

## ANNEXURE 1

### Management Discussion and Analysis 2022-23

#### I. Overview

The objective of this report is to convey the Management's perspective on the external environment and steel industry, as well as strategy, operating and financial performance, material developments in human resources and industrial relations, risks and opportunities and internal control systems and their adequacy in the Company during FY2022-23. This should be read in conjunction with the Company's financial statements, the schedules and notes thereto and other information included elsewhere in this Integrated Report and Annual Accounts 2022-23. The Company's financial statements have been prepared in accordance with Indian Accounting Standards ('IndAS') complying with the requirements of the Companies Act, 2013, as amended and regulations issued by the Securities and Exchange Board of India ('SEBI') from time to time.

#### II. External Environment

##### 1. Global Economy

Global GDP growth is estimated to fall from 3.4% in 2022 to 2.8% in 2023. The continuing Russia-Ukraine war along with central banks hiking rates to tame inflation continues to weigh on economic activity. Growth in 2022 was dampened due to rapid spread of COVID-19 variants in China and the ongoing war in Ukraine. The concerted sanctions on Russia, which supplies around 10% of the world's energy, lead to dampening growth and further straining of supply chain. The war worsens the persistent inflation across developed economies. However, the recent re-opening may lead to faster than expected recovery in 2023.

Growth rate in 2023 in USA is expected to be 1.6%, while the eurozone is expected to remain strained at 0.8%. The energy shock, a result of the war in Ukraine, continues to impact the economic activity in Europe. China's economy is set to rebound to 5.2% as mobility and industrial activity pick up after lifting of pandemic restrictions. The contraction in real estate remains a major headwind. Long-term headwinds to growth include a shrinking population and slowing productivity growth.

##### Economic Outlook

The factors that drove inflation in 2022 are already reversing. These include increase in commodity prices,

expansive fiscal and monetary policy, and supply chain disruptions. Global inflation is expected to fall from 8.7% in 2022 to 7% in 2023 on the back of lower commodity prices. Inflation has already peaked in the US and Europe in early 2023. It is also declining in other major economies including Japan, China and India.

In the US, economic growth is expected to be slower in 2023 given the tightening monetary and fiscal policy. Contrary to late 2022 estimates, US will avoid a recession due to declining energy prices, strong employment growth, and easing of supply chain stress.

Threat of recession continuous to loom over Europe as wages and consumer spending has fallen significantly. Elevated natural gas prices are fuelling inflation and driving down purchasing power. The tightening of monetary policy by ECB and Bank of England along with energy shock resulting from the Russia-Ukraine war will play a key impact on the growth potential.

##### 2. Indian Economy

GDP growth rate in 2023 is expected to be 5.9%, lower than the 2022 growth of 6.8% due to subdued external demand and tightening monetary policy. However, India will remain the fastest growing major economy.

Brent oil prices are expected to remain rangebound in 2023, given the continuing war in Ukraine and sanctions imposed in response by the USA and European Union. India meets nearly 80% of its oil needs through imports. High oil prices will also have a trickledown effect on the prices paid by consumers for goods and services. Persistent inflation resulted in RBI to increase the repo rate by 250 basis points throughout FY2022-23. Further rate hikes are expected in the coming year, despite no rate hike in the April Monetary Policy Committee meeting.

Capital investment of close to 3.3% of GDP is expected to crowd-in private investment, strengthen job creation and demand, and raise India's overall growth potential. Focus is expected in the energy sector, with significant capital investments towards energy transition and green hydrogen mission.

Overall, the key steel consuming sectors are expected to perform well in FY2023-24 supported by a rise in infrastructure spend by the Government and gradually improving semiconductor supply. High CAPEX allocation

in key steel consuming sectors such as railways, national highways and housing is expected to drive steel consumption.

### III. Steel Industry and Developments

#### 1. Global Steel Industry

The recovery momentum of global economy after the pandemic has been affected by persisting inflation, US monetary tightening, China's economic deceleration and continued supply disruptions due to Russia-Ukraine war. High energy prices, rising interest rates, and falling confidence have limited recovery of the steel demand after a dip in 2022. However, positive factors like China's re-opening, Europe's resilience during the energy crisis and preliminary easing in supply chain bottleneck will lead to a Y-o-Y rise in global steel demand by ~2.3% (~1,822 MnT) in 2023.

The Chinese steel demand is expected to grow by ~2% in 2023 after 3.5% decline in 2022. The growth may be attributed to base effect and slight uptick in real estate after decline in 2022 due COVID-19 lockdowns, slump in the property market and continued focus on sustainability. The European steel demand is expected to fall further by 0.4% in 2023 after ~8% decline in 2022. Demand in the USA is expected to grow moderately by ~1% in 2023 backed by relief in infrastructure segment with 2021 Infrastructure Law and Inflation Reduction Act.

The year witnessed very high volatility in raw material, especially coking coal on account of the on-going geopolitical concerns and supply chain bottlenecks impacting steel price across geographies.

#### 2. Demand Outlook

Demand in the US is expected to grow moderately by 1.3% in 2023 by relief in infrastructure segment aided by recent legislations like 2021 Infrastructure Law and Inflation Reduction Act.

Recovery in Japan and South Korea may gain pace with strengthening construction segment and easing supply chain and exports.

Global steel demand is expected to grow by 1.7% reaching 1,854 MnT driven by growth in Asia, China's re-opening, diversifying supply chains and Europe's resilience. Demand in Europe is expected to see a 5.6% rebound in 2024 after 4 consecutive years of Y-o-Y contraction in the steel demand.

Sustained inflation remains a downside risk, potentially keeping interest rates high. Exports are expected to decline further with rise in protectionism and slowdown in global demand. As China's population declines and moves to consumption-driven growth, its contribution to global steel demand growth will lessen. Outlook for India remains positive led by strong urban consumption and infrastructure spending.

#### 3. Indian Steel Industry

India remains the 'bright spot' for global steel demand. After growth of 8.2% in 2022, demand is expected to show healthy growth of 7.3% in 2023 backed by consumption led demand. Having managed inflation well, the Indian economy is on a healthy growth track, with a rising share of investment in GDP, appropriate budget allocations and expenditure by the Government in the infrastructure segment. India also faced supply disruptions due to raw material constraints and volatility of prices.

#### 4. Outlook for Indian Steel Industry

Indian steel demand is expected to be robust and growing by 6.2% in FY2023-24 supported by strong GDP growth forecast, private consumption and Government expenditure. India's capital goods sector is also expected to benefit from the momentum in infrastructure and investment in renewable energy. Automotive and consumer durables are expected to maintain healthy growth driven by sustained growth in private consumption.

Integrated Steel Players will continue to add capacity in FY2023-24, and utilisation levels are expected to remain healthy at ~80%. Net export position is expected to strengthen with removal of export duty.

#### 5. Global Raw Material Market (Iron Ore and metallurgical coal)

The steel raw materials market in FY2022-23 continued to see volatility particularly in coal markets amid intermittent weather disruptions in Eastern Australia while trade flows drastically shifted following the Russian-Ukraine war.

##### i) Demand & Supply

Total global crude steel production for 2022 stood at 1.88 billion tons, falling 4.2% Y-o-Y from a record high in 2021 as tighter fiscal and monetary policy impacted global steel demand.

Chinese steel production mainly led the decrease as steel output fell for a second straight year, down 21 MT or ~2% to 1.01Bt. European steel mills had also been largely impacted by the shrinkage in steel demand, with EU27 steel production falling 16.5 MT or 10.4% Y-o-Y to 136 MT.

China’s iron ore imports for 2022 fell 1.5% Y-o-Y to 1.11Bt, in line with the lower overall steel production. China’s coking coal imports in contrast rose 16.6% Y-o-Y to 63.8 MT, following improved logistics from Mongolia after COVID-19 restrictions eased, while excess Russian coals were also being diverted to China at competitive prices.

China had also continued an aggressive coal production regime through 2022 in effort to reduce import reliance. Chinese raw coal production hit a record high in December 2022 of 403 MT, with volumes for the full year estimated rising 11% from the year prior. China had also removed its unofficial ban for Australian coals at the end of 2022 with trade flow expected to pick up in 2023, subject to cost competitiveness for Chinese end-users.

Meanwhile, Australian coking coal exports had fallen for its third consecutive year down by 4.5% Y-o-Y to 158.6 MT. A third consecutive La Nina year had also plagued eastern Australian miners with heavy rainfall and occasional flooding at the mines and ports. Queensland weather stations had reported approximately 40-45% higher rainfall for 2022 as compared to its 5-year trailing average.

**ii. Prices**

**Seaborne Iron ore prices** in 2022 had corrected from its record highs in 2021 amid a slump in Chinese steel demand and prices. 62% Fe CFR China prices ranged between \$80.15/t and \$162.75/t in 2022 compared to \$87.20/t and \$233.10/t in 2021. Average iron ore prices stood at ~\$120.10/t for the year, a 25% decrease from ~\$159.5/t for 2021.

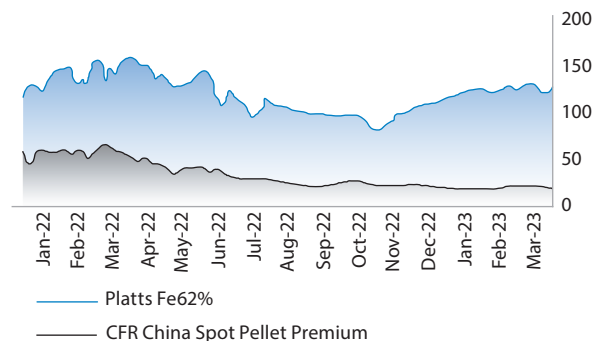
Iron ore prices hit a peak in March 2022 before embarking on a sharp downtrend due to a decline in steel prices and margins. Key property metrics in China like new home sales and new home starts averaged 25%-40% lower Y-o-Y through 2022. Steel margins reported by Chinese steel mills were largely negative for the second half of the year which also weighed on iron ore prices.

On the supply front, total shipments from Australia and Brazil were largely flat on the year averaging 24.2 MT/week, compared to 24.5 MT/week in 2021.

Into 2023, Iron ore prices have largely been rangebound for the January-March 2023 quarter, with some

market participants citing uncertainty towards China’s downstream recovery for steel. The Chinese government has also been in discussions of further lowering crude steel production by 2.5% this year which would further impact seaborne iron ore demand. Shipments from Australia have also been benefiting from a drier than seasonal January-March 2023 quarter, with export volumes estimated 6% higher Y-o-Y.

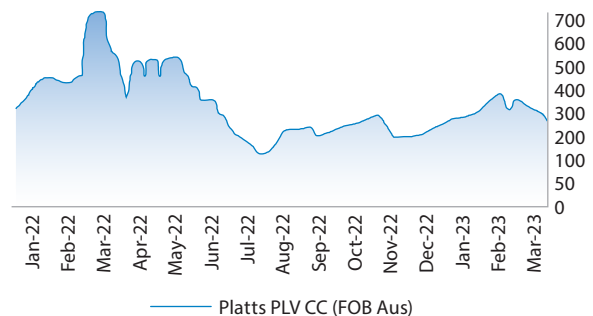
**Iron Ore Prices (\$/t)**



**Seaborne Coking coal prices** saw sharp volatility through the year due to frequent weather disruptions alongside the impact of the Russian-Ukraine war. PHCC FOB Australian prices ranged between \$188/t and \$670.5/t in 2022, compared to \$102/t and \$408.5/t in 2021. Average coking coal prices stood at \$363.7/t for the year up from \$313.4/t the year prior.

FOB Australian prices were driven to record highs in the first half of the year, as an anticipated ban on Russian coal exports led to panic buying across Europe. While prices cooled off in the later half of the year, prices were still elevated on a historical basis as last year’s La Nina weather conditions impacted Australian miners’ ability to meet production guidance for the year.

**Coking Coal Price (\$/t)**



Into 2023, coking coal prices have traded in a tighter range albeit still volatility surrounding weather developments particularly in Eastern Australia. The Bureau of Meteorology

have officially announced an end to La Nina weather conditions in March which could lessen the risk of supply disruptions for the rest of the year. Meanwhile, the expected re-emergence of China as a spot buyer of Australian coking coal this year may leave the market more tightly balanced

### Initiatives by Tata Steel

The Company took several key initiatives in its raw material procurement. Strategic Initiatives during FY2022-23 are:

- **New products trials:**

In order to ensure long term supply security and stable supply, new coal trials were undertaken by the Company, through a structured trial process, which helped the Company to diversify the source and supplier base.

The Company also engaged in development of LD Sludge based pellets by utilising hazardous waste (LD Sludge), which is an example of first in the industry.

- **Blend optimisation to take advantage of market opportunities:** Considering wide spreads in prices across grades of raw material (RB1 vs RB2 grade DRI coal, mid-phos vs low phos nut-coke, etc.) value creation was achieved by optimising blends through cross functional collaboration.

- **MoU signed with strategic suppliers for decarbonisation projects:** Memorandum of Understanding was signed with one of the leading coal suppliers for exploring and developing use of biomass/biochar in steelmaking process, developing carbon capture utilisation and storage technologies, as well as using biofuels for shipment of raw materials.

## IV. Tata Steel Group Operations

### Major Highlights

During the year under review, the consolidated crude steel production for Tata Steel Group ('TSG') was 30.65 MnT as against 31.03 MnT for FY2021-22, a marginal decline of 1%. The production increased at Tata Steel Standalone to 18.97 MnT which was higher by 3% (FY2021-22: 18.38 MnT). At the Tata Steel European Operations, Tata Steel Nederland ('TSN') produced 6.32 MnT, lower by 4% (FY2021-22: 6.61 MnT) mainly due to weakening of market during the 2<sup>nd</sup> half of FY2022-23. Production at Tata Steel UK ('TSUK') at 3.02 MnT was lower by 14% against previous year (FY2021-22: 3.50 MnT) as TSUK undertook a significant

maintenance programme focused on its steelmaking assets in Port Talbot in order to improve operational stability. Tata Steel Long Products produced 0.71 MnT (FY2021-22: 0.68 MnT), moreover, with the completion of NINL acquisition, the production further increased by 0.20 MnT during the year. Production at South-East Asia ('SEA') was 1.43 MnT (FY2021-22: 1.86 MnT) which was lower due to disposal of Singapore operations of NatSteel Holdings Pte. Ltd. ('NSH') during FY2021-22. The consolidated steel deliveries of TSG was at 28.79 MnT in FY2022-23 as against 29.52 MnT in FY2021-22, a marginal decrease of 2% primarily at TSE due to weakening of market and at SEA.

The turnover of TSG was marginally lower over FY2021-22 by ₹606 crore on account of decline in steel realisations across geographies except European operations attributable to decrease in demand and implementation of export duty on steel in India during the year, along with lower steel deliveries by 0.73 MnT.

The EBITDA was lower over FY2021-22 by ₹31,132 crore (49%), primarily due to increase in input cost mainly in coking coal along with lower steel realisations in India, partly offset by favorable foreign exchange rate movement at India.

TSG reported a consolidated Profit after Tax of ₹8,075 crore which was lower over FY2021-22 in line with decline in EBITDA, along with higher net finance charges by ₹642 crore which is primarily due to additional loans taken during the year in India and higher tax charge by ₹1,682 crore mainly due to higher non cash deferred tax charge at TSUK attributable to insurance buy-in of pension liabilities which was offset by lower tax charge at India on account of lower profitability. Exceptional gain of ₹113 crore in FY2022-23 against a charge of ₹134 crore in FY2021-22 contributed to the profit during the year.

### 1. Tata Steel Limited (Standalone)

The turnover and profit/(loss) figures of Tata Steel Limited are given below:

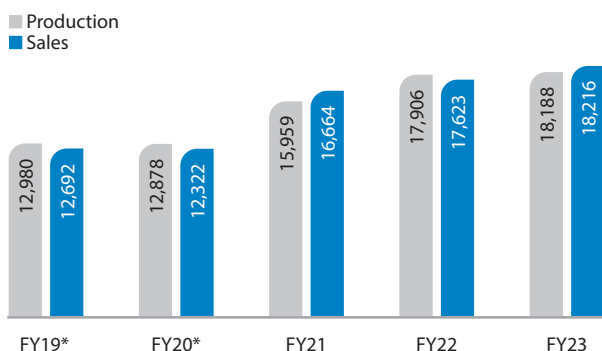
	(₹ crore)	
	FY 23	FY 22
Turnover	1,29,007	1,29,021
EBITDA	28,175	51,456
Profit before tax (PBT), before exceptional	21,801	44,326
Profit before tax (PBT)	21,022	44,091
Profit after tax (PAT), before exceptional	16,274	33,247
Profit after tax (PAT)	15,495	33,011

**a) Operations**

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Hot Metal	19.25	18.90	2
Crude Steel	18.97	18.38	3
Saleable Steel	18.19	17.91	2
Sales	18.22	17.62	3

The saleable steel production and sales trend over the years is as follows:

**Production and Sales of Steel Division (k tonnes)**



\*Note: Production and sales from FY21 onwards includes TSM post-merger

The combined saleable steel production of FY2022-23 stood at 18.19 MnT which was higher than that of FY2021-22 (17.91 MnT) by 2% and the combined steel sales of FY2022-23 stood at 18.22 MnT, higher by 3% over FY2021-22 (17.62 MnT).

**i) Tata Steel Jamshedpur**

Tata Steel Jamshedpur (**'TSJ'**) produced crude steel of 10.64 MnT in FY2022-23 as against 10.25 MnT in FY2021-22 which was higher by ~3.80%. The hot metal production of FY2022-23 stood at 11.05 MnT (10.83 MnT in FY2021-22) higher by ~2%. Blast Furnaces operated at a fuel rate of 526 kg/thm in FY2022-23 as against 535 kg/thm in FY2021-22 which was better by 9 kg/thm. For improving fuel rate, idea of injection of Coal-Colemanite was implemented in TSJ Blast Furnaces. In steelmaking, scrap consumption increased to 8.5% in FY2022-23 from 8.1% in FY2021-22 thereby achieving lower CO<sub>2</sub> emission.

During FY2022-23, there has been significant improvement in overall refractory consumption, specific power consumption and specific energy consumption for TSJ. The Company has continuous operational improvement programmes through Shikhar25 which is a focused EBITDA improvement programme which works

across departments of Tata Steel to improve operational efficiencies, lower costs, optimise product mix, reduce, and recycle waste and energy efficiency.

**ii) Tata Steel Kalinganagar**

Phase-1 (3 MTPA) of Tata Steel Kalinganagar (**'TSK'**) had started commercial production in June 2016 and attained the production levels at its rated capacity in less than 2 years. FY2022-23 has been TSK's best year in terms of production volumes and operating KPIs, with almost all operating units expected to achieve their best-ever annual production figures.

The production volumes achieved by various plants are: Coke Plant – 1.56 MnT (FY2021-22: 1.55 MnT) of Gross Coke, Blast Furnace – 3.59 MnT (FY2021-22: 3.47 MnT) of hot metal, Steel Melting Shop – 3.37 MnT (FY2021-22: 3.24 MnT) of crude steel, and Hot Strip Mill – 3.57 MnT (FY2021-22: 3.24 MnT) of Hot Rolled Coils. Nearly 340 KT of slabs from Tata Steel Meramandali have been rolled at TSK mill during FY2022-23.

The product mix in FY2022-23 comprised Medium and Low Carbon, Interstitial-free (IF), peritectic and micro-alloy grades, which served different market segments with a special focus on High Tensile for Auto, API for Oil and Gas Sector, Structural grades for Solar, Crash Barrier, Pre-Engineered Building, Lifting and Excavation Segment. Trials for casting and rolling of 1.2% Si and 2.4% Si Electrical steel were successfully carried out. 3.2% Si Electrical steel was successfully casted. This grade will help the Company to develop expertise to foray into the fast-growing Electric Vehicle (EV) industry.

In FY2022-23, TSK undertook approximately 72,000 new plantations, contributing to the greenbelt coverage of 414 hectares (33% of overall area) complying with the State Government's statutory requirement. TSK achieved its best-ever figures in Blast Furnace fuel rate (530 kg/thm), CO<sub>2</sub> emission intensity (2.32 tCO<sub>2</sub>/tcs) and specific water consumption (3.31 m<sup>3</sup>/tcs). Additionally, TSK focused on the execution of the Zero Effluent Discharge (**'ZED'**) project throughout the year and will achieve ZED from April 2024. TSK broke ground for a 10 TPD syngas pilot plant designed to generate syngas from bio-waste, which can be used as an alternative reductant in blast furnace. This project will enable TSK to gain domain expertise in means for carbon footprint reduction.

TSK's support played a crucial role in the successful and speedy revival of the NINL plant, which stands as a significant achievement for Tata Steel.

TSK is currently in the second phase of expansion, which aims to increase production capacity to 8 MnTPA. In February 2023, the Cold Rolling Mill PLTCM successfully rolled its first Full Hard Cold Rolled ('FHCR') coil, while the Pellet plant achieved its first phase pellet roll out in March 2023. Both units will focus on ramping up production in the coming financial year. The Pellet plant will provide support for the agglomerate mix used in blast furnace operations, while CRM will cater to the production of high-strength cold-rolled products to meet the requirements of our auto customers. The commissioning of the Continuous Annealing Line ('CAL') and Continuous Galvanising Line ('CGL') of CRM is expected to take place in H2 of FY2023-24 and FY2024-25, respectively. The Engineering and Projects team is currently engaged in the construction activities at Blast Furnace-2, new Coke ovens, and Caster-2, with continuous efforts being made to ensure that project timelines are met.

**Community is at the centre of our enterprise:** TSK has always placed equal focus on building local community relationships through improving their socio-economic status, enabled through a range of initiatives in areas like Health, Education, Drinking Water, Infrastructure Development, Livelihoods, Skill up-gradation, sports and Women Empowerment among others. Dedicated teams deploy these initiatives through two focused approaches:

- (a) Communities entitled through the Resettlement & Rehabilitation ('R&R') process through an R&R team.
- (b) Larger regional communities (predominantly rural) through the Tata Steel Foundation team in charge of Corporate Social Responsibility.

### iii. Tata Steel Meramandali

Tata Steel Meramandali ('TSM') has produced hot metal during FY2022-23 of 4.60 MnT as against 4.59 MnT during FY2021-22, production of crude steel stood at 4.95 MnT in FY2022-23 as against 4.89 MnT in FY2021-22 and saleable steel production stood at 4.24 MnT in FY2022-23 as against 4.61 MnT in FY2021-22 thereby registering a decrease in production by 8%. The sales for FY2022-23 stood at 4.63 MnT as against 4.70 MnT in FY2021-22, registering a marginal decrease over previous year.

### b) Marketing and Sales

During FY2022-23, the Company recorded sales of 18.22 MnT, which is higher over the previous year by 3%. Sales performance are summarised as below:

	(mn tonnes)	
	FY 23	FY 22
Automotive & Special products	2.38	2.22
Branded Products, Retail & Solutions	5.85	5.28
Industrial Products & Projects	6.91	6.10
<b>Domestic</b>	<b>15.14</b>	<b>13.60</b>
<b>Exports</b>	<b>1.61</b>	<b>2.61</b>
<b>Domestic + Exports</b>	<b>16.75</b>	<b>16.21</b>
Transfers (Wires, Tubes, IBMD, Agrico)	1.47	1.41
<b>Total deliveries</b>	<b>18.22</b>	<b>17.62</b>

Thus, FY2022-23 turned out to be the year of best-ever sales performance surpassing the previous best performance of FY2021-22. This was enabled by best-ever domestic sales performance achieved by all the three sales verticals.

**Automotive and Special Products:** FY2022-23 started off on a positive note with robust demand witnessed in Passenger Vehicle ('PV') due to pent-up demand driven by easing of semiconductor supply situation and new model launches. Strong growth of Commercial Vehicle ('CV') continued for FY2022-23 supported by replacement demand, improvement in the overall macroeconomic environment, pick-up in infrastructure, mining and construction activities and healthy fleet utilisation levels. The sector ended the year with overall growths of 24% and 27% in PV and CV respectively (Y-o-Y).

Automotive sales constitute ~16% of Tata Steel's annual domestic sales. It registered sales of 2.38 MnT in FY2022-23, a Y-o-Y growth of 7% with 20% growth in Hi-end sales (including 137 KT of PV outer panels and 253 KT of high tensile steels). The segment continues to command market leadership and high share of business in new model launches.

**Branded Products and Retail ('BPR'):** BPR (Flat Products) clocked sales volume of 4.10 MnT with Y-o-Y growth of 9%. Overall growth was driven by key Flat Product brands -Tata Astrum, Tata Steelium and Tata Kosh which registered growth ranging from 5% - 25% each and enhanced its

market share to 23% (FY2021-22: ~21%). FY2022-23 was also a milestone year for two of the BPR-ECA brands - Tata Astrum (the Hot rolled brand for MSMEs) which has grown to become a 18,000 crore brand completed 10 years, and Tata Steelium (the cold rolled brand for MSMEs) completed 20 glorious years, while expanding their presence into 80+ micro-segments. Its foray into the retail space to cater to the small & micro customers/ fabricators, saw Tata Astrum super transacting actively with 1,400+ dealers and has registered a growth of 23% in FY2022-23. In addition, Tata Steel caters to 8,000+ ECA customers, through 85 ECA channel partners, for their regular needs of HR, CR & Coated steels, which are serviced in processed form through 57 service centres located near customer clusters.

Tata Steel B2C flat products brands (Tata Kosh and Tata Shaktee) have introduced a digital learning platform for Distributor Sales force called 'Learners Academy'. This initiative was adjudged as Winner of 'Golden Peacock Award' in the Innovative Product / Service category for FY2022-23. With 67 modules & 8,000+ skill completions, the app based online training programme is now graduating towards a campaign-based learning for focused & intensive learning. Tata Shaktee was adjudged the 'Consumer Super Brand 2023' for the 6<sup>th</sup> consecutive time by 'Superbrands India' for brand value, years of existence, customer loyalty, business growth and brand equity. Tata Shaktee & Tata Kosh consumers are currently catered to by 8,000 dealers through, 42 B2C channel partners and with active promotion support from a large influencer base.

Tata Tiscon (Long Products B2C brand) achieved a growth of ~17% Y-o-Y & best ever sales volume in retail in FY2022-23. This was enabled by enhancing dealer base across the country from 6,200 to 9,000 dealers during FY2022-23 covering 8,000+ pincodes and enriched engagement with ~6,00,000 consumers and ~30,000 influencers. Architect, Contractors & Engineers ('**ACEs**') are the initial touchpoints for an Individual Home Builder ('**IHB**') and play a pivotal role in providing the required guidance on design, building material including TMT rebar, cement, etc. Tata Tiscon launched Tiscon Grand Masters programme to collaborate with ACE community and enable consumers to build their dream home. 5,500+ ACEs have been onboarded on the programme in FY2022-23. Tata Tiscon conducted phase 1 of Tiscon Green Home Awards – a design challenge to recognise pioneering engineers who are designing houses with 550 MPa strength rebars instead of current practice of designing with 500 MPa strength rebar without compromising on the

safety of structure. Academia from IIT Roorkee, NIT Trichy and Jadavpur University formed the panel of jury for the award.

**Industrial Products, Projects and Exports ('IPPE'):**

IPPE is made up of five segments – Commercial & VAP, Engineering, Downstream (FP & LP), Wire rod & SBQ and Exports. IPPE sales during FY2022-23 was 8.51 MnT with domestic sales of 6.90 MnT and Exports of 1.61 MnT. In FY2022-23, Domestic sales for IPPE registered a growth of ~14% led by strong recovery in domestic demand and growth in discerning and enriched subsegments of Engineering and Downstream products.

**Engineering segment:**

IPPE continued its focus on Engineering segments and Value-Added Products ('**VAP**') through product mix enrichment. Engineering Segment achieved best ever sales at ~773 KT with Y-o-Y growth of 17% enabled by healthy growth across all key sub-segments such as Oil & Gas ('**O&G**'), Pre-Engineered Buildings ('**PEB**'), Railways and Construction & Projects. IPPE contributed towards construction of 3,300 km of O&G pipelines, ~47 Mn sq ft of PEB structures and production of ~23,000 L&E equipments. IPPE also achieved mix enrichment in L&E hi-strength steel supplies from 12% in FY2021-22 to 17% in FY2022-23 and grew supplies of API X70 in Oil and Gas by ~27% Y-o-Y.

**Downstream:**

Flat Products (FP) Downstream business contributed ~897 KT sales in FY2022-23, a growth of 13% over FY2021-22 (792 KT). In our effort to position ourselves as a leading supplier in serving to the Indian Appliance & Furniture, Building & Construction, Packaging, Electrical Lamination and Capital Goods Segments, we focused on serviceability and customisation of products. In FY2022-23, supplies to building and construction segments was 495 KT against previous year supplies of 432 KT for different products like FHCR (full hard cold rolled), and coated products. Tata BlueScope Steel Private Limited is a major partner in serving this segment where we have started coated products supply and in very first year achieved a volume of 47 KT. Other segments like packaging have grown from 37 KT to 47 KT, Capital Goods from 35 KT to 39 KT, and Electrical Lamination supply increased from 14 KT to 22 KT level in FY2022-23 with respect to previous year.

Long Products (LP) Downstream business contributed ~210 KT of sales in FY2022-23, a growth of 42% over FY2021-22. Tiscon ReadyBuild sales (Cut & Bend rebar solution) crossed 200 KT mark for the first time and Sm@rtFAB (Welded Wire Fabric solution) clocked

6 KT which accounted for 4x growth, both achieving their highest-ever sales. In our effort to become leaders in Construction solutions by shaping the market and becoming knowledge-intensive leaders, we focused on capacity expansion, serviceability and customisation of solutions for all our customers. Key Marquee projects served through our solutions were Ahmedabad-Mumbai Bullet Train, Delhi International Airport, Chardham Tunnel Project, various Multinational Companies, and metro projects in Pune, Kanpur and Bangalore.

**Wire Rods & SBQ:** FY2022-23 sales growth of 15% happened in CWE (continuous welding electrode) segments (98 KT sales w.r.t. 86 KT in FY2021-22) as we focused on attaining the most preferred supplier status with our customers. New grades were developed in Tyre Bead (TB) segment as per changing BIS norms. We continued to maintain our share of business with discerning customers.

**Exports:** Steel exports contributed 1.61 MnT sales in FY2022-23. Post imposition of Exports duty for non-alloy steel in May 2022, in efforts to maintain exports levels in line with domestic market sentiments and inventory targets, team developed Technical Delivery Conditions ('TDCs') for alloy steel with Boron along with technology and planning teams and ensured swift customer acceptance. This aided in Exports of 0.9 MnT Alloy Steel to 5 geographies. We scaled-up our initiative of digital exports via smart Letter of Credit ('L/C') and electronic documents by converting 5.2% of total volume through shipments to 3 geographies, on-boarding of 7 customers and pioneering of the first-ever Electronic B/L for imports into Turkey.

**Services & Solutions:** In FY2022-23, Tata Pravesh Doors and Windows registered Gross Merchandise Value of ₹216 crore. The installation figures have increased to 150K units in FY2022-23, a Y-o-Y increase of 72%. Nest-In achieved an order book of ₹490 crore, execution of ₹205 crore and sustained to be EBITDA positive (₹4.5 crore). Nest-In also augmented business by nurturing Key Account Customers (69% of order contribution) resulting in smooth handing over of ~125 projects spanning around 5 lakh sqft.

**Digital Initiatives:** Tata Steel Aashiyana, an early engagement & e-commerce platform for Individual Home Builders ('IHB') achieved a growth of 17% over FY2021-22. Aashiyana moved to 100% digital payment modes in December 2022 and is available as a mobile application for Android and iOS users. The platform successfully migrated to Adobe's Digital Experience Platform (DXP) with features like Hyper Personalisation,

vernacular content in 9 Indian languages and analytics-based insight generation. The Company rolled out its channel and sales management application, Sampoorna, across its retail business verticals. Currently, there are 12,000+ dealers across brands Ticon & Shaktee connected through the application. Tata Steel's digital platform for ECA customers, DigEca has enabled a direct touchpoint for ECAs to place enquiries, negotiate, place & track orders & register complaints. The platform has helped Tata Steel to track and reduce sales loss from an average of 9.5% in FY2021-22 to 7.5% in FY2022-23. Over 1,100 customers have now organically registered onto DigEca. Further, DigEca Mobile native app was launched for both Android and iOS ECA users. For its B2B customers, Tata Steel rolled-out its end-to-end supply chain visibility platform, COMPASS, to a larger set of customers across flat products, long products, Automotive, Tubes and Wires businesses. To enhance customer experience and convenience in B2B segment, the platform's UI/UX (User Interface User Experience) was redesigned and Mobile native app was launched ensuring easy accessibility on hand-held devices.

### c) Engineering & Projects

Engineering & Projects ('E&P') continued its effort to support Tata Steel's growth and sustenance goals by ensuring capital projects progress in FY2022-23 amidst somewhat easing but continued recessionary pressure and sporadic supply disruptions, due to geopolitical tension. Significant progress has been made in growth projects at Tata Steel Kalinganagar ('TSK'), Iron Ore Mines and other sustenance & improvement projects at Jamshedpur and Meramandali. Prioritisation of capex deployment is being done continuously considering future market opportunities, decarbonisation/sustainability impact and business value proposition.

During FY2022-23, the division has successfully completed the following projects:

- Paste Thickeners at Khondbond and Joda Iron Ore Mine.
- Commissioning Pellet Plant at TSK.
- First Full Hardened Cold Rolled (FHCR) Coil dispatch from CRM (Cold Rolling Mill) – PLTCM (Pickling and Tandem Cold Mill) at TSK.
- Dismantling of Batteries and major structures in Coke Plant at TSJ.
- Installation of 3 solar power plants at TSJ.
- Revamping of Pickling line of Narrow Cold Rolling Mill (NCRM) at TSM – Khopoli.



The division has successfully completed some of the first time initiatives such as single heaviest (680 MT) lift for erection of Stove Shell of Blast Furnace #2 at TSK, casting of largest raft (2,494 Cu.M) foundation in Iron Ore Processing Plant at Noamundi, largest single pour concreting (3,055 Cu.M) in Tertiary Treatment Plant, use of implosion technique for demolition of Chimney#5, 6 & Coal Tower#3 in Coke Plant at TSJ in running plant with zero deviation from planned line of fall and in-house manufacturing of Stamping, Charging & Pushing (SCP) machine for Coke Plant at TSK, 40 Ton Automatic Stacking & Reclaiming System crane for Cold Rolling Mill at TSK, 300 Ton test wagon & 2<sup>nd</sup> largest ladle turret in India at Tata Growth Shop ('TGS').

The key projects currently under execution are:

- Capacity expansion at TSK Phase 2 with a target of commissioning Caster#2, Continuous Annealing Line and progressing on other key facilities.
- Progress on electro-mechanical erection for Iron Ore Processing Plant at Joda East and Noamundi Iron Ore Mine.
- Engineering for 1 MTPA New Battery and mechanical erection for Air Separation Unit at Jamshedpur.

Tata Steel has started planning for doubling its crude steel capacity to ~40 MTPA by 2030. Growth proposals across multiple locations are being developed while ensuring consideration to decarbonisation targets. The Division has taken up the following key initiatives to improve its future readiness for achieving this target:

- Capability building initiatives in some of the key knowledge domains such as Project & Construction management and Value Engineering through tie up with leading academia and professional bodies.
- Improvement in Construction safety.
- Strengthening in-house manufacturing capability.
- Ramping up Infrastructure amenities and logistics capacity
- Increasing vendor base in identified categories.
- Developing smart and integrated digital platforms for the division.
- Benchmarking the processes against industry best practices.

**d) Sustainable Steel Business Initiatives**

**i) New Materials Business**

The New Materials Business ('NMB') was set up with the vision to create a knowledge intensive business in

materials of future. Set up in 2018, the business has grown at a Compounded Annual Growth Rate ('CAGR') of ~200% over the last two years. NMB currently has three material verticals – Composites, Graphene and Medical Materials.

**Fibre Reinforced Polymer ('FRP') Composites**

Composites industry in India is expected to grow at a CAGR of 8-10% in FY2023-24. Tata Steel composites business is enabling this ecosystem by playing the role of an integrator in an otherwise fragmented industry structure.

Tata Steel composites business is driving the adoption of sustainable lightweight solutions in Industry, Infrastructure and Railway sectors. In FY2022-23, it is slated to be amongst the top 3 Indian composite players.

The business has continuously enriched its basket of offering by developing new products such as, Silicon Carbide lined pipes for Fulel Gas De-sulphurisers (FGDs). The business has been leveraging group synergy to offer world class solutions to Indian Railways. It has been awarded an order for complete seating system for 22 rakes of Vande Bharat Express. The manufacturing facility at Khopoli, Maharashtra, which will produce honeycomb-cored sandwich panels for railway applications, will start commercial operations by Q3 FY2023-24.

**Graphene**

The Graphene business has developed six technology platforms. WONDRA range of conveyance, construction and coating solutions on Elastomers, Thermoplastics and Dispersions technology platforms have witnessed strong traction in the market. Applications of Graphene in areas of Energy, Fibres and Filtration are under incubation.

Leading the Graphene revolution in India, the business in collaboration with Government of India has established the first Graphene Centre in India at Kochi. The business has also entered into a joint development programme with University of Manchester, to conceptualise and commercialise Graphene related applications.

**Medical Material and Devices**

The medical materials business further consolidated its position in the import dominated Advanced Ceramics material market with the dedicated bio-ceramic production facility running at 100% capacity. During the year, four grades of Hydroxyapatite were commercialised.

This is in line with the business' vision to create affordable and global standard health technology solutions for India and the World and, making India self-reliant in the medical

technology space. Upscaling and validation for Collagen, Gelatin and Amino acid formulations were also completed during the year.

**ii) Steel Recycling Business**

Tata Steel has always prioritised its role as a corporate citizen towards the people & planet. Setting up Steel Recycling Business ('SRB') is a definitive step towards sustainable Steel production.

The SRB plant at Rohtak achieved ~280 KT dispatch with a revenue of ~₹1,255 crore in FY2022-23. This plant has achieved almost 100% capacity utilisation in Q4 FY2022-23.

SRB has leveraged the power of digital to set up robust supply chains, as the collection and aggregation of scrap for the recycling plant entails reverse logistics. FerroHaat, a digital app, was launched to source steel scrap from the scrapyards. This app has enabled deep penetration into the value chain & fostered transparency and ease of doing business in a hitherto trust deficit sector. The scrap is procured through the digital FerroHaat app, a first-of-its-kind in the world. Over 180 vendors have been registered on the app for supply of scrap.

Indian scrap market is poised to grow at a CAGR of ~7% to reach ~45 MnTPA by 2030. Policies like Vehicle scrappage policy and Steel Scrap Recycling Policy are likely to give an impetus to this sector. However, India is currently a scrap-deficit nation & imports a considerable amount of scrap from the US & Europe where there is surplus of scrap. Further scrap imports are likely to become more difficult owing to protectionist measures by exporting countries. Accordingly, the role of SRB gains prominence in securitising the supply chain of scrap which is one of the future raw materials for steel production.

Besides Sustainability benefits, the SRB is also dovetailed with the long product growth strategy of Tata Steel. Plans are afoot to set up EAFs & Mini Mills for forward integration into long products. This would pave the way for growth of long products in a sustainable manner.

**e) Tubes Division**

Tata Steel's Tubes Strategic Business Unit is a leading manufacturer of pipes and tubes in India having its manufacturing facility situated at Jamshedpur, Khopoli, Sahibabad and Hosur with an annual production capacity of around ~1,300 KTPA. The four main lines of businesses are Structural Tubes (Tata Structura), Precision Tubes (Boiler, Automotive and General Engineering), Conveyance tubes (Tata Pipes) and API Pipes (Oil and

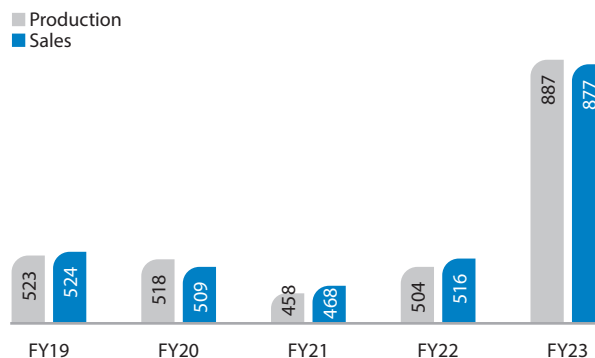
Gas Pipelines). Tubes Division has also ventured into the Services and Solutions segment with their latest offering Tata Ezyfit (door and window frames).

