



Tonnage and Technology

Annual Report
2022-23

BHARAT FORGE



Contents



The cover design
The cover features an exquisite blend of orange hues representing molten metal and blue tones which embody the spirit of cutting-edge technology. It depicts our seamless and cohesive transformation from a traditional manufacturing company into a dynamic, technology oriented engineering firm.



See this report online at
www.bharatforge.com

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I thank all the stakeholders for their trust in us every time we transform.

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Corporate Information

Bankers

Bank of India
Bank of Baroda
Bank of Maharashtra
Canara Bank
State Bank of India
HDFC Bank Ltd.
ICICI Bank Ltd.
Axis Bank Ltd.
Citibank N.A.
Standard Chartered Bank
Credit Agricole CIB
HSBC Ltd.
JP Morgan Chase Bank N.A.
Deutsche Bank AG
Kotak Mahindra Bank Ltd.

Auditors

BSR & Co LLP
Chartered Accountants

Company Secretary

Ms. Tejaswini Chaudhari

Registered Office

CIN: L25209PN1961PLC012046
Bharat Forge Limited
Mundhwa, Pune Cantonment,
Pune - 411 036, Maharashtra, India.
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Web: www.bharatforge.com

About the Report

Basis of Reporting

This is our fourth year of integrated reporting based on the principles of Integrated Reporting <IR> by the International Integrated Reporting Council (IIRC). This reporting is in line with our philosophy of transparently disclosing information beyond the statutory norms. We have tried to provide all-inclusive insight of our value creation process and factors that may affect it. The report covers the six capitals – financial, manufactured, human, intellectual, social & relationship and natural capitals – that we use in our business. Further,

we cover information on material matters, governance, performance and prospects in context of external environment. Our intent is to provide as much relevant information to the stakeholders to better equip them to evaluate our performance and take an informed decision.

Reporting Principle

This report has been prepared in accordance with:

- Companies Act, 2013 (and the Rules made thereunder)
- Indian Accounting Standards, the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015
- Secretarial Standards

Other international guidelines in accordance with:

- <IR> framework of International Integrated Reporting Council (IIRC)
- Global Reporting Initiative (GRI) Standards

Boundary and Scope Of Reporting

The report covers financial and non-financial information and activities of Bharat Forge Limited, India for the period of April 1, 2022 to March 31, 2023. We have captured significant material events up to Board Meeting held on May 05, 2023.

Board Assurance

The members of the Board acknowledge having applied their collective minds in the preparation of this report. They accept the responsibility for its integrity and are of the opinion that the report addresses all material issues and provides a fair and balanced view of the Company's performance.

Forward-looking Statements

Certain statements in this Report regarding our business operations may constitute forward-looking statements. These include all statements other than statements of

historical fact, including those regarding the financial position, business strategy, management plans and objectives for future operations. Forward-looking statements can be identified by words such as 'believes', 'estimates', 'anticipates', 'expects', 'intends', 'may', 'will', 'plans', 'outlook' and other words of similar meaning in connection with a discussion of future operating or financial performance.

Forward-looking statements are necessarily dependent on assumptions, data or methods that may be incorrect or

imprecise and that may be incapable of being realized and as such, are not intended to be a guarantee of future results, but constitute our current expectations based on reasonable assumptions. Actual results could differ materially from those projected in any forward-looking statements due to various events, risks, uncertainties and other factors. We neither assume any obligation nor intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

United Nations Sustainable Development Goals (UN SDGs)



Our Capitals



Financial Capital

It represents the capital that we employ in the business to support our operations and execute business strategy for generating surplus for the investors and shareholders.



Manufactured Capital

It represents our modern manufacturing facilities and equipment. We continually invest financial capital in it to support our growing scale of operations and enable manufacturing of diverse and evolving range of products.



Intellectual Capital

It represents our knowledge, process and technical excellence and digital readiness and innovation capabilities led by our research and development (R&D) centers which provide us a competitive edge in the industry. We are continually investing in these to strengthen our ability to develop innovative solutions as per the evolving trends in the industry.



