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Issue Details

Issue Details	
Issue Size (Value in ₹ million, Upper Band)	30,425
Offer for Sale (No. of Shares in Lakhs)	608
Bid/Issue opens on	22-Nov-23
Bid/Issue closes on	24-Nov-23
Face Value	Rs. 2
Price Band	475-500
Minimum Lot	30

Objects of the Issue

- Offer for sale: ₹ 30,425 million**
Achieve the benefits of listing the Equity Shares on the Stock exchanges.

Book Running Lead Managers	
JM Financial Limited	
Citigroup Global Markets India Private Limited	
Bofa Securities Limited	
Registrar to the Offer	
Link Intime India Private Limited	

Capital Structure (₹ million)	Aggregate Value
Authorized share capital	3507.0
Subscribed paid up capital (Pre-Offer)	4056.7
Paid up capital (post-Offer)	4056.7

Share Holding Pattern %	Pre-Issue	Post Issue
Promoters & Promoter group	66.8	55.4
Public - Selling shareholders	10.9	7.3
Public – Others	22.3	37.3
Total	100	100

Financials

Particulars (₹ In million)	H1FY24	FY23	FY22	FY21
Revenue from operations	25,267	44,142	35,296	23,809
Operating expenses	20,620	35,932	28,839	19,952
EBITDA	4,648	8,209	6,457	3,857
Other Income	607	878	488	448
Depreciation	497	946	857	922
EBIT	4,757	8,141	6,088	3,383
Interest	95	180	219	177
PBT	4,663	7,962	5,869	3,207
Exceptional items		-	-	54
Tax	1,144	1,721	1,499	761
PAT	3,519	6,240	4,370	2,392
Ratios	H1FY24	FY23	FY22	FY21
EBITDAM	18.4%	18.6%	18.3%	16.2%
PATM	13.9%	14.1%	12.4%	10.0%
Sales growth	NM	25.1%	48.2%	NM

Company Description

Tata Technologies Limited (“Tata Technologies”) was incorporated on August 22, 1994. Promoted by Tata Motors Ltd (“TML”), Tata Technologies is a leading global engineering services company offering product development and digital solutions including turnkey solutions to global OEMs and their Tier-1 suppliers. The company has deep domain expertise in the automotive industry and leverage this expertise to serve their clients in adjacent industries, such as in aerospace and transportation and construction heavy machinery (“TCHM”).

Tata Technologies is a pure-play manufacturing focused Engineering Research & Development (“ER&D”) company, primarily focused on the automotive industry and they are currently engaged with 7 out of the Top-10 automotive ER&D spenders and 5 out of the 10 prominent new energy ER&D spenders in 2022.

They leverage their deep manufacturing domain knowledge to deliver value added services to their clients in support of their digital transformation initiatives including product development, manufacturing, and customer experience management.

Company’s primary business line is services (“Services”), which includes providing outsourced engineering services and digital transformation services to global manufacturing clients helping them conceive, design, develop and deliver better products.

Tata Technologies complements their service offerings with their Products and Education businesses (collectively, “Technology Solutions”). Through their Products business they resell third-party software applications, primarily product lifecycle management (“PLM”) software and solutions and provide value added services such as consulting, implementation, systems integration and support.

Tata Technologies has a diversified global client base and as of September 30, 2023, they have 19 global delivery centres spread across North America, Europe and Asia Pacific.

They have established strong partnerships and alliances, such as with Dassault, Logility, Siemens Industry Software Inc., Codincity and Fantasy and by availing Microsoft AZURE products/services that augment their efforts and enable them to expand their client reach across verticals and geographies. They have also recently been empanelled by Airbus which is expected to become a strong avenue of growth.

Valuation & Outlook

Tata Technologies is the subsidiary of Tata Motors. Over the years, company had strong revenue and margin growth in the past.

Company is a leading global engineering services company with deep expertise in the automation industry. Its comprehensive portfolio of services for the automotive industry addresses the product development and enterprise optimization needs of traditional OEM’s and new energy vehicle companies, together with their associated supply chains.

At the upper price band company is valuing at P/E of 32.5x with a market cap of ₹202,830 million post issue of equity shares and return on net worth of 20.8%.

On the valuation front, we believe that the company is fairly priced. Thus, we recommend an “**Subscribe – Long Term**” rating to the IPO.

Company's Operations

Tata Technologies Limited ("Tata Technologies") is a leading global engineering services company offering product development and digital solutions, including turnkey solutions, to global original equipment manufacturers ("OEMs") and their Tier-1 suppliers. They endeavour to create value for their clients by helping them develop products that are safer, cleaner and improve the quality of life for their end-customers. The company has deep domain expertise in the automotive industry and leverage this expertise to serve their clients in adjacent industries, such as in aerospace and transportation and construction heavy machinery ("TCHM"). As a global organization, they bring together diverse teams from different parts of the world with multiple skill sets to collaborate in real time and solve complex engineering problems for their clients. The Company's globally distributed onshore-offshore service delivery capability helps them to suitably address clients' requirements. They leverage their deep manufacturing domain knowledge to deliver value-added services to their clients in support of their digital transformation initiatives including product development, manufacturing, and customer experience management.

Zinnov has estimated the global engineering, research and development ("ER&D") spend to be approximately \$1.81 trillion as of 2022 and expects it to grow to approximately \$2.67 trillion by 2026. The ER&D spend outsourced to third party service providers reached \$105 billion to \$110 billion in 2022 and is anticipated to grow at a 11-13% CAGR between 2022 and 2026. Key drivers for growth within the ER&D market, particularly the automotive market, include an increasing propensity to outsource services (following the COVID-19 pandemic), increased regulatory interventions for safer and cleaner products, shrinking product innovation cycles and next-generation product technologies that underpin autonomous, connected, electrification and shared ("ACES") technologies.