Tubes Division has expanded production capacity to 1,300 KTPA by addition of 4 new Tubes Manufacturing Partners (264 KTPA) in FY2022-23. Our product portfolio will now include High Aspect Ratio ('HAR') Tubes and capacities of thinner casing pipes, Tata EzyFit (door and window frames) and Large Dia Pipes (5" to 12") will increase. Increased focus on exports with ~5.5 KT of exports in FY2022-23.

While the demand for Electric Resistance Welded ('ERW') steel tubes and pipes was stable across the year, the high volatility in steel prices especially in the first and last quarters of the year owing to the Russia-Ukraine tension and import duty imposition led to some speculative calls by customers. The stable gap between HRC and secondary steel prices have ensured that the infiltration of strip (Patra) based tubes was low. While the O&G segment remained affected by the international gas crisis, the tube demand from automotive segment is yet to reach pre-pandemic levels.

The production and sales performance of Jamshedpur plant is as below:

**Production and Sales of Tubes Division (KT)**



Note: Tubes represents Jamshedpur tubes division and for FY2022-23 it represents Total tubes division including Jamshedpur, Khopoli, Sahibabad and Hosur.

During FY2022-23, the production and deliveries of Jamshedpur were better by 77 KT and 64 KT respectively over FY2021-22. The tubes and pipes of TSM was reported under steel, which is being dis-continued post-merger.

**Key Business Highlights:**

- Achieved best-ever production of 890 KT against previous best of 800 KT.
- Achieved best-ever Sales of 880 KT against previous best of 792 KT.

- Achieved lowest-ever customer claims at 775 PPM.
- Increase in market share from 11% to 14% in Tata Structura Retail Channel via channel augmentation.
- 16% Y-o-Y growth achieved in the Industrial and Infrastructural segment in FY2022-23 through effective utilisation of TSM Khopoli Large Dia Pipe ('LDP') mill capacity.

**Recognition:**

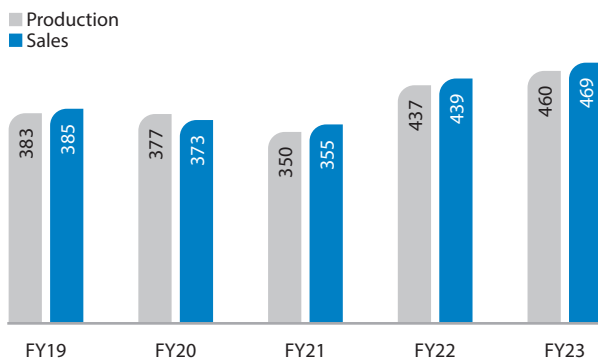
- Tata Structura won Global Brand Excellence Award by World Brand Congress.
- Tata Structura Hollow Sections becomes the 2<sup>nd</sup> Brand in Tata Steel after Tata TISCON to get EPD (Environmental Product Declaration) certified.
- Tubes Division becomes the first Tube Manufacturer in India to receive ResponsibleSteel™ Certification.
- Tata Structura was awarded with 'customer centric excellence' award at the GCC Business Leader of the Year event organised at Dubai, UAE.

**f) Wires Division**

The Company's Global Wires India ('GWI') Business Unit is the largest manufacturer of steel wires in India. The manufacturing plants are located at Tarapur, Pithampur and Jamshedpur, and contribute to nearly 65% of its sales volume, with remaining 35% being catered by Wires Processing Centres. GWI caters to the requirements of the Indian Automobile, Construction and the rural markets with various products.

The production and sales performance is as below:

**Production and Sales of Wires Division (KT)**



During FY2022-23, the division achieved a production of 460 KT, higher by 23 KT over FY2021-22 and deliveries of 469 KT higher by 30 KT over FY2021-22 with addition of

new manufacturing capacity for Low Relaxed Prestressed Concrete ('LRPC') and debottlenecking initiatives.

**Key Business Highlights:**

- A new LRPC manufacturing line of 36 KTPA started to cater to rising infrastructure requirements as a result of Government's focus and initiatives in the sector.
- Enhancement in the downstream Services & Solutions portfolio with augmentation of Knotted Fence capacities and introduction of new product 3D Weld Mesh in the product portfolio.
- IHT spring wire capacity ramped up to 7.8 KTPA with speedy approvals from all major customers like Gabriel, Endurance, Bajaj Auto & Honda and thereby facilitating Atma Nirbhar Bharat by substituting imports.
- Capacity enhanced in Aayush coated GI wires to 30 KTPA.
- Launched the premium and compacted binding wire PIP which occupies 33% lesser storage space and is more resistant to damage during transit.

**Recognition:**

- Tata Wiron was awarded the Best Quality Improvement Project award in the CEAT's Quality Based Management Excellence League – A contest held by CEAT for its vendors in April 2022.
- Tata Wiron won TSL Environment Excellence Green Award'22 at Upstream & Downstream category.
- Tata Wiron – LRPC has won 'Most Trusted Brand Award of the Year' in the 'Construction Times BAM Awards 2022'.
- Tata Wiron received Best Innovative Product Award for Knotted Fence and Product Launch of the Year 3D Welded Mesh under Fencing Category in December 2022.
- Tata Wiron – IHT has won the prestigious 'National Pride Excellence Award' in the category 'Most promising New Product' in December 2022.
- Tata Wiron – LRPC has won Most Preferred Brand in Prestressed Concrete Projects at Construction Times Awards 2023 in January 2023.
- Tata Wiron – IHT won the prestigious 'Business Leadership Award' for the category 'Emerging Product in the Steel Industry'.

## g) Industrial By-Products and Management Division

Industrial By-product Management Division ('IBMD') manages solid wastes or by-products generated across the steel value chain. The division operates on 3R (Reduce, Reuse, Recycle) principles of circular economy to create value from waste, and ensures just-in-time supply of recyclable or remelting scrap to steelmaking units. During the year under review, the division handled ~16 MnT of by-products across locations. Through a series of sustainable value creation initiatives, the division delivered its best ever revenue performance, and witnessed a 24% Y-o-Y business growth in FY2022-23. The product portfolio of IBMD spans across 25+ categories with over 250 SKUs. IBMD strives to remain an industry benchmark in managing by-products through deployment of state-of-the-art technologies and new product development, thereby promoting circularity.

In the year FY2022-23, the division continued its journey to augment the infrastructure for handling and supply of steel scrap to steel melt shops at TSJ, TSK and TSM. In line with the sustainability initiative of maximising scrap-based steelmaking to lower our CO<sub>2</sub> emissions, over 1.5 MnT of steel scrap was recycled in the melt shops across locations in FY2022-23 (previous best: 1.2 MnT in FY2021-22).

During the year under review, in a pioneering initiative, the steel slag supplied by Tata Steel has been used to construct the road connecting Sino-India border in Arunachal Pradesh, under Project Arunank by Border Roads Organisation (BRO). Continuing with dedicated market making activities, IBMD ramped up the sales of the two branded steel slag products - Tata Aggreto and Tata Nirman. While Tata Aggreto has been utilised extensively in road construction applications, Tata Nirman has been established as a raw material of choice for cement and brick manufacturing segments.

At TSK, the in-house developed technology of accelerated weathering (steam aging) of LD slag has been successfully deployed, which has facilitated supply of Tata Aggreto from TSK as well. As an outcome of the consistent pursuit of developing slag-based downstream products, IBMD along with Technology group, manufactured green pavers and beton blocks by replacing natural aggregates with processed slags. Trials of these products have been successful and going forward, mass production and horizontal deployment across locations will be taken up through External Processing Agencies (EPAs). At TSJ, the use of briquettes developed from LF slag fines (Ladle

Furnace Slag) has been established in steelmaking, which has potential to reduce lime consumption thereby improving resource efficiency. Through above initiatives, 100% LD slag utilisation has been achieved at all sites including and especially at TSM (for the first time). In another key achievement, IBMD has ramped up the sales of Ground Granulated Blast Furnace Slag ('GGBS'), a Greenpro certified, value-added product based on Blast Furnace slag as partial replacement of cement in concrete and achieved best ever sales of ~87 KT in FY2022-23 (previous best: 68 KT in FY2021-22).

The new Processing & Sales Yard of IBMD at Marine Drive, Jamshedpur saw significant ramp-up of Flat Product (FP) scrap processing, providing major boost to the value-added metallics portfolio. The facility, which was inaugurated in November 2022, is equipped to deliver customised offering of Processed FP scrap to the customers, thereby generating incremental margin for the Company. With focus on safety and digitalisation, the sales yards infrastructure has been strengthened and has 100% CCTV coverage, man-less weighbridge operations, smart warehouse system and new transport parks with unidirectional traffic flow have been developed. Further the similar facilities are being commissioned at TSK & TSM for value addition to FP scrap. As a Retail Value Management initiative for Coal By-products, 'Sampark' campaign was rolled out with an aim to increase reach and share of business to ramp up sales of Coal Tailings in line with expansion plans of West Bokaro. During the year, IBMD developed a state-of-art Transport Park at Bhelatand, Jharia and commissioned a 5-lane wheel washing facility at West Bokaro aimed at improving environmental performance.

Going forward, IBMD continues to be guided by the long-term sustainability goals of Tata Steel with focus on circularity. A pipeline of projects based on circular business models are underway, such as commencement of sales of Ferroschots (granulated pig iron) from TSJ, LD slag granulation facilities at TSM and TSK, downstream products using LD slag such as Interlocking pre-cast blocks, tetrapods, etc. The infrastructure for storage & handling of remelting scrap across plant locations is being strengthened further to meet increasing requirement of scrap recycling in steelmaking in line with the Long-Term Plans.

### Recognition:

- Recognised as 1<sup>st</sup> Winner of 'Excellence in 3R for Industry' Award (for 3<sup>rd</sup> consecutive time) at the CII International Conference on Waste to Worth 2022, for

the exemplary work in managing own waste generated from the Jamshedpur plant.

- Adjudged as ‘Company of the year’ in Large Enterprise Category at Indian Circular Economy Forum (ICEF) 2022 as a recognition for adopting innovative & agile practices to promote Circular Economy.
- Received ‘Most Innovative Environmental Project’ award at 9<sup>th</sup> CII National Award for Environmental Best Practices 2022. The award was conferred for sustainable use of steelmaking slag in National Highways.

**h) Ferro Alloys and Minerals Division**

The Sukinda Chromite mine and Gomardih Dolomite mine leases expired as per the mining regulations on March 31, 2020. The Sukinda Chromite Mines was put up for auction and subsequently Tata Steel Mining Limited (formerly TS Alloys Limited), a wholly-owned subsidiary of Tata Steel Limited had participated in mining auction in Odisha for Sukinda Chromite Mine and won the auction for the mine.

Owing to the shift of chrome business to Tata Steel Mining Limited, the Ferro Alloys and Minerals Division (**‘FAMD’**) business is now limited to servicing the Steel Plants with Manganese alloys only and hence does not require any detailed discussion.

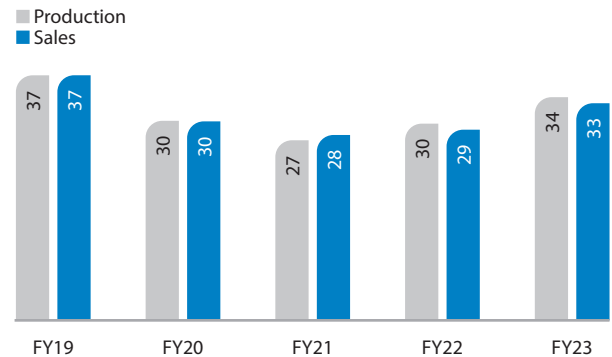
**i) Bearings Division**

Our Bearings Division is one of India’s largest quality bearing manufacturers, having its manufacturing facility situated at Kharagpur, West Bengal with an annual production capacity of 40 million bearing numbers. The Company is foremost in the manufacturing of a wide variety of bearings and auto assemblies and the product range includes Ball Bearings, Taper Roller Bearings, Hub Unit Bearings, Clutch Release Bearings, Double Row Angular Contact Bearings, Centre Bearings and Magneto Bearings. The division is the only bearings manufacturer in India to win the TPM Award (2004) from Japan Institute of Plant Maintenance, Tokyo.

In the Domestic two-wheeler segment, the year witnessed a production growth of 17% from 17.7 Mn in FY2021-22 to 19.3 Mn in FY2022-23, which is primarily due to the recovery in urban segment. However, in the Export segment there was a sharp (18%) drop from 4.4 Mn in FY2021-22 to 3.6 Mn in FY2022-23. This was primarily due to the devaluation of currency in key export markets. The Domestic Tractor segment witnessed a 12% growth from 0.96 Mn in FY2021-22 to 1.08 Mn in FY2022-23. Tata Bearings serves Major OEMs in this segment.

The production and sales performance is as below:

**Production and Sales of Bearings Division (mn nos.)**



During the year under review, the division produced ~34 (mn nos.) and achieved deliveries of ~33 (mn nos.) which were higher over FY2021-22 by ~4.1 (mn nos.) (14%) in production and by ~4.2 (mn nos.) (14%) in deliveries respectively due to increase in demand.

**Key Business Highlights:**

- Bearing division has started commercial supplies to major EV two-wheeler manufacturers and is in the process of getting approvals from major OEMs.
- To enrich manufacturing set up, following facilities were added during the year:
  - 2 Nos of Automatic Sizing machine.
  - 1 No of Auto Greasing & Shielding (Single & Double RS/ZZ) Machine with Hopper.
  - 500 LPH Water demineralisation Plant.

**Recognition:**

Bearings Division received ‘2022 India Long Term Association’ award from Bosch Limited in ‘Bosch India Regional Supplier Awards 2022’ for Material Field Category – Bearings.

**j) Business Improvement Initiatives**

**i) Total Quality Management and Shikhar 25 (Operational Improvement Programmes)**

The Total Quality Management (**‘TQM’**) way of working has become a part of the DNA of Tata Steel for the past several years. The integrated TQM framework is used as the guiding principle to drive TQM practices in the Company.

At group level, Tata Steel remained the flag bearer on Business Excellence by continuing its lead in DATOM (Data and Analytics Target Operating Model) assessment and InnoVista awards. Tata Steel also organised group learning mission this year as part of our commitment to share the identified best practices with the group companies. 31 delegates from 18 Tata Group Companies participated in this mission and visited the operating facilities at TSJ and TSK. In our endeavor to make Tata Steel world class manufacturing organisation, we have extended the scope of 5S & VWM (Visual Workplace Management) to the service functions and also Total Productive Maintenance at Raw Material and Khopoli locations.

### Recognitions and Felicitations:

#### A. At Group Level

- Tata Steel received the coveted 'JRQV Award' and was also recognised as 'Benchmark Leader' in JRQV function held on July 29, 2022, under the flagship Tata Business Excellence Model (TBEM).
- Tata Steel registered its best performance at Tata InnoVista by bagging 6 awards (including 1 most innovative partner) out of 15 total awards held on October 12, 2022.

#### B. Forums of Repute

- **International Convention on Quality Control Circles (ICQCC):** 4 SGA (Small Group Activity) and 1 MASS+(Manthan Ab Shopfloor Se+) team secured the highest category 'Gold' award in 47<sup>th</sup> ICQCC held during November 15-18, 2022 in Jakarta, Indonesia.
- **National Convention of Quality Concepts (NCQC):** 22 SGA circles and one MASS+ team won the Par Excellence award (highest category) in 32<sup>nd</sup> NCQC held during December 27-30, 2022 at Aurangabad.
- **Asian Network for Quality (ANQ):** 3 papers from India, all belonging to Tata Steel received 'Best Paper Award' in 20<sup>th</sup> ANQ Congress 2022 held virtually on October 26-27, 2022, at Beijing, China.
- **International Quality Innovation Award:** 2 applications of Tata Steel titled 'Online Quality Monitoring & Control at Sinter Plant' and 'Healthy Steel' were awarded under the categories Business Innovation and Potential Innovation respectively in the International Quality Innovation Award organised by China Association of Quality (CAQ) on February 23, 2023 in Almaty, Kazakhstan.

- **Tata Business Excellence Convention (BEC) 2022** was held in Mumbai on December 18-19, 2022, to celebrate the excellence in initiatives across the Tata Group. During the event, Tata Steel received awards under the categories 'Building Excellence Capability' and 'Significant Engagement in Improvement Interventions' for demonstrating highest engagement across the multiple channels of Improvement Interventions of the Group.
- **Annual Conference of Indian Society for Quality (ISQ):** 3 projects from Tata Steel were awarded under the categories 'Quality Sustainability Award' and 'Quality Innovation Award' in the Annual Conference of Indian Society for Quality (ISQ) held in Chennai on December 9-10, 2022.
- **ISQ Symposium:** One of the Tata Steel papers titled 'AMRIT – To improve value realisation from co-product steel powered by advanced analytics' won the 2<sup>nd</sup> best paper award in the 1<sup>st</sup> ever ISQ Symposium held at Bangalore on September 23-24, 2022.

#### Treading New Paths:

- Tata Education Excellence Programme (TEEP) in collaboration with Tata Steel Foundation and Gulmohur High School, Telco organised 'Career Expo 2022' for the Senior Secondary school students of Jamshedpur on November 18-19, 2022. 25 colleges and universities from across the country participated where 3,500+ students and 170 teachers from 56 schools visited the Career Expo 2022.
- Tata Steel InnoVista: In line with Tata Group InnoVista awards, 'Tata Steel InnoVista' programme has been rolled out to enhance and further promote culture of Innovation at Tata Steel this year. It saw an encouraging response with 368 Innovative entries across 5 award categories. The top 18 entries selected by the Jury members got recognised on July 20, 2022, in an Apex level function at Steelenium Hall with participation from Group Innovation team.
- TSM (Meramandali, Khopoli and Sahibabad) and its 6 associated sites were recognised through a single Integrated Management System IMS (QMS + EMS + OHS) certification. This single certification enables standardisation of systems, cross-learning & deployment of audit findings and effective management of audits.

**ii) Shikhar25 (operational improvement programmes)**

The Shikhar25 programme, a multi-dimensional & cross functional initiative, is an EBITDA focused improvement programme across the value chain. A governance structure comprising cross-functional teams called 'IMPACT Centres' are put in place across Tata Steel Group to achieve the objectives of Shikhar25. At present, there are 50 IMPACT Centres functioning across the value chain wherein different TQM techniques are deployed for improving operational efficiency, process improvements, product mix optimisation, waste reduction and recycling, energy efficiency and revenue maximisation. The process includes comparing operating KPIs with internal and external benchmarks and identifying enablers to achieve best in class Yield, Energy, Throughput & Quality, etc. The initiatives include marketing and sales area and along with the digital initiatives help Tata Steel to improve customer connect. During the year under review, the Company, through its Shikhar25 programme achieved performance improvements of ₹6,309 crore (including ₹4,299 crore of value protection initiative).

With increase in complexity due to multilocational functionality, it was important to be agile enough to learn, evolve and transform faster, and to keep pace with the changing business needs. The impetus was on driving value by enabling global optima and resource synergy for the TSL Group resulting in synergy benefit of ~₹446 crore.

**k) Safety Health & Sustainability**

**Health and Safety:** The Company is committed to prioritising Health and Safety Management and achieve 'Zero Harm.' To accomplish this, the Company is pursuing six strategies, which include building safety leadership capabilities at all levels, reinforcing contractor safety management standards to ensure zero harm to contract employees, improving the competency and capability to identify hazards and manage risks, enhancing road and rail safety throughout the Company, achieving excellence in process safety management, and establishing industrial hygiene while also improving occupational health.

During the year under review, the Company undertook several initiatives, including the establishment of a Practical Safety Training Centre in Jamshedpur. This initiative exemplifies the Company's commitment to improve risk perception of the workforce by imparting hands-on training on different modules such as Working at Height, Material Handling, Gas Safety, Confined Space, Heavy vehicle simulators, First Aid & CPR, and leveraging

advanced technologies to visualise potential hazards through virtual reality scenarios. Moreover, the Company introduced a Behavioral Safety Theme Park, which serves as a forum for promoting learning through interactive discussions and fostering a cross-learning culture. It focuses on four primary causes of injury that occur within the organisation, namely Slip, Trip & Fall, Manual Task and Tools, Moving Machinery and Fall of Object, where personnel behavior is a crucial contributing factor.

The Company also made efforts to alleviate congestion of heavy vehicles on the road by constructing a new transport park at Meramandali, capable of accommodating 110 trailers/trucks, complete with amenities such as restrooms and canteens for heavy vehicle drivers. Furthermore, to reduce the risks posed by the simultaneous movement of heavy vehicles and two-wheelers on the road, two-wheeler entry has been restricted at TSM and TSK. A segregated timing has been implemented at TSJ to regulate the movement of two-wheeler and heavy vehicle and prevent their simultaneous movements.

To promote a positive safety culture throughout the organisation, the Company organised the Safety, Health, and Environment Reward & Recognition Function for the third time. This programme aims to recognise and reward employees / departments for their remarkable contributions and drive the positive safety culture at all levels within the organisation. This policy has now been extended to vendor partners and non-officers as well.

The Company made considerable efforts to enhance the safety competency of its workforce by training them on simplified safety standards through e-modules and providing them safety training at Safety Leadership Development Centre, Jamshedpur. The safety of contractors has continuously been a primary focus for the Company. During the year under review, the Company undertook various initiatives like 'Ghar se Ghar Tak' programme to sensitise its contractor workforce. Contractor Safety Management System ('CSMS') has been deployed in all stockyards and Steel Processing Centers ('SPC') of Tata Steel as well as across Tata Steel Group Companies.

Moreover, the implementation of the 'Centre of Excellence ('CoE')' methodology for Process Safety has gained traction, leading to improved process safety competencies among employees. Presently, the CoE-driven process safety initiative has been rolled out in most of the high hazard departments at TSJ, TSM & TSLP. To create a safer, more resilient, and sustainable organisation, identification

of the top five risk across all departments of TSL India was done and implementation of strategic risk mitigation plan is in progress. Advance level training programme on Process Safety was conducted by National Examination Board in Occupational Safety and Health (NEBOSH) certified experts.

To provide a holistic approach towards the adoption of digital and technology in maintaining safety within the organisation, the Apex Digital and Technology Safety Subcommittee prioritised standardising technological interventions for critical equipment while also improving the maturity of digital and technological projects, scaling them across Tata Steel.

**Occupational Health & Safety:** Tata Steel has implemented a comprehensive Industrial Hygiene programme which includes identification of occupational health hazards, risk analysis, and assessment of actual exposure through hazard quantification. It also focusses on implementation of hazard control measures to maintain minimum exposure level and to reduce occupational health related risks. During the year under review, over 500 awareness sessions on 'Health & Well-being' have been organised across Tata Steel India for the employees and contract employees. Tata Steel has been recognised for 'Wellness at Workplace' by World Steel Association in Safety & Health Excellence Recognition Programme 2022.

Fatality of contract employees has been the topmost safety concern for the Company. It is with deep regret that the Company reports 4 fatalities during the year under review. The Company launched hazard specific Safety campaigns viz. 'Slip/Trip/Fall', 'Hands are not Tools', 'Road Safety', etc. across locations to address gaps and improve safety awareness. Lost Time Injuries ('LTIs') at Tata Steel (India & South-East Asia) have reduced by 16% from the previous year. Tata Steel Meramandali achieved more than 50% reduction in LTIs. Slip/Trip/Fall related LTIs remain a major concern.

At Tata Steel Europe, Health and Safety continues to be of utmost priority. It is with deep regret that Tata Steel at UK reports one (1) fatality during the year under review. An integrated health and safety management system ensures a consistent approach to health and safety throughout the organisation. The Health and Safety Management System follows the Plan, Do, Check, Act management model, which is a process of continuous improvement.

**Sustainability:** Tata Steel is committed to sustainable development in its operations and has embedded

principles of resource efficiency, circular economy, minimising ecological footprint, zero harm (health of safety of workforce) and care for community in its working philosophy. Tata Steel has taken short medium and long-term goals towards carbon reduction and has built supporting governance processes to ensure we are continuously aiming to the achieve the targets set. We also have set similar targets on freshwater consumption, minimise loss of biodiversity and coverage of 100% critical supply chain partners for ESG risk assessment. Furthermore, United Nations Sustainable Development Goals ('UN SDGs') form an integral part of the Company's long-term strategy and the Company has undertaken internal assessment for prioritising the goals and started monitoring the actions set to achieve the targets for each applicable SDGs.

Tata Steel supports and complies with the domestic and international standards and regulations/laws including those related to labour and human rights, such as the Universal Declaration of Human Rights, the UN Principles on Business and Human Rights, and the International Labour Organization Convention. Tata Steel has introduced a policy and a framework for shared growth between suppliers, distributors, and Company for supply chain management with ESG perspective through the deployment of 'Responsible Supply Chain Policy'.

To accelerate our efforts in becoming a leader in sustainability, we use Life Cycle Assessment ('LCA') tool effectively to evaluate and communicate our products' environmental performance across its lifecycle. Our LCA studies are done in accordance with worldsteel LCA methodology which are guided by ISO 14040 and ISO 14044 standards. Aligning with the goal to cover all steelmaking and downstream sites under LCA, this year we have completed the LCA study for downstream facilities at TSM Khopoli, TSM Sahibabad and CRC West covering a total of 8 different product categories. In FY2022-23, Tata Steel published its first Environment Product Declaration (EPD) for Steel Rebar for facilities in Jamshedpur Works as well as other manufacturing SPC (Steel Processing Centre). This was followed by EPD for Steel structural hollow section under the brand Tata Structura manufactured at Tata Steel Tubes division along with other different production units. EPD was published for Steel Hot Rolled Coil covering all manufacturing locations across Jamshedpur, Kalinganagar and Angul. Furthermore, Tata Ezyfit, which is a brand of innovative tubes for windows & door frame section received GreenPro certification. We have also carried out a LCA study for one of our Fibre Reinforced Polymer ('FRP') product



to understand its life cycle environmental impact. In the coming years, we aim to receive eco-labels (**'GreenPro'**) and transparently disclose environmental performance for our key products manufactured across various sites to support our customers with product related sustainability information.

At our UK operations, we developed the Product Assessment Carbon Indicator (**'PACI'**) tool. This streamlines the process of undertaking life cycle studies of products and enables an understanding of greenhouse gas (**'GHG'**) emission hot spots and trade-offs in the steel product value chain, which can be used to inform new product developments and optimise existing manufacturing routes. PACI has been used to support collaborative projects with customers and to support sharing and learning about opportunities for emissions reduction over the product's life cycle from manufacture through to use and finally end-of-life: for example, working with an automotive OEM to examine all aspects of materials selection, including material type, steel grade, gauge, and aspects of formability and part design. Another example has been the use of the tool in understanding the trade-off between benefits in use from improving motor efficiency versus embodied GHG emissions associated with different grades of electrical steels. The tool has recently been recognised by the World Steel Association, winning a Steelie award for Excellence in Life Cycle Assessment.

Tata Steel has made significant efforts to persistently improve and enhance its performance in biodiversity conservation and significantly reduce its impact on the ecosystem. Our Indian operations are not located in any of the identified biodiversity hotspots or protected areas. During FY2022-23, we developed the Biodiversity Management Plans (**'BMP'**) for Tarapur and Sahibabad. We have developed BMPs for 15 locations and plan to cover 100% sites to assess the impact and dependency of direct operations on biodiversity by 2024. We have planted over 3.2 lakh saplings of native species across locations. Kadma Biodiversity Park is spread across 13.5 acres where 5,650 trees and 4,650 shrubs have been planted, the park has 2.3 Km of walking trail, a yoga and meditation zone, bird watching areas, rainwater harvesting ponds, lilly ponds, butterfly zones, and fruit and bamboo orchards. The park houses several clusters of native species of trees planted as groves. It also has bird and squirrel nests, deep forest areas, grass lands and an information centre for flora.

At our UK operations, we are guardian to large areas of natural habitat, including several Sites of Special Scientific

Interest (**'SSSI'**). In addition to meeting our responsibilities for protected sites, we also look for opportunities to encourage biodiversity on other landholdings and thereby contribute to protecting the natural heritage of UK's landscape. Former blast furnace cooling lagoons at our Shotton site are now a haven for wildlife. Attracting 12 nesting pairs of common tern in 1970 with the creation of a small raft on the lagoon, the area has become home to one of the UK's largest colonies of this vulnerable bird species and has seen over 20,000 chicks fledge successfully. The site has been a nature reserve for 50 years and a designated SSSI since 1990. In 2021, a project team of apprentices, volunteers and supply partners refurbished the colony, creating new tern islands on the lagoon, connected by a new steel walkway. The project, assisted by a Welsh government grant, involved the donation of steel for a base and moving 130 tonnes of shingle from the shore onto the nesting islands by helicopter to refurbish the islands, creating a nesting site that the migratory birds will return to, for years to come.

**Climate Change:** India is currently the second-largest steel-producing country in the world after China. Demand of steel in India is projected to increase 4-5 times by middle of century backed by domestic steel consumption required for infrastructure growth in the country. The National Steel Policy envisages 300 MTPA steel production in India by 2030. Accordingly, we will aim to protect our market share in line with the growing steel demand in the country.

India's growth trajectory in the coming decades poses key challenges for the domestic Steel Industry. Firstly, many of the near-zero emission steelmaking technologies are currently at pilot scale and are yet to become viable for large scale commercial production. Secondly, due to relatively young stock of steel infrastructure, buildings and goods indicates scrap availability would not be able to cater to this increased steel demand.

We have plans in place to grow our capacities significantly through Electric Arc Furnace (**'EAF'**) route, however due to issues related to scrap availability and logistics, primary steelmaking would be predominant in our upcoming capacities. Hence Carbon Capture & Utilisation and Generation & usage of Green H2 in steel value chain are identified as our R&D technology leadership focus area. We are actively engaging with technology companies, academia, companies from other sectors having similar challenges on development and scale-up of deep decarbonisation technologies.

A 5 TPD pilot plant has been successfully commissioned at Jamshedpur to capture CO<sub>2</sub> from blast furnace gas. The captured CO<sub>2</sub> is being utilised for water treatment at a steelmaking unit. We are currently working on another pilot on Carbon Capture and Utilisation to produce value added products.

We are evaluating our investments in different existing technology choices (DRI production using either Natural gas/Coal Bed Methane or syngas from coal gasification) which can enable the transformation of our business models towards production of net zero emissions steel in long term once green Hydrogen and Carbon Capture technologies becomes technologically and commercially viable.

Tata Steel has developed a low carbon transition strategy which progressively reduces reliance on fossil fuels.

Following are short, medium and long term goals.

#### Short Term:

- Entry into Steel Recycling Business to create a formal circular economy for steel in India.
- Utilisation of higher scrap charge in the steelmaking process in India.
- Adoption of best available technologies and improvement in existing processes.
- Improving quality of raw material (iron ore and coking coal).
- Increase share of renewable energy in power mix.

#### Medium Term:

- Capacity addition in India using scrap Electric Arc Furnace (EAF) route.
- Shifting from metallurgical coal to cleaner fuel like natural gas/Coal Bed Methane.
- Upscaling pilots of CCU and Hydrogen based steelmaking.
- Piloting new technologies in partnership with academia on pilot projects which are at low Technology Readiness Level (TRL) stage.

#### Long Term:

- Scale up of Hlsarna technology.
- Adoption of DRI route capable to operating with present day and future reductants e.g. Natural gas/Coal Bed Methane or Syngas from coal gasification or Hydrogen.

- Sustainable production, storage, and use of H<sub>2</sub> across the steel value chain.
- Carbon Capture & Utilisation dovetailing in existing processes.
- Research on advanced materials.
- Collaboration with technology companies and academia.

In our UK operations, we continue to pursue control technologies to reduce our environmental footprint. At our site at Corby, Northamptonshire, we have announced a £5 million investment in 'state of the art' electric induction furnaces which will reduce emissions from one of our tube mills by at least 2,000 tonnes of CO<sub>2</sub> a year; the first part of our extensive plans to make the Corby site CO<sub>2</sub> neutral in line with Tata Steel's declared environmental ambitions of becoming Net Zero globally by 2045.

The Shotton sustainability commitment, launched in 2022, builds on decades of effort, uniting the activities already started and establishing these principles further within operations so that the Shotton site can provide a positive environmental legacy. The holistic approach to sustainability covers four key themes of sustainable development, giving a clear focus for all business decisions made today, and in the future:

- 1) Reducing the site's carbon footprint.
- 2) Developing and producing products and services that support sustainable construction.
- 3) Protecting and expanding the biodiversity that co-exists on the site.
- 4) Maximising material efficiency and achieving zero on-site waste.

In the coming years, TSN IJmuiden will transform into a green steel company running on green electricity and hydrogen, with lower local emissions. TSN's site in IJmuiden will undergo a complete transformation. In the future, today's primary steelmaking process will be completely replaced by green steel production using DRI (Direct Reduced Iron) and electric furnaces technology that runs on hydrogen. New facilities and electric furnaces will run on sustainable power sources like green hydrogen or green electricity instead of on coal. The blast furnaces and coke and gas plants will be taken offline, as well as the sinter lines, and no more blast-furnace gases will be supplied to the Vattenfall power stations. After additional measures, TSN IJmuiden will ultimately become a carbon-neutral steel production site with significantly reduced local emissions.

The green electricity needed for this can be generated in offshore wind farms in the North Sea and elsewhere. Part of the electricity needed for hydrogen production will be supplied from the North Sea, making it possible for a share of green hydrogen to be produced on site. Hydrogen will also be imported, for example from the hydrogen backbone. TSN will continue to be a leading steel company that produces high-quality steel, but in the sustainable manner that oftakers and the local community demand and expect. Oftakers will use the green steel to realise the energy transition in other industries. TSN will continue to lead in expertise and development, and to be a major employer in the region. By ceasing the large-scale use of coal, some of TSN's site may be freed up for new industrial purposes, as well.

**I) Corporate Social Responsibility**

Tata Steel Foundation is the primary implementing partner for the corporate social responsibility programmes and strategy of Tata Steel. It works directly on executing programmes in close collaboration with communities, public systems and partners. The Foundation envisions an enlightened, equitable society in which every individual realises his/her potential with dignity and works with tribal and excluded communities to co-create transformative, efficient and lasting solutions to their development challenges. This brings together the sociological and cultural context of geographies proximate to the operations of the Company, the core commitment of the Company to demonstrate leadership in addressing societal challenges and its deep experience in implementing societal change programmes.

In FY2022-23, CSR programmes directly touched the lives of over 3.15 million people from the most vulnerable sections of society, including initiatives that covered a post-COVID scenario of extending medical amenities to communities in need.

The Company focuses on signature themes which are large-scale proven change models addressing core development gaps in India, while being replicable at a global platform. They include programmes on health (maternal and child mortalities), education (access to school and learning enrichment) as well as holistic and comprehensive development of panchayats between the key manufacturing locations of Jamshedpur in Jharkhand and Kalinganagar in Odisha. Tata Steel continues to also be conscious of the specific nuances of tribal communities who form a significant proportion of the population in the operating geographies and at a larger pan-India level

through the Samvaad ecosystem including its platforms – Tribal Leadership Programme, tribal languages, Samvaad Fellowship and Tribal Cuisine to name a few.

An equal emphasis is laid on regional change models enabling lasting betterment in the well-being of communities, prioritising those who are excluded and proximate, through extensive engagements on holistic, relevant themes - health, education, livelihoods, drinking water, infrastructure, sports, household nutrition, a life of dignity for Persons with Disabilities, effective grassroots governance, eliminating the worst forms of child labour and fostering a voice for women amongst communities. A carefully assorted set of programmes are activated in the peripheries of the operational locations of Tata Steel in India including Jharkhand, Odisha (including its manufacturing, mining and port locations, Uttar Pradesh (Sahibabad), Maharashtra (Khopoli) and the more recent spread to Punjab (Ludhiana).

During the year, the Tata Steel Foundation has spent ₹511 crore on CSR activities (₹480.62 crore from Tata Steel as its primary funder) which is 2.08% against the regulatory mandate of 2% of average net profit of the immediately preceding three financial years and a 17% increase against the commitment of FY2021-22.

**2. Tata Steel Long Products Limited**

FY2022-23 has been a year of strategic achievements for Tata Steel Long Products Limited ('**TSLP**') despite multiple headwinds that the business faced. There had been several historic moments for TSLP towards its growth and transformational journey.

With the completion of acquisition of Neelachal Ispat Nigam Limited ('**NINL**') in July 2022, crude steel capacity of the TSLP has almost doubled to ~1.9 MTPA level. NINL (a company which was not operational for >3 years) the operations were reignited within 3 months of acquisition with the start-up of the Blast Furnace. All the major facilities (except the Coke Oven) achieved stabilisation towards the end of FY2022-23. It has steadily ramped up its operations including iron ore mine and ended the year at 1 MTPA (Crude Steel + Pig Iron) rate in March 2023. It has produced 202 KT of crude steel in FY2022-23 and enabled TSLP to expand its product portfolio by leveraging Tata Tiscon Retail brand. System and processes have been put in place and strengthened as part of the Tata way of working. Newer set of benchmarks and milestones created by deeper engagement with all the stakeholders.

The turnover and profit/(loss) of TSLP consolidated for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	8,992	6,802
EBITDA	(613)	1,288
Profit before tax (PBT), before exceptional	(2,536)	885
Profit before tax (PBT)	(2,538)	858
Profit after tax (PAT), before exceptional	(2,302)	657
Profit after tax (PAT)	(2,304)	630

The performance of NINL Business is included in FY2022-23.

The production and sales performance of TSLP (on a standalone basis) is given below:

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Crude steel	0.71	0.68	3
Saleable steel	0.71	0.67	6
Sales	0.66	0.65	-

The production and sales performance of NINL is given below:

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Crude steel	0.20	-	N.A.
Saleable steel	0.17	-	N.A.
Sales	0.17	-	N.A.

Another big milestone of growth journey started with the ground-breaking ceremony for putting up the State of Art facility of 0.5 MTPA 'Combi mill' for speciality steel in Jamshedpur. The upcoming mill would deliver benchmark level of product quality parameters in terms of dimension tolerance, decarb level and surface defect to enhance presence and grow in chosen segments of Passenger Vehicle ('PV') and 2-Wheelers (2W). The project has also been selected & approved by Ministry of Steel for Automotive Power train and Bearing steel as part of PLI (Production Linked Incentive) scheme for Speciality steel. The project is under full swing focusing on timely completion.

On the sustainability front, TSLP made certain bold moves to reduce CO<sub>2</sub> footprint. The prime focus area is transitioning towards green energy through multiple initiatives such as partial closure of one coal based captive power plant at Gamharia, maximising green power generation through waste heat recoveries and change in fuel combination to reduce fresh coal usage.

These initiatives coupled with increased throughput and reduced fuel consumption across mills have resulted in ~9% Y-o-Y reduction in CO<sub>2</sub> from 4.39 tons/ton of Crude Steel in FY2021-22 to 4.39 tons/tcs in FY2021-22 to ~4 tons/tcs in FY2022-23.

As part of the customer obsession journey, TSLP has undertaken several initiatives to improve relationship, product quality and new product development. Positive impact of the initiatives has got reflected in the customer satisfaction survey conducted by an independent agency. Customer satisfaction score for TSLP has significantly improved to 85.4% in 2022 from 79.4% in 2020 and largely bridged the gap with respect to the competition.

On the operations front, TSLP has first time crossed the landmark of 700 KT+ of crude steel production and achieved highest ever speciality steel deliveries of 536 KT in FY2022-23 registering a growth of ~10% on Y-o-Y basis. TSLP has also achieved best-ever DRI production from Gamharia unit at 463 KT (~18% growth on Y-o-Y basis).

Continuing with its journey on integration, TSLP has migrated on S4 Hana across all three operating locations to have enterprise-wide single ERP (Enterprise Resource Planning) system.

The prolonged geopolitical instability in the form of Russia-Ukraine war resulted in heightened inflationary pressure in the post-COVID world. Central banks across the world increased interest rates. Zero COVID policy and collapse of property market in China, energy crisis, export duty imposition on steel and iron ore by Indian Government further impacted the market sentiments. FY2022-23 saw volatility in the raw material and steel prices during the year like never before which is reflected in the quarterly results of the most steel companies and TSLP had been no exception to this. Accordingly, TSLP's financial performance for FY2022-23 had been a year of two halves. H1 FY2022-23 struggled on high priced coal consumption followed by downward spiral of prices post imposition of export duty in the month of May 2022 by the Government of India. In addition, the power availability from grid and certain disturbances at Blast Furnace impacted the operational performance. TSLP has demonstrated agility and re-aligned its supply chain to minimise the impact of coal prices and logistics disturbances in the marketplace. In H2 FY2022-23, TSLP's financial performance bounced back driven by operational excellence and mix enrichment. TSLP has changed Joda business model on conversion with Tata Steel to optimise its working capital requirement. EBITDA

loss of H1 FY2022-23 got fully negated in Q3 FY2022-23 and TSLP has achieved positive underlying PBT (without considering the interest burden on the NCRPS) in Q4 FY2022-23. TSLP has remained resilient throughout the year and seamlessly managed cash flows thereby averting need of any fresh borrowing.