Human Capital

It represents the competencies, experience, engagement level and motivation of our people. They drive the organization's ability to innovate and run business efficiently, better serve customers and maintain strong relations and achieve strategies.



Social and Relationship Capital

It represents the quality of relationships that we have with the customers, business partners and communities which enhances our reputation, and facilitates in business growth and giving back to the society.



Natural Capital

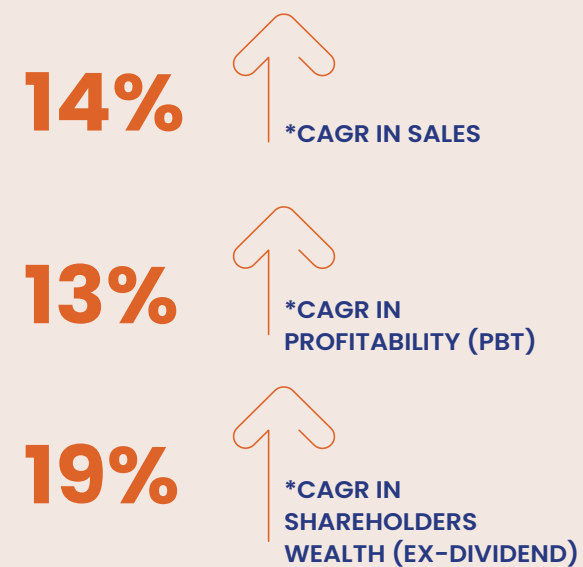
It represents the renewable and non-renewable environmental resources that we use in our operations and the impact our operations have on the environment. We are continually investing in these towards making our operations more sustainable.

Bharat Forge's journey of the past two decades has been one of exponential growth.

Vision 2030 targets

- **Consolidated Revenues:** 12-15% CAGR between FY 2022-30 by creating balanced revenue streams across components and products/systems
- **Consolidated EBITDA of 20%:** As the incubated verticals progress from investment phase to production mode and the international operations turnaround after a challenging period
- **Consolidated ROCE:** Improvement of 500 bps by FY 2030 from FY 2022 levels of 20% through a combination of operational improvement across all business verticals and shrinking the balance sheet

The quantitative results have been impressive:



*FY 2003 to FY 2023 standalone financials

However, it is the qualitative aspects that inspires and excites us more: of transforming and diversifying, building capacities and capabilities, forging enduring relationships and embedding sustainability.

Ours has been a journey of broadening horizons. From being a supplier predominantly to the Commercial Vehicles sector to a supplier with a balanced exposure across Commercial Vehicles, Passenger Vehicles and an array of Industrial sectors. Our endeavors have seen us graduate from being just a steel forging company to adding capabilities across aluminum, titanium, ferrous and other alloyed materials.

It has been a mission of building diversified technology and knowledge capabilities to stay

at the forefront of innovation. What began with manufacturing of simple components has now evolved into development of critical components across sectors in collaboration with our clients, resulting in exceptional outcomes. Our Engineering & Design centers, supported by multi-disciplinary sectoral engineering and R&D capabilities, proved key to this progression. They have been at the core of all innovations that we have undertaken and implemented across businesses. Additionally, we have nurtured a strong talent pool of over 200 M. Techs and PhDs dedicated to process innovation, product prototyping, and component development, enabling us to strengthen our IP profile with 84 patent filings.

Last and more importantly, it has been a pursuit of embedding

sustainability across every facet of business to secure our long-term interests and ensure value for all stakeholders.

This multifaceted approach has laid a solid foundation from which we can leverage to propel us to the next level of success. We look ahead to a stronger tomorrow which will be transformational from end-markets point of view as well as from the solutions across technologies and processes that we will be able to deliver.

Towards this end, we have laid out our Vision 2030, entailing financial targets and evolving to an innovative engineering conglomerate, dedicated to meeting customer expectations while developing newer avenues of growth.