Additional growth drivers include a heightened focus on smart manufacturing, reducing product development time and cost, connecting the digital thread and enhancing customer experience. Typically, the TCHM industry lags behind the automotive industry by 3 to 5 years, but the demand for outsourced engineering services is driven by similar regulatory and technological challenges. While the aerospace industry has been disproportionately impacted by COVID-19, the sector has recently shown signs of recovery, largely driven by an increased focus on digitalization, sustainability and improving manufacturing throughput to meet increased demand. They intend to continue leveraging their strengths to address the opportunities in the ER&D industry generally and more specifically in the automotive, TCHM and aerospace industries.

Tata Technologies is a pure-play manufacturing focused ER&D company, primarily focused on the automotive industry and they are currently engaged with 7 out of the Top-10 automotive ER&D spenders and 5 out of the 10 prominent new energy ER&D spenders in 2022. Their automotive revenue attributable to the Services segment for Fiscal 2023 and the 6 months period ended September 30, 2023 was ₹3,131.47 crore and ₹1,745.76 crore, respectively, comprising 88.68% and 87.89% of their revenue attributable to the Services segment for the respective periods. Additionally, their revenue attributable to the Services segment from verticals other than automotive for Fiscal 2023 and the 6-months period ended September 30, 2023 was ₹399.69 crore and ₹240.63 crore, respectively, comprising 11.32% and 12.11% of their revenue attributable to the Services segment for the respective periods.

Company's domain expertise has also been recognized by industry bodies and external analysts. They are positioned in the "leadership zone" by Zinnov Zones for ER&D services ratings in 2023 for the 7th consecutive year. They are also ranked 1st among all India-based ER&D service providers and are among the Top-2 globally, in electrification. For automotive ER&D services, they are ranked 1st among India service providers and 3rd globally among rated service providers by Zinnov. In addition, they are also ranked in the "leadership zone" in the aerospace ER&D ratings in 2023 by Zinnov Zones and were ranked in the "leadership zone" for digital thread by Zinnov Zones in 2021. They are also ranked in the "established-expansive" zone in the 2023 rankings for Industry 4.0 by Zinnov Zones. Additionally, Frost & Sullivan recognized them as the 'Company of the Year' in 2020 for global digital solutions in the enterprise modernization industry.

Tata Technologies has a diversified global client base and in the 6-months period ended September 30, 2023, they derived 35.14%, 26.90%, 19.26% and 18.71% of their revenue from operations from clients in India, Europe, North America, and the rest of the world, respectively. The strength of their client relationships is also evidenced by their improving net promoter score ("NPS") where they are positioned among the Top-20 percentile of technology services players and their 98.38% repeat rate (based on the percentage of revenue attributable to the Services segment in a period generated from existing clients) for Fiscal 2023 as well as their 97.72% repeat rate for the 6-months period ended September 30, 2023.

Their global delivery model leverages the skills and capabilities of their employees from their various regional centres, delivering value to their clients. As of September 30, 2023, they have 19 global delivery centres spread across North America, Europe and Asia Pacific, with each centre staffed by a majority of local nationals enabling them to provide uninterrupted service to their clients and tap into specialist skill sets in different geographies. As of September 30, 2023, they had 12,451 employees, comprising 11,608 full-time employees ("FTEs") and 843 contracted employees.

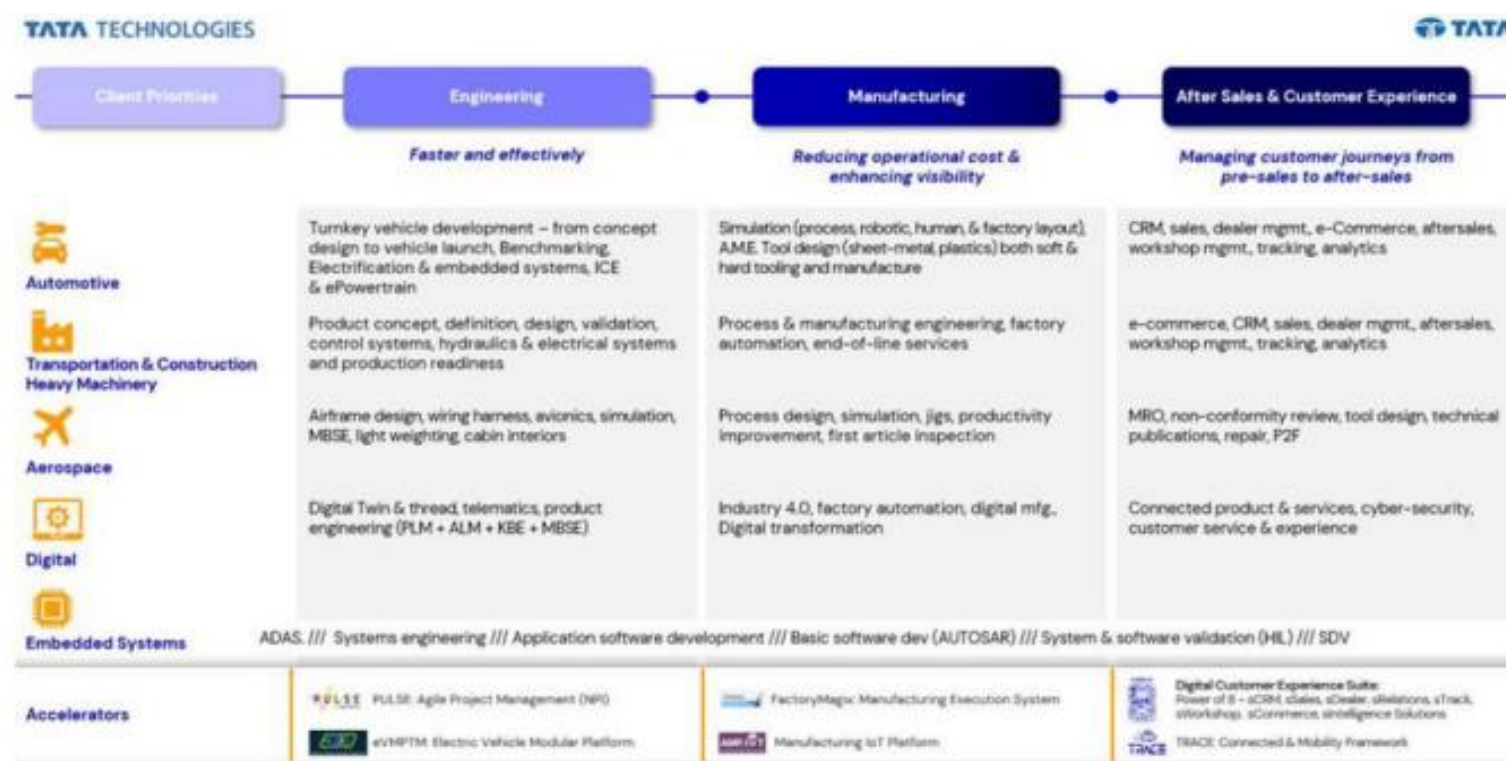
Tata Technologies is part of the Tata Group, which has been recognized as the most valuable brand in India by Brand Finance, a leading international brand valuation agency. As a subsidiary of Tata Motors Ltd ("TML"), they benefit from long-term relationships with both TML and JLR. The long-standing engagements with TML and JLR (collectively, their "Anchor Clients") have enabled the incubation of skills and capabilities that has assisted them in pursuing opportunities outside of the Tata Group.