TSLP's efforts are getting recognised at various forums on multiple fronts. TSLP has bagged the Outstanding accomplishment in Corporate Excellence award from CII. The assessment happened across 250 sustainability indicators out of which >70% parameters reflect TSLP's strength area. The rest have been identified as opportunity for improvement for TSLP. TSLP has received a prestigious award that is first amongst Tata Group; as winner for excellence in wellness initiatives from SHRM (Society of Human Resource Management). TSLP is striving towards making the organisation free from lifestyle diseases. In addition, TSLP has received other key awards as listed below:

**Safety & Sustainability**

- Steel Champion in Energy Excellence from CII.
- Kalinga Safety Excellence Award in 'Best Practices on behavioral & Workplace Safety'.
- Eastern Region 2<sup>nd</sup> Runner up for 'Best performance in employee health, safety & environmental care'.

**Customer Engagement**

- Best performance in Steel Quality from Mahindra CIE Group vendor conference 2022.
- Best Supplier of CHQ (Cold Headed Quality) Steel wire rods from M/s Micron Precision Screws, Rohtak.

**People Management**

- Future of Learning & Development (L&D) Summit & Awards 2022 – Winner in L&D Excellence Award Category.
- AIMA (All India Management Association) Project Excellence Award 1<sup>st</sup> Runner Up for Best CSR (Corporate Social Responsibility) projects.

During the FY2022-23, TSLP, on a consolidated basis had produced 893 KT of sponge iron (including 156 KT conversion for TSL) and 910 KT of steel as against 839 KT of sponge iron and 684 KT of steel in FY2021-22. Deliveries of FY2022-23 for sponge iron was 648 KT (including 151 KT conversion for TSL) as against 594 KT of FY2021-22. Steel deliveries was

822 KT as against 639 KT of FY2021-22 contributed by NINL acquisition. The turnover of FY2022-23 had increased over FY2021-22 by ₹2,190 crore primarily due to acquisition of NINL during the year along with higher average net realisation of steel and sponge iron. The loss after tax of FY2022-23 at ₹2,304 crore was higher against a profit of ₹630 crore in FY2021-22 primarily due to decline in operating profit due to higher input costs, higher ramp-up expenses at NINL and increase in depreciation charge and finance cost post NINL acquisition.

**3. Tata Steel Europe (TSE)**

Economic growth decelerated globally in 2022. Economic activity was impacted by the rise of central bank rates to fight inflation, the war in Ukraine and the spread of COVID-19 in China. Inflation was at 7.8%, significantly above levels seen in previous years (2.9% in 2016-2020). In China, GDP growth increased by 3.0% (2021: 8.5%). The deceleration was mainly due to the lockdowns as a result of COVID-19 outbreaks which impacted consumer spending and industrial output, and a slowdown of real estate. Lower economic growth in China led to reduced global trade growth and lower global commodity prices. The EU economy decelerated to 3.6% (2021: 5.3%) and the UK economy to 4.0% (2021: 7.6%). The EU and UK economy remained resilient due to the strong contribution from the services sector and overall positive developments over the first half of the year. In the second part of the year consumer confidence and business sentiment worsened as the central banks started to increase interest rates.

Global steel demand decreased by 3.2% in 2022 in line with the worsening macroeconomic conditions (2021: 2.8% growth). Demand in China decreased by 3.5% (2021: 5.4%) as output in the real estate sector declined. New construction started declining by 36% for the year. Demand in the EU28 decreased by 8.0% (2021: 18.1% growth). Output growth in the steel-using-sectors was positive in 2022 due to strong output in the first half of the year. However, apparent demand for the full year declined strongly due to a significant destock, especially during the latter part of the year. The destock was triggered by lower business confidence caused by high energy prices and inflation, as well as the deterioration of the economic outlook. In 2022, global steel production decreased by 4.7% (2021: 3.9% growth). Steel production in China decreased by 2.6% (2021: 2.9%) and equated to 55% of global steel production. In the EU, production decreased by 10.8% (2021: 15.6% growth) as ~20% of EU blast furnaces were idled in response to lower demand for steel.

The market reference price for iron ore fines (China CFR 62%) decreased in 2022 to ~US\$120/t (-\$39/t). The price declined because there was lower demand for iron ore due to the reduction of output by blast furnaces globally. The hard coking coal spot price (Australia FOB) increased to US\$365/t (+\$141/t). The price was at an all-time high of US\$594/t in March 2022 due to the loss of supply from Russia as a result of the war in the Ukraine. The German benchmark scrap price (Sorte 2/8) increased to €414/t (+€16/t) compared to the previous calendar year. The price of CO<sub>2</sub> increased in 2022 to €81/t (+€28/t), reaching an all-time high in February 2022 at €91/t. Reforms of the EU and UK Emissions Trading System, reducing the supply of permits, are causing the price to rise.

The European steel spot Hot Rolled Coil price (Germany, parity point) decreased in 2022 to €930/t (-€44/t). In April 2022 the steel price was at an all-time high of €1,385/t due to the loss of supply from Ukraine and Russia. In the later part of the year the price reduced strongly as apparent demand for steel reduced significantly.

For 2023, the outlook for the EU and UK economy is that growth will be low (+0.5% for the EU and 0.0% for the UK). Monetary policy tightening is expected to have a negative impact on growth. Output in construction and machinery is expected to decline whilst automotive is expected to grow slightly. Apparent demand for steel in the EU is expected to continue to decline by 1.6%. Downside risks to these forecasts are higher than expected inflation, the lagged effect of monetary tightening and unexpected developments in geopolitics.

The turnover and profit/(loss) figures of TSE are given below:

	(₹ crore)	
	FY 23	FY 22
Turnover	90,300	90,023
EBITDA	4,632	12,164
Profit before tax (PBT), before exceptional	1,103	8,362
Profit before tax (PBT)	1,304	8,114
Profit after tax (PAT), before exceptional	(3,464)	9,235
Profit after tax (PAT)	(3,263)	8,986

The production and sales performance of TSE (continuing operations) is given below:

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Liquid steel production	9.35	10.11	(8)
Deliveries	8.16	9.02	(10)

TSE's deliveries decreased by ~10% over the previous year due to low demand from the market in the second half of the year following the general economic slowdown in Europe. This lower demand also contributed to production in FY2022-23 decreasing by 0.76 MnT (8%) compared to the previous year although production was not as low as deliveries due to a build-up of inventory in TSN in order to support operations during an extended outage for the Blast Furnace 6 reline at the start of FY2023-24.

During the year under review, the revenue stood at ₹90,300 crore which was marginally higher than FY2021-22. However, in GBP terms, revenue increased by 5% due to improved average revenue per tonne which more than offset the lower deliveries. TSE reported EBITDA of ₹4,632 crore during FY2022-23 lower than the EBITDA of ₹12,164 crore during FY2021-22. This reflected contrasting EBITDA performance between the first and second half of the year with the first half benefitting from exceptionally high selling prices resulting in record EBITDA performance. The second half however, experienced a reduction in selling prices due to lower market demand following the economic slowdown in Europe although raw material and energy costs remained high which resulted in EBITDA losses. A higher non cash deferred tax charge due to actuarial movements on the British Steel Pension Scheme following a number of transactions whereby the Scheme purchased insurance policies to de-risk the pension liabilities, led to a loss after tax of ₹3,263 crore in FY2022-23 against a profit of ₹8,986 crore in FY2021-22.

**Tata Steel Netherlands ('TSN')** – Liquid steel production at IJmuiden Steel Works, Netherlands during FY2022-23 at 6.3 MT was 0.28 MT lower than the previous year reflecting the weakening of the market during H2 FY2021-22 after a strong start earlier in the financial year.

During FY2022-23, TSN continued with the Transformation Programme (rebranded into 'sustainable profit programme') which is targeting improvements to delivery and yield performance, commercial mix, and reducing operating costs and unplanned downtime.

Further progress was also achieved in its 'Strategic Asset Roadmap' (STAR) capital investment programme to support the strategic growth of differentiated, high value products in the automotive, lifting and excavating, and energy and power market sectors. Most noticeably, projects in the Hot Strip Mill, Cold Mill 21 and Galvanising line 3 were delivered. However, the start-up of the CM21 project took much longer than expected leading to supply issues to our customers.

The Blast Furnace 6 reline started at the end of March 2023 and will take approximately 4 to 5 months. Supplies to customers will not be affected as a slab stock has been build up to feed the rolling mills.

Furthermore, significant progress was achieved regarding the 'Roadmap+', which contains a series of measures to eliminate the environmental impact (noise, dust, odour) of the IJmuiden Steel Works.

In September 2021, TSN announced its decision to accelerate its transition from coal-based steelmaking to hydrogen-based steelmaking at its IJmuiden site. During the year under review, activities to pursue our ambition continued. In July 2022, TSN and government bodies entered into an amended and restated joint 'Expression of Principles', outlining our shared ambition to transform TSN into a clean, green and circular steel producer. In August 2022, selected partners were contracted for engineering activities while a team of >100 FTE is working on the transition.

TSN is working with its customers towards a zero carbon emission, circular world. To support the joint short-term ambitions, TSN launched Zeremis Carbon Lite in the summer of 2022, through which green steel is offered to the market. The lower CO<sub>2</sub> intensity is based on CO<sub>2</sub> savings realised within TSN since 2018 and is certified by independent assurance expert DNV.

**Tata Steel UK ('TSUK')** – Liquid steel production at Port Talbot Steel Works, Wales during FY2022-23 at 3.02 MnT was 0.47 MnT lower than the previous year mainly due to lower market demand in the second half of the year. During FY2022-23, TSUK undertook a significant maintenance programme focused on its steelmaking assets in Port Talbot in order to improve operational stability. This included a successful installation of a new charger crane in the steel plant, refurbishment of the Blast Furnace stoves and the first phase of the replacement of the teeming ladle fleet. Given the high energy costs in Europe, TSUK focused on improving energy efficiency measures which included a peak internal power generation of 100 MwE and optimisation of energy consumption rates on the reheat furnaces in the Hot Strip Mill.

During the year, the Transformation programme continued to deliver benefits with an improvement of £52m compared to FY2021-22 mainly reflecting lower cost to produce slab and the optimisation of product value

streams across the whole UK Value Chain. In response to the deteriorating financial performance in the second half of FY2022-23 caused by the weaker economic conditions, TSUK launched a new cost saving initiative 'Drive to Save' in order to reduce spend levels and ensure that the business has a strong focus on cash.

During the year, two further insurance transactions (~GBP 4.4bn) were completed between the British Steel Pension Scheme ('**BSPS**') and Legal & General taking the proportion of liabilities insured to c. 60%. A final insurance transaction is expected to complete in the early part of FY2023-24 after which the BSPPS will be fully de-risked.

In TSUK, 12 new products were launched during the year, which exceeded the annual target. These launches cover a wide range of high value products and end applications for automotive, engineering, renewables and construction markets for both the UK and export opportunities. Some key launches have been in the construction market including the launch of new off-site manufactured construction solutions with Catnic Matrix and Trimawall Fast-Fit, which enable quicker, safer and standardised onsite construction. In the renewables sector, TSUK launched Magizinc® for Solar S450 product with its 25-year guarantee and, for export, TSUK's Hot Rolled Dry specifications are now certified to ASTM standards to enable these products to be used across the NAFTA region.

During FY2022-23, TSUK took the landmark step, working in partnership with TSN, to launch its first low CO<sub>2</sub> steel products. This means that TSUK can now offer to the market a scope 3 emissions reduction, using a mass balanced approach through a carbon in-setting scheme called Carbon Lite. Under the scheme Tata Steel has committed to reinvest all revenues from Carbon Lite certificates to further drive our de-carbonisation journeys of Optemis for Tata Steel UK and Zeremis for Tata Steel Netherlands.

**4. Tata Steel Thailand ('TSTH')**

During FY2022-23, the demand for steel in Thailand was at 16.4 MnT, decreased by 12.2% from the previous year. Import volume was 10.8 MnT, at 66% of the demand for steel in Thailand, dropped by 13.1% Y-o-Y.

Demand for long products in Thailand was 6.2 MnT declined by 5.1% Y-o-Y. Import volumes was 2.5 MnT (41% of the total long products demand in Thailand), which was down by 4.2% Y-o-Y.

The turnover and profit/(loss) of TSTH for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	6,992	7,431
EBITDA	239	736
Profit before tax (PBT), before exceptional	166	611
Profit before tax (PBT)	155	593
Profit after tax (PAT), before exceptional	167	612
Profit after tax (PAT)	156	594

The production and sales performance of TSTH is given below:

	(MnT)		
	FY 23	FY 22	Change (%)
Saleable steel	1.20	1.29	(7)
Sales	1.21	1.33	(9)

During FY2022-23, the saleable steel production decreased by 0.09 MnT and sales declined by 0.12 MnT over FY2021-22. The turnover decreased by ₹440 crore primarily due to sluggish demand for retail in domestic market. The profit after tax was lower by ₹438 crore on account of lower operating profits, offset by lower finance cost and lower exceptional charge.

### Key Business Highlights

- Tata Business Excellence Model ('**TBEM**') assessment score improved from 559 points (previous assessment in 2018) to 578 points which is the category of 'Emerging Industry Leader'.
- Dividend payout after 14 years (FY2021-22 results).
- Modified machine to produce 18m length rebar for Canada.
- Stabilised quality of wire rod for small diameter (0.28mm) tire cord product.
- Co-branding with B2B customer for sustainable construction solutions with using Cut and Bend in the project (SC asset developer).

### Recognitions

- TSTH received 'Thailand Sustainability Investment (THSI) 2022' from The Stock Exchange of Thailand.
- TSTH received 'Sustainability Disclosure Award 2022' from Thaipat Institute.
- TSTH has been selected as one of the 'ESG100 Securities Group Companies' from Thaipat Institute.

- SCSC received 'Prime Minister's Industry Award 2022' in Circular Economy Category from Ministry of Industry.

### 5. The Siam Industrial Wire Co. Ltd. ('SIW') & TSN Wires Co. Ltd. ('TSN Wires')

T S Global Holdings ('**TSGH**') Singapore, a 100% indirect subsidiary of Tata Steel Limited, had divested its equity stake in NSH to a Singapore based steel and iron ore trading company for an Equity Value of ₹1,275 crore. The wires business of NatSteel in Thailand (Siam Industrial wires) has been retained by the Company as part of the downstream wires portfolio. The transaction was completed on September 30, 2021.

SIW serves the B2B Construction industry in Thailand and around the World with its Steel Wires for concrete reinforcement applications. TSN Wires serves the Fencing, Poultry, Farming, Paper and other related segments with its Galvanised Wires.

FY2022-23 presented many difficult challenges like the resurgence of COVID-19, the Ukraine war, high inflation and high energy costs, fluctuations in currency and steel prices, severe flooding in Thailand and significant slowdown of the Chinese economy. As a result, this had a severe impact on the Thai Construction demand and also on the other consumer facing sectors.

The turnover and profit/(loss) of SIW for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	1,930	1,972
EBITDA	235	228
Profit before tax (PBT)	190	242
Profit after tax (PAT)	159	211

The production and sales performance of SIW is given below:

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Saleable steel	0.20	0.22	(12)
Sales	0.16	0.17	(5)

The turnover and profit/(loss) of TSN Wires for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	267	325
EBITDA	0	23
Profit before tax (PBT)	(14)	10
Profit after tax (PAT)	(14)	10



The production and sales performance of TSN Wires is given below:

	(mn tonnes)		
	FY 23	FY 22	Change (%)
Saleable steel	0.03	0.04	(16)
Sales	0.03	0.04	(21)

During FY2022-23 the combined saleable steel production (SIW & TSN Wires) decreased by 0.03 MnT and sales declined by 0.02 MnT over FY2021-22 attributable to subdued demand. The combined turnover decreased by 4% primarily due to lower deliveries owing to decline in demand. The profit after tax declined on account of lower operating profits, and higher exceptional charge against a gain in previous year on account of impairment of investment (eliminated on consolidation).

### Key Business Highlights

- Secured the biggest PC Strand market in USA in 2022 with a 23% import share.
- Initiated the homologation process in Italy, Netherlands and Germany for greater market access in Western Europe.

### Recognitions

- SIW achieved certification of Low Emission Support Scheme ('LESS') by Thailand Greenhouse Gas Management Organization ('TGO') on reducing GHG emission.
- SIW received Green Industry Level 4 from the Ministry of Industry, Thailand.
- SIW received Corporate Social Responsibility Continuous Award (CSR – DIW Continuous Award). The award is for the 14<sup>th</sup> consecutive year from the Department of Industrial Works, Ministry of Industry, Thailand.
- SIW & TSN Wires received Outstanding Award for Safety, Occupational Health and Work Environment from Occupational Safety and Health Bureau, Department of Labor Protection and Welfare, Ministry of Labour, Thailand.

## 6. Tata Metaliks Limited

Tata Metaliks Limited ('TML') has its manufacturing plant at Kharagpur, West Bengal, India, which produces annually 250 KT of Pig Iron ('PI') and 350 KT of Ductile Iron Pipes ('DIP'). Pig iron is marketed under the brand name 'Tata eFee' and ductile iron pipe as 'Tata Ductura'.

The PI demand throughout the year remained subdued with downward corrections in prices. Overall buying sentiments were weak on the face of price volatility of raw materials, with foundries operating at a maximum 50-60% capacity levels. PI exports saw upsurge in Q1 FY2022-23 and reached an estimated 190 KT compared to 88 KT in Q4 FY2021-22. However, price corrections and imposition of export duty on PI depressed exports significantly from June 2022. Prices dropped by ~\$140/t on FoB east coast India basis. Exports were negligible till Q3 FY2022-23. Even after removal of Export duty in mid-November, the export market remained dull resulting in over-supply in the domestic market. Only in the last quarter of FY2022-23, bulk PI booking for export commenced, though it is yet to reach the pre-export duty imposition levels. On the price front, domestic foundry grade PI prices kept correcting itself downwards throughout the year. By H1 FY2022-23 it was lower by ~₹8k-12k/t compared to Q4 FY2022-23 and by the end of the year it was lower by ~₹4,000/t from H1 FY2022-23.

The DIP segment, after peaking in Q4 FY2022-23 at ~580 KT, the industry witnessed a drop in dispatches by ~30% in Q1 FY2022-23 due to planned maintenance shutdowns and slower release of orders and clearances. By end of H1 FY2022-23 situation improved and by the last quarter of FY2022-23 dispatches witnessed improvement by ~11% over Q3. This was due to year-end target fulfilment for all the departments and contractors and Government pressure to utilise the available fund with the respective authorities within the financial year. Export bookings in the first quarter remained healthy in April & May but slowed down in June till end of H1 because customers anticipated drop in DIP prices. Export bookings remained healthy thereafter till the end of the year. On the price front, after witnessing an upward movement of ~50% in Q4 FY2022-23 over Q3 prices, it started to soften throughout H1 FY2022-23 and reached levels same as Q4 FY2022-23. It started to strengthen in Q3 FY2022-23 and by the last quarter market witnessed upswing in price of ~50-55%.

### Key Business Highlights

The Company successfully commissioned new DI Pipe plant at Kharagpur to take its DI Pipe plant capacity to 4 LTPA. The first phase of expansion had a vertical ramp-up and the second phase is under way.

**Digitisation and automation:** TML started its digital transformation journey in FY2018-19 and developed a Long-term Digital Strategy Roadmap that focused on three themes: Real-time data analytics, Smart machines

and Business on Mobile. In FY2022-23, TML took some key strategic initiatives such as (a) Project ARUNA, to drive EBITDA improvement data analytics projects across the organisation and (b) Implementation of Robotics based automation in DIP plants. The new DIP plant with high level of Automation, Mechanisation and Digitalisation got commissioned and started operating. This plant has many firsts in DIP industry in the country such as fully automated core shop with Automated Stacking and Retrieval System (ASRS) system. In addition, the plant will have over 20 robots to reduce human machine interface and improve workforce productivity. TML strengthened its capability in area of robotics and developed in-house robotics solutions which are being implemented for the first time in DIP industry in the country.

The turnover and profit/(loss) figures of TML for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	3,260	2,746
Profit before tax (PBT)	101	339
Profit after tax (PAT)	81	237

During FY2022-23, the production of PI and DIP was 270 KT and 300 KT respectively as against 344 KT and 235 KT respectively in FY2021-22. Deliveries of PI and DIP in FY2022-23 was 262 KT and 296 KT respectively as against 341 KT and 237 KT respectively in the previous year.

The turnover during FY2022-23 at ₹3,260 crore, was higher by ₹514 crore over previous year primarily due to higher prices of pig iron and DI pipes along with higher deliveries of DI pipes. The profit after tax during FY2022-23 at ₹81 crore, was lower by ₹157 crore over previous year due to lower operating profits attributable to higher input costs primarily coal along with higher finance cost and depreciation charge. Moreover, previous year included an exceptional gain of ₹31 crore on account of sale of land which is not present in current year.

### Recognition

- Awarded 'Green Co Gold' in Green Co Assessment by CII – Sohrabji Godrej Green Business Centre.
- Received 'CAP Oriented Award' under the Climate Action Plan (CAP) assessment conducted by CII.
- Adjudged as the 2<sup>nd</sup> Runners-Up at CII Energy Conservation Award 2022.
- Declared Winner under the Listed Medium Category at the 'Corporate Governance Recognition 2022' - organised by BCCI.

## 7. The Tinplate Company of India Limited

The Tinplate Company of India Limited ('**TCIL**') is the largest indigenous producer of tin-coated and tin free steel in India which is used for metal packaging. TCIL has also been 'value-adding' its products by way of providing printing and lacquering facility to reach closer to food processors/fillers. TCIL has two Cold Rolling Mills and two electrolytic tinning lines with an installed annual production capacity of around 379 KT of tinplate and tin free steel with ~100% capacity utilisation. With growing demand for tinplate driven by rising urbanisation and penetration of organised retails, TCIL has planned to expand its capacity by additional 3,00,000 MTPA at the existing location in the next few years.

The turnover and profit/(loss) figures of TCIL for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	3,983	4,272
Profit before tax (PBT)	193	471
Profit after tax (PAT)	143	353

During FY2022-23, the production at 362 KT, was marginally lower over FY2021-22 by 12 KT and deliveries at 362 KT, were also lower by 11 KT over the previous year, primarily due to decline in demand and planned shut-down during the year. The turnover during FY2022-23 at ₹3,983 crore lower by ₹289 crore over previous year on account of decrease in average realisation along with lower deliveries. Profit after tax during FY2022-23 was ₹143 crore, lower by ₹210 crore over previous year due to lower operating profit partly attributable to decrease in realisations and higher input costs offset by higher finance income.

### Key Business Highlights

- Execution of critical capital projects like Offline induction reflow system at both Electrolytic Tinning Lines ('**ETLs**'), upgradation of pin hole detectors for both ETLs, upgradation of helper rolls drives & motors at ETL2, installation of secondary scrapping system at printing line-1.
- The collaborative work with Tata Steel Europe ('**TSE**') and Tata Steel Jamshedpur ('**TSJ**') continued leading improvement in product quality attributes and consumption efficiency improvement in Tin and Mill Rolls.
- The Environment Clearance related to the Growth plan has also been received and a dedicated team had been working on technical specifications of major packages,

which have now reached final discussion stage with suitable vendors.

- TCIL achieved its highest ever capitalisation of over ₹100 crore in FY2022-23.

**Recognition**

- TCIL was recognised as the ‘Fastest Growing Organization’ in the category of > ₹1,500 crore annual turnover at the Economic Times Corporate Awards 2023 at Kolkata.
- TCIL received the ‘Happiest Workplaces Award’ at Delhi at the Business World People Awards 2023.

**8. Tata Steel Downstream Products Limited**

Tata Steel Downstream Products Limited ('TSDPL') (formerly Tata Steel Processing and Distribution Limited) is a leader in the organised Steel Service Centre business in India. TSDPL has a pan India presence with 10 steel processing plants and 13 distribution and sales locations. Value-added offerings of TSDPL include slitting, cut-to-length, blanking, corrugation, plate burning, fabrication, component manufacturing and steel intensive products and applications. TSDPL's products and services conform to world class quality standards in meeting customers' demand. Its entire operations including supply chain runs on a state-of-the-art ERP (Enterprise Resource Planning) system.

**Key Business Highlights**

- Implementation of IT / Digital initiative Under OTON (One Tata Operating Network) programme.
- During the year under review, TSDPL continues with the EBITDA improvement initiative 'Lakshya 25' towards achieving operational efficiency and improvement in cost effectiveness resulting in significant savings in cost.
- Oracle HCM, for Human Capital Management, People Strong for Payroll Management, iValua for Materials Management / Procurement, Happay for Expense and Travel management, Anaplan for Planning and Budgeting.

The turnover and profit/(loss) figures of TSDPL for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	7,394	6,805
Profit before tax (PBT)	294	194
Profit after tax (PAT)	246	144

During the year under review, TSDPL processed around 3.4 MnT – its highest ever dispatch. TSDPL has also delivered the best ever financial performance in its history with the highest ever turnover of ₹7,394 crore and the highest ever EBITDA of ₹363 crore.

During the year under review, the production and deliveries from tolling business were at 2,422 KT, higher by 157 KT than the previous year and for distribution business, the production was at 1,048 KT, higher by 158 KT over FY2021-22 and the deliveries of distribution business stood at 1,007 KT which was higher by 113 KT attributable to the improvement in the demand. Turnover was higher by ₹588 crore mainly supported by higher sales volume. Profit after tax was higher by ₹103 crore due to higher operating profits which was primarily due to a dividend income from an affiliate.

TSDPL intends to set up a Steel Service Center at Sanand, Gujarat (West) to service customers in the western market. TSDPL also plans to foray into processing steel for Pravesh initiative. Further, several upgrades are planned for the existing plants to enhance the overall processing capacities. TSDPL also aims to enter the Steel Recycling business.

**Recognition**

TSDPL Pune unit bagged Greenco Platinum Award: first in the Indian Steel Industry.

**9. Bhubaneswar Power Private Limited**

Un-interrupted power supply and cost of power is a challenge for large power intensive process industries. Industries which produce 365 days per annum, continue to depend on thermal power plants for their base load requirements.

Bhubaneswar Power Private Limited ('BPPL') is in the business of generation of power. It owns 135 MW (2x67.5 MW) coal based power plant in Odisha. BPPL supplies 120.5 MW power to Tata Steel and Tata Steel Mining Limited.

During the year under review, BPPL has used primary coal from Mahanadi Coalfield Ltd. (MCL) at higher rate since the coal demand & spot auction price during FY2022-23 were higher compared to last year. Power Generation was lower compared to last year due to lower offtake by the customers.

The turnover and profit/(loss) figures of BPPL for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	597	516
Profit before tax (PBT)	59	52
Profit after tax (PAT)	45	39

During FY2022-23, the turnover was ₹597 crore, higher by ₹81 crore over previous year primarily due to higher energy charges attributable to increase in coal prices. The profit after tax during FY2022-23 was at ₹45 crore, which was higher by ₹6 crore over previous year primarily due to lower net finance cost.

### Recognition

Received Kalinga Environmental Excellence Award (5 Star Category) for 'Excellence in Environmental performance in Odisha' at the 7<sup>th</sup> National Seminar on Sustainable Environment & Climate Change 2022.

## 10. Tata Steel Mining Limited

Tata Steel Mining Limited ('**TSML**') is in the merchant mining business and have long term mining leases of three chromite mines viz. Sukinda, Saruabil and Kamarda in Jajpur district, Odisha. Apart from this, TSML has won the bid for Gandhalpada Iron Ore Block, which is in the stage of various statutory clearances. TSML serves the requirements of both domestic & overseas stainless steel producers. With the acquisition of erstwhile company Rohit Ferro-Tech Limited, TSML has increased its capacity of Ferro Chrome production by 1,00,000 MT. Besides addition of Ferro Chrome capacity, TSML is ramping up for Stainless Steel Production at its Bishnupur facilities.

### Key Business Highlights

- Scaled up ferro chrome production to 389 KT in FY2022-23 from 373 KT in FY2021-22.
- Implementation of e-Logistics process to automate despatch at Mines.
- Implementation of e-Sales process to automate order booking and display details to customers.
- TSML has signed an agreement with GAIL for supply of Natural Gas for replacement of Furnace Oil used in Briquetting Operations. This will lead to reduction in carbon emissions to the tune of 1,000 tonnes of CO<sub>2</sub> equivalent/year.

The turnover and profit/(loss) figures of TSML for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	5,000	4,605
Profit before tax (PBT)	(270)	(1,131)
Profit after tax (PAT)	(272)	(883)

During FY2022-23, the turnover was ₹5,000 crore (previous year ₹4,605 crore) which increased owing to higher volumes and prices of ferro chrome. During FY2022-23, TSML reported lower loss after tax amounting to ₹272 crore as against loss of ₹883 crore in previous year as previous year included provision for low grade inventory having no market value along with higher provisions for royalties as per Mine Development and Production Agreement (MDPA).

### Recognition

- TSML has received the prestigious Responsible Chromium recognition from the International Chromium Development Association (ICDA) and became the first Indian mining company to receive this prestigious international recognition.
- Odisha State Productivity Council awarded 5 Star rating in Productivity Excellence Award 2022 for Team Environment and 4 Star rating in Productivity Excellence Award-2022 for Team FAP-Gopalpur.
- TSML received recognition of Excellence in Biodiversity by Jury of CII-ITC Sustainability Awards 2022.
- Sukinda Chromite mine and FAP Gopalpur have bagged CII state level awards for SHE.
- TSML has been bestowed with Kalinga Environment Excellence Award.

## 11. Tata Steel Minerals Canada

Tata Steel Minerals Canada ('**TSMC**') is a partnership between Tata Steel (82%) and the Government of Quebec (18%). At TSMC, we mine and process high-grade iron ore from our multiple isolated hematite deposits occurring over 30 km in the Menihék region of Labrador and northern Quebec, near Schefferville, and containing from < 1 MnT to 50 MnT of high-grade ore. Fines for sintering and superfine material from our beneficiation plant are produced with a minimum iron content of 64% Fe while our DSO (Direct Shipping Ore) facilities crush, screen and dry 60%-62% Fe iron ore for direct shipping. Our product is railed to Sept-Îles (a city in Canada) for shipping to our customers worldwide.

The iron ore market remained stressed in FY2022-23. Iron ore prices continued to fall from U\$ 137 per dry metric tons (CFR) in Q1 to U\$ 101 per dry metric tons in Q2. This coupled with increase in energy prices for diesel from, significantly impacted TSMC's performance. TSMC had decided to shut-down the plant for winter maintenance starting November 2022 with aim to restrict the losses. With improving iron ore prices in Q4 and a positive outlook of improving prices, the plant resumed operations towards the end of February 2023.

The turnover and profit/(loss) figures of TSMC for FY2022-23 are as follows:

	(₹ crore)	
	FY 23	FY 22
Turnover	649	739
Profit before tax (PBT)	(1,086)	(815)
Profit after tax (PAT)	(1,086)	(815)

During FY2022-23, the turnover was ₹649 crore significantly lower over previous year by ₹91 crore (12%) owing to lower volumes and prices. During FY2022-23 reported loss before tax amounting to ₹1,086 crore as against loss of ₹815 crore in previous year primarily on account of lower operating profits and higher finance cost during the year.

## 12. Creative Port Development Private Limited

Creative Port Development Private Limited ('CPDPL') is in possession of a 54 years concession (initial 34 years which is extendable for two terms of 10 years each) from the Government of Odisha for development of a Greenfield Seaport at Chaumukh Village, in Balasore District, Odisha on a 'BOOST' basis (Build, Own, Operate, Share & Transfer). CPDPL is availing this concession through a Special Purpose Company 'Subarnarekha Port Private Limited' and is in possession of all the statutory approvals for the project. In Phase – 1, the port will have an initial capacity of 25 MnT with a potential to expand to 150 MnT. CPDPL is already in possession of the port land and is in the advanced stage of getting the required land for railway corridor and construction of access road.

During the year under review, CPDPL has made substantial progress in private land acquisition, completed the oceanographic & geo technical survey for dredging and reclamation plan, obtained certain approvals for commencement of port construction and made substantial progress on its CSR intervention plan.

## V. FINANCIAL PERFORMANCE

### 1. Tata Steel Limited (Standalone)

During FY2022-23, the Company recorded a profit after tax of ₹15,495 crore (previous year ₹33,011 crore). The decrease is primarily on account of reduction in realisations along with higher cost of production due to increase in raw material prices mainly of coking coal. Higher finance cost due to additional loans taken during the year, along with higher exceptional loss as compared to the previous year, which was partly offset by higher interest income on investments and loans to group companies. The basic and diluted earnings for the FY2022-23 were at ₹12.68 per share and ₹12.67 per share respectively (previous year: basic and diluted: ₹27.03 per share and ₹27.01 per share respectively).

The analysis of major items of the financial statements is given below:

#### a) Revenue from operations

	(₹ crore)		
	FY 23	FY 22	Change (%)
Sale of products	1,25,565	1,26,070	(0)
Sale of power and water	1,902	1,611	18
Other operating revenue	1,540	1,340	15
<b>Total revenue from operations</b>	<b>1,29,007</b>	<b>1,29,021</b>	<b>(0)</b>

During the year under review, sale of products was marginally lower as compared to that of the previous year, primarily due to decrease in realisations in domestic as well as export markets partly offset by higher deliveries. Sale of power and water increased due to higher demand and prices. Increase in other operating income was primarily on account of conversion income at FAMd.

#### b) Purchases of stock-in-trade

	(₹ crore)		
	FY 23	FY 22	Change (%)
Purchases of stock-in-trade	7,467	4,089	83

During the year under review, Purchases of stock-in-trade was significantly higher as compared to the previous financial year primarily due to higher purchase of rebars from group companies for trading along with higher scrap purchases for reducing carbon emissions including higher scrap prices. Purchases also increased at other sustainable businesses.

### c) Cost of materials consumed

(₹ crore)			
	FY 23	FY 22	Change (%)
Cost of materials consumed	54,012	35,257	53

During the year under review, cost of materials consumed increased significantly primarily due to significant increase in imported coking coal prices, along with other raw materials due to higher prices and increase in production during the year.

### d) Employee benefits expense

(₹ crore)			
	FY 23	FY 22	Change (%)
Employee benefits expense	6,616	6,366	4

During the year under review, the employee benefits expense increased primarily due to salary revisions and its consequential impact on retirement provisions.

### e) Depreciation and amortisation expense

(₹ crore)			
	FY 23	FY 22	Change (%)
Depreciation and amortisation expense	5,435	5,464	(1)

The depreciation charge during the year is at par with the previous year as the lower charge for assets fully depreciated during the year was offset by additions during the year.

### f) Other expenses

(₹ crore)			
	FY 23	FY 22	Change (%)
Other expenses	34,352	34,001	1

Other expenditure represents the following expenditure:

(₹ crore)			
	FY 23	FY 22	Change (%)
Consumption of stores and spares	9,658	6,960	39
Repairs to buildings	42	47	(11)
Repairs to machinery	4,956	3,973	25
Relining expenses	232	204	14
Fuel oil consumed	530	377	41
Purchase of power	5,346	4,286	25
Conversion charges	2,271	1,798	26
Freight and handling charges	6,606	6,632	(0)
Rent	88	86	3
Royalty	3,783	5,506	(31)
Rates and taxes	1,520	2,066	(26)
Insurance charges	228	203	13

(₹ crore)			
	FY 23	FY 22	Change (%)
Commission, discounts and rebates	290	288	1
Allowance for credit losses/provision for advances	(6)	63	(110)
Other expenses	3,327	3,970	(16)
Less :- Expenditure (other than interest) transferred to capital & other accounts	(4,519)	(2,458)	84
<b>Total Other expenses</b>	<b>34,352</b>	<b>34,001</b>	<b>1</b>

Other expenses were marginally higher as compared to the previous financial year primarily due to higher purchase of power due to increase in thermal coal prices along with higher repairs to machinery owing to higher production during the year, regular upkeep and IT implementation expenses. Higher conversion charges mainly due to conversion of pellets by subsidiary company. Moreover, there was increase in other general expenses mainly in travelling, CSR and others. These were offset by, decrease in royalty charges mainly on account of lower additional royalty on sale of iron ore along with decrease in rates of iron ore. Rates and Taxes decreased in line with lower royalty and lower electricity duty. Moreover, favourable exchange rate movement on inter-company loans/receivables resulted in gain during the current year. Consumption of stores and spares increased primarily on account of charging of project expenses for Kalinganagar Phase-II, which were majorly eliminated through transfer to capital account.

### g) Finance costs and net finance costs

(₹ crore)			
	FY 23	FY 22	Change (%)
Finance costs	3,792	2,792	36
Net Finance costs	939	1,667	(44)

During the year under review, finance costs increased primarily on account of higher interest on domestic term loans owing to fresh utilisation during the current financial year for capital expansion projects, higher interest on short-term borrowings, commercial papers and buyer's credit attributable to higher balances during the year.

Net finance charges were lower primarily on account of higher interest income on inter-corporate deposits, partly offset by higher finance cost along with and lower gain on sale of mutual funds.

### h) Exceptional items

(₹ crore)			
	FY 23	FY 22	Change (%)
Exceptional items	(779)	(235)	-

The details of exceptional items for the current year and previous year are as follows:

- Profit on sale of investments held in Subsidiaries and Joint Ventures ₹339 crore (previous year: ₹344 crore).
- Provision for Impairment of investments/doubtful advances (net of reversals) ₹1,056 crore (previous year: ₹93 crore).
- Restructuring and other provisions Nil. (previous year: ₹205 crore which primarily includes charge on Employees Family Protection Scheme for COVID-19).
- Provision for Employee Separation scheme ('ESS') under under Sunehere Bhavishya Ki Yojana ('SBKY') scheme and other schemes amounting to ₹92 crore (previous year: ₹331 crore).
- Fair valuation gain on investments amounting to ₹31 crore (previous year: gain of ₹50 crore on debentures held by the Company in one of its Joint Ventures).

#### i) Property, Plant and Equipment (PPE) including intangibles and right of use assets

	(₹ crore)		
	FY 23	FY 22	Change (%)
Property, Plant and Equipment	84,942	87,946	(3)
Capital work-in-progress	21,092	14,159	49
Goodwill	3	0	N.A.
Other Intangible assets	761	806	(6)
Intangible assets under development	515	383	35
Right of use Assets	5,480	5,538	(1)
<b>Total PPE including intangibles &amp; right of use assets</b>	<b>1,12,793</b>	<b>1,08,832</b>	<b>4</b>

The movement in total PPE including intangible is higher primarily on account of increase in capital work-in-progress mainly at Kalanganagar Phase-II and normal additions during the year, which was offset by depreciation and amortisation charge during the year.

#### j) Investments

	(₹ crore)		
	FY 23	FY 22	Change (%)
Investment in Subsidiary, JVs and Associates	28,754	29,167	(1)
Investments - Non current	15,385	14,234	8
Investments - Current	2,050	96	2,033
<b>Total investments</b>	<b>46,189</b>	<b>43,498</b>	<b>6</b>

The increase in investments was predominantly on account of increase in Non-current investments mainly due to interest accrued on preference shares of TSLP along with increase in current investments. Decrease in investments in Subsidiary, JVs and Associates is mainly on account of sale of investment in NatSteel Asia Pte. Ltd. along with provision for impairment on investments in TSH pertaining to TSUK, partly offset by increase in investment at TSML and NINL.

#### k) Inventories

	(₹ crore)		
	FY 23	FY 22	Change (%)
Finished and semi-finished goods including stock in trade	7,873	6,731	17
Work-in-progress	0	0	-
Raw materials	8,527	9,289	(8)
Stores and spares	4,396	3,923	12
<b>Total inventories</b>	<b>20,796</b>	<b>19,943</b>	<b>4</b>

Finished and semi-finished inventory increased as compared to previous year mainly due to increase in stock quantities as compared to the previous year due to higher production, along with marginally higher rates of finished and semi-finished attributable to increase in raw material prices.

Raw material inventories have decreased over the previous year primarily on account of decrease in the quantity and prices of imported coking coal and thermal coal during the year.

