







From the House of Tata

The Tata group is a global business conglomerate founded by Jamsetji Nusserwanji Tata in 1868 and headquartered in Mumbai, India. Shaped by a lineage of sound and straightforward business principles, the group is built on a foundation of trust and transparency. This forms the basis of every business we, at Tata Steel, operate in.



Businesses at a glance

From an early foray into steel and automobiles, to staying abreast of the latest technologies, the Tata group is present in 150 countries and six continents. It operates through 30 companies that are segregated into 10 clusters.







Information technology



Consumer and retail



Telecommunication and media



BOMBAY HOUSE

Infrastructure



Trading and investments



Financial services



Tourism and travel



Aerospace and defence

Values at the core

Our value system is not an adjunct to profits, but forms the very core around which each Tata group company works to create long-term stakeholder value based on 'Leadership with Trust'.



Integrity

We will be fair, honest, transparent and ethical in our conduct; everything we do must stand the test of public scrutiny.



Unity

We will invest in our people and partners, enable continuous learning, and build caring and collaborative relationships based on trust and mutual respect.



Pioneering

We will be bold and agile, courageously taking on challenges, using deep customer insight to develop innovative solutions.



Excellence

We will be passionate about achieving the highest standards of quality, always promoting meritocracy.



Responsibility

We will integrate environmental and social principles in our businesses, ensuring that what comes from the people goes back to the people many times over.



A look back

- **1868** Began as a trading company by Jamsetji Tata that had a capital outlay of ₹21,000
- 1903 Inaugurated Taj Mahal Hotel
- 1907 Established Tata Iron and Steel Company (now Tata Steel)
- **1941** Commissioned the Tata Memorial Hospital
- **1945** Established Tata Engineering and Locomotive Company (now Tata Motors)
- **1954** Incorporated Voltas
- **1968** Established Tata Consultancy Services (TCS)
- **1984** Forayed into the watch market with Titan Industries, a Joint Venture (JV) with the Tamil Nadu Industrial Development Corporation
- **1994** Entered the Indian jewellery market with Tanishq
- **1998** Launched Tata Indica, India's first indigenously designed and manufactured car, and Tata Safari, India's first SUV
- **2000** Tata Tea (now Tata Global Beverages) acquired the erstwhile 160-year-old British Tetley group
- **2001** Entered the insurance space with two JVs: Tata AIG, this year, and Tata AIA in 2000
- **2006** Launched the Direct-to-Home (DTH) service Tata
- **2015** Formed Vistara, Tata Sons' JV with Singapore
- **2018** TCS became the first listed Indian IT company to cross US\$100 billion in market capitalisation
- **2019** Tata Global Beverages and Tata Chemicals combined consumer brands to create Tata Consumer Products Ltd.
- **2020** Tata Motors launched Nexon EV, India's own electric SUV, kick-starting a new wave of e-mobility in the country

Tata group committed ₹1,500 crore in the fight against COVID-19





At home around the world

The Tata group has made significant investments in different geographies. With its ever-increasing international footprint, the group is now reaching out to customers in the farthest corners of the world.



We make steel

Tata Steel is one of the world's most geographically diversified steel producers. With raw material operations in India and Canada, and manufacturing units spanning India, Europe and South-East Asia, we are selfsufficient in iron ore.





GLOBAL CRUDE STEEL



PRODUCTION AND SALES

28.54 MnT STEEL PRODUCTION

28.50 MnT



₹1,56,294 crore

₹8,190 crore

NOTE: ALL FIGURES ARE FOR FY 2020-21 (CONSOLIDATED)



Did you know?

Tata Steel is what connects the London Eye, Kolkata's Howrah Bridge and Dubai's Burj Khalifa. All three iconic structures have been built using our steel.

Our steel is found in every model of Boeing and Airbus civil aircraft in 17 football fields, is production today.

90,000 sq m of our steel, equal to almost building the new gem in London's skyline, 100 Bishopsgate Tower.

Growing from strength to strength

- Phase II of expansion of capacity at our Kalinganagar plant in Odisha, from 3 MnTPA to 8 MnTPA, will help us enter the automotive, general engineering and other value-added segments.
- The integration of Bhushan Steel, renamed Tata Steel BSL, has helped us expand our footprint in India significantly.
- We acquired the steel business of Usha Martin, through Tata Sponge Iron, renamed Tata Steel Long Products. This will enable us to participate in the growing market for long products.

Recognitions

- Business Today 'Best Company to Work For' in 2020
- Confederation of Indian Industry 3R Awards 2020 **Excellence in Waste Management**
- Confederation of Indian Industry National Award for Excellence in Water Management 2020
- Sustainability Champions 2020 Tata Steel India and Tata Steel Furone
- Certified as the Best Workplace in Manufacturing 2021 by Great Place to Work® Institute
- Top Employer for LGBT+ inclusion by India Workplace Equality Index (IWEI)
- Advanced 4th Industrial Revolution Lighthouse (Jamshedpur Steel Plant) by World Economic Forum
- Among Top 5 Steel Companies by Dow Jones Sustainability Indices (DJSI) Corporate Sustainability Assessment 2020
- Safety & Health Excellence Recognition 2020 for Digitalisation of Process Safety Performance Indicators (PSPI) driving better business results by worldsteel
- India's Most Valuable Metals & Mining Brand in 'India 100 2020' by Brand Finance Annual Report
- 14th amongst the Top 25 Global Brands in Mining, Iron & Steel by Brand Finance Annual Report

- Best Organisation Contributing in Sports through CSR by FICCI India Sports Awards 2020
- Climate Action Programme (CAP) 2.0° Oriented Award by Confederation of Indian Industry
- Confederation of Indian Industry Environmental Best Practices Award 2020 for Innovative Environmental **Project**
- Top 25 Innovative Indian Companies in 2020 ranked by Confederation of Indian Industry
- World's Most Ethical Companies 2021 ranked by Ethisphere®
- Silver Shield in the Manufacturing and Trading Sector for Excellence in Financial Reporting 2019-20 by Institute of Chartered Accountants of India
- 'Excellence in Digital Communications' and 'Excellence in Education and Training' – worldsteel's Steelie Award 2020
- Certified as a Great Place to Work organisation in India for the fourth time by Great Place to Work® Institute
- Rated 'A-' (Leadership band) for Climate Change disclosure and Supply Chain disclosure CDP

A purpose that binds

The Tata group's value system directs the growth and business of all sectors we operate in.

Mission

Consistent with the vision and values of our founder Jamsetji Nusserwanji Tata, Tata Steel strives to strengthen India's industrial base through effective utilisation of staff and materials.

The means envisaged to achieve this are cuttingedge technology and high productivity, consistent with modern management practices.

Tata Steel recognises that while honesty and integrity are essential ingredients of a strong and stable enterprise, profitability provides the main spark for economic activity. Overall, the Company seeks to scale the heights of excellence in all it does in an atmosphere free from fear, and thereby reaffirms its faith in democratic values.

