India

**Neutral** *(Initiating coverage)*

### Highlighted Companies

**Tata Technologies Ltd**
**REDUCE, TP Rs797,** Rs1004 close

Growth anchored around anchor client investments runs the portfolio risk of scale-back driven by moderation in demand and changing dynamics in the automotive market which, in turn, could moderate the spending intensity and decision-making.

**Tata Elxsi Ltd**
**REDUCE, TP Rs6064,** Rs7090 close

Elevated S&M to drive revenue growth in an environment where automakers are focusing on profitability and efficiency could create structural margin headwinds.

### Summary Valuation Metrics

| EV/EBITDA (x) | Mar25-F | Mar26-F | Mar27-F |
|---|---|---|---|
| Tata Technologies Ltd | 35.6 | 29.3 | 24.6 |
| Tata Elxsi Ltd | 36.0 | 30.6 | 25.9 |

| P/E (x) | Mar25-F | Mar26-F | Mar27-F |
|---|---|---|---|
| Tata Technologies Ltd | 52.3 | 43.2 | 36.3 |
| Tata Elxsi Ltd | 51.2 | 43.7 | 37.4 |

| P/BV | Mar25-F | Mar26-F | Mar27-F |
|---|---|---|---|
| Tata Technologies Ltd | 11.4 | 10.0 | 8.6 |
| Tata Elxsi Ltd | 15.4 | 13.4 | 11.8 |

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# IT Services

## Automotive ER&D – Know the cycle

- Electric vehicle dynamics are changing rapidly from adoption to protectionism. Legacy automakers are reconsidering the viability of alternate technologies.
- This, coupled with the focus on profitability, could moderate spending intensity.
- Initiate coverage on Tata Elxsi and Tata Technologies with REDUCE rating and target prices of Rs6,064/Rs797, respectively.

### Automotive sector at the crossroads of contrasting opportunities

The automotive market is at an interesting juncture with the electric vehicle (EV) segment witnessing protectionism on the one hand while legacy automakers, who were aggressively announcing their EV model roadmap to contain market share loss, are reviewing the same and are reconsidering the viability of hybrids, internal combustion engine (ICE) on the other. Although forecasting the way forward may be tough, the underlying environment of protectionism, profitability & cost efficiency, could be less conducive to spending. Hence, growth expectations built in the current valuations of ER&D vendors appear stretched.

### Automakers reconsidering the viability of alternate technologies

Analyzing the pricing trend suggests that EVs enjoyed a pricing premium as high as ~50% vs. the Ford Model T in 1900's and an average ~37% higher than the average new car price between Jan 2020 – Dec 2022, which also reflected in the automotive business gross margin (GM) of Tesla, an average ~12% higher than legacy players over CY18-CY23. However, since Jan 2023, the average new EV price in the US fell 11% vs. new car price (ICE+EV) as yoy volume growth moderated due to 1) persistent higher interest rates have raised the cost of servicing debt, and 2) higher upfront costs. Anecdotally, the reasons for EV adoption not gathering the required attention in 1900 included low travel range anxiety and lack of charging infrastructure, and are consistent with those today. Finally, premium pricing, better GM & potential market share loss likely accelerated legacy automakers' EV model roadmap, but technology and manufacturing advantage of pure EV automakers led by higher capex intensity in the past, moderating demand, rising inventory led competitive intensity may have led them to reconsider the viability of hybrid and ICE models.

### Protectionism, pricing pressure and growth moderation

The EV market dynamics are changing from growth & adoption to protectionism and pure EV makers, led by BYD and Tesla, having technology, manufacturing and value chain advantage, are increasing the competitive intensity to sustain demand, in turn, narrowing EV pricing premium vs. comparable ICE models. Although protectionism is not sanctions (recall CY18/19 semiconductor led trade wars), underlying environment is less conducive for initiating new programs, given cost efficiency focus. Finally, a shift towards EV, leapfrogged by BYD, despite the tariffs, could be akin to telecom, wherein Indian vendors rarely benefitted from 5G technology in China, given local vendor presence.

### Put together, it could moderate spending intensity or delay decisions

Select automakers now expect their R&D and capex intensity to moderate over the medium term as they reconsider the viability of hybrid and ICE models and shift the focus to profitability and cost efficiency. Analysing the yoy auto vertical growth of Tata Elxsi and Tata Technologies suggests early signs of portfolio moderation, with top customers doing the heavy lifting. Scaling back investments could temper the growth expectations further.

### Initiate coverage on Tata Elxsi and Tata Technologies

Our analysis suggests that share prices of Tata Elxsi and Tata Technologies are factoring in ~12.8%/12.5% US$ revenue CAGR over FY24-FY33F vs. 13.1%/4.9% over FY13-24 and average EBIT margin of 27.5%/17.4% vs. 21.4%/14.7%, respectively. We believe the expectations are stretched, given the factors discussed above, and warrant some caution. We model in US$ revenue CAGR of ~12.1%/14.5% over FY24-27F, with an average 27%/19% EBIT margin to arrive at our DCF-based target prices of Rs6,064 and Rs797, respectively. Initiate coverage on Tata Elxsi and Tata Technologies with a REDUCE rating. Faster decision-making and automotive BU growth led by top clients are key upside risks.

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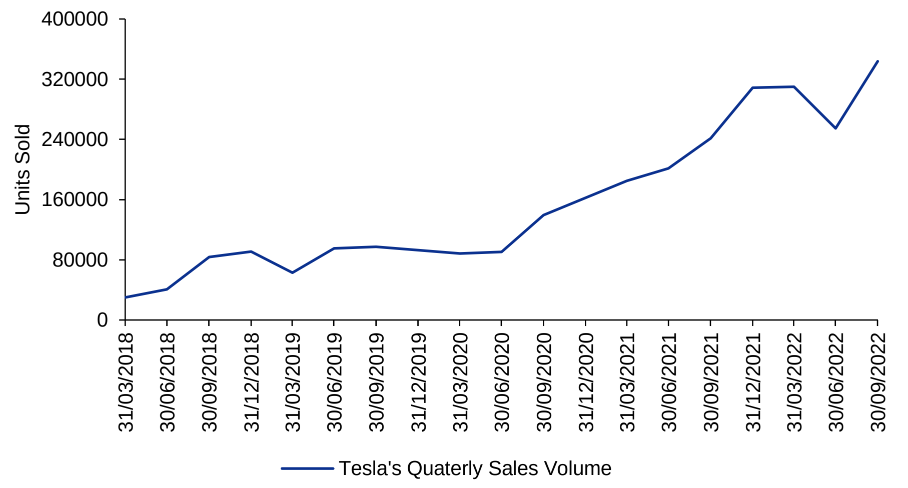
# Automotive sector at crossroads

## EV saw demand-led pricing uptick post Covid-19 pandemic…

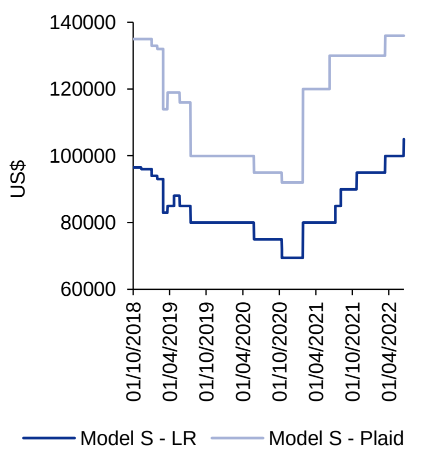
Electric vehicle (EV) volume constituted 15.6% of the total passenger car volume in 2023 globally, and grew at 59% CAGR over 2019-23. Although EV adoption gained traction post Covid-19 pandemic, available literature suggests it has a multi-decade history. To illustrate, the US had ~33k electric cars in 1900 (~38% market share) while between 1907-1939, Anderson Electric sold 13,000 units of Detroit Electric car. Further, analyzing the pricing trend suggests that EVs enjoyed a pricing premium, as high as ~50% vs. Ford Model T in 1900's and an average ~37% higher than the average new car price between Jan 2020 – Dec 2022, which was also reflected in the automotive business gross margin of Tesla, an average ~12% higher than ICE players over CY18-CY23.

**Figure 1: Tesla's volume accelerated post Covid-19 pandemic…**



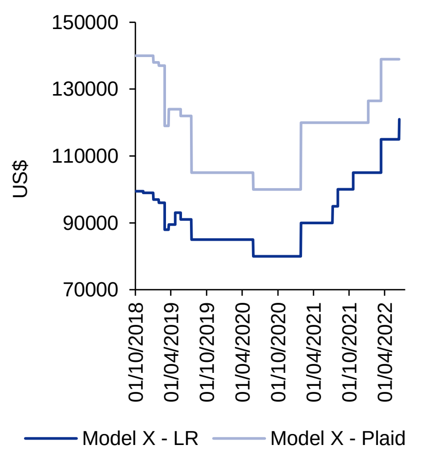

SOURCE: BLOOMBERG, COMPANY REPORTS, INCRED RESEARCH

**Figure 2: …leading to an uptick in price …**



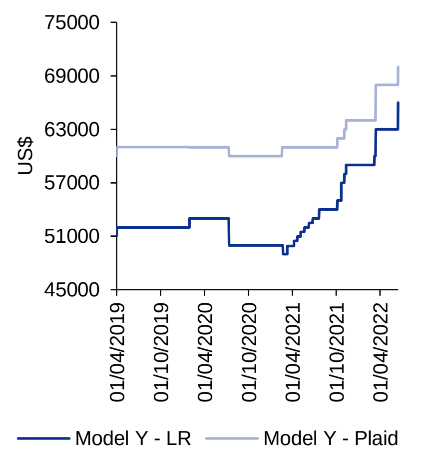

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 3: …across key models…**



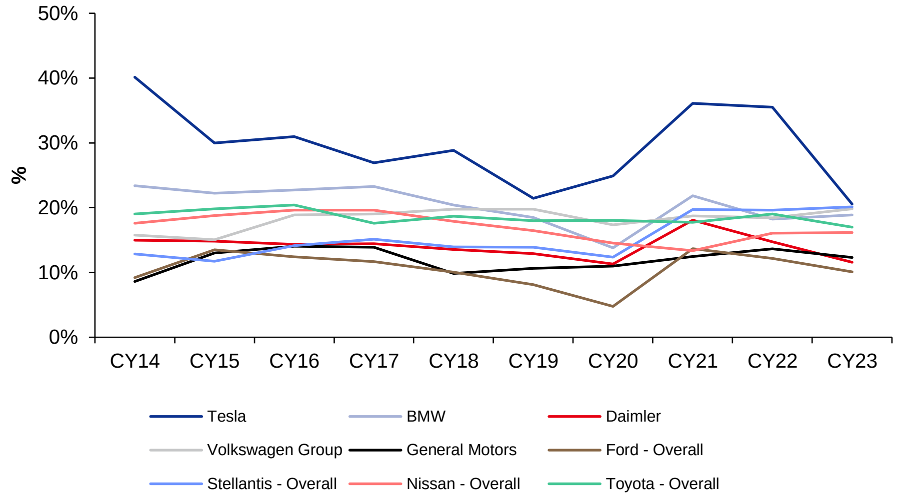

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 4: …S, X, and Y**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

Figure 5: Tesla's premium pricing-led superior gross margin may have attracted legacy automakers

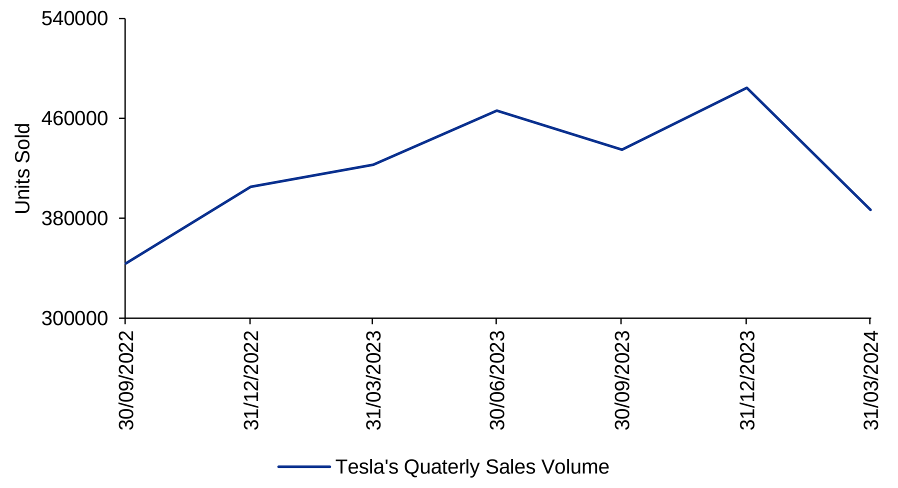



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## …but the tables have turned since 2023 - pricing premium shrunk to an average ~13%

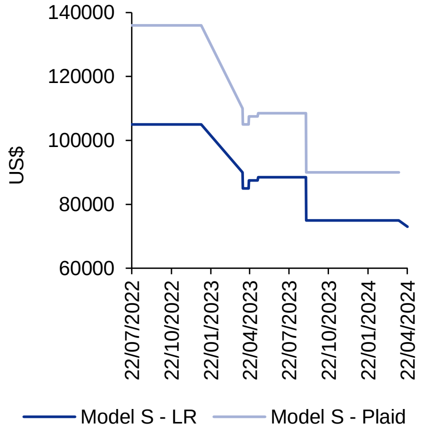
Since Jan 2023, the average new EV's price in the US declined by 11% vs. the average new car price (ICE +EV) as yoy volume growth moderated, driven by a combination of topical (high interest rates leading to rising equated monthly instalment or EMI payments, coupled with layoffs and macroeconomic concerns), and structural (high upfront investment, lack of charging infrastructure and range anxiety) challenges. Anecdotally, the reasons for EV adoption not gathering steam a century ago were consistent with those today and include, one, the same structural challenges while the others being 1) mass production of Ford Model T at a very affordable price (~US$650 vs. ~US$1,750 for an electric car), 2) invention of starter motor for gasoline vehicles vs. hand- cranking earlier, 3) Texas crude oil boom, and 4) environmental concerns.

Figure 6: Moderation in demand is…



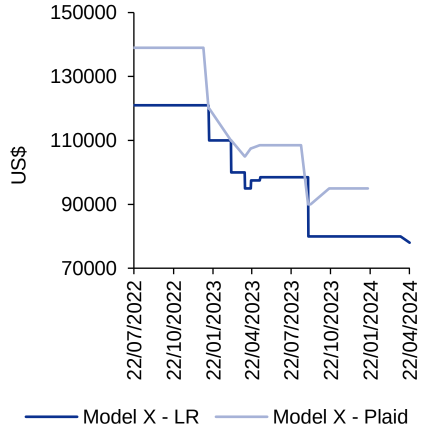

SOURCE: BLOOMBERG, COMPANY REPORTS, INCRED RESEARCH

**Figure 7: …leading to a revision…**



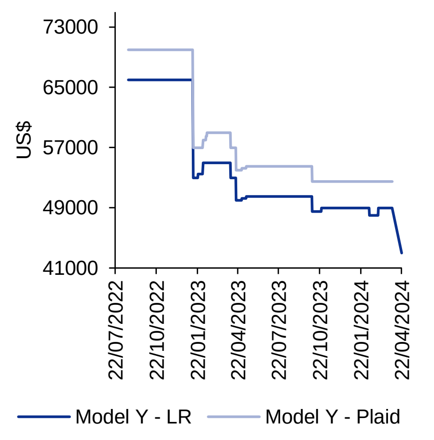

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 8: ….in prices…**



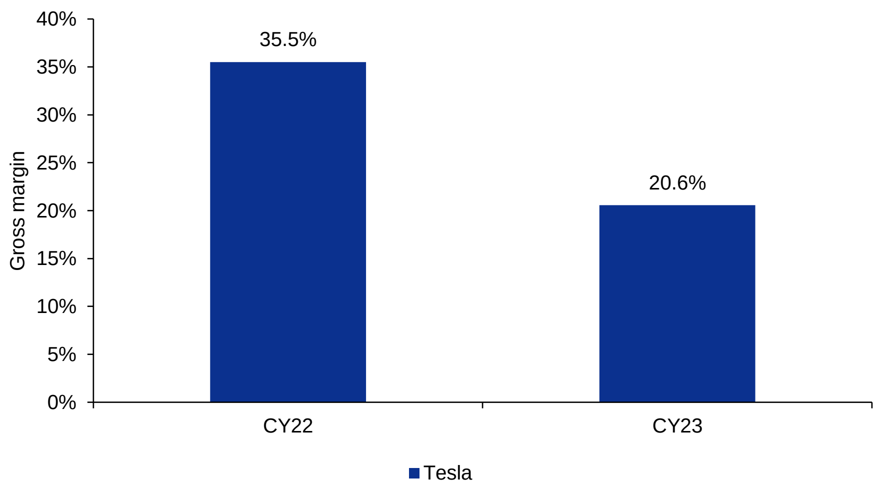

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 9: …across models…**



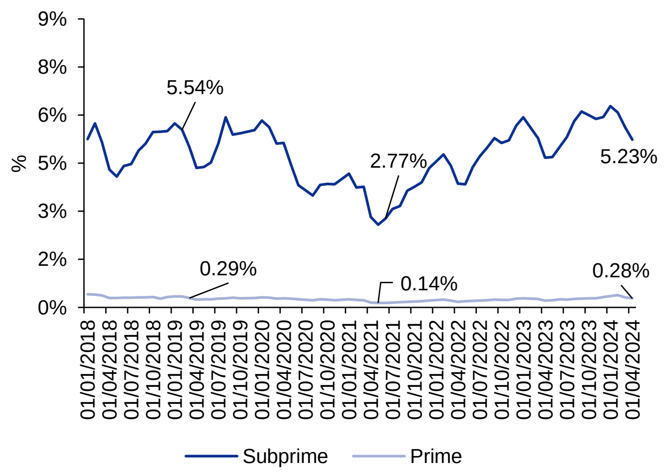

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 10: …which impacted Tesla's CY23 automotive gross margin**



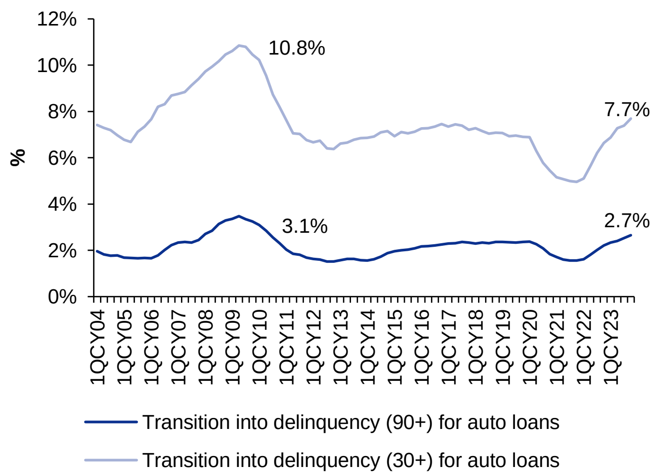

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 11: 60 days+ delinquency...**



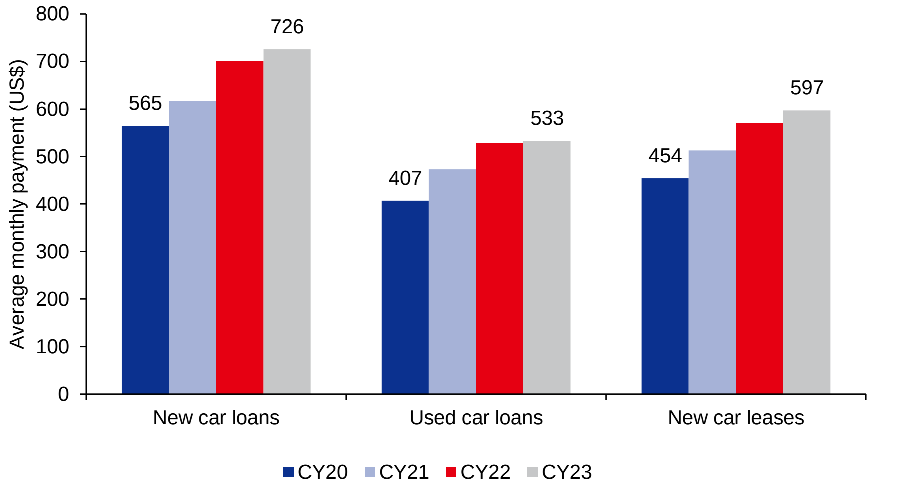

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 12: …and 90 days+ delinquency on the rise…**



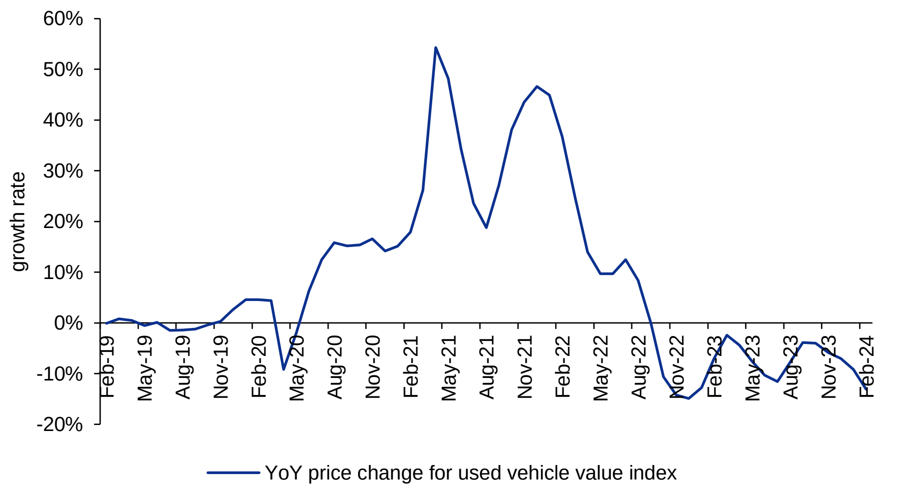

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 13: …and so is the average EMI**



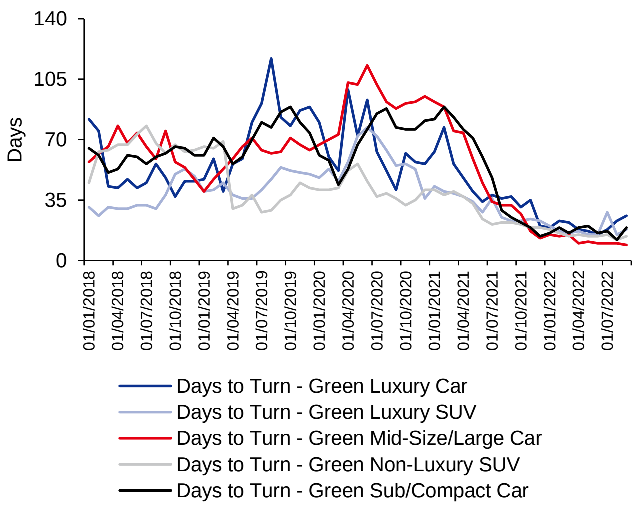

SOURCE: INCRED RESEARCH, STATISTA

**Figure 14: Used vehicle price index change trend in the US**



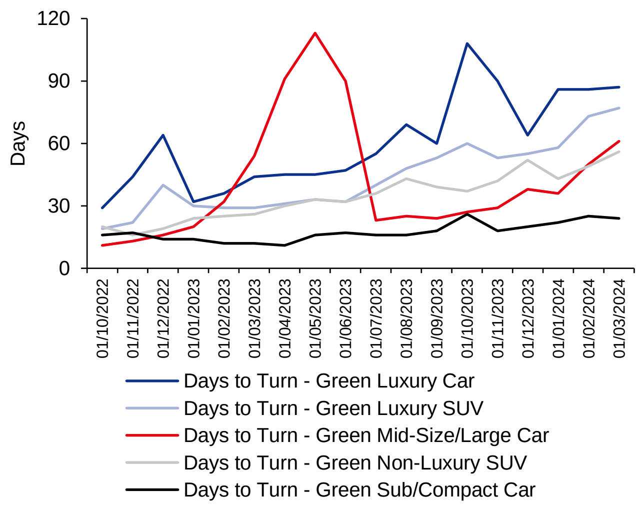

SOURCE: INCRED RESEARCH, TRADING ECONOMICS

**Figure 15: North America inventory…**




SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 16: …turns are increasing**

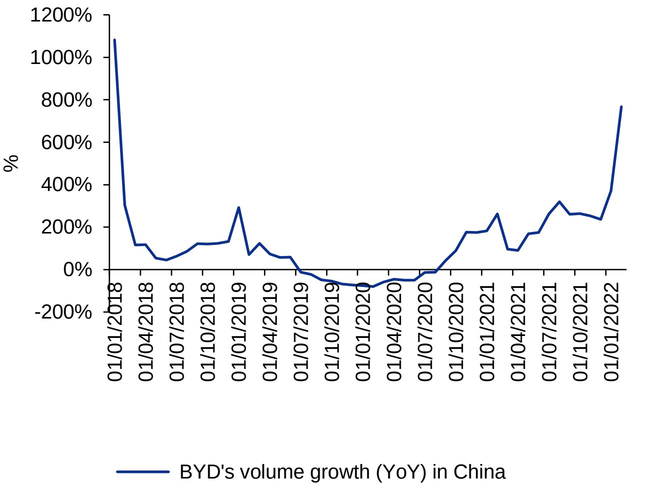



SOURCE: INCRED RESEARCH, BLOOMBERG

## China's volume growth still better, but BYD is increasing the competitive intensity

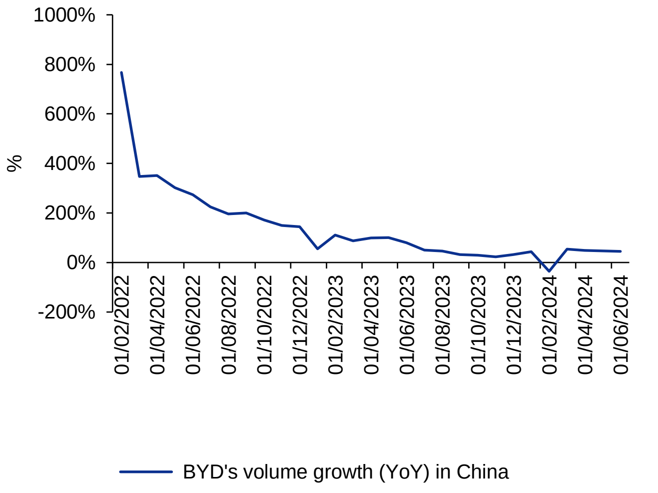
Analysing EV sales in the Chinese market suggests early signs of moderation. Sales of BYD, the largest EV maker with a 33.8% market share, saw its Apr 2024 sales volume growth moderating to 48.9% vs. 98.6% a year ago. Annualizing the first five months' volume implies that CY24 growth has moderated to 32.1% vs. 52.9% in CY23.

