



CAPITAL GOODS

FINDING THE NEXT GEN. CAPITAL GOODS MAMMOTHS

December 06, 2023

INITIATING COVERAGE | Sector: Capital Goods

Capital Goods

Finding the next gen. capital goods mammoths

We initiate coverage on a set of three niche stocks (MTAR Tech., DATA Patterns, Praj Industries) which have a large and expanding addressable market, significant moat in terms of cost, manufacturing, and market presence along with a long-term vision. (1) MTAR Technologies has been (a) a stand-out player in the precision engineering segment catering to the sunrise clean energy industry, (b) with a constant thrust on import substitution, (c) significant potential to scale up by adding newer clients given its track record. (2) Data Patterns' (a) development block model provides significant cost and time to market advantage, (b) possesses a large addressable market in defense electronics and is (c) moving up the value chain from sub-systems to being a complete systems provider. (3) Praj Industries is a (a) market leader in the domestic 1G ethanol equipment and projects industry, (b) with a fast-expanding addressable market led by government focus on increasing bioenergy in the fuel mix and (c) strong international business tailwind led by focus on decarbonization of ethanol plants. We initiate MTAR Technologies, and Praj Industries with BUY and Data Patterns with a NEUTRAL rating.

MTAR - Early mover advantage in the high growth precision engineering industry

MTAR technologies' revenue and PAT growth has accelerated in the last three years led primarily by increased contribution from its clean energy business for its largest customer Bloom Energy. MTAR's client addition pace has accelerated over the past 2 years particularly in the aerospace segment. The company has successfully indigenized bellows, valves, electromechanical actuators and is in the process of developing enhanced capabilities in the electronics control systems. An early mover advantage in the high growth and futuristic green hydrogen manufacturing value chain, strong margin profile and import substitution opportunities augurs well for the company's prospects. The contribution from its single largest customer Bloom Energy is also expected to come down in the next few years reducing concentration risk. Initiate with BUY, TP of Rs2,774 based on 32x FY26E earnings.

Data Patterns - brisk horse riding the privatization wave in defense electronics

Data patterns is one of the few vertically integrated end-to-end operators in the Indian defense electronics industry and has developed a reusable building block manufacturing model where development costs can be spread across systems and platforms providing it with significant cost advantage and time to market efficiency. It is moving up the value chain from subsystems to complete systems manufacturing which would enable direct participation in MoD tenders. With a strong focus on increased private sector participation in the domestic defense sector, increasing use of electronics in defense equipment, long-term vision on building in-house capabilities, the company is on a strong footing. We exercise caution on the valuation and initiate with NEUTRAL rating based on 40x FY26E earnings.

Praj Industries - Key beneficiary of increased bioenergy adoption

Praj Industries is a market leader in the domestic project installations space for ethanol plants. With a mandate to blend 20% bioethanol with petrol by FY26, the company is expected to secure strong business in the next three years. Its international business is expected to outgrow the domestic business as a strong opportunity in US and Europe is driven by low carbon ethanol incentives offered by the government. The company's newly launched GenX subsidiary is also expected to provide strong fillip to the international business. Initiate with BUY, TP of Rs805 based on 30x FY26E earnings.

STOCK VIEW

Stock	Rating	TP (Rs)	Potential Return
PRJ	BUY	805	+25.7%
MTARTECH	BUY	2,774	+20.0%
DATAPATT	NEUTRAL	2,150	+4.5%

PRJ (CMP Rs640)

(Rs mn)	FY24E	FY25E	FY26E
Revenue	39,362	47,606	57,576
OPM (%)	10.2	10.8	10.9
EPS (Rs)	34.3	46.8	61.9
P/E (x)	93.4	68.6	51.8

MTARTECH (CMP Rs2,311)

(Rs mn)	FY24E	FY25E	FY26E
Revenue	7,181	9,522	12,732
OPM (%)	26.7	26.9	28.3
EPS (Rs)	45.7	60.9	86.7
P/E (x)	50.6	38.0	26.7

DATAPATT (CMP Rs2,039)

(Rs mn)	FY24E	FY25E	FY26E
Revenue	5,727	7,292	9,095
OPM (%)	39.1	40.5	41.3
EPS (Rs)	33.5	43.1	53.7
P/E (x)	60.9	47.3	38.0

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COMPANY SECTION

December 06, 2023

INITIATING COVERAGE | Sector: Capital Goods

Praj Industries Ltd

Key beneficiary of increased bio energy adoption

6 REASONS TO BUY THE STOCK

1 Praj Industries is a market leader in project installations space for ethanol from Sugary and Starchy feedstocks (1G) with over 50% market share in new 1G bioethanol projects. With a mandate to blend 20% bioethanol with petrol by FY26, the company is expected to secure strong business in the next three years.

2 The company's CBG business is also expected to benefit as the govt. has sought EOI for 30 CBG plants. While still in early stages of technology testing and piloting, Praj has made impressive progress in the development of SAF. As a signatory to the CORSIA mandate of blending SAF from 2027, significant demand for SAF could be expected in the next 3-4 years.

3 **Strong international opportunity**
A strong opportunity in US is driven by low carbon biofuel eligibility requirement for incentives under the IRA. In addition, with the blending mandates in Argentina (increased from 10% to 15%), Indonesia (5% blending mandate), Mexico and Canada, the company could potentially scale up its international business considerably from current levels

4 As part of its Bioprism platform, Praj is working on technology for production of Bioplastics (sustainable alternative to plastics) and has made progress on Polylactic Acid (PLA) and Polyhydroxyalkanoates (PHA) in FY23. To accelerate the commercialization of bioplastics, Praj is setting up a pilot plant in Jehuri (Pune) for PLA for a capital expenditure of INR 600mn.

5 Modularization in different process packages has emerged as a key growth driver for the company and has seen strong order intake from Oil & Gas and Fertilizer customers across the globe. The company has launched a new subsidiary GenX to cater to demands from (1) blue and green hydrogen, (2) Carbon Capture, (3) Waste-to-energy and, (4) Low Carbon fuels

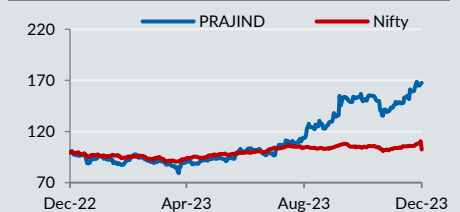
6 Revenue growth is expected to remain robust with increased opportunities in both domestic and international business for biofuels. With a large addressable market and strong execution track record, we build in revenue/EPS CAGR of 18%/27% over FY23-26E. Initiate with BUY and a target price of Rs 805 based on 30x FY26 earnings.

Reco	: BUY
CMP	: Rs 640
Target Price	: Rs 805
Potential Return	: +25.7%

Stock data (as on Dec 06, 2023)

Nifty	19,133
52 Week h/l (Rs)	651 / 299
Market cap (Rs/USD mn)	117613 / 1413
Outstanding Shares (mn)	184
6m Avg t/o (Rs mn):	606
Div yield (%)	0.8
Bloomberg code:	PRJ IN
NSE code:	PRAJIND

Stock performance



	1M	3M	1Y
Absolute return	16.9%	21.4%	69.1%

Shareholding pattern (As of Jun'23 end)

Promoter	32.8%
FII+DII	28.2%
Others	39.0%

Financial Summary

(Rs mn)	FY21	FY22	FY23
Revenues	13,047	23,433	35,280
Yoy growth (%)	18.4	79.6	50.6
OPM (%)	8.6	8.3	8.7
EPS (Rs)	20.3	11.9	29.6
EPS growth	124.1	(41.4)	149.1
P/E (x)	31.5	53.9	21.6
EV/EBITDA (x)	44.1	25.4	16.0
Debt/Equity (x)	-	-	-
RoE (%)	10.1	16.4	22.2
RoCE (%)	8.2	13.7	19.6

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Multiple growth levers for bioenergy business in 1G, 2G, SAF and CBG

Praj Industries is a market leader in project installations space for ethanol from Sugary and Starchy feedstocks (1G) with over 50% market share in new 1G bioethanol projects. With a mandate to blend 20% bioethanol with petrol by FY26, the company is expected to secure strong business in the next three years as the blending ratio moves up from ~12% currently to 20% in FY26. Praj is in advanced stages of commercializing its 2G ethanol technology (lignocellulosic feedstock) with the completion of first project at IOCL Panipat. Overall, this presents a market opportunity of ~INR140-150bn over the next three years as additional 5.5bn litre of ethanol capacity addition is expected to satisfy 20% blending requirement. The company's CBG business is also expected to benefit from renewed push for CBG installations as the govt. has sought EOI for 30 CBG plants. With a recent business confirmation from IOCL to set up 5 CBG plants (INR 5bn order), the company is well placed to capture incremental orders. While still in early stages of technology testing and piloting, Praj has made progress in the development of SAF from biobased feedstocks and entered partnerships with GEVO and Axens for the Alcohol to Jet (ATJ) technologies. As a signatory to the CORSIA mandate of blending SAF from 2027, significant demand for SAF could be expected in the next 3-4 years.

Strong international opportunity driven by blending mandates in major economies and penetration of engineering business

Praj Industries serves the international markets through its products business (no projects in international business) in bioenergy and engineering segments. A strong opportunity in US is driven by low carbon biofuel eligibility requirement for incentives under the IRA. There are ~200 ethanol plants in USA which present a sizeable market for carbon intensity reduction in the final ethanol produced. Praj is currently in the process of completing the Front-End Loading (FEL) studies (\$1-2M order size) for several projects that could translate into sizeable orders for the company. In addition, with the blending mandates in Argentina (increased from 10% to 15%), Indonesia (5% blending mandate), Mexico and Canada, the company could potentially scale up its international business considerably from current levels. Praj has also entered partnerships to customize and augment its solutions for market fit such as with Sekab for production of 2G ethanol from forest residue and an MoU with Gevo to work jointly to produce SAF. The engineering business has increased its penetration in US with a substantial order inflow in Q1FY24 where it serves the technology providers and EPC companies who in turn serve the end customers in oil & gas and fertilizers.

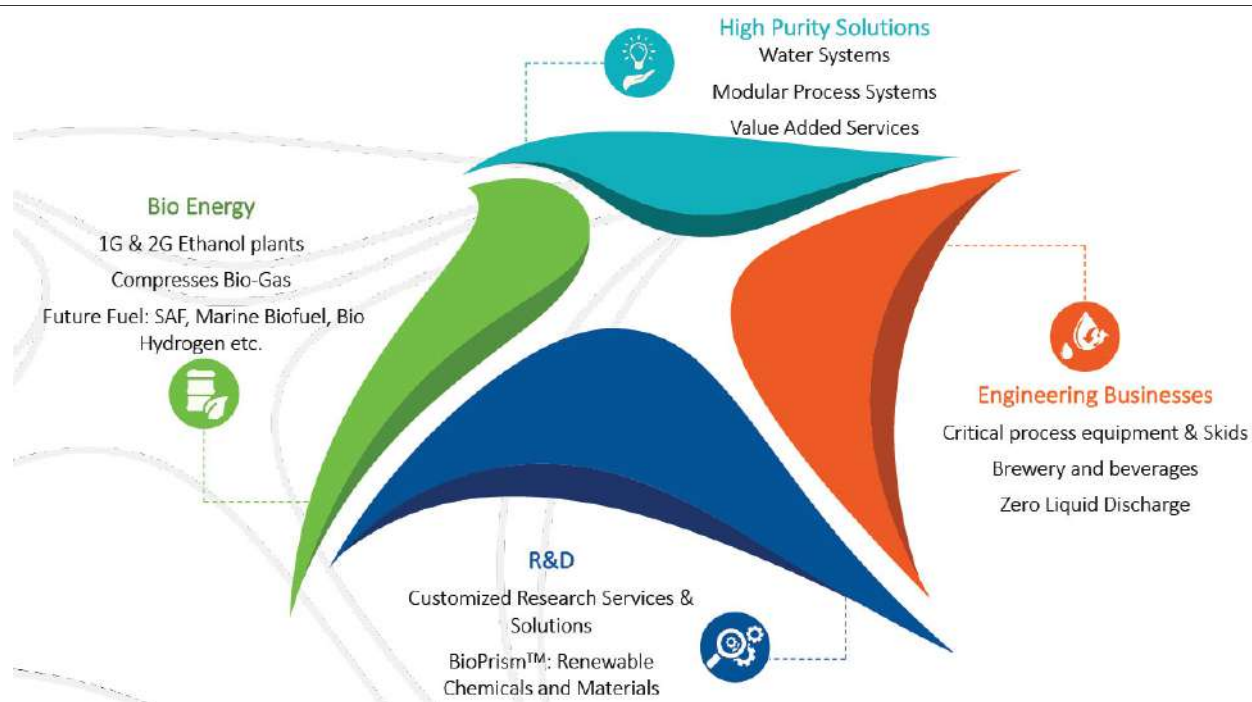
Complimenting existing strengths with a strong futuristic vision – development of technologies in renewable chemicals

As part of its Bioprism platform, Praj is working on technology for production of Bioplastics (sustainable alternative to plastics) and has made progress on Polylactic Acid (PLA) and Polyhydroxyalkanoates (PHA) in FY23. To accelerate the commercialization of bioplastics, Praj is setting up a pilot plant in Jehuri (Pune) for PLA for a capital expenditure of INR 600mn. The facility will be used to scale production of lactic acid and lactide and further for PHA and for other fermentation-based products such as butadiene. As a sustainable alternative to plastics, the bioplastics could find application in various sectors such as plastic replacement.

COMPANY OVERVIEW

Praj Industries was incorporated in 1983 under the leadership of Dr. Pramod Chaudhari and offers solutions for bioenergy, high purity water, critical process equipment, breweries, and industrial wastewater treatment. The company is focused on the environment, energy, and farm-to-fuel technology solutions, with over 1,000 customer references in over 100 countries across 5 continents. It has a team of over 90 technologists with over 300 patents filings.

Exhibit 1: Business Segments



Source: Company

Manufacturing

Praj Industries has manufacturing facilities at four locations - Sanaswadi, Urwade, Wada in Maharashtra and Kandla in Gujarat. The company is also in the process of setting up a new facility to cater to demand emanating out of Energy Transition and Climate Actions (ETCA) agenda. This will entail an investment of Rs1bn.

Sanswadi and Kandla facilities are approved by global multinational and EPC companies for supply of equipment and skids. The facilities are accredited with ASME U & U2, R Stamps and NB Registrations. The facility located at Wada serves clients in the pharmaceutical industry.

R&D Infrastructure

Praj's R&D Center Praj Matrix focusses on two broad programs of Bio-Mobility and Bio-Prism. It develops technology solutions for renewable fuels and chemicals from feedstock to product using expertise in microbiology, molecular biology, fermentation, chemical catalysis, process engineering and analytical chemistry.

Under its bio-mobility platform, the company works on continuous improvement of technologies for existing 1G ethanol, 2G ethanol and CBG businesses for variety of feedstocks. In addition, Praj Matrix is also working towards advancement of Sustainable Aviation Fuel (SAF), marine biofuels and Bio-Hydrogen as part of its Bio-Mobility platform.

Under the Bio-Prism platform, the company is working on the production of Bioplastics (sustainable alternative to plastics) with Polylactic Acid (PLA) and Polyhydroxyalkanoates (PHA) as the key areas of research. The company is also setting up a pilot plant for PLA at Jejuri (near Pune) with capex of Rs600mn. It is also setting up a Multipurpose catalysis lab for an investment of Rs160mn intended to combine biology with Chemistry & Catalysis science.

Praj was granted 25 Indian patents and 73 International patents in FY23.

Exhibit 2: Management Profile

Name & Designation	Descriptions
Dr. Pramod Chaudhari <i>Executive Chairman</i>	A first-generation techno-entrepreneur, Dr Pramod Chaudhari founded Praj in 1983.
Shishir Joshipura <i>CEO & MD</i>	Mr. Shishir has over 35 years of rich experience in varied fields of engineering and possesses a strong business and leadership record. He began his career with Thermax Ltd and held several key positions to rise through the ranks to become Executive Vice President and Global Head of Cooling & Heating business
Sachin Raole, <i>CFO and Director - Finance and Commercial</i>	Mr. Sachin is a Cost Accountant and Chartered Accountant with 22 years of experience in varied fields of finance and accounts. He has worked in the areas of divestment, mergers and acquisitions, financial restructuring, treasury, accounts, and taxation. He has very rich experience in the wide spectrum of finance across industries - manufacturing, project, financial services and pharmaceutical

Source: Company, YES Sec

Strong opportunity from EBP20, CBG policy push while SAF to pick up in the medium term

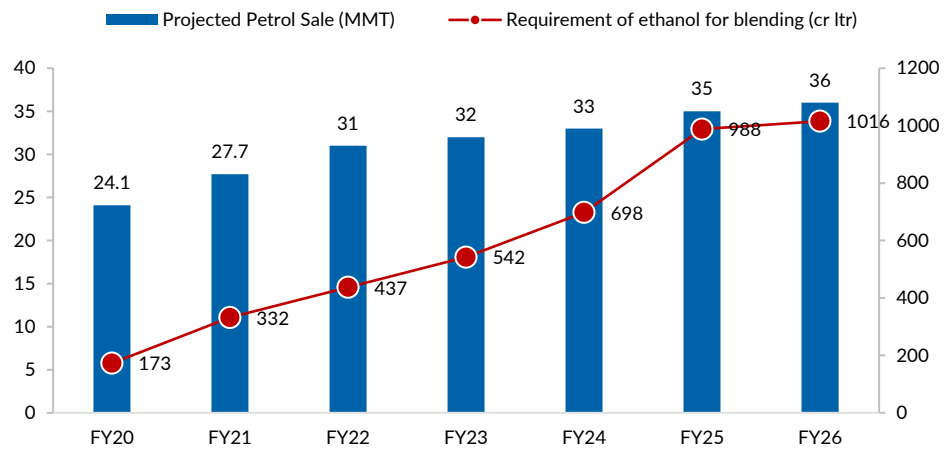
Praj Industries has over 50% market share in new 1G based ethanol plant installation in the domestic market. Under the Ethanol Blending Program (EBP20), 20% of ethanol blending is targeted to be achieved in petrol by 2026. India needs 17bn litre of ethanol capacity to cater to EBP20. Over and above the EBP 20 targets, OMCs have floated Expression of Interest (EOI) for building additional capacity of 3bn litres for 8 ethanol deficit states viz. Tamil Nadu, Kerala, Andhra Pradesh, Telangana, Gujarat, Rajasthan, Goa, Odisha, and Union Territories of Jammu & Kashmir and Ladakh. With an additional 10bn litres of demand expected to be generated from these sources, EBP20 presents a market opportunity of ~INR150bn over FY23-26.