Stores and spares inventory increased due to higher requirement.

#### l) Trade receivables

	(₹ crore)		
	FY 23	FY 22	Change (%)
Gross trade receivables	3,556	3,453	3
Less: allowance for credit losses	204	173	18
<b>Net trade receivables</b>	<b>3,352</b>	<b>3,280</b>	<b>2</b>

Trade receivables increased marginally as compared to that of the previous year primarily due to increase at profit centres primarily at New Material Business on account of higher sales and at FAMD in group company receivables for conversion income, partly offset by decrease in receivables from domestic steel customers due to higher financing and lower export debtors.

### m) Gross debt and Net debt

	(₹ crore)		
	FY 23	FY 22	Change (%)
Gross debt	42,372	36,525	16
Less: Cash and Bank balances (incl. non-current balances)	1,153	2,935	(61)
Less: Current investments	2,050	96	2,033
<b>Net debt</b>	<b>39,169</b>	<b>33,494</b>	<b>17</b>

Gross debt was higher due to utilisation of various term loans and issue of Debentures during the year majorly for funding expansion projects, partly offset by repayment of short-term loan during the year.

Net debt was comparatively higher as compared to previous year. This is attributable to increase in the gross debt along with decrease in cash and bank balances, partly offset by increase in current investments.

### n) Cash Flows

	(₹ crore)		
	FY 23	FY 22	Change (%)
Net cash from/(used in) operating activities	14,227	41,986	(66)
Net cash from/(used in) investing activities	(11,061)	(34,168)	68
Net cash from/(used in) financing activities	(4,979)	(7,368)	32
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>(1,813)</b>	<b>450</b>	<b>(503)</b>

#### Net cash flow from/(used in) operating activities

During the year under review, the net cash generated from operating activities was ₹14,227 crore as compared to ₹41,986 crore during the previous year. The cash inflow from operating profit before working capital changes and direct taxes during the current year was ₹25,365 crore as compared to inflow of ₹50,307 crore during the previous year due to decline in operating profits. Cash outflow from working capital changes in 2022-23 is mainly due to decrease in Non-current/current financial and other liabilities/provisions by ₹4,556 crore primarily due to decrease in trade payables for coal purchases, along with increase in inventories by ₹1,012 crore primarily due to increase in quantities. Increase in Non-current/Current financial and other assets by ₹679 crore, intradereceivables and other advances with public bodies. The income taxes paid during the current year was ₹4,891 crore as compared to ₹11,240 crore (net of refund received for earlier years) during previous financial year.

#### Net cash flow from/(used in) investing activities

During the year under review, the net cash outflow from investing activities amounted to ₹11,061 crore as compared to ₹34,168 crore during the previous year. The outflow during the current year broadly represents capex of ₹8,555 crore, investments in subsidiaries ₹1,246 crore mainly in Tata Steel Mining Limited and Neelachal Ispat Nigam Limited, Inter Corporate Deposits given net of realisation amounting to ₹676 crore, purchase of current investments ₹1,822 crore, partly offset by net sale of investments of ₹1,112 crore which primarily includes sale of NatSteel Asia Pte. Ltd.

#### Net cash flow from/(used in) financing activities

During the year under review, the net cash outflow from financing activities was ₹4,979 crore as compared to an outflow of ₹7,368 crore during the previous year. The outflow during the current year broadly represents payment of dividend ₹6,233 crore and payment of interest ₹3,856 crore. The outflow was partly offset by, additional loans taken during the year including finance lease (net of repayments) ₹5,123 crore as against net repayment of borrowings of ₹1,033 crore in the previous year.

### o) Changes in Key Financial Ratios

The change in the key financial ratios as compared to previous year is stated below:

	(₹ crore)		
	FY 23	FY 22	Change (%)
Inventory Turnover <sup>1</sup> (days)	59	47	26
Debtors Turnover (days)	9	9	0
Current Ratio <sup>2</sup> (Times)	0.86	0.62	38
Interest Coverage Ratio <sup>3</sup> (Times)	10.40	22.84	(54)
Debt Equity (Times)	0.33	0.33	(2)
Net Debt Equity (Times)	0.30	0.30	(1)
EBITDA Margin <sup>4</sup> (%)	21.84	39.88	(45)
Net Profit Margin <sup>5</sup> (%)	12.01	25.59	(53)
Return on average Net Worth <sup>5</sup> (%)	11.91	29.93	(60)

- 1) Inventory Turnover Ratio:** Increased primarily on account of increase in average inventory during the current year and previous year owing to increase in prices of raw materials primarily coking coal.
- 2) Current Ratio:** Increased primarily on account of reduction in current liabilities and provisions primarily for raw materials.



- 3) **Interest Coverage Ratio:** Decreased primarily on account of decline in operating profits along with higher finance cost due to increase in loans.
- 4) **EBITDA Margin:** Decreased primarily on account of decline in operating profits primarily on account of higher raw material cost and lower steel realisations.
- 5) **Net Profit Margin and Return on average net worth:** Decreased primarily on account of decrease in net profits mainly attributable to lower operating profits during the current year.
2. **Tata Steel Limited (Consolidated)**

The consolidated profit after tax of the Company was ₹8,075 crore as against ₹41,749 crore in the previous year. The decrease was mainly due to lower operating profits attributable to increase in raw material prices primarily of coking coal along with reduction in steel prices across geographies except Europe during the year and increase in finance cost due to additional loans at Tata Steel Standalone. Tax expenses was higher during the year due to higher non cash deferred tax charge at TSE mainly on account of de-risking of pension liabilities as compared to a credit in the previous year primarily attributable to TSBSL merger. The basic and diluted earnings for FY2022-23 were at ₹7.17 per share (previous year: basic and diluted: ₹33.24 per share and ₹33.21 per share respectively).

The analysis of major items of the financial statements is given below.

(Note: On September 30, 2021, T S Global Holdings Pte. Ltd. ('TSGH') (an indirect wholly-owned subsidiary of the Company) divested its entire stake in NatSteel Holdings ('NSH'), while the wires business in Thailand which was owned by NSH was retained within the Group. The performance of Neelachal Ispat Nigam Ltd. ('NINL') is included in the FY2022-23 as the company started its operations during the year post acquisition.)

#### a) Revenue from operations

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	1,29,007	1,29,021	(0)
TSE	90,300	90,023	0
TSLP	8,992	6,802	32
South-East Asia	9,189	12,195	(25)
Others	97,808	82,269	19
Eliminations & adjustments	(91,943)	(76,351)	(20)
<b>Total revenue from operations</b>	<b>2,43,353</b>	<b>2,43,959</b>	<b>(0)</b>

The consolidated revenue from operations was marginally lower as compared to the previous year primarily due

to significant decline in realisations across geographies except Europe. Deliveries were lower mainly at European operations, due to weakening of demand and at South-East Asia due to sale of NatSteel Holdings Pte. Ltd. ('NSH') in FY2021-22. This was partly offset by higher deliveries at Tata Steel standalone operations.

Revenue at TSLP increased due to acquisition of NINL during the year. Revenues at TSE increased in GBP terms by 5% due to improved average revenue per tonne which more than offset the lower deliveries. Adverse exchange impact on translation had an offsetting impact on the increase at TSE. Others primarily include increase at TS Global Procurement which are majorly eliminated on consolidation.

#### b) Purchases of stock-in-trade

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	7,467	4,089	83
TSE	3,428	4,883	(30)
TSLP	-	-	N.A.
South-East Asia	4,616	7,425	(38)
Others	10,240	9,733	5
Eliminations & adjustments	(10,637)	(10,817)	2
<b>Total purchases of stock-in-trade</b>	<b>15,114</b>	<b>15,313</b>	<b>(1)</b>

Purchases were lower at South-East Asia (SEA) due to divestment of Singapore operations at NatSteel Holdings in FY2021-22, along with lower billet production at Thailand in the current year. Purchases decreased at TSE due to lower external purchases consistent with decline in deliveries. Increase at Tata Steel (Standalone) attributable to increase in purchases of scrap owing to higher quantities coupled with higher prices along with higher purchase of rebars from group companies for trading and increase at other sustainable businesses.

#### c) Cost of materials consumed

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	54,012	35,257	53
TSE	38,982	35,306	10
TSLP	6,853	3,930	74
South-East Asia	1,795	1,248	44
Others	76,972	62,082	24
Eliminations & adjustments	(77,131)	(62,059)	(24)
<b>Total cost of materials consumed</b>	<b>1,01,483</b>	<b>75,764</b>	<b>34</b>

Consumption was higher across all major entities mainly due to higher cost of consumption of imported coal & other raw materials owing to higher prices and higher consumption due to higher production. TSE reported increase in GBP terms primarily due to higher coal and coke prices. Increase at TSLP was mainly due to acquisition of NINL and higher coal prices.

Others primarily reflects increase in transactions at T S Global Procurement due to increase in coal prices, which are majorly eliminated on consolidation.

#### d) Employee benefits expense

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	6,616	6,366	4
TSE	13,687	14,879	(8)
TSLP	391	216	80
South-East Asia	318	554	(43)
Others	1,261	1,171	8
Eliminations & adjustments	146	78	87
<b>Total employee benefits expense</b>	<b>22,419</b>	<b>23,264</b>	<b>(4)</b>

Decrease in expenses was mainly at TSE primarily due to decrease in variable pay provisions due to reduced profitability along with favourable exchange impact on translation.

Decrease at SEA was mainly due to divestment of Singapore operations at NSH in the previous year, along with lower variable pay provisions at Thailand.

Increase in expenses at Tata Steel (Standalone) was mainly due to salary revisions and its consequential impact on retirement provisions. Increase at TSLP was attributable to acquisition of NINL during the year.

#### e) Depreciation and amortisation expense

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	5,435	5,464	(1)
TSE	2,387	2,451	(3)
TSLP	716	320	124
South-East Asia	92	199	(53)
Others	795	735	8
Eliminations & adjustments	(90)	(68)	(32)
<b>Total depreciation and amortisation expense</b>	<b>9,335</b>	<b>9,101</b>	<b>3</b>

Expense was higher than the previous year mainly on account of increase in depreciation charge at TSLP due to acquisition of NINL during the year, partly offset by

decrease at SEA due to sale of NatSteel Holdings Pte. Ltd. ('NSH') in the previous year.

#### f) Other expenses

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	34,352	34,001	1
TSE	30,958	27,910	11
TSLP	2,871	1,562	84
South-East Asia	1,831	2,195	(17)
Others	9,278	11,831	(22)
Eliminations & adjustments	(3,895)	(3,773)	3
<b>Total other expenses</b>	<b>75,395</b>	<b>73,726</b>	<b>2</b>

Other expenditure represents the following expenditure:

	(₹ crore)		
	FY 23	FY 22	Change (%)
Consumption of stores and spares	21,475	15,959	35
Repairs to buildings	90	117	(23)
Repairs to machinery	11,584	9,572	21
Relining expenses	339	320	6
Fuel oil consumed	1,467	1,057	39
Purchase of power	8,060	6,971	16
Conversion charges	3,092	2,866	8
Freight and handling charges	12,648	12,139	4
Rent	2,923	2,672	9
Royalty	6,924	9,311	(26)
Rates and taxes	1,971	2,517	(22)
Insurance charges	696	481	45
Commission, discounts and rebates	357	326	10
Allowance for credit losses/provision for advances	10	83	(88)
Other expenses	8,883	12,225	(27)
Less :-Expenditure (other than interest) transferred to capital & other accounts	(5,124)	(2,890)	77
<b>Total Other expenses</b>	<b>75,395</b>	<b>73,726</b>	<b>2</b>

Expenses were marginally higher at Tata Steel (Standalone) primarily due to higher purchase of power due to increase in thermal coal prices, higher repairs to machinery, higher conversion charges. Other general expenses increased mainly in travelling, CSR. Offset by, decrease in royalty charges mainly on account of lower additional royalty on sale of iron ore along with lower rates and taxes. Moreover, favourable exchange rate movement on inter-company loans/receivables resulted in gain during the current year.

TSE reported increase mainly on account of higher consumption of stores & spares primarily on account of

higher prices of gases (energy cost) and higher ferro alloys prices, higher repairs to machinery and higher freight and handling charges increased at TSLP mainly due to acquisition of NINL during the year.

Decrease at SEA was mainly due to divestment of Singapore operations at NSH in the previous year, partly offset by higher expenses at Thailand attributable to higher fuel cost and higher power costs due to increased tariffs.

Decrease in Others was mainly at T S Global Holdings Pte Ltd. due to lower foreign exchange loss on account of change in functional currency during the year.

### g) Finance costs

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	3,792	2,792	36
TSE	1,296	1,945	(33)
TSLP	1,387	110	1,162
South-East Asia	15	34	(56)
Others	5,583	4,158	34
Eliminations & Adjustments	(5,774)	(3,577)	61
<b>Finance costs</b>	<b>6,299</b>	<b>5,462</b>	<b>15</b>

### h) Net Finance costs

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	939	1,667	(44)
TSE	1,166	1,480	(21)
TSLP	1,207	83	1,347
South-East Asia	3	30	(91)
Others	2,352	1,797	31
Eliminations & Adjustments	(8)	(40)	(79)
<b>Net Finance costs</b>	<b>5,659</b>	<b>5,017</b>	<b>13</b>

Finance cost increased by 15% primarily at Tata Steel (Standalone) was mainly on account of higher interest on domestic term loans owing to fresh utilisation during the current financial year for capital expansion projects along with higher interest on short-term borrowings, commercial papers and buyer's credit.

Increase at TSLP was primarily due to issue of preference shares for NINL acquisition, eliminated on consolidation.

Decrease at TSE was mainly due to lower debt levels attributable to repayments during the year and in previous year.

Decrease at SEA was primarily due to divestment of NSH in Q2 FY2021-22 and reduction in finance charges at TSTH.

Net finance charge was higher in line with higher finance cost due to increase in loan over the period.

### i) Exceptional items

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	(779)	(235)	N.A.
TSE	201	(248)	N.A.
TSLP	(2)	(27)	N.A.
South-East Asia	(48)	(18)	N.A.
Others	0	21	N.A.
Eliminations & Adjustments	741	373	N.A.
<b>Total exceptional items</b>	<b>113</b>	<b>(134)</b>	<b>N.A.</b>

Exceptional items during FY2022-23 primarily represents:

- Gain on sale of non-current investments at TSE amounting to ₹67 crore.
- Impairment reversal ₹96 crore at TSE on deferred consideration of Speciality Business.
- Net impairment reversal in respect of property, plant and equipment (including capital work-in-progress), right-of-use assets and other assets at TSE ₹37 crore.
- Fair valuation gain on non-current investments amounting to ₹31 crore at Tata Steel Limited (Standalone).

Partly offset by,

- Net Provision for ESS amounting to ₹92 crore under SBKY scheme at Tata Steel Limited (Standalone).
- Expenses incurred in stamp duty and registration fees for a portion of land parcels and mines acquired as part of business combination amounting to ₹2 crore at TSLP.
- Impairment of Mini Blast Furnace at TSTH amounting to ₹11 crore.
- Net impairment charge of ₹12 crore on ICDs & investments in one of the associates at Tata Steel Limited (Standalone).

The exceptional items in FY2021-22 primarily represents:

- Restructuring and other provisions includes charge on Employees Family Protection Scheme for COVID-19 amounting to ₹215 crore at Tata Steel Limited (Standalone), TSDPL and at Tata Steel Utilities and Infrastructure Limited ('**TSUISL**').
- Expenses incurred in stamp duty and registration fees for a portion of land parcels and mines acquired as part of business combination amounting to ₹27 crore at TSLP.

- Redundancy provisions at TSE amounting to ₹14 crore.
- Impairment charges (net of reversal) ₹172 crore in respect of property, plant and equipment (including capital work-in-progress), right-of-use assets and other assets primarily at TSE and TSTH.
- Net Provision for ESS amounting to ₹331 crore primarily under Second Innings Scheme ₹123 crore along with charge for ESS under SBKY scheme amounting to ₹208 crore at Tata Steel Limited (Standalone).
- Impairment of ICDs given to some of the Joint Ventures of the Company ₹100 crore at Tata Steel Limited (Standalone).
- Impairment on outstanding deferred consideration at TSE ₹81 crore.

Partly offset by,

- Profit on sale of subsidiaries and non-current investments in NSH ₹725 crore.
- Reversal of fair valuation loss previously taken on investment in debentures of a joint venture of the Company amounting to ₹50 crore at Tata Steel Limited (Standalone).
- Gain on sale of land amounting to ₹31 crore at Tata Metaliks Limited.

#### j) Property, Plant and Equipment (PPE) including intangibles and right of use assets

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	1,12,793	1,08,832	4
TSE	31,048	26,246	18
TSLP	15,511	4,132	275
South-East Asia	1,029	969	6
Others	12,904	11,823	9
Eliminations & adjustments	(1,049)	(980)	(7)
<b>Total PPE including intangibles &amp; right of use assets</b>	<b>1,72,236</b>	<b>1,51,022</b>	<b>14</b>

PPE and intangibles increased by 14% primarily due to acquisition of NINL by TSLP during the year. Increased at Tata Steel Standalone due to increase in capital work-in-progress mainly at Kalinganagar Phase-II and normal additions during the year, which was offset by depreciation and amortisation charge during the year. Increase at TSE was on account of fresh additions in plant and machinery during the year and in capital work in progress offset by depreciation and amortisation charge during the year.

Increase at Others was mainly on account of additions at Tata Steel Mining Limited post acquisition of Rohit Ferro-Tech Limited during the year.

#### k) Inventories

	(₹ crore)		
	FY 23	FY 22	Change (%)
Finished and semi-finished goods including stock in trade	17,488	16,131	8
Work-in-progress	9,439	6,602	43
Raw materials	20,795	20,441	2
Stores and spares	6,693	5,650	18
<b>Total Inventories</b>	<b>54,415</b>	<b>48,824</b>	<b>11</b>

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	20,796	19,943	4
TSE	25,226	22,622	12
TSLP	2,336	1,350	73
South-East Asia	1,200	1,385	(13)
Others	5,038	3,921	28
Eliminations & Adjustments	(181)	(397)	55
<b>Inventories</b>	<b>54,415</b>	<b>48,824</b>	<b>11</b>

Increase was primarily at TSE attributable to build-up of slab inventory at IJmuiden in order to support operations during an extended outage for the Blast Furnace 6 reline at the start of FY2023-24. Increase at Tata Steel Standalone mainly on account of increase in quantities and rates of Finished and semi-finished inventory owing to higher production. Raw material inventory decreased due to lower quantities of imported coking and thermal coal.

Increase at TSLP was primarily on account of acquisition of NINL during the year.

Decrease in SEA was primarily due to lower stock quantities on account of lower production.

Increase in others was primarily on account of higher inventory at Tata Steel Mining Limited.

#### l) Trade receivables

	(₹ crore)		
	FY 23	FY 22	Change (%)
Tata Steel (Standalone)	3,352	3,280	2
TSE	4,782	8,611	(44)
TSLP	196	60	224
South-East Asia	1,017	1,103	(8)
Others	10,730	11,716	(8)
Eliminations & adjustments	(11,820)	(12,524)	6
<b>Net trade receivables</b>	<b>8,257</b>	<b>12,246</b>	<b>(33)</b>

Decrease was primarily at TSE mainly due to sharp decline in steel prices towards the second half of the financial year. Increase at Tata Steel (Standalone) was primarily at profit centres majorly from new material business due to increase in sales. Decreased at SEA mainly at Siam Industrial Wire Co. Ltd. due to higher collection. Decrease in Others was primarily at Tata Steel Global Procurement ('TSGP') majorly eliminated on consolidation.

#### m) Gross debt and Net debt

	(₹ crore)		
	FY 23	FY 22	Change (%)
Gross debt	84,893	75,561	12
Less: Cash and Bank balances (incl. non-current balances)	13,453	15,988	(16)
Less: Current investments	3,630	8,524	(57)
<b>Net debt</b>	<b>67,810</b>	<b>51,049</b>	<b>33</b>

Net debt was higher by ₹16,761 crore over previous year.

Gross debt at ₹84,893 crore was higher by ₹9,332 crore as compared to the previous year. Increase in gross debt was mainly on due to net drawal of new term loans and Debentures primarily at Tata Steel Standalone for funding expansion projects. The increase was further expanded by adverse exchange rate movements on the borrowings.

The increase in Net Debt was in line with increase in gross debt along with decrease in cash and cash equivalents including current investments mainly at TSLP post NINL acquisition, partly offset by increase at TSE and Siam Industrial Wire Co. Ltd.

#### n) Cash Flows

	(₹ crore)		
	FY 23	FY 22	Change (%)
Net Cash from/(used in) operating activities	21,683	44,381	(51)
Net Cash from/(used in) investing activities	(18,679)	(10,881)	(72)
Net Cash from/(used in) financing activities	(6,981)	(23,401)	70
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>(3,977)</b>	<b>10,099</b>	<b>(139)</b>

#### Net cash flow from/(used in) operating activities

During the year under review, the net cash from operating activities was ₹21,683 crore as compared to ₹44,381 crore during the previous year. The cash inflow from operating profit before working capital changes and direct taxes

during the current year was ₹30,908 crore as against ₹65,900 crore during the previous year reflecting decline in operating profits during the current year. Cash outflow from working capital changes during the current period was ₹3,707 crore primarily due to increase in inventory by ₹4,031 crore, decrease in Non-current/Current financial and other liabilities/provisions by ₹3,069 crore, partly offset by, decrease in current/non-current financial assets by ₹3,394 crore. The payments of income taxes during the year under review were ₹5,519 crore as compared to ₹11,902 crore during the previous year mainly at Tata Steel Standalone.

#### Net cash flow from/(used in) investing activities

During the year under review, the net cash outflow from investing activities was ₹18,679 crore as against an outflow of ₹10,881 crore during the previous year. The outflow during the year broadly represents capex of ₹14,142 crore and acquisition of subsidiaries/business undertakings amounting to ₹10,569 crore, majorly NINL. Offset by Sale (net of purchase) of current investments amounting to ₹5,189 crore. Inflow on account of interest and dividend receipt ₹565 crore.

#### Net cash flow from/(used in) financing activities

During the year under review, net cash outflow from financing activities amounted to ₹6,981 crore as against outflow of ₹23,401 crore during the previous year. The net outflow primarily represents payment of dividend ₹6,293 crore and interest payment ₹6,120 crore partly offset by proceeds from borrowings (net of repayments including finance lease) ₹5,428 crore.

#### o) Changes in Key Financial Ratios

The change in the key financial ratios as compared to previous year is stated below:

	(₹ crore)		
	FY 23	FY 22	Change (%)
Inventory Turnover <sup>1</sup> (days)	79	62	27
Debtors Turnover (days)	15	16	(6)
Current Ratio (Times)	1.01	1.07	(5)
Interest Coverage Ratio <sup>2</sup> (Times)	6.01	12.82	(53)
Debt Equity (Times)	0.76	0.78	(2)
Net Debt Equity (Times)	0.61	0.52	16
EBITDA Margin <sup>3</sup> (%)	13.44	26.16	(49)
Net Profit Margin <sup>4</sup> (%)	3.32	17.11	(81)
<b>Return on average Net Worth <sup>4</sup> (%)</b>	<b>7.27</b>	<b>42.91</b>	<b>(83)</b>

- 1) **Inventory Turnover Ratio:** Increased primarily on account of increase in average inventory during the current year and previous year owing to increase in prices of raw materials primarily coking coal.
- 2) **Interest Coverage Ratio:** Decreased primarily on account of decline in operating profits along with higher finance cost due to increase in loans.
- 3) **EBITDA Margin:** Decreased primarily on account of lower operating profits across geographies due to increase in raw material costs mainly coking coal and lower steel realisations in India.
- 4) **Net Profit Margin and Return on average net worth:** Decreased primarily on account of decline in net profits mainly attributable to lower operating profits and higher net finance charge.

## VI. Strategy

The year under review saw a challenging external environment due to lack of buoyancy in commodity markets. Raw material prices have also been unfavourable due to its high volatility caused by on-going Russia-Ukraine crisis and periodic COVID-19 outbreaks in China. After a steep decline in first half of the year, steel prices have marginally improved during the latter part of the year.

Despite various headwinds, the Company has maintained focus on strengthening the balance sheet and executing the growth plans in India. Tata Steel remained dedicated to achieving its goal of becoming the most respected and valuable steel company globally.

Tata Steel showed resilience in a testing environment and maintained a strong balance sheet. Also, the Company has successfully maintained its investment grade credit rating. Simplification of portfolio continues with merger of subsidiaries including Tata Steel Long Products Limited and the Tinplate Company of India Limited into Tata Steel.

The Company remains committed to achieve its 2030 growth plan. The following objectives will help achieve the Company's goals:

### Market Leadership in India:

Structural factors such as rapid urbanisation, infrastructure investment growth, domestic manufacturing push and increasing affordability are driving demand for steel in India. Demand growth coupled with large raw material reserves and strong base of technically skilled manpower, gives structural advantages for steel industry growth. Tata

Steel plans to leverage this growth potential through organic expansion. The Company is well on its track to double its India production capacity by 2030. In the year under review, TSL restarted the steel manufacturing unit of NINL, which was completed within 3 months of acquisition. This will facilitate achieving the objective of balancing the product portfolio between longs and flats. In FY2022-23, the Company made good progress in TSK phase 2 project which will help produce the necessary volumes and grades of steel to serve evolving customer needs. Projects supporting the raw material sufficiency are also well on track.

Becoming an industry leadership will require further work in the areas of digital adoption, deepening understanding of changing consumer behaviour, and building a culture of customer obsession throughout the organisation. Key attributes of leadership are focused on delivering innovative products & services, serving existing and emerging customer needs and providing the best customer experience.

### Consolidate position as global cost leader:

Raw material prices and Steel prices have been extremely volatile due to the ongoing Russia-Ukraine conflict and changes in the Chinese steel demand outlook. To remain ahead in these uncertain times, it is imperative to focus on both operational and structural cost improvement initiatives. This is enabled by focussing on three types of initiatives in India and International sites. First is operational cost saving through programmes such as Aspire and Shikhar25, Tata Steel has achieved global/Indian benchmark levels on multiple operating KPIs by process improvements. Second type of initiatives are through structural cost reduction, viz Investments in augmenting the raw material portfolio to meet increasing demand, strengthening logistics networks and fixed cost reduction, etc. The idea is to use digital solutions, technology, and infrastructure to enable cost efficiencies. Third type of initiatives are about Simplification, e.g Tata Steel is in the process of merging its subsidiaries including Tata Steel Long Products Limited and The Tinplate Company of India Limited and separated operations in UK and the Netherlands. These strategic changes will also enhance synergy opportunities across the group.

### Attain leadership position in adjacent businesses:

Customer expectation and technologies are both evolving at an unprecedented pace, creating opportunities for growth in businesses adjacent to the Steel industry. The approach is to differentiate through deep understanding

of customer needs, relevant technology based solutioning and developing relevant capabilities through the eco-system. Adjacent businesses where the Company aspires to attain leadership positions are:

- 1) **Services & Solutions ('S&S'):** Leveraging the Company's extensive experience to create solutions for construction and household applications such as doors, windows, and housing solutions.
- 2) **New Materials Business ('NMB'):** Leveraging trends such as light-weighting, the Company is working to strengthen its non-steel materials business. These businesses which are high on technology intensity, provides a unique opportunity for the Company to offer boutique solutions to the consumer. Currently, Tata Steel is focused on materials such as, fibre reinforced polymer, composites, medical materials, and graphene.
- 3) **Commercial Mining:** The Government's 'Atmanirbhar Bharat' Programme, regulatory changes, and the need to meet captive raw material requirements beyond 2030 have encouraged the Company to pursue a sustainable mining business. Tata Steel's rich expertise of mining is the core foundation of creating large scale commercial mining business.

**Leadership in sustainability:** Tata Steel recognises that sustainability is a significant challenge for hard to abate industries, like steel. For this, the Company aspires to take leadership role in the following areas: reduction in specific carbon emission intensity across the value chain, reduction in specific water consumption, reduction of specific dust emissions, enhancing circular economy as a business model, and enriching the biodiversity in areas of our operations. The Company has set ambitious targets in each of these areas and achieving these targets will require the adoption of innovative technologies and the use of new business models.

**Strategic enablers:**

The Company has identified 4 Strategic enablers to enable achieving its Strategic objectives. The first one is being the best place to work for in Manufacturing in India. This will support the Company to attract and retain talent, that is future ready. This involves having empowering policies, developing best-in-class infrastructure, and having a healthy and safe environment for all employees. Tata Steel is deploying technology and process intervention to achieve this objective.

The second strategic enabler is being a digital leader in steel industry globally. Adopting a digital first approach shall help the Company to unlock value at multiple levels. The Company has made significant strides in this regard. Tata Steel is one of the few enterprises in the world with three manufacturing sites in the Global Lighthouse network by World Economic Forum. Tata Steel is also scaling its various digital initiatives for customers and partners across the globe.

The Company recognises that technology led differentiation in products and processes is going to be key to attain and sustain a leadership position in the industry. To this effect, Tata Steel aspires to be among the top 5 in steel technology globally, as its third strategic enabler. This will enable the Company in meeting emerging needs of existing and new segments and challenges viz. reduction of CO<sub>2</sub> and other Green House gas emissions.

The fourth strategic enabler focuses on fostering a culture which makes Tata Steel future-ready. Tata Steel has embedded culture of, TQM & continuous improvement, safety, ethics, environment consciousness and giving back to the community in the DNA of the organisation. To remain continuously future ready, Tata Steel is working on various initiatives to nurture the culture of Agility, Innovation, while deepening strategic orientation in the organisation.

**VII. Human Resource Management and Industrial Relations.**

At Tata Steel, leveraging human capital is a key business imperative and the principle of always putting people first guides the Company's policies. Our constant endeavour is to foster a work culture that promotes collaboration, innovation, high performance, and agility. This has led us on a path of a new world of possibilities, requiring us to work on a new set of challenges for a future-ready workforce.

We have 100+ years of a strong legacy of working in alliance with our various stakeholders. With an aim of encouraging open communication, diverse thinking, and advocacy, a new union was formed and recognised at Tata Steel Kalinganagar for the first time. We strongly believe that this historic move will further strengthen our culture of working together and in joint consultation.

With an intent to break the barriers, provide equitable opportunities to historically excluded groups, and catapult them to the mainstream, Tata Steel has maintained its strong focus on Diversity, Equity, and Inclusion. We

recruited 1,100+ diverse talents, which includes a focused hiring effort of bringing 100+ transgender employees into the organisation; a one-of-its-kind and pioneering initiative. The Queerious Challenge was launched to open opportunities for young queer talent across the country contesting in a case study competition which resulted in scholarship awards, internship opportunities, and pre-placement offers.

For our consistent efforts towards overcoming Industry stereotypes, Tata Steel has been recognised as Global Diversity Equity & Inclusion (DEI) Lighthouse 2023 by World Economic Forum (WEF). We also have been recognised as one of the 'Gold Standard' Organisations by the India Workplace Equity Index and have been adjudged as the 'winner' by 'SHRM HR Excellence Awards 2022' in the category of 'Excellence in Diversity & Inclusion'.

To bring further alignment with the cultural ethos of the organisation and to leverage our internal talent, we introduced agile behavioural assessments and Employee Referral Programme.

The organisation has been consistently working towards enabling career growth and learning opportunities for its people. stepUP, our AI-driven internal talent marketplace has been facilitating people with projects and mentoring opportunities. To empower people to take charge of their careers and invest in their aspirations, the scope of stepUP was extended with full-time roles, where people with the right skillset can seize the opportunity and have a chance at horizontal mobility. Ongoing learning and capability development practices were expanded in terms of reach and coverage, and new initiatives were launched to keep up with the rapidly evolving skilling needs. 16 new Schools of Excellence (SoEs) were added in areas such as operations, maintenance, mining, Engineering and Projects, and digital domains taking the total number of ongoing Schools to 41. Some of the older SoEs graduated to the 'Advanced' level in their journey to create experts in various domains. Partnerships were initiated with renowned content providers and new learning platforms to offer more choices to learners and enhance their upskilling experience. An 'Executive Diploma Programme in Projects & Construction Management' in collaboration with National Institute of Construction Management and Research (NICMAR) has been launched to strengthen in-house capabilities in the Engineering and Projects area. The conscious adoption of 'VR and simulation-based training' has enabled experiential learning for our employees. About 2,000 cadre trainees were trained on functional and transformational skills to make them job

ready. The organisation onboarded dedicated batches of trans-gender & AA community trainees, reflecting its focused priorities around diversity and affirmative action. Vendor skill development was also given greater focus, with almost 1,00,000 assessments being carried out across all TSL locations. With all these efforts and many more, almost 90% of the entire employee base could be impacted through one or more learning interventions. The organisation won the 'Regional' round in the 'Industry' and 'Student' categories of the World Steel Championship and will be competing in the World Championship organised by World Steel Association. It was also awarded the '1st Position' for the 'Best Establishment 2023' with 39 medals in the 33<sup>rd</sup> CII National Skill Competition.

We are continuously reimagining ways to fulfil changing employee needs and expectations by providing contextual people experience through impactful initiatives. We rolled out 'Moments that Matter' as an initiative to capture the various impactful moments of an employee's life, like work anniversaries, parenthood, etc. We revamped our recognition mechanism to include experiential rewards and provide a unified experience across our employee segments. TSL has been investing in optimising business processes and systems through automation, mechanisation, and digitalisation. This has helped improve the overall productivity from 850 tonnes of crude steel/employee/year to 885 tonnes of crude steel/employee/year.

For its continuous commitment towards a progressive people-first approach, Tata Steel has been recognised as a Great Place to Work<sup>®</sup> for the 6<sup>th</sup> consecutive year. As we look ahead, we are confident that our talented and dedicated workforce will enable us to achieve our goals and make a positive impact on our customers, community, and the world.

## VIII. Digital Transformation

At Tata Steel, we continue to focus & invest towards our commitment to Cloud, Data, Artificial Intelligence journey of digital transformation towards the Strategic Enabler 2 of Digital Leadership in the steel industry globally by 2025 (SE2).

Our investments in the business priority led - digitally enabled business transformation have paid us rich dividends. We have seen efficiency gains and are building newer ways of working that enable talent fungibility, safety, collaboration, and improved working conditions. As we deploy these templates across, we expect benefits of simplicity, synergy, scale, sustainability to kick-in



thereby driving productivity, throughput & organisational agility. Like digital has changed many business models in other industries, our Company is also harnessing its power to build connected business platforms that help us speed up new product development, optimise our operations & supply chain end-to-end, enhance worker safety, drive speed and agility to optimise cash flows, and build best-in-class hyper-personalised customer, vendor, and employee experience.

We have made significant progress on data maturity as evidenced by the DATOM™ 2022 assessment which put our Company as a forerunner for data excellence. Our Company is now on its way to the next level of optimisation where data driven decisions and insights form a core part of our daily and strategic work. We have undertaken concrete steps to ensure we have the requisite richness in data quality to build a connected, and intelligent enterprise that is able to exploit the full potential of its data using the fast-growing capabilities of Artificial Intelligence – the next level of transformation where AI will be offered as a service.

Generative AI, which has seen a non-linear progression during the last financial year, is expected to play a pivotal role in unlocking the latent potential of data. Our Company is engaging with best-in-class AI ecosystems across the world to lead this wave of change in the manufacturing industry that will see us move from an integrated and connected enterprise towards an integrated inter-operable ecosystem with a harmonised human-machine interface.

In this rapidly evolving tech. ecosystem, competition for hiring & retaining top tech. talent is likely to intensify. Our Company is well-placed to ride this cycle. Deep engagements with premier institutes across the country, supported by our well-recognised Management Trainee programmes, coupled with our robust lateral hiring programmes are allowing us to on-board the best tech talent to sustain our digital transformation journey. Tie-ups with global training & courseware platforms, and various in-house data & technology schools of excellence are providing our employees unparalleled opportunities to upskill & cross-skill themselves to stay ahead of the curve. Business model innovations underpinned by our past investments are allowing us to ensure our employees have top quality engagements while transactional work is outsourced, to bring work to the employee irrespective of location in the form of work from home, virtual command centres for manufacturing & mining creating benchmark employee engagement scores.

Well-entrenched governance structures and processes continue to ensure that there is rigour as well as management timeshare on the transformation with a dedicated team focussing exclusively on digital projects under the broader Shikhar25 umbrella.

With our Company's increasing digital footprint, the risk of Cybersecurity breaches is also going up. Our Company will continue to inculcate a culture of safe cyber-behaviour by all stakeholders in the organisation as this will be critical to ensure uninterrupted business operations.

## **IX. Corporate Finance**

In January 2022, the International Monetary Fund (IMF) had estimated the global growth for 2022 and 2023 at 4.4% and 3.8% respectively. However, during the year, the global growth estimates for 2022 were reduced to 3.4% due to outbreak of the Russia-Ukraine War and monetary tightening by central banks to fight inflation.

In April 2023, IMF revised the global growth estimates for 2023 and 2024 at 2.8% and 3.0% respectively. The rise in central bank rates to fight inflation and Russia-Ukraine war in Ukraine continue to weigh on economic activity. The rapid spread of COVID-19 in China dampened growth in 2022, but the reopening has paved the way for a faster-than-expected recovery. The balance of risks has shifted firmly to the downside so long as the financial sector remains unsettled. Upside risks include renewed easing of supply chain bottlenecks and higher than expected consumptions levels. On the downside, severe health outcomes in China, further escalation in Russia's war in Ukraine and tighter global financing costs could negative impact the growth rates. Financial markets could also suddenly reprice in response to adverse inflation news, while further geopolitical fragmentation could hamper economic progress.

In February 2022, RBI had estimated the GDP to grow by 7.8% in FY2022-23. However, during the year, RBI had reduced the GDP growth estimates for FY2022-23 to 7% on account of the ongoing Russia-Ukraine war, higher inflation across the globe leading to slowdown in demand. Volatile commodity prices had resulted in reduced margins for businesses.

For FY2023-24, RBI has estimated India's GDP to grow at 6.5%, subject to certain upside and downside risks. Upside risks could emanate from stronger than anticipated rebound in the contact-intensive sector, restart of private investment boosted by Government's capex push, healthier corporate balance sheets, sharp reduction in commodity prices, better than expected global growth prospects and early resolution

of geopolitical conflicts. On the contrary, an escalation in geopolitical tensions, further hardening of international crude and commodity prices, sustained disruptions to supply chains, persistence of global financial market volatility, sharper loss of momentum in global trade and demand and weather related disruptions pose as downside risks.

### Financial Markets:

Due to the inflationary pressures and US Fed rate hike, the 10 year US Bond Yield had steadily increased during the financial year. The aggressive rate hike has resulted in an inverted yield curve where yields on short term treasuries are higher than longer-term treasuries. The inverted yield curve suggests uncertainty in the near term, though yields are expected to stabilise in the long term. In March 2023, high volatility was observed in global financial markets on account of crisis in some banks in US and Europe.

On the domestic front, financial markets remained volatile because of inflationary concerns, aggressive monetary tightening and geopolitical conflict in Ukraine. Due to the above-mentioned reasons, the market sentiments were bearish in the first half of the year, however, the sentiments improved on account of opening up major economies in the second half. Overall, the BSE Sensex closed at 58,962 points by end of March 2023, a growth of 0.7% in one year.

In the bond markets, 10-year G-sec yields had largely been rangebound for the year. In February 2023, the 10-year benchmark G-sec yield marginally eased in response to the commitment to fiscal consolidation in the Union Budget 2023-24 and the announcement of lower than anticipated gross market borrowings. During the year, short end yields curve for corporate bonds had increased more than the increase in RBI's policy repo rate. while the long end yield curve for corporate bonds remained, range bound.

### Central Banks and Monetary Policy:

As per IMF World Economic Outlook (April 2023), Global inflation is set to fall from 8.7% in 2022 to 7% in 2023 and 4.9% in 2024 which is still above pre-pandemic (2017-19) levels of about 3.5%.

During the year, US Fed raised the Federal Funds Rate (FFR) by 450 bps. However, given the recent events in banking sector, US Fed has turned more dovish with focus on policy firming to quell inflation instead of rate hikes. Fed expects the FFR to peak in May 2023, thereafter, remain stable for the rest of the year and start its downward trajectory in 2024. US FED forecasts, the Personal Consumption Expenditure (PCE) inflation at 2.8% this year, with core

inflation at 3.5%. In 2024 and 2025, both total and PCE inflation are expected to be near 2%.

