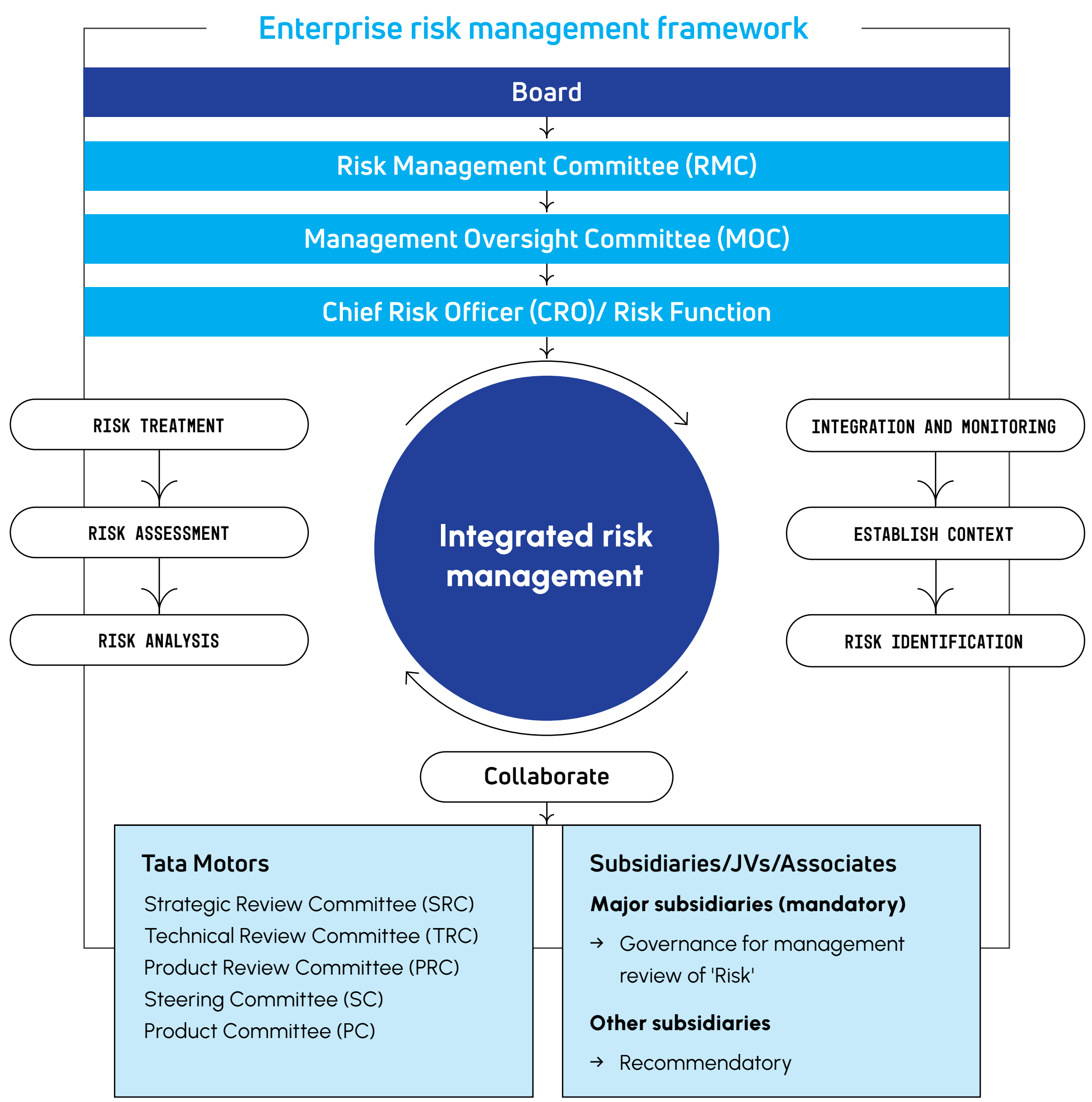
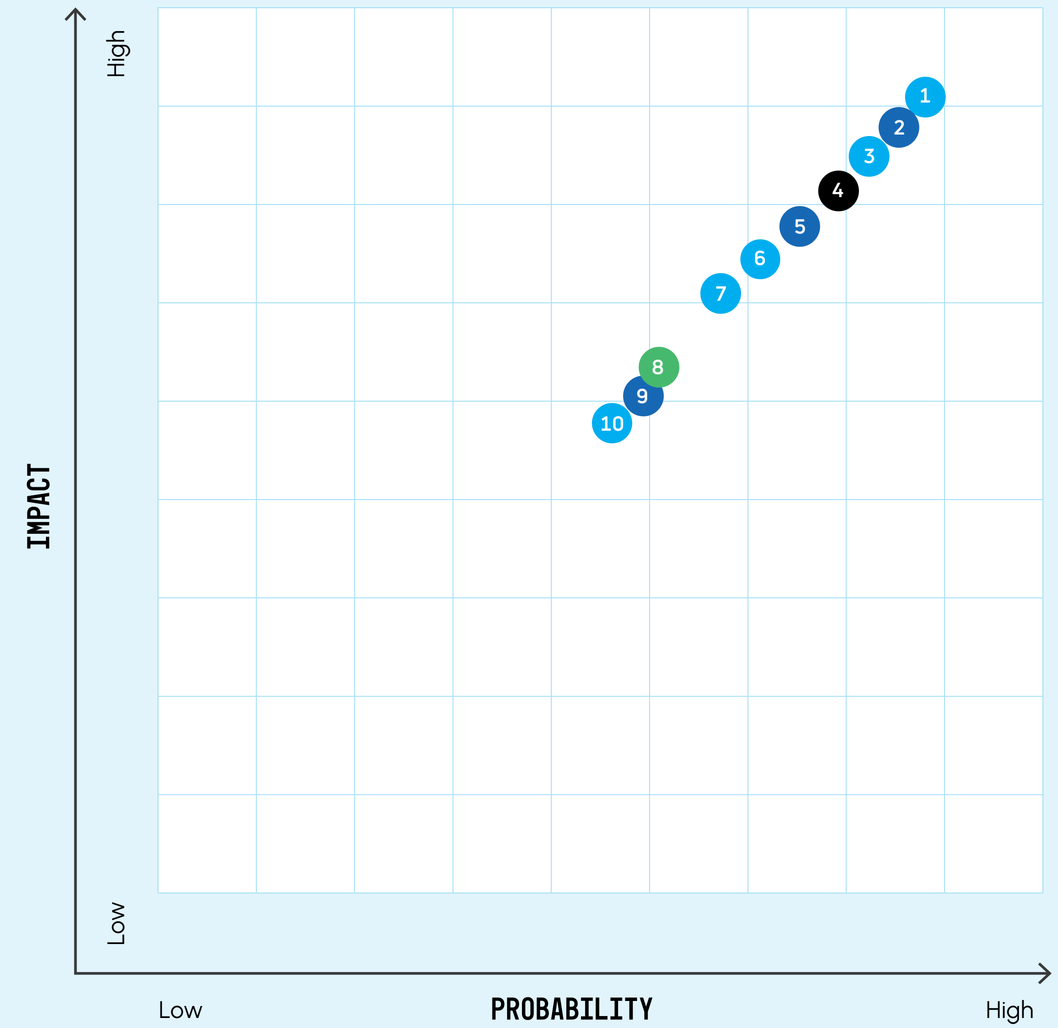
Navigating uncertainties