HIGHLIGHTS OF THE YEAR

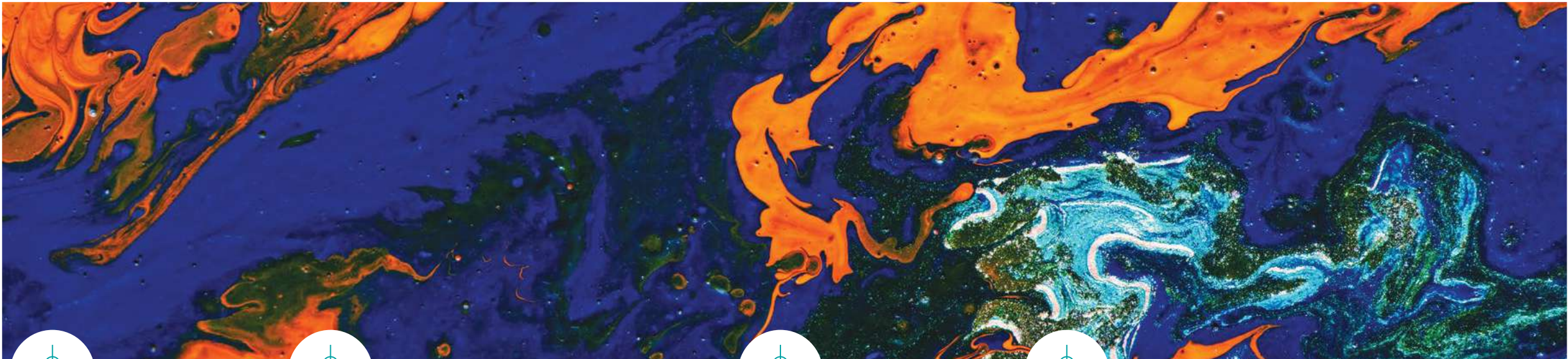
Reflecting on a year of progress and achievements

Delivered record performance

₹12,910 Crore
Consolidated revenues

₹7,573 Crore
Standalone revenues

₹4,461 Crore
Export revenues



Record Order Wins

We won a record ₹3,900 crore of orders driven by order inflow of ₹2,000 crore from Defence, ₹1,500 crore in the core forging business across automobiles and Industrials and ₹380 crore in JS Autocast.

Maiden export order in Defence

Our Defence subsidiary, Kalyani Strategic Systems Ltd. secured its maiden export order of USD 155.5 million for Artillery Gun System.

JS Autocast Consolidation

Consolidated operations at JS Autocast and further enhanced its competencies with the acquisition of assets of Indo Shell Mould Ltd.'s SEZ unit. This has strengthened our foothold in the casting space and the additional capacities will be crucial in meeting growing demand.

Commencement of E-2W Manufacturing Plant

We successfully started commercial production at our new Electric 2-wheeler manufacturing at Chakan. It has capacity of 60,000 vehicles per annum, expandable to 100,000 vehicles.

Prestigious Recognitions from Customers

CATERPILLAR
Global Supplier of the Year

PACCAR
Performance of the Year (2021 & 2022)

DANA
Sustainability Initiatives Lead

MACIMEX
Supplier Excellence for the year

VE COMMERCIAL VEHICLES
Supply Chain Excellence

JOHN DEERE
Partner Level Performance

Continental
Supplier of the Year

gm
Global Supplier of the Year

VOLVO
ESG Award

DAIMLER
Quality for the year

Enriching Lives
Overall Business Performance

Business Alignment
– Gold

Message from the Chairman & Managing Director



B N Kalyani
Chairman and Managing Director

Dear Shareholders,

It gives me immense pleasure to address all of you and provide a review of the year’s performance and our progress towards a stronger tomorrow. At the outset, I thank each one of you for the continued encouragement and support. FY 2023 has been a challenging year with continued geo-political tension, impact of which was visible in the higher energy and food prices, elevated inflation across all nations and supply chain related tightness. Despite this, for the Company, FY 2023 was a year of progress on many fronts. Right from the acquisition of JS Autocast providing entry into the high potential industrial casting sector, to securing maiden exports orders in the defence vertical, and improving our ESG scores, we saw it all transpire.

The overall operating environment for Bharat Forge in the past year was stable, especially in India where the macro-economic scenario was positive despite the global challenges. India’s economy has been resilient in the face of many macro headwinds like high inflation and interest rate hikes by central banks globally. India’s gross domestic product (GDP) grew by 7.2% in FY 2023, following a robust 9.1% growth in FY 2022, making it one of the fastest growing economies in the world.