Similarly, in the Euro area also, CPI inflation was at 8.5% in February 2023 down from 8.6% in January 2023. In UK, the CPI inflation including owner occupiers' housing costs (CPIH) for February 2023 was 9.2%, up from 8.8% in January 2023. The higher CPIH inflation rate largely came from housing and household services (mainly from electricity, gas, and other fuels), and food and non-alcoholic beverages. Bank of England raised rates by 350bps in FY2022-23.

Closer home, during the financial year, RBI increased its policy repo rate to 6.5% from 4.00%. RBI's actions are in consonance with the objective of achieving the medium-term target for consumer price index (CPI) inflation of 4% within a band of +/- 2%, while supporting growth. Given the CPI projected at 5.2% for FY2023-24, RBI is expected to keep rates unchanged.

### Financing:

In FY2020-21 and FY2021-22, we deleveraged our gross debt by ₹40,761 crore which is much higher than our annual deleveraging target of USD 1 bn. The deleveraging programme helped strengthen the balance sheet of the Company considerably and prepared us for the next leg of growth. However, in FY2022-23, our Gross Debt increased to ₹84,893 crore from ₹75,561 crore due to very high volatility in the earnings, higher working capital requirements, higher capex requirement for completion of Tata Steel Kalinganagar project, acquisition of NINL and the highest ever dividend payout. Even after increase in gross debt in FY2022-23, our average debt reduction has been more than USD 1 bn per annum for the past 3 years.

The Company efficiently triangulates its capital allocation between deleveraging, return to shareholders and growth capex to provide optimal returns to the shareholders. In FY2022-23, we prioritised growth capex, acquisition of NINL and stabilisation of plant along with working capital requirement in our capital allocation. We propose to return to our deleveraging journey in FY2023-24.

The Cold rolling mill & pellet plant in Kalinganagar have started operations recently which will be margin accretive to the existing business. The Kalinganagar Phase II expansion is expected to be completed by the end of FY2023-24.

### Credit Ratings:

During the year under review, international rating agency, S&P Global Ratings reaffirmed Tata Steel's Corporate Family Rating at 'BBB-' and revised the Outlook to Positive from Stable. Further, Moody's also reaffirmed the rating

to 'Ba1' and revised the Outlook to Positive from Stable due to the Company's track record of good operating performance and conservative financial policy.

During the year, the domestic rating agencies, India Rating and CARE had reaffirmed Tata Steel's long term credit rating at AA+. India Rating revised the outlook from Stable to Positive.

## X. Risks and Concerns

Tata Steel operates in an interconnected world with stringent regulatory and environment requirements, increased geopolitical risk and fast pace technological disruptions that could have a material impact across the value chain of the organisation. Tata Steel has implemented an Enterprise Risk Management (ERM) process to provide a holistic view of the aggregated risk exposure as well as to facilitate more informed decision-making.

In its journey towards Risk Intelligence, a robust governance structure has been developed across the organisation. The Board of Directors has constituted a Committee of the Board called the Risk Management Committee. At Senior Management level, an Apex Risk Committee (ARC) has been constituted to drive the ERM process across Tata Steel Group.

Information regarding Key Risks facing Tata Steel and their mitigation strategies is given below:

### Financial Risks:

Tata Steel has ₹84,893 crore of debt as on March 31, 2023 and aspires to nearly double its capacity in India and reach 40 MnTPA by 2030 in a sustainable manner. The plan is to deleverage further and pace the growth in line with internal accruals but Tata Steel would also need to raise external capital from banks and capital markets. As the financial system in India is closely integrated with the global financial system, any funding plan may be affected by risk appetite and sentiments of global financial market.

Separately, evolving climate change regulation and disclosure standards are also likely to weigh on availability of capital.

During the financial year, global financial markets have been amidst a transition from a low inflation rate dynamic to relatively persistent high inflation and interest rate environment. Globally, most of the major central banks have remained committed to raising benchmark rates to

combat inflation despite geopolitics, volatility in energy prices and tight supply chains. US Fed has raised rates from around 0.25% in March 2022 to 5% by March 2023. In India, RBI increased the repo rate by 250 bps. For the Company, rising interest rate environment may adversely impact the cost of financing.

Tata Steel also has some exposure to currency volatility due to its imports of raw material and project equipment as well as foreign currency debt.

### Mitigation Strategies:

Tata Steel has been actively mitigating the risk by de-risking the balance sheet with a focus on cash flow generation and deleveraging as we seek to strike a balance between growth and return to shareholders. We consciously diversify our sources to tap available pools of capital and proactively work towards raising longer term debt with flexible terms. Our capital allocation strategy prioritises value-accretive projects with short payback periods.

During the year, we acquired NINL via our subsidiary Tata Steel Long Products Limited, and this was funded via a mix of internal accruals and debt. Despite the large cash pay outs, our group liquidity remains strong at ₹28,688 crore, gross debt remains at ₹84,893 crore and our financial metrics continue to be well within investment grade levels.

Tata Steel is engaged with international bodies viz. Task Force on Climate – Related Financial Disclosures (TCFD) and is focused on improving ESG disclosures, complying with evolving standards and developing a sustainable financing framework.

We proactively manage our exposure to currency & interest rates and utilise a mix of instruments to hedge the same.

### Macroeconomic and Market risks:

Steel demand is affected by geopolitical uncertainties, macro-economic outlook, trade barriers and protectionist trade policies. The prolonged inflationary pressures emanating especially from supply chain disruption of energy and commodities may impact global demand adversely. Changing customer preferences are triggered by adoption of newer grades of steel and sustainable steel products.

### Mitigation Strategies:

Sticky high inflation, trade barriers and protectionist trade policies may impact steel demand. For instance, in FY2022-23 the Indian Government imposed export duty

during May 2022 to November 2022 to control domestic inflation. Since TSL sales are majorly concentrated in the domestic market, the Company could manage the implication through recalibration of its sales mix at geography and at segment level to balance demand supply requirements.

The Company remains vigilant of the evolving market conditions and regulatory environment and closely analyses its impact on steel-intensive sectors.

In our endeavour to enhance footprint & leverage the growing opportunities in India, we have built a diversified portfolio of product offerings for customers from a range of industries. Dedicated marketing and sales teams service customers and build deep customer engagement by customising products, improving reliability, and providing value added services. Tata Steel has invested in building a strong marketing franchise with well-regarded brands and a large network of distributors, dealers, and stocking points across the country. Efforts to identify and pursue micro-segmentation in customer segments to drive demand in the face of market volatility has helped in increasing sales and reducing the exposure to demand volatility. The Company has also delivered robust sales performance driven by rise in value added products. New products have been developed across customer segments. It has also built channels internationally to enable exports. In Europe, the Company continues to target and develop more differentiated product sales mix for value-driven segments.

Steel industry is cyclical and ways to mitigate the risk of cyclicity are by entering into long term contracts with discerning customers (especially automotive segment) and by offering solutions. Stringent quality norms of automotive customers help TSL in enhancing its technical competencies and develop new products. We have forayed into ready-to-use steel for construction industry and introduced products such as steel doors and windows, furniture to enhance our retail customer base. Nest-In has been recognised as India's leading brand, 2022, in the steel-based modular construction solution category at the Indian Brand & Leadership Conclave, 2022. We are also diversifying our product offerings beyond steel by introducing new materials such as composites, Fibre Reinforced Products, etc. The Company has recorded a broad-based growth in domestic deliveries. The composites business has marked its presence in the industrial, infrastructure and railway segments and the focus is currently on market expansion and capacity augmentation. The Graphene business is delivering safest

conveyance through 'Wondra'- (Graphene coating solutions) and value-based industrial solutions for the Company.

### Regulatory Risks:

Indian Steel Industry is expected to grow at the rate of 6% to 7% during this decade. However, the growth trajectory of the steel industry would have its own set of challenges. The regulatory landscape in the metals & mining industry is becoming stringent due to geopolitical developments, changing trade patterns, enhanced focus on Environment, Social and Governance (ESG) aspects. Non-adherence to such stringent regulatory ecosystem may impact business operations and reputation.

Steel being an energy intensive and hard to abate sector needs to transition towards low emission steel and the Government of India may impose taxes and penalties to drive ESG journey.

### Mitigation Strategies:

Tata Steel is continuously scanning the regulatory canvas to assess the impact of changing rules and policies on its current operations and future growth trajectory.

The Company has a robust compliance and risk management system. We are committed to complying with existing laws and regulations, promoting environmental stewardship and have a policy of zero tolerance to non-compliance. Tata Steel has invested in benchmark systems and processes that are accessible for all to steer compliance and aid management of risks across the organisation.

With an aim to develop a future-ready industry, the Company is investing in Research & Development for Technology transformations, digitalization, capacity building and development of resources while adhering to the principles of social and climate justice as a proactive approach towards regulatory compliances. We are committed to net zero by 2045 in our decarbonisation journey.

The Company also pursues policy advocacy with an objective to create value for all stakeholders.

### Operational Risks:

The Steel manufacturing processes are vulnerable to disruptions resulting from a range of factors including rising uncertainty in extreme weather conditions, natural disasters, equipment failures. Further, TSUK has specific issues of ageing assets. Such disruptions have the potential to impact the Company's operations, safety and customer

service levels, warranting appropriate risk management strategies to mitigate their potential impact.

**Mitigation Strategies:**

The Company has endeavoured towards adopting advanced maintenance practices for enhanced plant availability and reliability. A dedicated team analyses benchmark practices to develop state-of-the-art Asset Management and Diagnostic Centre (AMDC) for implementing predictive analytics to implement the concept of smart connected plant. The robust digital ecosystem enables real-time shutdown management for optimal co-ordination and improved asset reliability across the steel value chain. The Company has invested in state-of-the-art equipment and processes. Various plants, including Tata Steel Jamshedpur, Kalinganagar and the IJmuiden Plant in the Netherlands, have been recognised as 'Advanced 4<sup>th</sup> Industrial Revolution Lighthouse' by the World Economic Forum. At Tata Steel UK, capital expenditure on replacing ageing assets beyond end of life is being carried out through a risk-based process, wherein assets at a higher risk of operational and safety failure are prioritised. Additionally, preventive maintenance through close monitoring of assets is being done.

The growing geopolitical situations and instances of supply chain disruptions have further aggravated the uncertainty in availability of spares which have dependence on single geography/vendor partner or have limited alternatives. Hence the focus has been on indigenisation of spares to achieve self-reliance and to digitalise the process to maintain optimised inventory. The indigenisation initiative is aligned to the 'Make-in-India' focus and encourages the vendor partners to supply supreme quality spares and benchmark lead times.

We are cautious of the growing uncertainty in weather patterns leading to extreme heat and heavy rainfall. To ensure our employees' safety and business operations' continuity, we have developed a detailed disaster plan and standard operating procedures to respond to natural disasters, epidemics/pandemics, and extreme weather events.

**Safety Risks:**

Steel industry is inherently prone to hazards affecting workforce health and safety which may adversely impact business continuity and reputation. This is further aggravated with the geographical expansion and

diversification of our business and operations that faces various stringent safety laws & regulations.

**Mitigation Strategies:**

With the motto of 'Committed to Zero', we have remained steadfast to our belief of safeguarding people and maintaining business continuity. To meet this target, the Company has continuously fortified the Safety Management and Governance mechanism, built a safety focused culture across business operations. A robust risk management framework is in place and continuous efforts have been put to improve the risk visualisation among workforces. Improving behavioural safety of the workforce at workplace through experiential learning and focus on dissemination of safety standards has been the key to improve risk perception.

Tata Steel has institutionalised business continuity management through development of Tactical centre for response to any major onsite emergency and developed Centre of Excellence ('CoE') in Process Safety Management to deploy standardised process safety management across the organisation. The Safety theme park was developed to train employees and promote safety at all touchpoints. Safety Excellence Reward and Recognition framework has been extended beyond Managerial positions and vendor partners for demonstrating safety commitment and promoting a culture of safety in the organisation.

Further, Tata Steel stresses upon the capability development & training of all stakeholders such as employees, vendor & business partners, trainees at regular intervals. Practical Safety Training Centre has been developed with a purpose to improve the risk perception of the workforce on various critical hazards. Here, hands-on training is imparted on different modules such as Working at Height, Material Handling, Gas Safety, Confined Space, Heavy vehicle simulators, First Aid & Cardiac Pulmonary Resuscitation (CPR), and Virtual Reality for moving machinery.

Various campaigns such as 'National Road Safety Month' and those related to mitigation of risks associated with top hazards were undertaken. Deeper introspection on road safety practices, reaching beyond the Company premises, systematically introducing technological interventions on roads and vehicles, and connecting with all the road pilots on one-to-one basis improved the risk perception and behaviour. Additionally, focused Campaigns such as 'Slip Trip Fall', 'Working at Height', etc. to identify the hazards and its risk mitigation by risk hierarchy of control

philosophy reinforced safe behaviour among employees and contract employees.

Workplace Safety & Process Safety Management in Tata Steel have matured over the years through adoption of various robotic & technological solutions. Digital platforms have been continuously enhanced to address and mitigate key concerns. Some of the examples are, introduction of new Robotic System for Wagon Tippler II operations, to eliminate man-machine interface during the coupling of wagons & hereby improving safety. In Raw material locations, redefining core mining processes such as exploration and mine planning using drone data and adequate analytics demand fewer on-foot exploration requirements and hereby improving site safety. Some of the future ready infrastructures are deployed such as digital enablers including CCTV surveillance, man-less weighbridge, paperless despatch, and automated boom barrier to augment safety and augment operational efficiency.

Controlled implosion of two obsolete coke plant chimneys and a Coal Tower was safely carried out at Tata Steel Jamshedpur Works using the latest technologies which corroborates the Company's excellence in safe execution of job. At Tata Steel European operation, Time Out for Safety campaign rolled out across all employees and core contractors in the UK. Positive feedback and impact since start formed increased level of engagement.

### Community Risks:

We have always fostered a business model and social context that is shared with communities and ultimately aims for a significant improvement in quality of life, prioritising marginalised communities proximate to our operating locations. Moreover, there is a growing pressure from local communities proximate to our coal based manufacturing facilities in Europe over emissions. This is fostered through consistent and transparent dialogue, understanding of vulnerabilities, recognition of aspirations and appreciation of cultural nuances of communities. An erosion of trust with communities will slow down societal impact and lead to consequent loss of reputation or business continuity.

### Mitigation Strategies:

Tata Steel anchors one of the deepest and most diverse societal development efforts based on a combination of programmes and platforms addressing core development

challenges for over 3.15 million lives directly every year. The Company adopts a Board led strategic approach to deepening trust and commits talent and resources through the Tata Steel Foundation for enabling dialogue with marginalised communities, creating a felt understanding of their perspective and societal impact through four pathways – (a) nationally relevant change models which have been built to address core development challenges over several years resulting in more than 2,400 habitations being declared child labour free zones, 40% decline in maternal and child mortality rates in remote tribal regions and several tribal languages of the country finding expression through more than 30,000 learners every year; (b) regional change models for lasting betterment in well-being of communities which recognise the specific nuances of Eastern India in solving for challenges like community led water conservation efforts yielding more than 45 million cubic feet of recharge capacity in key watersheds, more than 4,000 students trained in vocations based on localised aspirations and a platform for persons with disability which has now brought an entire block towards 100% access to entitlements; (c) embedding a societal perspective in business decisions, for which more than 600 business school students and 50 management personnel have undergone a social immersion designed to learn from communities and enhance a sense of purpose across management in the Company and the first completely tribal batch of apprentices were taken on this year and (d) impact ecosystems based on thought leadership, which builds on the experience and capability of societal impact to bring in more partners in progress for regions and communities who need greater attention and thinking.

The key driver of this approach are multiple structured forums for dialogue with communities which are convened periodically to discuss and co-create a shared impact agenda, including replicating the same processes and impact across new locations. The Company, also, has a portfolio of products which is aimed at addressing societal challenges such as affordable housing and farm income enhancement, while key business processes are also designed to have a clear diversity and affirmative action perspective. Tata Steel Thailand is one of the first 30 companies that joined UNICEF in Child Friendly Business in 'The Children Sustainability Forum' to make a commitment in protecting children's rights. Tata Steel Europe's Community Partnership Programme 'Future Generations', with sub-themes of education, environment, health, and well-being, works across the UK, assisting job and wealth creation by supporting small and medium businesses

with finance and business premises. Tata Steel Netherlands is actively pursuing measures through 'Roadmap+' programme to reduce emissions such as nitrogen oxide, dust deposition, polycyclic aromatic hydrocarbons, heavy metals, lead, particulate matter, etc. to address health concerns of IJmuiden communities and support local initiatives.

Our efforts have been recognised across national and global platforms including the National CSR Award for Excellence in CSR as well as Contribution to Education from the Ministry of Corporate Affairs, India.

### **Commodity Risks:**

Coal, iron ore and other bulk commodities contribute to a major part of the operating costs of Tata Steel and their sourcing is concentrated in specific geographies. Geopolitical developments coupled with changes in market dynamics not only pose a risk to raw material availability but also have an adverse impact on sea freights. The volatility in Raw Material prices is also leading to cost escalation and major changes in working capital/cash flow position. Price volatility and supply chain risks are expected to continue in the coming year considering the geopolitical events, weather disruptions, continued Russia-Ukraine conflict, exchange rate movements and energy crisis.

Volatility in prices of process consumables has a significant impact on the input costs of steelmaking as observed in the past few years. Few of the commodities also have a high/complete dependence on a single geography which poses a potential risk of supply disruption with adverse price impact.

Changes in statutory and sustainability norms in importing/exporting countries pose a threat to the supply chain in the near term.

### **Mitigation Strategies:**

Steel prices have a significant correlation with raw material prices. Changing prices of coal and iron ore generally reflect through adjustments in steel prices, which in effect acts as a natural hedge against volatility. However, there may be a lead and lag involved and hence several steps are being taken to manage the price volatility. In addition, the Company has implemented group-wide hedging using financial instruments. Price forecasting tools are being used for commodities like Coal, Zinc, Aluminium, etc. to understand price movements and to time the buy for optimising costs. Tools like reverse auctions are being used for efficient price discovery for commodities like coal, ferro-alloys, refractories, etc.

Coal sourcing is being diversified – sourcing being established from countries like Indonesia, USA, and Canada in addition to Australia. This coupled with the trial of new grades of coals/use of weak coals with better Value in Use will ensure the availability of coal to meet the plant requirements and reduce the cost of sourcing. Long-term tie-ups with suppliers in Australia will keep prices competitive with an improved reliability.

Indigenisation has been identified as one of the major levers to de-risk the supply chain for both direct and indirect commodities which are dependent on import sources. Where indigenisation is not possible, alternate country sourcing beyond China or development of substitute products is also being explored.

Sustainable procurement policy is being deployed to engage with suppliers/service providers to take initiatives in the areas of 'reduce, recycle, and reuse' and foster responsible supply chain policy.

Risk assessment for key vendors is also undertaken to assess the capability of vendors in meeting the supply requirements.

### **Supply Chain Risks:**

Tata Steel has one of the industry's rather unique and complex value chains extending from mining to steel. Thus, the scale and complexity of operations pose several risks including the timely movement of key raw materials from captive mines and imported raw materials from ports to consuming plants and thereafter the movement of finished goods from plants to customers in India/Europe and export markets.

The supply chain network is subjected to physical and environmental destructions, trade restrictions due to geopolitical tensions and disruptions at suppliers. Additionally, our dependency on common logistics infrastructure resources like ports and Indian Railways that are constrained in terms of capacity & availability may lead to logistics related disruptions.

Around 40% of India's steel capacity is concentrated in Eastern India (where majority of our plant facilities are located), whereas the consumption points are largely in the North, South, and Western parts of India. Thus, the common logistics infrastructure resources like ports and Indian Railways are constrained in terms of capacity & availability and our dependence on these bring the risk of logistics-related disruptions. Events like the power crisis puts rake availability under stress. The rake crisis has also

affected the metallics circuit as more rakes are getting diverted to the thermal coal & iron ore-pellet exports circuit.

The statutory norms are also getting stringent and there is an emerging need to address Environmental, Social and Governance (ESG) issues to sustain business in the long run.

Given the long-term growth plan of Tata Steel, some of these risks may get further aggravated, hence seeding strategies for mitigating the same have been put in place.

### Mitigation Strategies:

While Tata Steel supply chain is complex, it also provides opportunities for value maximisation through global optima. The division works in synergy with all other divisions with an overall focus on reliability for all sites on Integrated Margin Management (IMM) principles.

Tata Steel has adopted a hedging strategy in addition to the long-term contracts to keep sea freight spend in check. Also, actions are being taken to reduce demurrage and sub-optimal costs through route optimisation.

We have also entered into long term partnership agreements with major ports like Dhamra and Paradip (KICTPL- Kalinga International Coal Terminal Private Ltd.) to de-risk import supply chain. A new port infrastructure is being developed in the East Coast of India (i.e., Subarnarekha Port) to support the import requirements for its long-term steel capacity growth plan (40 MnTPA) in India by 2030.

To remove reliance on Indian Railways, we have invested in private freight train schemes- GPWIS (General Purpose Wagon Investment Scheme) and SFTO (Special Freight Train Operator). The GPWIS and SFTO rakes currently carry 22% of raw materials and 11% of Finished goods respectively and their deployment is being steadily increased. Further, the slurry pipeline project for iron ore transportation from captive mines to plants is in progress to provide an alternate mode of transportation to Indian Railways.

We are one of the few companies to measure end-to-end Scope 3 CO<sub>2</sub> emissions in all modes of transportation. Further, the Scope 3 measurement system is being strengthened through engagement with experts and digital interventions. An alternate fuel-based fleet has been deployed in road and sea transportation to reduce Scope 3 CO<sub>2</sub> emissions. Tata Steel has deployed around 69 CNG/LNG/Electricity based vehicles in short lead road circuits and the number of vehicles will be doubled in FY2023-24. A total of 7 import shipments have been done in FY2022-23 using biofuels/

LNG and the same is being increased to 28 shipments in FY2023-24 (corresponds to 13% of total sea cargo movement to India). Our critical vendors are assessed annually on Responsible Supply Chain Policy (RSCP) framework and continuous improvements are undertaken based on the findings.

### Information Security Risks:

The Company's operations significantly rely on IT and digital infrastructure. The organisation has made several investments on digital transformation for important and complex processes. One of the key attributes of Digital transformation journey is the connected Architecture i.e., B2B integrations, Information Technology (IT) & Operating Technology (OT) integration channels for Artificial Intelligence (AI), Remote operations which brings many benefits, such as increased efficiency, better decision-making, and improved operational performance. However, these integrations also may increase the organisation's exposure to cyber risk.

Data privacy laws and regulations are in place to govern the data privacy and protection requirements. Non-compliance to IT legislations and regulations may lead to imposition of penalties and adverse impact on Company's reputation.

### Mitigation Strategies:

Tata Steel has implemented advanced security measures such as strong access controls, Next Generation Firewall, Advanced Threat Protection, End Point Detection & Response to give real time detection capabilities based on behaviour, lateral movements.

Integrated IT & OT Security Operation Centre has been implemented to give near real time visibility of security events generated on systems to identify abnormalities with immediate trigger to mitigation actions. 24\*7\*365 external attack surface management has been set up to identify potential risks over internet and try out exploits in attackers' perspective which helps to take immediate mitigation before being identified and utilised by attackers.

Tata Steel regularly assesses cybersecurity posture and conduct security audits to identify potential vulnerabilities. The same security initiatives are being extended to Tata Steel Group Companies (TSGCs) and has implemented Security information and Event management as core fundamentals of Security Operation Centre in various TSGCs. Zero Trust Architecture is also being implemented for TSGCs.



The Company has implemented various policies and procedures to ensure data privacy. Proactive software asset management is being carried out to ensure compliance.

## **XI. Internal Financial Control Systems and Internal Audit**

The Company has an Internal Financial Controls ('IFC') framework, commensurate with the size, scale, and complexity of the Company's operations. The Board of Directors of the Company is responsible for ensuring that IFC have been laid down by the Company and that such controls are adequate and operating effectively. The internal control framework has been designed to provide reasonable assurance with respect to recording and providing reliable financial and operational information, complying with applicable laws, safeguarding assets from unauthorised use, executing transactions with proper authorisation and ensuring compliance with corporate policies. The Company's internal financial control framework commensurates with the size and operations of the business and is in line with requirements of the Companies Act, 2013. The Company has laid down Standard Operating Procedures and policies to guide the operations of each of its functions. Business heads are responsible to ensure compliance with these policies and procedures. Robust and continuous internal monitoring mechanisms ensure timely identification of risks and issues. To make the controls more robust and comprehensive, IFC standardisation & rationalisation project was undertaken in FY2020-21 which has ensured comprehensive coverage cutting across all functions of the Company. In order to reduce manual time and efforts involved in control testing, improve confidence in testing results, increase the frequency of testing and resort to full checking of the data as compared to sample testing, automation of controls was undertaken in FY2021-22, whereby around 30% of the controls were automated which have been tested in automated environment in the current financial year. The management, statutory auditors and internal auditors have also carried out adequate due diligence of the control environment of the Company through rigorous testing.

The Company has deployed SAP Governance, Risk and Compliance (GRC) Module and other IT platforms to keep the IFC framework robust and our Information Management Policy governs these IT platforms. IFC has been documented and embedded in the business processes and such controls have been assessed during the year under review and no material weaknesses were observed.

The scope and authority of the Internal Audit function is defined in the Internal Audit Charter. To maintain its objectivity and independence, the Internal Auditor reports to the Chairman of the Audit Committee. The Internal Audit team develops an annual audit plan based on the risk profile of the business activities. The Internal Audit plan is approved by the Audit Committee, which also reviews compliance to the plan. The Internal Audit team monitors and evaluates the efficacy and adequacy of internal control systems in the Company, its compliance with operating systems, accounting procedures, and policies at all locations of the Company and its subsidiaries. Based on the report of the Internal Auditor, process owners undertake corrective action(s) in their respective area(s) and thereby strengthen the controls.

Significant audit observations and corrective action(s) thereon are presented to the Audit Committee and shared with the Statutory Auditors. The Audit Committee at its meetings reviews the reports submitted by the Internal Auditor. The Audit Committee also, at frequent intervals, has independent sessions with the statutory auditor and the Management to discuss the adequacy and effectiveness of IFCs.

## **XII. Statutory Compliance**

The Company has in place adequate systems and processes to ensure that it is in compliance with all the applicable laws. The Company Secretary & Chief Legal Officer (Corporate & Compliance) is responsible for implementing the systems and processes for monitoring compliance with the applicable laws and for ensuring that the systems and processes are operating effectively. The Chief Executive Officer & Managing Director, places before the Board, at each meeting, a certificate of compliance with the applicable laws. The Company Secretary & Chief Legal Officer (Corporate & Compliance) also confirms compliance with Company law, SEBI Regulations and other corporate laws applicable to the Company.

## ANNEXURE 2

### Annual Report on Corporate Social Responsibility Activities

[Pursuant to Section 135 of the Companies Act, 2013 and  
the Companies (Corporate Social Responsibility Policy) Rules, 2014]

#### 1. Brief outline on CSR Policy of the Company:

Our CSR initiatives are guided by our CSR Policy ('Policy'). The Policy was first adopted on September 17, 2014 and then revised on February 3, 2016, and on November 11, 2021.

Our CSR activities focus on education, health, water, livelihood, rural and urban infrastructure and are in alignment with key development challenges of communities we serve. We also undertake community-centric interventions in the areas of sports, disaster relief, environment and tribal identity.

#### 2. Composition of Corporate Social Responsibility & Sustainability (CSR&S) Committee:

Sl. No.	Name of Director	Designation / Nature of Directorship	Number of meetings held during the year	Number of meetings attended during the year
1.	Mr. Deepak Kapoor	Independent Director (Chairman)	4	3
2.	Mr. O. P. Bhatt	Independent Director	4	4
3.	Mr. T. V. Narendran	Chief Executive Officer & Managing Director	4	4
4.	Mr. Koushik Chatterjee	Executive Director & Chief Financial Officer	4	3

#### 3. The web-links where Composition of CSR committee, CSR Policy and CSR projects approved by the Board are disclosed on the website of the company are provided below:

The composition of the CSR&S Committee:	<a href="https://www.tatasteel.com/corporate/our-organisation/leadership/">https://www.tatasteel.com/corporate/our-organisation/leadership/</a>
CSR Policy:	<a href="https://www.tatasteel.com/media/11804/tata-steel-csr-policy-latest-2019.pdf">https://www.tatasteel.com/media/11804/tata-steel-csr-policy-latest-2019.pdf</a>
CSR Projects as approved by the Board:	<a href="https://www.tatasteel.com/corporate/our-organisation/csr/">https://www.tatasteel.com/corporate/our-organisation/csr/</a>

#### 4. The Executive summary along with web-link(s) of Impact assessment of CSR projects carried out in pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social Responsibility Policy) Rules, 2014, if applicable (attach the report):

The Company voluntarily carries out impact assessment of key CSR Projects in the normal course. The reports are available on the website of the Company at <https://www.tatasteel.com/corporate/our-organisation/csr/>

	(₹ crore)
5. (a) Average net profit of the Company as per section 135(5) of the Companies Act, 2013	22,846.03
(b) Two percent of average net profit of the Company as per section 135(5) of the Companies Act, 2013	456.92
(c) Surplus arising out of the CSR Projects or programmes or activities of the previous financial years	NIL
(d) Amount required to be set off for the financial year, if any	NIL
(e) Total CSR obligation for the financial year (5b+5c-5d)	456.92
	(₹ crore)
6. (a) Amount spent on CSR Projects (both Ongoing Projects and other than Ongoing Projects)	475.11
(b) Amount spent in Administrative Overheads	5.51
(c) Amount spent on Impact Assessment, if applicable	Not applicable
(d) Total amount spent for the financial year (6a+6b+6c)	480.62

**(e) CSR amount spent or unspent for the Financial Year:**

Total Amount Spent for the Financial Year (in ₹ crore)	Amount Unspent (in ₹)					
	Total Amount transferred to Unspent CSR Account as per section 135(6)			Amount transferred to any fund specified under Schedule VII as per second proviso to section 135(5)		
	Amount	Date of transfer	Name of the Fund	Amount	Date of transfer	
480.62	Nil	NA	NA	Nil	NA	

**(f) Excess amount for set-off, if any:**

Sl. No.	Particular	Amount (in ₹ crore)
(1)	(2)	(3)
(i)	Two percent of average net profit of the Company as per section 135(5) of the Companies Act, 2013	456.92
(ii)	Total amount spent for the Financial Year	480.62
(iii)	Excess amount spent for the Financial Year [(ii)-(i)]	23.70
(iv)	Surplus arising out of the CSR projects or programmes or activities of the previous Financial Years, if any	NIL
(v)	Amount available for set off in succeeding Financial Years [(iii)-(iv)]	*23.70

\*The Company does not propose to avail any set-off, against the excess amount spent in FY2022-23 for succeeding financials year(s).

**7. Details of Unspent CSR amount for the preceding three financial years**

(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)
Sl. No.	Preceding Financial Year	Amount transferred to Unspent CSR Account under section 135(6) (in ₹)	Balance Amount in Unspent CSR Account under section 135(6) (in ₹)	Amount spent in the Financial Year (in ₹)	Amount transferred to a fund as specified under Schedule VII as per second proviso to section 135(5), if any.		Amount remaining to be spent in succeeding Financial Years (in ₹)	Deficiency, if any
					Amount (in ₹)	Date of transfer		
NA	NA	Nil	Nil	NA	Nil	NA	Nil	NA

8. Whether any capital assets have been created or acquired through CSR amount spent in the Financial Year: **No**

9. Specify the reason(s), if the Company has failed to spend two per cent of the average net profit as per Section 135(5) of the Companies Act, 2013 – **Not applicable**

sd/-

**DEEPAK KAPOOR**  
Chairman  
CSR & Sustainability Committee  
DIN: 00162957

Mumbai  
May 2, 2023

sd/-

**T. V. NARENDRAN**  
Chief Executive Officer &  
Managing Director  
DIN: 03083605

## ANNEXURE 3

### Corporate Governance Report

#### Company's Corporate Governance Philosophy

Corporate Governance is the creation and enhancement of long-term sustainable value for our stakeholders, comprising regulators, employees, customers, vendors, investors, and the society at large, through ethically driven business practices. Effective corporate governance practices constitute the strong foundation on which successful commercial enterprises are built to last. Strong leadership and effective corporate governance practices have been the Company's hallmark inherited from its culture and ethos. At Tata Steel, it is imperative that our Company's affairs are managed in a fair and transparent manner.

We ensure that we evolve and follow not just the stated corporate governance guidelines, but also globally best practices. We consider it our inherent responsibility to protect the rights of our shareholders and disclose timely, adequate and accurate information regarding our financials and performance, as well as the leadership and governance of the Company.

In accordance with our Vision, Tata Steel Group ('TSG') aspires to be the global steel industry benchmark for 'value creation' and 'corporate citizenship'. TSG expects to realise its Vision by taking such actions as may be necessary, to achieve its goals of value creation, safety, environment and people.

The Company is in compliance with the requirements stipulated under Regulations 17 to 27 read with Schedule V and clauses (b) to (i) and (t) of Regulation 46(2) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('SEBI Listing Regulations'), as applicable, with regard to corporate governance.

To further strengthen Company's corporate governance philosophy, the Company has also adopted the Tata Business Excellence Model.

#### Code of conduct

The Company has a strong legacy of fair, transparent and ethical governance practices.

The Company has adopted the Tata Code of Conduct ('TCoC'/'Code') for Executive Directors ('EDs'), Senior Management Personnel and other Executives and Employees, which is available on the website of the Company at [www.tatasteel.com](http://www.tatasteel.com) The Company has received confirmations from the EDs as well as Senior Management Personnel

regarding compliance of the Code during the year under review. The Company has also adopted the Code of Conduct for Non-Executive Directors ('NEDs') of the Company which includes the Code of Conduct of Independent Directors ('IDs') which suitably incorporates the duties of Independent Directors as laid down in the Companies Act, 2013 ('Act'). The same is available on the website of the Company at [www.tatasteel.com](http://www.tatasteel.com) The Company has received confirmation from the NEDs and IDs regarding compliance of the Code, for the year under review.

#### Tata Code of Conduct for Prevention of Insider Trading and Code of Corporate Disclosure Practices

In accordance with the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015, ('SEBI Insider Trading Regulations'), as amended from time to time, the Board of Directors of the Company has adopted the Tata Code of Conduct for Prevention of Insider Trading and the Code of Corporate Disclosure Practices ('Insider Trading Code').

Mr. Parvatheesam Kanchinadham, Company Secretary & Chief Legal Officer (Corporate & Compliance) is the 'Compliance Officer' in terms of this Insider Trading Code.

#### Board of Directors

The Board of Directors ('Board') is at the core of our corporate governance practice and oversees and ensures that the Management serves and protects the long-term interest of all our stakeholders. We believe that an active, well-informed and independent Board is necessary to ensure the highest standards of corporate governance.

#### Size and Composition of the Board

Our policy is to have a mix of EDs, NEDs, and IDs to maintain the Board's independence and separate its functions of governance and management. As on March 31, 2023, the Board comprised of ten members, two of whom are EDs, three are NEDs and five are IDs including two Women Independent Directors. The Board periodically evaluates the need for change in its composition and size. Detailed profile of our Directors is available on our website at [www.tatasteel.com/corporate/our-organisation/leadership/](http://www.tatasteel.com/corporate/our-organisation/leadership/)

The composition of the Board is in conformity with Regulation 17 of the SEBI Listing Regulations read with Section 149 and Section 152 of the Act. During the year under review

and as on date of this report, none of our Directors serve as Director or as IDs in more than seven listed companies and none of the EDs serve as IDs on any listed company. Further, none of our IDs serve as Non-Independent Director of any company on the board of which any of our Non-Independent Director is an ID.

Independent Directors are Non-Executive Directors as defined under Regulation 16(1)(b) of the SEBI Listing Regulations read with Section 149(6) of the Act along with rules framed thereunder. In terms of Regulation 25(8) of SEBI Listing Regulations, they have confirmed that they are not aware of any circumstance or situation which exists or may reasonably be anticipated that could impair or impact their ability to discharge their duties. Based on the declarations received from the Independent Directors, the Board of Directors has confirmed that they meet the criteria of independence as mentioned under Section 149 of the Act and Regulation 16(1)(b) of the SEBI Listing Regulations and that they are independent of the Management. Further, the IDs have in terms of Section 150 of the Act read with Rule 6 of the Companies (Appointment & Qualification of Directors) Rules, 2014, confirmed that they have enrolled themselves in the Independent Directors' Databank maintained with the Indian Institute of Corporate Affairs.

The Company has issued formal letters of appointment to the IDs. As required under Regulation 46 of the SEBI Listing Regulations, as amended, the terms and conditions of appointment of IDs including their role, responsibility and duties are available on our website at [www.tatasteel.com/media/2917/terms-and-conditions-of-appointment-of-independent-directors.pdf](http://www.tatasteel.com/media/2917/terms-and-conditions-of-appointment-of-independent-directors.pdf)

During FY2022-23, none of our Directors acted as Member in more than 10 committees or as Chairperson in more than

5 committees across all listed entities where they serve as a Director. For the purpose of determination of limit of the Board Committees, chairpersonship and membership of the Audit Committee and Stakeholders' Relationship Committee has been considered as per Regulation 26(1)(b) of SEBI Listing Regulations. Further, there are no *inter-se* relationships between our Board Members.

### Changes to Board during FY2022-23

- As per the terms and conditions of appointment, Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022.
- Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022. He decided to step down, since he joined the United States Department of Energy as the Director of the Office of Clean Energy Demonstration, wherein the said position required him to step-off from all private sector positions that he held. Further, Mr. Crane confirmed that there were no other material reasons other than those mentioned above, for his resignation as an Independent Director from the Board of the Company.
- Ms. Bharti Gupta Ramola was appointed as an Independent Director of the Company for a term of 5 (Five) years commencing November 25, 2022 through November 24, 2027.
- Mr. Koushik Chatterjee was re-appointed as Whole-time Director designated as Executive Director and Chief Financial Officer for a further period of 5 (Five) years commencing November 9, 2022 through November 8, 2027.

**Table A: Composition of the Board and Directorships held as on March 31, 2023:**

Name of the Director	No. of directorship in other Indian Public Companies <sup>(1)</sup>		No. of Board Committee positions in other Indian Public Companies <sup>(2)</sup>		Directorship in other listed entity (Category of Directorship)
	Chairperson	Member	Chairperson	Member	
<b>Non-Executive, Non-Independent Directors</b>					
Mr. N. Chandrasekaran (Chairman) DIN: 00121863	7	-	-	-	a) Tata Consultancy Services Limited (Non-Executive, Non-Independent, Chairman) b) Tata Motors Limited (Non-Executive, Non-Independent, Chairman) c) Tata Consumer Products limited (Non-Executive, Non-Independent, Chairman) d) The Tata Power Company Limited (Non-Executive, Non-Independent, Chairman) e) The Indian Hotels Company Limited (Non-Executive, Non-Independent, Chairman) f) Tata Chemicals Limited (Non-Executive, Non-Independent, Chairman)

Name of the Director	No. of directorship in other Indian Public Companies <sup>(1)</sup>		No. of Board Committee positions in other Indian Public Companies <sup>(2)</sup>		Directorship in other listed entity (Category of Directorship)
	Chairperson	Member	Chairperson	Member	
Mr. Noel Naval Tata (Vice-Chairman) DIN: 00024713	4	1	1	2	a) Trent Limited (Non-Executive, Non-Independent, Chairman) b) Voltas Limited (Non-Executive, Non-Independent, Chairman) c) Tata Investment Corporation Limited (Non-Executive, Non-Independent, Chairman) d) Titan Company Limited (Non-Executive, Non-Independent, Vice-Chairman)
Mr. Saurabh Agrawal DIN: 02144558	5	2	-	1	a) The Tata Power Company Limited (Non-Executive, Non-Independent) b) Voltas Limited (Non-Executive, Non-Independent) c) Tata AIG General Insurance Company Limited (Debt Listed) (Non-Executive, Non-Independent, Chairman) d) Tata Capital Limited (Debt Listed) (Non-Executive, Non-Independent, Chairman)
<b>Independent Directors</b>					
Mr. O. P. Bhatt DIN: 00548091	1	3	1	5	a) Tata Consultancy Services Limited (Non-Executive, Independent) b) Hindustan Unilever Limited (Non-Executive, Independent) c) Tata Motors Limited (Non-Executive, Independent) d) Aadhar Housing Finance Limited (Debt Listed) (Non-Executive, Independent, Chairman)
Mr. Deepak Kapoor DIN: 00162957	1	2	1	3	a) HCL Technologies Limited (Non-Executive, Independent) b) Delhivery Limited (Non-Executive, Independent, Chairman)
Ms. Farida Khambata DIN:06954123	-	2	-	-	a) Tata Investment Corporation Limited (Non-Executive, Independent)
Mr. V. K. Sharma DIN: 02449088	-	4	2	3	a) Mahindra and Mahindra Limited (Non-Executive, Non-Independent) b) Reliance Power Limited (Non-Executive, Independent) c) NURECA Limited (Non-Executive, Independent)
Ms. Bharti Gupta Ramola DIN: 00356188	-	2	-	1	a) SRF Limited (Non-Executive, Independent) b) HDFC Life Insurance Company Limited (Non-Executive, Independent)
<b>Executive Directors</b>					
Mr. T. V. Narendran DIN: 03083605	2	-	-	-	a) Tata Steel Long Products Limited (Non-Executive, Non-Independent, Chairman)
Mr. Koushik Chatterjee DIN: 00004989	2	2	-	2	a) Tata Metaliks Limited (Non-Executive, Non-Independent, Chairman) b) The Tinplate Company of India Limited (Non-Executive, Non-Independent, Chairman) c) Tata Steel Long Products Limited (Non-Executive, Non-Independent)

<sup>(1)</sup> Directorships in Indian Public Companies (listed and unlisted) excluding Tata Steel Limited, Section 8 Companies and foreign companies.