Exhibit 3: Ethanol Production Projection

ESY	For Blending			Blending (%)	For other uses			Total		
	Grain	Sugar	Total		Grain	Sugar	Total	Grain	Sugar	Total
2019-20	16	157	173	5	150	100	250	166	257	423
2020-21	42	290	332	9	150	110	260	192	400	592
2021-22	107	330	437	10	160	110	270	267	440	707
2022-23	123	425	548	12	170	110	280	293	535	828
2023-24	208	490	698	15	180	110	290	388	600	988
2024-25	438	550	988	20	190	110	300	628	660	1,288
2025-26	466	550	1,016	20	200	134	334	666	684	1,350

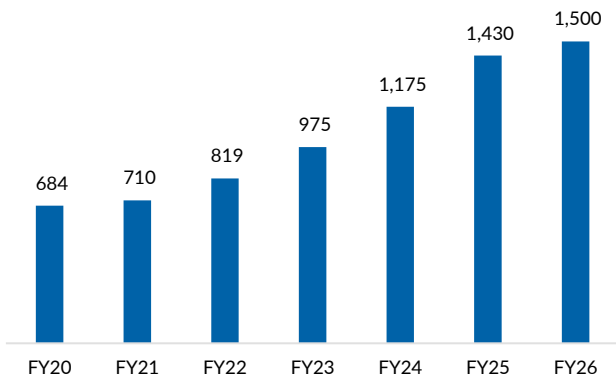
Source: Company reports, YES Sec

Exhibit 4: Ethanol demand projection in line with EBP20



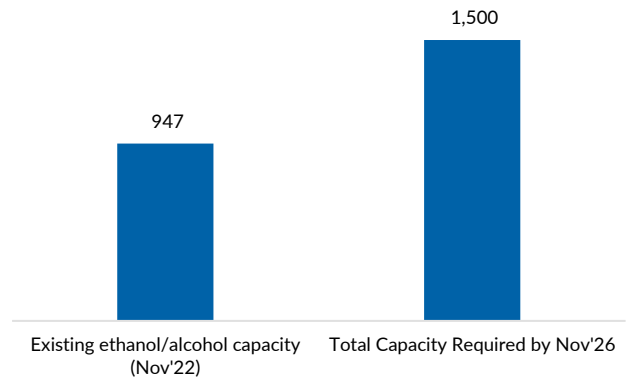
Source: Company reports, YES Sec

Exhibit 5: Ethanol Capacity required (cr ltr)



Source: Company, YES Sec

Exhibit 6: Additional ~550cr ltr of capacity to be added



Source: Company, YES Sec

Compressed Biogas (CBG): The ecosystem for CBG is in the initial building stage with a strong policy push in recent past. At the start of FY23, the govt. raised the minimum procurement price for CBG and announced that prices for CBG would be indexed to prevalent Re-Selling Price of CNG. Under the SATAT scheme, the government plans to set up 5,000 CBG plants across India with a production target of 15 MMT for a total investment of ~Rs2tn over the next 5-7 years.

In addition, the government also announced GOBARdhan scheme which envisages 500 waste to wealth plants. These will include 200 compressed biogas (CBG) plants (75 in urban areas and 300 community/cluster-based plants) at a total investment of Rs100bn. Praj commissioned two CBG plants with industrial effluents and rice straw as feedstocks and now has CBG projects operating on different feedstocks namely rice straw and press mud, industrial effluent etc. Further, the government has recently sought EOI for 30 CBG plants. With a recent business confirmation from IOCL to set up 5 CBG plants (INR 5bn order), the company is well placed to capture incremental orders.

Exhibit 7: Domestic Total Addressable Market - Bioenergy

Rs bn	Domestic TAM	Assumption	Comments
1G Ethanol	140	~550cr ltr of ethanol capacity to be added over next three years	Total of 1,500cr ltr of ethanol capacity required by Nov'26 to meet EBP20 targets
2G Ethanol	50	5 2G ethanol plants to be added	The earlier target of 12 2G ethanol plants stands reduced to 5 according to media reports
CBG	100	200 CBG plants to be set up under GOBARdhan scheme in the near term	A total of 5,000 CBG plants envisaged to be set-up over the next 5-7 years for an investment of INR 2tn

Source: Company, YES Sec

Sustainable Aviation Fuel (SAF): Praj has made significant progress in the development of SAF from bio-based feedstocks and has entered partnerships with GEVO and Axens for alcohol to jet technology. The MoU with Axens involves working jointly for projects in India for production of SAF from low carbon alcohols through Alcohol-to-Jet (ATJ) pathway. Axens will provide its Jetanol alcohol-to-jet technologies for conversion of alcohols to SAF while Praj would provide modularized solutions, integration services for complete project and production of isobutanol and ethanol from low carbon bio-based feedstock. It also partnered with Air Asia and IOCL to fly first commercial flight in India powered by a blend of indigenous SAF. SAF presents a huge opportunity both in India and on a global level with India being a signatory to the CORSIA guidelines under which it has accepted the blending mandate from 2027.

2G ethanol technology in initial stages; strong international opportunity after commercialization

Praj has installed its first 2G based ethanol plant at IOCL Panipat and is also working on two more projects with HPCL and BPCL, which are expected to commission in FY24. The 2G technology utilizes Lignocellulosic feedstock i.e., agricultural residue, softwood etc. which is available in abundance and biofuels produced from this feedstock provide highest carbon reduction. With the signing of the global fuel alliance and strong emphasis on environmental CO2 reduction across big markets such as US (Inflation Reduction Act) and Europe (RED III), the company is well placed to cater to increased biofuel acceptance globally.

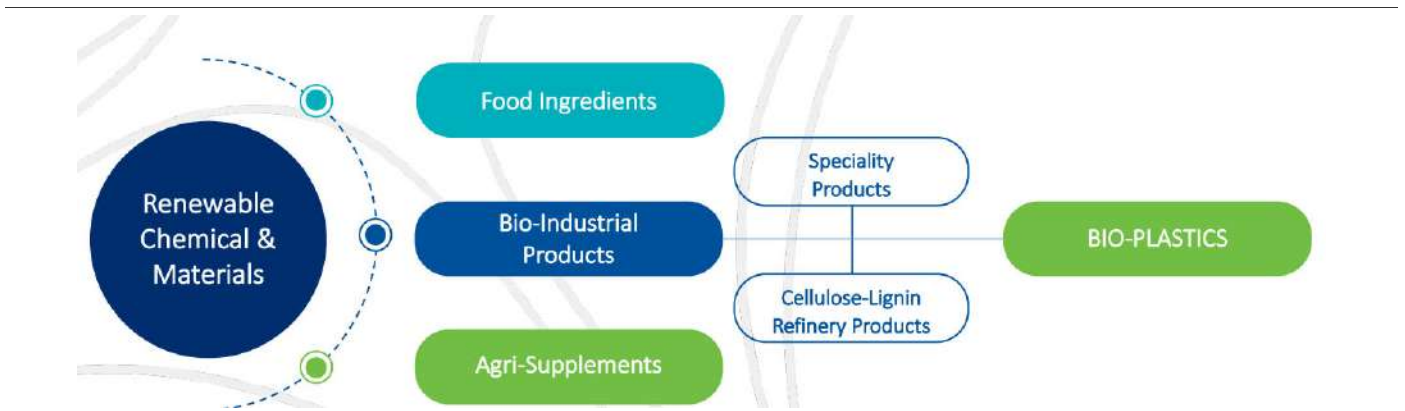
It has partnered with Sekab for catering to forest residue-based markets in northern Europe (jointly developed technology Celluniti). There are around 200 ethanol plants in USA that need to reduce carbon intensity to be eligible for the provisions of IRA. Praj is currently in the process of completing Front End Loading (FEL) studies for several projects that will help ethanol producers finalize investment decisions to deploy low carbon ethanol solutions. With announcement of blending mandates in Canada & Mexico, Praj's market development activities are finding good traction in these markets to generate leads.

Strong traction in engineering business led by ETCA opportunity and deepening global penetration

Critical Process Equipment and Skids (CPES) segment offers a range of process equipment and skids including static equipment such as pressure vessels, reactors, shell & tube heat exchangers, columns, and other proprietary equipment catering to Oil & Gas, Refineries, Petrochemicals, and Fertilizer sectors. The market for global static and rotating equipment stood at USD24bn in 2022 and it is projected to grow from USD 26.23bn in 2023 to USD 32.42bn in 2027 at a CAGR of 5.4%. Modularization in different process packages has emerged as a key growth driver for the company and has seen strong order intake from Oil & Gas and Fertilizer customers across the globe. The company has launched a new subsidiary GenX to cater to demands from (1) blue and green hydrogen, (2) Carbon Capture, (3) Waste-to-energy and, (4) Low Carbon fuels. It is expected to invest Rs1bn in the new facility catering to the Energy Transition & Climate Action (ETCA) segment. The company has reported strong order wins for the engineering business in Q1FY24 where it caters to the oil & gas and fertilizer customers through its products. As the Energy Transition narrative is taking center stage across the globe, the company is likely to expand its international footprint with its low carbon efficiency improvement solution and modularized process packages.

Complimenting existing strengths with a strong futuristic vision – development of technologies in renewable chemicals

Praj is working on technology for production of Bioplastics (sustainable alternative to plastics) as part of the Bioprism platform and is currently progressing on Polylactic acid (PLA) and Polyhydroxyalkanoates (PHA) for which it has developed end to end technology from feedstock to resin. In order to commercialize this, the company has set up a pilot plant in Jehuri (Pune) for INR 600mn. This pilot facility will be initially used for scaled production of Lactic Acid and lactide & subsequently for other products like PHA or other fermentation-based products like Butadiene.



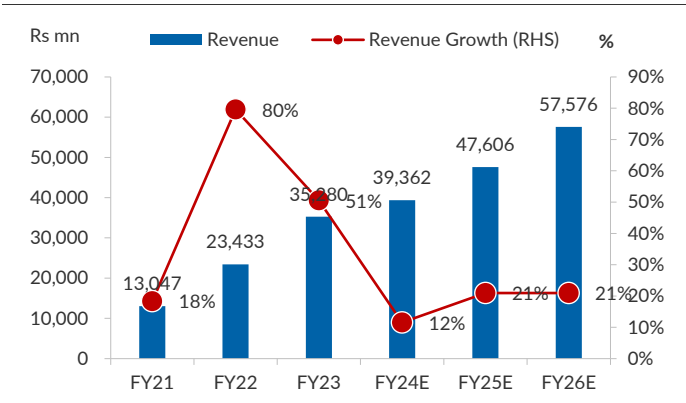
FINANCIALS

Revenue expected to clock CAGR of 18% over FY23-26E led by strong order inflows in both domestic and international businesses

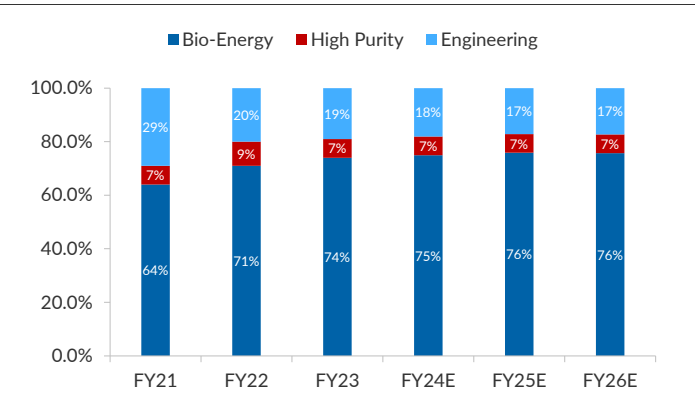
Praj Industries revenue growth over FY23-26E is expected to be driven by continued strong ordering in 1G related ethanol business catering to EBP20 program, visibility of CBG plants, strong traction in international business pertaining to both engineering and ethanol and increase in blending mandates across several geographies including Argentina, Indonesia, Mexico, Canada etc.

Exhibit 8: Revenue growth to moderate but remain robust...

Exhibit 9: ...and is expected to be broad-based



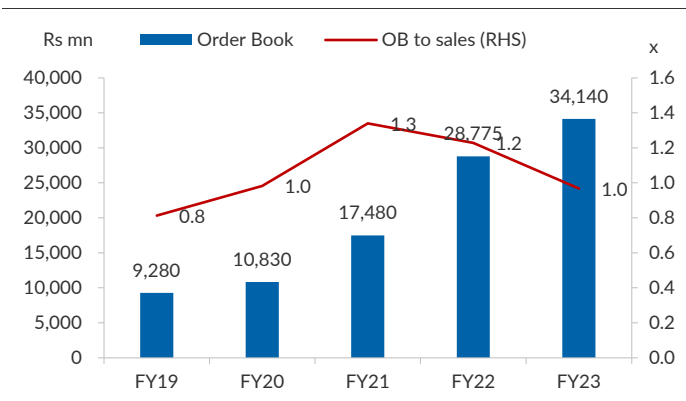
Source: Company, YES Sec



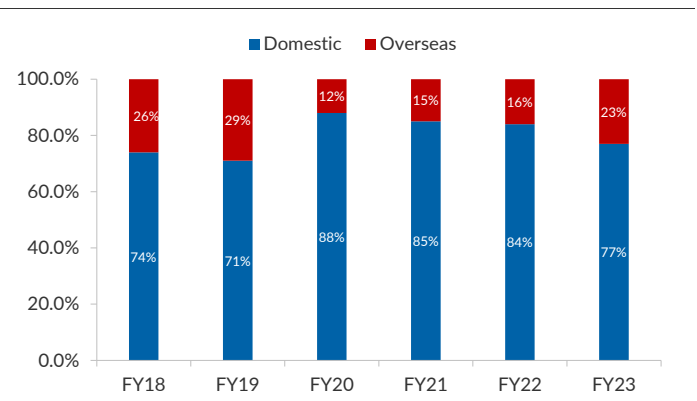
Source: Company, YES Sec

Exhibit 10: Driven by substantial jump in order backlog...

Exhibit 11: ...for both domestic and International businesses

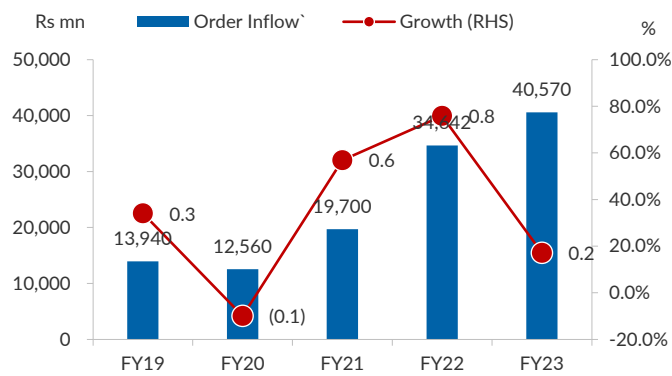


Source: Company, YES Sec



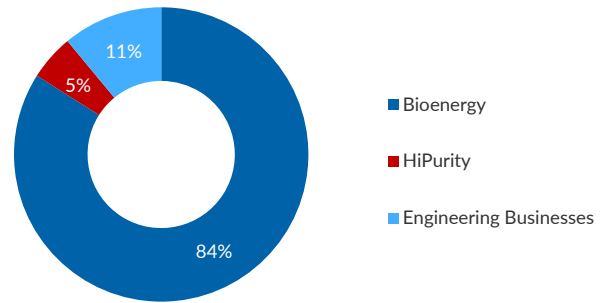
Source: Company, YES Sec

Exhibit 12: ...as order inflows have more than doubled in last 2 years



Source: Company, YES Sec

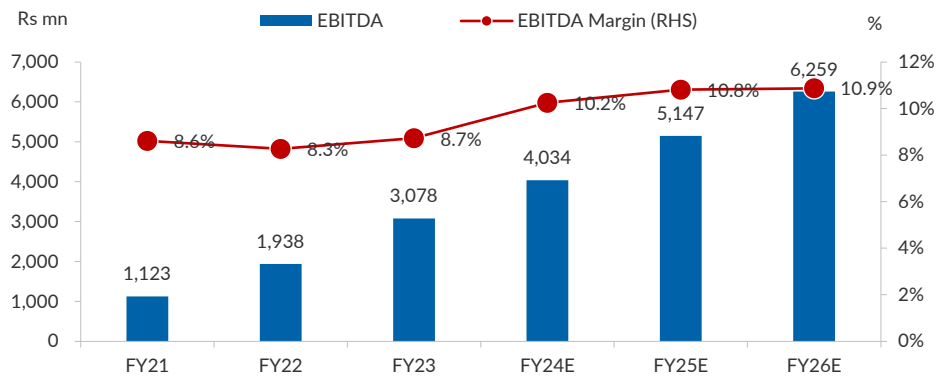
Exhibit 13: Bioenergy forms a substantial part of the FY23 order backlog



Source: Company, YES Sec

EBITDA Margin expected to expand driven by gross margin expansion and operating leverage benefit

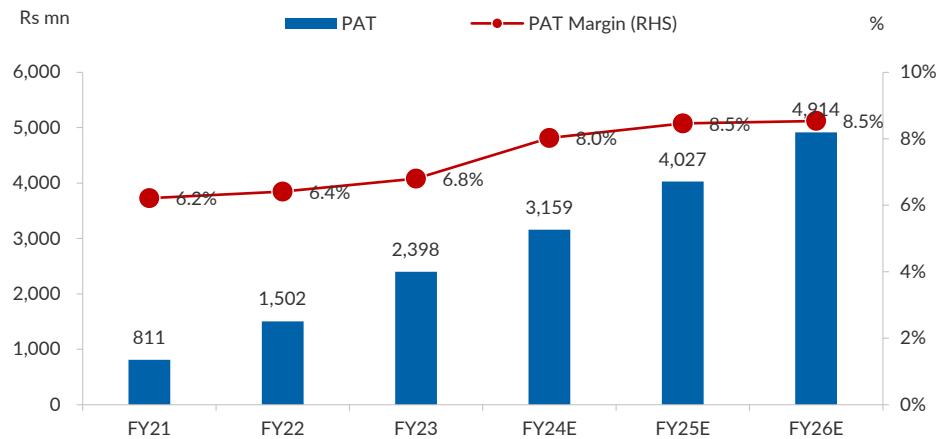
We expect Praj Industries to see improvement in EBITDA margin over FY23-26 with the company crossing 11% margin level in FY25. Increasing share of export business, benign raw material prices and improved execution efficiencies is expected to drive the margin performance.