Business Segment

Company's value proposition has 2 primary components. The first being the Services offerings which include providing outsourced engineering services for manufacturing clients and leveraging digital technology to optimize the way in which a manufacturing company conceives, develops, manufactures and services new products. The second component of their value proposition concerns the Technology Solutions offering which includes their Products business comprising of the reselling of specific software that manufacturing companies deploy to conceive, develop, build and service new products and their Education business to equip the next generation of engineers and technicians with relevant skills that are required by the global manufacturing industry.

Services

Company's primary business line is services ("Services"), which includes providing outsourced engineering services and digital transformation services to global manufacturing clients helping them conceive, design, develop and deliver better products. They provide global outsourced engineering services to assist their global manufacturing clients in conceiving, designing, developing, and realizing competitive products. They also partner with their clients to synchronize their people and processes across the company, allowing for optimal product lifecycle realization. They service their clients using their global sales network comprising 19 global delivery centers in North America, Europe and Asia Pacific, leveraging their balanced on-shore/offshore global delivery model. They also specialize in 'digital thread' which enables solutions across processes and enterprises.



The company provides engineering services to clients primarily in the automotive vertical, as well as aerospace, TCHM and their other adjacent verticals. They have participated in new trends in the automotive vertical, especially with electrification and connected vehicles requiring capabilities in domains such as embedded systems and software defined vehicles. In 2012, they launched eMo - the first full-vehicle EV concept developed by an Indian engineering services firm. Over the years, they have worked with both traditional and new energy vehicle companies on their EV programs successfully completing multiple smaller projects as well as turnkey vehicle development.

The key areas of competence in the automotive sector span Concept Design, Tear Down and Benchmarking, Vehicle Architecture, Body Engineering, Chassis Engineering, CAE Virtual Validation, ePowertrain, Electrical and Electronics, Embedded Solutions and SDV, Manufacturing, Build and Test and Launch.

The other service offerings include Product Data Management, Smart Manufacturing, Enterprise Resource Planning, Customer Experience Management, Application Management, Data Intelligence and Process Automation.

Technology Solutions

One of the 2 key components of the value proposition is to assist the clients to identify and deploy technologies and solutions that are used to manufacture, service and realize better products, as well as train people who need to enable the development of these competitive products. Their Products business helps them facilitate this through their partnership with manufacturing software providers including PLM and MES software. Tata Technologies complements their service offerings with their Products and Education businesses (collectively, "Technology Solutions"). Through their Products business they resell third-party software applications, primarily product lifecycle management ("PLM") software and solutions and provide value added services such as consulting, implementation, systems integration and support.

Revenue disaggregation by Business Vertical Units

Particulars (% of revenue)	Sept'23	FY23	FY22	FY21
Services	78.62%	80%	75.12%	80.40%
Technology solutions	21.38%	20%	24.88%	19.60%

Revenue disaggregation by geography

Particulars (Rs mn)	Sept'23	FY23	FY22	FY21
India	4623.7	13138.3	1,1435.4	6900.2
UK	3948.5	8687.4	7119.6	5828.2
North Korea	4231.8	9465.4	7921.6	7585.9
Rest of Europe	679.5	1388.8	1470.6	1543.2

Rest of World	5395.6	1,1461.9	7348.6	1951.6
-Vietnam	4431.9	9582.9	4912	795.1
-Others	963.7	1879	2436.4	1156
Total	1,8879.1	4,4141.8	3,5295.8	2,3809.1

Strengths:

➤ **Differentiated capabilities in new age automotive trends – electric vehicles (“EVs”), connected and autonomous**

The first step in creating EVs is a compelling vehicle concept and engineering design. Company’s end-to-end solutions for EV development, manufacturing and after-sales services are designed to help OEMs develop competitive EVs while maintaining a balance between cost, quality and timelines. Their suite of product engineering solutions including outsourced turnkey EV development, product benchmarking, electric vehicle modular platform (“eVMP”) for accelerating product development timelines and their light-weighting framework can help OEMs develop products within competitive timelines. Further, their suite of omnichannel after-sales solutions powered by the Power of 8 platforms can help OEMs engage with their EV customers early and manage the entire customer journey effectively. They have a long-standing history of developing EV capabilities since as early as 2010.

In 2012, they unveiled an electric vehicle technology demonstrator (“eMO”) at the North American International Automotive Show in Detroit. Global automotive companies are increasing their research and development (“R&D”) investments across the broader theme of ‘ACES’ technologies – autonomous, connected, electrification and shared. The shift to alternative propulsion systems and specifically electric vehicles has enabled this transformation. Tata Technologies offers a one stop platform for automotive OEMs to meet new engineering needs across the value chain. Their growing reputation in the lightweight body structure domain has strengthened their client relationships with established OEMs and has led to new client acquisitions with new energy vehicle companies across the world.