Industry Sustains Positivity

The global automobile industry demonstrated resilience through the year. The North American automotive markets had a good run with sustained fleet replacement demand and strong appetite for personal mobility. European automotive markets were broadly subdued, except for the medium heavy truck segment, which witnessed good volumes.

Domestic demand for passenger vehicles (PV) and medium and heavy commercial vehicles (MHCV) remained strong, driven by healthy consumer demand and increased industrial activity. As a result, India emerged the third largest automotive market, surpassing Japan. Two notable trends are clearly playing out in the domestic automotive market. There is a growing preference towards premium offerings in the PV market, with more demand for SUVs/CUVs vis-à-vis small cars. In the E-mobility space, electric two and three-wheelers have taken off in a meaningful way, driven by FAME II subsidies and tax relief measures by various state governments. However, the uncertainty on FAME subsidies is an overhang on EV adoption and is likely to result in consolidation.



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A Reflection of the Past Year

FY 2023 was a record year with the Company achieving historical high revenues for the standalone operations. This accomplishment was on the back of strong growth in key end markets coupled with successful ramp-up of business in segments such as PV, Aerospace etc.

The standalone business achieved revenue of ₹75,727 million, reflecting a growth of 21.1%, and PBT grew by 8.3% to ₹14,398 million. Key milestones for the year were the export business surpassing USD 0.50 billion in revenues and a sharp increase in the PV export business which grew by 71% to ₹9,553 million.

The overseas operations faced a challenging period due to supply chain issues and sharp jump in input costs. Slower than anticipated ramp-up of new aluminum forgings capacities in Germany and North America further impacted utilization rates. The business posted an EBITDA loss of ₹961 million in FY 2023. We are currently steering the path to profitability by way of improving capacity utilization, optimizing costs and cost recoveries from customers.

For the consolidated entity, topline grew by 23.4% to ₹129,103 million while the profit after tax declined by 52.8% to ₹5,084 million. The balance sheet continues to remain strong with cash of ₹31,405 million on the books and D/E (net of cash) at comfortable levels of 0.54.

The defence arm, Kalyani Strategic Systems Limited (KSSL), achieved its maiden breakthrough by bagging an export order of USD 155.5 million for supplying artillery gun system, which will be an indigenously developed and manufactured product with 100% intellectual property owned by us. Overall, the defence vertical secured orders worth ₹20,000 million, in FY 2023. The forging business secured new orders worth ₹15,000 million and JS Autocast (JSA) has secured new business worth ₹3,800 million. These order wins provide a strong revenue visibility for the coming few years.



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Tonnage & Technology

We have always been a Company in motion, looking for the next big growth opportunity. Our initial breakout moment was way back in the early 90's, when we invested an amount much bigger than our top line to set up a modern 16,000 Ton press (dubbed "The White Elephant"). This laid the foundation for the next major pivot which happened in circa FY 2002-03, when we combined a massive organic growth program in India with a series of outbound acquisitions. At that time, our revenue was about ₹6,340 million. In the following two decades, we have strengthened our presence within the forgings space by venturing into industrial and PV segments, reinforcing our balance sheet and incubating various initiatives in sunrise sectors.

The results have been impressive: 20-year CAGR of 14% in sales, 13% in profitability and shareholder value creation (ex-dividend) of 19% alongside attaining market leadership position.

This time around, our transformation is centered on moving forward towards products & systems while simultaneously deepening our presence in the components space. This will be achieved by leveraging our core strengths, including strong relations with customers, and expertise in material, metallurgical, and metal forming. With this as the fulcrum, FY 2024 will witness the Company's progression up the product and system value chain across verticals with increased emphasis on technology and innovation.

The Defence vertical, incubated in 2011, has successfully graduated from developing components to sub-systems and full systems. The vertical is progressing ahead with a capability-driven strategy whereby it is leveraging expertise in metallurgy and material science and technologies like embedded electronics, control systems, artificial intelligence, etc. to develop multiple platforms and products. This makes us amongst the few Indian companies to possess such depth of capabilities, and that too all indigenously developed.