**Figure 17: BYD yoy volume growth…**




SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 18: …has moderated too…**




SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 19: …leading to pricing readjustments despite releasing the latest versions**

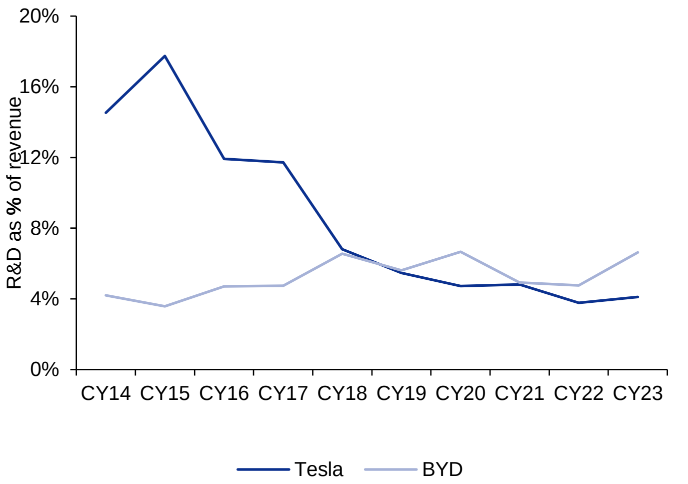
| BYD car models | Old version pricing (RMB) | Updated version pricing (RMB) | Price Cut % |
|---|---|---|---|
| Auto Seagull EV | 73,290 | 69,800 | -5% |
| Dolphin BEV | 114,371 | 99,800 | -13% |
| Haibao Seal BEV | 189,329 | 179,800 | -5% |
| Han BEV | 209,800 | 179,800 | -14% |
| Han DM PHEV | 189,800 | 169,800 | -11% |
| Qin PHEV | 95,760 | 79,800 | -17% |
| Song PHEV | 129,800 | 109,800 | -15% |
| Tang BEV | 209,800 | 179,800 | -14% |
| Yuan Plus BEV | 135,800 | 119,800 | -12% |
| e2 BEV | 102,800 | 89,900 | -13% |

SOURCE: INCRED RESEARCH, UPDATED VERSION PRICING IS AS OF MARCH 2024

## Hence, legacy automakers are likely reconsidering the viability of other technologies

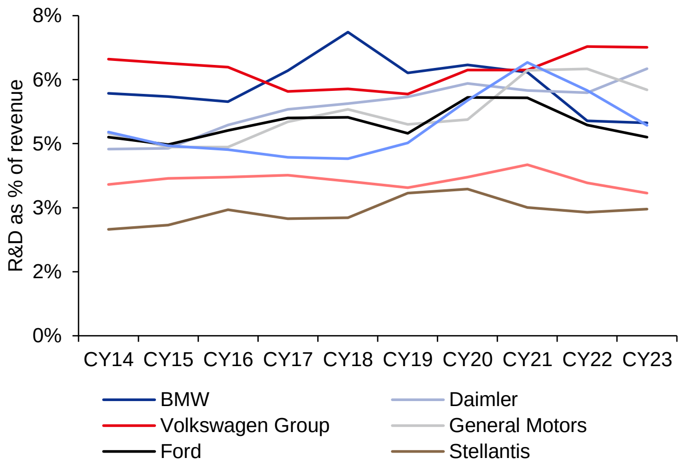
EV adoption, which was helped by government stimulus-supported consumer sentiment, better job payrolls, adoption by the affluent class, higher impact of semiconductor shortage on ICE makers, and ESG concerns, is witnessing growth moderation led challenges discussed earlier. Put together, premium pricing, better GM & potential market share loss likely accelerated legacy automakers' EV model roadmap, but technology and manufacturing advantage of pure EV automakers led by higher capex intensity in the past, moderating demand, rising inventory led competitive intensity may have led them to reconsider the viability of hybrid and ICE vehicles. Scaling back investments could moderate the growth expectations of ER&D vendors.

**Figure 20: Pure EV automakers' R&D investments were…**



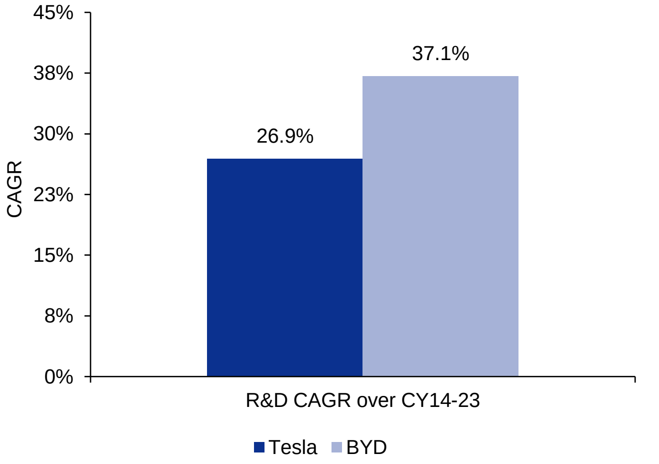

SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 21: …significantly higher than that of legacy players during CY14-23…**



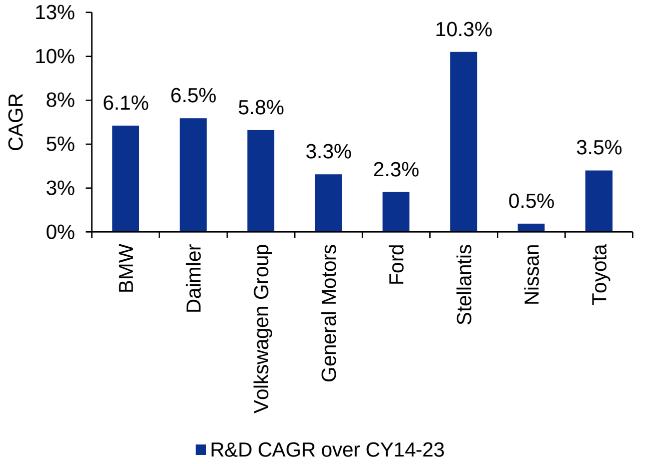

SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 22: …as reflected in the CY14-23…**



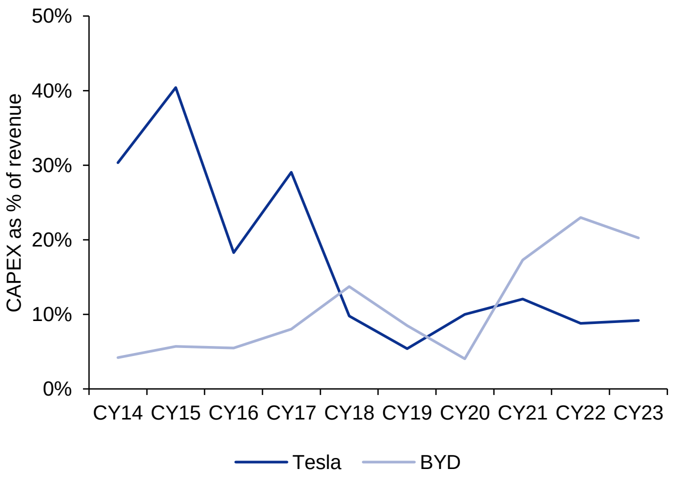

SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 23: … growth CAGR…**



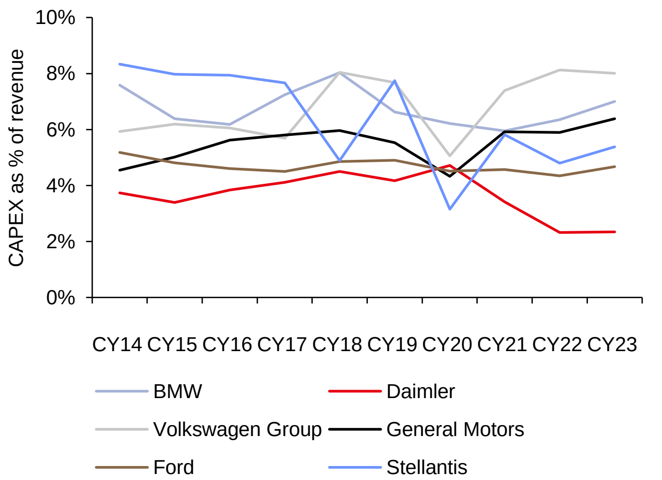

SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 24: …while capex intensity too…**



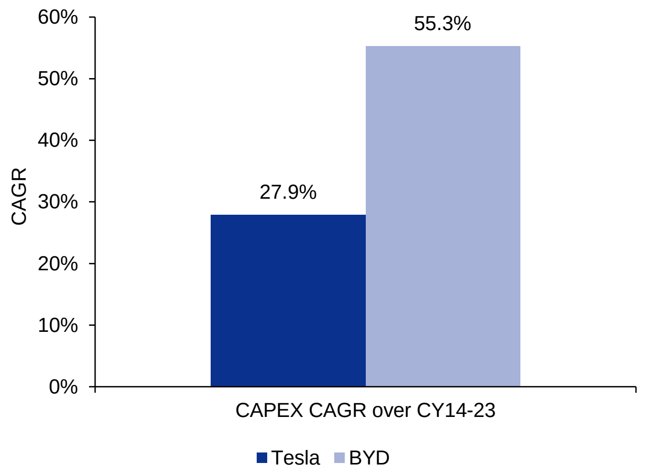

SOURCE: BLOOMBERG, COMPANY REPORTS, INCRED RESEARCH

**Figure 25: …was significantly higher over CY14-23…**



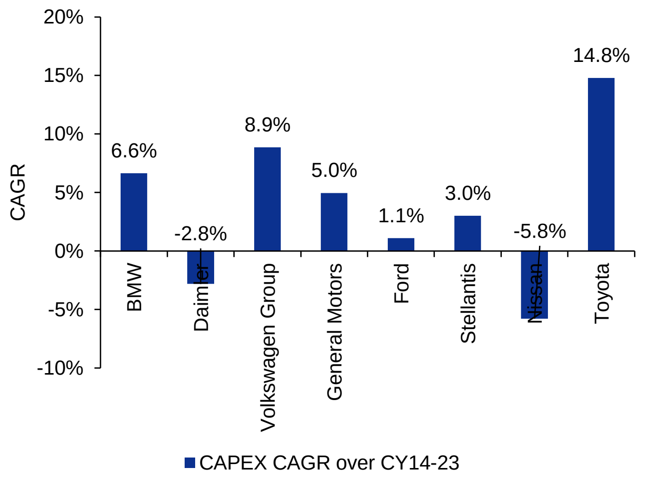

SOURCE: BLOOMBERG, COMPANY REPORTS, INCRED RESEARCH

Figure 26: …as reflected in the CY14-23 …




SOURCE: COMPANY REPORTS, INCRED RESEARCH

Figure 27: …growth CAGR

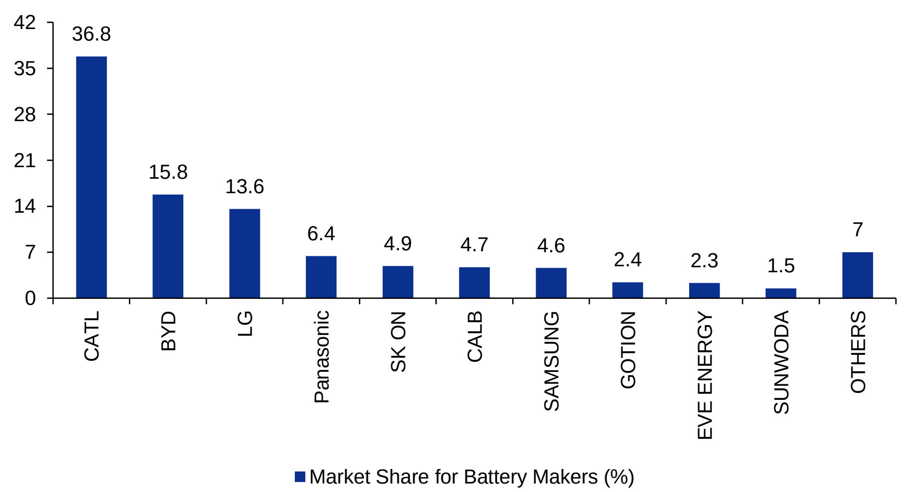



SOURCE: COMPANY REPORTS, INCRED RESEARCH

## Shift towards EVs, despite protectionism, could still be tricky for Indian ER&D vendors

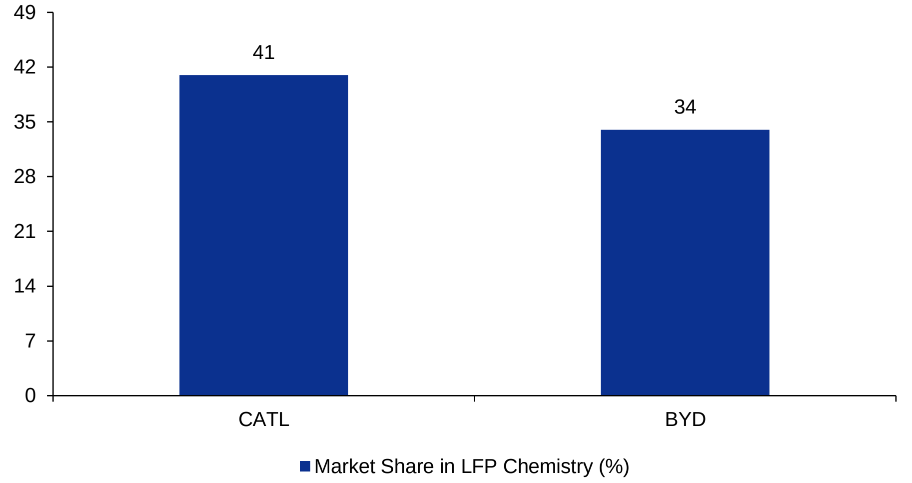
The EV market dynamics are changing rapidly from growth and adoption to protectionism as pure EV makers, led by BYD and Tesla, have technology, manufacturing and value chain advantage and are increasing the competitive intensity now to sustain demand which, in turn, is narrowing the EV pricing premium vs. comparable ICE models. Further, although protectionism is still not sanctions (CY19 semiconductor sanctions led to trade wars), the environment, in general, is less conducive for initiating new programs as the focus shifts to driving cost efficiency. Finally, a shift towards EVs, leapfrogged by BYD, despite the tariffs, reminds us of the telecom analogy. As a reminder, Indian IT services vendors were direct beneficiaries of the global shift towards 5G technology, except in China and Korea markets, given the presence of local vendors.

Figure 28: CATL is the market leader in global EV battery market




SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 29: However, in LFP battery chemistry, BYD leads CATL




SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Put together, it could moderate spending intensity or delay decisions

Select automakers now expect their R&D and capex intensity to moderate over the medium term as they reconsider the viability of hybrid and ICE models, and their focus shifts to profitability and cost efficiency. Analyzing the yoy auto vertical growth of Tata Elxsi and Tata Technologies suggests early signs of portfolio moderation, with top customers doing the heavy lifting. Scaling back investments could temper the growth expectations further.

Figure 30: Legacy automakers are revisiting their medium-term R&D and capex guidance…

| Automotive | R&D | | Capex | |
|---|---|---|---|---|
| | Avg. CY18-23 | Medium-Term Guidance | Avg. CY18-23 | Medium-Term Guidance |
| Volkswagen Group | 6.2% | 4-5% | 7.4% | ~6-7% |
| BMW | 6.0% | 4-5% | 6.7% | 5% |
| Nissan | 5.2% | 7-8% (Capex + R&D) | 3.8% | 7-8% (Capex + R&D) |
| Honda | 5.2% | 5.9% in FY25F | 2.5% | 3.3% in FY25F |
| Tesla | 4.9% | NA | 9.2% | NA |
| Ford | 5.1% | NA | 4.6% | US$8-9bn |
| Stellantis | 3.1% | ~8% (Capex + R&D) | 5.3% | ~8% (Capex + R&D) |
| General Motors | 5.6% | NA | 5.7% | US$10.5-11.5bn |
| ZF | 6.3% | ~EUR2.9bn | 4.2% | ~EUR2.5bn |
| Continental AG | 9.5% | NA | 6.0% | 9% |

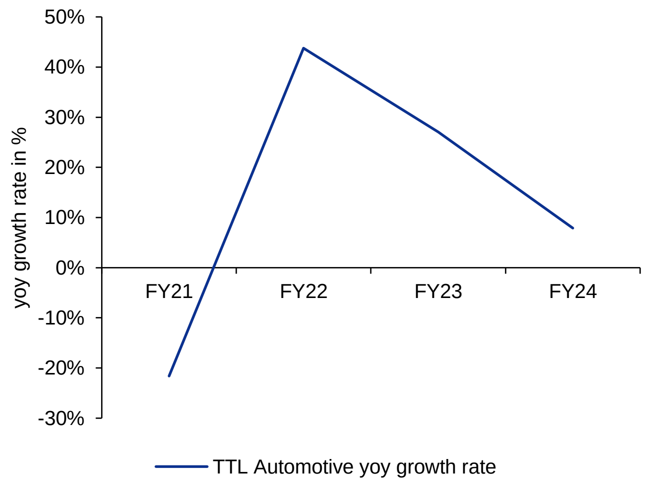
SOURCE: COMPANY REPORTS, INCRED RESEARCH
NOTE: HONDA ESTIMATE BASED UPON FY25F REVENUE GUIDANCE

**Figure 31: …as they reconsider the EV roadmap and viability of hybrid and ICE models**

| Company | Commentary |
|---|---|
| Volkswagen Group | The company has set a target of EUR 170bn investment for the next planning round over 2025F-2029F, which is lower than the EUR 10bn when compared with the previous planning round. The R&D spending is likely to be at 4-5% of revenue in CY24F (4.5% in 1QCY24) vs. 4.5%/5.1% in CY23/CY22, respectively. Automotive investment ratio (R&D and capex) likely to peak in CY24F (13.5%-14.5% of revenue; 14.4% in 1QCY24) and is likely to be <11% of revenue by 2027F, given product launches, battery/software and the final phase of ICE models. |
| BMW | The company intends to have >50% share in all electric cars in deliveries up to 2030F (vs. 14.7% in CY23). It has financial goals like >10% group EBIT margin, an 8-10% EBIT margin in the automotive segment (9.8% in CY23) and >=18% RoCE in the automotive segment in the medium term. BMW Group capex ratio was 5.7% in CY23, with expectations of around 6% in CY24F, while the strategic target is <5%. BMW Group's R&D ratio was 5% in CY23, with expectations of >5% in CY24F while the strategic target is 4-5%. |
| Nissan | The company expects its business to continue facing intense competition and inflationary pressure in FY24F. Mid-term (by FY26F) goals includes 16 new electrified models, 14 new ICE models, EV mix likely to be 20% in FY26F vs. 9% in FY23, a 1m volume increase by FY26F over FY23 and 6% operating profit by FY26F. Mid- to long-term (by FY30F) goals include the EV mix likely to be 40% and aims EV cost parity with ICE vehicles by FY30F, 8% operating profit by FY30F. Capex + R&D ratio vs net revenue likely to be ~7-8% over FY24-30F. The company aims at significant cost savings in subsequent models, like ~50% in development costs, ~70% variation in trim parts and shortened lead time. Nissan has outlined development cost reduction for its five models by 150bn Japanese yen. |
| Honda | Management expects an 0.6% decline in revenue in FY25F, increase in operating profit margin by 20bp to 7% and net profit declining by 9.7% yoy. The company expects capex at 670bn yen in FY25F vs. 387.9bn in FY24 and R&D expenses at 1,190bn yen vs. 964.6bn yen in FY24. The company plans to launch seven EV models globally by 2030F, including various models ranging from small to large size. The company retains its aim of achieving 100% global sales comprising EVs and FCEVs by 2040F. The company intends to invest approximately 10tr yen in resources over a 10-year period through FY31F. |
| Tesla | In 2024F, the vehicle volume growth rate may be notably lower than the growth rate achieved in 2023, as teams work on the launch of the next-generation vehicle at Gigafactory Texas. The company has sufficient liquidity to fund its product roadmap, long-term capacity expansion plan and other expenses. |
| Ford | On 4 Apr 2024, the company delayed producing all new electric large SUV and pickup trucks to 2027 & 2026, respectively, vs. the initial plan of 2025F. Its CEO Mr. Jim Farley highlighted that the company is committed to scaling a profitable EV business, using the capital wisely and bringing to the market the right gas, hybrid and fully electric vehicles at the right time. Even in the recent earnings call, Mr. Farley reiterated that the company still believes that EVs will grow, but noted widespread adoption by mass-market consumers won't happen until the costs are more in line with that of traditional vehicles. |
| Stellantis | The company has plans to have 48 BEVs by the end of CY24F vs. 30 BEVs at the end of CY23. It has introduced Citroën ë-C3, starting at €23,300, which is the most competitively priced B-segment electric vehicle (EV) produced in Europe. The company has secured electric vehicle battery raw material needs through 2027F, resulting from agreements with and investments in partners. It has given guidance of disciplined R&D expenses and capex for FY24F. |
| ZF | The company plans to invest EUR18bn over the next three years which are divided between R&D and property, plant and equipment (FY23 R&D spending stood at EUR 3.5bn and capex was EUR 2.2bn). |
| Continental AG | The company aims to reduce R&D intensity in the short term to 11% of revenue (vs. 11.8% of revenue in CY23) and less than 10% of revenue in the medium term. |

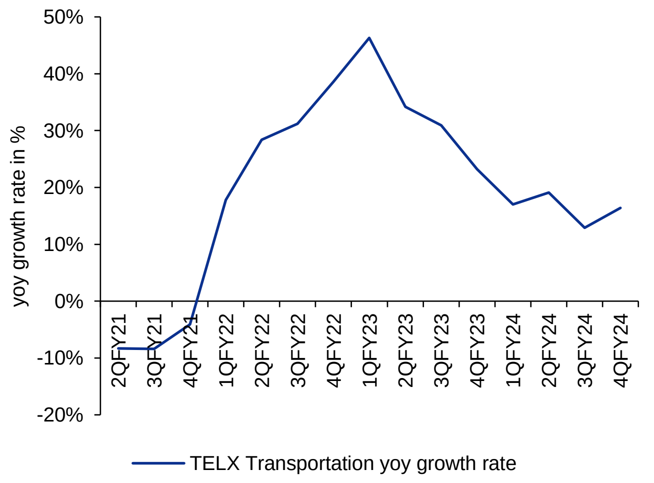
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 32: Vietnamese client ramp-down impacted TATATECH's FY24 growth…**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 33: …while the delay in deal ramp-up impacted Tata Elxsi's automotive transportation growth trajectory**



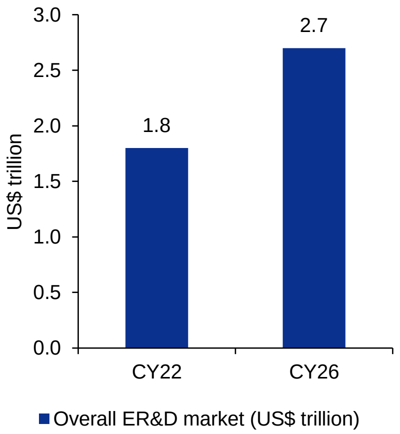

SOURCE: COMPANY REPORTS, INCRED RESEARCH

# Annexure: Automotive ER&D market overview

## Overall ER&D market could post a 10% CAGR over CY22-26F

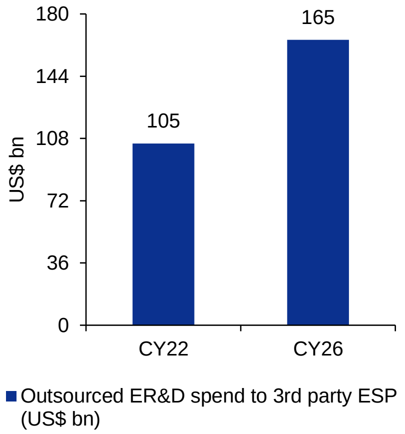
The overall ER&D market at US$1.8tr is likely to witness a 10% CAGR over CY22-26F driven by a) the focus on sustainability, b) shrinking innovation cycle, c) digitalization, and d) growing product complexity. Around 9% or US$170-180bn is the addressable market, with the GCC spend at US$65-70bn (~28%) and ~US$105-110bn (~72%) being outsourced to global ER&D service providers. The market addressed by Indian providers could increase at 13.8% CAGR over CY22-26F to US$42bn, with market share expansion of ~160bp to ~25.5% driven by rising outsourcing and talent availability. Comparing the available absolute opportunity (US$17bn) with the CY22 revenue size of ER&D companies (refer Fig. 36) suggests that significant growth headroom exists. Fig. 38 provides a capability overview of the key players operating in this segment.

**Figure 34: Overall ER&D spending…**



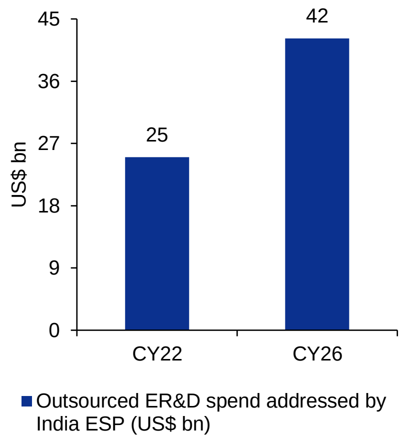

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 35: …of which outsourced to ESP…**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 36: …of which, addressed by Indian ESP**




SOURCE: INCRED RESEARCH, COMPANY REPORTS, ESP IS ER&D SERVICE PROVIDER

**Figure 37: ER&D revenue trend of key players**

| US$bn | CY18 | CY22 | CAGR |
|---|---|---|---|
| **Indian IT Cos** | | | |
| HCL Technologies | 2.09 | 3.67 | 15% |
| Tata Consultancy Services | 1.41 | 3.33 | 24% |
| Wipro | 1.40 | 2.36 | 14% |
| L&T Technology Services | 0.69 | 0.97 | 9% |
| Tech Mahindra | 0.82 | 1.02 | 6% |
| Infosys | 0.79 | 1.22 | 11% |
| Cyient | 0.66 | 0.69 | 1% |
| KPIT | 0.25 | 0.38 | 11% |
| Mindtree | 0.28 | 0.52 | 17% |
| Tata Tech | 0.43 | 0.50 | 4% |
| Tata Elxsi | 0.22 | 0.38 | 15% |
| Persistent Systems | 0.37 | 0.60 | 13% |
| **Global IT Cos** | | | |
| Alten | 2.60 | 2.99 | 4% |
| Accenture | 1.42 | 2.75 | 18% |
| Capgemini | 0.83 | 5.83 | 63% |
| Cognizant | 0.89 | 2.49 | 29% |
| DXC | 0.59 | 1.60 | 28% |
| EPAM | 0.35 | 1.93 | 53% |
| Bertrandt | 1.18 | 1.11 | -2% |

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 38: Capability comparison of select players**