At Tata Motors, we closely assess the external environment to capitalise on new opportunities, identify the associated risks and outline the necessary steps to mitigate them. Our well-defined Enterprise Risk Management (ERM) framework helps effectively manage key risks and evaluates their likelihood and impact on our value-creation abilities to help us achieve our strategic objectives.



Risk probability and impact matrix



FOR GRAPHICAL REPRESENTATION ONLY, NOT TO SCALE

Key Risks

OPERATIONAL

1 Supply chain disruptions and commodity inflation
3 IT Systems and security
6 Manufacturing operations and COVID-19 pandemic
7 Distribution channels, retailer network and customer service delivery
10 Human capital

STRATEGIC

2 Global economic and geopolitical environment
5 Brand positioning, innovation and rapid technology change
9 Climate change

FINANCIAL

4 Growth strategy and competitive business efficiency

LEGAL AND COMPLIANCE

8 Environmental regulations and compliance

RISK MANAGEMENT

1 Supply chain disruptions and commodity inflation

OPERATIONAL

Principal risks

Our ability to supply components, in time, to our manufacturing operations is of paramount importance in achieving production schedules and meeting consumer demand. In the recent past, we have been witnessing increased geo-political tensions globally. An increasing demand for electric vehicles is also leading to price volatility and reduced availability of raw materials within the supply base. Recently commodity prices, especially precious metals, have experienced significant volatility. Steel, a principal component for CVs, has witnessed exponential price increases, but has stabilised in the current year.