The aluminum investments are key to having a meaningful presence in the light-weighting transition playing out in the automotive world across traditional and new energy vehicles, and to improve the overall financial performance of the international operations.

The overseas businesses, which are facing challenges, have taken a pivot from steel to aluminum forgings. With our global aluminum forging units now operational, we expect the benefits to start coming in as they begin to stabilize in FY 2024. The aluminum investments are key to having a meaningful presence in the light-weighting transition playing out in the automotive world across traditional and new energy vehicles, and to improve the overall financial performance of the international operations.

In the Industrial business, the acquisition of JSA has provided us an excellent entry in the ferrous casting space. JSA's recent acquisition of Indo Shell Mould Limited's SEZ unit has further enhanced its capacities, positioning it to become an anchor for building larger business. These acquisitions are enabling an increase in the ability to cross-sell to our existing customers and also giving us access to new customers in the Industrial sector. JSA given its reputation with customers and an accomplished management will witness strong growth in the coming years. Our ambition is to make JSA amongst the top three casting suppliers in India.



The results have been impressive: 20-year CAGR of 14% in sales, 13% in profitability and shareholder value creation (ex-dividend) of 19%.

In the Aerospace business, we have leveraged our components manufacturing expertise to build a value-added portfolio and evolve into a tier-I system developer. We are exploring opportunities to become a part of the supply chain for global leaders looking to set up manufacturing facilities for large systems in India under the aegis of Atmanirbhar Bharat. This business has clear growth visibility for the next two years and is expected to grow at a steady clip in the future driven by enhancement of customers & product.

The E-mobility vertical, started in 2017, reached a milestone by consolidating all competencies under our subsidiary KPTL, including strategic investments, joint ventures (JVs) and the R&D-led knowledge to deliver at scale. This includes investments in TEVVA for electric trucks, Tork Motors for electric motorcycles and a JV with REFU for inverters. KPTL successfully started its first micro-factory in the e-mobility space during the year, for assembly of E-Bike catering to Tork Motors. It is now preparing to launch an upcoming repowering micro-factory, that will target electrifying old trucks, a big opportunity given the Indian government's mandate for old vehicle scrappage. We have received all certifications and completed mileage goals on test vehicles for this business. As a part of controlled launch, it has initiated pilot program with select customers.



In the Aerospace business, we have leveraged our components manufacturing expertise to build a value-added portfolio and evolve into a tier-I system developer.

On the environment front, we are progressing towards our vision of 50% lesser emissions by 2030, and have defined a robust decarbonization roadmap. In FY 2023, we reduced energy consumption and entered into renewable PPA for 60.65 MW. We are progressing towards water positivity by 2030, having reduced our water intensity by another 2% in FY 2023.

Our efforts in sustainable development of communities have been inspirational. Across 100 villages of Maharashtra, we have undertaken scalable measures around education, health, livelihood and infrastructure development. The impact is evident in improved literacy and standard of living of villagers. We aim to make these into sustainable green villages with net zero carbon. To our employees, we are providing a workplace that is diverse, inclusive and safe, and at the same time rewarding.

One of the key initiatives in our ESG journey and assisting our customers in the sustainability journey is the use of "Green Steel", manufactured using 100% renewable energy and 70%+ recycled scrap materials with zero GHG footprint. I am happy and proud to inform you that BFL has become the 1st company in India to utilize green steel in its forging operations and supply components to its customers.



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We are positioning ourselves in E-mobility with modest investments to gain knowledge, experience and talent across electronics, mechatronics and drive train components, and expect traction as the sector grows.

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Talent Creation for BFL 2.0

BFL 2.0 is not very different from BFL 1.0. At the core, it is all about customers, technology, innovation and scaling our capabilities and generating value for our stakeholders. As our initiatives incubated over the past decade move into the harvest phase, it necessitates dedicated approach, focus and efforts to understand nuances and dynamics of the respective verticals. Towards this, we have restructured our new businesses into subsidiaries or dedicated verticals, and have brought in young, dynamic leaders and building teams to take forward the vision. Execution competencies have also been stepped-up with dedicated plants and strengthening the team.