Source: Company, YES Sec

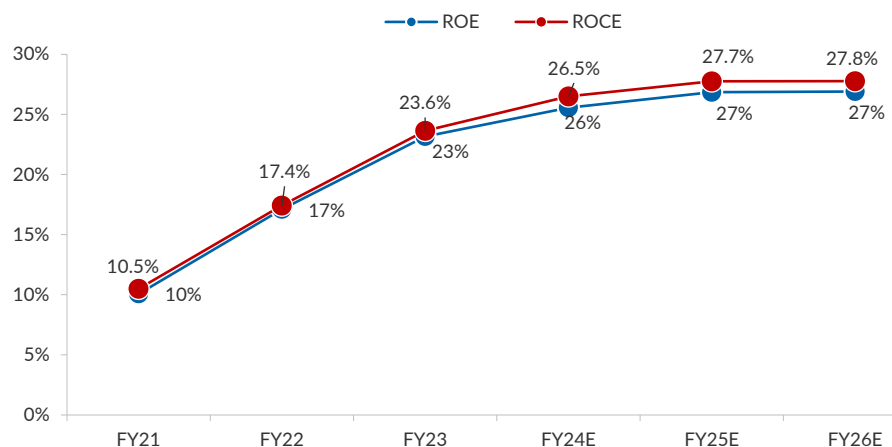
PAT growth to be aided by revenue and improved margin

We expect PAT to report a CAGR of 29.3% over FY23-26E driven by revenue CAGR of 19% and expansion in EBITDA margin as mentioned above.



Source: Company, YES Sec

Exhibit 14: RoE and RoCE are expected to stabilize at ~27-28%



Source: Company, YES Sec

VALUATION & VIEW

Praj industries has seen its revenue jumping 2.7x in the last two years (FY21-23) led by the EBP 20 program which mandates 20% ethanol blending with petrol by November 2026. Revenue growth is expected to remain robust with increased opportunities in international business for low carbon ethanol, energy transition and climate control where Praj has fortified its offerings. An increased international revenue share also augurs well for its margin profile. With a large addressable market and strong execution track record, we build in revenue/EPS CAGR of 18%/27% over FY23-26E. Initiate with BUY and a target price of Rs 805 based on 30x FY26 Earnings.

FINANCIALS

Exhibit 15: Balance Sheet (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Sources of Funds					
Equity capital	1393	1393	1393	1393	1393
Reserves	7,764	9,387	11,598	14,417	17,857
Non Controlling Int.	7	7	7	7	7
Net worth	9,157	10,780	12,991	15,810	19,250
Debt	-	-	-	-	-
Deferred tax liab (net)	(19)	(111)	(111)	(111)	(111)
Total liabilities	9,145	10,676	12,887	15,706	19,146
Application of Funds					
Gross Block	4,817	5,361	6,361	6,861	7,361
Depreciation	2,731	2,996	3,345	3,743	4,185
Fixed Asset	2,724	3,031	3,681	3,783	3,842
CWIP	21	69	69	69	69
Investments	4,768	5,566	8,067	9,551	11,345
Net Working Capital	1,632	2,009	1,069	2,302	3,889
Inventories	3,450	3,336	3,774	4,565	5,521
Sundry debtors	5,118	7,948	9,706	11,739	14,197
Cash & equivalents	1,551	1,448	619	1,866	3,498
Loans & Advances	-	-	787	952	1,152
Other Current Asset	4,363	4,682	5,038	6,094	7,370
Sundry creditors	4,248	5,050	6,470	7,826	9,465
Provisions	396	571	787	952	1,152
Other current liabilities	8,206	9,784	11,598	14,135	17,231
Total Assets	9,145	10,675	12,887	15,706	19,146

Source: Company, YES Sec

Exhibit 16: Income statement (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Revenue	23,433	35,280	39,362	47,606	57,576
% Change YoY	79.6	50.6	11.6	20.9	20.9
Operating profit	1,938	3,078	4,034	5,147	6,259
EBITDA margins	8.3	8.7	10.2	10.8	10.9
% Change YoY	72.5	58.8	31.1	27.6	21.6
Depreciation	226	302	350	398	442
EBIT	1,712	2,776	3,684	4,749	5,818
EBIT margins	7.3	7.9	9.4	10.0	10.1
Interest expense	25	46	118	143	173
Other income	362	458	645	764	908
Profit before tax	2,049	3,187	4,212	5,370	6,552
Taxes	546	789	1,053	1,342	1,638
Effective tax rate (%)	26.7	24.8	25.0	25.0	25.0
Net profit	1,502	2,398	3,159	4,027	4,914
Minorities and other	0	0	0	0	0
Net profit after minorities	1,502	2,398	3,159	4,027	4,914
Exceptional items	0	0	0	0	0
Net profit	1,502	2,398	3,159	4,027	4,914
% Change YoY	85.4	59.6	31.7	27.5	22.0
EPS (Rs)	8.2	13.1	17.2	22.0	26.8

Source: Company, YES Sec

Exhibit 17: Cash Flow Statement (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Profit before Tax	2,049	3,187	4,212	5,370	6,552
Interest	19	42	-	-	-
Depreciation	226	302	350	398	442
Other Items	(190)	(63)	118	143	173
(Inc)/Dec in WC	223	(1,222)	110	14	44
Direct Taxes Paid	450	625	1,053	1,342	1,638
CF from Oper. Activity	1,877	1,621	3,737	4,582	5,573
Inc/(Dec) in FA	(184)	(353)	(1,000)	(500)	(500)
Free Cash Flow	2,061	1,974	4,737	5,082	6,073
(Pur)/Sale of Invest.	(1,213)	(491)	(2,501)	(1,484)	(1,795)
CF from Inv. Activity	(1,397)	(844)	(3,501)	(1,984)	(2,295)
Change in Networth	26	4	-	-	-
Inc/(Dec) in Debt	(54)	(125)	0	0	0
Interest Paid	(19)	(42)	(118)	(143)	(173)
Dividends Paid	(397)	(771)	(948)	(1,208)	(1,474)
Others	-	-	-	-	-
CF from Fin. Activity	(444)	(934)	(1,066)	(1,351)	(1,647)
Inc/(Dec) in Cash	36	(157)	(829)	1,247	1,632

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Opening cash Balance	1,011	1,075	986	157	1,403
Others	27	68	-	-	-
Closing cash Balance	1,075	986	157	1,403	3,035

Source: Company, YES Sec

Exhibit 18: Du-pont Analysis

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Tax burden (x)	2.3	2.6	2.6	2.7	2.7
Interest burden (x)	0.3	0.3	0.3	0.3	0.3
EBIT margin (x)	0.1	0.1	0.1	0.1	0.1
Asset turnover (x)	2.6	3.3	3.1	3.0	3.0
Financial leverage (x)	1.0	1.0	1.0	1.0	1.0
RoE (%)	13.7%	19.4%	21.3%	22.5%	22.7%

Source: Company, YES Sec

December 06, 2023

INITIATING COVERAGE | Sector: Capital Goods

MTAR Technologies Ltd

Early mover high precision engineering player

6 REASONS TO BUY THE STOCK

1 MTAR technologies revenue and PAT growth has accelerated in the last three years led primarily by increased contribution from its clean energy business which has seen higher deliveries for SOFC Hot Boxes and electrolyzers for its largest customer Bloom Energy. The company continues to increase its wallet share from bloom with new product introductions.

2 In addition, MTAR's client addition pace has accelerated over the past 2 years particularly in the aerospace segment (GKN Aerospace, Thales, Collins). The company is expected to sign letter of Intent with Fluence Energy (significant client after Bloom) for delivery of 1,000 hot boxes which are expected to be delivered over FY24-25.

3 In the clean energy segment, the company has indigenized bellows for fuel cells (hitherto imported) and is in developmental stage for dielectrics for Bloom Energy. In addition, the company is also developing semi-cryogenic engine for space and valves (received orders for first articles) for defense segments respectively. Also, the company is expanding capabilities in the Electronics Control Systems

4 MTAR has had a long history of servicing the Indian nuclear sector and has a kitty of 15 products including fuel machining head, bridge & column, grid plate etc. The company is pre-qualified for 16 packages (~INR 5bn) in the Kaiga-5 and Kaiga-6 reactor tenders which are expected to be tendered out and booked by MTAR in Q4FY24. With an expected 10 more reactors to be constructed in the next 8-10 years, the company envisages an opportunity of ~INR 70-80bn arising out of the same.

5 MTAR is moving up the value chain from a component supplier to sub-system and system supplier in the space segment. It is currently (1) approaching production phase of its liquid propulsion engine and, (2) working on design and development of its own launch vehicle in the small satellite vehicle launch category.

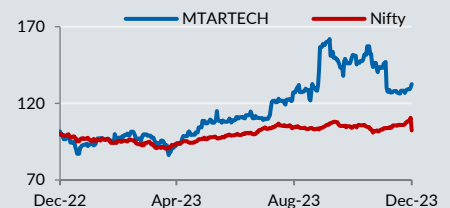
6 MTAR's presence in high growth and futuristic areas of clean energy, nuclear and space coupled with its strong relationship with key clients in respective sectors provides a long growth runway going ahead. We expect revenue/EPS CAGR of 30%/31% respectively over FY23-26E with a stable EBITDA margin profile of ~28-29%. We initiate with BUY, target price of Rs2,750 based on 32x FY26E earnings.

Reco	: BUY
CMP	: Rs 2,311
Target Price	: Rs 2,774
Potential Return	: +20.0%

Stock data (as on Dec 06, 2023)

Nifty	19,133
52 Week h/l (Rs)	2920 / 1473
Market cap (Rs/USD mn)	70961 / 852
Outstanding Shares (mn)	31
6m Avg t/o (Rs mn):	828
Div yield (%):	-
Bloomberg code:	MTARTECH IN
NSE code:	MTARTECH

Stock performance



	1M	3M	1Y
Absolute return	-7.5%	-16.2%	30.2%

Shareholding pattern (As of Sep'23 end)

Promoter	39.1%
FII+DII	32.9%
Others	28.0%

Financial Summary

(Rs mn)	FY21	FY22	FY23
Revenues	2,464	3,220	5,733
Yoy growth (%)	39.0	30.7	78.1
OPM (%)	33.7	29.3	26.9
EPS (Rs)	17.2	22.7	38.9
EPS growth	64.1	32.1	71.0
P/E (x)	134.2	101.6	59.4
EV/EBITDA (x)	83.4	75.6	46.9
Debt/Equity (x)	0.0	0.2	0.2
RoE (%)	9.7	11.7	16.8
RoCE (%)	10.0	9.4	12.8

ABHIJEET SINGH

Lead Analyst

abhijeet.singh@ysil.in



Long growth runway supported by increasing Bloom wallet share and potential acquisition of new customers in energy storage domain

MTAR technologies revenue and PAT growth has accelerated in the last three years led primarily by increased contribution from its clean energy business which has seen higher deliveries for SOFC Hot Boxes and electrolyzers for its largest customer Bloom Energy. The company continues to increase its wallet share from bloom with new product introductions (such as ASP assemblies, Cable Harnesses, sheet metal assemblies) thus providing growth visibility for its clean energy segment. In addition, MTAR's client addition pace has accelerated over the past 2 years particularly in the aerospace segment (GKN Aerospace, Thales, Collins). The company is expected to sign letter of Intent with Fluence Energy (significant client after Bloom) for delivery of 1,000 hot boxes which are expected to be delivered over FY24-25. In addition, the company also is evaluating expanding its manufacturing base internationally in Europe and US which have a favorable subsidy structure for clean energy production which has a potential market size of 10,000 hot boxes (revenue potential of INR 10bn). As a result, the revenue share from Bloom is expected to come down in the next few years.

Strong pipeline of new product introductions and expanding presence of existing products in new markets

MTAR is working on several new product introduction initiatives across clean energy, space and defense segments. In the clean energy segment, the company has indigenized bellows for fuel cells (hitherto imported) and is in developmental stage for dielectrics for Bloom Energy. In addition, the company is also developing semi-cryogenic engine for space and valves (received orders for first articles) for defense segments respectively. Also, the company is expanding capabilities in the Electronics Control Systems where its cable harnessing assemblies are under qualification and production for same is expected to commence in H2FY24.

Strong business opportunity in nuclear segment in both near and medium term

MTAR has had a long history of servicing the Indian nuclear sector and has a kitty of 15 products including fuel machining head, bridge & column, grid plate etc. The company is pre-qualified for 16 packages (~INR 5bn) in the Kaiga-5 and Kaiga-6 reactor tenders which are expected to be tendered out and booked by MTAR in Q4FY24. With an expected 10 more reactors to be constructed in the next 8-10 years, the company envisages an opportunity of ~INR 70-80bn arising out of the same.

Space business expected to pick up in the medium term with pick up in both SSLV and PSLV projects

MTAR is moving up the value chain from a component supplier to sub-system and system supplier in the space segment. It is currently (1) approaching production phase of its liquid propulsion engine and, (2) working on design and development of its own launch vehicle in the small satellite vehicle launch category. The company has signed a 3-year MoU with IN-SPACe for design and development of a two-stage, low-earth orbit, all-liquid small satellite launch vehicle based on semi cryogenic technology with support from ISRO. The company has recruited manpower (18-20 as of Q1FY24) for the same and is looking to conduct the first sub system level tests of engine by FY24 end.

COMPANY OVERVIEW

MTAR Technologies Limited was established in 1969 by three founders - P. Ravinder Reddy, K. Satyanarayana Reddy and P. Jayaprakash Reddy and is in the business of manufacturing various machine equipment, assemblies, sub-assemblies, and spare parts for energy, nuclear, space, aerospace, defence and other engineering industries.

Product Profile

The company is involved in the design and fabrication of precision engineered systems such as:

- **Nuclear Reactor** - Fuelling Machine Head, Bridge & Column, Fuel Transfer System, Coolant Channel assemblies, Drive Mechanisms, Fuel Locator Assembly, Sealing & Shielding doors etc.
- **Space Launch Vehicles** - Liquid Propulsion Engines (Vikas Engines), Cryogenic Engine Sub Systems, Electro-Pneumatic Modules, Satellite Valves, Grid Fin Structures etc.
- **Defense** - Gearboxes, Aerostructures, Actuation Systems, Ball Screws etc.
- **Clean Energy** - SOFC & Hydrogen Units for fuel cells, Sheet Metal Assemblies, Enclosures and Electrolyzers.

Client Profile

MTAR has a healthy mix of large MNCs, government departments and Indian DPSUs among its clientele. These include Bloom Energy, Elbit, Rafael, DRDO, Indira Gandhi Centre for Atomic Research, HAL, BHEL, Bharat Dynamics etc.

Bloom Energy contributed more than 75% to the overall revenue in FY23 which is the key customer for MTAR. The company primarily supplies SOFC Hydrogen boxes and electrolyzers to Bloom Energy.

New Client Addition

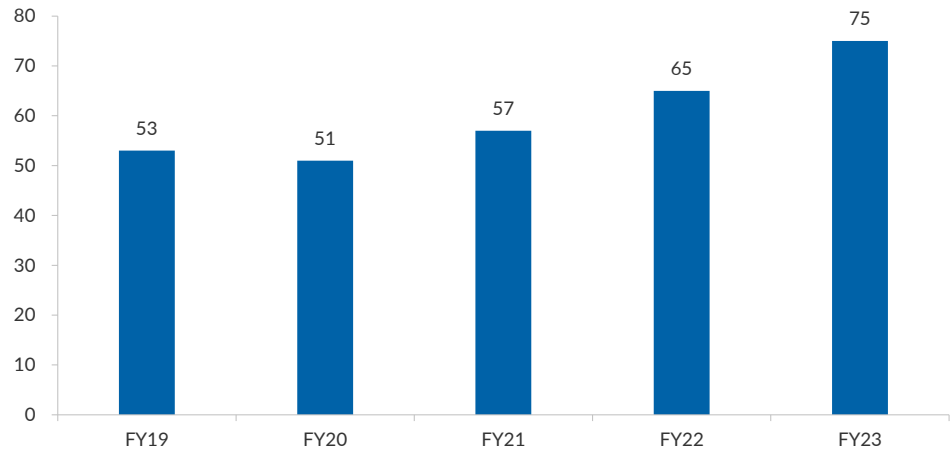
MTAR has seen some strong client additions in FY23 with global MNCs such as Thales, GE under its kitty. In addition, it is under active engagement with prospective clients such as Enercon, Enervenue etc. for potential additions.