Vision

We aspire to be the global steel industry benchmark for Value Creation and Corporate Citizenship.

We make a difference through:

Our People Our Offerings Our Conduct **Our Policies**

Our Innovative Approach

Values

Our excellence is rooted in the value system of the Tata group.





Responsibility











Towards holistic excellence

- 1907 Tata Iron & Steel registered as a company
- **1910** Obtained the first colliery for Tata Iron & Steel, adding six more in the course of
- **1911** Began successful operations of the first blast furnace
- **1912** Rolled out the first ingot of steel from the Sakchi plant; introduced an 8-hour working day
- 1918 Established India's first steel (coke) plant on June 18, as an enterprise financed by Indian capital and built by Indian
- **1955** Signed an agreement with Kaiser Engineers for a 2 MnT expansion programme
- 2007 Acquired the London-based steel manufacturer Corus Group, thereby becoming one of the most geographically diversified and leading steel producers in the world
 - Commemorated 100th year, with the Indian Prime Minister unveiling the centenary postage stamp
- **2012** Created history by becoming the world's first integrated steel company to be awarded the Deming Grand Prize
- **2016** Began commercial production in Kalinganagar, our second integrated steel plant in India
- **2018** Acquired Bhushan Steel
- **2019** Undertook the second phase of capacity expansion programme at Kalinganagar
 - Acquired Usha Martin's steel business through our subsidiary, Tata Sponge Iron Limited
- **2020** Tata Steel Mining Limited signed 50year leases for Kamarda and Saruabil chromite mines

Diversified global footprint



India

We are Asia's first integrated steel company with captive iron ore mines and collieries located near our manufacturing facilities in Jamshedpur and Kalinganagar. With a slew of organic and inorganic growth initiatives, we are strengthening our business in India and remain well poised to take advantage of the emerging opportunities in the country.

Europe

Tata Steel is Europe's second-largest steel producer, establishing a presence in the continent after acquiring Corus in 2007. We have integrated steelmaking sites in IJmuiden, the Netherlands and Port Talbot, the UK. Our other downstream facilities across Europe produce a variety of special steels, ultra-pure re-melted steels and various rolling and coating lines.

JAMSHEDPUR Our flagship facility and Asia's first integrated steel Read more on P 32 **KALINGANAGAR** India's largest single-location greenfield steel project **DHENKANAL** Tata Steel BSL's plant is one of India's largest integrated steel mills equipped with steelmaking and finishing One of the most 14 MnTPA* profitable and **CRUDE STEEL CAPACITY** lowest cost producers of 5.6 MnTPA steel in the world **CAPACITY OF** TATA STEEL BSL FORMERLY KNOWN AS BHUSHAN STEEL *INCLUDING TATA STEEL LONG PRODUCTS



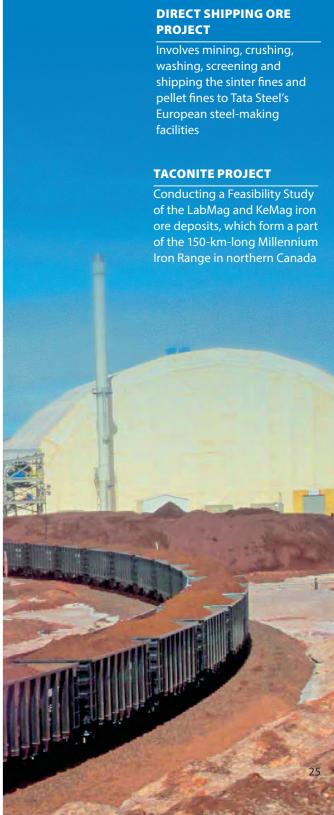
South-East Asia

Our South-East Asian operations began in 2004 with the acquisition of NatSteel, Singapore. This was further strengthened in 2005, when we acquired a majority stake in the Thailand-based steelmaker Millennium Steel. We are concentrating our efforts in the region to grow our value-added products and services portfolio, while strengthening our key steel operations in Singapore, Thailand and China.

Canada

Tata Steel Minerals Canada is a JV between
Tata Steel Limited (80%) and New Millennium
Iron Corporation (20%). The JV aims to develop
iron ore deposits in Quebec, and Newfoundland
and Labrador in Canada and is involved in
two major projects.







global steel producers, involved across mining, iron-making, steel-making, casting, rolling and finishing, and marketing and sales.

We adopt a holistic operating model encompassing a steel value chain and a raw materials value chain, along with downstream and allied businesses related to value-added products and solutions.

We convert the raw materials to hot metal and crude steel through various supporting processes, including coke making, sinter making and pelletisation. different requirements. On the one hand, the steel is cast into slabs, which are then rolled into flat products. On the other, the steel is cast into billets, which are then rolled into long products.

We cater to an array of market segments in countries across the world with products and brands that fulfil

Inside Tata Steel India

We are India's lowest cost producer of steel. Our history and journey are inextricably linked to the Indian growth story; and we have helped build the nation's industrial narrative, since the time we laid the foundation of India's first industrial city in Jamshedpur more than 100 years ago.

M....

CAPACITIES

11 MnTPA

JAMSHEDPUR PLANT

3 MnTPA
KALINGANAGAR PLANT

5.6 MnTPA

FORMERLY KNOWN AS BHUSHAN STEEL

PRODUCTION AND SALES

16.92 MnT

155
NEW PRODUCTS DEVELOPED

17.31 MnT



FINANCIALS

₹91,037 crore

₹28,587 crore

₹16,695 crore
PROFIT AFTER TAX

₹16,515
EBITDA/TONNE



Did you know?

Tata Steel Kalinganagar is the first Indian plant to be included in the elite Global Lighthouse Network of the World Economic Forum for its leadership in applying Industry 4.0 technologies.

India's first steam ageing facility for 'accelerated weathering' of LD slag was commissioned at Tata Steel Jamshedpur.



Our footprint

We are primarily involved in the business of mining, steelmaking and providing downstream value-added products and solutions. Our operational footprint has been indicated on the map.