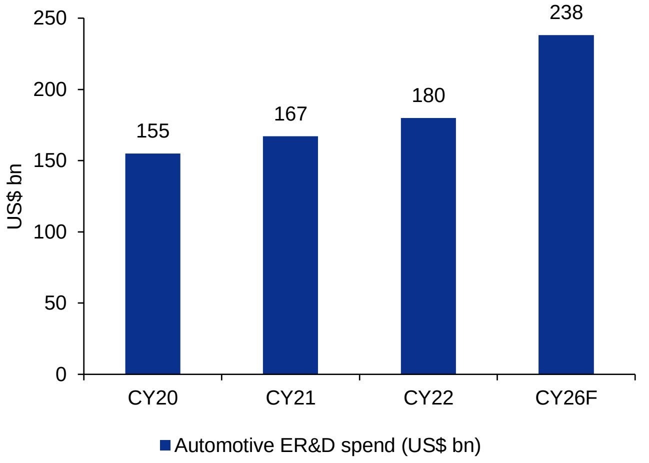
| | Aptiv | KPIT Technologies | Tata Technologies | Tata Elxsi |
|---|---|---|---|---|
| **ADAS** | | | | |
| Algorithm Development | ✓ | ✓ | ✓ | ✓ |
| Sensor Fusion | ✓ | ✓ | ✓ | ✓ |
| Computer Vision | ✓ | ✓ | ✓ | ✓ |
| Image Processing | ✓ | ✓ | ✓ | ✓ |
| **Body Engineering** | | | | |
| BIW & Closures | - | ✓ | ✓ | ✓ |
| CAD, CAM, CAE, FEA, FEM | ✓ | ✓ | ✓ | ✓ |
| Bumper Design | - | ✓ | ✓ | ✓ |
| Digital twin powered body design | - | ✓ | ✓ | ✓ |
| **Cloud Engineering** | | | | |
| Cloud based solutions | ✓ | ✓ | ✓ | ✓ |
| DevOps, SRE | ✓ | ✓ | ✓ | ✓ |
| CI/CD | ✓ | ✓ | ✓ | ✓ |
| Cloud Platforms | ✓ | ✓ | ✓ | ✓ |
| XaaS | - | - | ✓ | - |
| Cloud Transformation | ✓ | ✓ | ✓ | ✓ |
| PLM on Cloud | ✓ | ✓ | ✓ | ✓ |
| **Digital Manufacturing** | | | | |
| Predictive Maintenance | ✓ | - | ✓ | ✓ |
| IoT - Machine Connectivity | ✓ | - | ✓ | ✓ |
| Digital Twin | - | ✓ | ✓ | ✓ |
| **Embedded Engineering** | | | | |
| ECU Software Development & Testing | ✓ | ✓ | ✓ | ✓ |
| Model/Function Dev. For ADAS, V2X, IVI | ✓ | ✓ | ✓ | ✓ |
| Virtual ECU testing | - | ✓ | ✓ | ✓ |
| AUTOSAR | ✓ | ✓ | ✓ | ✓ |
| Virtual Environment | - | ✓ | ✓ | ✓ |
| Computer Vision | ✓ | ✓ | ✓ | ✓ |
| HV/LV Simulations | - | ✓ | ✓ | ✓ |
| Software for Diagnostics | ✓ | ✓ | ✓ | ✓ |
| **Powertrain** | | | | |
| Battery design and development | ✓ | ✓ | ✓ | ✓ |
| Battery frame Design | ✓ | ✓ | ✓ | ✓ |
| Brackets/Holder Design | ✓ | ✓ | ✓ | ✓ |
| Modular e-Driven Platform | ✓ | ✓ | ✓ | ✓ |
| Design of Transmission System | ✓ | ✓ | ✓ | ✓ |
| Engine/Motor Design | ✓ | ✓ | ✓ | ✓ |
| Powertrain Integration | ✓ | ✓ | ✓ | ✓ |
| **Hybrid & Electric** | | | | |
| Powertrain Controller Software | - | - | ✓ | |
| Battery Analytics | ✓ | - | ✓ | ✓ |
| HV-LV Simulations | - | ✓ | ✓ | ✓ |
| **Manufacturing Engineering** | | | | |
| Operation Technology | - | - | ✓ | - |
| Process Engineering | ✓ | - | ✓ | - |
| Assembly & Manufacturing | - | - | ✓ | - |
| EPC, Project Engineering | ✓ | - | ✓ | - |
| MES, SCADA, PLM Systems | - | - | ✓ | - |
| PCD, PLC, DCS, ICS, SIS, BAS | - | - | ✓ | - |
| **Telematics & Connected** | | | | |
| Network Slicing | ✓ | - | - | ✓ |
| V2X System Dev+ | ✓ | ✓ | - | ✓ |
| Remote Vehicle Diagnostics | ✓ | ✓ | ✓ | ✓ |
| Over The Air (OTA) | ✓ | ✓ | ✓ | ✓ |
| **Testing/Simulation/Analysis** | | | | |
| Stress, Thermal and Noise Analysis | - | ✓ | ✓ | ✓ |
| Mould Design and Analysis | ✓ | - | ✓ | ✓ |
| Stiffness & Bending Analysis | - | ✓ | ✓ | ✓ |
| **Infotainment** | | | | |
| IVI Architecture Design | - | ✓ | ✓ | ✓ |
| HMI Design & Development | ✓ | ✓ | ✓ | ✓ |
| 3rd Party App. Integration | - | - | ✓ | ✓ |
| Virtual Assistants Integration | ✓ | ✓ | ✓ | ✓ |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Automotive outsourced ER&D market could grow faster

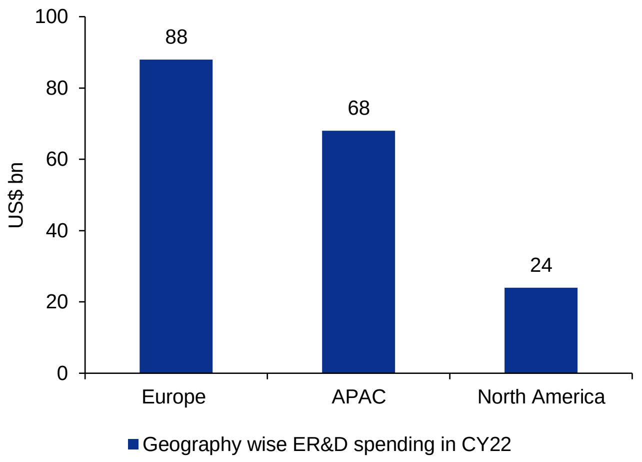
Automotive ER&D, which accounts for ~21% of the spending on manufacturing, (~48% of overall) is likely to grow at 7.4% CAGR to US$238bn in CY26F, driven by a 16% CAGR in digital engineering spending (US$46bn in CY22). Automotive outsourced ER&D (~10% of the overall automotive ER&D spending and ~US$18-20bn in 2022) is likely to grow at ~10.7% CAGR over 2022-26F to ~US$27bn led by adoption of new technologies, availability of skilled talent, cost savings and strategic utilization of resources.

Figure 39: Automotive ER&D spending is likely to witness a 7.4% CAGR over CY22-26F



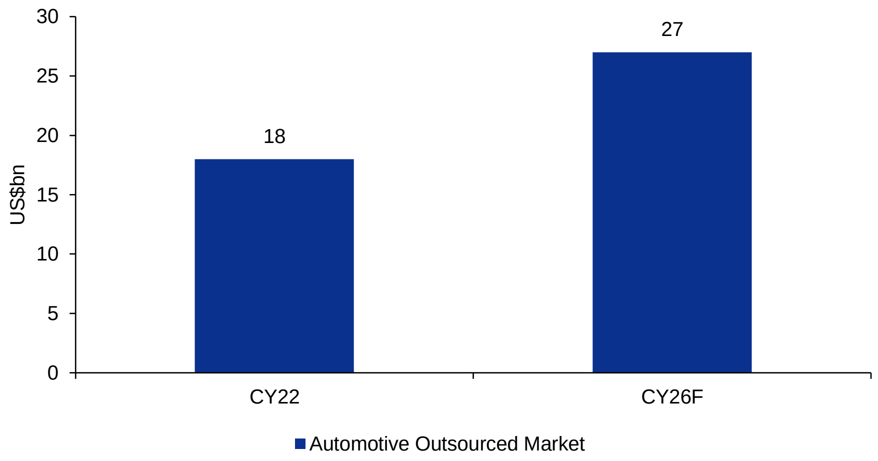

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 40: Europe remains the largest ER&D spender among geographies




SOURCE: INCRED RESEARCH, COMPANY REPORTS

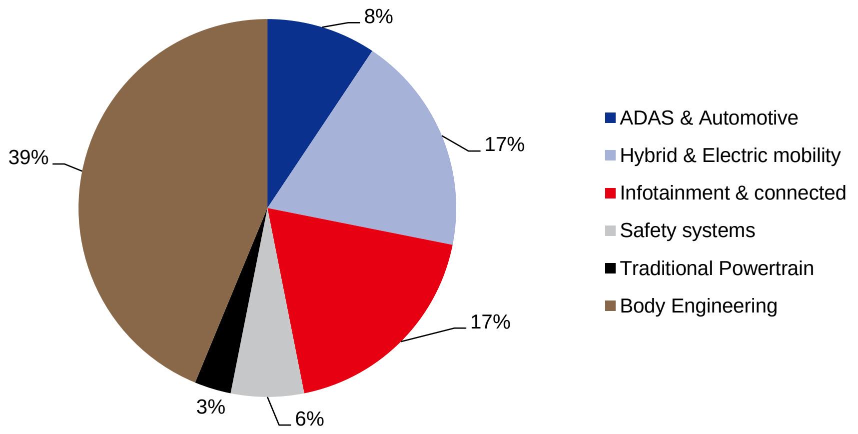
Figure 41: Automotive outsourced spending to grow at a 10.7% CAGR over CY22-26F (~340bp higher than automotive ER&D spending)




SOURCE: INCRED RESEARCH, COMPANY REPORTS

Segregating automotive outsourced ER&D spending, ADAS & autonomous at US$1.5-2bn constitutes ~8%, hybrid & electric mobility ~17% at US$3-4bn, infotainment & connected ~17% at US$3-4bn at, safety systems ~6% at US$1-2bn at ~6%, traditional powertrain (US$0.5-1.5bn) at ~3% and body engineering ~39% at US$7-8bn. Although, hybrid & electric mobility is expected to grow at ~11% CAGR to US$6bn in CY26F, the recent news flow of scaling back investments by automakers, given gross margin pressure, could moderate the spending intensity.

**Figure 42: Concentration of spending within automotive outsourced ER&D**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 43: Peer comparison**

| Revenue - US$m | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | CAGR |
|---|---|---|---|---|---|---|---|
| L&T Technology Services | 723 | 786 | 737 | 880 | 990 | 1,164 | 10.0% |
| Tata Technologies | 422 | 402 | 322 | 474 | 547 | 618 | 7.9% |
| Tata Elxsi | 229 | 227 | 246 | 332 | 391 | 429 | 13.4% |
| KPIT Technologies | NA | 304 | 275 | 328 | 418 | 587 | 17.9% |
| Cyient | 660 | 625 | 557 | 608 | 632 | 714 | 1.6% |
| **Revenue - Rsm** | | | | | | | |
| L&T Technology Services | 50,783 | 56,191 | 54,497 | 65,697 | 80,136 | 96,473 | 13.7% |
| Tata Technologies | 29,422 | 28,521 | 23,809 | 35,296 | 44,142 | 51,172 | 11.7% |
| Tata Elxsi | 15,969 | 16,099 | 18,262 | 24,708 | 31,447 | 35,521 | 17.3% |
| KPIT Technologies | NA | 21,562 | 20,357 | 24,324 | 33,650 | 48,715 | 22.6% |
| Cyient | 46,175 | 44,274 | 41,324 | 45,344 | 50,957 | 59,114 | 5.1% |
| **EBITDA margin** | | | | | | | |
| L&T Technology Services | 18.0% | 20.1% | 18.5% | 21.5% | 21.3% | 19.9% | 19.9% |
| Tata Technologies | 17.2% | 16.5% | 16.2% | 18.3% | 18.6% | 18.4% | 17.5% |
| Tata Elxsi | 26.0% | 21.3% | 28.7% | 31.0% | 30.6% | 29.5% | 27.9% |
| KPIT Technologies | NA | 13.4% | 15.1% | 18.0% | 18.5% | 20.2% | 17.0% |
| Cyient | 13.7% | 12.4% | 13.9% | 18.0% | 18.2% | 20.2% | 16.1% |
| **EBITDA - Rsm** | | | | | | | |
| L&T Technology Services | 9,157 | 11,288 | 10,074 | 14,149 | 17,069 | 19,198 | 16.0% |
| Tata Technologies | 5,049 | 4,704 | 3,857 | 6,456 | 8,210 | 9,416 | 13.3% |
| Tata Elxsi | 4,152 | 3,429 | 5,241 | 7,659 | 9,623 | 10,479 | 20.3% |
| KPIT Technologies | NA | 2,889 | 3,074 | 4,378 | 6,225 | 9,841 | 35.8% |
| Cyient | 6,328 | 5,489 | 5,750 | 8,178 | 9,274 | 11,941 | 13.5% |
| **PAT - Rsm** | | | | | | | |
| L&T Technology Services | 7,656 | 8,186 | 6,633 | 9,570 | 11,699 | 13,037 | 11.2% |
| Tata Technologies | 3,527 | 2,516 | 2,392 | 4,370 | 6,241 | 6,794 | 14.0% |
| Tata Elxsi | 2,900 | 2,560 | 3,681 | 5,499 | 7,552 | 7,922 | 22.3% |
| KPIT Technologies | - | 1,466 | 1,461 | 2,742 | 3,810 | 5,945 | 41.9% |
| Cyient | 4,785 | 3,425 | 3,638 | 5,223 | 5,239 | 6,893 | 7.6% |
| **Employee count** | | | | | | | |
| L&T Technology Services | 15,140 | 16,883 | 16,452 | 20,861 | 23,074 | 23,812 | 9.5% |
| Tata Technologies | 9,263 | 8,623 | 7,954 | 9,338 | 11,638 | 12,688 | 6.5% |
| Tata Elxsi | 6,060 | 6,577 | 7,362 | 9,376 | 11,864 | 13,399 | 17.2% |
| KPIT Technologies | - | 7,125 | 6,366 | 8,245 | 11,013 | 12,856 | 15.9% |
| Cyient | 15,084 | 13,859 | 12,032 | 13,428 | 15,172 | 15,461 | 0.5% |
| **Revenue per employee (US$)** | | | | | | | |
| L&T Technology Services | 47,762 | 46,573 | 44,773 | 42,194 | 42,905 | 48,883 | 0.5% |
| Tata Technologies – Services | 38,220 | 38,258 | 32,500 | 38,090 | 37,661 | 37,938 | -0.1% |
| Tata Elxsi | 37,723 | 34,474 | 33,474 | 35,378 | 32,957 | 32,017 | -3.2% |
| KPIT Technologies | - | 42,639 | 43,167 | 39,830 | 37,955 | 45,675 | 1.7% |
| Cyient | 43,755 | 45,104 | 46,285 | 45,293 | 41,682 | 46,174 | 1.1% |
| **EBITDA per employee (Rs)** | | | | | | | |
| L&T Technology Services | 6,04,835 | 6,68,602 | 6,12,327 | 6,78,251 | 7,39,749 | 8,06,237 | 5.9% |
| Tata Technologies | 5,45,093 | 5,45,564 | 4,84,926 | 6,91,411 | 7,05,448 | 7,42,091 | 6.4% |
| Tata Elxsi | 6,85,139 | 5,21,376 | 7,11,925 | 8,16,924 | 8,11,089 | 7,82,057 | 2.7% |
| KPIT Technologies | - | 4,05,511 | 4,82,873 | 5,31,024 | 5,65,264 | 7,65,441 | 17.2% |
| Cyient Ltd | 4,19,517 | 3,96,060 | 4,77,892 | 6,09,026 | 6,11,269 | 7,72,332 | 13.0% |
| **OCF (Rsm)** | | | | | | | |
| L&T Technology Services | 8,062 | 6,381 | 13,325 | 10,062 | 13,051 | 14,928 | 13.1% |
| Tata Technologies | 3,690 | 2,674 | 11,132 | -385 | 4,014 | 2,943 | -4.4% |
| Tata Elxsi | 2,149 | 2,558 | 4,374 | 4,830 | 4,869 | 7,012 | 26.7% |
| KPIT Technologies | - | 3,887 | 6,276 | 4,750 | 4,624 | 10,018 | 26.7% |
| Cyient | 3,701 | 5,824 | 8,558 | 6,345 | 4,980 | 7,978 | 16.6% |
| **OCF / EBITDA** | | | | | | | |
| L&T Technology Services | 88.0% | 56.5% | 132.3% | 71.1% | 76.5% | 77.8% | 83.7% |
| Tata Technologies | 73.1% | 56.8% | 288.6% | -6.0% | 48.9% | 31.3% | 82.1% |
| Tata Elxsi | 51.8% | 74.6% | 83.5% | 63.1% | 50.6% | 66.9% | 65.1% |
| KPIT Technologies | - | 134.5% | 204.2% | 108.5% | 74.3% | 101.8% | 124.7% |
| Cyient | 58.5% | 106.1% | 148.8% | 77.6% | 53.7% | 66.8% | 85.3% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

NOTE: EBITDA MARGIN AND OCF/EBITDA CONSIDERED IN AVERAGE TERMS INSTEAD OF CAGR

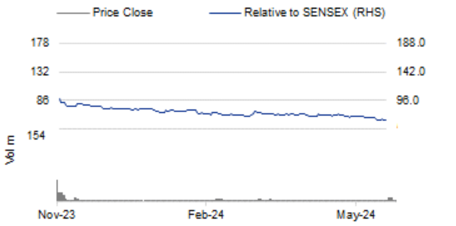
India

**REDUCE** *(Initiating coverage)*

| Consensus ratings*: | Buy 3 | Hold 0 | Sell 6 |
|---|---|---|---|

| | |
|---|---|
| Current price: | Rs1,004 |
| Target price: | Rs797 |
| Previous target: | NA |
| Up/downside: | -20.6% |
| EIP Research / Consensus: | -20.6% |
| Reuters: | |
| Bloomberg: | TATATECH IN |
| Market cap: | US$4,871m |
| | Rs407,109m |
| Average daily turnover: | US$17.6m |
| | Rs1473.1m |
| Current shares o/s: | 405.9m |
| Free float: | 4,461.0% |

**Source: Bloomberg*




*Source: Bloomberg*

| Price performance | 1M | 3M | 12M |
|---|---|---|---|
| Absolute (%) | (7.3) | (1.6) | 0.0 |
| Relative (%) | (11.2) | (8.7) | 0.0 |

| Major shareholders | % held |
|---|---|
| Promoter | 55.4 |
| TPG rise climate Sf Pte Ltd | 9.0 |
| Alpha Tc Holdings Pte ltd | 4.9 |

# Tata Technologies Ltd

## Stretched expectations

- Profitability focus of automakers could moderate revenue growth assumptions.
- Aerospace vertical witnessing an uptick but has seen sharp cyclicality in the past. Acceleration in technology solutions business could weigh on the margin.
- Initiate coverage with a REDUCE rating and a target price of Rs797.

### Good franchise but stretched expectations

Tata Technologies' (TATATECH) long-standing relationship with anchor clients (JLR since 2010 and Tata Motors or TML) have helped incubate and build domain expertise and capabilities spanning the entire automotive value chain (including concept design, styling, tear down & benchmarking or TDBM, vehicle architecture, body engineering, chassis engineering, virtual validation, e-powertrain, electrical and electronics, connected, manufacturing engineering, validation, and vehicle launch). This, coupled with the market opportunity, could aid the automotive vertical's growth. However, the expectations appear stretched in the backdrop of moderating EV demand and gross margin pressure from rising competitive intensity, underlying focus of legacy automakers on profitability & cost efficiency and current uncertain macroeconomic challenges.

### Aerospace in an uptick but has witnessed sharp cyclicality

The aerospace business could witness growth over the next two years, given the accreditation with a large aircraft manufacturer in FY22. Tata Technologies would work on its engineering, manufacturing engineering, & services strategic supplier program across multiple domains & geographies. The company highlighted that it has been building its order book post-accreditation and that the ramp-up could aid material revenue in FY25F and FY26F. Although the vertical may be in a spending uptick, historically it has witnessed sharp cyclicality and hence, building a linear trajectory may not be ideal.

### Current share price factoring in a 12.5% growth CAGR over FY24-33F

The current share price implies a steep 12.5% US$ revenue CAGR over FY24-FY33F vs. a 4.9% CAGR posted over FY13-FY24 and average 17.4% EBIT margin vs. 14.7% during FY13-FY24. We believe the assumptions in an environment where EV and legacy automakers are facing gross margin (GM) pressure are stretched while accelerated growth in technology solutions business could weigh on the margin. M&A and increased participation in hybrid technology spending is an upside risk to our thesis.

### Initiate coverage with a REDUCE rating and a target price of Rs797

We expect US$ revenue/EBITDA (Rsm)/PAT (Rsm) CAGR of 14.5%/18.6%/18.2%, respectively, over FY24-27F. Our DCF-based target price of Rs797 implies a target P/E of 34.3x FY26F EPS, in line with the peer group (LTTS, Tata Elxsi, KPIT Technologies and Cyient) average of ~34x FY26F consensus EPS. Upside risk to our estimates and rating: EV recovery-led growth in the automotive business unit could in turn aid the margin traction in non-anchor clients.

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| Financial Summary | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Revenue (Rsm) | 44,142 | 51,172 | 58,785 | 69,471 | 80,643 |
| Operating EBITDA (Rsm) | 8,210 | 9,413 | 11,083 | 13,334 | 15,684 |
| Net Profit (Rsm) | 6,241 | 6,794 | 7,785 | 9,436 | 11,224 |
| Core EPS (Rs) | 15.4 | 16.7 | 19.2 | 23.2 | 27.7 |
| Core EPS Growth | 42.8% | 8.9% | 14.6% | 21.2% | 18.9% |
| FD Core P/E (x) | 65.27 | 59.96 | 52.32 | 43.17 | 36.29 |
| DPS (Rs) | 0.0 | 10.0 | 10.5 | 11.0 | 11.5 |
| Dividend Yield | 0.00% | 1.00% | 1.04% | 1.09% | 1.14% |
| EV/EBITDA (x) | 47.98 | 42.08 | 35.60 | 29.31 | 24.57 |
| P/FCFE (x) | 121.32 | 201.13 | 78.82 | 54.31 | 45.54 |
| Net Gearing | (44.7%) | (34.8%) | (35.6%) | (40.7%) | (46.4%) |
| P/BV (x) | 13.63 | 12.65 | 11.40 | 10.00 | 8.62 |
| ROE | 23.7% | 21.9% | 22.9% | 24.7% | 25.5% |
| % Change In Core EPS Estimates | | | | | |
| InCred Research/Consensus EPS (x) | | | | | |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

# Investment Arguments

## Well-positioned but growth assumptions stretched

Tata Technologies' offerings span the entire automotive value chain (full vehicle proposition and light-weight structures) which, coupled with longstanding relationship with anchor clients (JLR since 2010 and Tata Motors or TML), cross -selling, increase in wallet share across existing ex-anchor automotive clients and structural outsourcing by automakers could continue to aid the automotive vertical's growth. Although the recent Tata Technologies' board seeking a resolution to approve related-party transactions between Tata Technologies Europe or TTEL, a wholly-owned subsidiary of Tata Technologies) and Jaguar Land Rover for a value not exceeding Rs13,455m during FY25F (JLR's FY24 revenue was Rs10,077m) suggests anchor client growth could be supportive (JLR contributed ~97% to incremental Tata Technologies' or TATATECH's automotive services revenue in FY24 and average ~24% over FY21-23), the growth in non-anchor clients could be tricky in the backdrop of moderating EV demand, gross margin pressure from rising competition, underlying focus of legacy automakers on profitability & cost efficiency, and the current uncertain macroeconomic environment.

### Overview of Pune facility with capability insights

TATATECH's Pune facility is spread across 3,50,000 sqft and employs 3,000+ people, and its capabilities include digital studio (digital thread, factory of the future and smart manufacturing), full vehicle development stack, embedded + software defined vehicle, and ICE to EV demo and tear down benchmarking solution (Axia Lab). TATATECH differentiates itself as the only player providing end-to-end product development capabilities in the automotive segment.

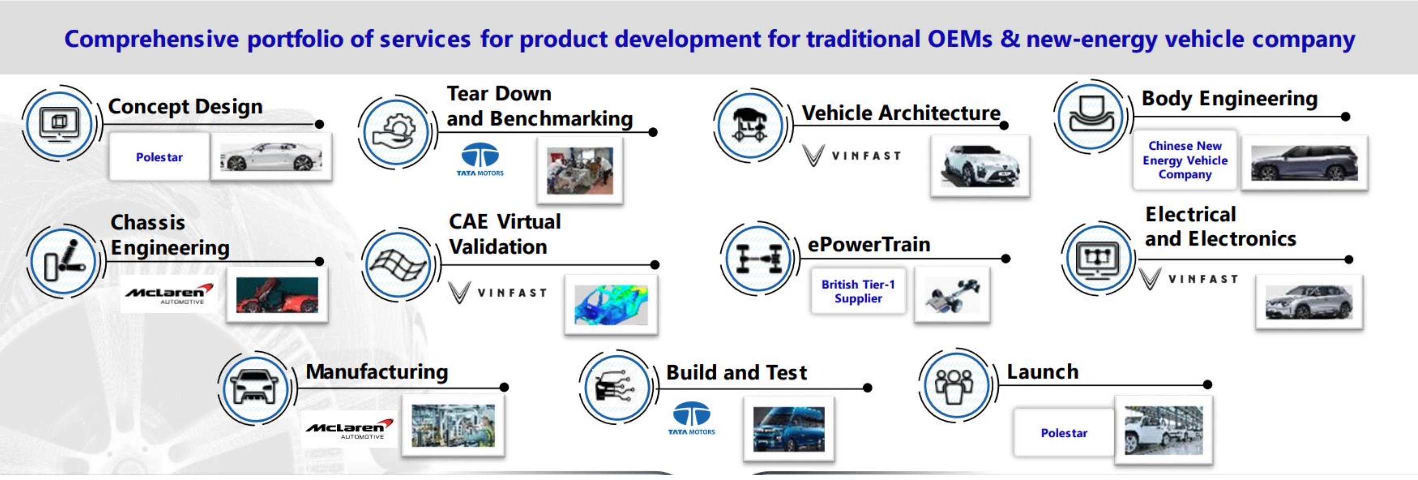
The digital studio showcased TATATECH's presence in product definition, product engineering, manufacturing & process engineering, operations & production, after-market services and customer experience. TATATECH has 30+ accelerators as a part of smart manufacturing. The company highlighted some use cases like engineering definition & specifications management for a North American EV player, connected car feature, over-the-air updates, and enhancing UI for a Vietnam-based EV player, an application to engage directly with the customers and digital integration of applications for a South Korean customer.

TATATECH's full vehicle program capability spans market definition & product strategy, concept, styling & vehicle architecture, detailed engineering & design, manufacturing process, product & process validation, production readiness & launch, and continuous improvement with platforms such as eVMP (electric vehicle accelerator platform), PULSE (end-to-end process tracking) and TREAD (Turnkey Research Engineering and Development) key research framework (life cycle of EV development) as a part of its overall offerings. TATATECH delivered solutions such as vehicle architecture, prototype build & test support, battery swap development, PLM strategy & implementation, program management support, launch support, etc.

TATATECH's solutions for software-defined vehicles covers vehicle engineering, embedded software, middleware & cloud, digital manufacturing, cybersecurity and customer experience while FOTA (firmware-over-the-air) updates for 6,000+ cars for a South East Asian EV company, ADAS solutions for an emerging Asian OEM, and software integration & validation solutions for a European luxury OEM are some of the success stories.

Internal combustion engine (ICE) to electric vehicle (EV) demo and tear-down benchmarking solutions have helped convert an existing ICE architecture to EV within 18 months vs. 36-40 months for new EV car development. TATATECH has successfully converted ICE to EV for Tata Tiago EV, Tata Tigor EV and is in the process for two more vehicles (~40% work completed in one vehicle and ~15% in the other). We believe the learning curve from Tata Motors' ICE to EV projects could act as a good reference point for potential opportunities elsewhere.

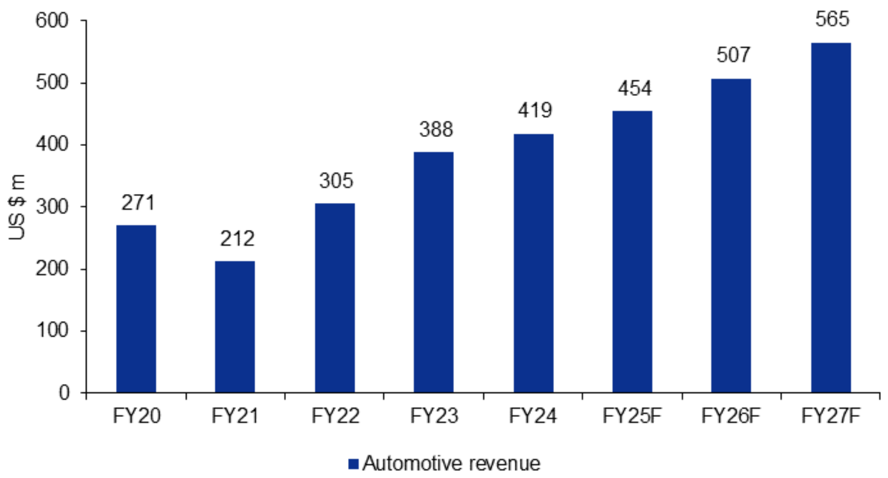
Figure 44: TATATECH's portfolio of offerings in the automotive segment




SOURCE: INCRED RESEARCH, COMPANY REPORTS

We expect a 10.5% revenue CAGR in the automotive vertical over FY24-27F led by ramp-up of large deals (14 large deals won in FY24) and ramp-up of BMW JV in 2HFY25F. This is below the 11.5% CAGR delivered over FY20-FY24 and slower than the steep 12.5% US$ revenue CAGR over FY24-FY33F factored in the current share price, as per our reverse DCF analysis. We believe that our growth assumptions in the current macroeconomic environment of GM pressure (for both legacy and EV automakers) are realistic while accelerated growth in anchor clients and technology solutions business, large deals in the aerospace vertical, faster-than-anticipated ramp-up in Agratas & BMW deal and participation in hybrid technology-driven spends are key upside risks to our estimates.