Exhibit 1: New and prospective clients

New Client Addition - FY23	Clients in Pipeline
Collins Aerospace	Enercon
Thales	Enervenue
GKN Aerospace	Regen Power
GE Power	Israeli Aerospace Industries
	Bluebird Aero Systems

Source: Company, YES Sec

Exhibit 2: Number of unique customers



Source: Company, YES Sec

Exhibit 3: Board of Directors

Name	Descriptions
Subbu Venkata Rama Behara	Mr. Subbu Venkata Rama Behara is the Chairman and Independent director on the board. He has more than 20 years of manufacturing industry expertise and held senior leadership positions in various renowned firms including TATA, Hyundai, among others.
Parvat Srinivas Reddy	Mr. Parvat Srinivas Reddy is the Managing Director on the board of the Company. He has nearly three decades of industry experience in Manufacturing and Construction and has been associated with MTAR for the past 13 years. He holds a bachelor's degree in industrial production engineering, from the University of Mysore and a Master's degree in science, specialising in industrial engineering from College of Engineering, Louisiana Tech University
Praveen Kumar Reddy Akepati	Mr. Praveen Kumar Reddy Akepati is an Executive Director on the Board of the Company. He holds a bachelor's degree in electronics and communication engineering from the Faculty of Engineering, Andhra University
Anushman Reddy Mitta	Mr. Anushman Reddy Mitta is an Executive Director on the board of the company. He is responsible for heading exports and supply chain divisions in MTAR; instrumental in growing exports vertical in the Company. He has nearly nine years of experience in manufacturing and worked in global organisations including AeroVironment.
Venkatasathishkumar Reddy G	Mr. Venkatasathishkumar Reddy Gagapatnam is a Non-Executive Director on the Board of the Company. He holds a bachelor's degree in mechanical engineering from Bangalore University, and a master's degree in industrial engineering, from Bradley University.
Udaymitra Chandrakant Muktibodh	Mr. Udaymitra Chandrakant Muktibodh is an independent director on the board. He has decades of experience in Civil Nuclear Power Plant Technology in India. During his tenure at NPCIL he acted as a Technical Director of NPCIL and was also a member on the board of NPCIL
Krishna Kumar Aravamudan	Mr. Krishna Kumar Aravamudan is an independent director on the board. He has a rich experience in Banking & Financial sectors, and served SBI for more than 39 years in various capacities where he had also taken up the role of Managing Director
Gnana Sekaran Venkatasamy	Dr. Gnana Sekaran Venkatasamy is an independent director on the board. He is an eminent Missile Scientist and the Chief Designer of the Long-Range Ballistic Missile System AGNI 5. He has held key roles in DRDO including Chief Controller R&D (Missiles & Strategic Systems), Programme Director to Agni Missiles.
Ameeta Chatterjee	Ms. Ameeta Chatterjee is an independent director on the board. She is an IIM Bangalore Alumna and has more than two decades of corporate experience in developing, managing and executing large projects across infrastructure sectors in India and UK.

Exhibit 4: Manufacturing Facilities

Plant	Products Manufactured	Sectors catered to	Facilities Offered
Unit 1	Nuclear assemblies manufacturing - fuelling machine head, thimble package, top hatch beam, bridge and column and defence equipment, among others	Clean Energy - Civil Nuclear Power, Defence and Space	Design, Advanced computerized numerical control ("CNC") machining and quality control
Unit 2	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") and satellite valves	Space	Advanced CNC machining, assembly, specialized fabrication, quality control and testing
Unit 3	High Volume nuclear assemblies including coolant channel assemblies, products such as Ball Screws, Water Lubricated Bearings, Roller Screws and other nuclear site orders	Clean Energy - Civil Nuclear Power, Defence and Space	Advanced CNC machining and quality control
EOU	SOFC & Hydrogen units, electrolysers, ASP assemblies for Clean Energy, high precision equipment to Aerospace MNCs	Clean Energy - Fuel Cells & MNC Aerospace	Advanced CNC machining, assembly, special processes, and quality control
Unit 4	Supporting unit which undertakes rough machining	-	Rough machining
Unit 5	Supporting unit which undertakes surface and heat treatment	-	Surface treatment, heat treatment and special processes
Unit 6 - Adibatla	Sheet metal components and enclosures for Clean Energy - Fuel cells; critical structures for Clean Energy - Hydel & Waste to Energy sectors Electronics Manufacturing Systems - Cable Harnessing Assemblies	Clean Energy - Fuel Cells, Hydel and others	Advanced Machining, Fabrication, Integration, Cable Harnessing Assembly

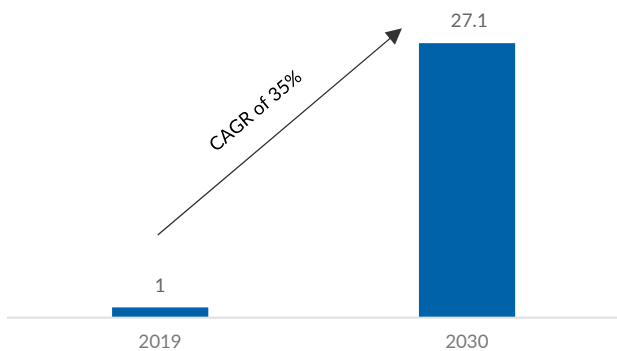
Source: Company, YES Sec

INVESTMENT THESIS

Increased end-user adoption and government support augur well for Global Sulphur Oxide Fuel Cell (SOFC) industry

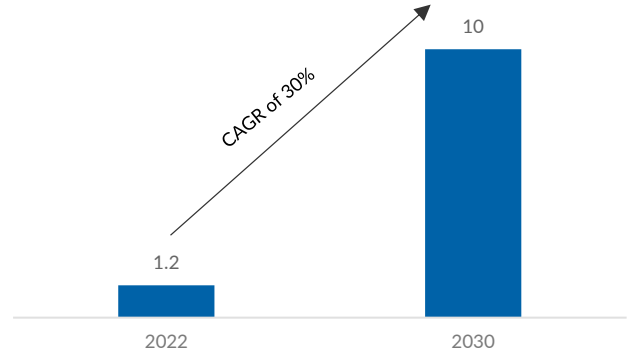
The global fuel cell market is expected to grow at a CAGR of 15.4% between 2022 and 2030, with revenues increasing from \$1.06 bn to \$3.33 bn. The United States, South Korea and Japan will remain as leading markets for stationary fuel cells. The top four players in the stationary fuel cell market account for 85.2% of total installed capacity. With a 44% global market share, Bloom leads the top four companies, followed by Doosan-HyAxiom, FuelCell Energy and Panasonic. Bloom Energy targets a revenue CAGR of 30-35% over CY20-30 to \$10bn driven by strong industry tailwinds such as end-user adoption particularly in scheduled power supply requirement (Data centre is a big market) and some of the major economies prioritizing hydrogen in energy mix such as South Korea, USA, Europe, Japan, India. Bloom's product costs have seen an annual reduction of 18% CAGR and expects to be competitive against traditional grid power in all 50 US states by 2025. It also claims to enjoy the highest electrical efficiency of 65% amongst peers. Assuming a stable wallet share for MTAR, the company can be expected to clock growth in line with Bloom (30-35% over next decade) for its Bloom business.

Exhibit 5: Annual installations of stationary fuel cells (GW)



Source: Company, YES Sec

Exhibit 6: Bloom revenue target of \$10bn by 2030 (30% CAGR)



Source: Company, YES Sec

Electrolyzer technology at a relatively nascent stage; expect to commercialize by 2026

Electrolyzer is another key product supplied by MTAR to Bloom Energy. Electrolyzers are used to produce Hydrogen as fuel for further electricity generation. The demand for green hydrogen has driven the electrolyzer demand with economies such as EU setting a target of producing 10 MT of green hydrogen domestically and importing 10 MT by 2030. Europe's new REPowerEU targets and IRA incentives in the US will further increase the demand for green hydrogen from the current projection of 14 Mt per annum to 28 Mt per annum by 2030, equivalent to more than 280 GW of electrolyzer demand. Bloom Energy is in the process of commercializing its Solid Oxide electrolyzer. The company claims them to be 20% more efficient than PEM electrolyzer (45kWh/kg vs 55kWh/kg) which is expected to benefit in terms of gaining market acceptance. Electrolyzer business is project to generate \$500M in revenue for Bloom Energy by 2026E.

Long growth runway supported by increasing Bloom wallet share and potential acquisition of new customers in energy storage domain

MTAR's major customer Bloom Energy (over 75% of revenue in FY23) has been recording strong growth in the last few years and has significantly improved its operational performance. The company has incrementally gained wallet share from Bloom by indigenizing and developing new products for bloom requirements. These include ASP assemblies, Cable Harnesses, sheet metal assemblies. Bloom is, therefore, expected to remain a strong growth engine for the company going forward.

In addition, the company has also tapped a major client in Fluence Energy and is expected to sign letter of Intent with Fluence Energy for delivery of 1,000 hot boxes which are expected to be delivered over FY24-25. Over and above its strong association with a renowned brand, the company is also mulling incremental foray into US and Europe geographies tapping into the favorable policy environment for clean energy storage solutions in both geographies. The total opportunity in both US and Europe could be ~INR 10bn comprising of 10,000 units per year.

The company is also in preliminary stage of discussion with Enervenue, which deals in nickel hydrogen batteries. In addition, there are several players putting up capacities in India (Plug Power, Ballard Systems, Ohmium etc.) which could be potential clients in the medium term as they reach a certain volume scale.

Strong pipeline of new product introductions and expanding presence of existing products in new markets

MTAR is working on several new product introduction initiatives across clean energy, space and defense segments. In the clean energy segment, the company has indigenized bellows for fuel cells (hitherto imported) and is in developmental stage for dielectrics for Bloom Energy. In addition, the company is also developing semi-cryogenic engine for space and valves (received orders for first articles) for defense segments respectively. Also, the company is expanding capabilities in the Electronics Control Systems where its cable harnessing assemblies are under qualification and production for same is expected to commence in H2FY24.

Exhibit 7: Increasing addressable opportunity by entering new product segments

New Products	Application	Status	Potential Market Size
Roller Screws	Defense	Submitted first articles to DRDO	Market potential of INR 800-1000mn
Electromechanical Actuators	Defense & Space	Supplying ~INR 75mn in FY24	NA
Dielectrics	Clean Energy	Expect to get qualified by FY24 end	Revenue potential of ~250cr per year
Valves	Defense	Received orders for first articles; expect to commercialize by FY24 end	NA
Semi-cryo engine	Space	Roll out in FY24	Have ~INR 300mn orders for FY24
Bellows	Defense & Space	Qualified for all types of bellows	NA
Cable harnessing system	Clean Energy	Expect to get qualified in Q2FY24	NA

Source: Company, YES Sec

Decadal opportunity in the nuclear segment with a strong delivery track record

MTAR's major customer in the nuclear energy space is NPCIL, which is operating 22 commercial nuclear power reactors with an installed capacity of 6,780 MWe. NPCIL has eight reactors under various stages of construction totaling 6,200 MWe capacity. MTAR has had a long history of servicing the Indian nuclear sector and has a kitty of 15 products including fuel machining head, bridge & column, grid plate etc.

The government plans to increase nuclear capacity from 6.7 GWe to 22.4 GWe by 2031. In the next three years, capacity addition of 5,300 MW is planned on completion of two 700 MW units each at Kakrapar Atomic Power Station and Rajasthan Atomic Power Project respectively, two 1,000 MW power plants at the Kudankulam Nuclear Power Project and one 500 MW Prototype Fast Breeder Reactor at Kalpakkam. In addition, government wants to outsource construction of Kaiga 5 & 6 reactors, 700 MWe each, on a mega package mode with a target to finish the construction of reactor in 4 years. With an expected 10 more reactors to be constructed in the next 8-10 years, the company envisages an opportunity of ~INR 70-80bn arising out of the same.

Exhibit 8: Annual Opportunity – Nuclear Sector

Current Capacity (FY23)	6.7
Planned Capacity (FY32)	22.4
Capacity Addition	15.7
Total Investment (INR bn)	1760-1800
Equipment Market	350-435
MTAR Opportunity (20-25%) (INR bn)	70-80
Annual Opportunity (INR mn) - Capacity Addition	7,000-8,000
Annual Opportunity (INR mn) - R&M	2,000
Total Annual Opportunity	9,000-10,000

Source: Company, YES Sec

In the near-term, the company expects ~INR 5bn worth of orders as it is pre-qualified for 16 packages in the Kaiga-5 and Kaiga-6 reactor tenders which are expected to be tendered out and booked by MTAR in Q4FY24. The company expects a revenue growth of 40% in FY24 for nuclear power segment driven by an order book of INR 1.93bn at FY23 end.

Space Segment set to soar high given new commercial and research missions

MTAR's long-standing association with ISRO and a focus on increasing private sector participation in the domestic space tech industry is expected to drive long-term revenue growth for the company. The company has been a trusted partner to ISRO for the past four decades. It has proven capabilities in manufacturing high-tech products for PSLV and GSLV such as liquid propulsion rocket engines (Vikas Engine for PSLV), cryogenic engine sub systems, electro pneumatic modules etc. These products shall be used in the LVM 3 and PSLV for the upcoming Chandrayaan 3 and Aditya L1 missions. The Company is also manufacturing critical structure like grid fin for Gaganyaan mission.

Indian space equipment market is expected to grow at a CAGR of 10-11% for launch systems and 6-7% for satellites over FY21-25. MTAR is expected to see increased order inflows from ISRO due to success of commercial launches over the coming years. MTAR is also working on the design and development of Two Stage to Low Earth Orbit Small Satellite Launch vehicle - Garuda 1. The Company shall be developing 100 ton and 10 ton all liquid engines in-house. It has forged an MOU with IN-SPACe to take the support of ISRO in various areas including Avionics, Navigation Guidance & Control Systems, marketing etc.

Exhibit 9: MTAR's space product portfolio

Key Products Supplied by MTAR	Key Products under development
Vikas Engines	Semi Cryo Engine
Cryogenic Upper Engine assemblies	Small Satellite Launch Vehicle
Satellite Valve	
Structures for Gaganyaan	

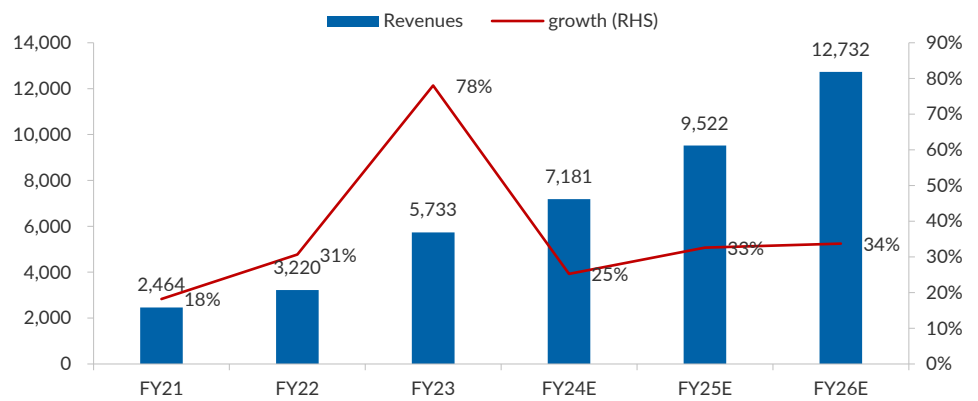
Source: Company, Yes Securities

FINANCIALS

Revenue expected to grow at a CAGR of 30% over FY23-26E

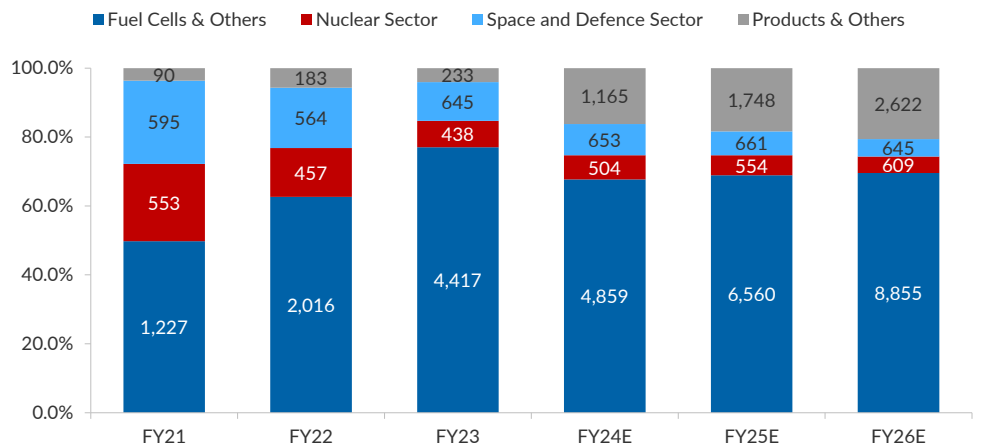
MTAR's revenue growth is expected to remain strong in the next 2-3 years driven by high growth of its major revenue client (Bloom Energy), addition of new clients (such as Fluence Energy, Enervenue, GKN Aerospace) and new product introductions catering to import substitution and increasing wallet share of existing customers.