DOWNSTREAM OPERATIONS Tubes Manufacturing and Agrico Jamshedpur Wires Manufacturing 1 Jamshedpur 2 Tarapur 3 Pithampur 4 Indore Bearings Manufacturing 6 Kharagpur **RAW MATERIAL LOCATIONS** Iron Ore Mines and Quarries

6 Noamundi

Joda East

8 Katamati

Opencast Coal Mines 10 West Bokaro

Underground Coal Mines

11 Jamadoba Group 12 Sijua Group

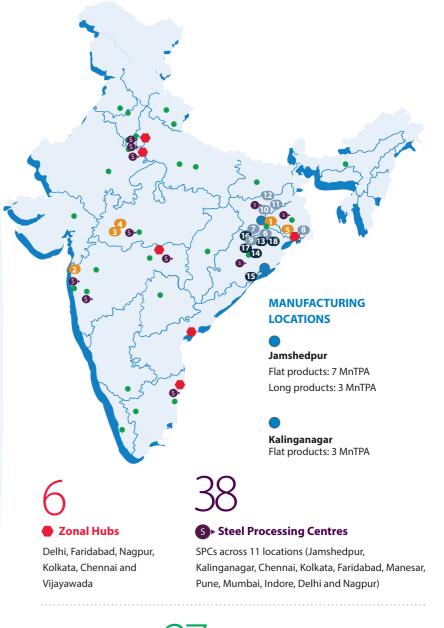
RAW MATERIALS REVENUE STREAM (Ferro Alloys and Minerals) Ferro Alloys Plants

13 Joda 14 Bamnipal 15 Gopalpur

Manganese Mines

16 Joda West 17 Bamebari

18 Tiringpahar



18 **Stockyards**

Distributors

14,688

Asia's first integrated steel plant

Tata Steel Jamshedpur (TSJ) is our flagship facility. From driving the first stake into the soil of Sakchi village in 1908 to becoming India's steel city, Jamshedpur (also known as Tatanagar) is the soul of the Tata story.



An industry benchmark

• TSJ sets the yardstick for specific consumption of energy, refractory, pulverised coal injection and coke rates in

T A S T E

• Initiative to roll out process safety through a 'Centre of Excellence' methodology at Jamshedpur has been appreciated by World Steel Association as the 'Best Practice' of 2018 across the industry

Availability of critical manufacturing units

Our focus on asset management using data analytics and predictive modelling, has resulted in >90% availability of our key manufacturing units at Jamshedpur.

Key outputs



HOT ROLLED COILS









India's largest single-location greenfield steel project

Tata Steel Kalinganagar (TSK) is our second integrated steel plant in India, manufacturing high-end flat products. Spread over 3,000 acres and commissioned in 2016, TSK attained production levels at its rated capacity in less than two years. We installed state-of-the-art equipment and modern facilities to achieve a highly cost-competitive and productive plant. TSK is designed to have a minimal water as well as carbon footprint.

Key digital enablers



DATA-BACKED
DECISION-MAKING AND
REAL-TIME MONITORING



ARTIFICIAL INTELLIGENCE MODELLING



ADVANCED ANALYTICS

3D PRINTING



HIGH-SPEED DATA EXTRACTION



PREDICTIVE MAINTENANCE DEPLOYMENT

Key operational highlights

- Fastest ramp-up of greenfield plant
- Fastest stabilisation of 3 MnT+ size blast furnace in the world
- 5% reduction in manufacturing cost
- 60% reduction in product development time
- Fastest time-to-market from order generation to fulfillment in Tata Steel

Fortifying tomorrow

Following the successful implementation of Phase I of the Kalinganagar Project in Odisha, we initiated the next phase of capacity expansion in Kalinganagar in FY 2018-19.

The project configuration and costs include investments in raw material capacity expansion, upstream and mid-stream facilities, infrastructure and downstream facilities. This will help us make value-added products like cold rolled galvanised and annealed products, as well as meet the requirements of automotive, general engineering and other high-end quality product market segments.



₹23,500 crore



5 MnTPA CAPACITY EXPANSION



48 months EXPECTED PROJECT COMPLETION

NOTE: ALL FIGURES ARE FOR FY 2020-21

Rich customer insight

Tata Steel is home to a comprehensive portfolio of products and brands, catering to multiple industries and segments. From the vehicle you drive, to the house you live in; from the bridges you cross, to the hand tools that you use; the steel we produce is an integral part of your everyday life.



'AQUANEST' - WATER VENDING KIOSK, NEST-IN



SEGMENT Construction

Market Sub-segments

Individual House Builders (B2C) Products and brands

Tata Tiscon (rebars), Tata Pravesh (steel doors and windows), Tata Shaktee (roofing sheets), Tata Pipes (plumbing pipes), Tata Structura (tubes)

Corporate and Government Bodies (B2B) (B2G) Habinest (prefabricated houses), AquaNest Water Kiosks, Ezynest Modular Toilets, MobiNest (office cabins), Nestudio (rooftop houses), CanvaNest (EV charging station), Smart Easy Nest (for smart cities)

Infrastructure (B2B)

TMT rebars (higher dia rebars and corrosion-resistant steel)

Housing and Commercial (B2ECA) Tiscon Readybuild (cut and bend bars), Tata Structura (tubes), PC Strands (LRPC)**, Tata Nirman (Fine Aggregates), Tata Aggreto (Coarse Aggregates), Ground Granulated Blast Furnace Slag (Binder in concrete), WAMA – GC for walling







SEGMENT Automotive

Market Sub-segments

Auto OEMs* (B2B)

Auto Ancillaries (B2B) (B2ECA)

Products and brands

Hot-rolled (HR), Cold-rolled (CR), Coated Coils and Sheets

HR, CR, Coated Steel Coils and Sheets, Precision Tubes, Tyre Bead Wires, Spring Wires, Bearings











Industrial and General Engineering

Market Sub-segments

nents Products and brands

Panel and Appliances, Fabrication and Capital Goods, Furnitures (B2ECA)

Tata Steelium (CR), Galvano (Coated), Tata Astrum (HR), Tata Structura (tubes), Tata Astrum Super (for fabrication)

LPG (B2B)

Welding (B2B)

Wire rods

Transmission Power and Distribution (B2B)

Tata Astrum Super (for fabrication)

Hot-rolled (HR)

Process Industries (Cement, Power) (B2B)

Tata Tiscrome (ferro chrome), Tata Ferromag (ferro manganese), boiler tubes, Tata Pipes, Tata Ferroshots (Secondary Steel), Blast Furnance Slag (Cement), Metallics (Secondary Steel), Coal Tar (Chemical Industry)

Notes: B2B – Business to Business; B2C – Business to Consumer; B2G – Business to Government; B2ECA – Business to Emerging Corporate Account
*OEM – Original Equipment Manufacturer
**LRPC – Low-relaxation Pre-stressed Concrete







Agriculture

Market Sub-segments

Agri Equipment (B2B)

Fencing, Farming and Irrigation (B2C)

Products and brands

Bearings

Galvanised Iron (GI), Wires, agricultural and garden tools, conveyance tubes

Board of Directors

The trust that Tata Steel has garnered in the past 110+ years is an irreplaceable asset created through the efforts of colleagues. Our leaders guide us towards a better tomorrow, as we take this legacy forward and seek opportunities to create new value in the age of accelerating change.