Figure 45: We expect the automotive vertical's revenue (~86% of services revenue) to grow at a 10.5% CAGR over FY24-27F, slower than 11.5% over FY20-24

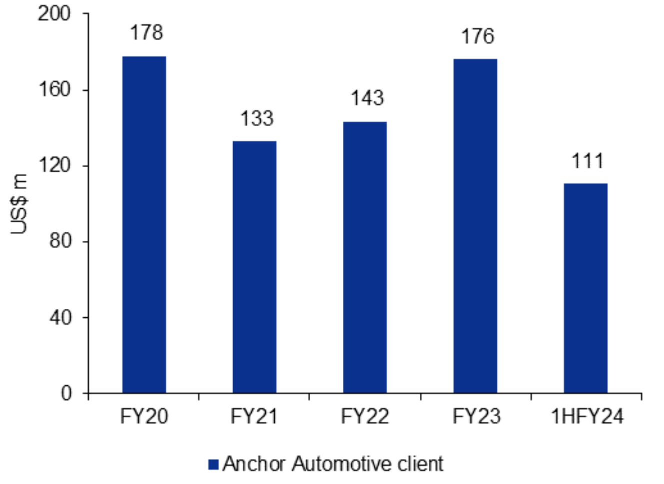



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Anchor client's committed investments are encouraging but R&D's share, as a percentage of that spending, is at its peak

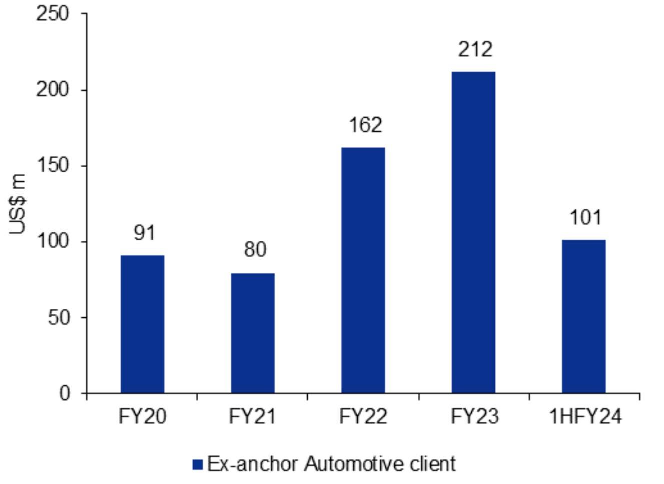
Anchor client (JLR+TAMO) growth, led by JLR, is anticipated to be a key revenue driver, given its focus on BEV (battery electric vehicles) architecture in its models and digital transformation, and committed investments of **GBP 18bn over FY24-28F with ~70%+ in R&D spending**. However, R&D spending, as a percentage of total investments, was at its highest level at 71.5% in FY24 and has risen by ~27pp from 44.8% in FY15. We believe the right shifting of incremental spending is a key risk, given the 1) moderation in EV demand, and 2) gross margin pressure.

**Figure 46: JLR contributed ~97% to incremental automotive services vertical's revenue in FY24…**



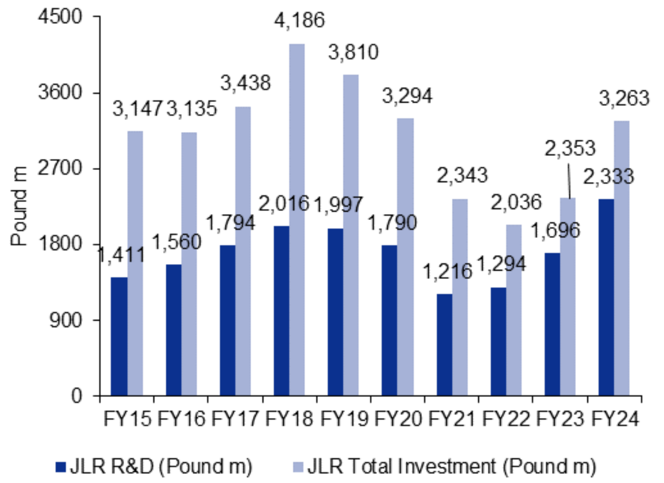

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 47: …while ramp-down in Vinfast in 2HFY24 impacted non-anchor client's performance**



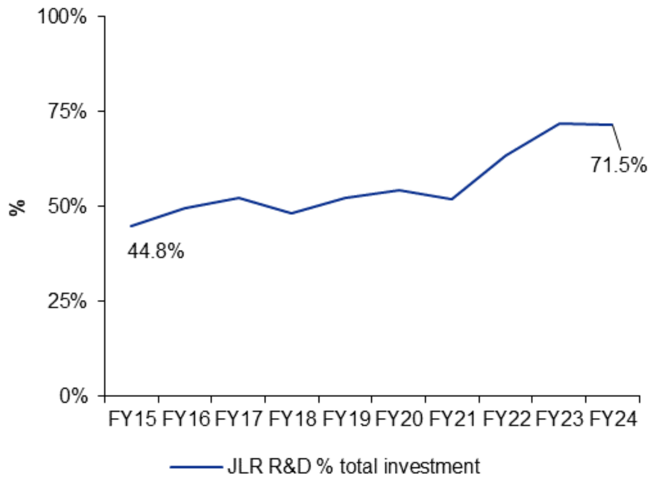

SOURCE: INCRED RESEARCH, COMPANY REPORTS, COMPANY HAS NOT DISCLOSED CLIENT DETAILS FROM 3QFY24 FINANCIALS

**Figure 48: FY24-28F investment commitment is healthy…**



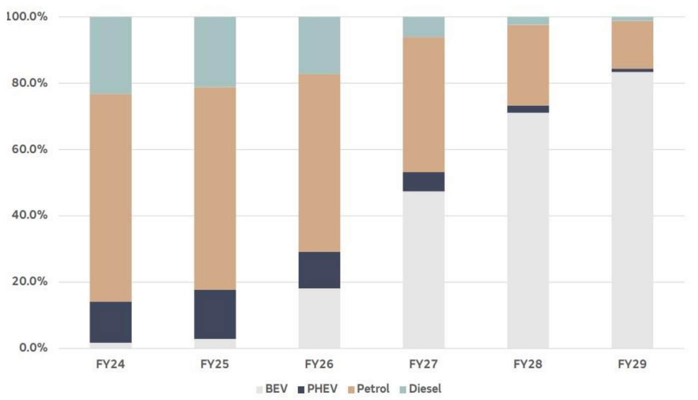

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 49: …but R&D's share is at its peak**



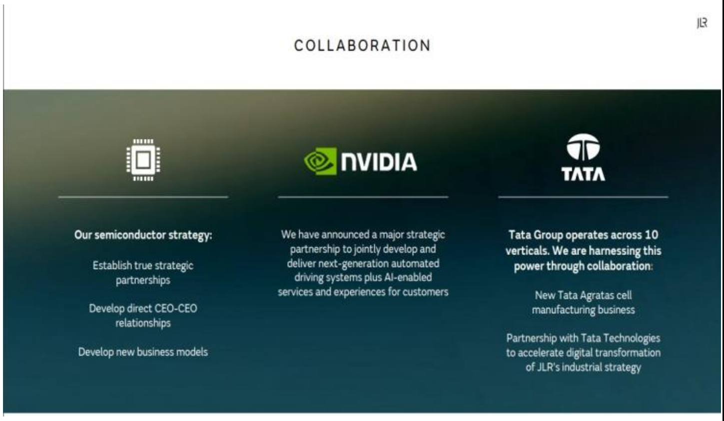

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 50: JLR powertrain-related spending forecast shows a higher proportion towards BEV in the medium term…**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 51: …and TATATECH remains a key partner to accelerate JLR's digital transformation**

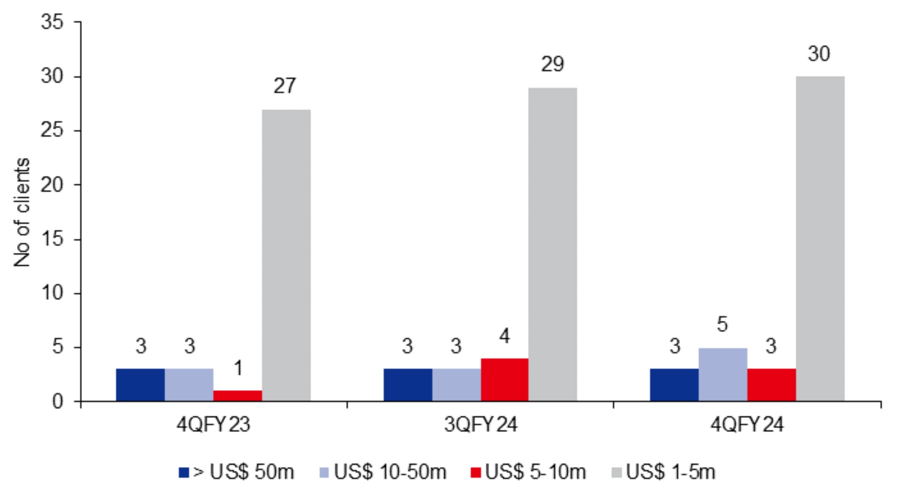



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Rising profitability focus of automakers is a risk to non-anchor automotive customer growth assumption

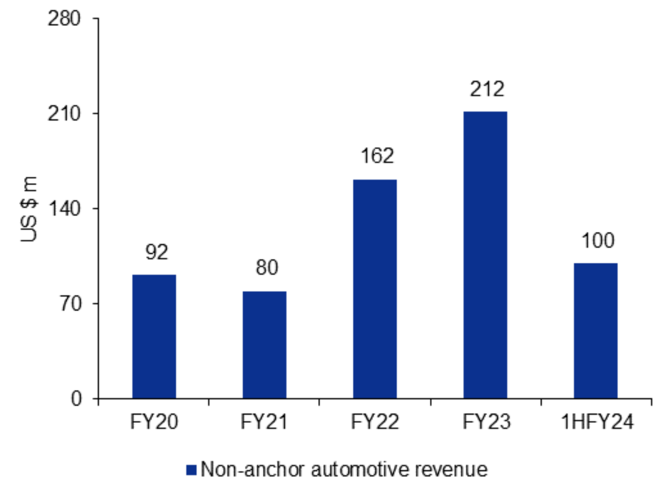
TATATECH moved to a vertical structure in FY22, vs. regional earlier, to capitalize on the opportunity in ACES (autonomous, connected, electrification and shared) across its manufacturing clients while the proprietary Electric Vehicle Modular Platform (eVMP) helped secure multi-million-dollar orders in the electric vehicle battery space and investments in digital and embedded systems led to large deal wins in Europe, North America & Asia Pacific. This strategic move to capture new growth opportunities outside anchor relationships (Tata Motors & JLR) could continue to aid revenue diversification (non-anchor accounts contributed ~57% in FY24 automotive revenue vs. ~37% in FY21). However, moderating EV demand, gross margin pressure from rising competitive intensity in EVs, underlying focus of legacy automakers on profitability & cost efficiency and the current uncertain macroeconomic environment are key risks.

**Figure 52: Focus on scaling of accounts led to…**



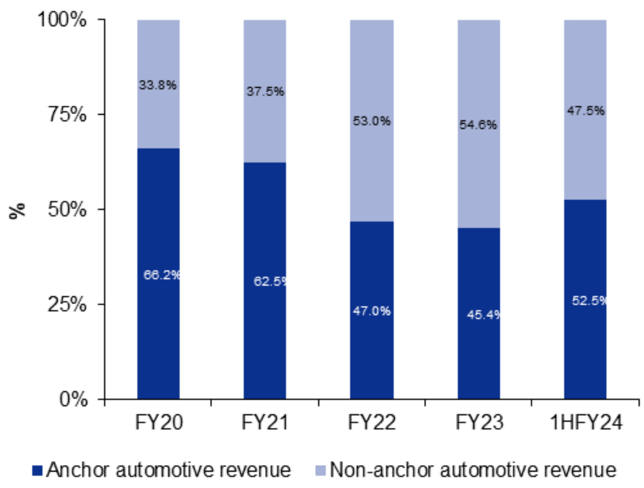

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 53: …non-anchor automotive clients' witnessing a healthy revenue traction…**




SOURCE: INCRED RESEARCH, COMPANY REPORTS, COMPANY HAS NOT DISCLOSED CLIENT DETAILS FROM 3QFY24 FINANCIALS

**Figure 54: …and an increase in contribution**

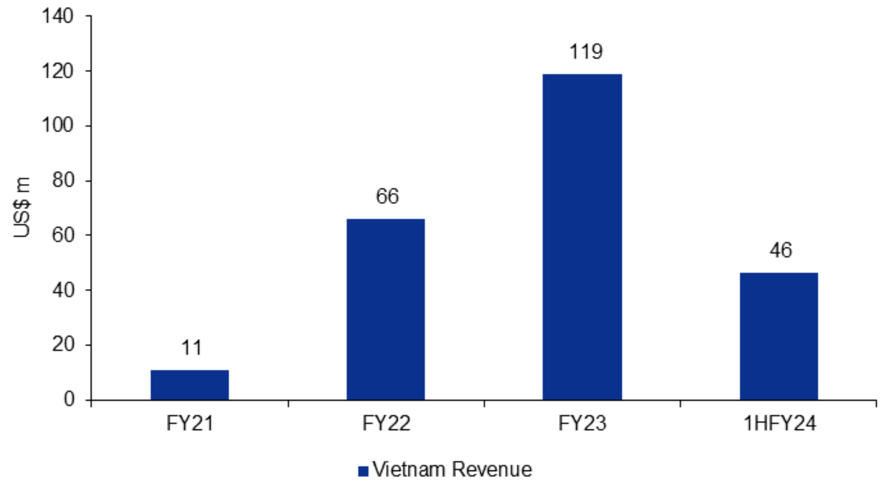



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## China EV market is witnessing the impact of rising competitive intensity led by BYD

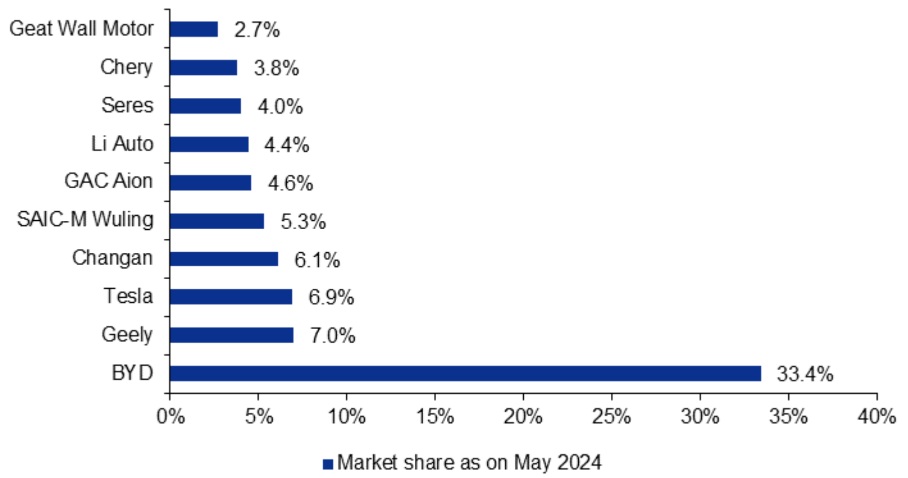
Although moderation in the Vinfast account is likely known, moderation in demand led by withdrawal of subsidies and rising competitive intensity in China led by BYD is likely impacting the financials of the industry. Designation of EVs as a strategic emerging industry led to the rise of the sector in China and a long tail of companies operating in the space. However, to control the same, the government raised the threshold for issuing production licences and withdrew the subsidies, thereby leading to survival of the fittest. Further, rising competitive intensity led by BYD, the dominant leader with a 33.4% volume market share vs. 7% and 6.9% volume market share of the second and third-largest company, respectively, is further impacting the industry. To illustrate NIO reported a gross margin of 9.5% in CY23 vs. 13.7%/20.1% in CY22/CY21, respectively.

**Figure 55: Vietnamese client ramp-down in FY24 highlights the magnitude of potential risk**




SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 56: Rising competitive intensity led by dominant BYD could impact others**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Aerospace business in an uptick but has witnessed sharp cyclicality

The aerospace business could witness growth acceleration over the next two years led by accreditation with a large aircraft manufacturer in FY22. TATATECH would work on its engineering, manufacturing engineering, and services strategic supplier (EMES3) program with collaboration across multiple domains &

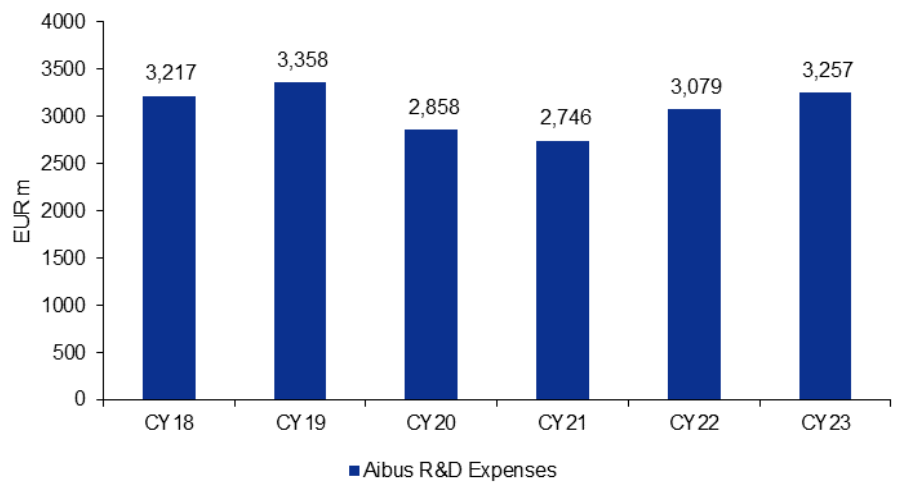
geographies. TATATECH highlighted that it has been building its order book post-accreditation and that the ramp-up could aid material growth in FY25F and FY26F. Further, the presence of Tata Group in the airline industry and future prospects may strengthen TATATECH's presence in the aerospace vertical. As a reminder, TATATECH is already involved in the refurbishment of Air India's existing fleet and is likely to be one of the key partners in the medium term. That said, historically, aerospace vertical's revenue growth of peers has witnessed sharp cyclicality and hence, building a linear trajectory may not be ideal.

**Figure 57: Aerospace outsourced market likely to witness a 10% CAGR over CY22-26F**

| | CY21 | CY22 | CY26F |
|---|---|---|---|
| Aerospace - outsourced ER&D spending (US$ bn) | 7 | 9 to 10 | 13.2 to 14.6 |

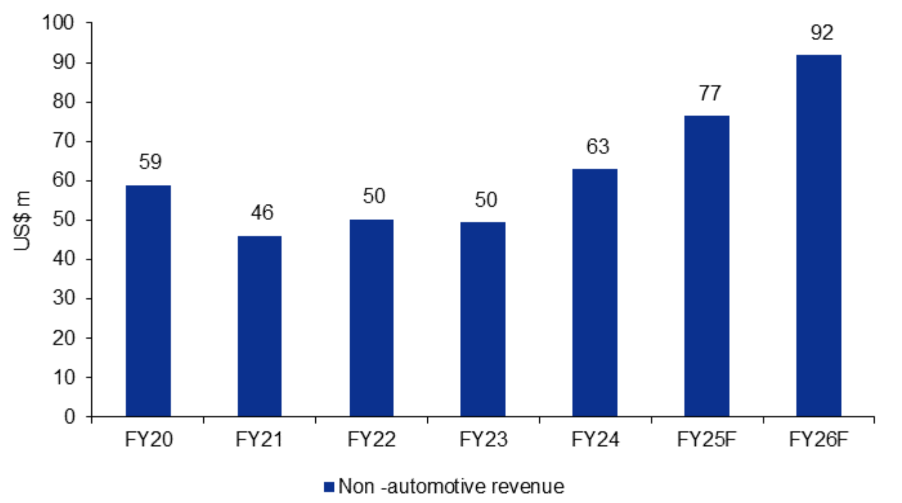
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 58: R&D expenses of Airbus averaged ~5.4% of revenue over CY18-23**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 59: Ramp-up by a large aerospace client could aid TATATECH's non-automotive revenue in FY25F**

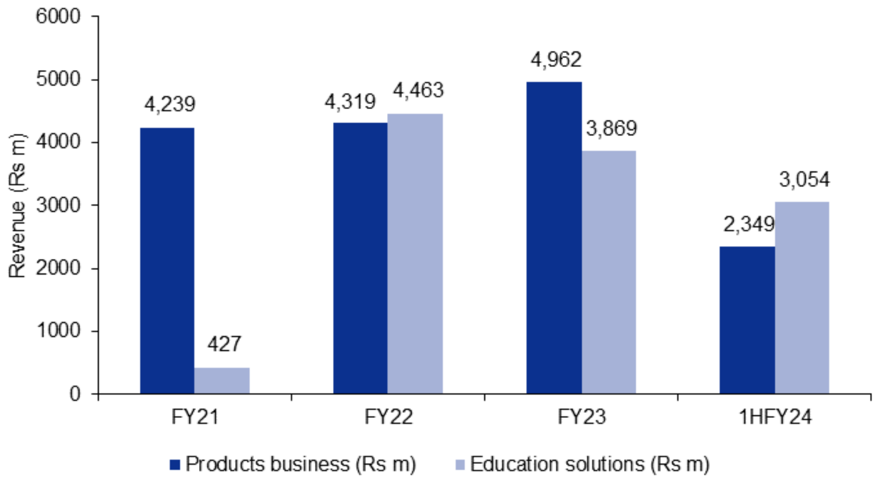



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Technology solutions complements services growth but could weigh on margins

TATATECH, which leverages its automotive domain experience and in-house training expertise to address the lack of skills challenge in the automotive sector, has collaborated with government-backed industrial training institutes or ITIs and private companies to provide training solutions. Initially, TATATECH signed a Memorandum of Understanding or MoU with the Karnataka government for training solutions and subsequently, with nine other states. Management highlighted that the business is still in a nascent stage and is likely to witness growth in the medium term led by providing training solutions across multiple states. However, the business is project-based and lumpy in nature but profitable. Finally, the margins of technology solutions business, which includes re-selling third-party software & value-added services, are lower than that of core services business and a higher incremental contribution could weigh on margins.

**Figure 60: Education business within the technology solutions group could remain lumpy**

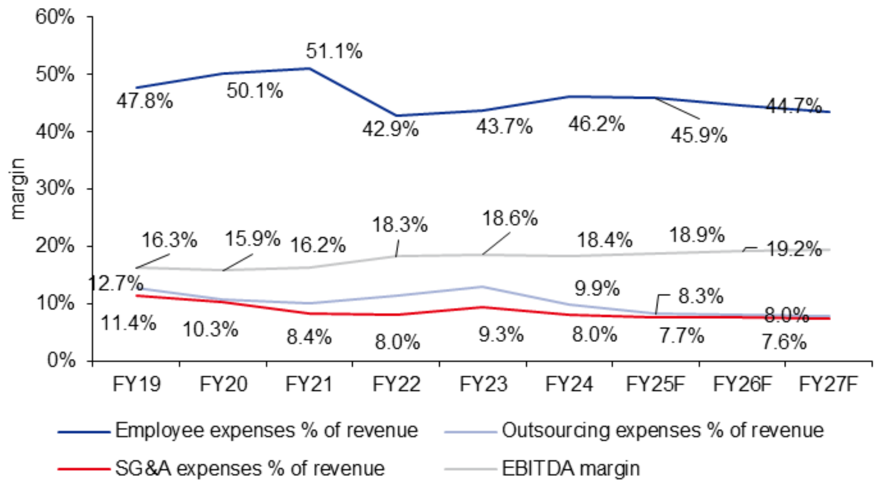



SOURCE: COMPANY REPORTS, INCRED RESEARCH
NOTE: COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

## Cash conversion could have been stable; higher contribution of technology solutions' to growth could worsen it further

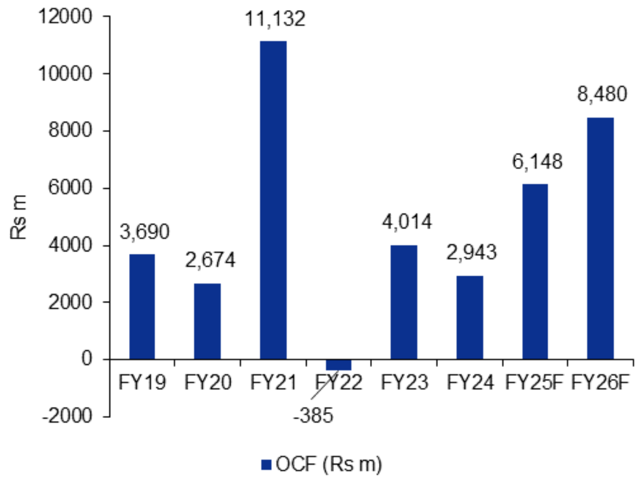
TATATECH's EBITDA margin rose by ~600bp to 18.4% in 4QFY24 vs. 12.5% in FY18, driven by growth leverage and moderation in consultancy & miscellaneous expenses. Going ahead, management aspires to sustain and improve the margins led by the employee pyramid correction, offshoring, growth leverage from increasing wallet share and operational efficiency. Hence, we model an average 19.2% EBITDA margin over FY25F-27F vs. an average 17.3% over FY19-24. Although cash conversion appears to be healthy, with an average OCF/EBITDA of ~83% over FY18-FY24, it remains uneven and skewed (289% in FY21, and -6% in FY22) driven by the swing in receivables. FY24 operating cash flow conversion was weak at 31.3% vs. 48.9% in FY23. TATATECH has net cash of ~Rs10.6bn (~Rs26 per share) as of 4QFY24-end.

**Figure 61: We expect an average 19.2% EBITDA margin over FY25F-27F**



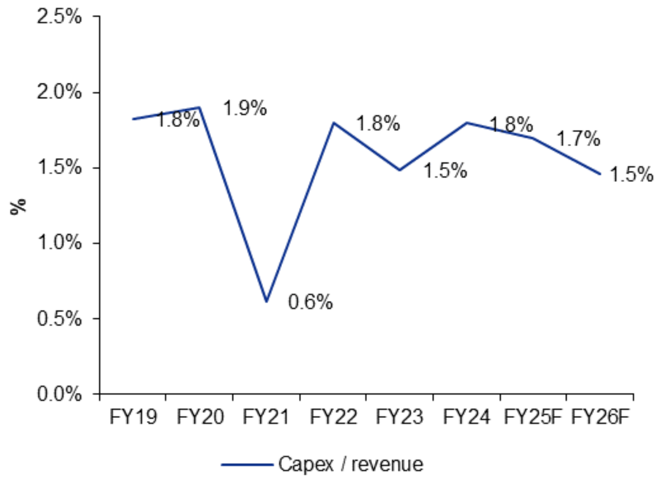

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 62: Average OCF/EBITDA was ~83% over FY19-24




SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 63: FY19-24 capex was an average 1.6% of revenue




SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Differentiated training could help employee retention; GCC hiring remains a cause of concern

TATATECH acknowledges that supply constraints could continue to be a challenge led by healthy demand and Global Capability Centre (GCC) hiring (European investing in India vs. Eastern Europe and Japan earlier). However, it hopes that differentiated training (rotating graduates across the parent's production facilities) and investment in the e-learning platform could help contain attrition and knowledge retention while the improved profile, post-IPO, could help attract top delivery and aid in hunting talent.

## Recent Agratas, Intel and ARM partnership, and the BMW deal ramp-up could be key upside risks to our thesis

TATATECH's partnership with Agratas (new global battery business of Tata Group) is likely to enhance TATATECH'S electric vehicle proposition as it includes battery pack design, industrialization of planned giga factories in India and UK engagements coupled with digital thread that could enable Agratas to track all products from the concept stage to design, manufacturing, quality and services.