Stepping up ESG: Planet Positive

At Bharat Forge, we have bold ambitions to lead ESG in the manufacturing space and have set targets for the same. We also believe that ESG is going to become an enabler and differentiator as we further integrate into the global supply chain across segments.



We firmly believe that we are at the cusp of steady growth in the medium term which is going to be truly transformational in our ability to deliver solutions across technologies, processes and end-markets.

Vision 2030: Bigger, Better and Stronger

We firmly believe that we are at the cusp of steady growth in the medium-term which is going to be truly transformational in our ability to deliver solutions across technologies, processes and end-markets. As our initiatives in Defence, E-Mobility and Industrial moves from investing to harvesting phase, and we move from manufacturing just components to components and products/ systems involving technologies like AI, IoT and digital Industry 4.0, new opportunities are set to unlock. To this effect, we have put out a transformational vision target for year 2030.

These include:

- Consolidated revenues CAGR (FY 2022-FY 2030) of 12-15% by creating balanced income streams across components and products/systems
- Consolidated EBITDA margin of 20+% as the incubated verticals progress from investment phase to production mode and the international operations turnaround after a challenging period
- Consolidated ROCE improvement by 500 bps from FY 2022 levels of 20% driven by a combination of operational improvement & ramp-up of activities across all business verticals

Further, as the new verticals gain traction and become profitable and relevant in their respective ecosystem, we expect the capex intensity to subside and the return ratios to improve. A stronger foothold in less cyclical sectors and diversification across the customer segments of B2B, B2G and B2C will further translate into stable and predictable revenue generation. We also believe our strategy of creating own intellectual property as technology platforms will truly differentiate us.

Final Thoughts

As we get going on achieving our business and strategic goals for the coming year and work on the glide path for Vision 2030, our focus would be on delivering G(Growth) D(Diversification) P(Profitability), Growth driven by Diversification with Profitability.



Consolidated revenues CAGR (FY 2022-FY 2030) of 12-15% by creating balanced income streams across components and products/systems.



Having set our targets for an ambitious and bigger transformation, we will revisit them in FY 2026 to determine the progress and take corrective steps.

I thank all the stakeholders for their trust in us every time we transform. While we are confident of achieving results as always, we will not be complacent. Having set our targets for an ambitious and bigger transformation, we will revisit them in FY 2026 to determine the progress and take corrective steps it required. The journey will be anything but smooth and many challenges will come in the newer frontiers. We believe that we are on much stronger and stable footing.

Going forward, I seek the continued support of all stakeholders to make Bharat Forge a company that is completely different from what it is today and create value for all.

Warm regards,

B N Kalyani
Chairman and Managing Director

ABOUT BHARAT FORGE

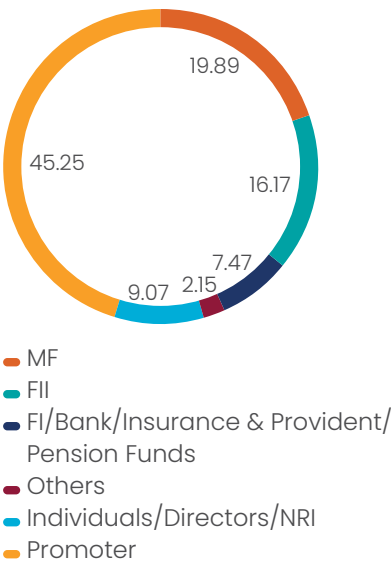
A globally leading technology and innovation-led engineering company

Bharat Forge, today, is a truly diversified and global company, engineering critical and complex solutions for automotive and industrial OEMs. Our unwavering focus on R&D and innovation to create technologically advanced engineered products has steered our transformation from a single-product, single-location enterprise to a diversified, multi-product conglomerate serving multiple sectors.

Over the years, we have grown and evolved to build a strong foundation with our deep engineering excellence, world-class manufacturing and R&D expertise.