Exhibit 10: Revenue expected to clock 30% CAGR over FY23-26E



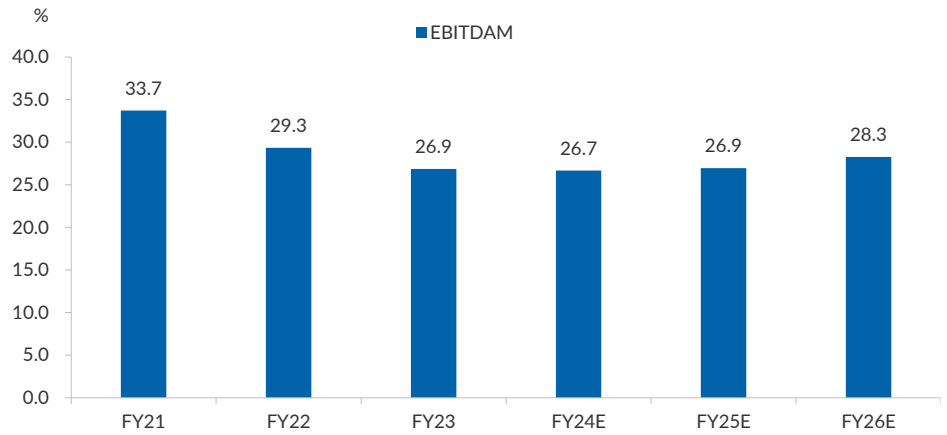
Source: Company, YES Sec

Exhibit 11: Products & Others are expected to garner increased share of revenue pie; fuel cells expected to maintain high share



Source: Company, YES Sec

Exhibit 12: EBITDA margin expected to stabilize at 27-29%

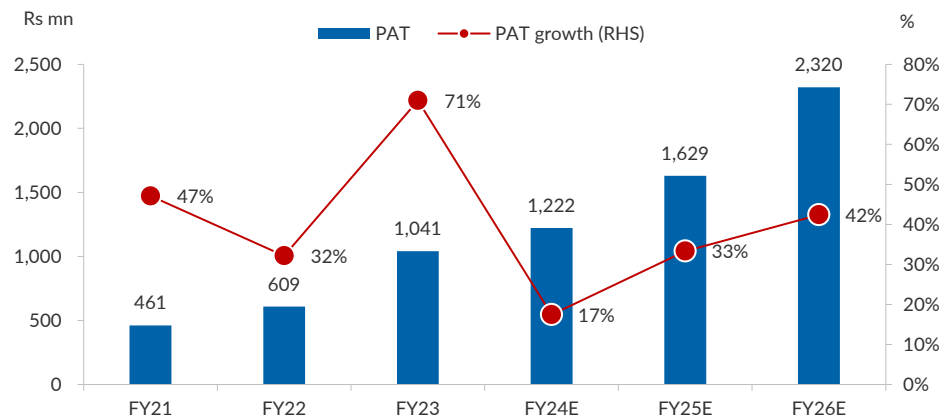


Source: Company, YES Sec

PAT expected to grow at a CAGR of 31% over FY23-26E

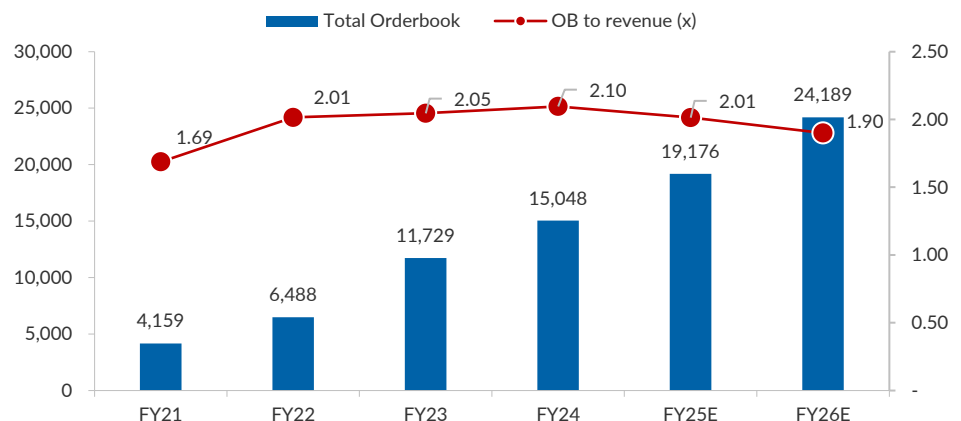
MTAR is expected to grow its PAT at a CAGR of 38% over FY23-26E driven by strong revenue growth while margin is expected to remain stable. Both domestic and export businesses are expected to grow at a similar rate keeping the export share stable.

Exhibit 13: PAT expected to grow at a CAGR of 38% over FY23-26E



Source: Company, YES Sec

Exhibit 14: Orderbook growth is expected to remain high, in line with revenue growth



Source: Company, YES Sec

VALUATION AND VIEW

MTAR's presence in high growth and futuristic areas of clean energy, nuclear and space coupled with its strong relationship with key clients in respective sectors provides a long growth runway going ahead. The company is consistently focusing on increasing wallet share and increasing product offerings catering to import substitution. Thus, revenue is expected to remain strong going forward. EBITDA margin is expected to remain stable in the range of 27-29% over the next two years as domestic and export revenue is not expected to change substantially. We expect revenue/EPS CAGR of 30%/31% respectively over FY23-26E with a stable EBITDA margin profile of ~28-29%. We initiate with BUY, target price of Rs2,750 based on 32x FY26E earnings.

FINANCIALS

Exhibit 15: Balance Sheet (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Sources of Funds					
Equity capital	3,507	3,507	3,507	3,507	3,507
Reserves	1,690	2,701	3,923	5,553	7,873
Non Controlling Int.	-	-	-	-	-
Net worth	5,197	6,208	7,430	9,060	11,380
Debt	959	1,428	2,128	2,528	2,928
Deferred tax liab (net)	163	180	163	163	163
Total liabilities	6,319	7,816	9,721	11,750	14,470
Application of Funds					
Gross Block	2,670	3,670	4,670	5,670	6,670
Depreciation	716	855	716	716	716
Fixed Asset	1,964	2,823	3,962	4,962	5,962
CWIP	438	632	632	632	632
Investments	623	342	665	489	312
Net Working Capital	3,294	4,020	4,462	5,668	7,564
Inventories	1,703	3,860	3,738	4,957	6,628
Sundry debtors	1,360	2,081	2,164	2,870	3,837
Cash & equivalents	669	310	669	469	438
Loans & Advances	89	113	113	113	113
Other Current Asset	431	469	574	762	1,019
Sundry creditors	570	2,181	2,164	2,870	3,837
Provisions	35	75	75	75	75
Other current liabilities	353	558	558	558	558
Total Assets	6,319	7,816	9,721	11,750	14,470

Source: Company, YES Sec

Exhibit 16: Income statement (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Revenue	3,220	5,733	7,181	9,522	12,732
% Change YoY	30.7	78.1	25.2	32.6	33.7
Operating profit	944	1,540	1,915	2,565	3,598
EBITDA margins	29.3	26.9	26.7	26.9	28.3
% Change YoY	13.7	63.1	24.4	34.0	40.3
Depreciation	143	183	250	310	370
EBIT	801	1,357	1,664	2,255	3,228
EBIT margins	24.9	23.7	23.2	23.7	25.4
Interest expense	66	145	213	253	293
Other income	88	197	200	200	200
Profit before tax	822	1,409	1,652	2,202	3,135
Taxes	213	368	429	572	815
Effective tax rate (%)	26.0	26.1	26.0	26.0	26.0
Net profit	609	1,041	1,222	1,629	2,320
Minorities and other	0	0	0	0	0
Net profit after minorities	609	1,041	1,222	1,629	2,320
Exceptional items	0	0	0	0	0
Net profit	609	1,041	1,222	1,629	2,320
% Change YoY	32.1	71.0	17.4	33.3	42.4
EPS (Rs)	22.7	38.9	45.7	60.9	86.7

Source: Company, YES Sec

Exhibit 17: Cash Flow Statement (Consolidated)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Profit before Tax	822	1,409	1,652	2,202	3,135
Interest	66	145	213	253	293
Depreciation	143	183	250	310	370
Other Items	(71)	(49)	166	166	166
(Inc)/Dec in WC	(1,079)	(1,277)	195	(2,491)	(3,466)
Direct Taxes Paid	180	321	180	180	180
CF from Oper. Activity	(298)	89	2,295	260	318
Inc/(Dec) in FA	(911)	(1,059)	(1,000)	(1,000)	(1,000)
Free Cash Flow	613	1,148	3,295	1,260	1,318
(Pur)/Sale of Invest.	(539)	174	(232)	268	268
CF from Inv. Activity	(1,450)	(885)	(1,232)	(732)	(732)
Change in Networkth	-	-	-	-	-
Inc/(Dec) in Debt	789	469	700	400	400
Interest Paid	(64)	(146)	(213)	(253)	(293)
Dividends Paid	(185)	-	-	-	-
Others	-	-	-	-	-
CF from Fin. Activity	541	323	487	147	107
Inc/(Dec) in Cash	(1,207)	(473)	1,550	(325)	(307)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Opening cash Balance	1,803	596	123	1,673	1,348
Others	-	-	-	-	-
Closing cash Balance	596	123	1,673	1,348	1,041

Source: Company, YES Sec

Exhibit 18: Du-pont Analysis

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Tax burden (x)	2.8	2.7	2.9	2.9	2.9
Interest burden (x)	0.3	0.3	0.3	0.3	0.3
EBIT margin (x)	0.2	0.2	0.2	0.2	0.3
Asset turnover (x)	0.5	0.7	0.7	0.8	0.9
Financial leverage (x)	1.2	1.3	1.3	1.3	1.3
RoE (%)	11.4%	16.1%	16.6%	18.4%	21.0%

Source: Company, YES Sec

Exhibit 19: Ratio Analysis

Y/e 31 Mar	FY22	FY23	FY24E	FY25E	FY26E
Basic EPS (Rs)	22.7	38.9	45.7	60.9	86.7
Dividend per share	6.0	-	-	-	-
Cash EPS	24.4	39.8	47.9	63.1	87.5
Book value per share	194.2	232.0	277.7	338.6	425.3
Div. payout (%)	30.3	-	-	-	-
Valuation ratios (x)					
P/E	101.6	59.4	50.6	38.0	26.7
P/CEPS	94.5	58.1	48.3	36.6	26.4
P/B	11.9	10.0	8.3	6.8	5.4
EV/EBIDTA	75.6	46.9	37.9	28.5	20.4
Dividend yield (%)	0.3	-	-	-	-
Profitability Ratios (%)					
RoIC	12.3	12.8	12.7	14.2	16.5
RoE	11.7	16.8	16.4	18.0	20.4
RoCE	9.4	12.8	12.7	14.2	16.5
Liquidity ratios					
Debtor (days)	154	132	110	110	110
Inventory (days)	193	246	190	190	190
Creditor (days)	65	139	110	110	110
Net working Capital (days)	306	248	203	208	211
Asset Turnover (x)	0.5	0.7	0.7	0.8	0.9

Source: Company, YES Sec

December 06, 2023

INITIATING COVERAGE | Sector: Capital Goods

Data Patterns (India) Ltd

Brisk horse riding the privatization wave in defense electronics

6 REASONS TO BUY THE STOCK

1 The Indian Defense electronics industry is expected to grow at a CAGR of ~16% from \$1.88bn in 2021 to \$7B in 2030, a sharp jump from a CAGR of 4.5% over 2016-2020. This is expected to be driven by increased share of electronics application across land, air and naval platforms and import substitution.

2 Ministry of Defense (MoD) has incrementally focused on increased indigenization in terms of gross value and net value addition in the last few years for procurement. It has come up with negative lists of defense imports with covered segments including electronic warfare, sensors, radars, unmanned aerial systems etc.

3 DP is moving up the value chain from subsystems to complete systems (radar integration, higher tonnage, truck mounted equipment) manufacturing which would enable direct participation in MoD tenders. It has expanded manufacturing capabilities to cater to the large size orders with large hangars and infrastructure for system integration. It plans to offer complete radar systems (currently supplying components and subsystems) either in partnership mode or independently.

4 Data patterns is one of the few vertically integrated end-to-end operators in the Indian defense electronics industry and has developed a reusable building block manufacturing model where development costs can be spread across systems and platforms providing it with significant cost advantage and time to market efficiency. Additionally, being a domestic manufacturer not only provides it with cost advantage but also increased preference in procurement.

5 This helps the company in spreading out its development costs across systems and platforms and achieve better margin. In addition, it saves development time for new products. Many of the existing products and their component modules are approved by DPSUs which helps in reducing lead time for new product approvals. Data Patterns has developed products using these building blocks for the LCA, the LUH, Brahmos missile programme, tracking radars etc.

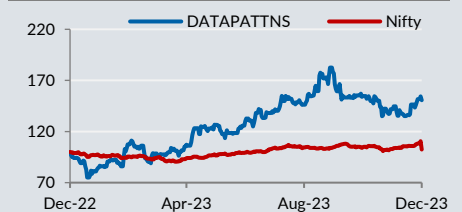
6 Data Patterns' strong in-house technology led manufacturing expertise, its building block reusable model and strong track record of innovation in the defense electronics space augurs well for the company's future prospects. Although the business prospects remain strong, we also highlight caution from a valuation point of view as the development risks remain large in the defense landscape. We assign a NEUTRAL rating with a target price of Rs2,150 based on 40x FY26E earnings.

Reco	: NEUTRAL
CMP	: Rs 2039
Target Price	: Rs 2,150
Potential Return	: +5.4%

Stock data (as on Dec 06, 2023)

Nifty	19,133
52 Week h/l (Rs)	2485 / 996
Market cap (Rs/USD mn)	114750 / 1378
Outstanding Shares (mn)	56
6m Avg t/o (Rs mn):	438
Div yield (%)	0.2
Bloomberg code:	DATAPATT IN
NSE code:	DATAPATTNS

Stock performance



	1M	3M	1Y
Absolute return	6.2%	-14.8%	52.6%

Shareholding pattern (As of Sep'23 end)

Promoter	42.4%
FII+DII	16.7%
Others	40.9%

Financial Summary

(Rs mn)	FY21	FY22	FY23
Revenues	2,240	3,109	4,535
Yoy growth (%)	43.5	38.8	45.9
OPM (%)	41.1	45.4	37.9
EPS (Rs)	11.9	18.1	22.1
EPS growth	164.0	52.3	22.3
P/E (x)	171.5	112.6	92.1
EV/EBITDA (x)	103.9	66.4	58.4
Debt/Equity (x)	0.4	0.2	0.0
RoE (%)	26.7	16.4	10.6
RoCE (%)	26.2	17.1	10.5

ABHIJEET SINGH

Lead Analyst

abhijeet.singh@ysil.in



Twin growth drivers: Indigenization, and a growing share of defense electronics

- The Indian Defense electronics industry is expected to grow at a CAGR of ~16% from \$1.88bn in 2021 to \$7B in 2030, a sharp jump from a CAGR of 4.5% over 2016-2020. This is expected to be driven by increased share of electronics application across land, air and naval platforms and import substitution.
- At present, electronic components constitute ~25-35% of overall defense equipment value. This is expected to inch up as C4ISR, EW and Network Centric warfare become mainstay of modern warfare and as battlefield strategy shifts from combat mass to smaller amount of equipment with increased capabilities. Ministry of Defense (MoD) has incrementally focused on increased indigenization in terms of gross value and net value addition in the last few years for procurement.
- MoD has come up with negative lists of defense imports with covered segments including electronic warfare, sensors, radars, unmanned aerial systems etc. In addition, it has increased the earmarking (75% in FY24, 68% in FY23), from domestic procurement in each of the last two budgets.

Moving up the value chain to gain substantial chunk of a large addressable market

- Data Patterns (DP) has strong in-house design and manufacturing capabilities in defense electronics industry with offerings in Radar subsystems and components, Electronic Warfare, Avionics, Missile electronics etc. DRDO is the company's major customer for both development and production orders.
- DP is moving up the value chain from subsystems to complete systems (radar integration, higher tonnage, truck mounted equipment) manufacturing which would enable direct participation in MoD tenders. It has expanded manufacturing capabilities to cater to the large size orders with large hangars and infrastructure for system integration. It plans to offer complete radar systems (currently supplying components and subsystems) either in partnership mode or independently.

Most indigenized player in the defense electronics space with significant cost advantage

- Data patterns is one of the few vertically integrated end-to-end operators in the Indian defense electronics industry and has developed a **reusable building block** manufacturing model where development costs can be spread across systems and platforms providing it with **significant cost advantage and time to market efficiency**.
- This helps the company in spreading out its development costs across systems and platforms and achieve better margin. In addition, it saves development time for new products. Many of the existing products and their component modules are approved by DPSUs which helps in reducing lead time for new product approvals. Data Patterns has developed products using these building blocks for the LCA, the LUH, Brahmos missile programme, tracking radars etc.
- The **integrated approach** across product life cycle and in-house competency in contemporary technologies spells the company's edge over traditional import and ToT dependent DPSUs and private sector players. It helps the company procure single vendor orders.

COMPANY OVERVIEW

Data Patterns (DP) is a vertically integrated Defence and Aerospace electronics solutions provider catering to the indigenously developed defence products industry. DP caters to the entire spectrum of defence and aerospace platforms like space, air, land, sea and under-sea. It has design capabilities across the entire spectrum of strategic aerospace and defence electronics solutions including processors, power, radio frequency and microwave equipment, embedded software etc.