They have developed a wide range of differentiated capabilities and offerings for EV projects, including EV architectures, over-the-air (“OTA”) connected services, level 2 and level 3 autonomous driver assistance systems (“ADAS”), embedded electronics, EV system design, embedded solutions, computer aided engineering (“CAE”), vehicle engineering and integration, prototype build and test and program management. Through eVMP they help reduce vehicle development timelines by offering a scalable and flexible option for both traditional OEMs and new energy vehicle companies without a BEV platform. Their eVMP platform helps in faster compatibility checks to support multiple system selections, achieves a higher degree of uniformity, scalability and de-risking through virtual validation and allows for rapid configuration changes to client dimensions. Their eVMP platform helped accelerate the development timeline for VinFast, a Southeast Asian electric vehicle OEM. They also developed a proprietary connected vehicle cloud platform ‘TRACE’ to provide solutions across the automotive valuechain.

Tata Technologies ranked 1st among all India based global engineering service providers and among the Top-2 globally for electrification of vehicles by Zinnov Zones in its 2022 ER&D report. Some of their notable projects includes:

- eMo (2010-11),
- JLR electrification (mild hybrids) (2013-2014),
- Polestar 1 (2016), ➤ Chinese OEM EV programs (2017-18),
- a project for a North American EV manufacturer (2018),
- a Chinese OEM EV program (2018),
- TML Tigor (ICE to EV) (2019-20),
- a British OEM EV program (2020-21) and
- VinFast VF 8 and VF 9 (2022-23) for which their clients received numerous awards and recognitions.

➤ **Deep expertise in the automotive industry**

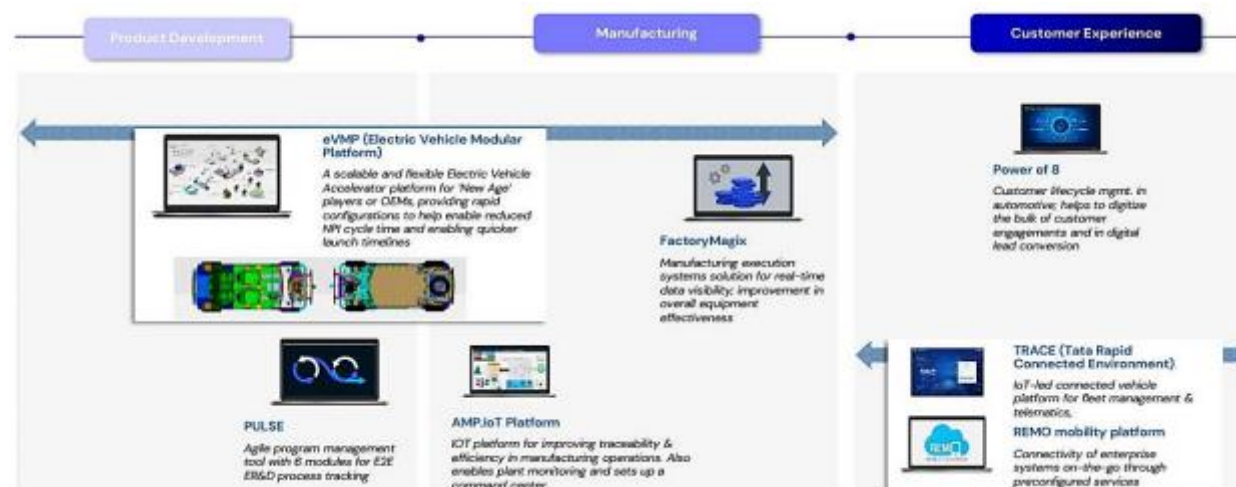
Company’s automotive ER&D services span the entire automotive value-chain and includes concept design and styling, tear down and benchmarking (“TDBM”), vehicle architecture, body engineering, chassis engineering, virtual validation, ePowertrain, electrical and electronics, connected, manufacturing engineering, test and validation and vehicle launch. In addition to the spectrum of discrete service offerings, they also offer turnkey full vehicle development solutions for traditional internal combustion engine (“ICE”) powered vehicles, plug-in hybrids (“PHEV”) and battery electric vehicles (“BEV”) which have been developed over a period of 10 years. Their automotive domain expertise and deep understanding of client requirements underpins the approach they take to helping their clients leverage digital technologies to optimize the manner in which they conceive, develop, manufacture, sell and service new products. Additionally, their long-standing partnership with their Anchor Clients, including the relationship with JLR since 2010, provides them with opportunities to cultivate skills and refine their value proposition for the automotive sector. Their turnkey machine development capabilities for TCHM have been derived from their full vehicle proposition and their expertise in automotive tooling design has underpinned their proposition for the aerospace maintenance, repair and operations (“MRO”) sector.

➤ **Strong digital capabilities bolstered by proprietary accelerators**

Company’s suite of digital services and accelerators are designed to help OEMs and Tier-1 suppliers manage the entire digital product life cycle and engage the customer throughout the product journey. The solutions leverage their deep manufacturing domain knowledge and intimate understanding of clients. Their solutions and accelerators across new product introduction (“NPI”) increase the efficiency of automotive, TCHM and aerospace clients in introducing new products to the market. Their range of offerings span across digital product development solutions. Digital technologies are changing the way the manufacturing sector is developing, building, and servicing products around the globe. These technologies create value by connecting machines through a ‘digital thread’ across the value chain—making it possible to generate, securely organize, and draw insights from disparate sources of data. Product lifecycle management (“PLM”), manufacturing execution systems (“MES”), and enterprise resource planning (“ERP”) solutions are the fundamental aspects of product realization. The cornerstone of any ‘Digital Thread’ is

strong digital integration across the digital foundation of any manufacturing enterprise, which includes PLM, ERP, and MES. Tata Technologies has built expertise in integration across PLM, ERP and MES solutions by developing proprietary integration accelerators. They also have experience deploying Industry 4.0 at scale with the ability to identify and deploy emerging technologies, tools, and solutions to transform the manufacturing operations of their clients.