<sup>(2)</sup> In terms of Regulation 26(1)(b) of the SEBI Listing Regulations, the disclosure includes chairmanship / membership of the Audit Committee and Stakeholders' Relationship Committee in other Indian Public companies (listed and unlisted) excluding Tata Steel Limited. Further, membership includes positions as Chairperson of committee.

### Selection of New Directors and Board Membership Criteria

The Nomination and Remuneration Committee ('NRC') formulates and recommends to the Board the appropriate qualifications, positive attributes, characteristics, skills and experience required for the Board as a whole and its individual members with the objective of having a Board with diverse backgrounds and experience in business, government, education and public service. The Policy for appointment and removal of Directors and determining Directors' independence is available on our website

at <https://www.tatasteel.com/media/6816/policy-on-appointment-and-removal-of-directors.pdf>

### Key Board Qualifications, Expertise and Attributes

The Members of the Board are committed to ensuring that the Board is in compliance with the highest standards of Corporate Governance. The table below summarises the key skills, expertise, competencies and attributes which are taken into consideration by the NRC while recommending appointment of Directors to the Board:

**Table B: Director skills, expertise, competencies and attributes desirable in Company's business and sector in which it functions**

	Areas of Skills / Expertise / Competence						
	Leadership	Strategy	Operations	Technology	Finance	Governance	Government/Regulatory Affairs
N. Chandrasekaran	√	√	√	√	√	√	√
Noel Naval Tata	√	√	√	√	√	√	√
O. P. Bhatt	√	√	√	-	√	√	√
Deepak Kapoor	√	√	√	-	√	√	√
Farida Khambata	√	√	√	√	√	√	√
Bharti Gupta Ramola	√	√	√	-	√	√	√
V. K. Sharma	√	√	√	-	√	√	√
Saurabh Agrawal	√	√	-	-	√	√	√
T. V. Narendran	√	√	√	√	√	√	√
Koushik Chatterjee	√	√	√	-	√	√	√

### Familiarisation Programme for Directors (including Independent Directors)

As a practice, all new Directors (including Independent Directors) inducted to the Board are given a formal orientation. The familiarisation programme for our Directors is customised to suit their individual interests and area of expertise. The Directors are usually encouraged to visit the plant and raw material locations of the Company and interact with members of Senior Management as part of the induction programme. The Senior Management make presentations giving an overview of the Company's strategy, operations, products, markets, group structure and subsidiaries, Board constitution and guidelines, matters reserved for the Board and the major risks and risk management strategy. This enables the Directors to get a deep understanding of the Company, its people, values and culture and facilitates their active participation in overseeing the performance of the Management.

As stated in the Board's Report, the details of orientation given to our existing Independent Directors are available on our website at <https://www.tatasteel.com/media/12333/familiarisation-program.pdf>

### Board Evaluation

The NRC has formulated a Policy for the Board, its Committees and Directors and the same has been approved and adopted by the Board. The details of Board Evaluation forms part of the Board's Report.

### Remuneration Policy for Board and Senior Management

The Board has approved the Remuneration Policy for Directors, Key Managerial Personnel ('KMP') and all other employees of the Company. The same is available on our website at <https://www.tatasteel.com/media/6817/remuneration-policy-of-directors-etc.pdf> Details of remuneration for Directors in FY2022-23 are provided in Table C.

**Table C: Shares held and cash compensation paid to Directors for the year ended March 31, 2023**

(₹ lakh)

Name	Fixed Salary			Commission <sup>(1)</sup>	Sitting Fees	Total Compensation	Ordinary (Equity) Shares held (Nos.)
	Basic	Perquisite/ Allowance	Total Fixed Salary				
<b>Non-Executive, Non-Independent Directors</b>							
Mr. N. Chandrasekaran <sup>(2)</sup>	-	-	-	-	3.60	3.60	20,00,000
Mr. Noel Naval Tata <sup>(3)</sup>	-	-	-	150.00	4.00	154.00	1,43,700
Mr. Saurabh Agrawal <sup>(4)</sup>	-	-	-	-	6.80	6.80	-
<b>Independent Directors</b>							
Ms. Mallika Srinivasan <sup>(5)</sup>	-	-	-	40.00	0.80	40.80	-
Mr. O. P. Bhatt <sup>(6)</sup>	-	-	-	240.00	8.00	248.00	-
Mr. Deepak Kapoor <sup>(7)</sup>	-	-	-	150.00	6.10	156.10	-
Ms. Farida Khambata	-	-	-	120.00	6.40	126.40	8,00,000
Ms. Bharti Gupta Ramola <sup>(8)</sup>	-	-	-	50.00	2.80	52.80	-
Mr. David W. Crane <sup>(9)</sup>	-	-	-	50.00	2.40	52.40	-
Mr. V. K. Sharma	-	-	-	120.00	4.50	124.50	-
<b>Executive Directors</b>							
Mr. T. V. Narendran	184.80	331.71	516.51	1,350.00	-	1,866.51	21,710
Mr. Koushik Chatterjee	164.84	306.34	471.18	950.00	-	1,421.18	16,360

**Notes:**

- (1) Commission relates to the financial year ended March 31, 2023, which was approved by the Board on May 2, 2023 and will be paid during FY2023-24.
- (2) As a policy, Mr. N. Chandrasekaran, Chairman has abstained from receiving commission from the Company.
- (3) Sitting fees include an amount of ₹40,000 paid in FY2023-24.
- (4) In line with the internal guidelines of the Company, no commission is paid to the Non-Executive Directors of the Company, who are in full time employment with any other Tata Company. Accordingly, no commission has been paid to Mr. Saurabh Agrawal.
- (5) Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022.
- (6) Mr. O. P. Bhatt serves as an Independent Director of Tata Steel Europe ('TSE'). Towards this, he additionally receives an annual fee of £70,000 from TSE. The fee paid is consistent with the market practices and is aligned to the benchmark figures published by global consulting firms.
- (7) Mr. Deepak Kapoor serves as an Independent Director and as the Chairman of the Board of Tata Steel Minerals Canada ('TSMC'). Towards this, he additionally receives an annual Board fee of CAD 16,000 from TSMC.
- (8) Ms. Bharti Gupta Ramola was appointed as an Independent Director of the Company for a term of 5 (Five) years commencing November 25, 2022 through November 24, 2027. She attended all the three (3) board meetings held during FY2022-23, post her appointment.
- (9) Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022.
- (10) None of the Executive Directors is eligible for payment of any severance fees and the contracts with Executive Directors may be terminated by either party giving six months' notice to the other party or the Company paying six months' remuneration in lieu thereof.
- (11) The Company does not have any stock options plan. Accordingly, none of our Directors hold stock options as on March 31, 2023.
- (12) The Company has not issued any convertible instruments. Accordingly, none of our Directors hold any convertible instruments as on March 31, 2023.

**Board Meetings****Scheduling and selection of agenda items for Board Meetings**

Tentative dates for Board Meetings in the ensuing financial year are decided in advance and communicated to the Members of the Board. The information, as required under Regulation 17(7) read with Schedule II Part A of the SEBI Listing Regulations, is made available to the Board.

The Board meets at least once a quarter to review the quarterly financial results and other agenda items. Additional meetings are held when necessary. Committees of the Board usually meet the day before or on the day of the formal Board meeting,

or whenever the need arises for transacting business. The recommendations of the Committees are placed before the Board for necessary approvals. All committee recommendations placed before the Board during the year under review were unanimously accepted by the Board.

7 (seven) meetings of the Board were held during the financial year ended March 31, 2023. These were held on May 3, 2022, July 25, 2022, September 22, 2022, October 31, 2022, December 16, 2022, February 6, 2023 and March 27, 2023. The gap between any two Board meetings during the year under



review did not exceed one hundred and twenty days. The requisite quorum was present for all the meetings.

**Table D: Attendance details of Directors for the year ended March 31, 2023 are given below:**

Name of the Director	Category	No. of Meetings held during tenure	No. of Meetings Attended
Mr. N. Chandrasekaran (Chairman)	NED	7	7
Mr. Noel Naval Tata (Vice – Chairman)	NED	7	7
Mr. Saurabh Agrawal	NED	7	7
Ms. Mallika Srinivasan <sup>(1)</sup>	ID	1	1
Mr. O. P. Bhatt	ID	7	7
Mr. Deepak Kapoor	ID	7	6
Ms. Farida Khambata	ID	7	6
Mr. David W. Crane <sup>(2)</sup>	ID	2	2
Mr. V. K. Sharma	ID	7	6
Ms. Bharti Gupta Ramola <sup>(3)</sup>	ID	3	3
Mr. T. V. Narendran	ED	7	7
Mr. Koushik Chatterjee	ED	7	7

**Notes:**

- (1) Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022.
- (2) Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022.
- (3) Ms. Bharti Gupta Ramola was appointed as an Independent Director of the Company, for a term of 5 (Five) years commencing November 25, 2022 through November 24, 2027.

All the Directors [as on the date of the Annual General Meeting ('AGM')] were present at the AGM of the Company held on Tuesday, June 28, 2022.

All the Board Meetings held during in FY2022-23 were held physically, except the meetings held on May 3, 2022, September 22, 2022, October 31, 2022 and March 27, 2023.

**Meeting of the Independent Directors**

Pursuant to Schedule IV of the Act, the Independent Directors of the Company met on September 22, 2022, February 6, 2023 and March 27, 2023 without the presence of Non-Independent Directors and Members of the Management of the Company. The meetings of Independent Directors were chaired by Mr. O. P. Bhatt, Independent Director and Chairperson of the Nomination and Remuneration Committee.

At the meeting held on March 27, 2023, the Independent Directors, *inter alia*, evaluated the performance of the Non-Independent Directors and the Board of Directors as a whole, evaluated the performance of the Chairman of the Board

taking into account the views of Executive and Non-Executive Directors. They also discussed the aspects relating to the quality, quantity and timeliness of the flow of information between the Company, the Management and the Board.

**Board Committees**

**Audit Committee**

The primary objective of the Audit Committee is to monitor and provide an effective supervision of the Management's financial reporting process, to ensure accurate and timely disclosures, with the highest levels of transparency, integrity and quality of financial reporting. The Committee oversees the work carried out in the financial reporting process by the Management, the internal auditor, the statutory auditor and the cost auditor and notes the processes and safeguards employed by each of them. The Committee further reviews the processes and controls including compliance with laws, Tata Code of Conduct and Insider Trading Code, Whistle Blower Policies and related cases thereto. The Committee also reviews matters under the Prevention of Sexual Harassment at Workplace Policy.

The Board of Directors of the Company adopted the Audit Committee Charter (which includes terms of reference as provided under the Act and SEBI Listing Regulations) on March 31, 2015 which was subsequently revised on February 4, 2016, March 2, 2017, February 8, 2019 and November 11, 2021.

The Company Secretary and Chief Legal Officer (Corporate & Compliance) acts as the Secretary to the Committee. The internal auditor reports functionally to the Audit Committee. The Executive Directors and Senior Management of the Company also attend the meetings as invitees.

7 (Seven) meetings of the Audit Committee were held during the financial year ended March 31, 2023. These meetings were held on May 3, 2022, July 25, 2022, September 22, 2022, October 31, 2022, January 14, 2023, February 6, 2023 and March 29, 2023. The requisite quorum was present for all the meetings. All decisions at the Audit Committee meetings were taken unanimously.

**Table E: The composition of the Audit Committee and the attendance details of the Members for the financial year ended March 31, 2023 are given below:**

Name of the Director	Category	No. of meetings held during tenure	No. of meetings attended
Mr. Deepak Kapoor (Chairperson) <sup>(1)</sup>	ID	7	6
Mr. O. P. Bhatt (Chairperson) <sup>(2)</sup>	ID	7	7
Ms. Farida Khambata	ID	7	6

Name of the Director	Category	No. of meetings held during tenure	No. of meetings attended
Mr. David W. Crane <sup>(3)</sup>	ID	2	2
Ms. Bharti Gupta Ramola <sup>(4)</sup>	ID	3	3
Mr. Saurabh Agrawal	NED	7	6

#### Notes:

- (1) Mr. Deepak Kapoor was appointed as a member of the Audit Committee effective April 25, 2019 and as Chairperson of the Audit Committee effective May 21, 2022.
- (2) Mr. O. P. Bhatt stepped down as Chairperson of the Audit Committee effective May 21, 2022.
- (3) Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022.
- (4) Ms. Bharti Gupta Ramola was appointed as an Independent Director of the Company, for a term of 5 (Five) years commencing November 25, 2022 through November 24, 2027. She was also appointed as a member of the Audit Committee effective November 25, 2022.

Mr. Deepak Kapoor, Chairperson of the Audit Committee, was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

#### Nomination and Remuneration Committee

The purpose of the Nomination and Remuneration Committee ('NRC') is to oversee the Company's nomination process including succession planning for the senior management and the Board and specifically to assist the Board in identifying, screening and reviewing individuals qualified to serve as Executive Directors, Non-Executive Directors and determine the role and capabilities required for Independent Directors consistent with the criteria as stated by the Board in its Policy on Appointment and Removal of Directors. The NRC and the Board periodically reviews the succession planning process of the Company and is satisfied that the Company has adequate process for orderly succession of Board Members and Members of the Senior Management.

The Board has adopted the NRC Charter (which includes terms of reference as provided under the Act and SEBI Listing Regulations) for the functioning of the NRC on May 20, 2015 which was subsequently revised on March 29, 2019 and March 28, 2022, basis the amendments in SEBI Listing Regulations.

The NRC also assists the Board in discharging its responsibilities relating to compensation of the Company's Executive Directors and Senior Management. The NRC has formulated Remuneration Policy for Directors, KMPs and all other employees of the Company and the same is available on Company's website at <https://www.tatasteel.com/media/6817/remuneration-policy-of-directors-etc.pdf> The criteria for making payments to Non-Executive Directors is also available on our website at [https://www.tatasteel.com/media/3931/criteria-of-making-](https://www.tatasteel.com/media/3931/criteria-of-making-payments-to-neds.pdf)

[payments-to-neds.pdf](https://www.tatasteel.com/media/3931/criteria-of-making-payments-to-neds.pdf) The NRC has the overall responsibility of approving and evaluating the compensation plans, policies and programmes for Executive Directors, Key Managerial Personnel ('KMP') and the Senior Management. The NRC reviews and recommends to the Board for its approval, the base salary, incentives/commission, other benefits, compensation or arrangements and executive employment agreements for the Executive Directors.

2 (Two) meetings of the NRC were held during the financial year ended March 31, 2023. These meetings were held on May 3, 2022 and March 27, 2023. The requisite quorum was present for both the meetings.

#### Table F: The composition of the NRC and the attendance details of the Members for the financial year ended March 31, 2023 are given below:

Names of Members	Category	No. of meetings held during tenure	No. of meetings attended
Mr. O. P. Bhatt (Chairperson) <sup>(1)</sup>	ID	2	2
Ms. Mallika Srinivasan (Chairperson) <sup>(2)</sup>	ID	1	1
Mr. N. Chandrasekaran	NED	2	2
Mr. V. K. Sharma <sup>(3)</sup>	ID	1	1

#### Notes:

- (1) Mr. O. P. Bhatt was appointed as a member of the NRC effective August 13, 2013 and as Chairperson of the NRC effective May 21, 2022.
- (2) Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022.
- (3) Mr. V. K. Sharma was appointed as a member of the NRC effective May 21, 2022.

Mr. O. P. Bhatt, Chairperson of the NRC was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

#### Corporate Social Responsibility and Sustainability Committee

The purpose of our Corporate Social Responsibility and Sustainability ('CSR&S') Committee is to formulate and recommend to the Board, a Corporate Social Responsibility Policy, which shall indicate the initiatives to be undertaken by the Company, recommend the amount of expenditure the Company should incur on Corporate Social Responsibility ('CSR') activities and to monitor from time to time, the CSR activities and Policy of the Company. The CSR&S Committee provides guidance in formulation of CSR strategy and its implementation and also reviews practices and principles to foster sustainable growth of the Company by creating values

consistent with long-term preservation and enhancement of financial, manufacturing, natural, social, intellectual and human capital.

The Board has approved a Charter for the functioning of the CSR&S Committee on March 31, 2015, which was last revised on November 11, 2021.

The CSR policy is available on our website at <https://www.tatasteel.com/media/11804/tata-steel-csr-policy-latest-2019.pdf>

4 (Four) meetings of the CSR&S Committee were held during the financial year ended March 31, 2023. These meetings were held on May 2, 2022, July 25, 2022, October 28, 2022 and February 3, 2023. The requisite quorum was present for all the meetings.

**Table G: The composition of the CSR&S Committee and the attendance details of the Members for the financial year ended March 31, 2023 are given below:**

Names of Members	Category	No. of meetings held during tenure	No. of meetings attended
Mr. Deepak Kapoor (Chairperson)	ID	4	3
Mr. O. P. Bhatt	ID	4	4
Mr. T. V. Narendran	ED	4	4
Mr. Koushik Chatterjee	ED	4	3

Mr. Deepak Kapoor, Chairperson of CSR&S Committee was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

**Risk Management Committee**

The Company has constituted a Risk Management Committee ('RMC') for framing, implementing and monitoring the risk management policy of the Company. The RMC assists the Board in fulfilling its oversight responsibility with respect to Enterprise Risk Management ('ERM').

The terms of reference of the RMC are:

- a) Overseeing key risks, including strategic, financial, operational, sectoral, sustainability (particularly ESG related risks), IT (including cyber security) and compliance risks;
- b) Developing risk management policy and risk management system/framework for the Company;
- c) Assisting the Board in framing, implementing and monitoring the risk management plan for the Company and reviewing and guiding the Risk Policy.

The Board has adopted a Charter (which includes terms of reference as provided under the SEBI Listing Regulations) for RMC on May 20, 2015, which was subsequently revised on August 12, 2021.

4 (Four) meetings of RMC were held during the financial year ended March 31, 2023. These meetings were held on May 3, 2022, July 25, 2022, October 31, 2022 and February 6, 2023. The requisite quorum was present for all the meetings.

**Table H: The composition of the RMC and the attendance details of the Members for the financial year ended March 31, 2023 are given below:**

Names of Members	Category	No. of meetings held during tenure	No. of meetings attended
Ms. Farida Khambata (Chairperson)	ID	4	4
Mr. Saurabh Agrawal	NED	4	4
Mr. T. V. Narendran	ED	4	4
Mr. Koushik Chatterjee	ED	4	4
Dr. Henrik Adam	MoM	4	4
Ms. Samita Shah	MoM	4	4

MoM – Member of Management

Ms. Farida Khambata, Chairperson of RMC was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

**Stakeholders' Relationship Committee**

The Stakeholders' Relationship Committee ('SRC') considers and resolves the grievances of our shareholders, debenture holders and other security holders, including complaints relating to non-receipt of annual report, transfer and transmission of securities, non-receipt of dividends/interests, issue of new/duplicate certificates, general meetings and such other grievances as may be raised by the security holders of the Company, from time to time.

The SRC also reviews:

- a) The measures taken for effective exercise of voting rights by the shareholders;
- b) The service standards adopted by the Company in respect of the services rendered by our Registrar & Transfer Agent;
- c) The measures rendered and initiatives taken for reducing the quantum of unclaimed dividends and ensuring timely receipt of dividend/annual report/notices and other information by shareholders.

The Board has adopted a Charter (which includes terms of reference as provided under the Act and SEBI Listing Regulations) for the functioning of the SRC on April 11, 2014 which was subsequently revised on February 8, 2019.

1 (One) meeting of the SRC was held during the financial year ended March 31, 2023. This meeting was held on February 3, 2023. The requisite quorum was present at the meeting.

**Table I: The composition of the SRC and the attendance details of the Members for the financial year ended March 31, 2023 are given below:**

Names of Members	Category	No. of Meetings held during tenure	No. of Meetings attended
Mr. V. K. Sharma (Chairperson)	ID	1	1
Mr. Deepak Kapoor	ID	1	1
Mr. T. V. Narendran	ED	1	1
Mr. Koushik Chatterjee	ED	1	1

Mr. V. K. Sharma, Chairperson of the SRC was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

In terms of Regulation 6 and Schedule V of the SEBI Listing Regulations, the Board has appointed Mr. Parvatheesam Kanchinadham, Company Secretary & Chief Legal Officer (Corporate & Compliance) as the Compliance Officer of the Company.

The details of investor complaints received and resolved during the financial year ended March 31, 2023 are given in Table J below. The complaints relate to non-receipt of annual report, dividend, share transfers and other investor grievances.

**Table J: Details of investor complaints received and resolved during the financial year ended March 31, 2023:**

Opening as on April 1, 2022	1
Received during the year	355
Resolved during the year	352
Closing as on March 31, 2023	4

### Safety, Health and Environment Committee

The Safety, Health and Environment Committee ('**SH&E Committee**') of the Board oversees the policies relating to Safety, Health and Environment and their implementation across TSG.

The Board has approved a Charter for the functioning of the SH&E Committee on October 27, 2009.

4 (Four) meetings of the Committee were held during the financial year ended March 31, 2023. These meetings were held on May 2, 2022, July 25, 2022, October 28, 2022 and February 4, 2023. The requisite quorum was present for all the meetings.

**Table K: The composition of the SH&E Committee and the attendance details of the Members for the financial year ended March 31, 2023 are given below:**

Names of Members	Category	No. of meetings held during tenure	No. of meetings attended
Mr. Noel Naval Tata (Chairperson) <sup>(1)</sup>	NED	3	3
Ms. Mallika Srinivasan <sup>(2)</sup>	ID	1	-
Mr. David W. Crane <sup>(3)</sup>	ID	2	2
Mr. V. K. Sharma	ID	4	4
Ms. Bharti Gupta Ramola <sup>(4)</sup>	ID	1	1
Mr. T. V. Narendran	ED	4	4
Dr. Henrik Adam	MoM	4	4

MoM - Member of Management

#### Notes:

- (1) Mr. Noel Naval Tata was appointed as the Member and Chairman of the SH&E Committee effective May 3, 2022.
- (2) Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022.
- (3) Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022.
- (4) Ms. Bharti Gupta Ramola was appointed as an Independent Director of the Company, for a term of 5 (Five) years commencing November 25, 2022 through November 24, 2027. She was appointed as a member of the SH&E Committee effective November 25, 2022.

Mr. Noel Naval Tata, Chairperson of SH&E Committee was present at the Annual General Meeting of the Company held on Tuesday, June 28, 2022.

## General Information for Shareholders

### General Body Meetings

**Table L: Location and time, where last three Annual General Meetings were held:**

Financial Year Ended	Date	Time	Venue	Special Resolution Passed
March 31, 2022	June 28, 2022	3:00 p.m. (IST)	The Meetings were held through two-way video-conferencing	1. Alteration of Memorandum of Association of the Company.
Mach 31, 2021	June 30, 2021			2. Alteration of Articles of Association of the Company.
March 31, 2020	August 20, 2020			3. Change in place of keeping Registers and Records.
				-
				-

No Extraordinary General Meeting of the Members was held during FY2022-23.

### Postal Ballot:

During FY2022-23, the Company sought the approval of the shareholders by way of postal ballot, the details of which are given below:

#### 1. Postal Ballot vide notice dated May 3, 2022, on the following Resolution(s):

SN	Type of Resolution	Description of the Resolution(s)
1.		Material Related Party Transaction(s) with The Tinplate Company of India Limited – Operational Transaction(s)
2.		Material Related Party Transaction(s) with The Tinplate Company of India Limited – Financial Transaction(s)
3.		Material Related Party Transaction(s) with Tata Steel Long Products Limited
4.		Material Related Party Transaction(s) with Tata BlueScope Steel Private Limited
5.		Material Related Party Transaction(s) with Jamshedpur Continuous Annealing & Processing Company Private Ltd.
6.		Material Related Party Transaction(s) with TM International Logistics Limited
7.	Ordinary Resolution	Material Related Party Transaction(s) with Tata Metaliks Limited
8.		Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., wholly-owned subsidiary of Tata Steel Limited and Tata Steel Long Products Limited, subsidiary company of Tata Steel Limited
9.		Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., wholly-owned subsidiary of Tata Steel Limited and Tata NYK Shipping Pte. Ltd., JV Company of Tata Steel Limited
10.		Material Related Party Transaction(s) between Tata Steel IJmuiden BV, wholly-owned subsidiary of Tata Steel Limited and Wupperman Staal Nederland BV, an associate company of Tata Steel Limited
11.		Appointment of Mr. Noel Naval Tata (DIN: 00024713) as a Director
12.	Special Resolution	Appointment of Mr. Vijay Kumar Sharma (DIN: 02449088) as an Independent Director

The voting period for remote e-voting commenced on Thursday, May 12, 2022 at 9.00 a.m. (IST) and ended on Friday, June 10, 2022 at 5.00 p.m. (IST). The consolidated report on the result of the postal ballot through remote e-voting for approving the aforementioned resolutions was provided by the Scrutiniser on Friday, June 10, 2022.

The details of e-voting on the aforementioned resolution(s) are provided hereunder:

Description of the Resolution	Votes in favour of the Resolution(s)			Votes against the Resolution(s)			Invalid Votes	
	Number of Members voted	Number of valid Votes cast (shares)	% of total number of valid votes cast	Number of Members voted	Number of valid Votes cast (shares)	% of total Number of valid votes cast	Total number of members whose votes were declared invalid	Total number of invalid votes cast (shares)
Material Related Party Transaction(s) with The Tinplate Company of India Limited – Operational Transaction(s)	9,263	50,38,14,697	100.00	216	20,178	0	3	28,37,997
Material Related Party Transaction(s) with The Tinplate Company of India Limited – Financial Transaction(s)	9,209	50,38,10,803	100.00	233	20,078	0	3	28,37,997
Material Related Party Transaction(s) with Tata Steel Long Products Limited	9,254	50,38,10,015	100.00	187	17,925	0	3	28,37,997
Material Related Party Transaction(s) with Tata BlueScope Steel Private Limited	9,212	50,38,06,674	100.00	219	20,277	0	3	28,37,997
Material Related Party Transaction(s) with Jamshepur Continuous Annealing & Processing Company Private Ltd.	9,208	50,38,06,529	100.00	219	20,056	0	3	28,37,997
Material Related Party Transaction(s) with TM International Logistics Limited	9,198	50,38,05,368	100.00	224	21,042	0	3	28,37,997
Material Related Party Transaction(s) with Tata Metaliks Limited	9,228	50,38,07,088	100.00	201	18,999	0	3	28,37,997
Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., wholly-owned subsidiary of Tata Steel Limited and Tata Steel Long Products Limited, subsidiary company of Tata Steel Limited	9,222	50,38,05,359	100.00	205	19,539	0	3	28,37,997
Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., wholly-owned subsidiary of Tata Steel Limited and Tata NYK Shipping Pte. Ltd., JV Company of Tata Steel Limited	9,210	50,38,06,278	100.00	209	19,434	0	3	28,37,997
Material Related Party Transaction(s) between Tata Steel IJmuiden BV, wholly-owned subsidiary of Tata Steel Limited and Wupperman Staal Nederland BV, an associate company of Tata Steel Limited	9,206	50,38,06,386	100.00	211	19,513	0	3	28,37,997
Appointment of Mr. Noel Naval Tata (DIN: 00024713) as a Director	8,784	78,19,56,949	85.26	675	13,51,57,942	14.74	NIL	NIL
Appointment of Mr. Vijay Kumar Sharma (DIN: 02449088) as an Independent Director	8,995	81,37,93,869	96.49	418	2,96,22,454	3.51	NIL	NIL

The Resolution(s) were passed with requisite majority.

## 2. Postal Ballot vide notice dated July 25, 2022, on the following Ordinary Resolution(s):

SN	Description of the Resolution(s)
1.	Omnibus Material Related Party Transaction(s) with Neelachal Ispat Nigam Limited – Operational Transaction(s)
2.	One time Material Related Party Transaction(s) with Neelachal Ispat Nigam Limited – Financial Transaction(s)
3.	Omnibus Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., an indirect wholly-owned subsidiary of Tata Steel Limited and Neelachal Ispat Nigam Limited, an indirect subsidiary of Tata Steel Limited
4.	Omnibus Material Related Party Transaction(s) between Tata Steel Limited and Tata Metaliks Limited – Financial Transaction

The voting period for remote e-voting commenced on Tuesday, August 16, 2022 at 9.00 a.m. (IST) and ended on Wednesday, September 14, 2022 at 5.00 p.m. (IST). The consolidated report on the result of the postal ballot through remote e-voting for approving the aforementioned resolutions was provided by the Scrutiniser on Wednesday, September 14, 2022.

The details of e-voting on the aforementioned Ordinary Resolution(s) are provided hereunder:

Description of the Resolution	Votes in favour of the Resolution(s)			Votes against the Resolution(s)			Invalid Votes	
	Number of Members voted	Number of valid Votes cast (shares)	% of total number of valid votes cast	Number of Members voted	Number of valid Votes cast (shares)	% of total Number of valid votes cast	Total number of members whose votes were declared invalid	Total number of invalid votes cast (shares)
Omnibus Material Related Party Transaction(s) with Neelachal Ispat Nigam Limited – Operational Transaction(s)	17,754	463,39,87,965	99.99	464	5,34,794	0.01	1	8,210
One time Material Related Party Transaction(s) with Neelachal Ispat Nigam Limited – Financial Transaction(s)	17,672	463,39,67,895	99.99	501	5,15,506	0.01	1	8,210
Omnibus Material Related Party Transaction(s) between T S Global Procurement Company Pte. Ltd., an indirect wholly-owned subsidiary of Tata Steel Limited and Neelachal Ispat Nigam Limited, an indirect subsidiary of Tata Steel Limited	17,679	463,39,32,427	99.99	491	5,54,368	0.01	1	8,210
Omnibus Material Related Party Transaction(s) between Tata Steel Limited and Tata Metaliks Limited – Financial Transaction	17,742	463,39,42,879	99.99	445	5,61,416	0.01	1	8,210

The Ordinary Resolution(s) were passed with requisite majority.

## 3. Postal Ballot vide notice dated December 16, 2022, on the following Resolution(s):

SN	Type of Resolution	Description of the Resolution(s)
1.	Ordinary Resoluton	Re-appointment of Mr. Koushik Chatterjee (DIN: 00004989) as Whole-time Director designated as Executive Director and Chief Financial Officer and payment of remuneration
2.	Special Resolution	Appointment of Ms. Bharti Gupta Ramola (DIN: 00356188) as an Independent Director
3.	Ordinary Resolution	Material modification in approved Related Party Transaction(s) with Neelachal Ispat Nigam Limited, a subsidiary company of Tata Steel Limited

The voting period for both remote e-voting as well as voting through physical postal ballot commenced on Monday, January 2, 2023 at 9.00 a.m. (IST) and ended on Tuesday, January 31, 2023 at 5.00 p.m. (IST). The consolidated report on the result of the postal ballot for approving the aforementioned resolutions was provided by the Scrutiniser on February 2, 2023.

The details of voting on the aforementioned Resolution(s) are provided hereunder:

Description of the Resolution	Votes in favour of the Resolution(s)			Votes against the Resolution(s)			Invalid Votes	
	Number of Members voted	Number of valid Votes cast (shares)	% of total number of valid votes cast	Number of Members voted	Number of valid Votes cast (shares)	% of total Number of valid votes cast	Total number of members whose votes were declared invalid	Total number of invalid votes cast (shares)
Re-Appointment of Mr. Koushik Chatterjee (DIN: 00004989) as Whole-time Director designated as Executive Director and Chief Financial Officer and payment of remuneration	11,346	864,74,79,759	98.65	435	11,84,01,311	1.35	52	1,34,977
Appointment of Ms. Bharti Gupta Ramola (DIN: 00356188) as an Independent Director	11,275	875,94,59,792	99.93	429	63,06,778	0.07	52	1,34,977
Material modification in approved Related Party Transaction(s) with Neelachal Ispat Nigam Limited, a subsidiary company of Tata Steel Limited	11,358	463,34,68,921	99.99	319	3,25,900	0.01	55	6,12,18,147

The Resolution(s) were passed with requisite majority.

In respect of all the above Postal Ballots conducted by the Company during FY2022-23, the Board of Directors had appointed Mr. P. N. Parikh (Membership No. FCS 327, CP No. 1228) or failing him, Ms. Jigyasa N. Ved (Membership No. FCS 6488, CP No. 6018) or failing her, Mr. Mitesh Dhabliwala (Membership No. FCS 8331, CP No. 9511) of Parikh & Associates, Practising Company Secretaries, as the Scrutiniser to scrutinise the postal ballot process, in a fair and transparent manner.

#### Procedure for Postal Ballot:

All the aforesaid Postal Ballots were conducted by the Company as per the provisions of Sections 108 and 110 and other applicable provisions of the Act, read with the Rules framed thereunder and General Circular Nos. 14/2020 dated April 8, 2020, 17/2020 dated April 13, 2020, 22/2020 dated June 15, 2020, 33/2020 dated September 28, 2020, 39/2020 dated December 31, 2020, 10/2021 dated June 23, 2021, 20/2021 dated December 8, 2021, and 3/2022 dated May 5, 2022 issued by the Ministry of Corporate Affairs. Additionally, a physical copy of the Postal Ballot Notice dated December 16, 2022 along with Postal Ballot Form and pre-paid self-addressed Business Reply Envelope were sent by the Company to its shareholders, whose e-mail addresses were not registered with the Company/RTA/Depositories.

#### Details of special resolution proposed to be conducted through postal ballot:

None of the businesses proposed to be transacted at the ensuing Annual General Meeting, scheduled to be held on July 5, 2023 ('AGM'), requires passing of a Special Resolution through Postal Ballot.

#### Table M: Annual General Meeting 2023:

Day & Date	Wednesday, July 5, 2023
Time	3:00 p.m. IST
Venue	The Ministry of Corporate Affairs ('MCA') has vide its General Circular No. 14/2020 dated April 8, 2020, General Circular No. 17/2020 dated April 13, 2020, General Circular No. 20/2020 dated May 5, 2020, and subsequent circulars issued in this regard, the latest being 10/2022 dated December 28, 2022 (collectively referred to as 'MCA Circulars') permitted the holding of the Annual General Meeting through video-conferencing/other audio-visual means ('VC/OAVM'), without the physical presence of the Members at a common venue. In compliance with the provisions of the Act and MCA Circulars, the AGM of the Company is being held through VC/OAVM. The deemed venue of the AGM shall be Bombay House, 24, Homi Mody Street, Fort, Mumbai – 400 001.
Financial Year	April 1 to March 31
Book Closure Dates	Friday, June 23, 2023 to Wednesday, July 5, 2023 (both days inclusive)
Dividend Payment Date	On and from Monday, July 10, 2023 (subject to approval of the shareholders at the AGM)



### **Communication to the Shareholders**

The Company sends quarterly, half-yearly, and yearly financial results to the Shareholders electronically. Key financial data is published in The Indian Express, Financial Express, Nav Shakti, Free Press Journal and Loksatta. The financial results along with the earnings releases are also posted on the Company's website at <https://www.tatasteel.com/investors/financial-performance/financial-results/>

Earnings calls on financials/quarterly results are held with analysts and investors and their transcripts are published on the website. Such presentations made to analysts and others are also made available on the Company's website at <https://www.tatasteel.com/investors/financial-performance/analyst-presentations/>

All disclosures as required under the SEBI Listing Regulations are made to respective Stock Exchanges where the securities of the Company are listed. The same are also available on the Company's website at <https://www.tatasteel.com/investors/stock-exchange-compliances/stock-exchange-releases/>

The Company's website is a comprehensive reference on its leadership, management, vision, mission, policies, corporate governance, sustainability, investor relations, products and processes and updates and news. The section on 'Investors' serves to inform the shareholders, by giving complete financial details, stock exchange compliances including shareholding patterns and updated credit ratings amongst others, corporate benefits, information relating to Stock Exchanges, details of Registrars & Transfer Agent and Frequently Asked Questions. Investors can also submit their queries by submitting 'Shareholder Query Form' and get feedback online. The section on 'Media' includes all major press reports and releases, awards and campaigns by the Company, amongst others.

### **Investor grievance and share transfer system**

The Company has a Board-level Stakeholders' Relationship Committee to examine and redress investors' complaints. The status on complaints and share transfers are reported to the entire Board.

Securities of the listed companies can be transferred only in dematerialised form w.e.f. April 1, 2019. Further, SEBI vide its Circular No. SEBI/HO/MIRSD/MIRSD\_RTAMB/P/CIR/2022/8 dated January 25, 2022, mandated all listed companies to issue securities in dematerialised form only, while processing the service request of issue of duplicate securities certificate, claim from Unclaimed Suspense Account, renewal/ exchange of securities certificate, endorsement, sub-division/splitting of

securities certificate, consolidation of securities certificates/ folios, transmission and transposition.

In view of the same and to eliminate all risks associated with physical shares and avail various benefits of dematerialisation, Members are advised to dematerialise the shares held by them in physical form. Members can contact the Company or RTA, for assistance in this regard.

Also, share transactions in electronic form can be effected in a much simpler and faster manner. After a confirmation of a sale/purchase transaction from the broker, shareholders should approach the Depository Participant ('DP') with a request to debit or credit the account for the transaction. The DP will immediately arrange to complete the transaction by updating the account.

Shareholders should communicate with TSR Consultants Private Limited (formerly known as TSR Darashaw Consultants Private Limited), the Company's Registrars and Transfer Agent ('RTA') quoting their folio number or Depository Participant ID ('DP ID') and Client ID number, for any queries to their securities.

Shareholders are advised to refer the latest SEBI guidelines/circular issued for all the holder holding securities in listed companies in physical form from time to time and keep their KYC details updated at all times, to avoid freezing their folio as prescribed by SEBI.

### **Details of non-compliance**

The Company has complied with the requirements of the Stock Exchanges, SEBI and other statutory authorities on all matters relating to capital markets during the last three years and no penalties and/or strictures have been imposed on the Company in this regard. There has been no instance of non-compliance with any legal requirements, particularly with any requirements of the Corporate Governance Report, during the year under review.

### **Details of utilisation of funds**

During the year under review, the Company did not raise any funds through preferential allotment or qualified institutions placement as specified under Regulation 32(7A) of the SEBI Listing Regulations.

However, during the year under review, the Company has issued Non-Convertible Debentures ('NCDs') on private placement basis, which are listed on the debt market segment of BSE Limited. The Company affirms that there has been no deviation or variation in utilisation of proceeds of the listed NCDs of the Company.

### Forfeiture of Partly paid-up shares

On account of the first and final call made on the partly paid-up Ordinary Shares of the Company, the said securities listed on the National Stock Exchange of India Limited and BSE Limited under symbol TASTLPP and Scrip Code 891044, respectively, stand suspended from trading with effect from February 17, 2021.

During the year under review, the Company, on February 8, 2023 issued one more reminder-cum-forfeiture notice to the holders of partly paid-up equity shares on which the first and final call money was unpaid. The Company has converted 3,16,580 partly paid-up shares of face value of ₹1/- each into fully paid-up shares during FY2022-23.

Further, the Board of Directors, at their meeting held on March 27, 2023 considered and approved the forfeiture of 19,16,300 partly paid-up equity shares of face value ₹1/- each (prior to sub-division 1,91,630 partly paid-up equity shares of face value of ₹10/- each and paid-up ₹2.504 per share) on which the first and final call money was not paid.