Exhibit 1: Product Categories

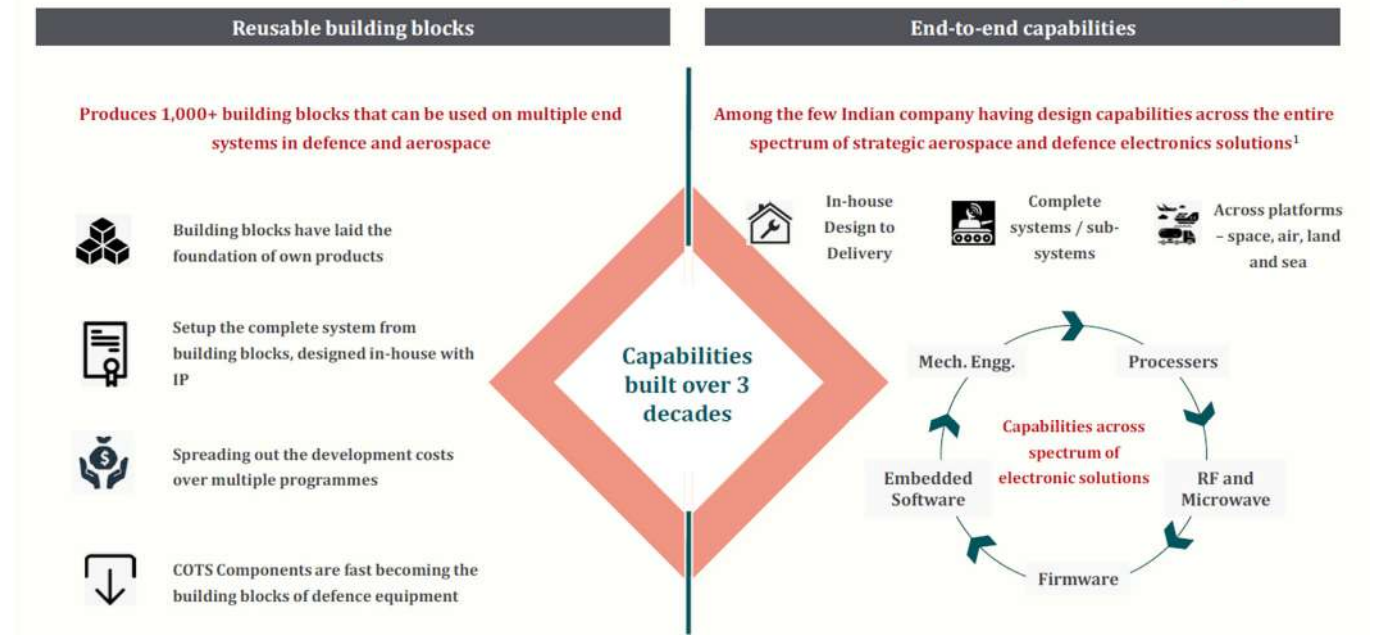
Product	Demonstrated Capabilities	Potential Opportunity
Satellite	<ul style="list-style-type: none"> ▪ Designed and launched compete satellite in India ▪ Capabilities to design payloads like ESM, Imaging (RF and ESM), ▪ Comprehensive exposure to Ground stations including Radars and Command control, high speed communication links, etc. ▪ Implemented capabilities for large satellites 	<ul style="list-style-type: none"> ▪ Large market for Defence and LEO satellites (Domestic as well as International) ▪ Focus on Micro Satellites ▪ Being Made in India – its cost effective
Radars	<ul style="list-style-type: none"> ▪ Designed building blocks to complete radars systems in India ▪ Re-use already developed building blocks to meet timelines ▪ Building Blocks in Signal Processing, Antenna, Transmit/Receive modules, etc. ▪ VHF, S, C and X Band, Gimbal, algorithms, Radar display, consoles, etc 	<ul style="list-style-type: none"> ▪ Focus on Fire Control Radars, X-Band Radars and smaller Radars for UAVs ▪ Cost competitive with in-house IP ▪ Export Potential
Electronic Surveillance & Monitoring	<ul style="list-style-type: none"> ▪ Developed state of the art ESM Receivers from 1MHz to 40GHz ▪ Both COMINT and ELINT including DF can be used in <ul style="list-style-type: none"> ○ Truck Mounted Systems / UAV Based ESM Systems ○ POD based jammers / Comm Jammers / Stand Off Jammers 	<ul style="list-style-type: none"> ▪ Potential large market with future tenders ▪ Requirement across Army, Air Force and Navy
Communication Systems	<ul style="list-style-type: none"> ▪ Developed SDR Platform for <ul style="list-style-type: none"> ○ Fighter Aircrafts ○ Radio Relay for Airborne Platforms/UAVs ○ Radio Relays 	<ul style="list-style-type: none"> ▪ Military Radars, Radio Relays, etc. are being procured under emergency Fast Track procurement ▪ Large volume requirements ▪ Requirement across Army, Navy and Air Force

Exhibit 2: Key Products manufactured and delivered

Product	Details
Monopulse RF Seeker	Delivered prototypes to DRDO
X-Band Doppler Weather	Prototype installed in Chennai for meteorology department
205MHz Wind Profile Radar for CUSAT	Installed at Cochin for a government owned university
Radar for Naval Utility Helicopter	Prototype delivered to LRDE
A Next-Generation Software Radio for fighter aircrafts	Prototype developed for DEAL
A Next-Generation Radar Warning Receiver for fighter aircrafts	Prototype developed for DLRL
A Next-Generation COMINT	Prototype developed for DLRL
Precision Approach Radar	Delivered to AF
Nano Satellite	Being delivered to industry
Power PC Card	190 nos delivered to HAL
WBLRU	Delivered to DRDO

Source: Company, YES Sec

Exhibit 3: Competencies and Capabilities



Source: Company, YES Sec

Exhibit 4: Manufacturing Infrastructure



Source: Company

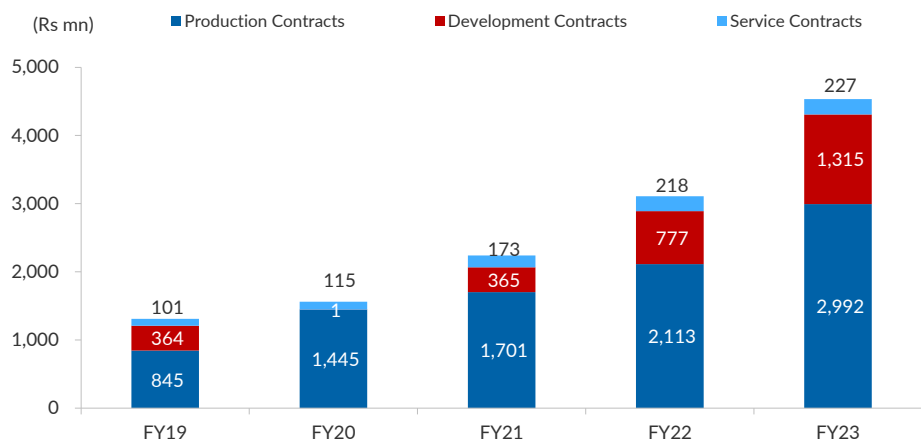
Exhibit 5: Management Team Profile

Mr. Srinivasagopalan Rangarajan (Promoter, Chairman & Managing Director)	More than 3 decades of experience in business development, corporate affairs, finance and marketing. B.Tech in Chemical Engineering from University of Madras, M.S from IIT, Madras
Ms. Rekha Murthy Rangarajan (Promoter, Whole Time Director)	More than 2 decades of experience in administration, facility maintenance, HRD, process engineering and special projects. B.A from Bangalore University, M.A in applied Psychology from Madras University
Mr. Venkata Subramanian Venkatachalam (Chief Financial Officer)	More than 2 decades of experience in finance sector. B.Com from Madurai Kamaraj University, Member of ICAI
Mr. Vijay Ananth K (Whole Time Director, COO and Chief Information Security Officer)	More than 2 decades of experience in software engineering and product management. BCS from Manomanian Sundaranar University and master's degree in computer applications from the University of Madras
Mr. Desinguraja Parthasarathy (Chief Technology Officer)	32 years' experience in product development. B.E from University of Madras
Mr. Thomas Mathuram Susikaran (SVP – Business Development)	21 years of experience in Business Development and marketing. B.E from Madurai Kamaraj University and a Masters' degree of tech in electrical engineering, IIT – Madras
Mr. Prakash R (Company Secretary and Compliance Officer)	More than 10 years of secretarial and legal expertise in listed entities. Post Graduate Law Professional and Member of ICSI

Source: Company, YES Sec

Revenue garnered through a mix of development, production and service contracts

Exhibit 6: Data Patterns revenue model includes development contracts which are smaller in size but pave the way for larger production contracts. In addition, it also garners ~5% through services.



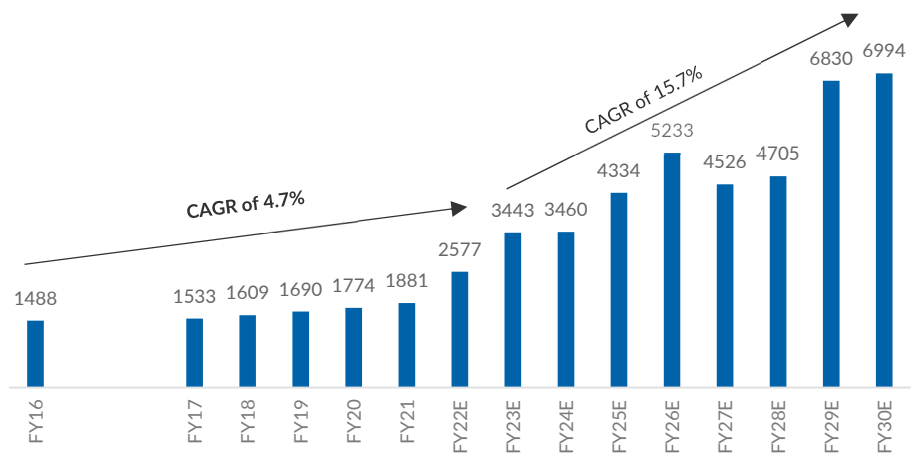
Source: Company, YES Sec

Indian defense electronics industry: expected to grow at a CAGR of ~16% over 2021-30

The defense electronics market grew at a CAGR of 4.5% over 2016-2020 to ~\$1.88bn in 2021 and growth is expected to accelerate at a CAGR of 15.7% over FY21-30 with a cumulative opportunity of \$44bn. The growth is expected to be driven by (1) Increased share of defense electronics in equipment/platforms (2) Platform recapitalization programs and, (3) Modernization efforts.

Currently, defense electronics make up ~25-35% of the cost of platforms and 60% of the components are sourced from foreign OEMs. Given the increasing role of network centric warfare, EW, and advanced C4ISR, the share of electronics is expected to inch upward going forward. Also, an increasing preference for domestic procurement, with a minimum of 50% indigenized content in majority of the procurement models (DAP – 2020) is expected to clock strong revenue growth for the domestic industry.

Exhibit 7: India Defense electronics market (\$M)



Source: DP RHP, YES Sec

Exhibit 8: Programmes driving defense electronics opportunity

Programme Name	Defense electronics opportunities (\$B)
UAS procurement by IAF	1.4
Rotary Wing Procurement by the IAF and Navy	1.9
IFV/APC Procurements by the Indian Army	3.6
Command and Control/Tactical Communications Modernization	5.1
Combat Aircraft Procurement by the IAF and Indian Navy	7.9
Total	19.9

Majority of the industry sub-segments likely to clock double digit CAGR over 2021-30

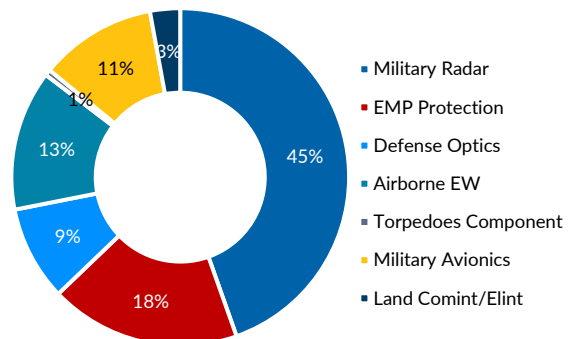
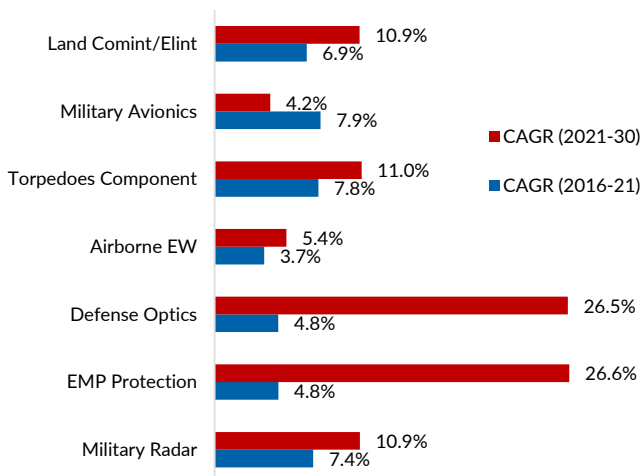
The electronics industry can be sub-divided into seven major areas based on functionality with military radars, Electromagnetic Pulse Protection (EMP), Airborne EW forming over 75% of the total industry followed by Military Avionics (11%), Defense Optics (9%), land comint/elint (3%) and torpedoes component (1%). Apart from military avionics and airborne EW, each of the sub-segments are expected to clock a CAGR in the range of 10-27% over 2021-30.

Military Radar

The military radar market has grown at a CAGR of 7% over FY16-20 to \$1.25bn in 2021 with growth expected to accelerate at a CAGR of ~11% over FY21-30. Significant radar modernization and upgrades opportunity in naval fleets (133 fleet size) and airfield are expected to drive growth going forward. New procurements for precision approach radars are expected to modernize airfield, with radars older than 20 years to be gradually phased out over the next decade. In addition, new radar procurements to counter evolving missile threats in strategic locations have led to increased procurements of multi-band, AESA (Active Electronically Scanned Array) radars. Also, Naval vessel upgrades such as the Talwar-class frigates, procurement of additional Shivalik-class frigates and replacement of the Godavari-class will drive radar procurements.

Exhibit 9: Strong growth expected across major defense electronics components

Exhibit 10: Military radar and EMP protection add up to more than 60% of defense electronics industry



Source: DP RHP, YES Sec

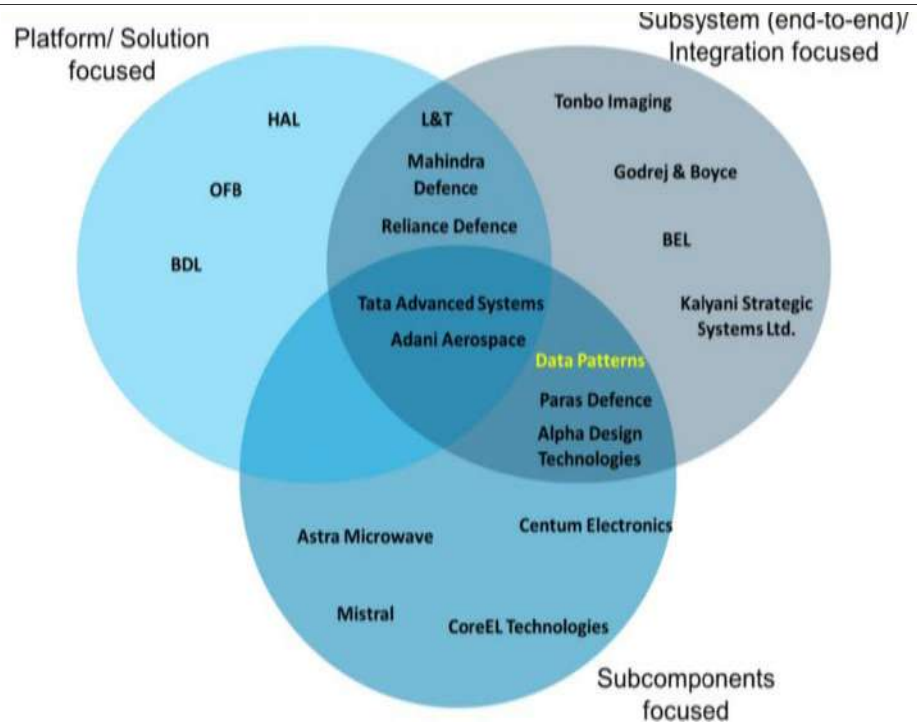
Source: DP RHP, YES Sec

Strong policy push towards more private industry participation in defense R&D

There has been a strong policy push towards increased participation of private players in defense research and manufacturing involving not just the larger players (L&T, Bharat Forge, Tata, Adani, Mahindra etc.) but also smaller players including MSMEs and start-ups.

DRDO, the research arm of the Indian defense sector has involved significant private sector participation in the last few years with (1) Adopting Development cum Production Partner (DcPP) model for the industry players, (2) Opening test facilities for the industry for utilization, (3) Free access to DRDO patents, (4) Opening up of defense R&D for private industry, start-ups and academia with 25% of Defense R&D budget earmarked for the same.

Exhibit 11: Indian Defence Suppliers – Anticipated Future Positioning



Source: Company, YES Sec

TAM likely to grow multi-fold in medium term following company's enhanced capabilities as a complete system integration provider

DP intends to become a complete system integration provider for larger multi-ton radars, truck mounted equipment and other systems. After successfully building complete radar systems for (1) Department of space (tracking radars) and (2) Coastal Surveillance Radar and, (3) Wind Profile Radar over the last 10-15 years, the company bagged its first large complete radar order for **Precision Approach Radar** from MoD for delivering 9 radars at a cost of INR 2.54bn and INR 1.26bn pertaining to service, maintenance, and AMC in subsequent years.

It has expanded its manufacturing capabilities in its Chennai plant putting in place a large systems integration hangar, additional test facility and augmented environmental test infrastructure for complete radar integration and electronic warfare vehicle integration.

The company targets an inflow of Rs 20-40bn in the next three years from its existing product portfolio. A larger capacity for system integration would help the company bid for (1) direct tenders from MoD which are multi-fold compared to the projects it caters to currently which are primarily from DRDO and some smaller orders from DPSUs and (2) Exports (currently 5-6% of revenue).

Exhibit 12: Manufacturing facility at Chennai, India

Manufacturing facility at Chennai, India



← Expansion →

← Existing Facility Enhancement →

- | | |
|---|--|
| <ul style="list-style-type: none"> • Large Systems Integration Hangar • Complete Radar Integration • Electronic Warfare Vehicle Integration • Additional Test Facility • Augmented Environmental Test Infrastructure | <ul style="list-style-type: none"> • Augmented Design & Development Facility • Additional Space For Design and Development Resources • Clean Room for Satellite Integration • Additional EMS Line • Multi Ton material handling |
|---|--|



EMS Line



Multizone Reflow Oven



X ray inspection system

Source: Company, YES Sec

Defense modernization programmes: key growth driver in near-to-medium term

Defense modernization budget has grown at a CAGR of 11.4% over FY19-24BE to INR 1.63trn. Several projects under the capital outlay would be towards upgradation of existing platforms and 75% of the budget is earmarked for domestic procurement (up from 68% in FY23). DP is expected to be a key player with its strong presence in the defense electronics segment providing its products and solutions across land, sea and air platforms.