TATATECH would be leveraging Intel's new range of software-defined vehicle system-on-chip family of products for building software platforms. The partnership with Intel entails working on a joint-go-to market strategy for Asian OEMs who are witnessing strong demand for high performance computing. TATATECH would be working with ARM (SoftBank-owned British semiconductor and software design company) on a range of new solutions, bringing cloud-native software architecture for automotive applications into upcoming ARM-based automotive chip.

TATATECH formed a 50:50 JV with the BMW Group in Apr 2024 to establish automotive software (in Pune and Bengaluru) and an IT development hub in Chennai, and would focus on automated driving, infotainment, and digital services in automotive software. In business IT, the emphasis would be on digitalization and automation of product development, production and sales. **As a part of the JV, TATATECH would deploy 100 professionals initially with an aim to ramp-up the capacity to >1,000 in few years.**

## TCHM could be an alternate growth vector

TATATECH highlighted that generally TCHM (transportation & construction heavy machinery) industry's technology adoption trend lags the automotive industry by three-to-four years and hence, it expects electrification-related opportunities to increase. Further, the company believes that it is well positioned to capture such potential opportunities, given its learnings from the automotive segment. That said, most of the industries are witnessing gross margin pressure due to a challenging macro-economy and could create near-term growth headwinds.

**Figure 64: TCMH market size and opportunity**

| | CY21 | CY22 | CY26F |
|---|---|---|---|
| TCHM ER&D spending (US$bn) | 41 | 43 | 49 |
| TCHM outsourced ER&D spending (US$bn) | 2 to 3 | 2.5 to 3 | 3.5 to 4 |
| TCHM outsourced ER&D spending as a % overall spending | 4.9% to 7.3% | 5.8% to 7% | 7.1% to 8.2% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Key annual report takeaways

### FY24

- Management expects the EV growth to moderate, driven by scaling back of incentives.
- The company aims to shift the business mix towards software, keeping mechanical engagements intact, over the next two years.
- The company's board is seeking a resolution to approve related-party transactions between Tata Technologies Europe or TTEL, a wholly-owned subsidiary of TATATECH, and Jaguar Land Rover for a value not exceeding Rs13,455m during FY25F (JLR FY24 revenue was Rs10,077m).
- Board seeking resolution to approve FY25F related-party transactions with Tata Motors for a value not exceeding Rs21,405m, inclusive of ICDs not exceeding Rs12,000m and operational transactions not exceeding Rs9,405m.
- Board seeking resolution to approve FY25F related-party transactions with Tata Motors Passenger Vehicle for a value not exceeding Rs5,350m.
- The company closed 12 large deals in FY24, including one >US$50m and five in the US$15-25m range. Customer pyramid has improved with the addition of two each in the US$10-50m and US$5-10m buckets and three in the US$1-5m bucket.
- The company has strengthened the software-defined vehicle (SDV) ecosystem significantly over the last 12 months by partnering with leading technology players like NXP, Arm, Intel, and Amazon AWS to profile SDV platform solutions for high performance computing, next-generation digital cockpit solutions, and cybersecurity.
- In aerospace, the three areas of light weighting, tooling, and avionics are expected to drive growth and TATATECH aims to reinforce its leadership.

### FY23

- TATATECH has appointed five directors to its board - Ajoyendra Mukherjee (Chairman w.e.f 21 Feb 2023), Usha Sangwan (w.e.f. 21 Oct 2022), Nagaraj Ijari (w.e.f. 1 Mar 2023), Aarthi Sivanandh (w.e.f 11 Jun 2022) and Shailesh Chandra (w.e.f. 1 Mar 2023).
- South-East Asia services revenue growth was driven by existing and new opportunities.
- The company has invested in digital tools and platforms to improve employee experience and process efficiency.
- Rolled out industry-leading digital solutions for employee engagement and recognition, talent acquisition, indirect taxation determination, and compliance in the US.
- Undertook initiatives towards learning, growth, performance management, and employee engagement. Training initiatives were under the global, in-house technical initiative – TechVarsity. 700+ new generation engineers attended the EDGE program, which covers various technologies, domains, and processes.
- The effective tax rate (ETR) declined from 25.5% to 21.6%, primarily due to changes in income-tax regulations in the US.

### FY22

- Services business order book at US$250m, as of FY22-end, was up 29% yoy.
- The company innovated end-to-end turnkey product development solutions as well as accelerators like Electric Vehicle Modular Platform (eVMP) and

Pulse NPI platform, which are being leveraged by traditional OEMs as well as start-ups, to improve the launch of competitive products.

- The company introduced the flagship digital customer experience offering, Power of 8, which is a suite of eight intelligent digital solutions - sCRM, sSales, sDealer, sRelations, sWorkshop, sTrack, sCommerce, & sIntelligence, covering the entire spectrum of services (i.e. product awareness to purchase, delivery, and post-sales services).
- The company has partnered with a South-East Asian OEM to deliver two electric vehicles and accelerate the deployment of an electrical architecture that will underpin the entire product portfolio.
- Successfully deployed one of the largest cloud-based product lifecycle management (PLM) solutions for a Tier-1 automotive supplier and secured several multi-year customer experience implementations.
- Empaneled by Airbus into its engineering, manufacturing engineering, and services strategic supplier (EMES3) program. The endorsement could drive collaborations across multiple aerospace domains and geographies.
- Granted 2,80,000 stock options under Tata Technologies' share-based long -term incentive scheme 2022.
- The company introduced an offer to buy back (2.97% of paid-up equity shares) up to 12,40,122 of its equity shares at Rs1,982 per share (before bonus and split). The transaction was completed in Apr 2022 wherein TATATECH paid a consideration of Rs2,959m, including Rs501m as buyback tax. Promoters did not participate in the buyback.

## FY21

- In 1QFY21, the revenue impacted meaningfully, resulting in TATATECH taking cost takeout actions to better align headcount and overhead costs. However, revenue and operating margin recovered from Rs4,854m (US$64m) and 9.0% in 1QFY21 to Rs6,582m (US$90.3m) and 19.8% in 4QFY21.
- The company partnered with a North American original equipment manufacturer (OEM) to develop a sports utility vehicle or SUV for the Chinese market. Launched an AUTOSAR (Automotive Open System Architecture) development centre in India for GKN. Secured a multi-year PLM-enabled, digital thread engagement with a Tier-1 automotive supplier. Rolled out the next-generation ERP solution for a North American battery electric vehicle (BEV) company to support its vehicle launch plan in CY21. An Asian two-wheeler manufacturer selected the company to develop its next-generation electric motorcycle.
- TATATECH secured a breakthrough deal with the Karnataka government to modernize 150 industrial training institutes (ITIs) across the state. The award was predicated upon the company's proprietary iGET IT e-Learning platform and will necessitate the development of educational content in the areas of Smart Manufacturing and Industry 4.0.
- In FY21, TATATECH bagged nine new, large multi-million, multi-year deals and also strengthened its capabilities in the embedded and electrical space to align with the opportunities. Focused on strengthening go-to-market in Germany, Nordics, China and Vietnam geographies as they are core to the automotive vertical's growth aspirations.
- TATATECH's digital technologies helped South Korean customer deliver contactless purchase of vehicles online in India.
- **Project Vector** was undertaken to prepare the organization to operate in a new way from FY22. Strategic organizational restructuring was centered around driving a strategic change through the deployment of the 'outside in' structure.
- **LeaderBridge** is the company's flagship long-term talent and development initiative with a focus on sales and delivery leadership roles.

## FY20

- The company aligned the services portfolio to align with new market opportunities. Accelerating investments in embedded electronics, software and digital, which witnessed encouraging progress.
- FY20 had >37 US$1m+ clients, up by eight yoy and by 18 vs. five years ago. The aerospace business grew by 11% yoy while the industrial and heavy machinery (IHMI) business grew by 8.2%.
- The company's seven-pillar transformational goal includes: a) The focus on top-40 accounts. b) Outside-in organizational structure – rolled out industry and practice structure to improve alignment between value proposition and industry and client needs. Transformed legacy enterprise IT services business by converging CEIT and PLM business into Digital Enterprise Solutions (DES). DES now has market-leading capabilities in digital, PLM, ERP, manufacturing execution systems (MES), supply chain management (SCM), customer experience management (CXM), and business & intelligence. c) Margin improvement – reduced operating expenses by US$14.5m in FY20. d) Top ER&D spenders – focused business development hunting initiatives for top ER&D spenders globally. 11 of the 25 new logos secured in FY20 were top ER&D spenders globally vs. eight won in FY19. e) Focus on high-growth geographies – non-captive performance in North America, the UK and India was broad-based. The US had consistent qoq growth in four of the last five quarters. f) Partnerships & capabilities – signed a preferred partner agreement with PTC to provide digital transformation solutions to the manufacturing industry. g) M&A – completed the integration of Escenda acquisition (engineering services organization acquired in 2017 to provide TTSL a link in Scandinavia).
- Software product business growth was driven by leveraging value-added reseller relationship with Dassault Systemes, Siemens and Autodesk.
- The company expanded market-leading reputation for full vehicle development capabilities by successfully completing the design, engineering and launch of an all-new two-door plug-in hybrid sports car for a European OEM.
- The company established AUTOSAR offshore development centre for a Tier-1 automotive supplier. Win reflects TATATECH's commitment to rebalance its engineering portfolio between mechanical and fast-growing software/embedded electronics services and is progressing well.
- The company showcased its electric vehicle modular platform (EVMP) at EV100 in China.

## FY19

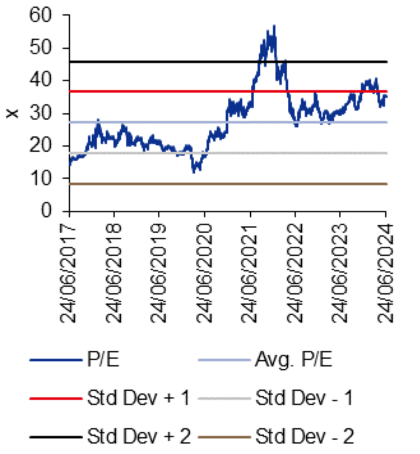
- The company acknowledged that dependence on Tata Motors and JLR (>70% of services revenue in FY15) is a risk. Non-anchor accounts witnessed a 14% CAGR over the previous five years. The top-2 accounts concentration reduced to 52% of services revenue in FY19.
- The company added a new European sales head and a new general counsel to the executive leadership team.
- TATATECH grew its China business by 31% yoy in local currency terms, reflecting the strong demand for electric car and vehicle platform development.
- Non-captive UK business was up by 14% yoy in local currency terms on the back of strategic order wins from a major sports car manufacturer and a large aerospace Tier-1 supplier.
- India business, outside of Tata Motors, grew by 13% yoy due to the success of enterprise IT and fast-growing education offerings.
- TATATECH was involved in delivering a next-generation connected car platform for a Japanese OEM's best-selling model in China. The engagement ranged from feature definition, vehicle benchmarking, program management, system design & integration, electrical engineering, components supplier management and security testing/validation.

- Tata Technologies and Delta TechOps partnered on a two-year strategic Global Engineering Centre (GEC) engagement which leverages engineering and tooling expertise for tool harmonization. In addition to the revenue of the current annuity business, TATATECH became Delta TechOps' partner of choice to supply vast tooling needs across engine families and a potential for multi-fold growth. The current engagement was triggered on the back of an excellent relationship with Singapore Aero Engine Services Private Limited (SAESL).

## Valuation

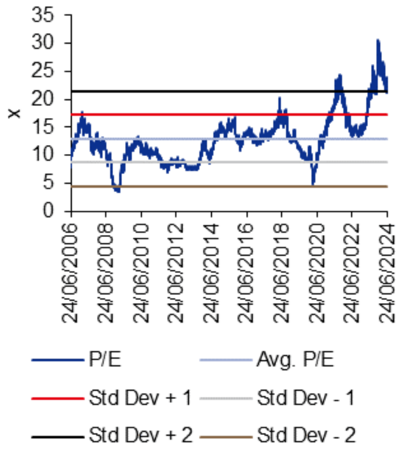
We expect US$ revenue/EBITDA (Rsm)/PAT (Rsm) CAGR of 14.5%/18.6%/18.2%, respectively, over FY24-27F. Our DCF-based target price of Rs797 implies a target P/E of 34.3x FY26 EPS, in line with the peer group (LTTS, Tata Elxsi, KPIT Technologies and Cyient) average of ~34x FY26F consensus EPS. EV recovery- led growth in the automotive business unit which could also aid margins and traction in non-anchor clients are key upside risks to our estimates and rating.

**Figure 65: LTTS trades at ~35x**



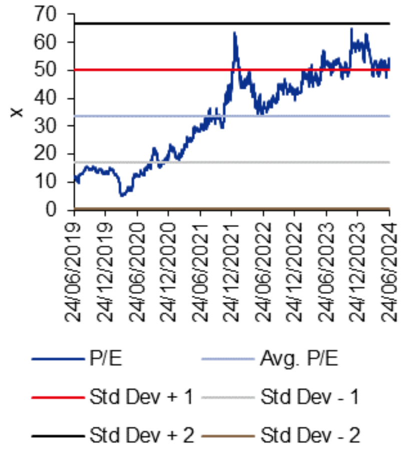

SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 66: Cyient trades at ~23x**




SOURCE: INCRED RESEARCH, BLOOMBERG

**Figure 67: KPIT Technologies trades at ~54x**

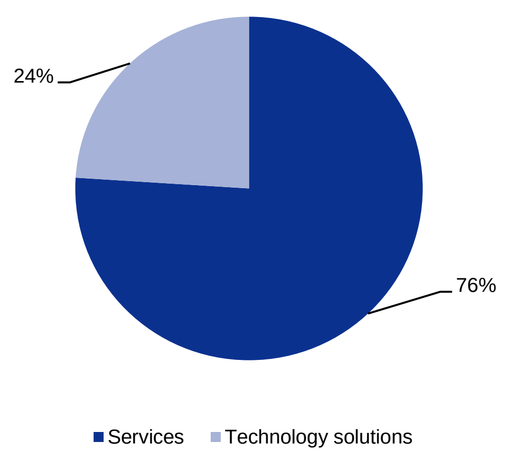



SOURCE: INCRED RESEARCH, BLOOMBERG

## About the company

Tata Technologies or TATATECH 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. The company has deep domain expertise in the automotive industry and leverages its expertise to serve clients in adjacent industries, such as aerospace & transportation, and construction heavy machinery (TCHM). TATATECH categories its business as a) services, and b) technology solutions.

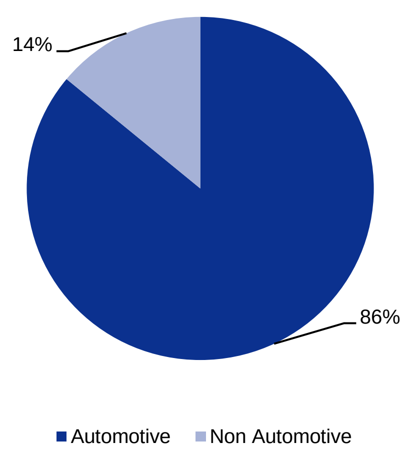
**Figure 68: 4QFY24 revenue break-up**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Services** – The services business includes providing outsourced engineering services and digital transformation services to global manufacturing clients helping them conceive, design, develop and deliver better products. Within the services business, TATATECH caters to automotive, aerospace and transportation and construction heavy machinery (TCHM) verticals.

**Figure 69: 4QFY24 services revenue break-up across verticals**



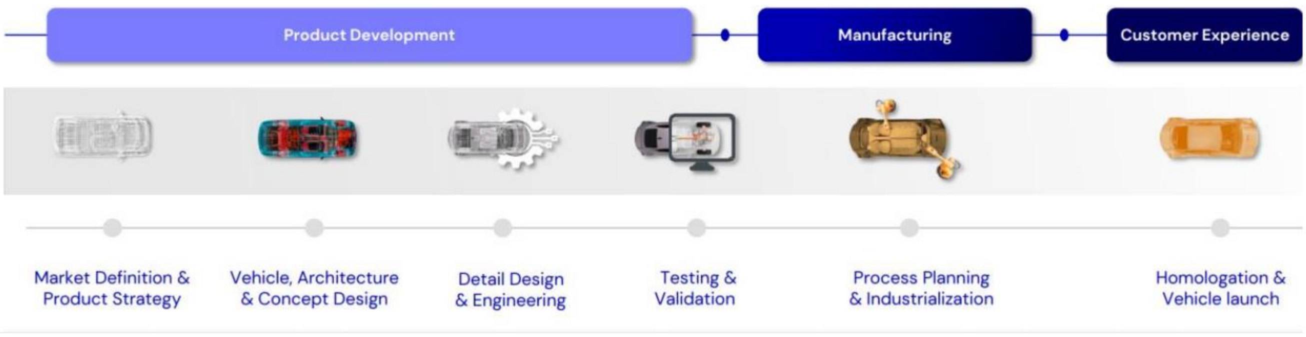

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 70: TATATECH service offerings**

| Vertical | Engineering offerings | Manufacturing offerings | After sales & customer experience |
|---|---|---|---|
| **Automotive** | Concept design to vehicle launch, benchmarking, electrification & embedded systems, ICE and ePowertrain. | Simulation (process, robotic, human & factory layout), A.M.E tool design (sheet-metal, plastics) both soft & hard tooling and manufacture. | CRM, dealer management, e-commerce, workshop management, tracking & analytics |
| **Aerospace** | Airframe design, wiring harness, avionics, simulation, MBSE, light weighting and interiors. | Process design, simulation, jigs, productivity improvement, first article inspection. | MRO, non-conformity review, tool design, technical publications, repair, P2F. |
| **Transportation & Construction Heavy Machinery** | Product concept, definition, design validation, control systems, hydraulic & electrical systems and production readiness. | Process & manufacturing engineering, factory automation and end-of-line services. | CRM, dealer management, e-commerce, workshop management, tracking & analytics. |
| **Embedded systems** | ADAS, system engineering, application software development, AUTOSAR, system & software validation and software-defined vehicles. | | |

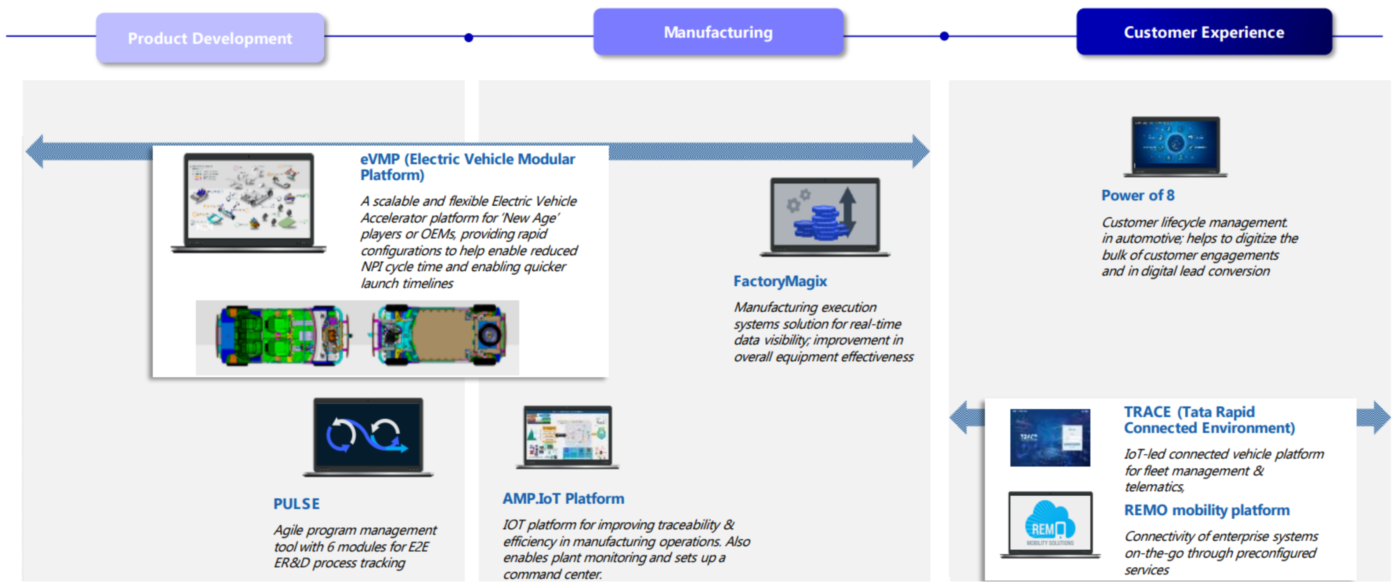
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 71: TATATECH has ready-to-use solutions from concept to launch**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

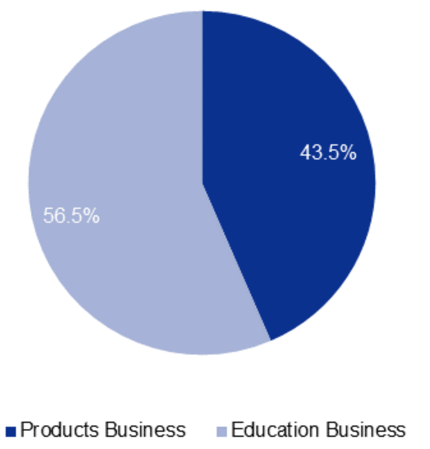
**Figure 72: Service offerings supported by proprietary platforms and accelerators across the value chain**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

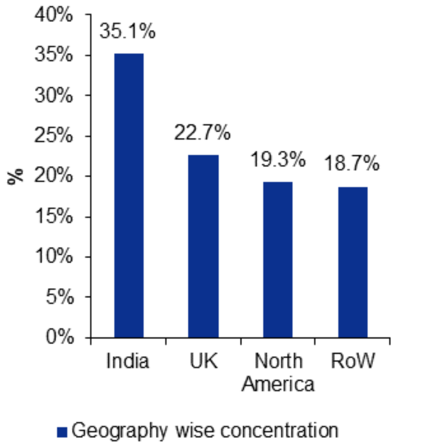
**Technology solutions** – TATATECH's technology solutions business complements its service offerings with products and education businesses. Through the products business, TATATECH resells third-party software applications, primarily product lifecycle management (PLM) software and solutions, and provides value-added services such as consulting, implementation, systems integration and support. The education business provides 'phygital' education solutions in manufacturing skills, including upskilling and reskilling, and latest engineering & manufacturing technologies to public sector institutions, private institutions and enterprises through curriculum development and competency centre offerings via the proprietary iGetIT platform. TATATECH provides 25,000+ hands-on exercises and 2,000+ courses across various skill sets, including design thinking and multiple computer-aided design (CAD) software.

**Figure 73: Technology solutions business overview**



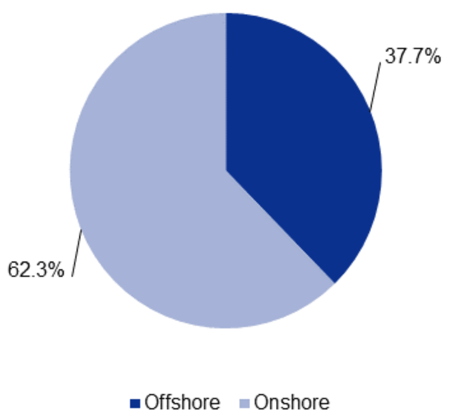

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: DATA AS ON 1HFY24, COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 74: Geography-wise concentration**



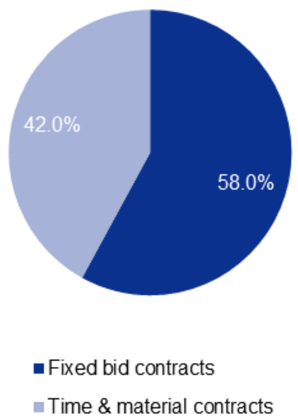

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: DATA AS OF 1HFY24-END, COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 75: Increase in offshore…**



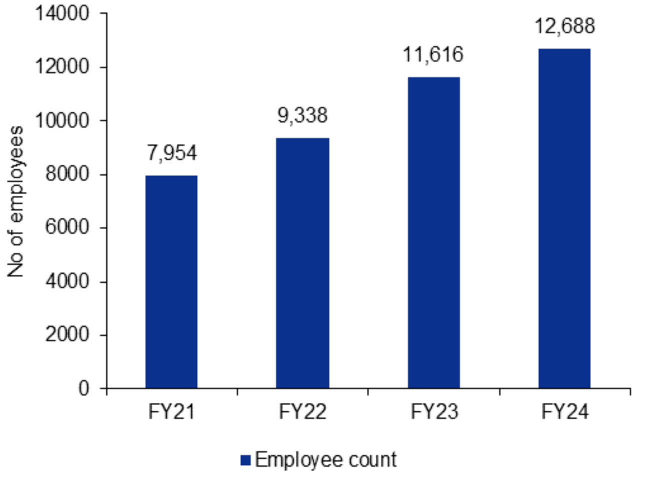

SOURCE: INCRED RESEARCH, COMPANY REPORTS,
NOTE: DATA AS OF 4QFY24

**Figure 76: … and fixed-bid contracts could aid margins**



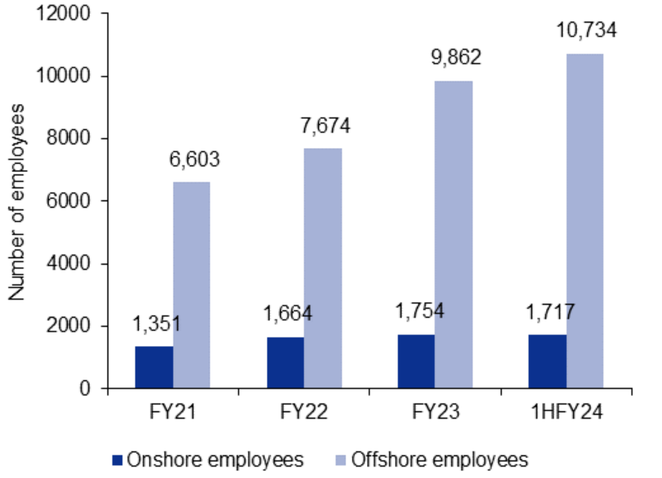

SOURCE: INCRED RESEARCH, COMPANY REPORTS,
NOTE: DATA AS OF 1HFY24-END, COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 77: Employee strength grew by 9.2% yoy in FY24 over FY23**



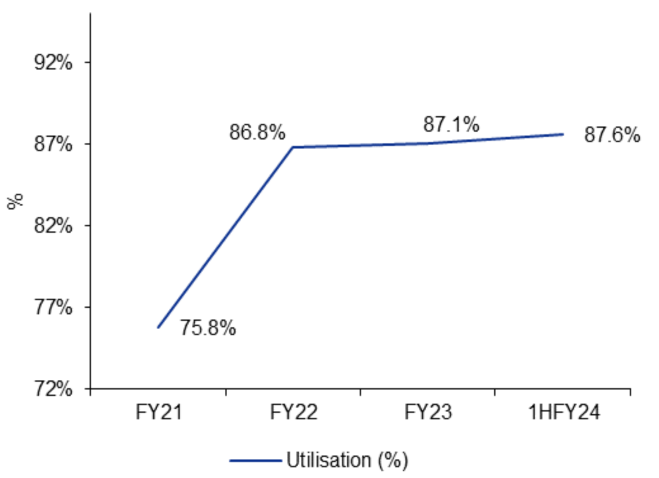

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: DATA FROM FY23 IS OF SERVICES BUSINESS MIX

**Figure 78: Offshoring was up 320bp over FY21-1HFY24 to 86.2%**



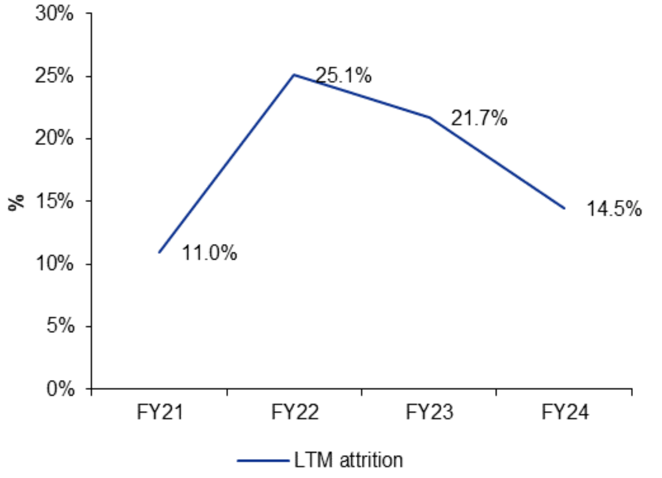

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 79: Employee utilization…**




SOURCE: COMPANY REPORTS, INCRED RESEARCH, COMPANY HAS NOT DISCLOSED DATA SINCE 3QFY24

**Figure 80: …and the attrition trend**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 81: Acquisition history**

| Year | Company | Segment |
|---|---|---|
| 2005 | INCAT International UK | Global product solutions and services provider serving the automotive and aerospace industries worldwide. |
| 2013 | Cambric Holdings Inc. | To expand industrial machinery engineering capabilities and addition of Romanian delivery centres to portfolio. |
| 2017 | Escenda Engineering AB | To expand the global footprint, especially in Sweden. |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 82: Board of directors**

| Name | Designation |
|---|---|
| Ajoyendra Mukherjee | Chairman, Independent Director |
| Warren Harris | MD & CEO |
| Usha Sangwan | Independent, Non-Executive Director |
| Nagaraj Ijari | Independent, Non-Executive Director |
| Aarthi Sivanandh | Independent, Non-Executive Director |
| PB Balaji | Non-Executive Director |
| Shailesh Chandra | Non-Executive Director |

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 83: Leadership team**

| Name | Designation |
|---|---|
| Warren Harris | MD & CEO |
| Pawan Bhageria | President Global HR, Admin & Education |
| Savitha Balachandran | CFO |
| Nachiket Paranjpe | President - Automotive Sales |
| Sukanya Sadasivan | COO |
| Prahalada Rao | President & Client Partner, TML SBU |
| Aloke Palsikar | EVP & Head - Aerospace and Industrial Heavy Machinery sales |
| Sriram Lakshminarayanan | President & Chief Technical Officer |
| Santosh Singh | EVP & Global Head - Marketing & Business Excellence |
| Anjali Balagopal | General Counsel |
| Shailesh Saraph | EVP and Global Head - ER&D delivery |
| Geena Binoy | EVP and Global Head - Digital Enterprise Solutions |
| Kamal Shah | Chief Digital Information Officer |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

# Key investment risks

## Client concentration continues to drive growth

We estimate anchor client (TAMO+JLR) contributed >100% to incremental revenue in FY24 and sustaining the same could aid revenue growth higher than our estimates.

