 4.21% | 200,000 | 1,004,062 | 3.26% |
| - G. Kavitha Reddy | 1,204,063 | 4.21% | 300,000 | 904,063 | 2.94% |
| - Anushman Reddy | 267,598 | 0.94% | - | 267,598 | 0.87% |
| - P. Kalpana Reddy | 1,174,970 | 4.11% | 149,970 | 1,025,000 | 3.33% |
| - Saranya Loka Reddy | 1,234,265 | 4.31% | 300,000 | 934,265 | 3.04% |
| - A. Manogna | 1,043,913 | 3.65% | 300,000 | 743,913 | 2.42% |
| - M. Madhavi | 776,321 | 2.71% | | 776,321 | 2.52% |
| Other members of the Promoter Group | | | | | |
| - K. Vamshidhar Reddy | 2,091,559 | 7.31% | - | 2,091,559 | 6.80% |
| - P. Jayaprakash Reddy | 1,204,150 | 4.21% | - | 1,204,150 | 3.91% |
| - Northeast Broking Services Limited | 225,000 | 0.79% | - | 225,000 | 0.73% |
| Promoter & Promoter Group | 17,808,046 | 62.24% | | 15458076 | 50.25% |
| - Fabmohur Advisors LLP | 8,371,040 | 29.26% | 5784,300 | 2,586,740 | 8.41% |
| - P. Simhadri Reddy | 90,975 | 0.32% | 90,000 | 975 | 0.00% |
| - Public - Others | 2,341,381 | 8.18% | - | 12,713,800 | 41.33% |
| Public | 10,803,396 | 37.76% | | 15,301,515 | 49.75% |
| Total Equity Share Capital | 28,611,442 | 100.00% | 4,521,450 | 30,759,591 | 100.00% |

Brief Biographies of Directors

Subbu Venkata Rama Behara is the Chairman of the Board, and an Independent Director of the company. Apart from his association with the company, he is a director on the boards of Ola Electric Mobility Pvt. Ltd., Greaves Cotton Ltd. and Ampere Vehicles Pvt. Ltd., amongst others.

Parvat Srinivas Reddy is the Managing Director of the company. He has been a director on the Board since March 11, 2015 and was appointed as the Managing Director on September 1, 2020. He has been entrusted with the overall responsibility of management of the company and its affairs. He has over 29 years of work experience.

Mathew Cyriac is the Nominee Director on the Board of the company. He has previously worked with Blackstone Advisors India Pvt. Ltd. and is currently a director on the board of Florintree Advisors Pvt. Ltd.

Venkatasatishkumar Reddy Gangapatnam is the Non-Executive Director on the Board of the company. Apart from his association with the company, he is a director on the board of Rasun Ace Infra Pvt. Ltd., Acecorp Group Pvt. Ltd. and Magnatar Aero Systems Pvt. Ltd.

Praveen Kumar Reddy Akepati is the Additional Director on the Board of the company. Prior to becoming a Director of the Company, he worked with the Company for over 18 years, and has previously served as the vice president of projects.

Gnana Sekaran Venkatasamy is the Independent Director on the Board of the company. He has previously served with the Defence Research and Development Organisation (“DRDO”) in various capacities.

Vedachalam Nagarajan is the Independent Director on the Board of the company. He had worked with the Indian Space Research Organisation (“ISRO”) for over 35 years in many capacities.

Udaymitra Chandrakant Muktibodh is the Independent Director on the Board of the company. He has formerly served with the Nuclear Power Corporation of India Ltd. (“NPCIL”) in various capacities.

Krishna Kumar Aravamudan is the Independent Director on the Board of the company. He has previously served the State Bank of India as its managing director. He has also served as a director on the boards of Central Depository Services (India) Ltd., REC Ltd., TVS Wealth Pvt. Ltd. and SBI Payment Services Pvt. Ltd.

Ameeta Chatterjee is the Independent Director on the Board of the company. She has previously worked as the general manager of investments and acquisitions at Leighton Contractors (India) Pvt. Ltd. She is currently a director on the boards of directors of Nippon Life Asset Management Ltd. and JSW Infrastructure Ltd.

Key Managerial Personnel

Devesh Dhar Dwivedi is the Chief Operating Officer of the company. He has been associated with the company since September 2019. He is responsible for leading the day to day operations of the company in accordance with its business strategy, operating plan and capital budgets. He has over 13 years of experience in the defence, manufacturing, information technology and engineering, procurement and construction sectors, among others.

Sudipto Bhattacharya is the Chief Financial Officer of the company. He has been associated with the company since September 1, 2020. He is responsible for the planning, implementation, management and running of all financial activities of the company.

Shubham Sunil Bagadia is the Company Secretary and Compliance Officer of the company. He has been associated with the company since October 20, 2020. He is responsible for ensuring compliance with statutory and regulatory requirements, and ensuring that decisions of the board of directors are implemented.

Pusparaj Satpathy is the Vice President, Human Resources of the company. He has been associated with the company since December 11, 2019. He is responsible for the human resource development functions of the company. He has over 23 years’ experience in the human resources field.