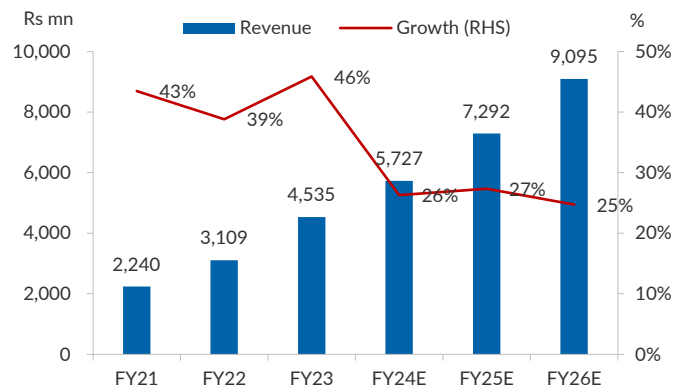
Exhibit 13: Major defense modernization programs and its revenue potential for DP

Defense modernization programs	Data Pattern Role	Expected Revenue Contribution (\$mn)
Arudhra Radar	Supply of ~55 units of AGRU	\$20
Ashwini LLTR	Supply of TR modules, AGRU, Signal Processor etc. Partner in development as a single vendor	\$10-30
Dharashakti programme	Received single vendor orders from DLRL for COMINT search receivers, Direction Finder and Monitoring Receivers. In position to be an OEM for entire receiver systems	\$50
MI 17 Upgrades, Dornier Upgrades, Aerostat upgrades	Airborne COMINT and ELINT for various upgrades of new rotary wing programmes	NA
Airborne surveillance radar	Delivered an airborne surveillance radar to LRDE. It is likely to be inducted in Navy's Dornier Upgrade and new helicopter programmes	NA
Radar Warning Receivers	Part of Radar Warning Receivers for the Airborne Early Warning System to DLRL fitted on the Embraer early warning radar	NA
Light weight EW requirements	Supplying products for Light Weight EW products required in mountainous borders	NA
Next gen completely wide open for LCA Mk-1A	Likely to deliver Radar Warnings receivers, Cockpit displays for LCA MkIA and Sukhoi 30 platforms	NA

Source: Company, YES Sec

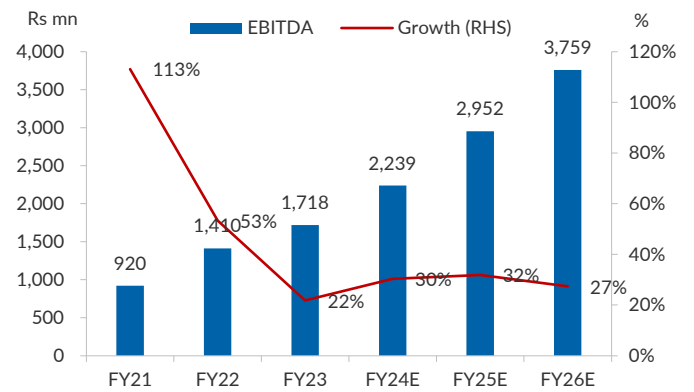
FINANCIALS

Exhibit 14: Revenue expected to grow at a CAGR of ~26% over FY23-26



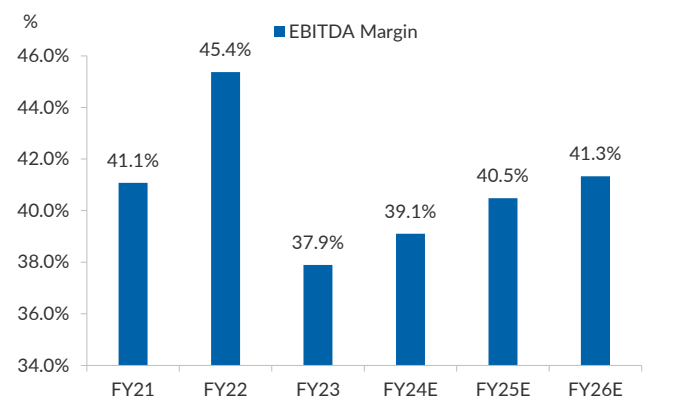
Source: Company, YES Sec

Exhibit 15: EBITDA expected to grow at a CAGR of 30% over FY23-26



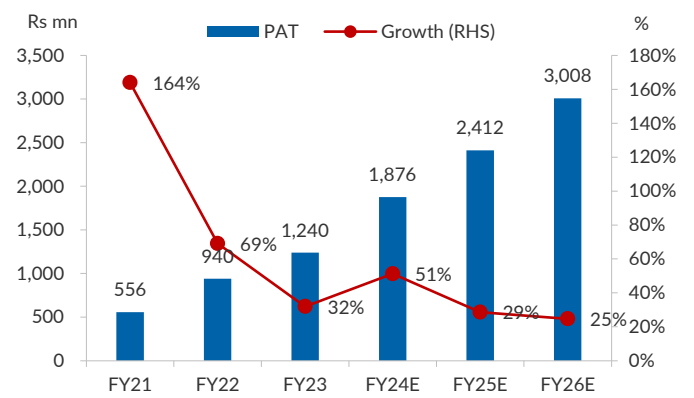
Source: Company, YES Sec

Exhibit 16: EBITDA margin expected to inch up to 41% in FY26E



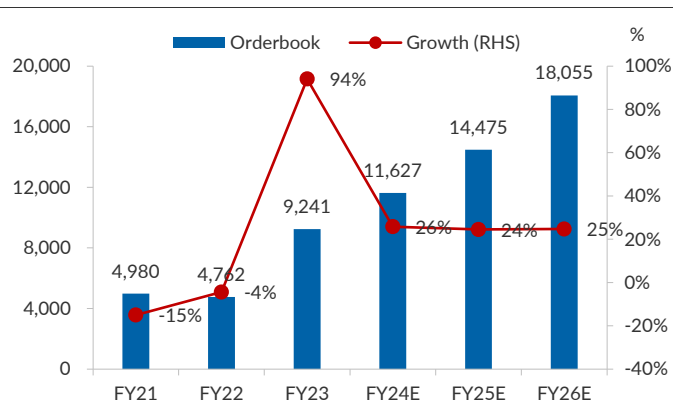
Source: Company, YES Sec

Exhibit 17: PAT growth to be driven by strong revenue performance and EBITDA expansion



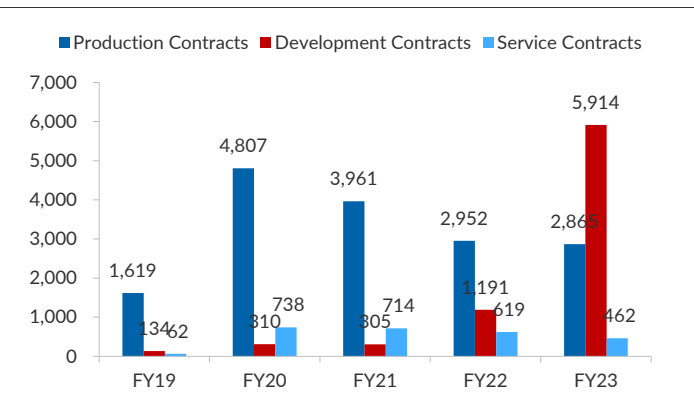
Source: Company, YES Sec

Exhibit 18: Orderbook growth expected to be driven by increased order inflows



Source: Company, YES Sec

Exhibit 19: Increased orderbook for developmental contracts expected to translate into higher production revenue



Source: Company, YES Sec

VALUATION & VIEW

Data Patterns' strong in-house technology led manufacturing expertise, its building block reusable model and strong track record of innovation in the defense electronics space augurs well for the company particularly in an environment of increased domestic procurement by the MoD. The company is expected to remain in the high growth phase in the next few years led by a sharp order inflow translating into higher revenue. Although the business prospects remain strong, we also highlight caution from a valuation point of view as the development risks remain large in the defense landscape. We assign a NEUTRAL rating with a target price of Rs2,150 based on 40x FY26E earnings.

FINANCIALS

Exhibit 20: Balance Sheet (Standalone)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Sources of Funds					
Equity capital	104	112	112	112	112
Reserves	5,641	11,559	13,154	15,259	17,930
Non Minority Controlling Int.	0	0	0	0	0
Net worth	5,745	11,671	13,266	15,371	18,042
Debt	68	7	7	7	7
Deferred tax liab (net)	-	(3)	(3)	(3)	(3)
Total liabilities	5,813	11,675	13,271	15,375	18,047
Application of Funds					
Gross Block	617	1,340	1,590	1,990	2,390
Depreciation	155	240	431	669	956
Fixed Asset	475	1,120	1,180	1,341	1,454
CWIP	173	14	14	14	14
Investments	0	557	557	557	557
Net Working Capital	5,157	9,984	11,521	13,464	16,022
Inventories	1,198	1,930	2,196	2,697	3,364
Sundry debtors	1,983	3,825	4,393	5,194	6,230
Cash & equivalents	1,771	5,445	6,387	7,198	8,286
Loans & Advances	1,267	1,050	1,002	1,276	1,592
Other Current Asset	193	406	401	510	637
Sundry creditors	382	431	628	799	997
Provisions	244	134	241	306	382
Other current liabilities	629	2,107	1,991	2,306	2,707
Total Assets	5,805	11,675	13,271	15,375	18,047

Source: Company, YES Sec

Exhibit 21: Income statement (Standalone)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Revenue	3,109	4,535	5,727	7,292	9,095
% Change YoY	38.8	45.9	26.3	27.3	24.7
Operating profit	1,410	1,718	2,239	2,952	3,759
EBITDA margins	45.4	37.9	39.1	40.5	41.3
% Change YoY	53.3	21.8	30.3	31.8	27.4
Depreciation	66	85	191	239	287
EBIT	1,344	1,634	2,048	2,713	3,473
EBIT margins	43.2	36.0	35.8	37.2	38.2
Interest expense	110	77	2	2	2
Other income	40	92	458	510	546
Profit before tax	1,274	1,648	2,505	3,221	4,016
Taxes	334	408	629	809	1,009
Effective tax rate (%)	26.2	24.8	25.1	25.1	25.1
Net profit	940	1,240	1,876	2,412	3,008
Minorities and other					
Net profit after minorities	940	1,240	1,876	2,412	3,008
Exceptional items	0	0	0	0	0
Net profit	940	1,240	1,876	2,412	3,008
% Change YoY	69.1	32.0	51.3	28.6	24.7
EPS (Rs)	18.1	22.1	33.5	43.1	53.7

Source: Company, YES Sec

Exhibit 22: Cash Flow Statement

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Profit before Tax	1,274	1,648	2,505	3,221	4,016
Interest	110	77	2	2	2
Depreciation	66	85	191	239	287
Other Items	(40)	(36)	(458)	(510)	(546)
(Inc)/Dec in WC	(624)	(1,412)	(595)	(1,132)	(1,470)
Direct Taxes Paid	284	534	629	809	1,009
CF from Oper. Activity	503	(172)	1,015	1,010	1,280
(Inc)/Dec in FA	(382)	(395)	(250)	(400)	(400)
Free Cash Flow	885	223	1,265	1,410	1,680
(Pur)/Sale of Invest.	(796)	(3,437)	458	510	546
CF from Inv. Activity	(1,178)	(3,832)	208	110	146
Change in Networkth					
Inc/(Dec) in Debt	(265)	(60)	-	-	-
Interest Paid	(89)	(71)	(2)	(2)	(2)
Dividends Paid	(111)	(182)	(252)	(280)	(308)
Others	2,823	4,694	(202)	(222)	(244)
CF from Fin. Activity	2,359	4,381	(456)	(504)	(554)

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Inc/(Dec) in Cash	1,683	377	768	617	872
Opening cash Balance	88	1,771	2,148	2,916	3,532
Others	-	-	-	-	-
Closing cash Balance	1,771	2,148	2,916	3,532	4,404

Source: Company, YES Sec

Exhibit 23: Du-pont Analysis

Y/e 31 Mar (Rs mn)	FY22	FY23	FY24E	FY25E	FY26E
Tax burden (x)	3.0	3.0	2.4	2.5	2.6
Interest burden (x)	0.2	0.3	0.3	0.3	0.3
EBIT margin (x)	0.4	0.4	0.4	0.4	0.4
Asset turnover (x)	0.5	0.4	0.4	0.5	0.5
Financial leverage (x)	1.0	1.0	1.0	1.0	1.0
RoE (%)	17.3%	10.5%	11.6%	13.2%	14.4%

Source: Company, YES Sec

Exhibit 24: Ratio Analysis

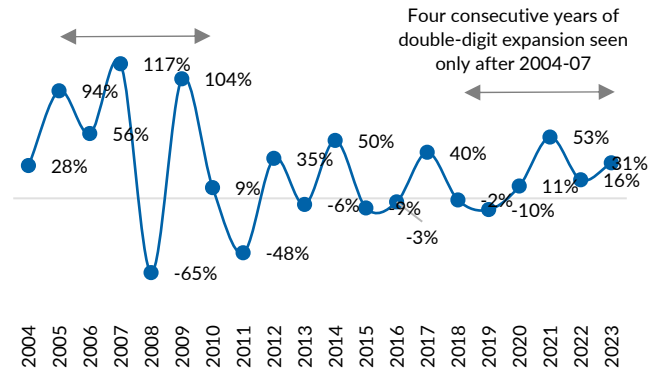
Y/e 31 Mar	FY22	FY23	FY24E	FY25E	FY26E
Basic (Rs)					
EPS	18.1	22.1	33.5	43.1	53.7
Dividend per share	3.5	4.5	5.0	5.5	6.0
Cash EPS	19.4	23.7	36.9	47.4	58.8
Book value per share	111	208	237	275	322
Div. payout (%)	0%	0%	0%	0%	0%
Valuation ratios (x)					
P/E	112.6	92.1	60.9	47.3	38.0
P/CEPS	105.2	86.2	55.2	43.1	34.7
P/B	18.4	9.8	8.6	7.4	6.3
EV/EBIDTA	66.4	58.4	48.1	36.2	28.2
Dividend yield (%)	112.6	92.1	60.9	47.3	38.0
Profitability Ratios (%)					
RoIC	19.0	12.1	13.5	15.0	16.1
RoE	17.3	10.5	11.6	13.2	14.4
RoCE	17.1	10.5	11.6	13.2	14.4
Liquidity ratios					
Debtor (days)	233	308	280	260	250
Inventory (days)	141	155	140	135	135
Creditor (days)	45	35	40	40	40
Net working Capital (days)	10	5	4	-	-
Asset Turnover (x)	0.8	0.5	0.5	0.5	0.5

Source: Company, YES Sec

SECTOR OUTLOOK

Exhibit 1: BSE Capital Goods Index: only the second instance of four consecutive years of expansion, after 2004-07

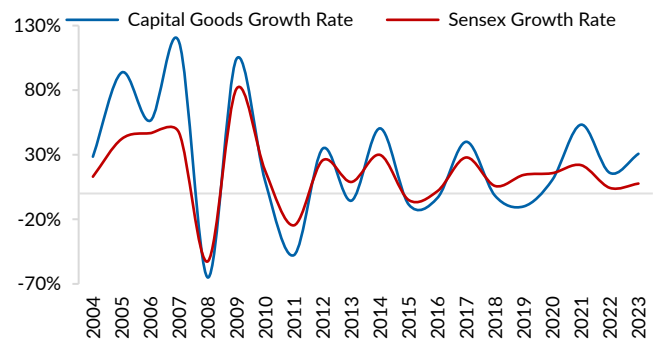
- The BSE Capital Goods Index expanded for the fourth consecutive year in FY23(+31%)
- In last 20 years, this is the second instance when expansion in the index has seen more than two years of consecutive growth.
- The only prior span when the index grew for 4 consecutive years was 2004-2007.
- Sharp quantum of growth in the 2004-07 period with an average four-year growth of 74%.
- Current cycle average expansion at a relatively moderate pace of 28%.



Source: Company, YES Sec

Exhibit 2: Sharp outperformance vs Sensex in the last three years

- BSE Capital Goods Index has tended to underperform Sensex in the years of growth deceleration.
- This is evident in the years of 2008, 2011, 2013, 2015, 2018.
- However, the index has shown sharp outperformance in the last three years.
- It has also bucked its trend of underperformance in a year of growth deceleration (in FY22).

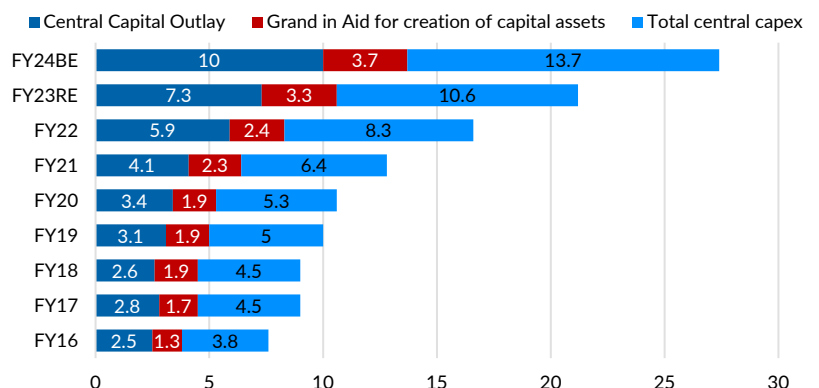
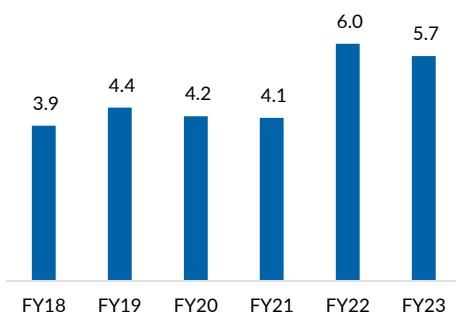


Source: Company, YES Sec

Exhibit 3: Demand drivers –Surge in government capital expenditure (both central and state)

- Strong capex spending by both central and state governments including PSUs has led to strong demand creation in the capital goods sector in the last two years.
- State government capex has grown at a CAGR of 17.4% over FY21-23 against 2% over FY18-21.
- Central government has grown at a CAGR of 29% (including grants) over FY21-23 against 12% over FY18-21.
- Centre's capital outlay (ex-grants) rose at 37% for FY24BE.
- Key sectors driving FY24BE capex include Road Transport and Highways, Railways, and Defense.