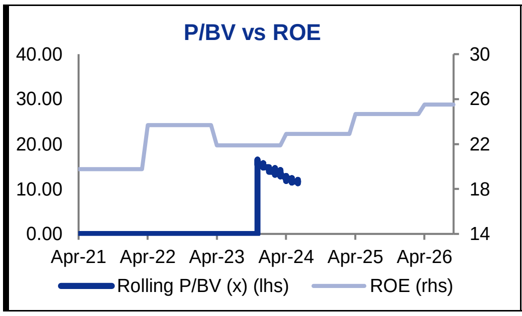
## Recent partnership could aid faster revenue growth

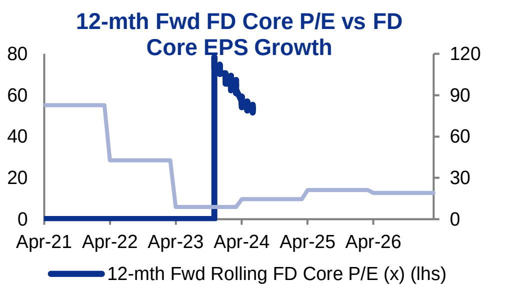
TATATECH's partnership with Agratas, Intel and ARM and the BMW deal ramp-up (expects >1,000 capacity in the next few years) could be a key upside risk to our thesis.

## TCHM could be an alternate growth vector

TATATECH believes TCHM (transportation & construction heavy machinery) industry's technology adoption trend lags the automotive industry by three-four years and hence, it expects electrification-related opportunities to increase. This could help offset softness in the passenger vehicle EV business.

# BY THE NUMBERS




## Profit & Loss

| (Rs mn) | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| **Total Net Revenues** | **44,142** | **51,172** | **58,785** | **69,471** | **80,643** |
| **Gross Profit** | **12,326** | **13,498** | **15,609** | **18,614** | **21,732** |
| **Operating EBITDA** | **8,210** | **9,413** | **11,083** | **13,334** | **15,684** |
| Depreciation And Amortisation | (946) | (1,059) | (1,234) | (1,459) | (1,694) |
| **Operating EBIT** | **7,265** | **8,354** | **9,848** | **11,875** | **13,990** |
| Financial Income/(Expense) | 698 | 966 | 601 | 791 | 1,076 |
| Pretax Income/(Loss) from Assoc. | | | | | |
| Non-Operating Income/(Expense) | | | | | |
| **Profit Before Tax (pre-EI)** | **7,962** | **9,320** | **10,450** | **12,666** | **15,066** |
| Exceptional Items | | | | | |
| **Pre-tax Profit** | **7,962** | **9,320** | **10,450** | **12,666** | **15,066** |
| Taxation | (1,721) | (2,527) | (2,665) | (3,230) | (3,842) |
| Exceptional Income - post-tax | | | | | |
| **Profit After Tax** | **6,241** | **6,794** | **7,785** | **9,436** | **11,224** |
| Minority Interests | | | | | |
| Preferred Dividends | | | | | |
| FX Gain/(Loss) - post tax | | | | | |
| Other Adjustments - post-tax | | | | | |
| **Net Profit** | **6,241** | **6,794** | **7,785** | **9,436** | **11,224** |
| Recurring Net Profit | 6,241 | 6,794 | 7,785 | 9,436 | 11,224 |
| **Fully Diluted Recurring Net Profit** | **6,241** | **6,794** | **7,785** | **9,436** | **11,224** |

## Cash Flow

| (Rs mn) | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| EBITDA | 8,210 | 9,413 | 11,083 | 13,334 | 15,684 |
| Cash Flow from Invt. & Assoc. | | | | | |
| Change In Working Capital | (2,191) | (4,071) | (2,271) | (1,624) | (1,698) |
| (Incr)/Decr in Total Provisions | | | | | |
| Other Non-Cash (Income)/Expense | (921) | (1,011) | | | |
| Other Operating Cashflow | 1,346 | 1,638 | | | |
| Net Interest (Paid)/Received | | | | | |
| Tax Paid | (2,429) | (3,026) | (2,665) | (3,230) | (3,842) |
| **Cashflow From Operations** | **4,014** | **2,943** | **6,148** | **8,480** | **10,144** |
| Capex | (657) | (918) | (980) | (980) | (1,200) |
| Disposals Of FAs/subsidiaries | | | | | |
| Acq. Of Subsidiaries/investments | | | | | |
| Other Investing Cashflow | (4,218) | 4,855 | 776 | 966 | 1,250 |
| **Cash Flow From Investing** | **(4,874)** | **3,936** | **(204)** | **(14)** | **50** |
| Debt Raised/(repaid) | | | | | |
| Proceeds From Issue Of Shares | | | | | |
| Shares Repurchased | (2,959) | | | | |
| Dividends Paid | | (4,990) | (4,255) | (4,458) | (4,660) |
| Preferred Dividends | | | | | |
| Other Financing Cashflow | (510) | (578) | (174) | (174) | (174) |
| **Cash Flow From Financing** | **(3,469)** | **(5,568)** | **(4,430)** | **(4,632)** | **(4,835)** |
| Total Cash Generated | (4,329) | 1,312 | 1,514 | 3,833 | 5,359 |
| **Free Cashflow To Equity** | **3,357** | **2,025** | **5,168** | **7,500** | **8,944** |
| **Free Cashflow To Firm** | **(860)** | **6,880** | **5,943** | **8,465** | **10,194** |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## BY THE NUMBERS…cont'd

### Balance Sheet

| (Rs mn) | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Total Cash And Equivalents | 15,936 | 13,795 | 15,308 | 19,142 | 24,500 |
| Total Debtors | 11,062 | 11,479 | 14,814 | 17,507 | 20,322 |
| Inventories | | | | | |
| Total Other Current Assets | 10,976 | 14,457 | 14,457 | 14,457 | 14,457 |
| **Total Current Assets** | **37,975** | **39,730** | **44,579** | **51,105** | **59,279** |
| Fixed Assets | 3,031 | 3,103 | 2,848 | 2,369 | 1,876 |
| Total Investments | | | | | |
| Intangible Assets | 7,950 | 8,403 | 8,403 | 8,403 | 8,403 |
| Total Other Non-Current Assets | 3,060 | 4,548 | 4,548 | 4,548 | 4,548 |
| **Total Non-current Assets** | **14,040** | **16,053** | **15,799** | **15,320** | **14,826** |
| Short-term Debt | 406 | 524 | 524 | 524 | 524 |
| Current Portion of Long-Term Debt | | | | | |
| Total Creditors | 6,578 | 4,814 | 5,879 | 6,947 | 8,064 |
| Other Current Liabilities | 12,750 | 15,891 | 15,891 | 15,891 | 15,891 |
| **Total Current Liabilities** | **19,734** | **21,228** | **22,293** | **23,362** | **24,479** |
| Total Long-term Debt | | | | | |
| Hybrid Debt - Debt Component | 2,148 | 2,050 | 2,050 | 2,050 | 2,050 |
| Total Other Non-Current Liabilities | 5 | 8 | 8 | 8 | 8 |
| **Total Non-current Liabilities** | **2,153** | **2,058** | **2,058** | **2,058** | **2,058** |
| Total Provisions | 233 | 289 | 289 | 289 | 289 |
| **Total Liabilities** | **22,120** | **23,575** | **24,640** | **25,708** | **26,826** |
| Shareholders Equity | 29,895 | 32,208 | 35,738 | 40,716 | 47,280 |
| Minority Interests | | | | | |
| **Total Equity** | **29,895** | **32,208** | **35,738** | **40,716** | **47,280** |

### Key Ratios

| | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Revenue Growth | 25.1% | 15.9% | 14.9% | 18.2% | 16.1% |
| Operating EBITDA Growth | 27.2% | 14.7% | 17.7% | 20.3% | 17.6% |
| Operating EBITDA Margin | 18.6% | 18.4% | 18.9% | 19.2% | 19.4% |
| Net Cash Per Share (Rs) | 32.96 | 27.63 | 31.36 | 40.80 | 54.00 |
| BVPS (Rs) | 73.65 | 79.35 | 88.05 | 100.32 | 116.49 |
| Gross Interest Cover | 40.40 | 44.18 | 56.47 | 68.09 | 80.22 |
| Effective Tax Rate | 21.6% | 27.1% | 25.5% | 25.5% | 25.5% |
| Net Dividend Payout Ratio | | 60.0% | 54.7% | 47.2% | 41.5% |
| Accounts Receivables Days | 77.50 | 80.39 | 81.63 | 84.91 | 85.61 |
| Inventory Days | | | | | |
| Accounts Payables Days | 57.04 | 55.18 | 45.20 | 46.02 | 46.50 |
| ROIC (%) | 52.5% | 36.4% | 34.5% | 38.0% | 42.6% |
| ROCE (%) | 19.7% | 18.1% | 20.1% | 21.7% | 22.4% |
| Return On Average Assets | 12.1% | 11.3% | 12.6% | 14.0% | 14.8% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

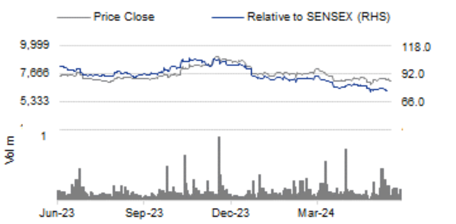
## India

**REDUCE** *(Initiating coverage)*

| Consensus ratings*: | Buy 4 | Hold 0 | Sell 6 |
|---|---|---|---|

| | |
|---|---|
| Current price: | Rs7,090 |
| Target price: | Rs6,064 |
| Previous target: | NA |
| Up/downside: | -14.5% |
| EIP Research / Consensus: | -14.5% |
| Reuters: | |
| Bloomberg: | TELX IN |
| Market cap: | US$5,283m |
| | Rs441,534m |
| Average daily turnover: | US$13.8m |
| | Rs1150.9m |
| Current shares o/s: | 62.3m |
| Free float: | 5,539.0% |

**Source: Bloomberg*




*Source: Bloomberg*

| Price performance | 1M | 3M | 12M |
|---|---|---|---|
| Absolute (%) | (3.9) | (7.8) | (5.6) |
| Relative (%) | (7.9) | (15.1) | (24.4) |

| Major shareholders | % held |
|---|---|
| Promoter | 43.9 |
| FII | 14.6 |
| LIC | 2.5 |

# Tata Elxsi Ltd

## Strategically placed, but priced in

- The OEM shift strategy has JLR's blessings, but has associated risks too.
- Investments in SG&A to revive demand may limit margin expansion.
- Initiate coverage with an REDUCE rating and a target price of Rs6,064.

### OEM shift strategy has JLR's blessings but has associated risks too

Although JLR's healthy spending trajectory in the medium term (Tata Elxsi is seeking related party transactions of up to Rs10bn in FY25F vs. Rs6.25bn in FY24), scaling of other accounts and traction in software-defined vehicles could continue to aid the growth trajectory, growth assumptions are likely not factoring in slower EV adoption led by withdrawal of subsidies, tariffs on Chinese EVs, rising competitive intensity and profitability focus of automakers, which, put together could pressure gross margin and, in turn, limit their spending ability. Further, automakers reconsidering the viability of hybrid + ICE could moderate capex + R&D + technology intensity of both legacy and EV makers. Hence, we expect transportation revenue CAGR to moderate to 13.6% over FY24-27F vs. 20.4% constant currency or CC growth in FY24 and a 15.1% CAGR over FY19-24.

### Diversification-related investments could be a headwind to margin

Tata Elxsi is aiming at a 40:40:20 revenue split between the US: Europe: RoW geography and transportation: media & communication: healthcare verticals and is investing in strategic growth vectors to increase market share, market size and wallet share to address revenue volatility. The strategy to increase wallet share, including a) 2-in-a-box model, b) dedicated account teams, and c) large and annuity deal focus, is witnessing early signs of success, as revenue per top 5 clients grew at 21.4% CAGR over FY20-24 vs. 17.3% company average. However, the strategy entails elevated S&M investments vs. historically lower than peer other expenses. This, in turn, could exert pressure on margins.

### Cash conversion and dividend payout likely to remain healthy

Tata Elxsi expects to operate in a range of 30/40bp of the 27% EBIT margin in the medium term, as tailwinds from operating leverage and employee pyramid correction could be offset by headwinds from investments into AI capability building, fresher additions and reskilling. Although we expect an average 27.2% EBIT margin over FY25F-26F, in-line with the guidance commentary, moderation in demand from group companies may necessitate higher SG&A investments and, in turn, imply structural margin headwinds. Healthy cash conversion (average OCF/EBITDA at 65% over FY19-24) & the dividend payout trend (52% of FCF over FY19-24) continue to anchor the share price.

### Initiate coverage with REDUCE rating and a target price of Rs6,064

We expect US$ revenue/EBITDA (Rsm)/PAT (Rsm) CAGR of 12.1%/15.4%/14.2%, respectively, over FY24-27F. Our DCF-based target price of Rs6,064 implies a target P/E of 37.4x FY26F EPS, a 10% premium to the peer group (LTTS, Tata Technologies, KPIT Technologies and Cyient) average of ~34x FY26F consensus EPS, considering superior margin profile & return ratios. Demand moderation driven by gross margin pressure and client-specific challenges support our thesis. Upside risks: Growth acceleration led by the transportation vertical, healthy margins, cash conversion and return ratios.

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| Financial Summary | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Revenue (Rsm) | 31,447 | 35,521 | 39,561 | 45,576 | 53,121 |
| Operating EBITDA (Rsm) | 9,612 | 10,464 | 11,771 | 13,752 | 16,100 |
| Net Profit (Rsm) | 7,552 | 7,923 | 8,621 | 10,097 | 11,806 |
| Core EPS (Rs) | 121.3 | 127.2 | 138.4 | 162.1 | 189.6 |
| Core EPS Growth | 37.4% | 4.9% | 8.8% | 17.1% | 16.9% |
| FD Core P/E (x) | 58.46 | 55.73 | 51.22 | 43.73 | 37.40 |
| DPS (Rs) | 42.5 | 70.0 | 80.0 | 95.0 | 115.0 |
| Dividend Yield | 0.60% | 0.99% | 1.13% | 1.34% | 1.62% |
| EV/EBITDA (x) | 44.64 | 40.84 | 36.01 | 30.57 | 25.89 |
| P/FCFE (x) | 104.35 | 71.42 | 57.72 | 53.44 | 45.71 |
| Net Gearing | (59.4%) | (56.4%) | (61.7%) | (64.2%) | (65.9%) |
| P/BV (x) | 21.17 | 17.62 | 15.39 | 13.43 | 11.77 |
| ROE | 41.0% | 34.5% | 32.1% | 32.8% | 33.5% |
| % Change In Core EPS Estimates | | | | | |
| InCred Research/Consensus EPS (x) | | | | | |

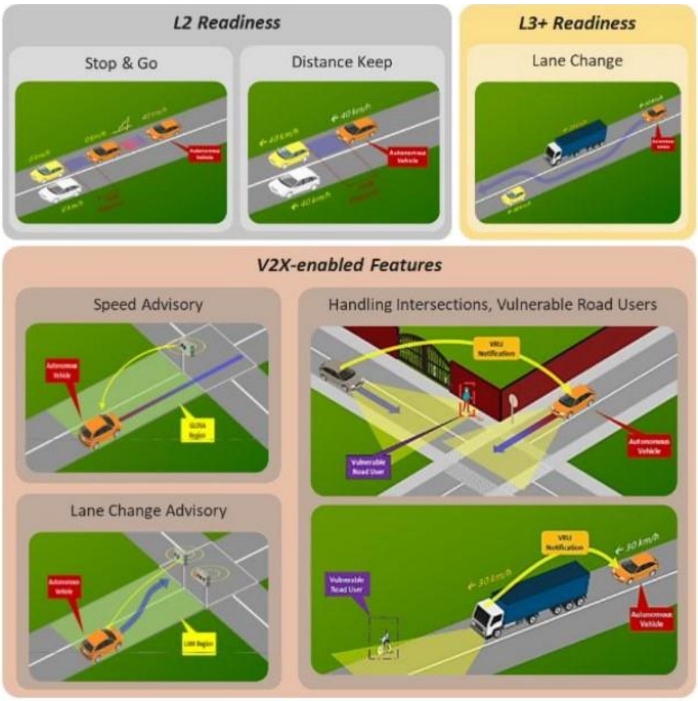
SOURCE: INCRED RESEARCH, COMPANY REPORTS

# Investment Arguments

## Strategically placed in the transportation vertical (51.4% of SDS revenue) but profitability focus of OEMs has associated risks

Transportation vertical revenue witnessed ~5.6% CQGR over 2QFY21-4QFY24 led by uptick in top client (JLR), ramp-up of deals, scaling existing customers, and the traction in EV & software-defined vehicle segments. Investments in platforms & solutions such as TETHER (connected vehicle platform), TECockpit (integrated cockpit solutions) and Autom@TE (test automation suite) aided multi-year engagements, resulting in setting up of a centre of excellence for Tier-1 suppliers and major contracts in SDV & EV platform development. Management aims to increase OEMs' contribution (56% of FY24 transportation vertical's revenue vs. 40% in FY23) in the medium term, given the rising spending trajectory vs. higher spending by suppliers earlier. However, the OEM shift has associated risks, despite the healthy **investment commitment of GBP18bn by its top client over FY24F-28F with ~70%+ in R&D spending**, as slower EV adoption led by withdrawal of subsidies and tariffs, rising competitive intensity and the focus on profitability could limit the spending ability. We expect the transportation vertical's revenue CAGR of 13.6% over FY24-27F (vs. 20.4% CC growth in FY24 and a 15.1% CAGR over FY19-23) as slower decision-making and right-shifting of spends driven by gross margin pressure, could be partly offset by ramp-up of the deals won in 2HFY24 and pipeline conversion.

**Figure 84: Capability overview - integrating autonomous software suite with sensors followed by testing**

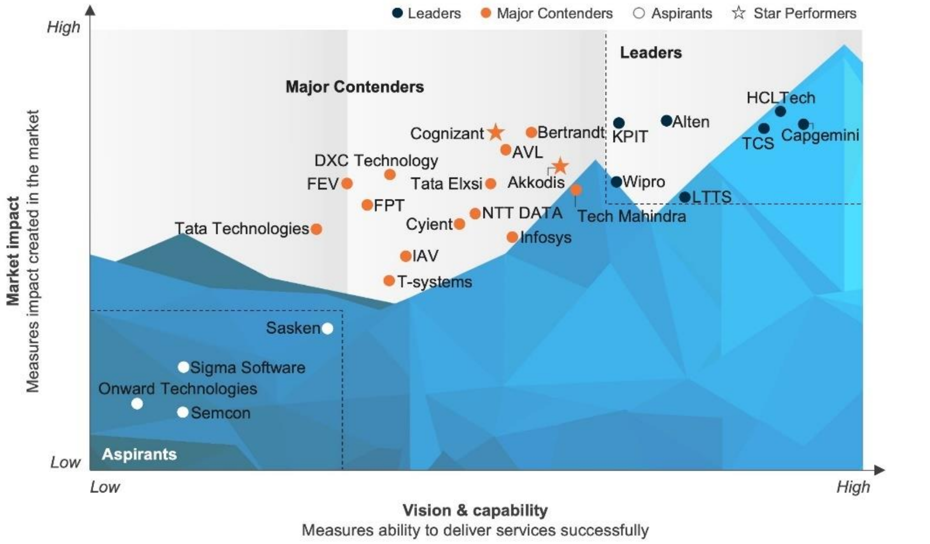



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 85: Capability overview - single domain controller with multiple in-cabin functions to enhance experience**

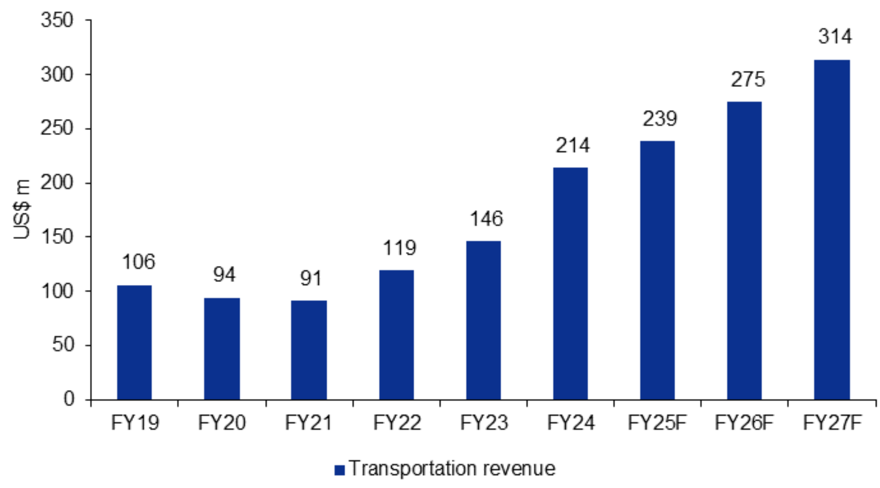
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 86: Tata Elxsi ranked as a major contender in automotive engineering services in 2023**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 87: We expect the transportation vertical revenue CAGR of 13.6% over FY24-27F**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 88: Transportation vertical's growth was healthy over FY22-24…**

| Peer revenue trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| KPIT | NA | 304 | 275 | 328 | 418 | 587 |
| LTTS - Transportation | 231 | 278 | 229 | 281 | 342 | 382 |
| TATATECH - Automotive | NA | 269 | 212 | 305 | 388 | 419 |
| TELX- Transportation | 106 | 94 | 91 | 119 | 146 | 208 |

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE:
NOTE: TELX HAS REVISED TRANSPORTATION CONCENTRATION FOR FY24

**Figure 89: …but moderated vs. comparable peers despite a smaller size**

| YoY growth trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| KPIT | NA | NA | -9.5% | 19.5% | 27.3% | 40.5% |
| LTTS - Transportation | 25.0% | 20.5% | -17.5% | 22.6% | 21.6% | 11.6% |
| TATATECH - Automotive | NA | NA | -21.0% | 43.8% | 27.0% | 7.9% |
| TELX- Transportation | NA | -11.2% | -3.5% | 30.9% | 22.8% | 21.0% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: TELX HAS REVISED TRANSPORTATION CONCENTRATION FOR FY24

## Media & telecom vertical (33.6% of SDS revenue) growth monitorable, given persistent macroeconomic challenges

The media & communication vertical US$ revenue grew 16.4% CAGR over FY19-24 led by growth in OTT spending, traction among operators, set-top box players & broadcasters, itself driven by solutions such as RDK (to deploy TV applications for Multiple System Operator[MSOs]), Android TV services and Falcon eye (automation test platform). It could also act as a reference point to capitalize on the growth opportunities in the telecom services market (US$1,805bn in 2022), which could witness 6.2% CAGR over CY22-CY30F. Further, management expects the vertical's revenue weakness to bottom out led by better spending visibility in key clients and benefits from the recent sales re-organization. However, growth remains a key monitorable as the revenue witnessed weakness in FY24 (declined by 2.6% yoy in CC terms) led by macroeconomic challenges in the US & Europe, delay in decision-making, deferment of deals, and softness in a few clients.