The company has won several Certificates of Recognition/ Certificates of Appreciation awards:

| Year | Award |
|------|---|
| 2018 | <ul style="list-style-type: none"> The company was awarded the 'Best Quality Supplier Award' by the helicopter division of Hindustan Aeronautics Limited, at the Business Partners Quality Meet, 2018. |
| 2005 | <ul style="list-style-type: none"> The company was awarded the 'Defence Technology Absorption Award' by the Defence Research and Development Organisation, in recognition of the outstanding contribution made by the company in technology absorption in the area of Agni missiles. |
| 2004 | <ul style="list-style-type: none"> The company was awarded the 'INS Industrial Excellence Award' by the Indian Nuclear Society for the contributions made by the company in the nuclear field by undertaking critical development jobs. |

OBJECTS OF THE ISSUE

| Objects | (₹ In Cr) |
|--|-----------|
| | Amount |
| <ul style="list-style-type: none"> Repayment or prepayment in full or part of borrowings availed by the company | 63.00 |
| <ul style="list-style-type: none"> Funding working capital requirements | 95.00 |
| <ul style="list-style-type: none"> General Corporate Purposes | [•] |
| Total | [•] |

BUSINESS OVERVIEW

MTAR Technologies Limited ("MTAR Technologies") is a leading precision engineering solutions company engaged in the manufacture of mission critical precision components with close tolerances (5-10 microns), and in critical assemblies, to serve projects of high national importance, through their precision machining, assembly, testing, quality control, and specialized fabrication competencies, some of which have been indigenously developed and manufactured. They primarily serve customers in the nuclear, space and defence, and clean energy sectors. Since inception, they have strived to grow continually, contributing to the Indian civilian nuclear power programme, Indian space programme, Indian defence and aerospace sector, global defence and aerospace sector, as well as to the global clean energy sector. Over the years, they have also developed import substitutes such as ball screws and water lubricated bearings that are specialized and used in the sectors the company caters to. The engineering capability of the company, evolved over decades, has enabled them to consistently offer quality complex precision manufactured components and assemblies, within stipulated timelines and at reasonable cost in most cases, allowing them to forge a robust relationship with their customers.

While the bids for the projects in the nuclear and space and defence sectors are invited by issuing tender enquiries, the qualification process for securing such tenders is extremely stringent as there is no scope for faults in such sectors.

Their past experience in the supply of their products, ability to meet specific technical requirements of their customers, reputation for quality and safety features present in their products, financial strength, and the price competitiveness of their offerings, has not only strengthened their position in the market but also has enabled them to establish and maintain relationships with their customers.

In addition, they also focus on clean energy as one of their key customer sectors and are accordingly, involved in the manufacture of power units, specifically **hot boxes**, and in the development and manufacture of **hydrogen boxes** and **electrolyzers**, to serve Bloom Energy Inc., United States ("**Bloom Energy**") with which, they have been associated with, for over 9 years. While hot boxes use methane to generate power, hydrogen boxes shall use methane to generate hydrogen that shall in-turn, be used to generate power. In addition, electrolyzers will produce methane-free hydrogen that shall be used to produce power.

In addition, they have been serving customers in the nuclear sector for over 35 years, and have established relationships with the Nuclear Power Corporation of India Ltd. ("**NPCIL**") having served them for over 16 years. They manufacture and supply specialized products such as fuel machining head, drive mechanisms, bridge and column and coolant channel assemblies, among others, not just for the new pressurised heavy water nuclear reactors, but also for refurbishment of the existing reactors. They have also supplied critical products such as grid plate, control plug and inclined fuel transfer machine for the prototype fast breeder reactor.

MTAR Technologies is also a key supplier of mission critical components to customers within the space and defence sectors for their programs of national importance. Through their long-standing relationships of over three decades and 4 decades with customers such as the Indian Space Research Organisation (“ISRO”) and the Defence Research and Development Organisation (“DRDO”), they have been able to supply specialized products to the Indian space programme and the Indian missile programme, respectively. For instance, their offerings to ISRO comprised a wide variety of mission critical components and critical assemblies such as liquid propulsion engines, components and assemblies for cryogenic engines, specifically turbo pumps, booster pumps, gas generators and injector heads for such engines, and electro-pneumatic modules to serve its space launch vehicles. Within the defence sector, they undertook complex assemblies for the DRDO, including such as the base shroud assembly (for Agni missiles), and the assembly of secondary injection thrust vector control (“SITVC”) valves and hydraulic fin tip control (“HFTC”) valves. In addition, they also supplied critical defence products such as aluminium weldments and other machined components to their international customers including, an Israeli defense technology company.