Consequences

Supply chain disruptions, if not managed, could have an adverse effect on production volume, revenue and profitability, customer satisfaction and reputation. Shortage in the supply of semiconductors has continued to impact our production schedules in FY 2022-23. The Russia-Ukraine war has had a significant impact on the global economy, leading high inflation. Raw materials make up 65% of our total costs. If we are unable to find substitutes or pass price increases on to customers by raising prices, or secure supplies of scarce raw materials, our vehicle production, business and results from operations could be materially affected.

Mitigations and opportunities

JLR has developed an effective risk management framework with the creation of the Industrial Operations division (covering Procurement, Manufacturing and Supply Chain). JLR's Secure23 and Secure24 programmes ensure pipeline alignment for our future semiconductor supplies. The successful REFOCUS Transformation programme has been extended with greater focus on long-term supply chain resilience. We are also diversifying sourcing, driving localisation of critical components, closely collaborating with suppliers and building a buffer stock, exercising financial instruments such as futures or options contracts for hedging against price increases, and negotiating long-term contracts, wherever necessary. Material cost reduction through Value Analysis and Value Engineering (VAVE) is also underway.

2 Global economic and geopolitical environment

STRATEGIC

Principal risks

We are exposed to changes in the global economic and geopolitical environment, as well as other external factors, including but not limited to trade tensions, protectionism, wars, terrorism, natural disasters, humanitarian challenges and pandemics that may adversely impact our business.

In the recent past, we have been witnessing increased geopolitical tensions globally.

Consequences

We rely on certain key markets, like the UK, China, North America, India and continental Europe, for a substantial portion of our revenues. A decline in demand in these markets may significantly impair our business, financial condition and operations. We are also vulnerable to cyclicity in demand for our CV business. Our international presence and global sales profile makes us sensitive to the external environment, globally or locally.

Any potential aftermaths of such tensions such as cross-border restrictions, sanctions, trade barriers, imposition of tariffs, etc. could adversely affect our supply chains and as a result affect production schedules.

Mitigations and opportunities

We continue to closely monitor and risk assess global developments, implementing mitigation plans as necessary and we continue to maintain a balanced sales profile across our key sales regions. Our diverse global customer base gives us the flexibility to react to regional changes in demand by adjusting our sales mix, modifying product features or content in case of supply challenges, as informed through our enhanced supply chain risk management framework.

Financial | *Manufactured* | *Intellectual* | *Human* | *Social Relationships* | *Natural*

3 IT systems and security

OPERATIONAL

Principal risks

We are exposed to IT risks since IT plays an important role in our operations, including the manufacturing, design of engineering processes. With our vehicles becoming increasingly technologically advanced and connected to the internet, they may become more susceptible to unauthorised access. We are also subject to risks related to legacy IT systems and system migration projects.

Consequences

Successful cyber-attacks could cause significant business disruption for us, affecting our ability to deliver products and services to our customers. In extreme situations, this could affect the personal safety of our customers and colleagues. Regulatory and statutory requirements are increasing, and failure to meet these obligations, such as the statutes of privacy and data protection law, could result in enforcement action, fines, reputational and financial damage.

Any IT system migration if not carried out within defined timelines, or implementation and outcome is not as desired, it could materially adversely affect our operations, affect financial performance and cause reputation damage.

Mitigations and opportunities

Information risk and cyber security are managed strategically. Through a cohesive programme of initiatives, we mitigate significant business risks while positively influencing business and brand value, growth, stability, and overall success. We continue to drive measurable improvements in cyber defence and other core security capabilities (e.g., security ecosystem, supply chain security, risk governance and cultural change).

4 Growth strategy and competitive business efficiency

FINANCIAL

Principal risks

Delivering on our business and strategic objectives, including the electric transformation of JLR, sustaining the turnaround journey and achieving a structural transformation are key to realising our planned future profitability and cash generation through return on our investments.