STANDING (LEFT TO RIGHT)

T. V. Narendran Chief Executive Officer and **Managing Director**

SITTING (LEFT TO RIGHT)

V. K. Sharma

Non-Executive Director

Aman Mehta

Independent Director

Petrus Blauwhoff

Independent Director

N. Chandrasekaran Chairman

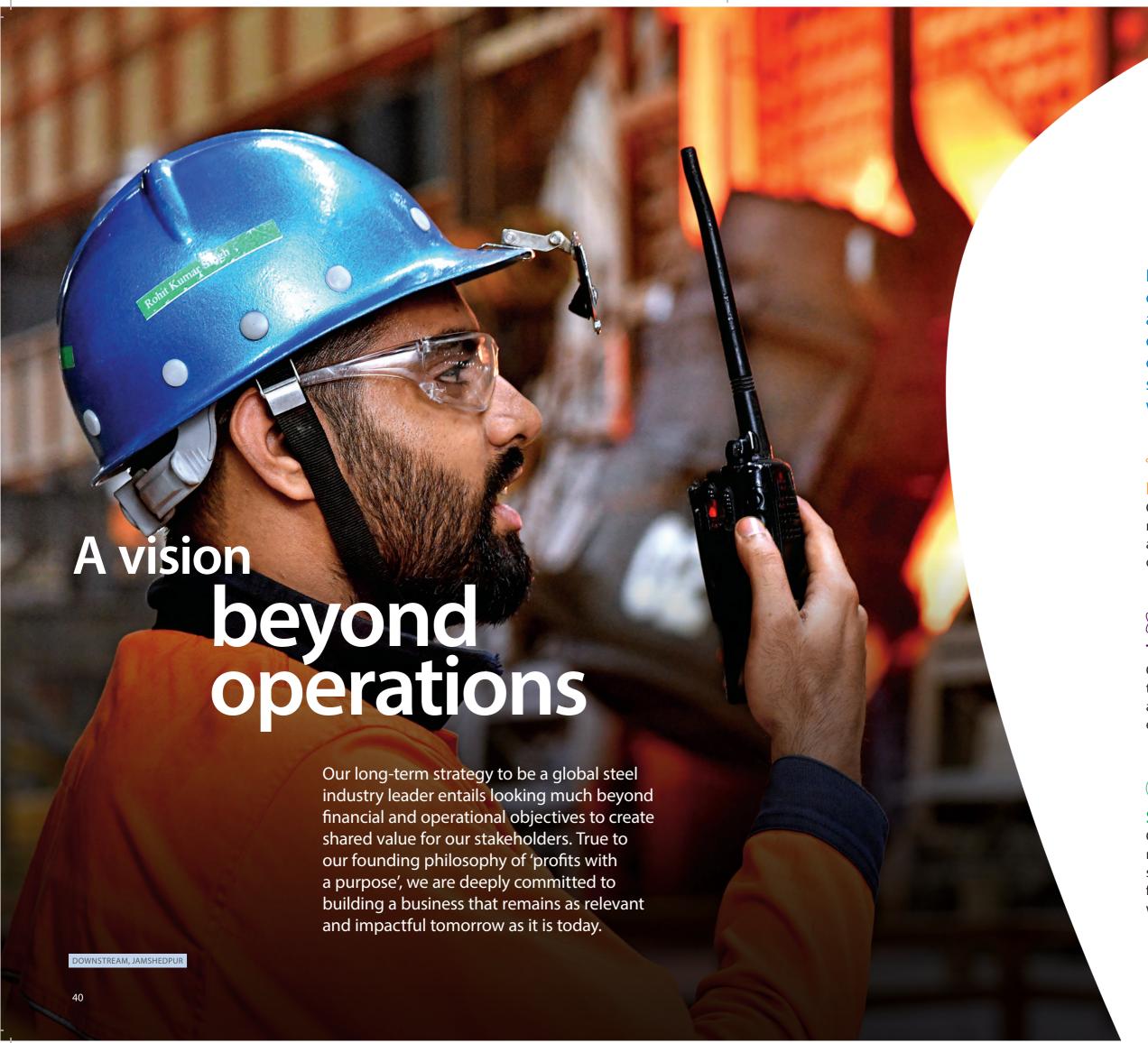
Deepak Kapoor Independent Director

Mallika Srinivasan Independent Director

Saurabh Agrawal Non-Executive Director

O. P. Bhatt Independent Director **Koushik Chatterjee**

Executive Director and Chief Financial Officer



Building on the three pillars of Innovation, Technology and Sustainability, we have embarked on a journey to not only make superior quality steel, but a better tomorrow as well.



Innovation

Our patents, new products, new materials and in-house technologies are aimed at making a positive difference to the society.



Technology

Our efforts to leverage both steel technology and digital interface are targeted at achieving service excellence.



Sustainability

Our initiatives help conserve natural resources while ensuring sustainable growth and fostering strong relationships with communities.



Key support units

- Enhanced research facilities with state-of-the-art laboratories, an R&D team of 200+ researchers and collaborations/ memberships with 50 premier technical institutes
- Innovation council that incubates novel ideas, enables implementation and advances research on new materials
- In-house platforms, such as Innovent, that identify key customer insights and translate them into tested and scalable business models



To generate ~10% of revenue from new materials

LOUVRE, ABU DHABI **Key outcomes**

We are creating solutions that make a positive difference to the society with patents, new products, new materials and by developing inhouse technologies for sustainable performance.





NEW PRODUCTS

- Developed a 'new to the world' advanced high strength steel for automatic wheel disc application. Along with high strength, the material possesses high stretchflangeability (formability) which will help wheel disc manufacturers produce complex shape and light weight wheel discs.
- Developed advanced high strength coated steel and obtained DP600GA (Dual Phase Galvannealed) and DP600GI (Dual Phase Galvanised) approvals.
- Obtained approval for the passenger vehicle skin panel, a first for Tata Steel, made from bakehardenable steel grade BH180GA.
- Commercialised Fe500 CRS (40mm) in long products segment and supplied to the construction of the new Parliament House.
- · Collaborated with CII Green Business Centre and relevant stakeholders in the Indian Steel sector to develop GreenPro framework for steel rebars, for the first time in India. It enables the endusers to make an informed choice about buying steel having the lowest environment impact.



Graphene

• Commissioned a 100 tonne-per annum integrated Graphene manufacturing plant - one of the largest single unit graphene production centres in the world.