Their proprietary platforms and accelerators across the value chain are listed below:



The company resell PLM application software through long-standing partnerships with Siemens Industry Software Inc., Dassault Systems, and Autodesk. Strategic benefits from these partnerships include visibility of future product roadmaps, better client solutions and reduced client acquisition costs. PLM software is also an integral component of their education offering.

➤ Global delivery model enabling intimate client engagement and scalability

Tata Technologies has a global workforce of over 12,451 employees serving multiple global clients from 19 global delivery centres in Asia Pacific, Europe and North America, as of September 30, 2023. Their globally distributed execution model ensures balance between onshore client proximity and offshore efficiency. They had approximately 1,717 employees based out of their strategic onshore locations, enabling greater proximity to their clients. In addition, their onshore delivery centres are made up of a majority, as of September 30, 2023 of local national talent and they have local presence in all the key automotive ER&D markets globally. They also have a delivery headcount of 11,534 employees.



➤ Marquee set of clients across anchor accounts, traditional OEMs and new energy vehicle companies

The company has a diversified global presence across Asia Pacific, Europe and North America and partner with many of the largest manufacturing enterprises in the world. As of September 30, 2023, their clients are comprised of more than 35 traditional automotive OEMs and tier 1 suppliers and more than 12 new energy vehicle companies. Their client portfolio includes their Anchor Clients, TML and JLR, leading traditional OEMs like Airbus, McLaren, Honda, Ford, and Cooper Standard and tier 1 suppliers as well as new energy vehicle companies such as VinFast among others such as Cabin Interiors and Engineering Solutions, ST Engineering Aerospace. Their key accounts are comprised of 7 out of the Top-10 and 12 of the Top20 global automotive ER&D spenders and 5 out of the 10 prominent new energy ER&D spenders globally. They actively engage on multiple projects with clients and have a high repeat rate of over 97.72%, 98.38%, 97.24% and 95.71% and across their Services business for the 6-months period ended September 30, 2023, Fiscal 2023, Fiscal 2022 and Fiscal 2021, respectively. They have developed a strong client NPS globally, achieving a NPS of 58 for the 12 months ended September 2023, 64 for the 12 months ended September 2021 and 63 for the 12 months ended September 2021. While their deep strategies relationships with their Anchor Clients accounted for ₹ 1,421.04 crore of revenue in Fiscal 2023, (40.24% of revenue attributable to the Services segment), the revenue from non-Anchor Clients, as a percentage of revenue attributable to the Services segment, has increased from 48.60% to 59.66 % to 59.76% between Fiscal 2021, Fiscal 2022 and Fiscal 2023, respectively. They have also increased the scale of their key accounts through the cross-selling of their services offerings which has increased their client and project level profitability. In addition, between Fiscal 2021 and Fiscal 2023, their new energy vehicle company clients such as VinFast, have increased their spend with them.

➤ **Well-recognized brand with experienced Promoter, board of directors and management team**

The company benefits from the strong track record, reputation, and experience of their Promoter, TML, which is part of the Tata Group. The Tata Group is one of the leading business conglomerates in India, with a heritage of over 100 years, comprising of more than 28 equity listed companies across multiple verticals such as technology, steel and automotives. The Tata Group was recognized as the most valuable Indian brand in 2022 in the Brand Finance India-100, 2022 report. Their promoter is one of the leading global automobile manufacturers in the world, providing integrated and smart e-mobility solutions to customers in over 125 countries.

With an employee base of over 81,800 as of March 31, 2023, their promoter's manufacturing facilities are located across India, the United Kingdom, and South Korea. Their promoter is the only OEM in India that offers an extensive range of mobility solutions, covering cars, utility vehicles, trucks, and buses. Their Promoter has a strong global network of 90 subsidiaries, equity-accounted associates, and joint ventures, including JLR in the United Kingdom and Tata Daewoo in South Korea. A broad portfolio of automotive products is offered by the promoter, ranging from sub-1 ton to 55-ton gross vehicle weight trucks (including pickup trucks) to small, medium, and large buses and coaches to passenger cars, premium luxury cars and SUVs. The company is well positioned to benefit from the Tata group's business priorities to increase investment in EVs, aerospace and defense. The 'One Tata' philosophy further benefits group companies with focus on utilizing scale, simplification, and synergies between Tata group companies.

In addition to benefiting from the high standards of corporate governance and brand value associated with the Tata Group, they also have the opportunity to leverage and benefit from the Tata Groups' global network for exploring potential business opportunities and acquiring direct access to senior decision makers at potential end clients. The company is led by a highly experienced and professional board of directors, from diverse backgrounds with execution track records across various industries such as automotive, electronics, legal, IT services, fast moving consumer goods and insurance. Their management team is led by their Chief Executive Officer, Warren Harris, and their Chief Financial Officer, Savitha Balachandran. The Key Managerial Personnel and Senior Managerial Personnel have deep industry experience, with each having several years of experience, which contributes to effective operational coordination and continuity of business strategies. The knowledge and experience of their board of directors and management team enables them to rapidly respond to market opportunities, adapt to changes in the business landscape and competitive environment and bring innovative solutions to their business, marketing, and strategy.

Key Strategies:

➤ **Target top ER&D spenders in select high priority verticals and key geographies**

The company endeavour to secure projects with the top ER&D spenders within their focus verticals of automotive, aerospace and TCHM. Automotive ER&D is highly concentrated among the Top-20 companies, in terms of ER&D spend for 2022, which account for 73% of the global spend. They aim to strengthen their dedicated business development strategy to focus on high potential accounts with large annual ER&D spends and new energy vehicle companies. They have also recently been empanelled by Airbus which is expected to become a strong avenue of growth. Their organic approach to targeting top ER&D spenders is complemented by tuck-in acquisitions. In addition, they are committed to building a presence in all geographies that have a significant manufacturing sector. They see large growth opportunities in select geographies, including France, Germany, and China. Territory specific strategies, such as the EV proposition for China, aerospace proposition for France and embedded solutions for Germany, are being cultivated to ensure a sustainable growth trajectory.