Consequences

If our business is unable to compete effectively on costs, then we may experience lower-than-expected returns on our future investments. This could inhibit our ability to achieve our financial objectives. Furthermore, this may limit our ability to reduce net debt as planned, which could, in turn, diminish our ability to raise new debt and invest further in new products. In FY 2022-23, we reduced discounts across our CV business, and focused on VAHAN market share to improve profitability.

We are also driving growth in our domestic business with a focus on large-scale fleet under the pay-per-use model. Such large contracts come with execution risks. If we are unable to comply with the various terms of agreement or unable to fulfil the necessary specifications and timelines, it would adversely harm our reputation and significantly impact our financial performance and results of operations.

Mitigations and opportunities

JLR has launched the Refocus programme to support the delivery of its Reimagine objectives. We maintain strong liquidity in the business to ensure that we can navigate any funding challenges that may arise in the future. Appropriate business model/financial structuring is being developed to address risks for execution of large-scale contracts, including contracts entered into for the pay-per-use model.

For the domestic CV business, we have modified our priority to the demand-pull strategy to focus on retail market share and minimising discounts to boost profitability. In Passenger and EV business, there has been a turnaround and strong operational cash flows and fund raise through the TPG Rise deal. This ensures that investment requirements are taken care and the business is self-sustaining.

RISK MANAGEMENT

5 Brand positioning, innovation and rapid technology change

STRATEGIC

Principal risks	Consequences	Mitigations and opportunities
Brand positioning is becoming increasingly challenging in a dynamic automotive market, with more intense competition from existing OEMs and new disruptive entrants, particularly in the EV segment. Our future success depends on our ability to stay tuned to evolving automotive trends and to satisfy changing customer demands by offering innovative products in a timely manner, while maintaining product competitiveness and quality.	Our potential inability to successfully position, maintain and articulate the strength of our brands, our failure to develop new products and technologies that meet customer preferences, or not being able to sufficiently invest in brand building, could impact demand for our products. Delays in the launch of technologically intensive products, or the relative obsolescence of existing technology in our products could impact sales as customers may choose competitors, and/or the sale of our products could be prohibited in certain markets.	Our approach of taking 'Every regulatory change as an opportunity to enhance value to customer and increase competitiveness' helped us establish superiority of our BSVI range with improvement in market share. Our PV business has witnessed a significant turnaround and perception change in the past three years. We have stepped up product launches, sustainable mobility solutions, new business avenues and have been frontrunners in EVs in India. Under the Reimagine strategy, both the JLR brands carry forward the 'Modern Luxury' vision to bolster its brand position in the market, with Jaguar relaunching as an all-electric brand from 2025, targeting a more premium segment. At Auto Expo 2023, Tata Motors unveiled its future-ready range of safer, smarter and greener vehicles and concepts, designed to transform personal mobility, people mobility and cargo transport.

6 Manufacturing operations and COVID-19 pandemic

OPERATIONAL

Principal risks	Consequences	Mitigations and opportunities
Any losses to scheduled production adversely affects financial performance, customer delivery and customer satisfaction. We have been, and may in the future be, impacted by the COVID-19 pandemic, considering the emergence of new variants of the virus. Uncertainty continues in the medium and long-term over the effectiveness of the vaccines and future government action in response to a recurrence.	Any disruptions to our manufacturing operations and losses in vehicle production could result in delays, affecting both retailer and customer deliveries, with potential delays or loss of revenue in key regions. During FY 2022-23, the lockdowns in China, carried out as a part of the government's Zero COVID strategy, impacted a part of our supplies, including semiconductors. We also witnessed a temporary decrease in demand in our China markets.	Manufacturing works closely with the purchasing and supply chain functions to monitor and manage suppliers that pose supply risks. Data analytics tools and integrated S&OP tools have been set up to monitor volatile demand so that inventories can be managed efficiently. Multiple response measures have been implemented to ensure our sites are safe working environments.