Details of Revenue from Operations – Business Segment-wise

| Sectors | 9 Months ended Dec'30 | | | | Year Ended March 31, | | | | | |
|-----------------|-----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| | 2020 | | 2019 | | 2020 | | 2019 | | 2018 | |
| | Revenue (₹ in Cr) | % to Total | Revenue (₹ in Cr) | % to Total | Revenue (₹ in Cr) | % to Total | Revenue (₹ in Cr) | % to Total | Revenue (₹ in Cr) | % to Total |
| Clean Energy | 87.45 | 49.33% | 108.07 | 71.01% | 137.54 | 64.34% | 112.82 | 61.42% | 78.43 | 49.14% |
| Nuclear | 48.09 | 27.13% | 11.15 | 7.33% | 30.51 | 14.27% | 23.96 | 13.05% | 46.11 | 28.89% |
| Space & Defence | 36.51 | 20.59% | 28.26 | 18.56% | 39.34 | 18.40% | 36.84 | 20.06% | 26.16 | 16.39% |

The company currently operates through 7 manufacturing facilities, including an export-oriented unit (“EOU”). These manufacturing facilities, each of which is situated in Hyderabad, Telangana, employ advanced equipment to undertake precision machining, assembly, testing and quality control, specialized fabrication, brazing and heat treatment, and other specialized processes, leading to them being a one-stop solutions company for their customers. Over the years, they have made investments in processes, infrastructure and systems, and in specialized training to their technical team to become a leading player in nuclear and space and defence sectors. They have also implemented various information technology solutions including for assisting in their designing and manufacturing operations, and enterprise resource planning (“ERP”) solutions to integrate key areas of their operations.

MTAR Technologies lays special emphasis on research and development (“R&D”) of their manufacturing processes as it allows them to evolve their own process technologies thereby enabling them to achieve design specifications with accuracy irrespective of the size of the products. They have also recently established an engineering cell that works on cycle time reductions to enhance cost-effective manufacturing solutions in niche engineering segment. Given their operations are specialized, their manufacturing facilities also employ extensive and stringent quality control mechanism at various stages including that of material issue and manufacturing process, to ensure that their finished product conforms to the quality and traceability requirements of their customers. Owing to the critical end applications of their products and such stringent quality requirements, it becomes very difficult for new players to get qualified for the projects they undertake. Various awards such as the ‘Best Quality Supplier Award’, ‘Defence Technology Absorption Award’, ‘INS Industrial Excellence Award’ and the ‘Award for Excellence in Aerospace Indigenization’ received by them in the past bear testimony to the faith their customers have in them and their ability to successfully serve and meet their requirements.

The company was originally promoted by Late P. Ravinder Reddy, Late K. Satyanarayana Reddy and P. Jayaprakash Reddy. They are now led by one of their Promoters, and their Managing Director, Parvat Srinivas Reddy, who has over 29 years of work experience. Through his experience, he has been able to establish relationships with not just the domestic customers but also the global customers. In addition, they also have an experienced management team which has brought in organizational and operational changes in the company over the past few years. This team is backed by a core technical team that has substantial experience in manufacturing and the technical know-how to manufacture niche engineering products. The commitment and the level of engagement of their employees to create complex manufacturing technologies is further demonstrated by the current average employee tenure with the company, which is approximately 15 years, with a low attrition rate of about 6% in the last 3 years.

BUSINESS OPERATIONS AND THE ORDER BOOK

The company is engaged in the manufacture of mission critical precision components with close tolerances (5-10 microns), and in critical assemblies, to serve projects of high national importance, through their precision machining, assembly, testing, quality control, and specialized fabrication competencies, some of which have been indigenously developed and manufactured, for onward usage by customers in the nuclear, space and defence, and clean energy sectors in India, and abroad.

In view of the various projects that they undertake and the different kinds of products that they manufacture, the manufacturing lifecycle of such projects and products may be different.

The aggregate Order Book as on December 31, 2020 was ₹336.19 crore, comprising Order Book in the clean energy sector, the nuclear sector and the space and defence sectors of ₹ 80.19 crore, ₹ 93.19 crore and ₹ 160.61 crore, respectively. Historically, their Order Book was ₹ 201.86 crore, ₹ 243.74 crore and ₹ 345.13 crore, as on March 31, 2018, March 31, 2019 and March 31, 2020, respectively

BUSINESS IMPACT – COVID 19

On account of the nationwide lockdown, the company experienced operational disruptions as a result of the following:

- A temporary shutdown of their manufacturing facilities due to government restrictions or illness in connection with COVID-19;
- A decrease in demand for their products as a result of COVID-19 on account of government restrictions impose and additionally on account of cost control measures implemented by their customers;
- Supply chain disruptions for them and their customers;
- A significant percentage of their workforce being unable to work, including because of travel or government restrictions in connection with COVID-19, including stay at home orders;
- Delays in orders or delivery of orders, which will negatively impact their cash conversion cycle and ability to convert their backlog into cash;
- Company's strategic projects getting postponed or their planned deliveries being delayed; and
- Inability to collect full or partial payments from some customers due to deterioration in customer liquidity.

The company has monitored and considered the impact of known events arising from the COVID-19 pandemic, including with respect to their liquidity and going concern and recoverable values of assets. While they have not experienced significant financial losses in the past, they cannot predict the impact that the COVID-19 pandemic will have on their customers, suppliers and other business partners, and each of their financial conditions, however, any material effect on these parties could adversely impact the company.

In addition, **in the event the number of space launches undertaken by ISRO is reduced due to reasons including COVID-19, there would be a delay in the provision of the free issue materials to the company by their customers and consequently, the business would be adversely impacted.** In view of such challenges faced by them, there is no guarantee that their customers will continue to place orders at the same levels as they have in the past or if at all in the future.