➤ **Deepen engagements within existing client base**

Given the high concentration of ER&D spend among select automotive, aerospace and TCHM companies globally, Tata Technologies methodically target large spenders in their chosen industries, devoting substantial time and resources in cultivating relationships. Their fundamental approach of client centricity, long-term strategic partnering and joint engagement governance has consistently enabled them to develop and expand their long-term relationships. Currently, their Top-20 clients by revenue attributable to the Services segment account for 88.40% of their revenue attributable to the Services segment for Fiscal 2023. They plan to drive further value by prioritizing the right high potential accounts through strategic account planning.

➤ **Expand capabilities in digital engineering and embedded systems**

Engineering Service Providers are being leveraged for silicon design, embedded software, and integration of digital technology, thus accelerating the growth opportunities for engineering services outsourcing. Digital engineering is expected to grow at 16% CAGR from 2022 to 2026. As demand for autonomous and connected technologies grows due to increasing pressure from regulations on passenger safety and cost pressures on OEMs, OEMs will continue to focus on delivering a better and safer experience to their clients through incorporation of connected and autonomous technologies.

Tata Technologies is focused on scaling up their embedded and digital capabilities and offerings through investments and strengthening alliances as part of their diversification strategy. They have also invested in establishing strong partnerships and alliances, such as with Dassault, Logility, Siemens Industry Software Inc., Codincity and Fantasy and by availing Microsoft AZURE products/services that augment their efforts and enable them to expand their client reach across verticals and geographies.

➤ **Expand capabilities and enterprise client base in the education sector**

The global manufacturing sector is being disrupted by technological change. There is a large engineering upskilling requirement globally, and particularly in India, in the manufacturing sector. They train their engineers through a combination of classroom training and utilizing their proprietary iGetIT offering, an online learning system with courses related to engineering design software and skills. Their iGetIT platform is used by enterprise clients as well as public sector institutions in India to train engineering, polytechnic and ITI students. Additionally, their academic

partnerships in India have extended beyond their iGetIT offering to the development of an entire “phygital” proposition and they intend to further engage with State Governments on ITI upgradation projects.

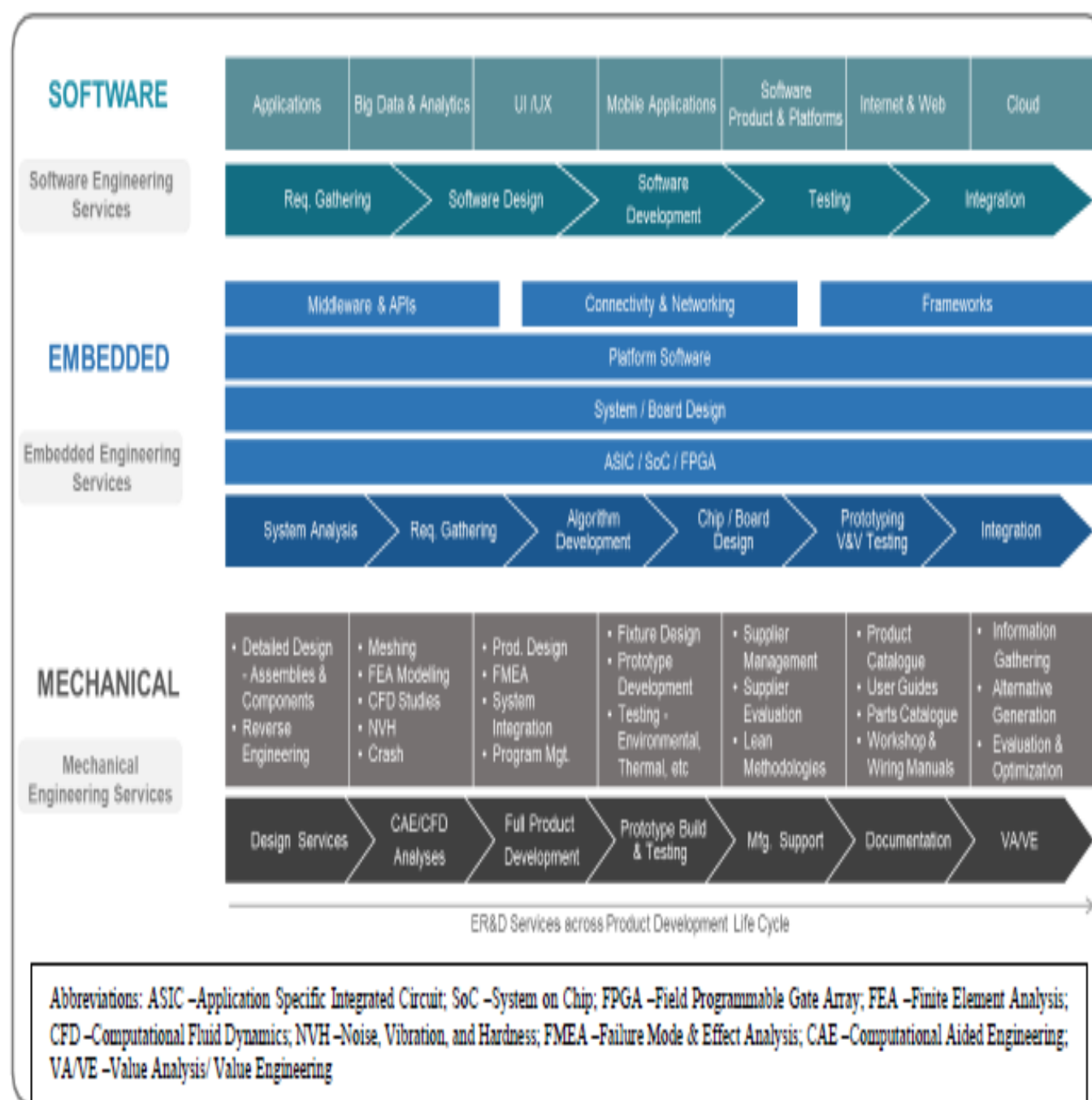
➤ **Strengthening service delivery through capacity and capability building and optimizing delivery processes**

The company continues to work on strengthening their forecasting processes, resource management processes and automation of non-core processes in order to enhance delivery excellence and strengthen pricing models that will enable them to improve their margins while creating value for all stakeholders. They are focused on building their talent supply chain to ensure they fulfil client requirements at the right time and at the right cost.