### Certificates from Practising Company Secretaries

As required by Regulation 34(3) and Schedule V, Part E of the SEBI Listing Regulations, the certificate given by Parikh & Associates (Firm Registration No. P1988MH009800), Practising Company Secretaries, regarding compliance of conditions of the Company of corporate governance, is annexed to the Board's Report.

As required by Clause 10(i) of Part C under Schedule V of the SEBI Listing Regulations, the Company has received a certificate from Parikh & Associates (Firm Registration No. P1988MH009800), Practising Company Secretaries, certifying that none of our Directors have been debarred or disqualified from being appointed or continuing as Directors of the Company by SEBI or MCA or such other statutory authority.

### CEO and CFO certification

As required by Regulation 17(8) read with Schedule II Part B of the SEBI Listing Regulations, the Chief Executive Officer & Managing Director and Executive Director & Chief Financial Officer have given appropriate certifications to the Board of Directors of the Company.

### Annual Certificate on Security Transfer

In terms of Regulation 40(9) and 61(4) of the SEBI Listing Regulations, certificates, have been issued by a Company Secretary in Practice, on annual basis, with respect to due compliance of share and security transfer formalities by the Company.

### Reconciliation of Share Capital Audit

The Company Secretary in Practice carried out a Reconciliation of Share Capital Audit to reconcile the total admitted capital with National Securities Depository Limited ('NSDL') and Central Depository Services (India) Limited ('CDSL') (collectively 'Depositories') and the total issued and listed capital of the Company. The audit confirms that the total paid-up capital of the Company is in agreement with the aggregate of the total number of shares in physical form and in dematerialised form (held with the Depositories).

The Audit Report is disseminated to the Stock Exchanges on a quarterly basis and is also available on our website at <https://www.tatasteel.com/investors/stock-exchange-compliances/reconciliation-of-share-capital-audit-reports/>

### Related Party Transactions

All transactions entered into with the related parties as defined under the Act and Regulation 23 of the SEBI Listing Regulations, each as amended, during the year under review, were on an arm's length price basis and in the ordinary course of business. These have been approved by the Audit Committee and shareholders of the Company, where required, in terms of provisions of the SEBI Listing Regulations. Certain transactions which were repetitive in nature were approved through omnibus route by the Audit Committee. The Company has not entered into any materially significant related party transaction that have potential conflict with the interest of the Company at large. The Policy on Related Party Transactions as approved by the Board of Directors from time to time is uploaded on the Company's website at <https://www.tatasteel.com/corporate/our-organisation/policies/>

### Material Pecuniary Relationship

During FY2022-23, the Company did not have any material pecuniary relationship or transactions with the Non-Executive Directors of the Company, apart from paying Director's remuneration. Further, the Directors have not entered into any contracts with the Company or its subsidiaries, which give rise to the in material conflict with the interest of the Company.

The Board has received disclosures from KMP and Members of Senior Management relating to material, financial and commercial transactions where they and/or their relatives have personal interest.

### Policy for Determining Material Subsidiaries

The Company has formulated a Policy for Determining Material Subsidiaries and the same is available on the Company's

website at <https://www.tatasteel.com/media/5890/policy-on-determining-material-subsiidiaries.pdf>

The Company is in compliance with the provisions governing material subsidiaries.

Details of material subsidiaries of the Company, including the date and place of incorporation and the name and date of appointment of the statutory auditors of such subsidiaries are as under:

SN	Subsidiaries whose total income / net worth exceeds 10% of the Group's total income/ net worth	Name of statutory auditors	Date of appointment of statutory auditors	Date of Incorporation	Place of Incorporation
1	Tata Steel Europe Limited	PricewaterhouseCoopers LLP	March 14, 2018	October 5, 2006	England
2	Tata Steel IJmuiden BV	PriceWaterhouseCoopers Accountants NV	October 5, 2017	June 28, 1972	The Netherlands
3	Tata Steel Nederland BV	PriceWaterhouseCoopers Accountants NV	October 5, 2017	September 20, 1918	The Netherlands
4	Tata Steel Netherlands Holdings B.V.	PriceWaterhouseCoopers Accountants NV	October 5, 2017	September 4, 2006	The Netherlands
5	Tata Steel UK Holdings Limited	PricewaterhouseCoopers LLP	March 14, 2018	July 26, 2006	England
6	Tata Steel UK Limited	PricewaterhouseCoopers LLP	March 14, 2018	July 26, 1988	England
7	Tulip UK Holdings (No.2) Limited	PricewaterhouseCoopers LLP	March 14, 2018	September 16, 2006	England
8	Tulip UK Holdings (No.3) Limited	PricewaterhouseCoopers LLP	March 14, 2018	September 14, 2006	England
9	T Steel Holdings Pte. Ltd.	PricewaterhouseCoopers LLP	January 11, 2018	July 5, 2006	Singapore
10	T S Global Holdings Pte Ltd.	PricewaterhouseCoopers LLP	January 11, 2018	July 4, 2008	Singapore
11	T S Global Procurement Company Pte. Ltd.	PricewaterhouseCoopers LLP	January 11, 2018	April 23, 2010	Singapore

**Vigil Mechanism**

The Vigil Mechanism approved by the Board provides a formal mechanism for all Directors, employees and vendors of the Company to approach the Chairman of the Audit Committee of the Company and make protective disclosures regarding the unethical behaviour, actual or suspected fraud or violation of the Company's Code of Conduct. Under the Policy, in addition, Directors, employees, and vendors, may approach the Chief Ethics Counsellor to make any such protected disclosure. During the year under review, no person has been denied access to the Chairman of the Audit Committee. Details of the Vigil Mechanism are given in the Board's Report.

The Whistle Blower Policy for Directors and Employees is available on the Company's website at <https://www.tatasteel.com/corporate/our-organisation/policies/>

**Disclosures as per the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:**

The disclosure regarding the complaints of sexual harassment are given in the Board's Report.

**Consolidated Fees paid to Statutory Auditors**

During the FY2022-23, the total fees for all services paid by the Company and its subsidiaries, on a consolidated basis, to Price Waterhouse & Co Chartered Accountants LLP, Statutory Auditors of the Company is as under:

**Table N: Consolidated fees paid to statutory auditors:**

Particulars	₹ crore)	
		Amount
As auditors (Statutory Audit)		48.00
For taxation matters		1.85
For other services		4.34
Out-of-pocket expenses		0.31
<b>Total</b>		<b>54.49</b>

**Dematerialisation of shares and liquidity**

The Company's Ordinary Shares are tradable compulsorily in electronic form. We have established connectivity with both the Depositories, i.e., NSDL and CDSL. The International Securities Identification Number ('ISIN') allotted to the Ordinary (Equity) Shares under the Depository System is **INE081A01020** post sub-division of 1 equity share of the Company having a face value of ₹10/- each, into 10 equity shares having face value of ₹1/- each.

The Board of Directors of the Company at its meeting held on February 9, 2021 approved making of the First and Final Call of ₹461/- (comprising ₹7.496 towards face value and ₹453.504 towards securities premium) per partly paid-up equity share ('**First and Final Call**'), in respect of 7,76,36,788 outstanding partly paid-up equity shares of face value ₹10/- each, issued by the Company, on a rights basis, pursuant to the Letter of Offer dated January 22, 2018. The Record Date for the purpose of determining the holders of partly paid-up equity shares was

set as February 19, 2021. The partly paid-up equity shares were suspended from trading w.e.f. February 17, 2021.

The Company, pursuant to the First and Final Call, has converted the following Partly paid-up equity shares to Fully paid-up equity shares of the Company on which the first and final call money was received:

SN	Date of conversion	Number of Partly paid-up equity shares converted
1	March 24, 2021	7,02,49,241
2	April 23, 2021	73,888
3	May 15, 2021	56,02,985
4	August 1, 2021	5,55,768
5	October 30, 2021	7,49,654
6	December 27, 2021	1,22,938
7	March 14, 2022	59,026
8	March 18, 2023	31,658*

\*31,658 shares of ₹10/- each have been converted into 3,16,580 shares of ₹1/- each upon sub-division of shares of the Company.

The outstanding partly paid-up equity shares of the Company post conversion stood at 19,16,300 Fully paid-up Ordinary Shares of ₹1/- each. Subsequently, the Board of Directors, at their meeting held on March 27, 2023 considered and approved the forfeiture of 19,16,300 partly paid-up equity shares of face value ₹1/- each (prior to sub-division 1,91,630 partly paid-up equity shares of face value of ₹10/- each and paid-up ₹2.504 per share) on which the first and final call money was not paid.

As on March 31, 2023, the Company has 1210,63,39,970 Ordinary (equity) Shares representing 99.06% of the Company's share capital which is in dematerialised form.

Further, outstanding GDR Shares 8,79,53,750 (March 31, 2022: 96,95,642 shares of face value of ₹10/- each) of face value ₹1/- per share represent the shares underlying GDRs which were loose text, its too cramped Ordinary (equity) Share.

Details of shares transferred to the 'Suspense Escrow Demat Account' are as under:

SN	Particulars	Details of shares transferred pursuant to SEBI Circular dated December 12, 2020		Details of shares transferred pursuant to SEBI Circular dated January 25, 2022	
		Number of shareholders	Number of shares	Number of shareholders	Number of shares
(a)	Aggregate number of shareholders and the outstanding shares lying in the suspense account at the beginning of the year	NIL	NIL	NIL	NIL
(b)	Number of shareholders who approached listed entity for transfer of shares from suspense account during the year	NIL	NIL	NIL	NIL
(c)	Number of shareholders to whom shares were transferred from suspense account during the year	NIL	NIL	NIL	NIL
(d)	Aggregate number of shareholders and the outstanding shares lying in the suspense account at the end of the year	2	3,480	10	13,560

Voting rights on these shares shall remain frozen till the rightful owner of such shares claims the shares.

### Designated e-mail address for investor services

To serve the investors better and as required under Regulation 46(2)(j) of the SEBI Listing Regulations, the designated e-mail address for investor complaints is [cosec@tatasteel.com](mailto:cosec@tatasteel.com) The e-mail address for grievance redressal is monitored by the Company's Compliance Officer.

### Investor Awareness

As part of good governance we have provided subscription facilities to our investors for alerts regarding press release, results, webcasts, analyst meets and presentations amongst others. We also provide our investors facility to write queries regarding their rights and shareholdings and have provided details of persons to be contacted for this purpose. We encourage investors to visit our website for reading the documents and for availing the above facilities at [www.tatasteel.com](http://www.tatasteel.com)

### Legal proceedings in respect of title of shares

There are certain pending cases related to disputes over title to shares in which the Company has been made a party. However, these cases are not material in nature.

### Suspense Escrow Demat Account

In terms of SEBI Circular dated December 12, 2020, the Company has transferred 3,480 Ordinary (equity) shares to 'Suspense Escrow Demat Account' on account of non-receipt of demat request from the investor within 90 days of issuance of the Letter of Confirmation by Registrar and Share Transfer Agent ('RTA') for transfer of shares request.

Further, in terms of SEBI Circular dated January 25, 2022, the Company has transferred 13,560 Ordinary (equity) shares to 'Suspense Escrow Demat Account' on account of non-receipt of demat request from the investor within 120 days of issuance of the Letter of Confirmation by RTA for transmission / name deletion request.

### Commodity price risk

Coal, iron ore and other bulk commodities serve as an integral part of the steel manufacturing process with their sourcing concentrated in specific geographies. These commodities have complex, global supply chains and multiple factors such as geopolitical landscape, continued Russia – Ukraine conflict, exchange rate movements, energy crisis, supply-demand imbalance, policy interventions by Governments in key sourcing/consuming countries (especially China) serve as critical determinants of commodity market behavior. These factors coupled with changes in market dynamics cause volatility in prices of raw materials that has a bearing on the input costs of steelmaking. The changes in prices of commodities are balanced through adjustments in steel prices over a period which in effect acts as a natural hedge to the business.

The Company meets 100% of its iron ore requirements in India, through its captive iron ore mines and about one-fifth of its coking coal requirements from its coal mines. These captive mines provide a structural hedge to the price risk of these commodities.

The Company has a dedicated commodity sourcing team which engages with key raw material producers across the globe and the commodity market at large to optimise sourcing. The team proactively undertakes the assessment of risks of single geography and proprietary sourcing. They also

periodically conduct risk assessment for key vendors to check their capability in meeting the supply requirements. Several mitigations have been put in place for diversified sourcing with focus on indigenisation as one of the major levers to de-risk the supply chain for both direct and indirect commodities which are dependent on imports. Coal sourcing is being diversified and long-term tie-ups with coal suppliers in Australia is likely to keep prices competitive with an improved reliability. Price forecasting tools are being used for commodities like Coal, Zinc, Aluminium, etc. to understand price movements and to time the buy for optimising costs. Tools like reverse auctions are being used for efficient price discovery for commodities like coal, ferro alloys, refractories, etc. The dynamic value-in-use (VIU) mapping with imported coal pricing is undertaken for advance planning and value maximisation.

Sustainable procurement policy is being deployed to engage with suppliers/service providers to take initiatives in the areas of 'Reduce, Recycle, and Reuse' and foster responsible supply chain policy.

FY2022-23 has been a year of significant volatility in commodity prices (including energy) particularly post the Russia-Ukraine war. Slowdown in global growth is likely to impact steel demand and prices though the projected recovery in China (post COVID) is expected to mitigate some of the impact. The team continuously revisits the risks through analysis of multiple risk scenarios to arrive at focused mitigation plans.

To address the short-term price volatility, the Company also hedges certain commodities in the derivatives market. Exposure of the Company to commodity and commodity risks faced by the Company throughout the year is given as below:

1. Total exposure of the listed entity to commodities (including commodities based on materiality): ₹45,627 crore.
2. Exposure to the listed entity to various commodities (based on materiality):

Commodity Name	Exposure in INR towards the particular commodity (crore)	Exposure in Quantity terms towards the particular commodity (Tonnes)	% of such exposure hedged through commodity derivatives				Total
			Domestic Market		International Market		
			OTC	Exchange	OTC	Exchange	
Coal	35,371	1,42,83,000	Nil	Nil	Nil	Nil	Nil
Pellet	3,014	30,77,000	Nil	Nil	Nil	Nil	Nil
Refractory	1,381	1,52,000	Nil	Nil	Nil	Nil	Nil

## Compliance with discretionary requirements

All mandatory requirements of the SEBI Listing Regulations have been complied with by the Company. The status of compliance with the discretionary requirements, as stated under Part E of Schedule II to the SEBI Listing Regulations are as under:

**Maintenance of Chairman's office:** The Non-Executive Chairman has a separate office which is not maintained by the Company.

**Shareholder Rights:** The half-yearly financial performance of the Company is sent to all the Members whose e-mail IDs are registered with the Company/Depositories. The results are also

available on the Company's website at <https://www.tatasteel.com/investors/financial-performance/financial-results/>

**Modified opinion(s) in Audit Report:** The Auditors have expressed an unmodified opinion in their report on the financial statements of the Company.

**Separate posts of Chairperson and the Managing Director or the Chief Executive Officer:** The Company has separate posts of Chairperson and the Managing Director & Chief Executive Officer.

**Reporting of Internal Auditor:** The Internal Auditor functionally reports to the Audit Committee.

## Table O: Distribution of Shareholding of Ordinary Shares

Share Holding	Total No. of Shareholders as on March 31,		% to Total Shareholders as on March 31,		*Total No. of Shares as on March 31,		% to Total Capital as on March 31,	
	2023	2022	2023	2022	2023	2022	2023	2022
1	1,93,225	1,31,573	5.12	7.96	1,93,225	1,31,573	0.00	0.01
2-10	6,47,406	5,23,177	17.16	31.64	42,79,109	30,38,897	0.04	0.25
11-50	8,23,626	5,03,902	21.83	30.48	2,55,99,799	1,35,66,185	0.21	1.11
51-100	5,42,760	1,77,762	14.39	10.75	4,64,71,340	1,38,17,248	0.38	1.13
101-200	4,29,197	1,40,752	11.38	8.51	6,79,48,206	2,06,84,876	0.56	1.69
201-500	4,87,398	1,04,574	12.92	6.32	17,00,79,289	3,28,60,392	1.39	2.69
501-1,000	2,65,729	37,299	7.05	2.26	20,65,11,937	2,66,70,666	1.69	2.18
1,001-5,000	3,02,713	28,987	8.03	1.75	65,31,17,001	5,75,22,231	5.34	4.71
5,001-10,000	42,826	2,851	1.14	0.17	30,57,58,899	1,97,44,784	2.50	1.62
10,001-1,00,000	34,351	2,019	0.91	0.12	82,18,02,600	5,38,04,304	6.72	4.41
1,00,001 and above	2,566	584	0.07	0.04	991,97,75,595	97,94,62,524	81.17	80.20
<b>Total</b>	<b>37,71,797</b>	<b>16,53,480</b>	<b>100.00</b>	<b>100.00</b>	<b>1222,15,37,000</b>	<b>122,13,03,680</b>	<b>100.00</b>	<b>100.00</b>

\*The Members of the Company, at the Annual General Meeting held on June 28, 2022, had approved sub-division of 1 Ordinary (equity) Share of face value ₹10/- each into 10 Ordinary (equity) Shares of face value ₹1/- each. The sub-division was applicable on those Members holding equity shares of the Company as on the Record Date of July 29, 2022. Further, the Board of Directors, at their meeting held on March 27, 2023 considered and approved the forfeiture of 19,16,300 partly paid-up equity shares of face value ₹1/- each (prior to sub-division 1,91,630 partly paid-up equity shares of face value of ₹10/- each and paid-up ₹2.504 per share) on which the first and final call money was not paid.

## Transfer of Unclaimed Dividend and Shares to Investor Education and Protection Fund (IEPF)

Pursuant to the provisions of the Act, read with Investor Education Protection Fund Authority (Accounting, Audit, Transfer and Refund) Rules, 2016, as amended ('Rules'), the dividends, unclaimed for a period of seven years from the date of transfer to the Unpaid Dividend Account of the Company are liable to be transferred to the IEPF. Accordingly, unclaimed dividends of Shareholders for FY2015-16 lying in the unclaimed dividend account of the Company as on September 16, 2023 will be due for transfer to IEPF on the due date i.e., September 17, 2023. Further, the shares (excluding the disputed cases having specific orders of the Court, Tribunal or any Statutory Authority restraining such transfer) pertaining to which dividend remains unclaimed for a consecutive period of seven years from the date of transfer of the dividend to the Unpaid Dividend Account is also mandatorily required to be transferred to the IEPF Authority established by the Central Government.

## The details of unclaimed dividends and shares transferred to IEPF within statutory timelines during FY2022-23 are as follows:

Financial Year	Amount of Unclaimed Dividend Transferred (₹)	Number of Shares Transferred
2014-15	6,93,56,856	34,52,492

Further, 4,87,85,760 Ordinary (equity) Shares of ₹1/- each aggregating ₹4,87,85,760 were transferred to IEPF pursuant to sub-division of shares during FY2022-23.

The Company had sent individual communication to the concerned shareholders at their registered address, whose dividend remained unclaimed and whose shares were liable to be transferred to the IEPF by September 16, 2022.

The communication was also published in national English and local Marathi newspapers.

Any person whose unclaimed dividend and shares pertaining thereto, matured deposits, matured debentures, application money due for refund, or interest thereon, sale proceeds of fractional shares, redemption proceeds of preference shares, amongst others has been transferred to the IEPF Fund can claim their due amount from the IEPF Authority by making an electronic application in web-form IEPF-5.

Upon submitting a duly completed form, shareholders are required to take print of the same and send physical copy duly signed along with requisite documents as specified in the form to the attention of the Nodal Officer, at the Registered Office of the Company. The instructions for the web-form can be downloaded from our website at [www.tatasteel.com](http://www.tatasteel.com) under 'unclaimed dividend' tab in 'investor' section and simultaneously from the website of Ministry of Corporate Affairs at [www.iepf.gov.in](http://www.iepf.gov.in)

**Table P: The status of dividend remaining unclaimed is given hereunder:**

Unclaimed Dividend	Status	Whether it can be claimed	Can be claimed from	Action to be taken
Up to and including the financial year 1994-95	Transferred to the General Revenue Account of the Central Government	Yes	Office of Registrar of Companies, Central Government Office Building, 'A' Wing, 2 <sup>nd</sup> Floor, Next to Reserve Bank of India, CBD, Belapur - 400 614.	Claim to be forwarded in prescribed Form No. II of the Companies Unpaid Dividend (Transfer to General Revenue Account of the Central Government) Rules, 1978
For the financial years 1995-1996 to 2011-12	Transferred to the IEPF of the Central Government	Yes	Submit web-form IEPF-5 to the Registered Office of the Company addressed to the Nodal Officer along with complete documents.	IEPF Authority to pay the claim amount to the Shareholder based on the verification report submitted by the Company and the documents submitted by the investor.
For the financial years 2015-2016 to 2021-22	Amount lying in respective Unpaid Dividend Accounts	Yes	TSR Consultants Private Limited (formerly TSR Darashaw Consultants Private Limited), Registrars and Transfer Agent	Letter on plain paper

The Company has hosted on its website the details of the unclaimed dividend/unclaimed shares/interest/ principal amounts for the FY2022-23 as per the Notification No. G S R 352 (E) dated May 10, 2012 of Ministry of Corporate Affairs (as per Section 124 of the Act, as amended).

**Table Q: Details of date of declaration of dividend & due date for transfer to IEPF**

Year	Dividend per Fully paid-up Ordinary (equity) Share	Dividend per Partly paid-up Ordinary (equity) Share	Date of Declaration	Due date for Transfer to IEPF
2015-16	8	-	August 12, 2016	September 17, 2023
2016-17	10	-	August 08, 2017	September 09, 2024
2017-18	10	2.504	July 20, 2018	August 22, 2025
2018-19	13	3.25	July 19, 2019	August 22, 2026
2019-20	10	2.504	August 20, 2020	September 24, 2027
2020-21	25	6.25	June 30, 2021	August 02, 2028
2021-22	51	12.75	June 28, 2022	August 02, 2029

Shareholders are requested to contact the RTA for encashing the unclaimed dividend/interest/principal amount, if any, standing to the credit of their account.

### Nomination Facility

Shareholders whose shares are in physical form and wish to make/change a nomination in respect of their shares in the

Company, as permitted under Section 72 of the Act, may submit to RTA the prescribed Forms SH-13/SH-14. Further, shareholders who want to opt out of the nomination, may submit Form ISR-3, after cancelling his existing nomination, if any, through Form SH-14. The Nomination Form can be downloaded from the Company's website at [www.tatasteel.com](http://www.tatasteel.com) under the section 'Investors'.

### Shares held in Electronic Form

Shareholders holding shares in electronic form may please note that instructions regarding change of address, bank details, e-mail IDs, nomination and power of attorney should be given directly to the DP.

### Shares held in Physical Form

Shareholders holding shares in physical form may please note that instructions regarding change of address, bank details, e-mails IDs, nomination and power of attorney should be given to the Company's RTA i.e., TSR Consultants Private Limited in prescribed Form No. ISR-1 or other applicable form.

### Updation of bank details for remittance of dividend/cash benefits in electronic form

SEBI vide its Circular No. CIR/MRD/DP/10/2013 dated March 21, 2013 ('Circular'), which is applicable to all listed companies, mandated to update bank details of their shareholders holding shares in demat mode and/or physical form, to enable usage of the electronic mode of remittance i.e., National Automated Clearing House ('NACH') for distributing dividends and other cash benefits to the shareholders.

The Circular further states that in cases where either the bank details such as Magnetic Ink Character Recognition ('MICR') and Indian Financial System Code ('IFSC'), amongst others, that are required for making electronic payment are not available or the electronic payment instructions have failed or have been rejected by the bank, companies or their Registrars and Transfer Agents may use physical payment instruments for making cash payments to the investors. Companies shall mandatorily print the bank account details of the investors on such payment instruments.

Regulation 12 of the SEBI Listing Regulations, allows the Company to pay dividend by cheque or 'payable at par' warrants where payment by electronic mode is not possible. Shareholders to note that payment of dividend and other cash benefits through electronic mode has many advantages like prompt credit, elimination of fraudulent encashment/delay in transit amongst others. They are requested to opt for any of the above-mentioned electronic modes of payment of dividend and other cash benefits and update their bank details:

- In case of holdings in dematerialised form, by contacting their DP and giving suitable instructions to update the bank details in their demat account.

- In case of holdings in physical form, by informing the Company's RTA i.e., TSR Consultants Private Limited (formerly TSR Darashaw Consultants Private Limited), through a signed request letter with details such as their Folio No(s), Name and Branch of the Bank in which they wish to receive the dividend, the Bank Account type, Bank Account Number allotted by their banks after implementation of Core Banking Solutions ('CBS') the 9-digit MICR Code Number and the 11-digit IFSC Code. This letter should be supported by cancelled cheque bearing the name of the first shareholder.

Shareholders to note that those who are unable to receive the dividend directly in their bank accounts through Electronic Clearing Service or any other electronic means, due to non-registration of the Electronic Bank Mandate, the Company shall dispatch the dividend warrant/Bankers' cheque/demand draft to such Members.

### Listing on Stock Exchanges

As on March 31, 2023, the Company has issued Fully paid-up Ordinary Shares which are listed on BSE Limited and National Stock Exchange of India Limited in India. The annual listing fees has been paid to the respective stock exchanges.

### Table R: ISIN and Stock Code details for Ordinary (equity) Shares

Stock Exchanges	ISIN	Stock Code
BSE Limited ('BSE') Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400 001, Maharashtra, India	INE081A01020	500470
National Stock Exchange of India Limited ('NSE') Exchange Plaza, 5 <sup>th</sup> Floor, Plot No. C/1, G Block, Bandra-Kurla Complex, Mumbai - 400 051, Maharashtra, India	INE081A01020	TATASTEEL

### Table S: International listings of securities issued by the Company are as under:

#### Global Depository Receipts ('GDRs') as on March 31, 2023:

GDRs	1994	2009
ISIN	US87656Y1091	US87656Y4061
Listed on	Luxembourg Stock Exchange	London Stock Exchange



**Table T: Unsecured Redeemable Non-Convertible Debentures ('NCDs') as on March 31, 2023, are listed on the Wholesale Debt Market segment of the Stock Exchanges as under:**

(Amount in ₹ crore)

Coupon Rate (%)	ISIN	Principal Amount	Maturity		Credit Ratings	Name of the Stock Exchange on which the NCDs are listed
			Amount	Date		
8.15	INE081A08215	1,000.00	1,000.00	Oct 01, 2026	AA+ by CARE <sup>#</sup> , AA+ by India Ratings <sup>##</sup> and AA+ by Brickwork <sup>^</sup>	BSE
9.8359	INE081A08223	4,315.00	1,078.75	Feb 28, 2031	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
			1,078.75	Mar 01, 2032		
			1,078.75	Mar 01, 2033		
			1,078.75	Mar 01, 2034		
7.70	INE081A08231	670.00	670.00	Mar 13, 2025	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
7.85	INE081A08249	1,025.00	1,025.00	Apr 17, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
7.85	INE081A08256	510.00	510.00	Apr 21, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
Floating Rate <sup>§</sup>	INE081A08264	1,000.00	1,000.00	Apr 27, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
Floating Rate <sup>&amp;</sup>	INE081A08280 (Series A)	500.00	500.00	Apr 28, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
7.95	INE081A08272 (Series B)	500.00	500.00	Oct 30, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
8.25	INE081A08298	1,000.00	1,000.00	May 19, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
Floating Rate <sup>**</sup>	INE081A08306	400.00	400.00	Jun 02, 2023	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
7.50	INE081A08314	500.00	500.00	Sep 20, 2027	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
7.76	INE081A08322	1,500.00	1,500.00	Sep 20, 2032	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE
8.03	INE081A08330	2,150.00	2,150.00	Feb 25, 2028	AA+ CARE <sup>#</sup> and AA+ India Ratings <sup>##</sup>	BSE

**Notes:**

<sup>^</sup> Brickworks vide release dated September 22, 2022, have reaffirmed rating of 'AA+' with Stable Outlook of Unsecured NCDs of Tata Steel Limited.

<sup>#</sup> CARE Ratings Limited vide release dated February 16, 2023, reaffirmed rating of 'AA+' with Stable Outlook of Unsecured NCDs of Tata Steel Limited.

<sup>##</sup> India Ratings vide release dated February 13, 2023, reaffirmed rating of 'AA+' with Positive Outlook of Unsecured NCDs of Tata Steel Limited.

<sup>§</sup> Coupon Rate on the Floating Rate Debentures is the sum of the prevailing Repo Rate fixed by the Reserve Bank of India on each Monthly Reset Date and the applicable Spread of 3.30% per annum, payable annually at the end of every year from the Date of Allotment.

<sup>&</sup> Coupon Rate on the Floating Rate Debentures is the sum of the prevailing Repo Rate fixed by the Reserve Bank of India on each Monthly Reset Date and the applicable spread of 3.45% per annum, payable annually at the end of every year from the Date of Allotment.

<sup>\*\*</sup> Coupon Rate on the Floating Rate Debentures is the sum of the prevailing Repo Rate fixed by the Reserve Bank of India on each Monthly Reset Date and the applicable spread of 4.08% per annum, payable annually at the end of every year from the Date of Allotment.

**Credit Rating**

Details on credit rating for all debt instruments issued by the Company are provided in Table T above. Further details on credit rating are provided in the Board's Report. The above details are also available on our website at [www.tatasteel.com](http://www.tatasteel.com)

**Loans and Advances in which Directors are interested**

The Company has not provided any loans and advances to any firms/companies in which Directors are interested.

## Market Information

**Table U: Market Price Data - High, Low (based on daily closing price) and volume (no. of shares traded) during each month in FY2022-23 of Fully Paid-up Ordinary Shares, on BSE Limited and National Stock Exchange of India Limited:**

Month	BSE Limited			National Stock Exchange of India Limited		
	High (₹)	Low (₹)	Volume (No. of shares traded)	High (₹)	Low (₹)	Volume (No. of shares traded)
April 2022	1,371.10	1,220.60	74,43,475	1,370.75	1,220.35	11,88,14,611
May 2022	1,295.10	999.20	1,28,05,311	1,295.20	999.10	21,34,45,777
June 2022	1,086.75	837.95	1,06,54,123	1,086.75	838.10	19,67,88,554
July 2022	960.90	100.35	3,03,05,327	960.70	100.35	46,46,67,533
August 2022	113.00	104.85	10,31,71,954	113.00	104.85	134,29,98,394
September 2022	109.10	95.25	11,20,90,055	109.15	95.20	144,48,89,552
October 2022	104.20	98.30	7,20,49,560	104.20	98.35	73,27,61,912
November 2022	108.65	101.20	7,12,12,696	108.55	101.20	92,75,49,504
December 2022	115.80	102.20	7,33,05,258	115.85	102.25	103,32,18,889
January 2023	123.50	115.60	6,07,23,080	123.55	115.65	111,77,97,658
February 2023	122.05	103.95	6,22,93,118	122.05	103.95	97,12,15,680
March 2023	108.65	102.15	4,58,28,674	108.65	102.10	102,03,02,409
<b>Yearly</b>	<b>1,371.10</b>	<b>95.25</b>	<b>66,18,82,631</b>	<b>1,370.75</b>	<b>95.20</b>	<b>958,44,50,473</b>

The Company's shares are regularly traded on BSE Limited and National Stock Exchange of India Limited, as is seen from the volume of shares indicated in the Table containing Market Information.

**Table V: Performance of the share price of the Company in comparison to broad-based indices such as BSE SENSEX and NIFTY 50 are given below:**

Month	Closing Price of Equity Shares at BSE (₹)	BSE SENSEX	Closing Price of Equity Shares at NSE (₹)	Nifty 50
April 2022	1,271.70	57,060.87	1,271.05	17,102.55
May 2022	1,055.55	55,566.41	1,055.65	16,584.55
June 2022	866.95	53,018.94	867.05	15,780.25
July 2022	107.65	57,570.25	107.60	17,158.25
August 2022	108.30	59,537.07	108.30	17,759.30
September 2022	99.30	57,426.92	99.30	17,094.35
October 2022	101.55	60,746.59	101.55	18,012.20
November 2022	107.70	63,099.65	107.65	18,758.35
December 2022	112.65	60,840.74	112.65	18,105.30
January 2023	119.65	59,549.90	119.70	17,662.15
February 2023	103.95	58,962.12	103.95	17,303.95
March 2023	104.50	58,991.52	104.50	17,359.75

## Secretarial Audit

The Board of Directors has appointed Parikh and Associates (Firm Registration No. P1988MH009800), Practising Company Secretaries, to conduct secretarial audit of the Company's records and documents for FY2022-23. The Secretarial Audit Report confirms that the Company has complied with all applicable provisions

of the Act, Secretarial Standards, Depositories Act 2018, SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, SEBI (Prohibition of Insider Trading) Regulations, 2015, each as amended and all other regulations and guidelines of SEBI as applicable to the Company. The Secretarial Audit Report forms part of the Board's Report.

**Green Initiative**

As a responsible corporate citizen, the Company welcomes and supports the 'Green Initiative' undertaken by the Ministry of Corporate Affairs, Government of India, enabling electronic delivery of documents including the Annual Report, quarterly and half-yearly results, amongst others, to Shareholders at their e-mail addresses previously registered with the DPs and RTAs.

Shareholders who have not registered their e-mail addresses so far are requested to do the same. Those holding shares in demat form can register their e-mail addresses with their concerned DPs. Shareholders who hold shares in physical form are requested to register their e-mail addresses with the RTA, by sending a letter, duly signed by the first/sole holder quoting details of Folio No.

**Plant Locations:**

**Jharkhand:**

**Jamshedpur**

P. O. Bistupur  
Jamshedpur, Jharkhand – 831001

**Tata Steel Growth Shop**

Adityapur Industrial Estate  
P. O. Gamharia, Dist. Seraikela-Kharsawan,  
Jharkhand – 832108

**Cold Rolling Mill Complex, Bara**

P. O. Agrico, P.S. Sidhgora  
Block Jamshedpur, Dist.  
East Singhbhum,  
Jharkhand – 831009

**Tata Steel Limited Tubes Division**

P. O. Burmamines,  
Jamshedpur, Jharkhand – 831 007

**Odisha:**

**Kalinganagar**

Kalinganagar Industrial Complex,  
Duburi, Dist. Jajpur,  
Odisha – 755026

**Meramandali**

At Narendrapur, P.O. Kusupanga,  
Via Meramandali,  
Dist. Dhenkanal, Odisha – 759121

**Ferro Manganese Plant, Joda**

Dist. Keonjhar, Odisha - 758034

**Tata Steel Mining Limited:**

**Tata Steel Mining Ltd. Stainless Steel Plant**

WBIIDC Road, P.O. Dwarika, P.S Bishnupur,  
Dist. Bankura, West Bengal, 722122

**Tata Steel Mining Ltd. Ferro Alloys Plant**

Kalinga Nagar Industrial Estate,  
At Rabana, Via Danagadi, P. O. Manatira,  
P.S Jakhapura, Dist. Jajpur,  
Odisha – 755026

**Tata Steel Mining Limited: Bhubaneswar**

Tata Steel Mining Limited,  
Plot No. N3/24, IRC Village, Nayapalli  
Bhubaneswar, Odisha- Pin-751015  
Landline Number - 0674 2551045

**Athagarh**

Ferro Alloy Plant Athagarh,  
Tata Steel Mining Limited,  
Anantapur, P. O. Dhurusia, Athagarh  
Dist. Cuttack, Odisha - 754027

**Sukinda**

Sukinda Chromite Mine,  
Tata Steel Mining Limited,  
P. O. Kalarangiatta, Dist. Jajpur,  
Odisha - 755028

**Saruabil**

Saruabil Chromite Mine,  
Tata Steel Mining Limited,  
P. O. Kansa, Dist. Jajpur, Odisha - 755028

**Kamarda**

Kamarda Chromite Mine,  
Tata Steel Mining Limited,  
P. O. Kansa, Dist. Jajpur, Odisha - 755028

**Gopalpur**

Ferro Alloy Plant Gopalpur,  
Tata Steel Mining Limited,  
Chamakhandi, Chatrapur Tehsil,  
Dist. Ganjam, Odisha - 761020

**Jajpur**

Jajpur Ferro Alloys Plant,  
Tata Steel Mining Limited,  
Kalinganagar Industrial Complex,  
Duburi, Jajpur Dist. Odisha - 755026

**Bishnupur**

Bishnupur Stainless-steel &  
Ferro Alloys Plant,  
Tata Steel Mining Limited,  
Bishnupur Industrial Growth Centre  
(WBIIDC Industrial Estate),  
Dwarika, Bishnupur, Dist. Bankura, West  
Bengal – 722122

**Kolkata**

Tata Steel Mining Limited,  
12<sup>th</sup> Floor, Tata Centre, 43 Jawaharlal  
Nehru Road Road, Kolkata - 700071,  
West Bengal

**NINL:**

**Neelachal Ispat Nigam Limited**

Kalinga Nagar Industrial Complex,  
Duburi, Jajpur, Odisha - 755026

**Ferro Alloys Plant, Bamnival**

P. O. Bamnival, Dist. Keonjhar,  
Odisha – 758082

**Ferro Alloys Plant, Gopalpur**

P. O. Chamakhandi, Chatrapur Tahsil,  
Dist. Ganjam, Odisha – 761020

**Ferro Alloys Plant, Balasore**

Plot No. Z-1, IDCO IID Centre,  
Somnathpur Industrial Estate,  
Dist. Balasore, Odisha - 756019

**Maharashtra:****Khopoli**

Isamba Phata, Khopoli - Pen Road At  
Nifan Savroli, Khalapur, Dist. Raigad,  
Maharashtra – 410203

**Cold Rolling Complex (West)**

Plot No. S 76, Tarapur Industrial Area,  
P. Box 22, P. O. Tarapur Industrial Estate  
Dist. Palghar, Maharashtra – 401506

**Wire Division, Tarapur**

Plot F8 & A6, Tarapur MIDC,  
P. O. Boisar, Dist. Palghar,  
Maharashtra – 401504

**Madhya Pradesh:****Wire Division, Indore**

Plot 14/15/16 & 32, Industrial Estate  
Laxmibai Nagar, Fort, Indore - 452006,  
Madhya Pradesh

**Wire Division, Pithampur**

Plot 158 & 158A, Sector III,  
Industrial Estate, Pithampur,  
Madhya Pradesh – 454774

**Tamil Nadu:****Hosur**

Plot No. 104/3, Sipcot Industrial  
Complex, Phase – 1 Hosur,  
Dist. Krishnagiri,  
Tamil Nadu – 635126

**Uttar Pradesh:****Sahibabad**

23, Site IV, Sahibabad Industrial  
Area, Ghaziabad,  
Uttar Pradesh – 201010

**West Bengal****Hooghly Met Coke Division**

Patikhali, P. O. Haldia Oil Refinery,  
Purba Medinipur Haldia,  
West Bengal – 721606

**Bearings Division**

P. O. Rakha Jungle, Nimpura  
Industrial Estate,  
Kharagpur, West Bengal – 721301

**Mining Locations:****Iron Ore (OMQ):****Noamundi Iron Mine**

P. O. Noamundi  
Dist. West Singhbhum  
Jharkhand - 833217

**Joda East Iron Mine**

P.O. Joda,  
Dist. Keonjhar,  
Odisha - 758034

**Katamati Iron Mine**

P. O. Deojhar,  
Dist. Keonjhar,  
Odisha - 758038

**Khondbond Iron Mine**

P.O. Joda,  
Dist. Keonjhar,  
Odisha - 758034

**Manganese (FAMD):****Tiringpahar Iron & Manganese Mine**

P.O. Bamebari, Joda, Dist. Keonjhar,  
Odisha – 758086

**Joda West Iron & Manganese Mine**

P.O. Bichakundi, Joda, Dist. Keonjhar,  
Odisha – 758034

**Bamebari Iron & Manganese Mine**

P.O. Bamebari, Joda, Dist. Keonjhar,  
Odisha - 758034

**Collieries:****Jharia Division**

Jamadoba, Dhanbad,  
Jharkhand – 828112

**West Bokaro Division**

Ghatotand, Dist. Ramgarh,  
Jharkhand - 825314

**Investor Contact:****Registered Office:**

Bombay House, 24, Homi Mody Street,  
Fort, Mumbai - 400 001.  
Tel.: +91 22 6665 8282  
E-mail: [cosec@tatasteel.com](mailto:cosec@tatasteel.com)  
Website: [www.tatasteel.com](http://www.tatasteel.com)  
CIN: L27100MH1907PLC000260