COMPANY PRODUCT PORTFOLIO

The Product Offerings

MTAR Technologies develop and manufacture high precision components and equipment which they serve to customers in the nuclear, space and defence, and clean energy sectors in India, and abroad.

The products manufactured and supplied by the company in each of the sectors:

| Customer Sector | Product |
|---------------------------|--|
| Clean energy sector | Power units |
| Nuclear sector | Fuel machining head, Bridge and column, Grid plate, Sealing plug, shielding plug, liner tubes and end fittings, Drive Mechanisms, Top hatch cover beams and deck plate assembly, CHAS, Ball screws and water lubricated bearings |
| Space and Defence sectors | Base shroud assembly and air Frames, Actuator assembly Components, Components for LCA, Various missile parts, Valves, Electro-pneumatic modules, Liquid propulsion engines, Cryogenic engines, Ball screws and water lubricated bearings |

Surface treatment, heat treatment and special processes facilities

The company undertakes various surface treatment activities such as nitriding, anodization, hard chrome plating, nickel plating, induction hardening, electro polishing, pickling, passivation, zinc plating and painting, among others. Their facilities also undertake heat treatment such as gas carbonizing, through their various furnaces. Special processes facilities such as painting and plating are also available in-house.

CUSTOMERS

Company's customers include some of India's leading organizations in the nuclear, space and defence sectors such as the **NPCIL, Indira Gandhi Centre for Atomic Research, ISRO, and the DRDO**, among others. In addition, they also supply their products to international companies such as **Bloom Energy and an Israeli defense technology company**, among others.

MANUFACTURING FACILITIES

| Description and Location of the facility | Products manufactured | Sectors catered to | Facilities offered |
|---|---|---------------------------------|--|
| Unit 1, Balanagar, Hyderabad | Complex nuclear assemblies manufacturing such as fuel machining head, thimble package, top hatch beam, bridge and column and high end defence products such as air frames, base shroud assembly for Agni missiles, among others | Nuclear, defence and aerospace | Advanced computerized numerical control ("CNC") machining and quality control |
| Unit 2, Gandhinagar, Hyderabad | Liquid propulsion engines such as Vikas engine, cryogenic engines, semi cryo engine, electro pneumatic modules for use in polar satellite launch vehicle ("PSLV") and geosynchronous satellite launch vehicle ("GSLV") launch vehicles and satellite valves | Space | Advanced CNC machining, assembly, Specialised fabrication, quality control and testing |
| Unit 3, Gandhinagar, Hyderabad | High volume nuclear assemblies and components such as end fittings, liner tubes, products such as ball screws and WLBs and other nuclear site orders | Nuclear, defence and aerospace | Advanced CNC machining and quality control |
| EOU Unit, Gandhinagar, Balanagar, Hyderabad | Power units for supply to Bloom Energy and high end defence components to be supplied to an Israeli defense technology company | Clean energy and export defence | Advanced CNC machining, assembly, special processes, and quality control |
| Unit 4, Balanagar, Hyderabad | <i>This is a supporting unit and undertakes rough machining</i> | - | Rough machining |
| Unit 5, Jeedmetla, Hyderabad | <i>This is a supporting unit and undertakes surface and heat treatment</i> | - | Surface treatment, heat treatment and special processes |
| Unit 6, Gandhinagar, Hyderabad | <i>This is a supporting unit with fabrication facility and large clean rooms</i> | - | Assembly |

Most of their manufacturing facilities, including the EOU have accreditations such as the ISO 9001:2015 certification and AS9100D certification (technically equivalent to the EN 9100:2018 and JISQ 9100:2016 certifications) for quality management systems. They have also initiated the process for receiving ISO 14001:2015, ISO 45001:2018, ISO 27001:2013 and applying for NADCAP certifications for some of their units.

Company's offerings:

| Unit | Nuclear | Defence | Space |
|----------------------------------|---|---|---|
| Unit 1 | Manufactures complex nuclear assemblies such as FM head, thimble package, top hatch beam, bridge and column. Additionally, high-end defence products such as air frames, base shroud assembly for Agni missiles | Manufacturing of complex nuclear assemblies such as FM Head, Thimble Package, Top Hatch Beam, Bridge & Column etc. High-end defence products such as Air frames, Base Shroud Assembly for Agni missiles | Manufacturing of complex products for PSLVs, GSLVs, SSLVs and satellites |
| Unit 3 | Manufactures ball screws (import substitute) used in nuclear assemblies | It produces ball screws (import substitute), which are used in defence applications | It produces ball screws (import substitute), which are used in aerospace applications |
| Unit 4,5 & 6 | Provides support services to Unit 1 and other units | Provides support services to Unit 1 and other units | It produces ball screws (import substitute), which are used in aerospace applications |
| Additional two units at Adibatla | Sheet metal manufacturing and specialised fabrication | Sheet metal manufacturing and specialised fabrication | Sheet metal manufacturing and specialised fabrication |

COMPETITIVE STRENGTHS

- ***Precision engineering expertise with complex product manufacturing capability***

The company develops and manufactures a wide range of mission critical assemblies and precision components with close tolerances (5-10 microns), through its precision machining, assembly, and specialized fabrication facilities, for onward usage by their customers in the clean energy, nuclear, and space and defence sectors in India, and abroad. These capabilities are further supported by an extensive and stringent testing and quality control mechanism undertaken at each stage of the production process. Towards this end, they use high precision quality inspection equipment such as 3D co-ordinate measuring machines (“**CMM**”), laser measuring, optical alignment instruments, non-contact measuring, and other such non-destructive testing equipment to ensure ideal quality, as requested by the customers.