Industry Snapshot

Global Engineering Research & Development (“ER&D”) Services Industry

ER&D services is defined as the set of services offered to enterprises on activities which involve the process of designing and developing a device, equipment, assembly, platform, or application such that it may be produced as a product for sale through software development or a manufacturing process. The ER&D services are broadly broken down into software, embedded, and mechanical engineering services as shown below



Players in the ER&D services industry typically focus on the design, development, testing, rollout, and maintenance aspects of the product and process development chain, and not on mass manufacturing. The ER&D services market is comprised of product engineering services and process engineering services. Product engineering services most commonly address the product development lifecycle for companies, while process engineering services involve services to assist in the production of facilities and processes that produce value-added outputs and components through plant design engineering, manufacturing engineering, industrial engineering, and process control systems.

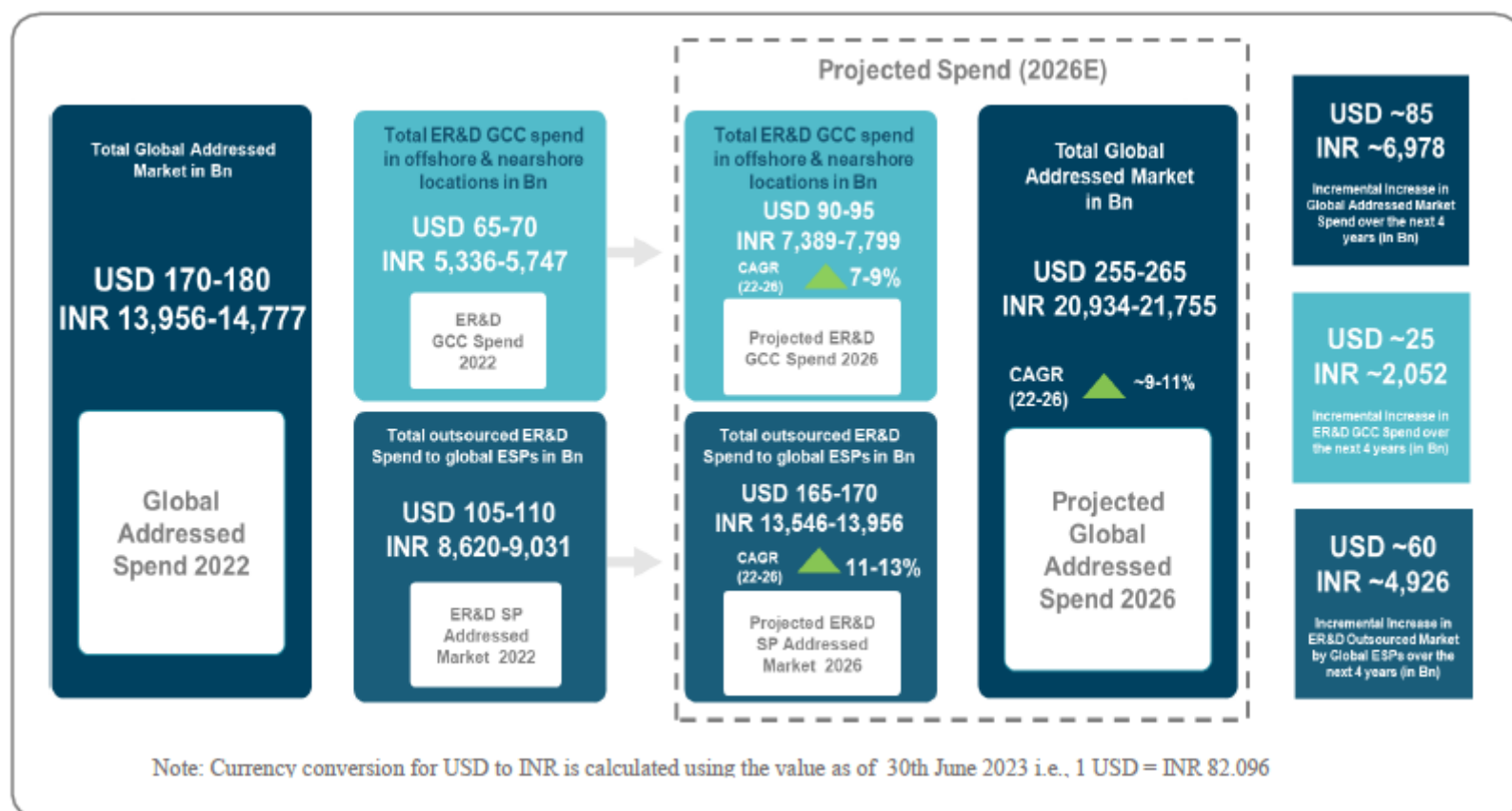
The ER&D services provided across the various industry verticals are set out below:

Service Lines/ Horizontals	Verticals													
	Automotive	Aerospace & Defense	Industrial & Heavy Machinery	Energy & Utilities	Pharma & Medical Devices	Software & Internet	Semiconductor	Consumer Electronics	Telecom	FMCG & Retail	Healthcare Payers & Providers	BFSI	Media & Entertainment	
Mechanical / Electrical Engineering External Housing, Inner Frame, Industrial Design, Styling, Surfacing, Ergonomics, Solid Modeling, Drafting, Structural Analysis, etc.	✓	✓	✓	✓	✓		✓	✓	✓				✓	
Embedded Engineering Embedded H/w & S/w, Semiconductor, Processor, RTOS, OS-ware, Codec, Communication Protocol, Application S/w, etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Manufacturing Engineering Tooling and Factory Equipment Design, Jigs & Fixture Design, PCB Manufacturing, etc.	✓	✓	✓	✓	✓		✓	✓	✓	✓				
Plant Engineering Plant Design, Instrumentation and Control Engineering, Civil/Structural Engineering, Process & Instrumentation, etc.	✓	✓	✓	✓	✓		✓	✓	✓	✓				
Software Engineering GUI, Mobile Applications, API, Software Product Platform Engineering, Analytics, AI/ML, Cloud Engineering, UI/UX, etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Manufacturing Led Verticals				Hi Tech Led Verticals				Services Led Verticals						
Abbreviations: RTOS –Real Time Operating System; PCB –Printed Circuit Board; GUI - Graphical User Interface; API Application														