As the world moves towards adoption of high-technology, sustainable solutions for a better future, we see ourselves playing a pivotal role and we are geared to capitalize on the mega opportunities that will arise. Our new business verticals of E-mobility, automobile light-weighting, Defence and Aerospace are already making significant progress as a result of our continued efforts in nurturing and pivoting them.

Ownership Structure (%)
As at March 31, 2023



Numbers that Define Us

50+

Years of manufacturing experience

30+

Years of servicing export markets

USD **4.37** Billion
Market Capitalization

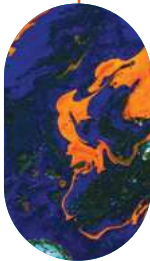
7,000+
Global Employees

ABOUT BHARAT FORGE

Enabled by market-leading expertise

Over the past two decades, we have transformed ourselves with increased focus on technology and innovation. Having started as a component supplier for commercial vehicles, we have expanded our frontiers into diverse sectors by leveraging our multi-sectoral engineering expertise, integration advantage, and innovation capabilities.

Our capability to innovate is an asset that has helped us grow and consolidate our position as a technology-driven engineering conglomerate. Innovation is the bedrock of the Company which has supported our business for the past 30 years and will drive our transformation in the future as well.



We Possess Innovation, Technology and Engineering Competencies

We excel in engineering solutions across verticals with wide-ranging competencies in materials (highly engineered steel, aluminum and titanium), metallurgy and metal forming. Our world-class manufacturing units are amongst the most advanced complemented with embedded technologies like Industrial IoT (Internet of Things), Machine Learning (ML), and Industry 4.0 standards. Our world-class R&D centers, powered by partnerships and collaborations, have decades of rich intellectual capital. They are constantly augmenting knowledge and skills in advanced materials and technologies, identifying new opportunities in process improvement, and developing new products and materials.

Together, these have enabled us to move up the value-chain, from components supplier to engineering sub-systems and even full-systems. We now have capabilities to create own technology platforms and intellectual property, enabling us to manufacture and sell them for better margins and growth, distinguishing us amongst few companies in India with such capabilities.

Reaching the Next Level – the Future of Manufacturing

We are now leveraging our multiple competencies with material, metallurgical, and metal forming as the fulcrum, to pivot to the next level and create opportunities. We intend to move up the product and system value chain across verticals with cutting-edge technologies at the core. Our strategic priority involves graduating from manufacturing of critical components to making sub-systems and full systems.

Engineering expertise across diversified businesses

AUTOMOTIVE

 Passenger Vehicles

 Commercial Vehicles

 E-Mobility

Our Expertise

- India's largest auto component exporter
- Amongst world's leading powertrain and chassis components manufacturer having front-line design

- and engineering, dual shore manufacturing and full-service supply capabilities
- Products supplied to leading global automotive OEMs and Tier I suppliers

- Capability across steel and aluminum forgings and castings
- Process knowledge and manufacturing competencies

INDUSTRIAL

 POWER

 RESOURCES (OIL & GAS, CONSTRUCTION & MINING)

 DEFENCE AND AEROSPACE

Our Expertise

- Manufacturing critical components for thermal, wind, hydro and nuclear applications across geographies
- Built capabilities in renewable energy

- Manufacturing critical, high-end construction and mining components
- Highly durable products for use in extreme temperature and pressure applications
- Explore potential for sub-systems leveraging wide construction equipment component manufacturing competence of JS Autocast

- Indigenous capabilities in Defence business across diverse metallurgy and material science, advanced technologies (embedded electronics, control systems, AI & data analytics) and platform/products development enabling full system capabilities across artillery systems, protected vehicles, armored vehicles and unmanned systems
- Reputation for manufacturing top-quality rotating and landing gear components for global aerospace players with zero-defect supported by an end-to-end digital footprint
- A long-standing supplier of critical components to Indian defence establishments and global aerospace players

 RAIL AND MARINE

 GENERAL ENGINEERING

Our Expertise

- Leading railway engine components manufacturer in domestic and global markets
- Capability of supplying indigenously developed turbochargers for rail applications

- Manufacturing high quality and durable products for a range of heavy engineering applications