They also have experienced personnel who undertake procedures and inspections such as radiography, ultrasonic, magnetic particle and dye penetrant at their non-destructive testing (“**NDT**”) facilities. Their capability in measuring and maintaining quality and measurement records at each level of the process is a key enabler.

In order to enhance their product offerings, they have leveraged their adaptability and manufacturing agility by continually investing in their manufacturing facilities including in R&D, over the years. Their operations are supplemented by R&D, a critical part of their business capability that is undertaken primarily for their manufacturing processes. As of December 31, 2020, the company employed 14 engineers, 6 designers, and 4 technicians in their process planning and methods team.

- ***Wide product portfolio leading to long-standing relationships with the customers***

As on December 31, 2020, company’s major product portfolio includes 3 kinds of products in the clean energy sector, 14 kinds of products in the nuclear sector and 6 kinds of products in the space and defence sectors. They strive to understand their customers’ specific business needs and provide products to meet their requirements and accordingly, their ability to provide quality products as per the customer specification, and their consistent customer servicing standards, have enabled them to increase their customers’ dependence on them. Within the nuclear sector, their long standing relationship of over 16 years with NPCIL bears testimony to their ability to manufacture and supply specialized products. Within the space sector, they have established relationship with ISRO to whom they have been supplying a wide variety of mission critical components and critical assemblies for its various missions, for over 3 decades.

They have also invested in the development of roller screws, which is an import substitute, and are involved in developing the associated technology. Once this development has been completed, they will, in India, be the first manufacturer of roller screws, while this product shall be used for a wide variety of applications in the nuclear, space and defence sectors.

- ***Modern technology at state-of-the-art manufacturing facilities***

The company operates through their 7 state-of-the-art manufacturing facilities, including 1 EOU, situated in Hyderabad, Telangana which is one of the key centres for defence research and development in the country. The presence of major defence organizations in Hyderabad not only provides them access to the critical R&D and high-volume projects, but also allows for ease of coordination, specifically in terms of their collaborative R&D efforts, as well as for subsequent close monitoring of manufacture and quality control processes, thereby giving them an advantage over the other players located in other regions.

They have consistently undertaken expansion of their manufacturing facilities through internal accruals, in the past with a view to capture increasing demand in the future. Their manufacturing facilities enable them to expand their operations with ease to meet future demand at minimized cost of expansion.

Significant end-to-end capabilities of the manufacturing facilities:

- Manufacturing of precision components with close tolerances to the extent of 5-10 microns supported by a series of high-end machines such as 7 axis Mill-turns, 5 axis vertical machining centres (“**VMCs**”), 4.5 axis machining centres, milling centres, turning centres, grinding centres, tool room machines, deep hole boring and honing machines, among others;
- Assembly and testing capabilities supported by 10,000 class clean rooms with facilities for high as well low temperature, vibration, flow and helium leak tests;
- Specialized fabrication facilities supported by conventional and orbital welding facilities, vacuum brazing, water jet and plasma cutting facilities to meet American Society of Mechanical Engineers (“**ASME**”) standards / American Society for Testing and Materials (“**ASTM**”) standards; and

- Surface treatment, heat treatment facilities and special processes facilities.

They have also designed and built, with in-house expertise, certain sophisticated special purpose machines instead of importing comparable machines.

In addition, their facilities also consist of machining abilities that can manufacture products ranging from few kilograms to several tonnes in weight. Their company does not have dedicated production lines to manufacture identified products as a result of which, they have a greater flexibility in terms of utilization of their capacity.

- ***Strong and diversified supplier base for sourcing of raw materials***

The company has, over the years, developed a robust supply chain for the sourcing of a wide variety of specialized raw materials used in the manufacture of mission critical precision products. The essential raw materials used in their manufacturing facilities are various kinds of alloys steels and bought out items. The raw materials used for manufacture of products catered to customers in the clean energy sector are inconel sheets of various grades, to customers in the nuclear sector are specialised steels such as 17-4 PH, SS 410, 13-8 MO PH and to customers in the space and defence sectors are alloy steels and aluminium including bearing and seals. While they source materials from third party suppliers depending upon the requirement of a project that they undertake, in certain instances, especially involving the critical and sensitive raw material and bought out items for the manufacture of certain products are directly procured and supplied by their customers, mostly belonging to the space and defence sectors. The materials utilized for products catered to the clean energy and nuclear sectors, and other consumables and bought-outs are mostly sourced from third party suppliers, both domestic and global.

- ***Track record of growth in financial performance***

The company has able to increase their total income at a CAGR of 16.56% during the last 3 Fiscals, from ₹ 160.55 crore in Fiscal 2018 to ₹ 218.14 crore in Fiscal 2020.