Global ER&D Services Addressed Market

The ER&D services addressed market refers to the sum of the ER&D expenditure by global capability centers (“GCCs”) and the ER&D expenditure outsourced to third-party engineering service providers (“ESPs”). The global ER&D addressed market was pegged at \$170-180 billion (₹13,956-14,777 billion) in 2022 – which was an increase from \$145-155 billion (₹11,904-12,725 billion) in 2021, and accounts for approximately 10% of the overall ER&D spend. Of the \$170-180 billion (₹13,956-14,777 billion), \$65-70 billion (₹5,336-5,747 billion) is accounted for by GCCs, and they are expected to witness a steady growth of seven-nine percent to reach \$90-95 billion (₹7,389-7,799 billion) by 2026. The outsourced ER&D spend to third-party ESPs was at \$105-110 billion (₹8,620-9,031 billion) in 2022 and is poised to reach \$165-170 billion (₹13,546-13,956 billion) in 2026, growing at a rate of 11-13%.

The chart below sets out the addressed ER&D spend:



Comparative view of the Top service providers:

Engineering Services Providers	Revenue from operations for auto vertical (6M-FY24*) in Mn	Contribution of Auto vertical to revenue from operations (6M-FY24*)	Onsite/Offsite or Onshore/Offshore Mix (6M-FY24*)
Tata Technologies	INR 17,458 (USD 213)	88%	Onshore: 49% Offshore: 51%
KPIT	INR 22,090 (USD 269)	96%	Onshore: NA Offshore: NA
L&T TS	INR 15,458 (USD 188)	33%	Onshore: 40% Offshore: 60%
Tata Elxsi	INR 6,775 (USD 83)	46%	Onshore: 26% Offshore: 74%

Note: Revenue from Operations for LTTS and Tata Elxsi is for the Transportation vertical, considering that the firms do not report revenues from Auto vertical; Tata Elxsi reports industry wise split of revenues and Onsite/Offshore mix only for the Embedded Product Design (EPD) segment. So, all the values for Tata Elxsi have been calculated only for the EPD segment; For Tata Technologies', their revenue from services has been considered from calculations; 88% is the contribution of the auto vertical to the firm's revenue from services; Currency conversion for USD to INR is calculated using the value as of 30th June 2023 i.e., 1 USD = INR 82.096; *6M-FY24 refers to the first 2 quarters of FY 2023-2024

- Accounting ratios**

(in mn)

Particulars	H1 FY 2024	FY 2023	FY 2022	FY 2021
Revenue from Operations	25,267	44,141	35,295	23,809
Growth in revenue from operations (%)	33.8%	25.0%	48.2%	
EBITDA	4,647	8,209	6,456	3,857
EBITDA Margin (%)	18.4	18.6	18.3	16.2
PBT	4,662	7,961	5,868	3,152
PAT	3,519	6,240	4,369	2,391
PAT Margin (%)	13.9	14.1	12.3	10.0
ROE (%)	12.3	20.8	19.1	11.7

- Comparison with listed entity**

Name of the company	Latest FY	Face value	P/E	EPS (Basic) (₹)	EPS (Diluted) (₹)	RONW (%)	NAV per equity share (₹)
Tata Technologies Ltd	Consolidated	2	32.5*	15.3	5.1	20.8	73.6
Listed peers							
KPIT Technologies Ltd	Consolidated	10	80.3	14.10	13.9	22.9	61.6
L&T Technology Services Ltd	Consolidated	2	37.4	110.8	110.4	23.4	470.6
Tata Elxsi Ltd	Consolidated	10	61.5	121.2	121.6	36.2	334.9

Note: 1) P/E Ratio has been computed based on the closing market price of equity shares on NSE on Nov 17, 2023.

2) * P/E of company is calculated on EPS of FY23 and post issue no. of equity shares issued.

Key Risks

- The company derives significant revenues from its top 5 clients (73% of its revenues for FY23) including Tata Motors. Any loss of such clients can have significant impact on company revenues.
- The company revenues are dependent on clients concentrated in the automotive segment. Any down trend in this sector can have impact on the company business.
- It has negative cash flows in the past and may continue to have in the future which can affect liquidity and operations.
- The company expects a significant amount of future revenue to come from new energy vehicle companies, many of whom may be startup companies. Uncertainties about their funding plans, future product roadmaps, ability to manage growth, creditworthiness and ownership changes may adversely affect the business.
- Exposed to Exchange rate fluctuations in various currencies in which they do business. This could materially and adversely impact business, financial condition and results of operations.

Valuation

Tata Technologies is the subsidiary of Tata Motors. Over the years, company had strong revenue and margin growth in the past. The company is a leading global engineering services company with deep expertise in the automation industry. Its comprehensive portfolio of services for the automotive industry addresses the product development and enterprise optimization needs of traditional OEM's and new energy vehicle companies, together with their associated supply chains.

At the upper price band company is valuing at P/E of 32.5x with a market cap of ₹202,830 million post issue of equity shares and return on net worth of 20.8%.

On the valuation front, we believe that the company is fairly priced. Thus, we recommend an “**Subscribe – Long Term**” rating to the IPO.

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	Buy	Hold	Sell
Large Caps (Top 100 companies)	>15%	0%-15%	Below 0%
Mid-Caps (101st-250th company)	>20%	0%-20%	Below 0%
Small Caps (251st company onwards)	>25%	0%-25%	Below 0%

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