Financial Manufactured Intellectual Human Social Relationships Natural

7 Distribution channels, retailer network and customer service delivery

OPERATIONAL

Principal risks	Consequences	Mitigations and opportunities
To achieve customer delight, every customer must receive a seamless and consistently hassle-free experience. Our retailer partners reflect our brand strategy and vision, and effectively communicate our values through trained and capable representatives. Skilled frontline salespersons tailor their responses to appeal to both new and existing customers and are crucial to driving high customer satisfaction and retention.	Inconsistent customer experience impacts the satisfaction and retention of existing customers, and negatively impacts drawing in new customers. Failure to deliver an exceptional sales and service experience through online and physical means can lead to a weakening of our competitive positioning, potentially impacting our business and financial performance too. We may be compelled to invest in newer evolving distribution models such as D2C, as we need to constantly evolve and meet consumer preferences and new market trends.	Significant steps have been taken to improve dealer profitability and financial health. Online channels have been simplified to enhance the customer online experience. Retailer systems and tools have been enhanced, supporting retailer sales, service and technician representatives and helping them deliver a seamless and consistent customer experience. Several other initiatives have been undertaken over the past few years to aid seamless sales and improve after sales experience (for example, SOTA-Software Over the Air and FOTA -Features Over The Air services now in development), Fleet Edge, Sampoorna Seva 2.0, and Uptime guarantee.

8 Environmental regulations and compliance

LEGAL AND COMPLIANCE

Principal risks	Consequences	Mitigations and opportunities
We are subject to a rapidly evolving regulatory landscape with associated laws, regulations and policies that impact our facilities and vehicles. The transition away from traditional fossil fuels to renewable energy sources - and the increasing pace of that transition - creates compliance challenges. Notable to mention here are tailpipe emissions for automotive companies and wider compliance requirements for carbon emissions produced during manufacturing and other operations.	We may incur additional compliance costs to avoid facing significant civil and regulatory penalties, and our competitors may gain an advantage by adopting new emissions-reducing and fuel-efficient technologies before we do. Furthermore, we may incur significant reputational damage, which could materially impact our brands and sales, if we fail to maintain environmental compliances. Regulatory and governmental policy changes may introduce additional operational costs in the form of carbon pricing and taxation.	JLR has committed to approved science-based targets as part of its carbon reduction strategy. JLR is aiming for net zero carbon emissions across its supply chain, products and operations by 2039. Tata Motors is ahead of the curve in meeting the Environment regulations and compliance as we view every regulatory norm change as an opportunity to add significant value to our products while meeting our stakeholder's aspirations. e.g. In the BS4 to BS6 transition, we have capitalised by refreshing our entire portfolio with significant product upgrades that add immense value throughout the product life-cycle..

RISK MANAGEMENT

9 Climate change

STRATEGIC

Principal risks	Consequences	Mitigations and opportunities
Climate Change poses acute and chronic physical risks to our operations and value chain. Climate change also poses transition risks to our business, which include technological advances in products and evolving market and policy landscape changes.	An increase in the frequency of extreme weather events like storms, floods, heatwaves, could have significant direct and indirect impact on our supply chain and our operations, thus adversely affecting our ability to fulfil demand. Evolving customer choices may lead to increased demand for low-carbon vehicles. Policy direction may require us to adopt low carbon manufacturing. Carbon pricing mandates may potentially enhance transition risk.	Tata Motors is cognizant of the physical and transition risks posed by climate change in the short, medium and long term. We have set ourselves ambitious targets of achieving Net Zero GHG emissions by 2045 in CV business, and 2040 in the PV business. We have set intermediate targets of achieving RE100 before the end of this decade and are committed to set interim Science Based Targets. Our roadmap, at the operations level, and product level, are fully aligned to our ambition and our intermediate targets.

Financial · Manufactured · Intellectual · Human · Social Relationships · Natural

10 Human capital

OPERATIONAL

Principal risks	Consequences	Mitigations and opportunities
Our business requires an engaged workforce with core capabilities in new and emerging skill areas and a collaborative, innovative and inclusive culture for our transformation to be successful. The safety, well-being and engagement of our employees is paramount and needs to be maintained in the face of a challenging external environment.	If we fail to attract, retain, engage and develop a diverse workforce with critical skills and capabilities our ability to deliver innovative products and services will be constrained and we will be prevented from deploying the agility and speed of delivery that is essential within the dynamic automotive industry.	A key aspect of our strategy is to develop an agile, capable organisation and culture through changes in ways of working, significant ACES upskilling, and the introduction of a new business purpose and supporting behaviours. The four culture pillars we follow are: **Be Bold; Own It; Solve Together; Being Empathetic**. Our diversity and inclusion strategy harnesses the unifying power of our differences and the unique qualities of each member in our workforce. Leveraging the digital capability and solutions through In Digital, as part of JLR's Refocus programme, enables a more efficient, focused and productive workforce.