The EBITDA has grown at a CAGR of 37.80% from Fiscal 2018 to Fiscal 2020. In the Fiscals ended 2018, 2019 and 2020, and in the 9 months ended December 31, 2019 and December 31, 2020, the return on capital employed was for 9.59%, 16.96%, 19.78%, 13.90% and 14.20%, respectively. Further, as on March 31, 2020 and as on December 31, 2020, the debt equity ratio was 0.13 and 0.27, respectively, as compared to 0.07 as on December 31, 2019, 0.12 as on Fiscal 2019 and 0.10 as on Fiscal 2018. The strong financial position and results of operations have enabled them to invest in key machining, assembly, fabrication and quality control infrastructure, and in R&D.

- ***Experienced and qualified management team***

The company is primarily led by Parvat Srinivas Reddy who has over 29 years of work experience. In addition, their technical and corporate management team has substantial experience in the sectors which they serve, which enables them to capture market opportunities, formulate and execute business strategies, manage client expectations as well as proactively respond to changes in the market conditions. Company's business growth is also attributable to a strong management culture fostered by an entrepreneurial spirit, each business vertical being managed by experienced and hands-on segment heads having in-depth technical and industry knowledge of the segments that they cater to. These business heads are instrumental in establishing and maintaining relationships with their customers.

As on December 31, 2020, they had 891 permanent employees, including 150 engineers comprising 16.84% of their total employees, and 248 contractual workmen. The current average employee tenure with the company is approximately 15 years, with a low attrition rate of about 6% in the last 3 years, which further demonstrates the level of engagement of their workforce.

KEY BUSINESS STRATEGIES

- ***Continue to strengthen the existing product portfolio and diversify into products with attractive growth and profitability prospects***

The company seeks to leverage their capabilities, including their manufacturing facilities and quality control practices, to not only expand their product portfolio in the existing segments but also enter new business segments. They intend to enhance their capabilities and hence grow value chains to supply critical and differentiated engineered products with a healthy mix of developmental and volume-based production. Their developmental based production has in the past, and shall in the future be focused towards customers in the nuclear and space and defence sectors whereas the volume based production typically caters to their customers in the clean energy, nuclear, space and defence sectors. This will be possible through acquisition of new customers for existing product lines / capabilities as well as through establishment of new capabilities such as sheet metal facility and enhancement of existing specialized fabrication capabilities that could be used to cater to existing and new customers.

They also intend to take up specialized fabrication jobs for multi-national companies and other leading Indian organizations. In addition, the demand for clean energy is going to rise significantly and have accordingly, commenced manufacturing electrolyzers to produce methane-free hydrogen which can be used in multiple sectors to generate power.

Further, the Company Commissioned CRISIL Report states that increasing public-private partnerships will also result in faster adoption of hydrogen-based applications. For instance, Bloom Energy signed a memorandum of understanding (“MoU”) with a central public sector undertaking, to deploy fuelcell technology in India by using natural gas as fuel. Furthermore, the Company Commissioned CRISIL Report states that Bloom Energy has installed majority of the solid oxide fuel cell installation in the United States is now targeting the South Korean market.

- **Capitalize on upward trend of nuclear sector in India, increasing indigenization and policy initiatives in the defence sector, and commercialization of Indian space sector**

The Government of India has sanctioned manufacture of 10 fleet reactors with a combined generation capacity of 7,000 MWe. This presents an opportunity for the company. The company has partnered NPCIL in the past and intend to continue to be one of the preferred suppliers by manufacturing equipment used in the nuclear reactors. Their clients have valued company’s ability to develop manufacturing technologies using end-to-end engineering capabilities under one roof which positions them better than their peers.

Further the Indian defence sector is currently focused on indigenization of various defence technologies in view of the recent announcement made on the indigenization of 108 systems and sub-systems. The Government of India has also recently announced import ban on 101 defence based items which will allow a wide spread manufacturing base, introduce global best practices and aide job creation. The Indian defence sector is at an inflection point and several policies are being laid out by the Government of India to promote the Indian manufacturing sector.

Further, the India’s defence spends have been rising continuously over the past five years and clocked a robust growth of 6.90% over the same period (the highest amongst peers). The intensifying tensions and conflicts with Pakistan and China are the key contributors to India’s rising military expenditure. The ‘Make in India’ campaign introduced in 2014 and the ‘Atma-Nirbhar Bharat’ initiative, share similar goals with regards to development of domestic defence industry and owing to company’s prior experience and robust relationships with their customers, they have an advantage over certain of the other private defence companies in securing any potential orders.

Increased use of space launch vehicles for satellites and testing probe applications, introduction of space tourism and development of satellite internet system have propelled the growth globally. ISRO is also working on certain major missions such as Gaganyaan, Aditya-1 and Shukrayaan-1, among others. These activities are expected to provide an exponential growth to the Indian players operating in the space sector and accordingly, the company expect that their Order Book shall grow significantly in the future.