Sharp jump in capital spending by states in FY22 and FY23

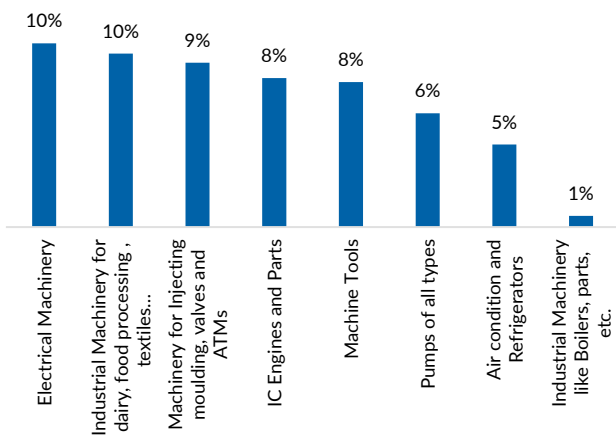


Source: RBI, YES Sec

Exhibit 4: Demand drivers –Exports – Strong infra investments in US and UAE likely growth drivers

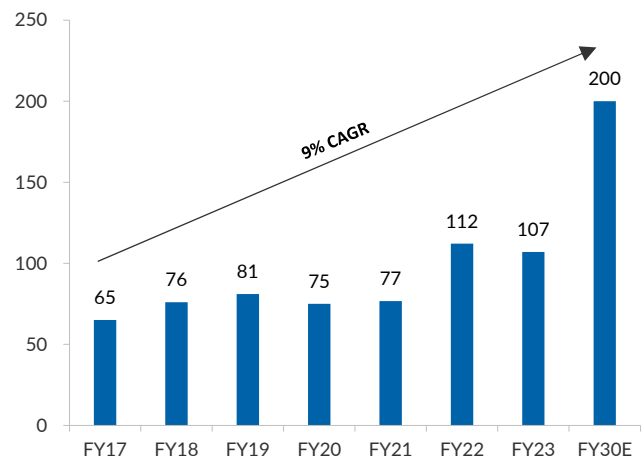
- Capital Goods Sector recorded a strong exports growth of 9% CAGR over FY18-23.
- Most sub-categories recorded CAGR of 8% or above except for Pumps, AC & Refrigerators and Industrial Machinery like boilers etc.
- Top 5 destinations of industrial machinery in FY23 were USA, Germany, Thailand, China, and UAE.
- China and Thailand witnessed de-growth of 4% and 10% respectively.
- US and UAE posted 14% and 26% growth respectively in infrastructure investments.
- Europe and China likely to witness tepid demand on account of weak economic activity

Capital Goods Exports CAGR of 9% over FY18-23



Source: EEPC, YES Sec

Engineering exports from India (USD bn)



Source: EEPC, YES Sec

POLICY DRIVERS

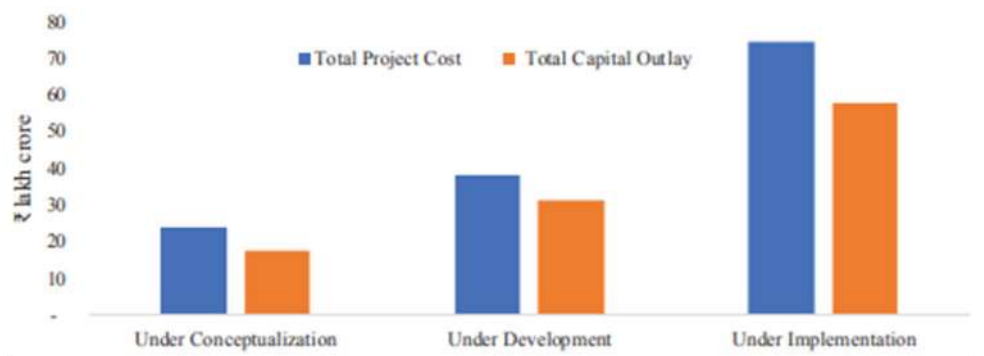
National Capital Goods Policy

The policy envisages increasing production of capital goods from ~Rs. 230,000 Cr in 2014-15 to Rs. 750,000 Cr in 2025 and raising direct and indirect employment from the current 8.4 million to ~30 million. It envisages **increasing exports from the current 27% to 40%** of production while increasing share of domestic production in India's demand from **60% to 80%**, thus making India a net exporter of capital goods. The policy also aims to facilitate improvement in technology depth across sub-sectors, increase skill availability, ensure mandatory standards and promote growth and capacity building of MSMEs.

National Infrastructure Pipeline: Potent arrow in the government's quiver

- With a view to stimulate investment-led growth and meet its stated target of a USD5trn economy, the government announced the National Infrastructure Pipeline in 2019 where it seeks to invest a **total of Rs111trn over FY19-FY25** spread across ~9,200 projects. However, the outbreak of the pandemic has pushed it back by nearly 2 years.
- Currently, ~60% of the NIP is under implementation. On expected lines, a significant chunk of the NIP is allocated towards traditional sectors such as energy (~24%) while roads and railways have a combined share of ~31%. Notably, urban infra has a ~17% allocation which augurs well for allied areas of real estate, transportation and consumption.
- Power demand is expected to grow at ~7% on account of factors such as rising urbanization, industrial demand, higher electrification, etc. Additionally, the government's target of 500GW renewable energy capacity by 2030 will require a substantial greenfield expansion on both generation and transmission side to evacuate the power generated to the site of consumption.
- Notwithstanding the need to reduce emissions and promote green energy, thermal will continue to play a key role in India's energy mix till the time new-age technologies such as green hydrogen, and battery storage achieve a critical mass and become economically viable. Recognizing this, the NIP envisages a cumulative investment of ~Rs14trn till FY25 on conventional energy.
- Accordingly, while the ecosystem of generation and T&D infra like switchgears, transformers, substations, towers, cables, etc will see a strong tendering pipeline, with stringent emission norms, players engaged in flue gas desulphurization, coal gasification, waste heat recovery, etc will also be the key beneficiaries.

Exhibit 5: NIP progress chart



Source: Department of Economic Affairs

Note: Data of January 13, 2023

Exhibit 6: Sector-wise allocation of NIP fund

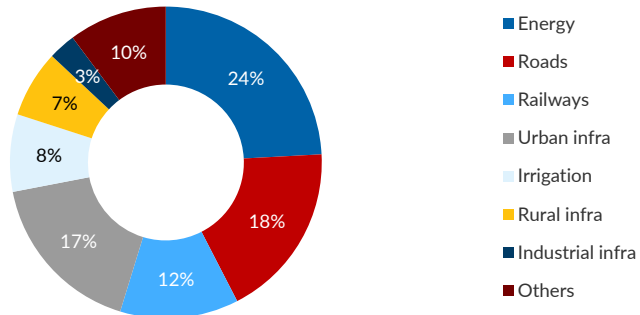


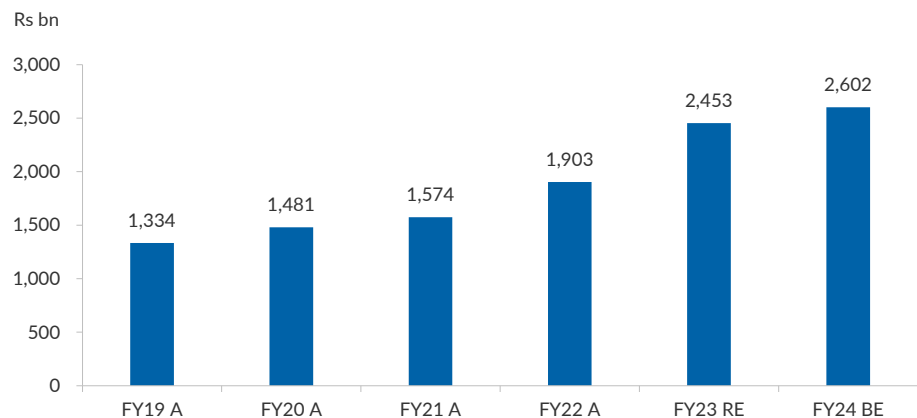
Exhibit 7: Sector-wise outlay in absolute terms

	Rs bn
Energy	26,900
Roads	20,338
Railways	13,676
Urban infra (Smart cities, Affordable housing, JJM)	19,193
Irrigation	8,945
Rural infra	7,739
Industrial infrastructure	3,150

Railways capex

- The Government has made its highest ever budgetary capital outlay in the FY24 Budget towards Railways at ~Rs2.4trn. Indian Railways has prioritized infrastructure development in the past few years which is evident from capital outlay growth of 14% CAGR over FY19-FY24E. There has been a quantum jump in doubling of lines, addition of new lines, electrification projects, etc which will serve to lay the groundwork for investment in rolling stock, wagons, etc which has also seen a very healthy jump in terms of budgetary allocation.
- As can be seen in the table below, a huge chunk of the outlay has been earmarked towards procurement of wagons and rolling stock in the FY24 budget while the momentum on electrification, signalling, track laying continues to be very robust.

Exhibit 8: Railways capex outlay



Source: Company, YES Sec

Exhibit 9: Segment-wise budget allocation

Rs bn	FY19 A	FY20 A	FY21 A	FY22 A	FY23 RE	FY24 BE
New Lines	56	99	11	208	249	319
Doubling	6	7	4	87	241	307
Rolling Stock	46	40	8	135	237	475
Track Renewals	97	94	0	166	154	173
Signalling and Telecom	15	16	0	21	24	42
Electrification Projects	(0)	0	0	0	2	81
Metropolitan Transportation Projects	12	15	3	25	35	50

Source: Company, YES Sec

Exhibit 10: Physical targets

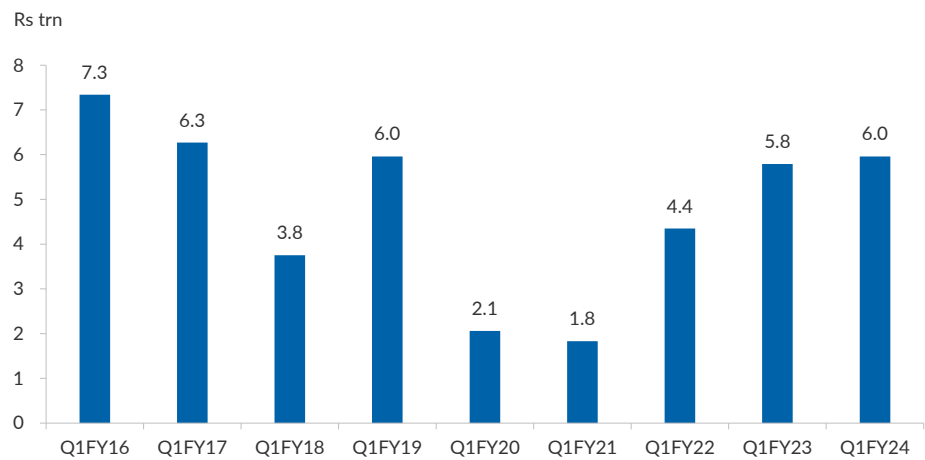
Physical targets	FY19 Actual	FY23 RE	FY24 BE
Construction of New Lines (route km)	479	200	600
Gauge conversion (Route Km)	597	100	150
Doubling of Lines (Route Km)	2,519	2,200	2,800
Rolling stock (Diesel Locomotives)	129	100	100
Rolling stock (Electric Locomotives)	625	1,290	1,290
Coaches	6,074	7,520	6,978
Wagons (vehicle units)	9,595	21,000	26,000
Track Renewals (Track km)	4,181	4,200	4,800
Electrification Projects (Route km)	5,276	6,500	6,500

Private Sector capex: Size, Scope, and Hope

After an elaborate summary of growing government capex, here is a snapshot of the private sector investment outlook given the ample scope for transforming the capex cycle from being short lived to becoming more protracted and sustainable.

According to the CMIE database, new project announcements have seen a U-shaped recovery in Q1FY24, though they remain below those announcements made which were made in Q1FY16 and Q1FY17. This only indicates a pickup from lower levels and announcements in subsequent quarters could be something to watch out for.

Exhibit 11: New projects announced

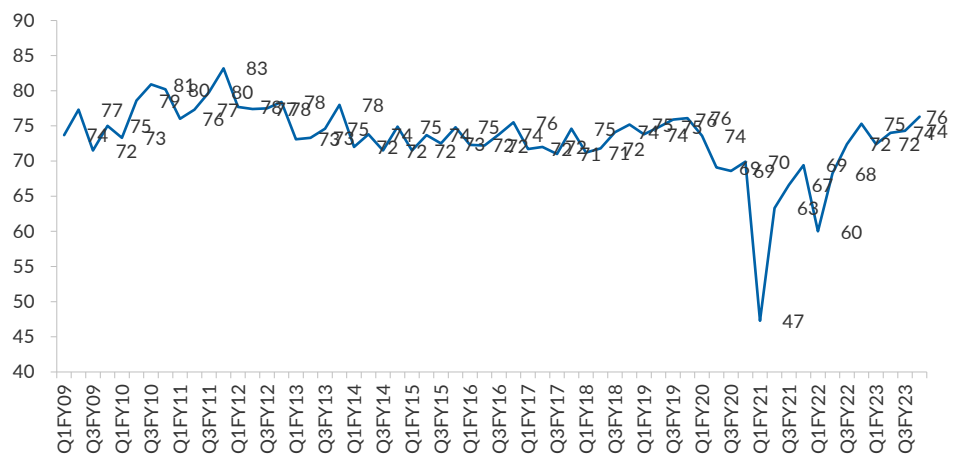


Source: Company, YES Sec

Increasing Capacity Utilization levels

After plunging to 47.3% in Q1FY21 during Covid, the aggregate capacity utilization for manufacturing companies saw sharp sequential improvement recording a decadal high in Q4FY23 of 76.3% while the seasonally adjusted utilization for Q4FY23 remained stable at 74.1%.

Exhibit 12: Q4FY23 capacity utilization of 76.3% is highest since Q4FY13



Source: RBI, YES Sec

Incentivized domestic manufacturing investments through PLI schemes

The Production Linked Incentive (PLI) schemes, launched for 14 sectors so far, incentivizes domestic production and investment. It has the potential of attracting both foreign and domestic capital and would benefit a lot of allied domestic sectors. So far, 733 applications have been approved in 14 Sectors **with an expected investment of Rs3.6tn**. 176 MSMEs are among the PLI beneficiaries in sectors such as Bulk Drugs, Medical Devices, Pharma, Telecom, White Goods, Food Processing, Textiles & Drones.

Some of the sectors which saw significant increase in FDI inflows in FY23 include Drugs and Pharmaceuticals (+46%), Food Processing Industries (+26%) and Medical Appliances (+91%). Incentive amount of ~Rs29bn has been disbursed in FY23 under PLI schemes for 8 sectors - Large-Scale Electronics Manufacturing (LSEM), IT Hardware, Bulk Drugs, Medical Devices, Pharmaceuticals, Telecom & Networking Products, Food Processing and Drones & Drone Components.

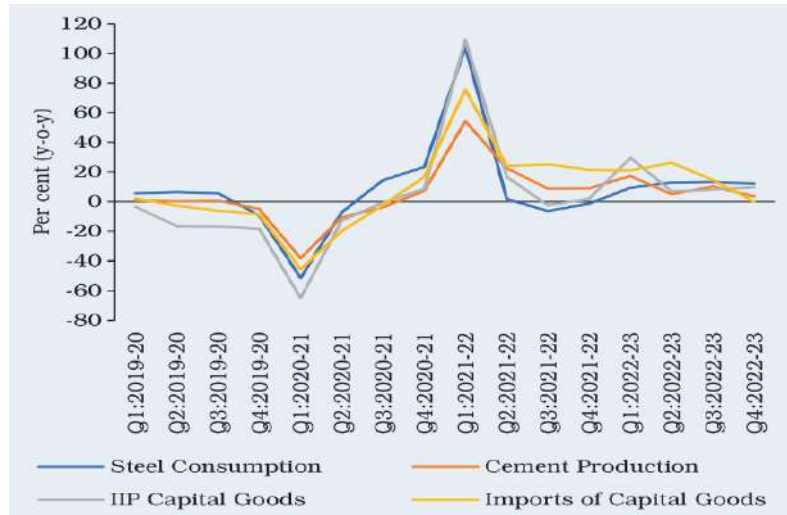
Sector specific breakthroughs

Several major smartphone companies have shifted its suppliers to India such as Foxconn, Wistron and Pegatron. This has resulted in manufacturing set up of high-end phones and the value addition has reached ~20%. Import substitution of 60% has been achieved in the Telecom sector and India has become almost self-reliant in Antennae, GPON (Gigabit Passive Optical Network) & CPE (Customer Premises Equipment). Drones sector has seen 7 times jump in turnover due to the PLI Scheme which consists of all MSME Startups. Also, there has been a significant reduction in imports of raw materials in the Pharma sector. Unique intermediate materials and bulk drugs are being manufactured in India including Penicillin-G, and transfer of technology has happened in manufacturing of Medical Devices such as (CT scan, MRI etc.).

Exhibit 13: Snapshot of PLI schemes

Sector	Incentive Outlay (Rs bn)	Details
Auto & Auto Components	259	~Financial incentives of up to 18% based on domestic production from April 1, 2022 for a period of 5 consecutive years ~Attracted proposed investment of ~Rs749bn
Aviation	1	PLI rate is 20% of the value addition
Chemicals	181	~Scheme for setting up manufacturing facilities for Advance Chemistry Cell (ACC), Battery Storage in India, with a total manufacturing capacity of 50 GWh for 5 years. ~The production-linked subsidy is based on applicable subsidy per KWh and percentage of value addition achieved on actual sale for manufacturers who set up production units with a capacity of at least 5 GWh up to a maximum of 20GWh
Large Scale Electronics Manufacturing and IT Hardware	556	Enhancing India's manufacturing capabilities and exports
Food Processing	109	Likely to facilitate expansion of food processing capacity by nearly Rs300bn
Medical Devices	34	A total of 26 projects have been approved, with a committed investment of Rs12bn to enable growth and innovation in the MedTech industry
Metals & Mining	63	PLI Scheme in specialty scheme is expected to generate an investment of ~Rs300bn with an additional capacity creation of about 25 MT of specialty steel in the next 5 years
Bulk Drugs and Pharmaceuticals manufacturing	219	~Under the PLI scheme for Bulk Drugs, the objective is to boost domestic production of 41 select critical bulk drugs in the country. ~PLI scheme for pharmaceuticals has garnered an investment of Rs162bn in the first year of implementation
High Efficiency Solar PV Modules	240	The second phase, launched on 21st September 2022, is expected to build 65 GW of annual manufacturing capacity
Green Hydrogen	197	Targets 5 MMT annual green hydrogen/ ammonia production by 2030
Telecom	122	Expected investment of \$450mn
Textiles and Apparel	107	~Scheme launched to promote production of MMF Apparel, MMF Fabrics and Products of Technical Textiles. ~Proposed total investment of Rs198bn
White Goods	62	Financial incentive to boost domestic manufacturing and attract large investments in the White Goods manufacturing value chain

Exhibit 14: Indicators of Investment Demand



Joint plant committee, Office of Economic Adviser, NSO and DGCI&S

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Investments in securities market are subject to market risks, read all the related documents carefully before investing.

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The analyst hereby certifies that opinion expressed in this research report accurately reflect his or her personal opinion about the subject securities and no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendation and opinion expressed in this research report.

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BUY: Upside greater than 20% over 12 months

ADD: Upside between 10% to 20% over 12 months

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