Composites

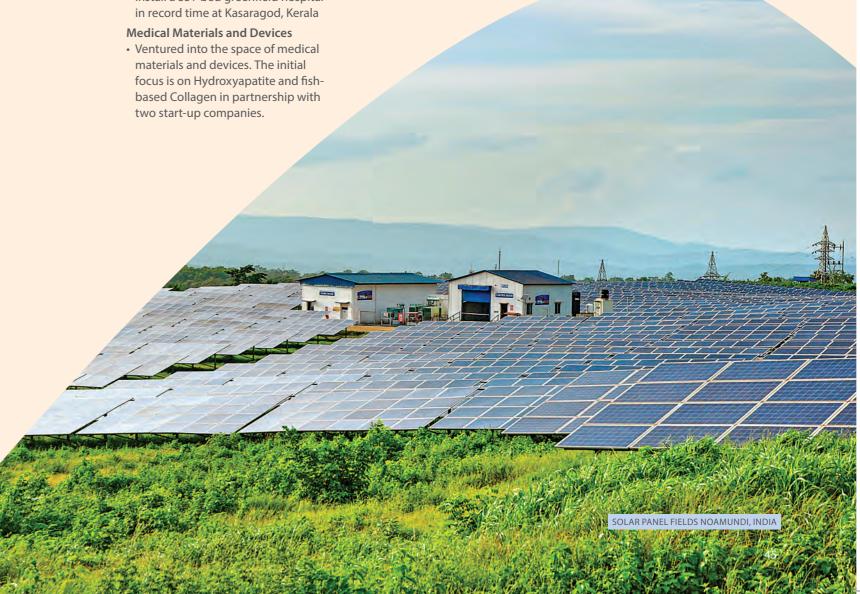
- Entered into new products such as isolation cabins, modular toilets and Fiber Reinforced Polymer (FRP) staircase
- During the pandemic, NMB in close coordination with the Services and Solutions team worked with group companies to design, build and install a 551-bed greenfield hospital



• Focussing on reducing alumina in iron ore and ash in coal without impacting yield

ROAD AHEAD

- Accelerate innovation and technology leadership through strategic collaborations with multiple research and industrial organisations and partnerships with start-ups
- Grow adjacent revenue streams by commercialising in-house IP and knowledge through new products in new markets and services
- · Achieve growth in other materials with world class technologies and products





Manufacturing

- Coke rate is an important operating parameter for an integrated steel plant, impacting cost, CO₂ emission and energy intensity. During FY 2020-21, the coke rate at our Kalinganagar plant stood at 367 kg per tonne of hot metal.
- During the pandemic-impacted year, we revisited the various aspects of fixed cost to ensure reduced expenditure and maintain healthy cashflow During the year, a total of 931 Sikhar25 projects were implemented and savings of ₹3,274 crore accrued across the organisation.

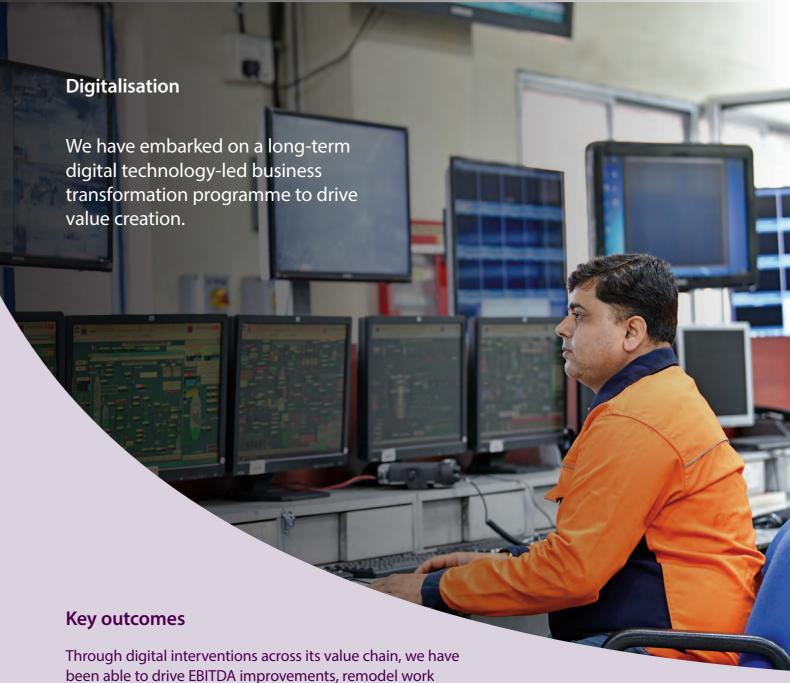
5.61 Gcal/tcs

6.24 Gcal/tcs
ENERGY INTENSITY AT TSK

₹3,274 crore
savings through shikhar2

NOTE: ALL FIGURES FOR FY 2020-21







DATA SECURITY

We have deployed a full-scale Security
Operations Centre (SOC) to safeguard our IT
and Operational Technology (OT) data and
applications, which can analyse 30,000 events
per second, resulting in proactive detection and
defence from cyber threats.

become more insightful, intelligent and agile.

practices by enhancing digital maturity and, in the process, have



PREDICTIVE ANALYTICS

We have developed multiple asset-specific algorithms to predict failures as well as residual life of equipment.



CUSTOMER INTERFACE

Our customer-facing digital platforms, Aashiyana, DigECA and Compass, have resulted in additional revenue and improved customer satisfaction. Through digital interventions, we achieved a 30% reduction in customer complaint resolution time.

ROAD AHEAD

- Accelerate innovation and technology leadership through strategic collaborations with multiple research and industrial organisations and partnerships with start-ups
- Grow adjacent revenue streams by commercialising inhouse IP and knowledge through new products in new markets and services Achieve growth in other materials with world class technologies and products









CO, EMISSION

Tata Steel aims to achieve emission intensity <2 tCO₂/tcs by 2025. Further, we aim to achieve CO2 emission intensity of <1.8 tCO2/tcs for Tata Steel India by 2030. We continue to implement Internal Carbon Pricing in our capital expenditure appraisal process with the shadow price of carbon at US\$15/tCO₂.

We are working on deployment of key enablers for deep decarbonisation, including the use of more scrap in steelmaking, use of alternate fuels such as natural gas and hydrogen, and deployment of carbon capture and storage/utilisation technologies.

NOTE: ALL FIGURES ARE FOR FY 2020-21

Highlights of our CO₂ emission reduction projects:

- Signed an agreement with Shell India Markets Private Limited to evaluate and co-develop short- and long-term options for improvement in energy efficiency, optimisation of demand around carbon-intensive products and services and others. Signed an MoU with the Council of Scientific & Industrial Research (CSIR) to collaborate on CCUS.
- Renewable energy projects with a combined potential of ~150 MW have been initiated based on a phase-wise roadmap across sites

2.29 tCO₂e/tcs
GHG EMISSION INTENSITY AT TSJ

DUST AND GASEOUS EMISSIONS

- Conducting Source Apportionment studies of Jamshedpur Works and its surrounding areas within a radius of 20 kilometres to identify key sources of air pollution, their contribution to overall ambient air quality in the region, and accordingly develop air quality management plans
- Continuous efforts for reducing stack emission load has resulted in the reduction of dust emission intensity by 34% and 62% since FY 2016-17 at TSJ and TSK, respectively.