- **Focus on deepening and strengthening the relationships with the existing customers as well as catering to new customers**

The company plans to continue to focus on customers with whom they have long-standing relationships in order to develop and supply more sophisticated, higher margin products. The company has, along with their customers, been playing a key role in the co-development of quality products for key national programs such as **Chandrayaan** and **Mangalyaan** missions. In addition, they along with a nuclear research facility is engaged in developing Channel Health Assessment System (“CHAS”) and the detailed design, engineering, manufacturing and assembly is under process at one of their manufacturing facilities. On the basis of their relationship with their international customers, they shall be the one of the preferred suppliers in any potential defence offset transaction that such customer may be a part of. Company’s global delivery model to one of their customers, Bloom Energy, has demonstrated their ability to deliver quality products under strict quality norms and delivery timelines, and yet achieve cost reduction and profitability.

- **Expand international presence including through increase in exports**

The company is currently involved in the manufacture of power units, specifically hot boxes, and in the development and manufacture of hydrogen boxes and electrolyzers, to serve Bloom Energy. Further, they have recently acquired a new international customer operating in the clean energy sector. The company intends to continue to expand their international operations to enhance their global presence in the sectors they cater to. They seek to identify markets where they can provide cost and operational advantages to their clients and distinguish themselves from other competitors. In addition, they intend to reach out to global OEMs who either currently have defence deals with India or have their business operations in India. They are also looking to enter into defence offset partnership with certain global OEMs and have incorporated their Subsidiary, **Magnatar Aero Systems Pvt. Ltd.** in this regard.

- **Grow the manufacturing capacity and increase market share through organic and inorganic route**

The company intends to strengthen their leading market position in niche manufacturing segment in India and achieve better economies of scale by establishing and acquiring additional facilities and expanding their existing production capacities. Over the years, they have consistently grown their manufacturing and production infrastructure through internal accruals. Consistent with past practice, they will look to add capacity in a phased manner to ensure that they utilize their capacity at optimal levels.

The company is in the process of establishing an additional manufacturing facility at Adibatla in Hyderabad which is expected to become operational in Fiscal 2022. This establishment shall be a sheet metal facility which shall allow them to undertake sheet metal jobs for Bloom Energy, ISRO and certain other customers. They are also planning to construct an additional shed for specialized fabrication to supply products to their domestic as well as their international customers.

In addition, they also intend to continue to increase their machining, fabrication and assembly capacities in their existing facilities. In order to diversify into new markets, they also aim to selectively acquire capabilities such as electrical and electronics that are complementary to their operations.

- **Continue to strive for operational efficiencies, supply chain rationalisation and effective planning**

The company intends to continue to maintain or improve upon their benchmarks for cost structure. This cost structure sustainability shall be achieved over the years through emphasis on economies of scale, employment of learnings acquired in manufacturing end components, and in assemblies, and a robust supply chain developed for sourcing of specialised raw materials. They have in the past, strived to maintain a healthy mix of developmental and volume based production and intend to continue to do so in the future by enhancing their technological capabilities. One of the strategies they have adopted in the past and shall continue to adopt in the future is flexibility in manufacturing lines for different product verticals.

COMPETITION

MTAR Technologies operates in a competitive environment and they expect to face greater competition from existing competitors located both in India and globally, and in particular from companies in United States and Germany. The company compete on the basis of their ability to fulfil their contractual obligations including the timely delivery of complex products manufactured by them and the price and quality of such products. They have a competitive edge with their precision engineered components and assemblies catered to the nuclear sector and given that some of the products manufactured by them are on a single tender basis.

Company's competitors in the sector:

| Nuclear Sector | Space and defence sectors |
|--|--|
| <ul style="list-style-type: none"> • Larsen & Toubro Heavy Engineering ; • Godrej & Boyce Manufacturing Co. Ltd. | <ul style="list-style-type: none"> • Larsen & Toubro; • Godrej & Boyce Manufacturing Co. Ltd; • Hindustan Aeronautics Ltd,; • Walchandnagar Industries |

MTAR Technologies is a sole supplier from the Indian market to Bloom Energy as of Fiscal 2020.

INDUSTRY OVERVIEW

Financial performance

| Company | Year | Operating income | OPBDIT | PAT | Op Margin | Net Margin | RoCE | Gearing | Interest Coverage | Current ratio |
|---------------------------|-------------|------------------|-------------|-------------|--------------|--------------|--------------|------------|-------------------|---------------|
| | | ₹ in Cr | | | % | | | Times | | |
| Mahindra Defence | FY20 | 307.3 | 42.0 | 19.0 | 13.7% | 6.2% | 16.3% | 0.0 | 33.4 | 2.2 |
| Alpha Design Technologies | FY19 | 232.5 | 29.9 | 6.5 | 12.9% | 2.8% | 2.8% | 0.2 | 2.5 | 1.9 |
| Vem Technologies | FY19 | 155.5 | 35.5 | 8.6 | 22.8% | 5.5% | 5.5% | 0.9 | 2.5 | 1.1 |
| CIM Tools | FY19 | 151.6 | 33.6 | 15.3 | 22.1% | 10.1% | 10.1% | 1.7 | 3.9 | 1.2 |
| MTAR Technologies | FY20 | 213.8 | 60.9 | 30.0 | 28.5% | 14.0% | 14.0% | 0.1 | 13.1 | 1.5 |
| Schaeffler India | FY19 | 4366.8 | 640.7 | 367.6 | 14.7% | 8.4% | 8.4% | 0.0 | 154.8 | 3.6 |
| SKF India | FY20 | 2849.4 | 357.0 | 289.0 | 12.5% | 10.1% | 10.1% | 0.0 | 48.0 | 3.4 |
| Timken India | FY20 | 1621.5 | 373.1 | 246.1 | 23.0% | 15.2% | 15.2% | 0.0 | 140.5 | 3.7 |
| Godrej & Boyce | FY20 | 11407.8 | 844.1 | 224.1 | 7.4% | 2.0% | 2.0% | 0.4 | 4.0 | 1.2 |
| L&T | FY20 | 146,036.8 | 23,653.5 | 10,894.2 | 16.2% | 7.5% | 7.5% | 2.2 | 2.5 | 1.2 |