**Figure 90: Presence in niche segments aided FY19-23 growth but…**

| Peer revenue trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| TechM - CME | 2,049 | 2,158 | 2,069 | 2,424 | 2,643 | 2,314 |
| Infosys - Communication | 1,487 | 1,690 | 1,705 | 2,036 | 2,248 | 2,171 |
| TCS - Communication & Media | 1,442 | 1,537 | 1,467 | 1,685 | 1,983 | 1,977 |
| HCLT - Telecom | 699 | 838 | 808 | 928 | 1,031 | 1,099 |
| Wipro - Communication | 467 | 471 | 419 | 515 | 528 | 452 |
| LTTS - Telecom & Hitech | 196 | 157 | 164 | 188 | 291 | 308 |
| TELX- Broadcast & Communication | 71 | 80 | 98 | 129 | 141 | 151 |

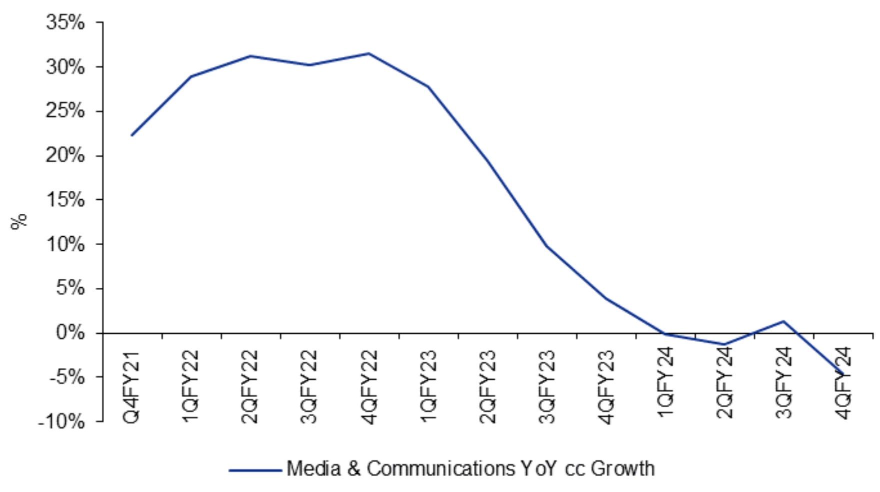
SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: TELX HAS REVISED BROADCAST & COMMUNICATION CONCENTRATION FOR FY24

**Figure 91: …headwinds impacted growth in FY24**

| YoY growth trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| TechM - CME | -0.7% | 5.3% | -4.1% | 17.2% | 9.0% | -12.4% |
| Infosys - Communication | 8.0% | 13.6% | 0.9% | 19.4% | 10.4% | -3.4% |
| TCS - Communication & Media | 6.4% | 6.5% | -4.5% | 14.8% | 17.7% | -0.3% |
| HCLT - Telecom | 16.8% | 19.9% | -3.7% | 14.9% | 11.1% | 6.6% |
| Wipro - Communication | -8.6% | 0.8% | -11.0% | 22.9% | 2.5% | -14.4% |
| LTTS - Telecom & Hitech | 31.1% | -19.7% | 4.0% | 14.9% | 55.0% | 5.6% |
| TELX- Broadcast & Communication | NA | 13.2% | 21.7% | 31.8% | 9.7% | -2.7% |

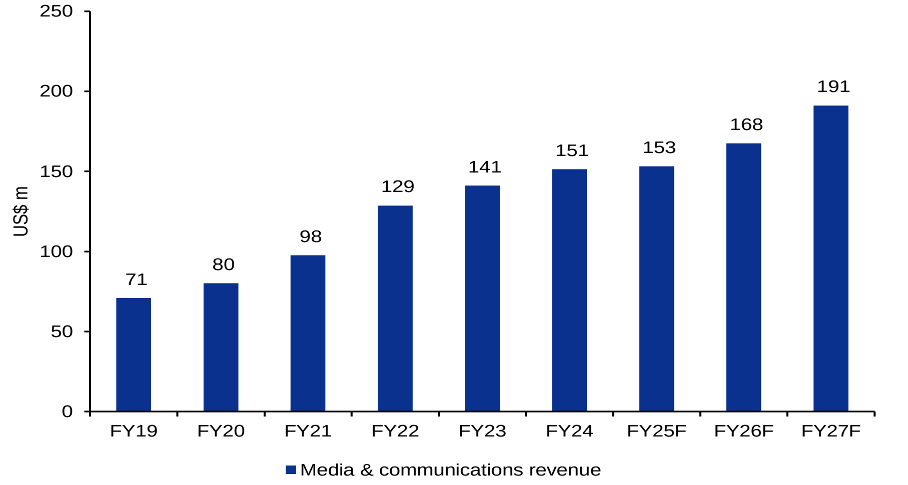
SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: TELX HAS REVISED BROADCAST & COMMUNICATION CONCENTRATION IN FY24

**Figure 92: YoY growth trajectory has decelerated**



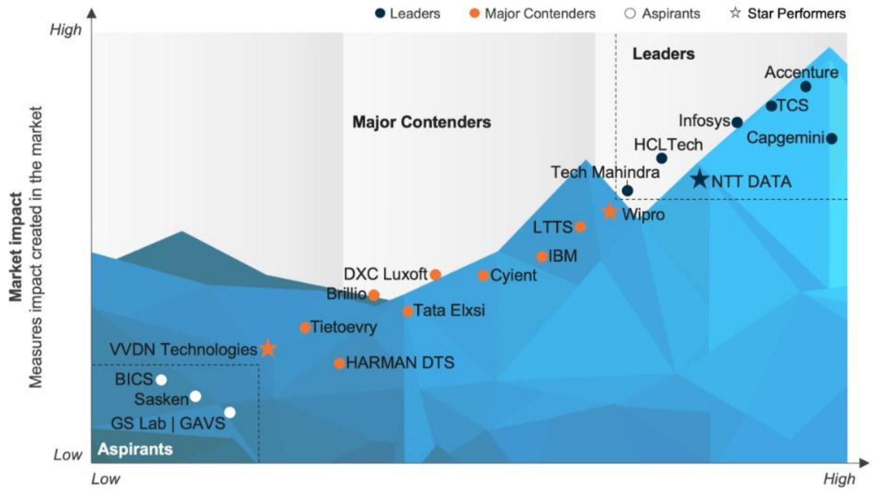

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 93: We expect the media & communication vertical revenue CAGR of ~5% over FY25F-26F vs. 2.6% cc decline in FY24 and an uptick in FY27F**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 94: Everest ranked Tata Elxsi as a major contender in 5G engineering services in 2023**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Healthcare & medical devices (14.1% of SDS revenue) recovery could be in the medium term

Adoption of technology in medical devices, and robust demand for regulatory spending and product engineering services led to a 58.6% US$ revenue CAGR in the healthcare & medical devices vertical revenue over FY19-23. However, the growth moderated in recent quarters led by decision-making delay and relaxation in EU-MDR regulations (mandatory certification) to CY27F from CY24, thus impacting regulatory services work. TELX aims to 1) reduce MDR dependencies within the regulatory business to less than ~15% vs. peak of ~70-80% a few quarters ago, and continues to repurpose skills to other regulatory services to achieve the same, and 2) focus on the new product development cycle which is likely to start after being put on hold due to the Covid-19 pandemic. Investments in building competencies in the pharma sector, strengthening of sales team and multi-year deal wins for engineering services could aid medium-term growth as adoption of point-of-care devices, digital self-diagnosis devices, wearable monitoring, and alert systems coupled with digital services could drive an 18.6% CAGR vs. US$211bn in CY22, in the global digital health market over CY23-CY30F.

**Figure 95: Healthcare and life sciences vertical's growth was healthy over FY19-23…**

| Peer revenue trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| TCS - Lifesciences & Healthcare | 1,574 | 1,817 | 2,157 | 2,576 | 2,969 | 3,177 |
| HCLT - Lifesciences & Healthcare | 1,116 | 1,252 | 1,412 | 1,771 | 1,903 | 2,011 |
| Wipro - Health | 1,074 | 1,090 | 1,100 | 1,214 | 1,315 | 1,427 |
| Infosys - Lifesciences & Healthcare | 742 | 818 | 930 | 1,142 | 1,248 | 1,388 |
| PSYS- Healthcare & Lifesciences | 88 | 95 | 109 | 159 | 204 | 250 |
| LTTS - Medical devices | 48 | 72 | 94 | 104 | 110 | 114 |
| TELX- Healthcare & Lifesciences | 8 | 15 | 23 | 41 | 55 | 59 |

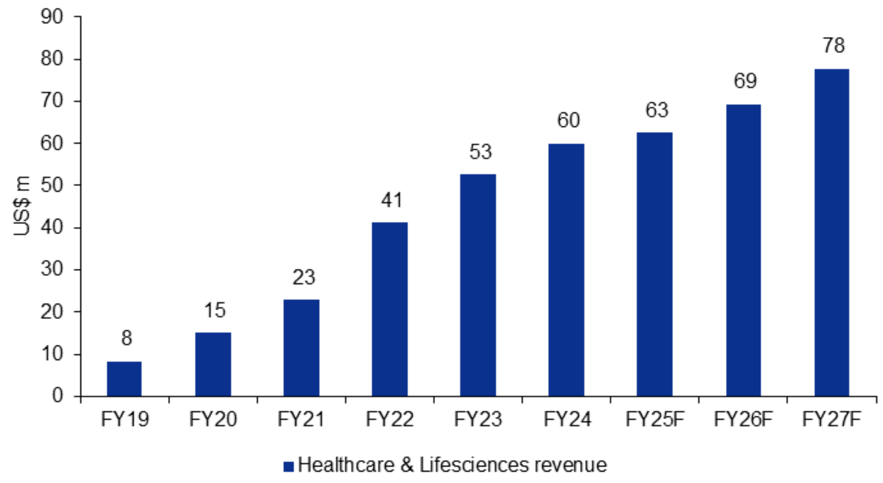
SOURCE: INCRED RESEARCH, COMPANY REPORTS, TELX HAS REVISED HEALTHCARE CONCENTRATION FOR FY24

**Figure 96: …but FY24 saw moderation despite a lower base**

| YoY growth trend | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|---|---|---|---|---|---|---|
| TCS - Lifesciences & Healthcare | 14.5% | 15.4% | 18.7% | 19.5% | 15.2% | 7.0% |
| HCLT - Lifesciences & Healthcare | 22.0% | 12.2% | 12.8% | 25.4% | 7.5% | 5.7% |
| Wipro - Health | -5.5% | 1.5% | 0.9% | 10.3% | 8.3% | 8.5% |
| Infosys - Lifesciences & Healthcare | 1.9% | 10.3% | 13.6% | 22.9% | 9.3% | 11.2% |
| PSYS- Healthcare & Lifesciences | NA | 7.1% | 15.5% | 45.3% | 28.5% | 22.2% |
| LTTS - Medical devices | 23.2% | 48.5% | 30.8% | 10.9% | 5.3% | 4.4% |
| TELX- Healthcare & Lifesciences | NA | 79.8% | 52.8% | 80.4% | 27.7% | 7.5% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 97: We expect the healthcare & life sciences vertical revenue CAGR at 9% over FY24-27F vs. a 38% CAGR over FY21-FY24**

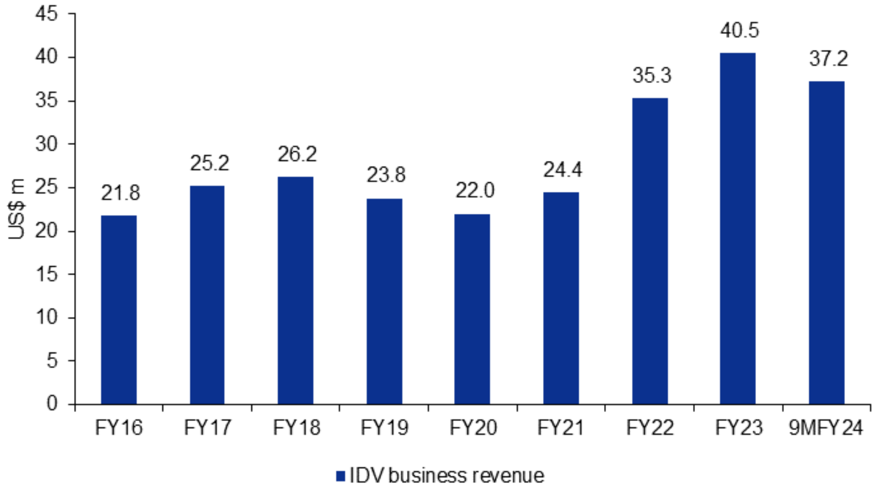



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Design-led engineering to drive growth in the erstwhile industrial design & visualization (IDV) segment

Tata Elxsi or TELX does end-to-end brand and product design services for clients across industries such as FMCG (P&G, Emami, Colgate, Loreal, etc.), transportation, consumer electronics, healthcare industry, etc. Airport developmental projects provide a potential opportunity over the medium- to long-term (as TELX has worked in signage designing-related projects) and seeds larger downstream opportunities too. Strengthening of leadership led to a quarterly revenue of ~US$13.5m in 3QFY24 vs. US$4.6m in 3QFY21 and management aims to achieve Rs5bn (~US$60m) annual revenue in the medium term. The strategy of integrating design with key verticals is complete and has enhanced TELX's competitive differentiation, providing early visibility into customer product roadmaps, and creating larger downstream development deals. Starting 4QFY24, TELX has integrated the erstwhile IDV business with software development services (SDS) design and integrated respective sales team too for better alignment and to capitalize on growth opportunities.

Figure 98: The erstwhile IDV business witnessed significant growth over FY21-9MFY24




SOURCE: INCRED RESEARCH, COMPANY REPORTS
NOTE: COMPANY HAS CLUBBED IDV BUSINESS WITH SDS BUSINESS

## Diversification could aid revenue stability but could be a headwind to margin too

TELX is aiming at 40:40:20 revenue split between the US:Europe:RoW geography and transportation: media & communication: healthcare verticals and is investing in strategic growth vectors to increase market share, market size and wallet share. The increase in market share includes leadership in chosen verticals (transportation, media & communication, and healthcare), and design as differentiation while increase in market size includes a) expansion into adjacencies like rail, off-road, new media, pharma and digital health, b) employee fungibility, and c) dedicated sales teams for accounts and the strategy to increase wallet share includes a) 2-in-a-box model, b) dedicated account teams, and c) large annuity deals. Although the company is witnessing early signs of success, as revenue per top 5 clients witnessed a 21.4% CAGR over FY20-24 as compared to company average of 17.3%, this strategy entails sustained elevated S&M investments vs. historically lower-than-peers' other expenses. This, in turn, could pressure margin in near to medium term.

Figure 99: Focusing on adjacencies to diversify growth and de-risk concentration within the transportation vertical


SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 100: Tata Elxsi aims to diversify geography…

| Geographic concentration | FY20 | FY24 | Goal |
|---|---|---|---|
| US | 34.7% | 38.3% | 40.0% |
| Europe | 40.9% | 39.6% | 40.0% |
| Rest of the world | 24.4% | 22.1% | 20.0% |

SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 101: …and vertical concentration risk

| Vertical concentration | FY20 | FY24 | Goal |
|---|---|---|---|
| Transportation | 34.7% | 49.9% | 40.0% |
| Media & Telecom | 40.9% | 35.3% | 40.0% |
| Healthcare | 24.4% | 14.0% | 20.0% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 102: LTTS has diversified exposure within ER&D services companies**

| Vertical concentration | % | Geographic concentration | % |
|---|---|---|---|
| Transportation | 32.8 | North America | 55.0 |
| Plant engineering | 14.0 | Europe | 15.9 |
| Industrial Products | 16.9 | India | 21.9 |
| Medical Devices | 9.8 | ROW | 7.2 |
| Telecom and Hi-tech | 26.4 | | |

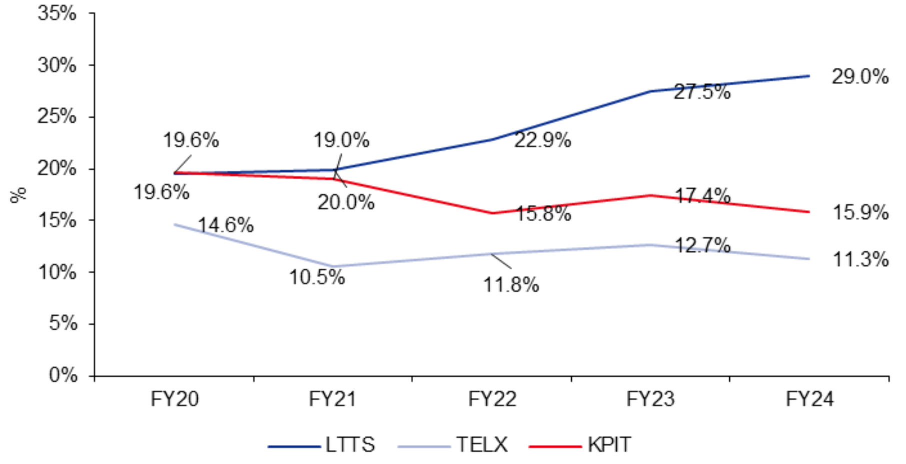
SOURCE: INCRED RESEARCH, COMPANY REPORTS, DATA AS ON FY24

**Figure 103: The strategy to increase wallet share is yielding results**

| Concentration | FY22 | FY23 | FY24 |
|---|---|---|---|
| Top 5 | 36.9% | 39.5% | 43.9% |
| Top 10 | 46.5% | 48.0% | 53.0% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 104: However, other expenses, as a percentage of revenue, are lower than its peers…**

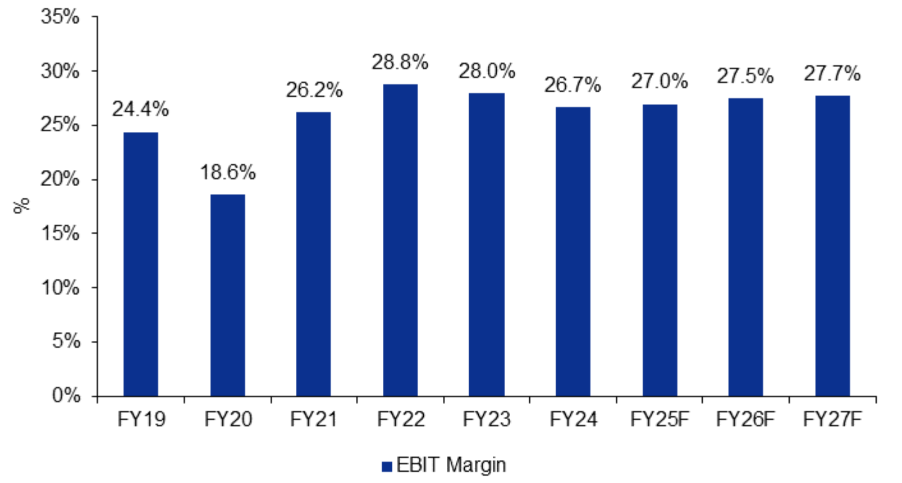



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Margin, cash conversion and dividend payout likely to remain healthy

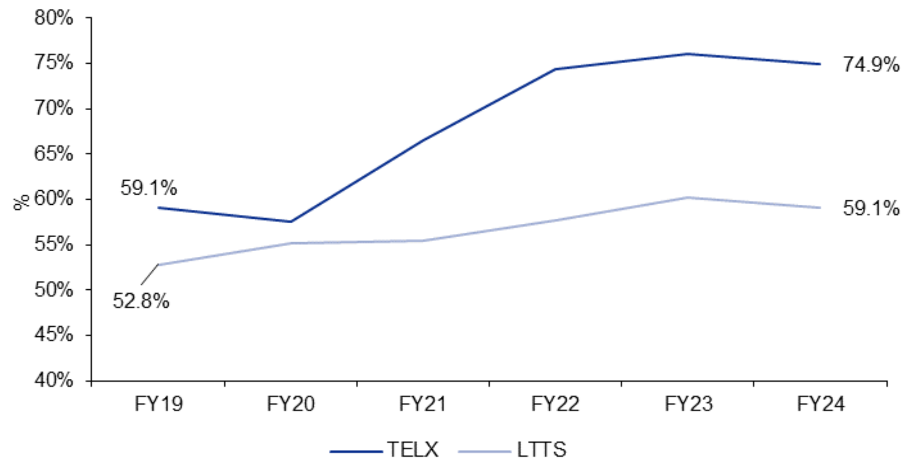
Presence in the niche segments within ER&D services, and a higher offshore mix (post Covid-19 pandemic) coupled with lower SG&A expenses aided superior EBIT margin profile for Tata Elxsi over the past few years. The company expects EBIT margin to range 27% +/- 30/40bp in the medium term as tailwinds from operating leverage and employee pyramid correction could be offset by headwinds from investments into AI capability building, fresher additions and reskilling. Although we expect an average 27.2% EBIT margin over FY25F-26F, in line with the guidance commentary, moderation in demand from group companies may necessitate higher SG&A investments and, in turn, implies structurally lower margins.

**Figure 105: Margins likely to remain rangebound…**



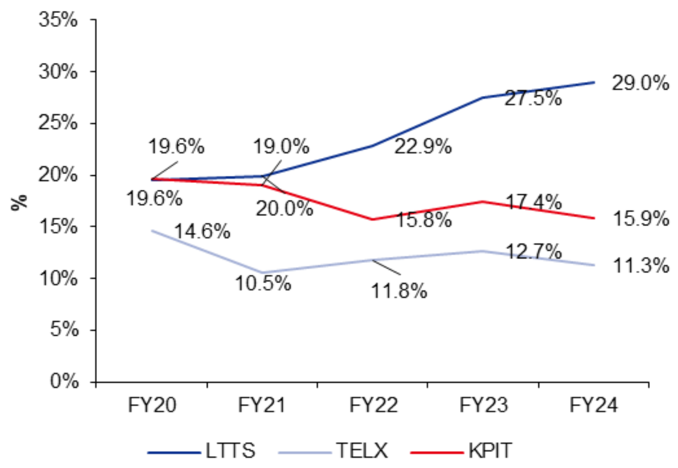

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 106: …helped by a higher offshore mix**



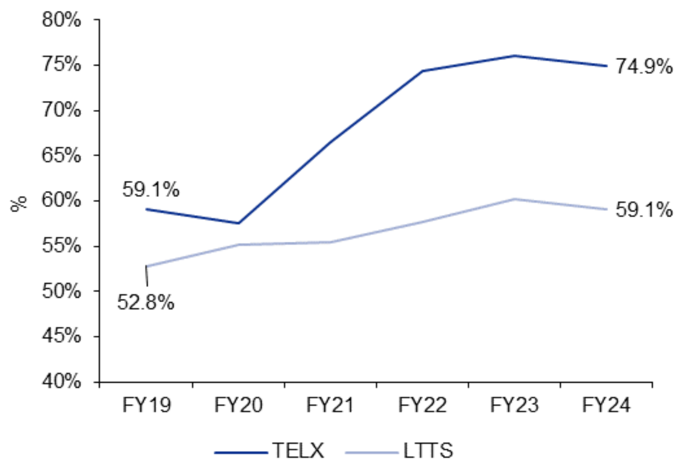

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 107: Tata Elxsi's other expenses, as a percentage of revenue, is lower than its peers…**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

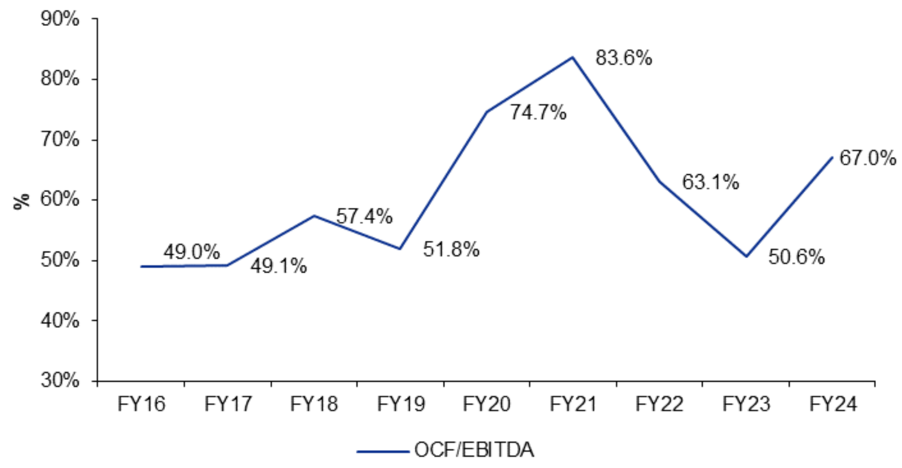
**Figure 108: …while the offshore mix is higher, in turn, aiding profitability**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

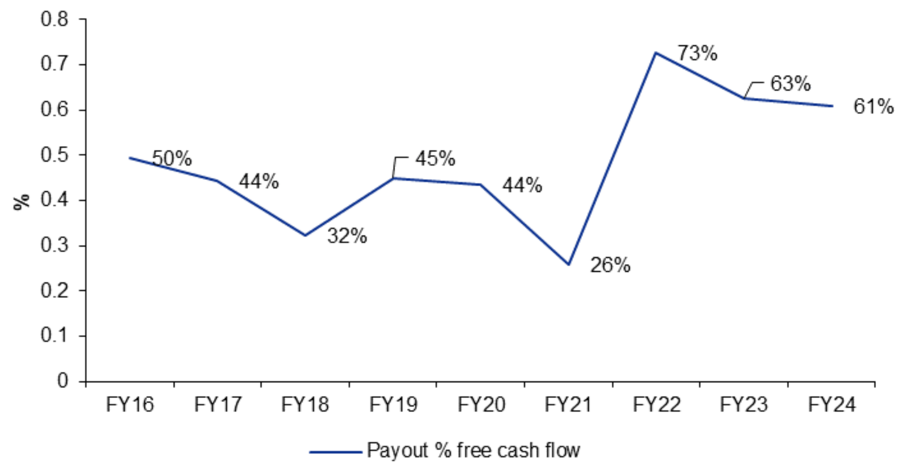
The cash conversion (OCF/EBITDA) at an average 65% over FY19-24 was healthy, led by improving margin profile and prudent working capital management. FY24 cash conversion was 67%, driving a strong cash balance of ~Rs13.3bn as of 4QFY24-end, ~43% of the balance sheet and Rs218 per share. Healthy dividend payout of an average ~50% of FCF over FY19-24 is likely to sustain.

**Figure 109: Average OCF/EBITDA conversion was ~65% over FY19-FY24**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 110: Dividend payout as a percentage of FCF**




SOURCE: INCRED RESEARCH, COMPANY REPORTS

# Key highlights from recent annual reports

## FY24 'Design Digital'

- The momentum in software-defined vehicles (SDV) could help offset short-term sluggishness in the EV and autonomous vehicles as countries gradually reduce incentives.
- 1HCY24 market outlook for the media & communication vertical is conservative, with a recovery expected in 2HCY24F.
- Tata Sons' subsidiaries revenue at Rs8,011m was up 52.5% yoy in FY24 and accounted for 22.6% of the total. At Rs2,614m, trade receivables were up 60.2% yoy (~27% of the overall receivables including unbilled).
- **Automotive vertical:** Automotive ER&D spending could grow ~8-10% in CY24F. Global car sales focus is expected to shift from supply side constraints to market demand in 2024F, as some countries are expected to gradually reduce EV incentives. The momentum in software-defined vehicles (SDV) could help offset short-term sluggishness in EV and autonomous vehicles.
- **Media & communication vertical:** 1HCY24F outlook is conservative, with an expectation of improvement in 2HCY24F. Engineering services outsourcing growth is anticipated to be in low to mid-single digits. Key deal themes aiding

the media & communication vertical includes media platform enhancements, optimization of network operations, and automation. The company is adapting its product and service offerings to take advantage of new opportunities. Solution suite includes network automation and orchestration solution NEURON, test automation, Quality of Experience (QoE) testing platform QoEtient, OTT/IPTV platform TEPlay, CPE management and monitoring platform iCX, and extensive capabilities in ad-tech services and new media design services.

- **Healthcare & lifesciences vertical:** Engineering outsourcing could grow ~6% in CY24F driven by telehealth, health monitoring using wearables and medication adherence tracking, self-service machines and omnichannel communication experiences for patients. Tata Elxsi has built strong capabilities in medical device design and engineering, digital health engineering, medical device regulatory compliance and pharmaceutical & biotechnology compliance.
- Investing in people, labs and solutions, and has rolled out specialized programs to get 25% of its engineers AI-ready by 3QFY25F.

## FY23 ‘Design Digital’

- In addition to signing contracts for establishing a Centre of Excellence (CoE) for Tier-1 suppliers, the company received major contracts in next- generation SDV development, EV platform development, and related technologies.
- A leading off-road vehicle manufacturer based in the US initiated a multi-million-dollar development program with the company, dedicated to creating a next-generation platform for vehicle connectivity and infotainment.
- The company won a strategic deal from a leading operator in EMEA for connected device diagnostics based on the operations automation platform, iCX.
- The company witnessed an increase in design-digital contracts across all its three business segments. Management expects the trend to persist in the coming fiscal years.
- The company opened a digital engineering centre in Frankfurt, Germany to collaborate closely with OEMs. It also opened several offices across India in Hyderabad, Thiruvananthapuram, Chennai, Bengaluru, and Kozhikode.

## FY22 ‘Designing the Next’

- Tata Elxsi expanded its IP and patent portfolio with innovations like TEPlay, FalconEye, iCX, QoEtient, and Autonomai.
- The company was awarded a ‘Design Digital’ deal by a leading Japanese OEM for development of next-gen HMI for infotainment and in-cockpit interface for their range of vehicles.
- The company secured a three-year, US$20m deal from a leading global MSO to support and manage network operations for data, mobile, and video service delivery.
- The company teamed up with Renesas of Japan to establish an EV ecosystem in alignment with the Make in India program. It is focused on developing electrification products tailored for light electric vehicles.
- The company also partnered with Green Hills to create an AI-driven driver monitoring system compliant with AUTOSAR Adaptive and integrated with secure INTEGRITY® RTOS.
- A prominent healthcare technology leader based in the US awarded the company a multimillion-dollar contract for its long-term digital transformation and cloud migration program.
- The company was recognized as a ‘Leader and Specialized ER&D Service Provider’ across all key industry verticals in the Zinnov Zones 2021 ratings.