0.29 kg/tcs
DUST EMISSION INTENSITY AT TSJ



- Specific fresh water consumption of TSJ (2.25 m3/tcs in FY 2020-21, excluding drinking water consumption) is one of the lowest in the steel industry in India
- Two Sewage-Treatment Plants (STPs) with capacity of 45 million litres per day (MLD) and 16 MLD have been installed in Jamshedpur City

Rated 'A-' for Climate Change and Supply Chain disclosure in CDP 2020

Confederation of Indian Industry 3R Awards 2020 awarded Tata Steel for Excellence in Waste Management

2.25 m³/tcs
SPECIFIC WATER CONSUMPTION AT TSJ





Circular economy



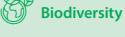
Steel is 100% recyclable and we are setting the bar in the industry with our steel recycling business that will help meet the growing demand for steel in a sustainable manner. It will formalise the scrap market in India and help the country transition to a scrapbased steelmaking route for a more sustainable future.

- Achieved process solid waste utilisation of >99% at TSJ and TSK Focussed synergy initiatives have enabled knowledge transfer and horizontal deployment of best practices across our recently acquired facilities of TSBSL and TSLP.
- Tata Steel handle about >12 MnTPA of by-products spanning 25+ product categories comprising 250+ Stock Keeping Units (SKUs).
- Successfully commissioned our first steel scrap recycling plant of 0.5 MnTPA in September 2020 at Rohtak, Haryana.
- · Commenced operations of a futureready by-product processing and value creation centre with modern baling units and mechanised processing facility in Jamshedpur. The Metal Recovery Plant (MRP) is now operational at Dhenkanal and Gamharia plants.

0.21 m³/tcs EFFLUENT DISCHARGE

INTENSITY AT TSK

100% TOTAL SOLID WASTE **UTILISATION AT TSJ**





While Tata Steel's current operations in India are not located in any of the identified biodiversity hotspots or protected areas, our mining operations (being extractive in nature) impact the flora and fauna in the region.

During FY 2020-21, we developed BMPs for Jamshedpur and

Kalinganagar, planted over 2.98 lakh saplings of native species across locations, developed a 12-hectare Ecological Importance Park on MSW Dumpsite at Jamshedpur and rejuvenated the 5.6 hectare CRM Bara Pond at Jamshedpur. By FY 2020-21, we have developed BMPs for 11 locations and plan to cover 100% of our sites by 2025.

ROAD AHEAD

- Continue investing in technologies to achieve the highest environmental
- Sustain LD slag utilisation at 100%
- Ensure no net loss of biodiversity at our mining locations

IMPACT ON SDGS











NOTE: ALL FIGURES ARE FOR FY 2019-20

Corporate Social Responsibility

Our inclusive programmes give us the opportunity to work with and help communities flourish with us. We have partnered with various organisations and will continue to deepen our engagement with communities.





Education

Thousand Schools Programme facilitates education for children. through better teaching and learning methods, while improving school governance through School Management Committees. A lockdown learning model was devised for rural children, especially girls facing challenges with access to digital devices and networks, potentially driving increased dropouts and permanent learning disruption.

Learning Beyond School is a fully-community-managed education resource centre that enables children to learn beyond school hours and become familiar with digital technology.

FY 2020-21 outcomes

• ~1.36 lakh children were provided learning support through the lockdown learning model

• A first of its kind non-financial partnership with the University of Turku, Finland is in place from February 2021 onwards to create learning content, combining best-in-class Finnish methods and the local context of our children

4,600 youth

REACHED THROUGH 54 COMMUNITY-RUN EDUCATION RESOURCE CENTRES IN ODISHA

Residential camp schools, known as Masti Ki Pathshala, cater to children who are either dropouts or from vulnerable backgrounds engaged in child labour.

Saving Lost Childhood programme aims to reduce child labour in Jamshedpur.

FY 2020-21 outcomes

- 848+ children covered from ~3,000
- 'Children off The Streets' programme launched under Masti ki Pathshala and reached 87 children in three centres

187

CHILDREN MAINSTREAMED UNDER MASTI KI PATHSHALA



Youth and sports

Empower youth by training stakeholders and providing them access to unparalleled sports facilities and nurturing sporting talent with career potential.

Outcomes

3,770

YOUTH ENGAGED THROUGH **DIFFERENT SPORTS ACTIVITIES**

Prioritising maternal and

FY 2020-21 outcomes

child health

- Reached 56,545 mothers and children and enabled the reach of ASHA system to their homes
- · Sexual and reproductive health knowledge to 3,770 adolescents

58,000

PEOPLE WERE REACHED OUT TO ON THE HEALTH AND SURVIVAL OF WOMEN AND CHILDREN BEFORE, **DURING AND AFTER CHILDBIRTH**

Focus on water consumption and effluent discharge

FY 2020-21 outcomes

- Successfully completed the CRM Bara Rejuvenation Project, creating a larger rainwater harvesting facility leading to an improvement in local area water
- Reusing treated town sewage water for industrial purpose at Jamshedpur works, recycling of industrial effluent at all sites and recovery of storm runoff water at Kalinganagar works enabled reduction of specific fresh water consumption

ASPIRE TO ACHIEVE SPECIFIC WATER CONSUMPTION OF 2 M³/TCS BY 2025 **ACROSS ALL STEELMAKING SITES**





Technical education institutes improve employability of the youth in our community through professional skilling courses.

Ek Pahal is a skilling initiative to constructively engage prison inmates by imparting in-house training to enable them to secure gainful employment, both within and outside the jail.

Digital skills for rural children imparted through a classroom-onwheels, Kaushalyan, using an air-conditioned bus with workstations, an LED TV display as well as a trained computer faculty.

Women Self-help Groups (SHGs) created in our communities to help impart skills and empower them to run an enterprise.

Outcomes

12,000

WOMEN REACHED UNDER **EMPOWERMENT PROGRAMMES** THROUGH SELF HELP GROUPS

Improve agricultural productivity by investing in enhanced irrigation facilities for the community, waste land development and other allied activities.

Outcomes

₹65,000

INCREASE IN THE INCOME OF 24,693 FARMERS THROUGH SEVERAL AGRICULTURAL RELATED LIVELIHOOD INTERVENTIONS



Tribal Identity

Samvaad serves as an international platform for discussion among tribal communities.

- Reached 28,180+ people in FY 2020-21
- Samvaad 2020 went bridgital to keep the dialogue going with its YouTube channel having 10,300 viewers, participation of 157 tribes, 25 Indian states and four nations
- Through Aatithya (Tribal Cuisine), Jamshedpur citizenry enjoyed delicacies from home cooks belonging to 12 tribes across 10 states in collaboration with Indian Hotels Company Limited and delivery partner Zomato marking sales of ₹1 Lakh over five days of the Samvaad Conclave
- Rhythms of the Earth, the Samvaad Music Collective released the musical compositions Birsa Ker Raij curated in collaboration with eminent folk singer Padma Shri Mukund Nayak and Abua Disum Abua Raij (Our Land, Our Rule) marking the statehood day of Jharkhand
- During the COVID-19 pandemic, most of the language centres went digital to continue the language learning. 510 language learning centres are operational reaching 16,947 language learners

IMPACT ON SDGS













People

Investing in people, striving to be the employer of choice, while creating a safe and healthy workplace constitute key priorities for Tata Steel. Industrial harmony of 90-plus years and a century-old trade union is a testament to our culture of 'working together'.