Note: L&T and Godrej & Boyce are diversified businesses with several other business units. The financials of these companies represent all the business units under the company.

Revenue and profitability

| Company | Year | Operating income | OPBDIT | PAT | Op Margin | Net Margin | CAGR FY16-FY20 | | |
|--------------------------------------|------|------------------|--------|--------|-----------|------------|----------------|--------|-------|
| | | ₹ in Cr | | | % | | OI | OPBDIT | PAT |
| | | | | | | | Times | | |
| Alpha Design [^] | FY15 | 228.9 | 22.3 | 12.1 | 9.7% | 5.3% | (3)% | 0% | (19)% |
| | FY19 | 232.5 | 29.9 | 6.5 | 13.0% | 2.8% | | | |
| Mahindra Defence | FY16 | 38.5 | (4.3) | (2.48) | (11.0)% | (6.5)% | 68% | NA | NA |
| | FY20 | 307.3 | 42.0 | 19.0 | 13.7% | 6.2% | | | |
| MTAR Technologies | FY16 | 81.5 | 12.3 | 0.20 | 15.0% | 0.0% | 27% | 49% | 258% |
| | FY20 | 213.8 | 60.9 | 30.0 | 28.5% | 14.0% | | | |
| Sika Interplant Systems [^] | FY15 | 41.2 | 3.2 | 1.9 | 8.0% | 5.0% | 11.1% | 28% | 39% |
| | FY19 | 62.8 | 8.8 | 7.2 | 14.0% | 11.0% | | | |
| VEM Technologies [^] | FY15 | 182.3 | 33.8 | 23.5 | 19.0% | 9.0% | (4)% | 1% | (12)% |
| | FY19 | 155.5 | 35.5 | 13.9 | 22.8% | 5.5% | | | |
| Schaeffler India | FY16 | 1,794.6 | 302.6 | 195.1 | 17.0% | 11.0% | 25% | 21% | 17% |
| | FY19 | 4,366.8 | 640.7 | 367.6 | 14.7% | 8.4% | | | |
| SKF India | FY16 | 3,002.5 | 378.3 | 247.2 | 13.0% | 8.0% | (1)% | (1)% | 4% |
| | FY20 | 2,849.4 | 357.0 | 289.0 | 12.5% | 10.1% | | | |
| Timken India | FY16 | 1,046.8 | 151.8 | 91.8 | 15.0% | 9.0% | 12% | 25% | 28% |
| | FY20 | 1,621.5 | 373.1 | 246.1 | 23.0% | 15.2% | | | |

[^] financials are for fiscal 2019 due to non-availability of data for fiscal 2020

Financial Benchmarking

| Parameter | MTAR Technologies | L&T (consolidated) | Godrej & Boyce (standalone) |
|---------------------------------|-------------------|--------------------|-----------------------------|
| Operating income growth (y-o-y) | 16.4% | 8.3% | 1.6% |
| Operating margin | 28.50% | 16.20% | 7.40% |
| Net margin | 14.00% | 7.50% | 2.00% |
| RoCE | 19.20% | 13.40% | 4.70% |
| Interest coverage ratio | 13.10x | 2.5x | 4x |
| Gearing ratio | 0.10x | 2.2x | 0.4x |
| NCA/ total debt | 0.86x | 0.06x | 0.14x |

AXIS CAPITAL LIMITED

Axis House, 1st Floor, Level-1, C-Wing, C-2, Wadia International Center, Pandurang Budhkar Marg, Worli, Mumbai 400 025.

Tel: +91 22 4325 2525; Fax: +91 22 4325 3000

www.axiscapital.co.in

This document has been prepared by Axis Capital Limited. Affiliates of Axis Capital Limited may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating and target price of the Affiliates research report.

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent.

This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient.

Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors.

Axis Capital Limited has not independently verified all the information given in this document. Accordingly, no representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document.

The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval.

Axis Capital Limited, its affiliates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document.

This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of Axis Capital Limited. The views expressed are those of the analyst and the Company may or may not subscribe to all the views expressed therein.

This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. Neither this document nor any copy of it may be taken or transmitted into the United State (to U.S. Persons), Canada, or Japan or distributed, directly or indirectly, in the United States or Canada or distributed or redistributed in Japan or to any resident thereof.

This report is not directed 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, regulation or which would subject Axis Capital Limited to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform ourselves of and to observe such restriction.

Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information.

Copyright in this document vests exclusively with Axis Capital Limited.