## FY21 'Design Digital'

- In the Zinnov Zones 2020 report, Tata Elxsi secured a 'Leadership Zone' ranking in automotive and media & communications. The company was also recognized as an emerging niche leader in digital engineering, artificial intelligence or AI, and Internet of Things or IoT.
- The company aimed to diversify its revenue by reallocating resources to off-road and rail, accelerating new customer acquisition, and implementing diversification strategies to reduce dependency on specific customers, segments, or regions.
- The company is in the process of developing software accelerator platforms in regulatory intelligence and clinical workflow automation, aiming to significantly enhance operational efficiencies for end-users.
- FY21 saw the company opening a global engineering centre (GEC) with Schaeffler Technologies AG & Co. KG in Europe as a part of the strategic multi-year engineering services engagement.
- In FY21, the company established a GEC in collaboration with Aesculap AG, combining the expertise in R&D, innovation, digital technologies, and in-depth knowledge of medical devices and regulatory standards.
- Tata Elxsi collaborated with Syntiant Corp., a deep-learning chip technology company, to help manufacturers develop low-power always-on voice applications for diverse product categories, including smart home devices, consumer electronics, and industrial applications.
- In FY21, the company expanded its RDK offerings by developing a comprehensive user interface solution for RDK Video Accelerator set-top boxes. This solution streamlines application development cycles for operators using RDK for video and broadband services.
- Mr. Anurag Kumar was appointed as an independent director.

## FY20 'Technology + Design'

- Tata Elxsi's software development and services segment encountered headwinds in the first quarter of FY20 due to an unexpected and abrupt decrease in business volume from a crucial customer in the automotive sector. The company responded by driving growth with other clients, reallocating teams, and accelerating new customer acquisition to reduce dependency.
- The company partnered with Tata Motors to create a connected vehicle platform for the Nexon EV series, featuring a cloud-based IoT platform with a standardized technology stack for scalability and high performance across diverse vehicle types.
- The company crafted the 'Orbit' UI for DishTV and d2h, using AI and machine learning to enhance content discovery for users with traditional remotes. The project involved seamless collaboration between technology and design teams.
- The company partnered with ZEE5 and drove the integration of its platform with the video backend, multi-lingual front-end user experience, and multi-CDN networks.
- The company licensed its AUTOSAR software stack to China's leading SUV and pick-up manufacturer, Great Wall Motors, to accelerate connected and autonomous vehicle development and expand its footprint in China.
- The company developed distinctive capabilities to assist in the creation and introduction of OTT (Over-the-Top) services, positioning itself favourably to capitalize on this trend in the long run.

### FY19 'Engineering Creativity'

- Tata Elxsi partnered with Hyundai Mobis' subsidiary, HMTCI, to create a Synthetic Scene Generator Tool that can replicate all real-world scenarios for automotive testing.
- The company partnered with Airtel to launch 'Internet TV,' an innovative hybrid direct-to-home or DTH set-top-box. This aligns with the industry trend of integrating online streaming services with traditional TV broadcasting for a diverse and personalized content experience.
- The company anticipated the shift to electric powertrains and actively entered the electric vehicle space, focusing on powertrain development across program management, software development, and new platform validation.
- The company expected more than 250m vehicles to be internet-connected by 2020, featuring a range of sensors, connectivity platforms, and geo-analytical capabilities and positioned itself to capitalize on this trend by investing in in-house software and components, facilitating customers in expediting their product development.
- The company was named as an exclusive distributor for virtual reality or VR driver training in India by VR Motion, solidifying its presence in the VR space.
- Mr. Manoj Raghavan was appointed as CEO & MD of the company.

### Valuation

We expect US$ revenue/EBITDA (Rsm)/PAT (Rsm) CAGR of 12.1%/15.4%/14.2%, respectively, over FY24-27F. Our discounted cash flow or DCF-based target price of Rs6,064 implies a target P/E of 37.4x FY26F EPS, a 10% premium to the peer group (LTTS, Tata Technologies, KPIT Infosystems and Cyient) average of ~34x FY26F consensus EPS considering the superior margin profile and return ratios. Growth acceleration led by the transportation vertical, healthy margins, cash conversion and return ratios are the upside risks while moderation in demand driven by gross margin pressure and client-specific challenges support our thesis.

## Key investment risks (upside risks)

### Client concentration risk

- Top client-driven growth supported by board resolution could drive higher growth in the automotive vertical.

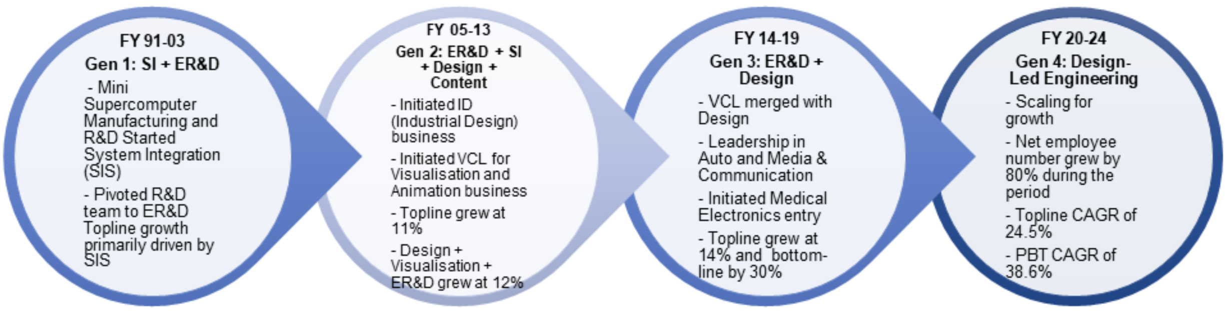
### Diversification drives faster growth without material S&M investment

- Successful execution across strategic growth vectors leading to a rise in market share, market size and wallet share could aid higher-than-anticipated revenue growth and at a better-than-expected margin.

## About Tata Elxsi

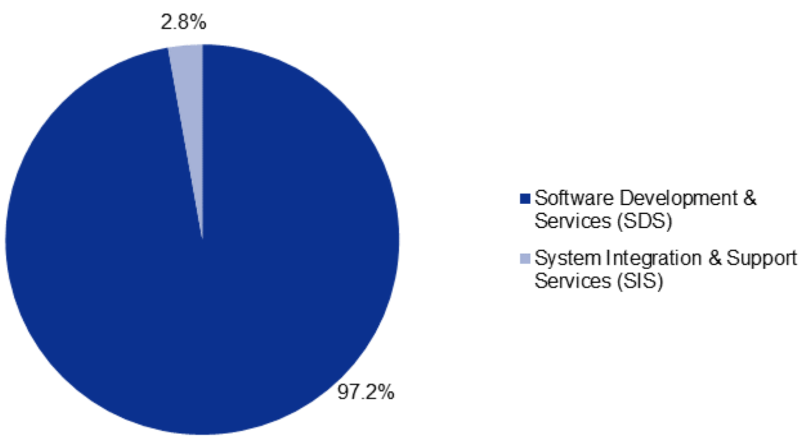
Tata Elxsi is a global design and technology solutions company. It provides integrated services - from research and strategy to electronics and mechanical design, software development, validation, and deployment - and is supported by a network of design studios, global development centres and offices worldwide. The company helps its clients to reimagine their products and services by applying design thinking and digital technologies such as IoT (Internet of Things), Cloud, Mobility, Virtual Reality, and Artificial Intelligence.

**Figure 111: Evolution of Tata Elxsi**



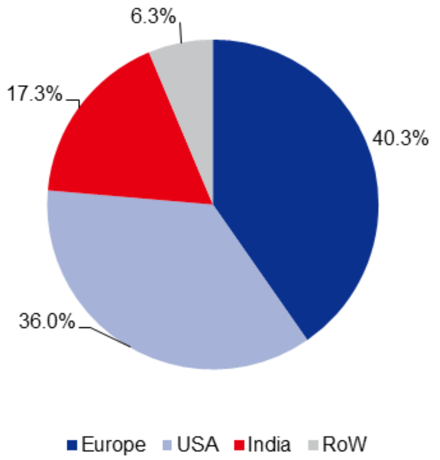

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 112: Segment-wise mix**



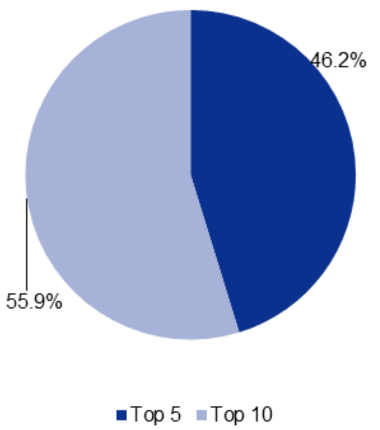

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 113: Geography mix**



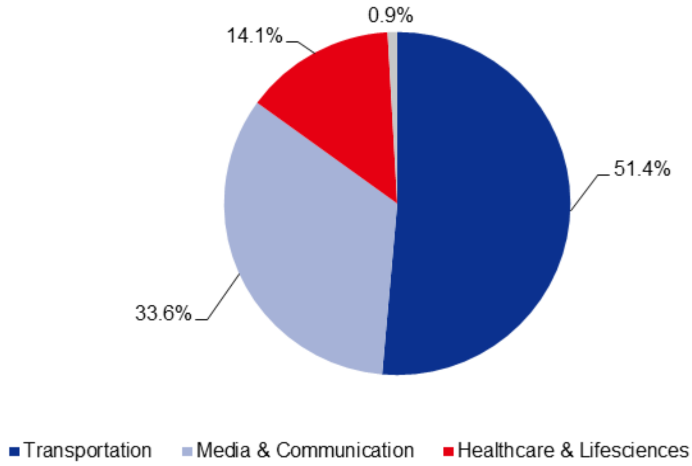

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 114: Client mix**



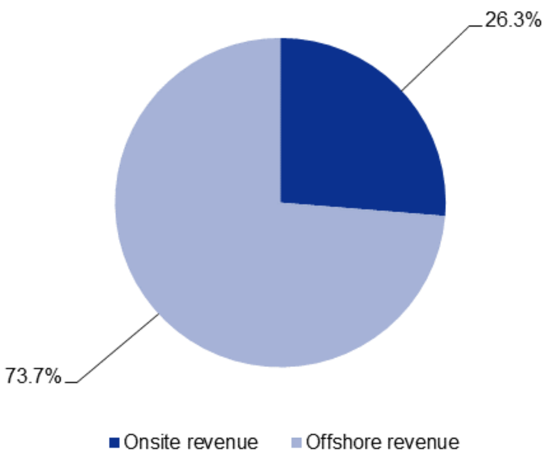

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 115: SDS vertical mix**



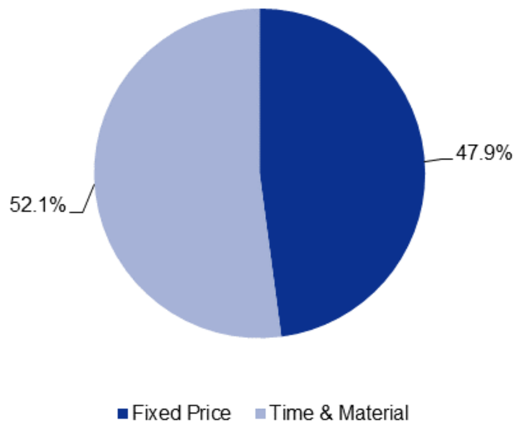

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 116: SDS onsite/offshore revenue mix**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

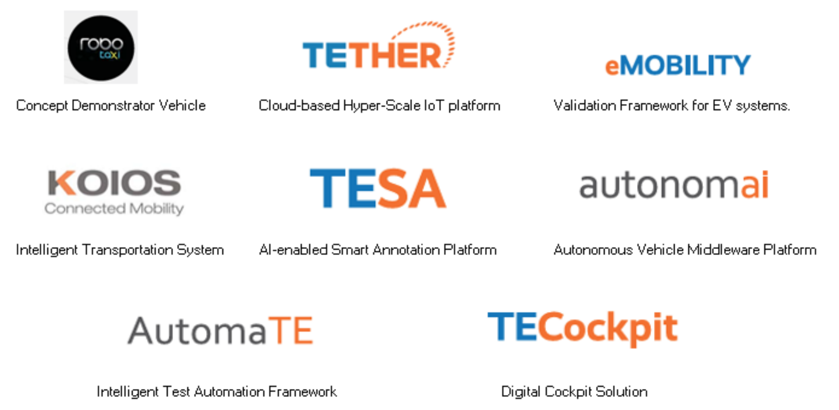
**Figure 117: SDS contract mix**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

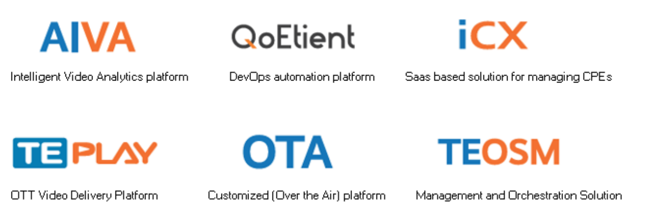
## Solutions across verticals

**Figure 118: Transportation**



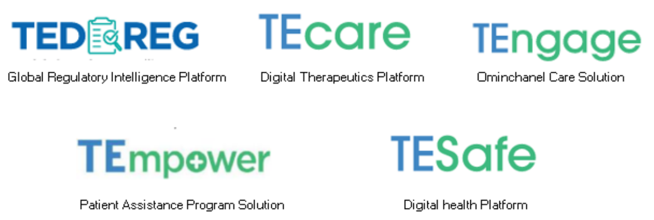

SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 119: Broadcast & media**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 120: Healthcare & life sciences**




SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 121: Key management personnel**

| Name | Role | Brief Profile |
|---|---|---|
| Manoj Raghavan | CEO & Managing Director | Joined TELX in 1997. Appointed as MD & CEO in 2019. Previously worked for Tata Motors. |
| Gaurav Bajaj | Chief Financial Officer | Joined TELX in Jan 2021. Appointed as CFO in Aug 2021. Previously worked for Wipro, IBM and ETA Ascon. |
| Nitin Pai | CMO & Chief Strategy Officer | Joined TELX in 1996. Appointed as CMO and Chief Strategy Officer in 2019. Previously worked for Bajaj Auto. |

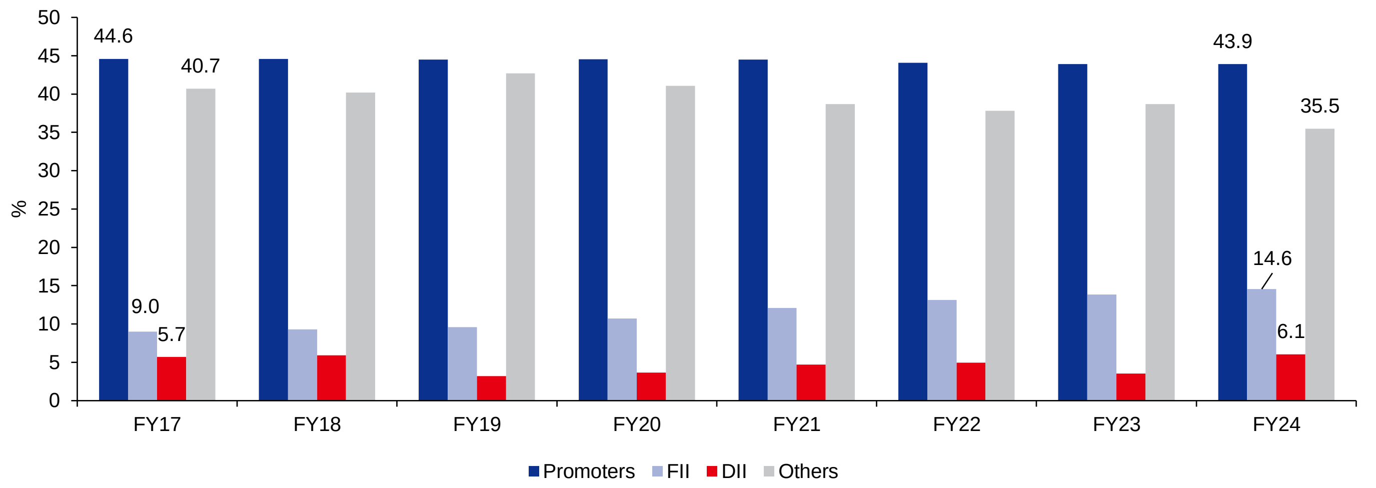
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 122: Board of directors**

| Name | Designation |
|---|---|
| Mr. N Ganapathy Subramaniam | Chairman (Non-Executive and Non-Independent) |
| Mrs. S Gopinath | Independent Non-Executive Director |
| Mr. Sudhakar Rao | Independent Non-Executive Director |
| Dr. Anurag Kumar | Independent Non-Executive Director |
| Mr. Ankur Verma | Non-Executive Director and Non-Independent |
| Mr. Manoj Raghavan | CEO & Managing Director |

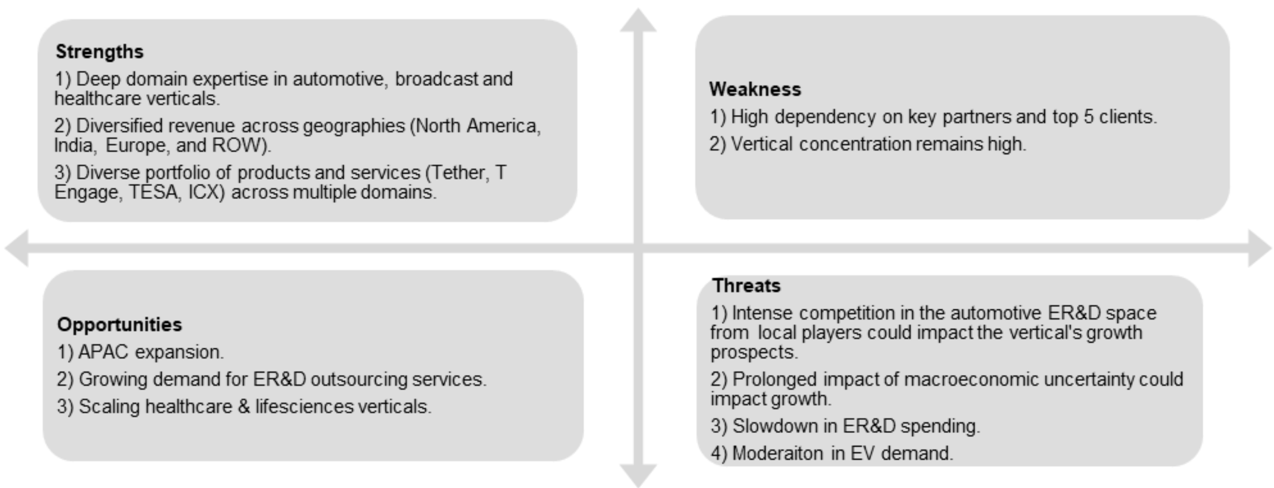
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 123: Shareholding pattern trend**



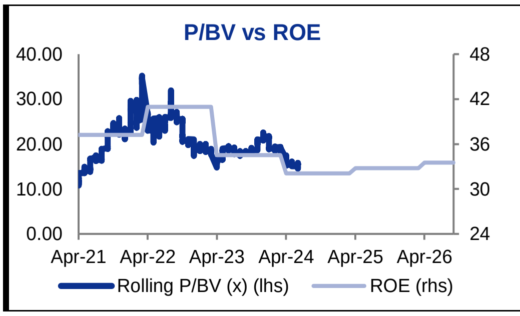

SOURCE: INCRED RESEARCH, COMPANY REPORTS

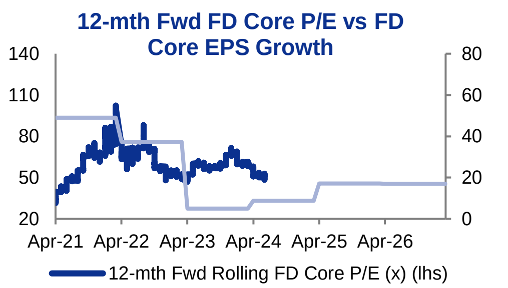
**Figure 124: SWOT analysis**




SOURCE: INCRED RESEARCH

## BY THE NUMBERS




### Profit & Loss

| **(Rs mn)** | **Mar-23A** | **Mar-24A** | **Mar-25F** | **Mar-26F** | **Mar-27F** |
|---|---|---|---|---|---|
| **Total Net Revenues** | **31,447** | **35,521** | **39,561** | **45,576** | **53,121** |
| **Gross Profit** | **13,606** | **14,492** | **16,032** | **18,629** | **21,730** |
| **Operating EBITDA** | **9,612** | **10,464** | **11,771** | **13,752** | **16,100** |
| Depreciation And Amortisation | (814) | (994) | (1,108) | (1,231) | (1,381) |
| **Operating EBIT** | **8,799** | **9,470** | **10,663** | **12,522** | **14,718** |
| Financial Income/(Expense) | 576 | 1,017 | 909 | 1,032 | 1,129 |
| Pretax Income/(Loss) from Assoc. | | | | | |
| Non-Operating Income/(Expense) | | | | | |
| **Profit Before Tax (pre-EI)** | **9,375** | **10,487** | **11,572** | **13,553** | **15,848** |
| Exceptional Items | | | | | |
| **Pre-tax Profit** | **9,375** | **10,487** | **11,572** | **13,553** | **15,848** |
| Taxation | (1,823) | (2,564) | (2,951) | (3,456) | (4,041) |
| Exceptional Income - post-tax | | | | | |
| **Profit After Tax** | **7,552** | **7,923** | **8,621** | **10,097** | **11,806** |
| Minority Interests | | | | | |
| Preferred Dividends | | | | | |
| FX Gain/(Loss) - post tax | | | | | |
| Other Adjustments - post-tax | | | | | |
| **Net Profit** | **7,552** | **7,923** | **8,621** | **10,097** | **11,806** |
| Recurring Net Profit | 7,552 | 7,923 | 8,621 | 10,097 | 11,806 |
| **Fully Diluted Recurring Net Profit** | **7,552** | **7,923** | **8,621** | **10,097** | **11,806** |

### Cash Flow

| **(Rs mn)** | **Mar-23A** | **Mar-24A** | **Mar-25F** | **Mar-26F** | **Mar-27F** |
|---|---|---|---|---|---|
| EBITDA | 9,612 | 10,464 | 11,771 | 13,752 | 16,100 |
| Cash Flow from Invt. & Assoc. | | | | | |
| Change In Working Capital | (3,097) | (1,351) | (570) | (1,434) | (1,798) |
| (Incr)/Decr in Total Provisions | | | | | |
| Other Non-Cash (Income)/Expense | (5) | 193 | | | |
| Other Operating Cashflow | (163) | (445) | | | |
| Net Interest (Paid)/Received | 370 | 731 | | | |
| Tax Paid | (1,848) | (2,580) | (2,951) | (3,456) | (4,041) |
| **Cashflow From Operations** | **4,868** | **7,012** | **8,250** | **8,862** | **10,260** |
| Capex | (637) | (830) | (600) | (600) | (600) |
| Disposals Of FAs/subsidiaries | | | | | |
| Acq. Of Subsidiaries/investments | | | | | |
| Other Investing Cashflow | (1,382) | (1,871) | 1,108 | 1,231 | 1,328 |
| **Cash Flow From Investing** | **(2,019)** | **(2,701)** | **508** | **631** | **728** |
| Debt Raised/(repaid) | | | | | |
| Proceeds From Issue Of Shares | | | | | |
| Shares Repurchased | | | | | |
| Dividends Paid | (2,647) | (3,774) | (4,983) | (5,917) | (7,162) |
| Preferred Dividends | | | | | |
| Other Financing Cashflow | (384) | (504) | (199) | (199) | (199) |
| **Cash Flow From Financing** | **(3,031)** | **(4,278)** | **(5,181)** | **(6,116)** | **(7,361)** |
| Total Cash Generated | (182) | 33 | 3,576 | 3,377 | 3,627 |
| **Free Cashflow To Equity** | **4,231** | **6,182** | **7,650** | **8,262** | **9,660** |
| **Free Cashflow To Firm** | **3,011** | **4,513** | **8,758** | **9,493** | **10,988** |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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### Balance Sheet

| (Rs mn) | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Total Cash And Equivalents | 12,390 | 14,139 | 17,715 | 21,092 | 24,719 |
| Total Debtors | 9,764 | 9,716 | 10,730 | 12,362 | 14,408 |
| Inventories | 4 | 11 | 11 | 11 | 11 |
| Total Other Current Assets | 977 | 1,502 | 1,502 | 1,502 | 1,502 |
| **Total Current Assets** | **23,135** | **25,367** | **29,957** | **34,966** | **40,640** |
| Fixed Assets | 3,244 | 3,847 | 3,339 | 2,709 | 1,927 |
| Total Investments | 685 | 1,943 | 1,943 | 1,943 | 1,943 |
| Intangible Assets | 162 | 134 | 134 | 134 | 134 |
| Total Other Non-Current Assets | 410 | 578 | 578 | 578 | 578 |
| **Total Non-current Assets** | **4,500** | **6,503** | **5,995** | **5,364** | **4,583** |
| Short-term Debt | | | | | |
| Current Portion of Long-Term Debt | | | | | |
| Total Creditors | 1,032 | 856 | 1,301 | 1,498 | 1,746 |
| Other Current Liabilities | 3,754 | 3,603 | 3,603 | 3,603 | 3,603 |
| **Total Current Liabilities** | **4,786** | **4,459** | **4,904** | **5,101** | **5,349** |
| Total Long-term Debt | | | | | |
| Hybrid Debt - Debt Component | | | | | |
| Total Other Non-Current Liabilities | 1,537 | 1,812 | 1,812 | 1,812 | 1,812 |
| **Total Non-current Liabilities** | **1,537** | **1,812** | **1,812** | **1,812** | **1,812** |
| Total Provisions | 455 | 542 | 542 | 542 | 542 |
| **Total Liabilities** | **6,777** | **6,813** | **7,257** | **7,455** | **7,703** |
| Shareholders Equity | 20,858 | 25,057 | 28,695 | 32,876 | 37,520 |
| Minority Interests | | | | | |
| **Total Equity** | **20,858** | **25,057** | **28,695** | **32,876** | **37,520** |

### Key Ratios

| | Mar-23A | Mar-24A | Mar-25F | Mar-26F | Mar-27F |
|---|---|---|---|---|---|
| Revenue Growth | 27.3% | 13.0% | 11.4% | 15.2% | 16.6% |
| Operating EBITDA Growth | 25.5% | 8.9% | 12.5% | 16.8% | 17.1% |
| Operating EBITDA Margin | 30.6% | 29.5% | 29.8% | 30.2% | 30.3% |
| Net Cash Per Share (Rs) | 198.95 | 227.03 | 284.45 | 338.68 | 396.92 |
| BVPS (Rs) | 334.92 | 402.34 | 460.77 | 527.90 | 602.47 |
| Gross Interest Cover | 54.36 | 46.78 | 53.61 | 62.95 | 74.00 |
| Effective Tax Rate | 19.4% | 24.5% | 25.5% | 25.5% | 25.5% |
| Net Dividend Payout Ratio | 35.0% | 55.0% | 57.8% | 58.6% | 60.7% |
| Accounts Receivables Days | 95.71 | 100.08 | 94.32 | 92.47 | 91.97 |
| Inventory Days | 0.10 | 0.13 | 0.17 | 0.15 | 0.13 |
| Accounts Payables Days | 19.18 | 16.39 | 16.73 | 18.96 | 18.86 |
| ROIC (%) | 110.7% | 73.2% | 70.1% | 81.9% | 89.9% |
| ROCE (%) | 38.5% | 31.2% | 29.6% | 30.3% | 31.2% |
| Return On Average Assets | 28.7% | 24.0% | 23.4% | 24.5% | 25.6% |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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| any other material conflict of interest at the time of publication of the research report or at the time of public appearance | NO | NO |
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| been engaged in market making activity for the subject company | NO | NO |

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