Occupational Health and Safety (OHS)

We have instituted policies that drive a culture of safety consciousness and prevention across our entire operations. Our commitment is reflected in the successful ramp-up of the Kalinganagar facility while maintaining the best practices in health and safety.

Elimination of safety incidents on road and rail to achieve safe, efficient and smart transport

Outcomes

- Zero road fatalities sustained over the last six years
- Deployment of model loading / unloading point at 13 locations
- Deployment of Driver's Fatigue Monitoring System (DFMS) for heavy vehicle safety

Contractor safety risk management to engage and empower the sizeable contract workforce

Outcomos

- 745+ high-risk job vendors assessed;
 68 were approved for 4-star rating and one for 5-star rating
- 21 training modules for critical equipment and process were developed under the Vendor Skilling-2.0 programme, leading to 311 contractor employees being certified as multi-skilled

Leadership capability building at all levels to achieve zero harm and promote a safety-positive behaviour

Outcomes

~25%

REDUCTION IN LOST TIME INJURIES

Competency and capability building to mitigate hazards and manage risks

Outcomes

- He Process Safety Management Centre of Excellence (PSM CoE) concept has been rolled out in 14 new departments across Tata Steel
- Received Safety and Health
 Recognition 2020 from worldsteel
 for its Best Practice in 'Digitalisation
 of Process Safety Performance
 Indicators' at the latter's Safety and
 Health Recognition 2020

Process safety management to ensure effective control of risks at high-hazard operations

Outcomes

- Improved health index from 12.70 in FY 2019-20 to 12.83 in FY 2020-21
- Reduced workplace ergonomic risk factors through 47 ergonomic control measures
- Assessed actual exposure level of occupational health-related hazards in 12 departments through a Quantitative Industrial Hygiene Assessment

1.02%

IMPROVEMENT IN HEALTH INDEX









journey through various focussed initiatives. Technology and Agility played a crucial role in minimising the impact of COVID-19 on the organisational performance with our productivity remaining at 745 tonne/employee/year.

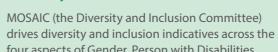
During FY 2020-21, we undertook several initiatives such as throughput improvement and other operational excellence projects, value engineering, cycle time reduction, along with efforts to identify redundancy through right skilling, Sunhere Bhavishya Ki Yojna (SBKY). We have made great stride in simplifying the organisation's structure, systems and processes.

745 tcs/employee/year

₹1.99 lakh

PERSON-DAYS OF EMPLOYEE TRAINING PROVIDED

NOTE: ALL FIGURES ARE FOR FY 2020-21



four aspects of Gender, Person with Disabilities (PwDs), LGBTQ+, and different sections of society (e.g., Affirmative Action Community) at Tata Steel. During FY 2020-21, we deployed the first batch of

22 women as heavy machinery operators at the Noamundi iron mine, ensured active presence in Tata group's 'We@ Tata' programmes, and introduced physical and digital infrastructural changes to make the workplace more inclusive. Continuous efforts are also being made on hiring as well as retaining and developing women leaders, which have led to an increase in gender diversity and a reduction in attrition of female employees from 8% to 6%.

We have rolled out unique policies to drive diversity and inclusion:

- Menstrual Leave, Employee Resource Group 'WINGS' for LGBTQ+ and Take Two Policy.
- Equal rights for LGBTQ+ employees to enable partners of our colleagues to avail all benefits meant for spouse
- Launched 'Indradhanush ke kai Rang' a campaign to celebrate LGBTQ+ community



ROAD AHEAD

- Best Workplace in Manufacturing Sector in India
- Improve employee productivity
- 25% diversity in workforce by 2025
- To be a benchmark in employee engagement and experience
- Achieve Zero Harm

IMPACT ON SDGS



Combating the pandemic with the nation

Combating COVID-19

The unprecedented health crisis triggered by the COVID-19 pandemic not only posed significant threat to human life, but also impacted livelihood.

As the containment measures brought economic activities to a halt, socio-economic fallout was significant. At Tata Steel, we rolled out multi-pronged programmes to ensure the health and safety of all stakeholders, while boosting healthcare infrastructure and providing immediate relief to the community.



Supporting the community

During the first wave of COVID-19, the Tata Steel Foundation (TSF) undertook a 10-point #CombatCovid19 programme, reaching out to more than 10.5 lakh people across India.

The programme was recalibrated in early 2021 and has reached over 4.5 lakh people since. The basic objectives remain:

- Enhancing public health systems capacity for communities
- Meeting deficits of material, information and well-being
- Creating economic and other opportunities to address sociological impacts of the pandemic

The primary emphasis in 2021 has been on expeditiously closing gaps in key consumables and equipment available with public health systems that serve communities in remote areas of Jharkhand and Odisha. These include ~50,000 home isolation kits, 3,78,000 testing kits, 10 ventilators and oxygen concentrators, while more than 6,000 oximeters and 2,000 thermal scanners have been provided to frontline health workers to aid effective early detection.

Vaccination remains one of the primary goals as well as challenges. Sensing the need to increase

awareness around vaccination, as well as drive large-scale vaccination, we adopted a three-pronged approach to bring communities in and around our operational areas on board. Our digital campaign, #ApnoKiSuno, focussed towards effective behavioural change communication through crowd-sourced videos from Village Heads on critical issues relating to vaccination. These videos helped secure 10,000+ registrations.

We are also helping people register online for COVID-19 vaccination.
What began as an initiative in Odisha and Jharkhand has now turned into

Reached out to
10.5 lakh
LIVES DURING THE FIRST WAVE

6,000+
HOURS OF VOLUNTEERING

a nationwide campaign, reaching out to ~40,000 people through our #DigitalBridges programme.

Moreover, it also helps reduce crowding in facilities that provide public services. Along with Tata Main Hospital, Jamshedpur and the state government, we are facilitating vaccination at seven centres in the city.

Our employee volunteering initiative, #FarRishta, has been activated to lend a helping hand at major vaccination centres in Jamshedpur. Till date, ~45,000 people have been reached out across seven states through more than 6,000 hours of volunteering.

Other initiatives under the #CombatCovid19 programme



#ThoughtforFood

Worked with the District Administration to provide warm wholesome meals to 50,000 families a day in the worst-affected settlements and slums in Jamshedpur



#StitchinTime

Engaged with communities to make 50,000 three-ply cloth masks for frontline health workers in need of Personal Protective Equipment



#CashforWork

Helping increase the average income of 1,000 households by promoting kitchen gardens, linking farm produce to markets, making bags from newspapers and creating art and textile designs



#HopeSprings

Designed modules with trained psychiatrists and happiness practitioners to pre-emptively address any trauma faced by migrant labour brought upon due to the pandemic

#FriendinNeed

Created a Suicide Prevention Centre with a team of dedicated volunteers, extending emotional support during the pandemic



Supporting our team members

We set up a 24x7 COVID-19 helpline for employees across locations to disseminate accurate and quick information, including those related to HR and medical.

Speak Up, a Coronavirus Guidelines Violation Reporting Helpline, was created and used extensively for reporting any violations of quarantine rules. For employees who lost their lives to COVID-19, we have extended our social security schemes to the family, including medical benefits; this policy covers both frontline employees and shop floor workers.

The pandemic also invalidated the traditional thinking of productivity being contingent on fixed hours of work within an office environment and bust many myths around remote working. We implemented an Agile Working Model in November 2020. Flexible working provided employees the freedom to select work locations of their choice and helped them make decisions pertaining to their personal life to enable better work-life balance.

The new policies have encouraged a trust-based, outcome-driven culture as well as helped attract and retain the best talent available. Having invested in our digital platforms for improved connectivity, we could seamlessly implement the model to ensure continuity of work for employees in their respective environment, presenting more opportunities for them.

COVID-19 (contd.)



Medical support

We have set up health infrastructure at all our manufacturing and mining locations across Jharkhand and Odisha to ensure the health and well-being of our people and communities.



We coordinated with state governments and local administration to establish COVID Care facilities at all our operating locations.

The 1,000-bed Tata Main Hospital (TMH) at Jamshedpur in Jharkhand has 450 oxygen beds and 78 ventilator beds dedicated for COVID care. In addition, 100 oxygen beds have been provided to two subsidiary company hospitals and a 150-bed COVID care. Centre has been set up for asymptomatic patients and those showing mild symptoms.

In Odisha, the Tata Medica Super Specialty Hospital in Kalinganagar has 120 beds with provision of oxygen and ventilators dedicated to COVID Care, including a 15-bed ICU facility. Along with the Odisha Government and district administration, the NC Autonomous College at Jajpur has been converted into a 200-bed COVID Care Centre. At the Tata Steel BSL plant in Dhenkanal, a 200-bed COVID Care facility has been set up with oxygen supply and equipped with oxygen concentrators.

COVID Care facilities have also been set up at different locations. A total of 631 beds have been set up across our operational areas in Jharia, West Bokaro, Noamundi in Jharkhand as well as Joda and Gopalpur in Odisha.

We are establishing 1,500-bed COVID hospitals (facilities with oxygenated-beds) at all our manufacturing locations to augment the existing healthcare infrastructure.



Liquid medical oxygen

The second wave of the COVID-19 pandemic saw an increase in demand for oxygen for medical use. We are collaborating with all stakeholders to optimise the LMO supply chain.

55,000 tonne LIQUID MEDICAL OXYGEN SUPPLIED TILL MAY 2021 We have been collaborating with the central and state governments to augment the supply chain of Liquid Medical Oxygen (LMO) in the country. Under guidance from the Steel Ministry, we have been supplying LMO from our steel plants at Jamshedpur in Jharkhand and Kalinganagar and Dhenkanal in Odisha.

Regular route optimisation exercises combining different modes of transportation such as roadways, rail and air transport have resulted in improvement of turnaround time of oxygen tankers and optimisation of the entire LMO supply chain. Further, a series of initiatives involving technological process improvements

at oxygen generating plants have led to an over eight-fold increase in LMO supplies from our plants from March to May 2021.

While there have been collaborative efforts from the Central Government, state governments and steel companies to manage the supply chain of LMO in the country, we have taken a proactive approach to set up large-scale COVID Care facilities with oxygenated beds close to our steel plants to enable usage of oxygen near its production source and reduce time taken for transportation of LMO to the extent possible.



Directory of group companies

Name	Holding Type	Holding (%
Tata Steel Special Economic Zone Limited	Subsidiary	100
Tata Steel Utilities and Infrastructure Services Limited (formerly Jamshedpur Utilities & Services Company Limited)	Subsidiary	100
Kalimati Global Shared Services Limited	Subsidiary	100
Rujuvalika Investments Limited	Subsidiary	100
T S Alloys Limited	Subsidiary	100
TSIL Energy Limited	Subsidiary	100
Tata Steel Downstream Products Limited (formerly Tata Steel Processing and Distribution Limited)	Subsidiary	100
The Tata Pigments Limited	Subsidiary	100
Tata Steel Foundation	Subsidiary	100
Jamshedpur Football and Sporting Private Limited	Subsidiary	100
Bhubaneshwar Power Private Limited	Subsidiary	100
Bamnipal Steel Limited	Subsidiary	100
Bhushan Steel (Orissa) Limited	Subsidiary	100
Bhushan Steel (South) Limited	Subsidiary	100
Bhushan Steel (Madhya Bharat) Ltd.	Subsidiary	100
The Indian Steel & Wire Products Ltd.	Subsidiary	95.01
Subarnarekha Port Private Limited	Subsidiary	50.41
Adityapur Toll Bridge Company Limited	Subsidiary	88.50
The Tinplate Company of India Limited	Subsidiary	74.96
Tata Steel BSL Limited	Subsidiary	72.65
Haldia Water Management Limited	Subsidiary	60
Tata Metaliks Limited	Subsidiary	55.06
Tayo Rolls Limited	Subsidiary	54.91
Tata Steel Long Products Limited (formerly Tata Sponge Iron Limited)	Subsidiary	54.50
Creative Port Development Private Limited	Subsidiary	51
Angul Energy Limited (formerly Bhushan Energy Limited)	Associate	99.99
Bhushan Capital & Credit Services Private Limited	Associate	42.58
Jawahar Credit & Holdings Private Limited	Associate	39.65
TRF Limited	Associate	34.11
Tata NYK Shipping (India) Private Limited	Joint Venture	100
TKM Global Logistics Limited	Joint Venture	100
Naba Diganta Water Management Limited	Joint Venture	74
TM International Logistics Limited	Joint Venture	51
Jamshedpur Continuous Annealing & Processing Company Private Limited	Joint Venture	51
SEZ Adityapur Limited	Joint Venture	51
Mjunction Services Limited	Joint Venture	50
Tata BlueScope Steel Private Limited	Joint Venture	50
Jamipol Limited	Joint Venture	39.78
Himalaya Steel Mills Services Private Limited	Joint Venture	26
Industrial Energy Limited	Joint Venture	26
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Medica TS Hospital Private Limited	Joint Venture	26

NOTE: ALL FIGURES ARE AS ON MARCH 31, 2021.



Tata Steel Limited

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