**Name, designation & address of Compliance Officer:**

Mr. Parvatheesam Kanchinadham,  
Company Secretary & Chief Legal  
Officer (Corporate & Compliance)  
Bombay House, 24, Homi Mody Street,  
Fort, Mumbai - 400 001.  
Tel.: +91 22 6665 7279  
E-mail: [cosec@tatasteel.com](mailto:cosec@tatasteel.com)

**Name, designation & address of Investor Relations Officer:**

Mr. Pavan Kumar,  
Head - Group Investor Relation  
Bombay House, 24, Homi Mody Street,  
Fort, Mumbai - 400 001  
Tel.: +91 22 6665 7292  
E-mail: [ir@tatasteel.com](mailto:ir@tatasteel.com)

**Debenture Trustee:****IDBI Trusteeship Services Limited**

Asian Building, Ground Floor,  
17, R. Kamani Marg, Ballard Estate,  
Mumbai - 400 001.  
Tel.: +91 22 4080 7000  
Fax: +91 22 6631 1776  
E-mail: [itsl@idbitrustee.com](mailto:itsl@idbitrustee.com)  
Website: [www.idbitrustee.com](http://www.idbitrustee.com)

**Catalyst Trusteeship Ltd.**

604, Windsor Building, Kalina,  
Santacruz East, Mumbai - 400 098,  
Maharashtra, India  
Tel.: +91 22 4922 0555  
Fax: +91 22 4922 0505  
E-mail: [dt.mumbai@ctltrustee.com](mailto:dt.mumbai@ctltrustee.com)  
Website: [www.catalysttrustee.com](http://www.catalysttrustee.com)

**Stock Exchanges:****BSE Limited**

Phiroze Jeejeebhoy Towers,  
Dalal Street, Mumbai - 400 001.  
Tel.: +91 22 2272 1233  
Fax: +91 22 2272 1919  
Website: [www.bseindia.com](http://www.bseindia.com)

**National Stock Exchange of India Limited**

Exchange Plaza, Plot No. C/1, G Block  
Bandra-Kurla Complex, Bandra (E),  
Mumbai - 400 051.  
Tel.: +91 22 2659 8100  
Fax: +91 22 2659 8120  
Website: [www.nseindia.com](http://www.nseindia.com)

**Luxembourg Stock Exchange**

35A Boulevard Joseph II  
L-1840 Luxembourg,  
Tel.: +352 4779361  
Fax: +352 473298  
Website: [www.bourse.lu](http://www.bourse.lu)

**London Stock Exchange**

10 Paternoster Square,  
London - EC4M 7LS  
Tel.: +44 20 7797 1000  
Website: [www.londonstockexchange.com](http://www.londonstockexchange.com)

**Depository Services:****National Securities Depository Limited**

Trade World, A Wing, 4<sup>th</sup> & 5<sup>th</sup> Floors,  
Kamala Mills Compound,  
Lower Parel, Mumbai - 400 013.  
Tel.: +91 22 2499 4200  
Fax: +91 22 2497 6351  
E-mail: [info@nsdl.co.in](mailto:info@nsdl.co.in)  
Investor Grievance: [relations@nsdl.co.in](mailto:relations@nsdl.co.in)  
Website: [www.nsdl.co.in](http://www.nsdl.co.in)

**Central Depository Services (India) Limited**

Marathon Futurex, A-Wing, 25<sup>th</sup> Floor,  
NM Joshi Marg, Lower Parel (East),  
Mumbai - 400 013.  
Tel.: +91 22 2305 8640/8624/8639/8663  
E-mail: [helpdesk@cdslindia.com](mailto:helpdesk@cdslindia.com)  
Investor Grievance: [complaints@cdslindia.com](mailto:complaints@cdslindia.com)  
Website: [www.cdslindia.com](http://www.cdslindia.com)

**Registrars and Transfer Agents:****TSR Consultants Private Limited (Formerly known as TSR Darashaw Consultants Private Limited)**

CIN: U74999MH2018PTC307859  
Unit: Tata Steel Limited,  
C-101, 1<sup>st</sup> Floor, 247 Park, Lal Bahadur  
Shastri Marg, Vikhroli West, Mumbai,  
Maharashtra - 400 083  
Tel.: +91 810 811 8484  
Fax: +91 22 6656 8494  
Timings: Monday to Friday,  
10 a.m. (IST) to 5 p.m. (IST)  
E-mail: [csg-unit@tcplindia.co.in](mailto:csg-unit@tcplindia.co.in)  
Website: [www.tcplindia.co.in](http://www.tcplindia.co.in)

For the convenience of investors based  
in the following cities, correspondence/  
documents will also be accepted at the  
following branches/agencies of TSR  
Consultants Private Limited:

**Bengaluru**

TSR Consultants Private Limited  
C/o. Mr. D. Nagendra Rao  
Vaghdevi" 543/A, 7<sup>th</sup> Main, 3<sup>rd</sup> Cross,  
Hanumanthnagar  
Bengaluru - 560 019  
Contact person: Mr. Shivanand M  
Tel.: +91 80 2650 9004  
Fax: +91 80 2558 0019  
E-mail: [tcplbang@tcplindia.co.in](mailto:tcplbang@tcplindia.co.in)

**Kolkata**

TSR Consultants Private Limited  
C/o. Link Intime India Private Limited  
Vaishno Chamber, Flat No. 502 & 503,  
5<sup>th</sup> Floor, 6, Brabourne Road,  
Kolkata - 700 001  
Tel.: +91 33 4008 1986  
E-mail: [tcplcal@tcplindia.co.in](mailto:tcplcal@tcplindia.co.in)

### New Delhi

TSR Consultants Private Limited  
C/o. Link Intime India Private Limited  
Noble Heights, 1<sup>st</sup> Floor,  
Plot No. NH-2, C-1 Block, LSC,  
Near Savitri Market, Janakpuri,  
New Delhi - 110 058.  
Tel.: +91 11 4941 1030  
E-mail: [tcpldel@tcplindia.co.in](mailto:tcpldel@tcplindia.co.in)

### Jamshedpur

TSR Consultants Private Limited  
Bungalow No. 1, 'E' Road,  
Northern Town, Bistupur,  
Jamshedpur - 831 001.  
Tel.: +91 657 2426 937  
E-mail: [tcpljsr@tcplindia.co.in](mailto:tcpljsr@tcplindia.co.in)

### Ahmedabad

TSR Consultants Private Limited  
C/o. Link Intime India Private Limited  
5<sup>th</sup> Floor, 506 to 508  
Amarnath Business Centre-1 (ABC-1),  
Beside Gala Business Centre,  
Nr. St. Xavier's College Corner,  
Off. C.G. Road, Ellisbridge  
Ahmedabad - 380 006  
Tel.: +91 79 2646 5179  
E-mail: [csg-unit@tcplindia.co.in](mailto:csg-unit@tcplindia.co.in)

## Details of Corporate Policies

Particulars	Website Details/Links
Dividend Distribution Policy	<a href="https://www.tatasteel.com/media/6086/dividend-policy-final.pdf">https://www.tatasteel.com/media/6086/dividend-policy-final.pdf</a>
Composition and Profile of the Board of Directors	<a href="https://www.tatasteel.com/corporate/our-organisation/leadership/">https://www.tatasteel.com/corporate/our-organisation/leadership/</a>
Terms and conditions of appointment of Independent Directors	<a href="https://www.tatasteel.com/media/2917/terms-and-conditions-of-appointment-of-independent-directors.pdf">https://www.tatasteel.com/media/2917/terms-and-conditions-of-appointment-of-independent-directors.pdf</a>
Policy on Appointment and Removal of Directors	<a href="https://www.tatasteel.com/media/6816/policy-on-appointment-and-removal-of-directors.pdf">https://www.tatasteel.com/media/6816/policy-on-appointment-and-removal-of-directors.pdf</a>
Familiarisation Programme for Independent Directors	<a href="https://www.tatasteel.com/media/12333/familiarisation-program.pdf">https://www.tatasteel.com/media/12333/familiarisation-program.pdf</a>
Remuneration Policy of Directors, KMPs & Other Employees	<a href="https://www.tatasteel.com/media/6817/remuneration-policy-of-directors-etc.pdf">https://www.tatasteel.com/media/6817/remuneration-policy-of-directors-etc.pdf</a>
Tata Code of Conduct	<a href="https://www.tatasteel.com/media/1864/tcoc.pdf">https://www.tatasteel.com/media/1864/tcoc.pdf</a>
Criteria for Making Payments to Non-Executive Directors	<a href="https://www.tatasteel.com/media/3931/criteria-of-making-payments-to-neds.pdf">https://www.tatasteel.com/media/3931/criteria-of-making-payments-to-neds.pdf</a>
Corporate Social Responsibility Policy	<a href="https://www.tatasteel.com/media/11804/tata-steel-csr-policy-latest-2019.pdf">https://www.tatasteel.com/media/11804/tata-steel-csr-policy-latest-2019.pdf</a>
Code of Conduct for Non-Executive Directors	<a href="https://www.tatasteel.com/media/3930/tcoc-non-executive-directors.pdf">https://www.tatasteel.com/media/3930/tcoc-non-executive-directors.pdf</a>
Policy on Related Party Transactions	<a href="https://www.tatasteel.com/media/5891/policy-on-related-party-transactions.pdf">https://www.tatasteel.com/media/5891/policy-on-related-party-transactions.pdf</a>
Policy on Determining Material Subsidiaries	<a href="https://www.tatasteel.com/media/5890/policy-on-determining-material-subsidiaries.pdf">https://www.tatasteel.com/media/5890/policy-on-determining-material-subsidiaries.pdf</a>
Whistle Blower Policy	<a href="https://www.tatasteel.com/media/9942/whistle-blower-policy-for-business-associates.pdf">https://www.tatasteel.com/media/9942/whistle-blower-policy-for-business-associates.pdf</a> <a href="https://www.tatasteel.com/media/11322/revised-whistleblower-policy-december-18-2019.pdf">https://www.tatasteel.com/media/11322/revised-whistleblower-policy-december-18-2019.pdf</a>
Code of Corporate Disclosure Practices	<a href="https://www.tatasteel.com/media/6843/code-of-corporate-disclosure-practices.pdf">https://www.tatasteel.com/media/6843/code-of-corporate-disclosure-practices.pdf</a>
Policy on Determination of Materiality for Disclosure(s)	<a href="https://www.tatasteel.com/media/6844/tata-steel-determination-of-materiality-policy.pdf">https://www.tatasteel.com/media/6844/tata-steel-determination-of-materiality-policy.pdf</a>
Document Retention and Archival Policy	<a href="https://www.tatasteel.com/media/6845/tata-steel-document-retention-policy.pdf">https://www.tatasteel.com/media/6845/tata-steel-document-retention-policy.pdf</a>
Prevention of Sexual Harassment (POSH) at Workplace Policy	<a href="https://www.tatasteel.com/media/7526/posh.pdf">https://www.tatasteel.com/media/7526/posh.pdf</a>
Reconciliation of Share Capital Audit Report	<a href="https://www.tatasteel.com/investors/stock-exchange-compliances/reconciliation-of-share-capital-audit-reports/">https://www.tatasteel.com/investors/stock-exchange-compliances/reconciliation-of-share-capital-audit-reports/</a>

## Declaration Regarding Compliance by Board Members and Senior Management Personnel with the Code of Conduct

This is to confirm that the Company has adopted the Tata Code of Conduct for its employees including the Managing Director and the Whole-time Directors. In addition, the Company has adopted the Tata Code of Conduct for the Non-Executive Directors. Both these Codes are available on the Company's website at [www.tatasteel.com](http://www.tatasteel.com)

I confirm that the Company has in respect of the financial year ended March 31, 2023, received from the Senior Management Team of the Company and the Members of the Board, a declaration of compliance with the Code of Conduct as applicable to them.

For the purpose of this declaration, Senior Management Team means the Members of the Management one level below the Chief Executive Officer & Managing Director as on March 31, 2023.

Mumbai  
May 2, 2023

sd/-  
**T. V. NAREDRAN**  
Chief Executive Officer & Managing Director  
DIN: 03083605

## Practising Company Secretaries' Certificate On Corporate Governance

To,  
The Members of  
**Tata Steel Limited**

We have examined the compliance of the conditions of Corporate Governance by Tata Steel Limited (**'the Company'**) for the year ended on March 31, 2023, as stipulated under Regulations 17 to 27, clauses (b) to (i) and (t) of sub-regulation (2) of Regulation 46 and para C, D & E of Schedule V of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (**'SEBI Listing Regulations'**).

The compliance of the conditions of Corporate Governance is the responsibility of the Management. Our examination was limited to the review of procedures and implementation thereof, as adopted by the Company for ensuring compliance with conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, and the representations made by the Directors and the Management and considering the relaxations granted by the Ministry of Corporate Affairs and Securities and Exchange Board of India warranted due to the spread of the COVID-19 pandemic, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the SEBI Listing Regulations for the year ended March 31, 2023.

We further state that such compliance is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

Mumbai  
May 2, 2023

**For Parikh & Associates**  
Practising Company Secretaries

sd/-  
**P. N. PARIKH**  
Partner  
FCS No.: 327 CP No.: 1228  
UDIN: F000327E000235705  
PR No.: 1129/2021

## Practising Company Secretaries' Certificate on Directors

(Pursuant to Regulation 34(3) and Schedule V Para C clause (10)(i) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015)

To,

The Members

**Tata Steel Limited**

Bombay House, 24, Homi Mody Street,

Fort, Mumbai – 400 001

We have examined the relevant registers, records, forms, returns and disclosures received from the Directors of **Tata Steel Limited** having CIN: **L27100MH1907PLC000260** and having registered office at Bombay House, 24, Homi Mody Street, Fort, Mumbai – 400 001 (hereinafter referred to as 'the **Company**'), produced before me/us by the Company for the purpose of issuing this Certificate, in accordance with Regulation 34(3) read with Schedule V Para C Sub-clause 10(i) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

In our opinion and to the best of our information and according to the verifications (including Directors Identification Number ('**DIN**') status at the portal [www.mca.gov.in](http://www.mca.gov.in)) as considered necessary and explanations furnished to us by the Company & its officers and considering the relaxations granted by the Ministry of Corporate Affairs and Securities and Exchange Board of India warranted due to the spread of the COVID-19 pandemic, we hereby certify that none of the Directors on the Board of the Company as stated below for the Financial Year ended March 31, 2023 have been debarred or disqualified from being appointed or continuing as Directors of companies by the Securities and Exchange Board of India, Ministry of Corporate Affairs, or any such other Statutory Authority.

SN	Name of the Director	DIN	Date of Appointment in Company*
1.	N. Chandrasekaran	00121863	January 13, 2017
2.	Noel Naval Tata	00024713	March 28, 2022
3.	Saurabh Agrawal	02144558	August 10, 2017
4.	V. K. Sharma	02449088	August 24, 2018**
5.	O. P. Bhatt	00548091	June 10, 2013
6.	Farida Khambata	06954123	August 12, 2021
7.	Deepak Kapoor	00162957	April 01, 2017
8.	Bharti Gupta Ramola	00356188	November 25, 2022
9.	T. V. Narendran	03083605	August 14, 2014***
10.	Koushik Chatterjee	00004989	November 09, 2012

\*The date of appointment is as per the MCA Portal.

\*\*Mr. V. K. Sharma ceased to be a Non-Executive Non-Independent Director w.e.f. March 28, 2022 and was appointed as an Additional Independent Director w.e.f. March 28, 2022.

\*\*\* Mr. T. V. Narendran was appointed as the Managing Director of the Company effective September 19, 2013 and the said appointment was approved by the Shareholders at the Annual General Meeting held on August 14, 2014.

Ensuring the eligibility for the appointment / continuity of every Director on the Board is the responsibility of the management of the Company. Our responsibility is to express an opinion on these based on our verification. This certificate is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

**For Parikh & Associates**  
Practising Company Secretaries

sd/-

**P. N. PARIKH**

Partner

FCS No.: 327 CP No.: 1228

UDIN: F000327E000235738

PR No.: 1129/2021

Mumbai

May 2, 2023



## ANNEXURE 4

## Particulars of Remuneration

## Part A: Information pursuant to Section 197(12) of the Companies Act, 2013

[Read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

**A. Ratio of the remuneration of each Director to the median remuneration of all the employees of the Company for FY2022-23 and % increase in remuneration of each Director/KMP of the Company for FY2022-23 are as under:**

Name of Director	% increase in remuneration over previous year	Ratio of remuneration to median remuneration of all employees <sup>(1)</sup>
<b>Non-Executive Directors</b>		
Mr. N. Chandrasekaran <sup>(2)</sup>	NA	NA
Mr. Noel Naval Tata <sup>(3)</sup>	-	17.23
Mr. Saurabh Agrawal <sup>(4)</sup>	NA	NA
<b>Independent Directors</b>		
Ms. Mallika Srinivasan <sup>(5)</sup>	-	-
Mr. O. P. Bhatt	3.85	27.74
Mr. Deepak Kapoor	10.24	17.46
Mr. David W. Crane <sup>(5)</sup>	-	-
Ms. Farida Khambata <sup>(6)</sup>	-	14.14
Mr. V. K. Sharma	5.15	13.93
Ms. Bharti Gupta Ramola <sup>(7)</sup>	-	-
<b>Executive Directors / KMP</b>		
Mr. T. V. Narendran <sup>(8)</sup>	(4.29)	208.79
Mr. Koushik Chatterjee <sup>(8)</sup>	(6.33)	158.97
Mr. Parvatheesam Kanchinadham	21.89	42.06

**Notes:**

- (1) The ratio of remuneration to median remuneration is based on remuneration paid during April 1, 2022 to March 31, 2023.
- (2) As a policy, Mr. N. Chandrasekaran, Chairman, has abstained from receiving commission from the Company.
- (3) Mr. Noel Naval Tata was appointed as an Additional Director (Non-Executive, Non-Independent) effective March 28, 2022. There were no Board Meetings which were conducted during FY2021-22 post his appointment and hence, no remuneration was payable to Mr. Tata for FY2021-22. Accordingly, the % increase in remuneration over previous year is not comparable and hence not stated.
- (4) In line with the internal guidelines of the Company, no payment is made towards commission to the Non-Executive Directors of the Company, who are in full time employment with any other Tata Company. Accordingly, no commission has been paid to Mr. Saurabh Agrawal.
- (5) Ms. Mallika Srinivasan completed her second term as an Independent Director of the Board and ceased as an Independent Director and Member of the Board effective May 20, 2022 and Mr. David W. Crane stepped down as an Independent Director and Member of the Board effective September 5, 2022. Since their remuneration is for part of the year, percentage increase in remuneration over previous year as well as the ratio of their remuneration to median remuneration is not comparable and hence not stated.

- (6) Ms. Farida Khambata was appointed as an Independent Director effective August 12, 2021. Since her remuneration for FY2021-22 was for part of the year, the % increase in remuneration over previous year is not comparable and hence not stated.
- (7) Ms. Bharti Gupta Ramola was appointed as an Independent Director effective November 25, 2022. Since the remuneration of Ms. Ramola is only for part of the year, percentage increase in remuneration over previous year as well as the ratio of her remuneration to median remuneration is not comparable and hence not stated.
- (8) Includes the Commission/bonus approved by the Board of Directors for the Chief Executive Office & Managing Director and Executive Director & Chief Financial Officer on May 2, 2023, for FY2022-23 (which will be paid to them on conclusion of the Annual General Meeting scheduled to be held on July 5, 2023).

**B. The percentage increase/(decrease) in the median remuneration of employees in the Financial Year 2022-23: 8.71%**

**C. The number of permanent employees on the rolls of Company as on March 31, 2023: 36,151**

**D. Comparison of average percentile increase in salary of employees other than the managerial personnel and the percentile increase in the managerial remuneration:**

During FY2022-23, the average percentage increase / (decrease) in salary of the Company's employees, excluding the Key Managerial Personnel ('KMP') was 3.87%. The total remuneration of KMPs for FY2022-23 was ₹3,663.74 lakh as against ₹3,775.81 lakh during the previous year, a decrease of 2.97%.

**E. Affirmations:** It is affirmed that the remuneration paid to the Directors, Key Managerial Personnel and other employees is as per the Remuneration Policy of the Company.

On behalf of the Board of Directors

sd/-

**N. CHANDRASEKARAN**  
Chairman  
DIN: 00121863

Mumbai  
May 2, 2023

# ANNEXURE 5

## Form No. AOC-1

Statement containing salient features of the financial statement of subsidiaries or associate companies or Joint ventures

Pursuant to Section 129(3) of the Companies Act, 2013

[Read with Rule 5 of the Companies (Accounts) Rules, 2014]

### PART 'A' - Summary of Financial Information of Subsidiary Companies

Sl No.	Name of the company	Date since when the subsidiary was acquired	Reporting currency	Exchange rate*	Share Capital** (₹ crore)	Reserves & Surplus (₹ crore)	Total Assets (₹ crore)	Total Liabilities (₹ crore)	Total Investments (₹ crore)	Total Turnover (₹ crore)	Profit before Taxation (₹ crore)	Provision for Taxation (₹ crore)	Profit after Taxation (₹ crore)	Proposed Dividend	Ownership (%)
1	ABJA Investment Co. Pte. Ltd.	Apr 12, 2013	USD	82.17	1.64	(38.14)	20,903.69	20,940.19	-	-	74.28	11.79	62.49	-	100.00
2	The Indian Steel & Wire Products Ltd <sup>1</sup>	Dec 20, 2003	INR	1.00	5.99	138.13	224.72	80.60	0.00	341.99	2.13	0.68	1.45	-	95.01
3	Tata Steel Utilities and Infrastructure Services Limited	Aug 25, 2003	INR	1.00	63.22	1,043.48	1,931.21	824.51	891.56	1,426.76	1,094.00	18.44	90.96	3.59	100.00
4	Haldia Water Management Limited	Dec 06, 2008	INR	1.00	27.77	(32.31)	0.30	4.84	-	-	(0.01)	-	(0.01)	-	60.00
5	Kalimati Global Shared Services Limited	Jan 08, 2018	INR	1.00	4.00	3.12	12.94	5.82	-	29.87	3.52	0.85	2.67	2.28	100.00
6	Tata Steel Special Economic Zone Limited	Oct 11, 2006	INR	1.00	459.86	(7.09)	472.14	19.37	-	17.46	(5.17)	-	(5.17)	-	100.00
7	The Tata Pigments Limited	May 18, 1985	INR	1.00	0.75	48.02	100.20	51.43	14.02	194.85	17.08	4.44	12.64	-	100.00
8	Adityapur Toll Bridge Company Limited	Jun 12, 2002	INR	1.00	46.78	16.47	63.61	0.36	-	13.47	9.27	1.16	8.11	-	88.50
9	Mohar Export Services Pvt. Ltd	Apr 30, 2015	INR	1.00	0.01	(0.05)	0.06	0.10	-	-	(0.00)	-	(0.00)	-	66.46
10	NatSteel Asia Pte. Ltd.*	Feb 15, 2005	USD	82.17	-	-	-	-	-	-	-	-	-	-	-
11	Rujvalka Investments Limited	Apr 30, 2015	INR	1.00	1.33	131.25	136.69	4.11	136.13	-	6.48	0.48	6.00	-	100.00
12	Tata Steel Mining Limited (Formerly known as T S Alloys Limited) <sup>2</sup>	Mar 14, 2007	INR	1.00	850.12	(371.21)	5,075.90	4,596.99	33.74	4,999.91	(270.21)	2.29	(272.50)	-	100.00
13	Tata Korf Engineering Services Ltd	Oct 30, 1985	INR	1.00	-	-	-	-	-	-	-	-	-	-	100.00
14	Tata Metaliks Ltd. <sup>3</sup>	Feb 07, 2008	INR	1.00	31.58	1,547.89	2,505.92	926.45	100.25	3,259.57	100.70	20.15	80.55	15.79	60.03
15	Tata Steel Long Products Limited <sup>4</sup>	Aug 28, 2012	INR	1.00	14,025.01	2,014.30	20,666.31	4,627.00	13,632.63	7,464.07	(1,029.62)	55.87	(1,085.49)	-	74.91
16	Neelachal Ispat Nigam Limited	July 04, 2022	INR	1.00	6,311.23	4,906.55	13,449.24	2,231.46	556.75	1,645.55	(1,508.36)	(290.05)	(1,218.31)	-	74.67
17	T Steel Holdings Pte. Ltd.	July 05, 2006	USD	82.17	1,15,885.61	(91,841.08)	59,790.41	35,745.88	24,044.34	-	16.67	3.53	13.14	-	100.00
18	T S Global Holdings Pte. Ltd.	July 04, 2008	USD	82.17	1,14,607.69	(98,043.11)	81,784.52	65,219.94	64,067.34	-	(2,464.95)	90.44	(2,555.39)	-	100.00
19	Orchid Netherlands (No.1) B.V.	Mar 20, 2009	EUR	89.29	0.16	(0.45)	8.16	8.45	-	-	(0.35)	-	(0.35)	-	100.00
20	The Siam Industrial Wire Company Ltd.	Feb 15, 2005	THB	2.40	110.51	1,685.73	1,968.56	172.32	33.63	2,036.80	200.54	32.34	168.20	-	100.00
21	TSN Wires Co. Ltd.	Apr 05, 2012	THB	2.40	168.17	(149.62)	207.50	188.95	-	282.22	(14.68)	-	(14.68)	-	60.00
22	Tata Steel Europe Limited	Apr 02, 2007	GBP	101.68	1,03,940.92	(50,853.78)	55,017.75	1,930.61	53,114.06	-	(18.29)	-	(18.29)	-	100.00
23	Apollo Metals Limited	Apr 02, 2007	USD	82.17	0.00	60.17	108.13	47.96	-	341.92	33.11	0.51	32.60	230.08	100.00
24	0030048 Limited (Formerly British Steel Corporation Limited) <sup>5</sup>	Apr 02, 2007	GBP	101.68	0.00	401.54	401.54	-	-	-	-	-	-	-	100.00
25	British Steel Nederland International B.V.	Apr 02, 2007	EUR	89.29	0.17	507.17	776.42	269.08	298.29	-	91.54	0.49	91.05	-	100.00
26	CV Benine**	Apr 02, 2007	EUR	89.29	19.35	(0.02)	93.00	73.67	-	-	-	-	-	-	76.92
27	Catic GmbH	Apr 02, 2007	EUR	89.29	0.23	79.75	106.03	26.05	-	240.92	7.74	2.57	5.17	-	100.00
28	Catic Limited	Apr 02, 2007	GBP	101.68	2.28	(2.90)	0.19	0.81	0.19	-	-	-	-	-	100.00
29	Tata Steel Mexico SA de CV	Apr 02, 2007	USD	82.17	0.03	1.60	2.01	0.38	-	-	0.27	0.14	0.13	-	100.00
30	Cogent Power Limited	Apr 02, 2007	GBP	101.68	433.84	(148.80)	594.36	309.32	191.54	-	13.96	-	13.96	-	100.00
31	Corbel Les Rives SCI**	Apr 02, 2007	EUR	89.29	5.73	(0.45)	7.66	2.38	-	-	(5.69)	-	(5.69)	-	67.30
32	Corby (Northants) & District Water Company Limited	Apr 02, 2007	GBP	101.68	2.64	3.56	9.77	3.57	-	1.11	0.00	-	0.00	-	100.00

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33	Corus CNBV Investments	Apr 02, 2007	GBP	101.68	0.00	-	0.00	-	-	-	-	-	-	-	100.00
34	Corus Engineering Steels (UK) Limited	Apr 02, 2007	GBP	101.68	0.00	-	0.00	-	-	-	-	-	-	-	100.00
35	Corus Engineering Steels Limited	Apr 02, 2007	GBP	101.68	0.00	0.00	0.00	-	-	-	-	-	-	-	100.00
36	Corus Group Limited	Apr 02, 2007	GBP	101.68	65,265.92	(54,104.45)	13,592.21	2,430.74	13,582.76	-	(130.38)	-	(130.38)	-	100.00
37	Corus Holdings Limited	Apr 02, 2007	GBP	101.68	2.54	6.33	1.34	(7.53)	-	-	0.97	-	0.97	-	100.00
38	Corus International (Overseas Holdings) Limited	Apr 02, 2007	GBP	101.68	1,435.78	4,086.58	5,532.29	9.93	296.91	-	229.77	0.23	229.54	-	100.00
39	Corus International Limited	Apr 02, 2007	GBP	101.68	4,986.01	(1,873.72)	3,052.00	(60.29)	3,033.00	-	-	-	-	-	100.00
40	Corus International Romania SRL**	Apr 02, 2007	RON	18.04	0.01	7.19	7.28	0.08	-	-	1.94	0.03	1.91	-	100.00
41	Corus Investments Limited*	Apr 02, 2007	GBP	101.68	0.00	230.61	230.61	-	-	-	-	-	-	-	100.00
42	Corus Ireland Limited	Apr 02, 2007	EUR	89.29	0.00	11.66	11.88	0.22	-	-	4.44	1.06	3.38	-	100.00
43	Corus Liaison Services (India) Limited*	Apr 02, 2007	GBP	101.68	0.00	(26.13)	-	26.13	-	-	-	-	-	-	100.00
44	Corus Management Limited	Apr 02, 2007	GBP	101.68	0.00	411.17	1,380.16	968.99	453.45	-	-	-	-	-	100.00
45	Corus Property	Apr 02, 2007	GBP	101.68	0.00	-	0.01	0.01	-	-	-	-	-	-	100.00
46	Corus UK Healthcare Trustee Limited	Mar 31, 2009	GBP	101.68	0.00	-	0.00	-	-	-	-	-	-	-	100.00
47	Crucible Insurance Company Limited	Apr 02, 2007	GBP	101.68	5.08	293.67	316.57	17.82	-	-	5.97	-	5.97	-	100.00
48	Degels GmbH	Apr 02, 2007	EUR	89.29	0.71	26.20	50.26	23.35	-	-	(1.95)	(1.14)	(0.81)	-	100.00
49	Demka B.V.	Apr 02, 2007	EUR	89.29	54.94	23.47	78.50	0.09	-	-	0.33	0.09	0.24	-	100.00
50	00026466 Limited (Formerly known as Firstel Group Limited)*	Apr 02, 2007	GBP	101.68	182.28	(182.28)	-	-	-	-	(0.97)	-	(0.97)	-	100.00
51	Fischer Profil GmbH	Apr 02, 2007	EUR	89.29	91.31	13.26	443.70	339.13	-	1,308.98	20.98	8.60	12.38	-	100.00
52	Gamble Simms Metals Limited	Apr 02, 2007	EUR	89.29	5.67	(5.67)	-	-	-	-	-	-	-	-	100.00
53	H E Samson Limited	Apr 02, 2007	GBP	101.68	0.00	-	0.00	-	-	-	-	-	-	-	100.00
54	Hadfields Holdings Limited	Apr 02, 2007	GBP	101.68	1.02	(13.73)	-	12.71	-	-	-	-	-	-	62.50
55	Halmstad Steel Service Centre AB	Mar 31, 2015	SEK	7.94	0.04	161.81	426.96	265.11	-	1,226.27	5.51	1.18	4.33	-	100.00
56	Hille & Muller GmbH	Apr 02, 2007	EUR	89.29	45.70	207.79	682.17	428.68	-	1,028.82	5.84	(1.13)	6.97	-	100.00
57	Hille & Muller USA Inc.	Apr 02, 2007	USD	82.17	0.03	122.71	144.76	22.02	96.74	33.00	4.94	0.21	4.73	-	100.00
58	Hoogovens USA Inc.	Apr 02, 2007	USD	82.17	499.99	370.96	980.54	109.59	528.75	-	234.27	6.36	227.91	-	100.00
59	Huizenbeitz**Breesaap*B.V.	Apr 02, 2007	EUR	89.29	0.41	(9.57)	0.26	9.42	-	-	0.11	0.03	0.08	-	100.00
60	Inter Metal Distribution SAS	Apr 02, 2007	EUR	89.29	0.00	(0.00)	(0.00)	0.00	-	-	458.94	24.76	24.76	-	100.00
61	Layde Steel S.L.	Apr 02, 2007	EUR	89.29	44.64	75.02	672.38	552.72	0.11	2,023.96	(49.99)	(0.22)	(49.77)	-	100.00
62	London Works Steel Company Limited*	Apr 02, 2007	GBP	101.68	0.00	(104.79)	56.94	161.73	-	-	-	-	-	-	100.00
63	Montana Bausysteme AG	Apr 02, 2007	CHF	89.93	35.97	155.87	354.29	162.45	-	723.63	53.77	3.33	50.44	12.59	100.00
64	Naantali Steel Service Centre OY	Mar 31, 2015	EUR	89.29	0.02	38.66	199.07	160.39	-	598.18	(43.42)	0.03	(43.45)	-	100.00
65	Norsk Stal Tynnplater AS	Mar 31, 2015	NOK	7.86	10.45	45.45	77.13	21.23	-	103.22	17.49	4.04	13.45	-	100.00
66	Norsk Stal Tynnplater AB	Mar 31, 2015	NOK	7.86	0.39	28.55	36.95	8.01	-	432.87	3.07	0.47	2.60	-	100.00
67	Oremco Inc.	Apr 02, 2007	USD	82.17	-	-	-	-	-	-	-	-	-	-	100.00
68	Rafferty-Brown Steel Co Inc Of Conn.	Apr 02, 2007	USD	82.17	26.02	(1.92)	24.10	0.00	-	(2.34)	(0.41)	(1.93)	-	-	100.00
69	S A B Profil B.V.	Apr 02, 2007	EUR	89.29	1.21	286.78	701.75	413.76	-	1,267.30	243.79	3.51	240.28	364.30	100.00
70	S A B Profil GmbH	Apr 02, 2007	EUR	89.29	0.27	149.60	266.04	116.17	-	503.50	73.51	-	73.51	72.26	100.00
71	Service Center Gelsenkirchen GmbH	Apr 02, 2007	EUR	89.29	164.38	93.09	674.80	417.33	0.50	1,624.63	30.76	(1.50)	32.26	-	100.00
72	Service Centre Maastricht B.V.	Apr 02, 2007	EUR	89.29	0.48	302.79	974.05	670.78	-	3,713.84	(26.55)	(6.86)	(19.69)	-	100.00
73	Societe Europeenne De Galvanisation (Segal) Sa	Apr 02, 2007	EUR	89.29	111.61	32.68	346.83	202.54	-	842.77	29.60	8.32	21.28	168.76	100.00
74	Staalverwerking en Handel B.V.	Apr 02, 2007	EUR	89.29	0.00	0.00	0.00	0.00	-	-	353.69	(2.74)	356.43	-	100.00

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75	Surahammar Bruks AB	Apr 02, 2007	SEK	7.94	17.15	37.00	367.21	313.06	-	642.25	(15.59)	(2.07)	(13.52)	-	100.00
76	Swinden Housing Association Limited	Apr 02, 2007	GBP	101.68	0.00	13.94	14.56	0.62	-	-	0.28	-	0.28	-	100.00
77	Tata Steel Belgium Packaging Steels N.V.	Apr 02, 2007	EUR	89.29	137.81	31.03	197.82	28.98	0.70	120.79	10.34	2.61	7.73	17.92	100.00
78	Tata Steel Belgium Services N.V.	Apr 02, 2007	EUR	89.29	150.42	94.10	409.04	164.52	-	-	4.78	1.16	3.62	-	100.00
79	Tata Steel France Batiment et Systemes SAS	Apr 02, 2007	EUR	89.29	-	-	-	-	-	-	-	-	-	-	-
80	Tata Steel France Holdings SAS	Apr 02, 2007	EUR	89.29	44.64	830.26	1,567.32	692.42	1,021.29	-	19.41	(3.55)	22.96	-	100.00
81	Tata Steel Germany GmbH	Apr 02, 2007	EUR	89.29	1,448.81	(569.43)	1,712.68	833.30	886.67	-	106.07	17.75	88.32	-	100.00
82	Tata Steel IJmuiden BV	Apr 02, 2007	EUR	89.29	1,004.50	28,913.10	46,742.71	16,825.11	417.38	54,657.42	3,710.81	874.91	2,835.90	-	100.00
83	Tata Steel International (Americas) Holdings Inc	Apr 02, 2007	USD	82.17	4,822.60	(5,437.29)	(614.69)	0.00	362.58	-	5.64	39.69	(34.05)	-	100.00
84	Tata Steel International (Americas) Inc	Apr 02, 2007	USD	82.17	73.15	1,267.40	1,397.44	56.89	-	829.23	147.99	10.27	137.72	-	100.00
85	Tata Steel International (Czech Republic) S.R.O	Apr 02, 2007	CZK	3.80	0.46	17.64	18.76	0.66	-	-	13.05	2.34	10.71	13.32	100.00
86	Tata Steel International (France) SAS	Apr 02, 2007	EUR	89.29	1.79	30.74	38.95	6.42	-	-	10.45	2.08	8.37	38.39	100.00
87	Tata Steel International (Germany) GmbH	Apr 02, 2007	EUR	89.29	7.77	5.66	82.74	69.31	-	-	(0.27)	(0.11)	(0.16)	-	100.00
88	Tata Steel International (South America) Representações LTDA	Apr 02, 2007	USD	82.17	1.77	1.01	2.80	0.02	-	-	0.33	0.07	0.26	-	100.00
89	Tata Steel International (Italia) SRL	Apr 02, 2007	EUR	89.29	67.41	(24.02)	48.77	5.38	-	-	25.59	7.13	18.46	8.93	100.00
90	Tata Steel International (Middle East) FZE	Apr 02, 2007	AED	22.36	100.61	26.62	161.60	34.37	-	64.55	0.21	-	0.21	-	100.00
91	Tata Steel International Limited	Jun 10, 2008	NGN	0.18	-	-	-	-	-	-	-	-	-	-	100.00
92	Tata Steel International (Poland) sp Zoo	Apr 02, 2007	PLZ	19.08	7.26	18.46	27.40	1.68	-	-	8.65	0.94	7.71	2.58	100.00
93	Tata Steel International (Sweden) AB	Apr 02, 2007	SEK	7.94	0.08	58.74	63.45	4.63	-	43.19	8.91	34.28	27.78	-	100.00
94	Tata Steel International (India) Limited	Apr 02, 2007	INR	1.00	5.08	16.97	25.71	3.66	-	-	0.57	1.60	(1.03)	-	100.00
95	Tata Steel International Iberica SA	Apr 02, 2007	EUR	89.29	1.34	78.05	89.04	9.65	-	-	45.61	11.30	34.31	-	100.00
96	Tata Steel Istanbul Metal Sanayi ve Ticaret AS	Apr 02, 2007	USD	82.17	203.20	(147.73)	222.16	166.69	-	691.06	1.64	-	1.64	-	100.00
97	Tata Steel Maubeuge SAS	Apr 02, 2007	EUR	89.29	66.97	457.60	1,671.27	1,146.70	13.08	4,427.84	(55.95)	(1.38)	(54.57)	-	100.00
98	Tata Steel Nederland BV	Apr 02, 2007	EUR	89.29	3,460.89	9,666.28	22,813.80	9,686.63	14,821.07	-	(56.93)	(17.39)	(39.54)	-	100.00
99	Tata Steel Nederland Consulting & Technical Services BV	Apr 02, 2007	EUR	89.29	80.36	(53.69)	33.79	7.12	-	-	0.05	0.01	0.04	-	100.00
100	Tata Steel Nederland Services BV	Apr 02, 2007	EUR	89.29	3.80	(109.78)	303.00	408.98	-	-	(26.33)	(6.53)	(19.80)	-	100.00
101	Tata Steel Nederland Technology BV	Apr 02, 2007	EUR	89.29	0.00	708.24	966.79	258.55	14.89	-	(0.09)	(10.00)	9.91	-	100.00
102	Tata Steel Nederland Tubes BV	Apr 02, 2007	EUR	89.29	1,125.04	(1,059.07)	756.27	690.30	-	2,444.47	(184.90)	(48.28)	(136.62)	-	100.00
103	Tata Steel Netherlands Holdings B.V.	Apr 02, 2007	EUR	89.29	47,680.21	(9,555.50)	54,398.26	16,273.55	52,189.09	-	(650.67)	(169.05)	(481.62)	-	100.00
104	Tata Steel Norway Byggsystemer A/S	Apr 02, 2007	NOK	7.86	0.96	113.55	199.43	84.92	-	322.71	22.53	5.26	17.27	-	100.00
105	Tata Steel UK Consulting Limited	Apr 02, 2007	GBP	101.68	17.64	(24.15)	-	6.51	-	-	0.06	-	0.06	-	100.00
106	Tata Steel UK Holdings Limited	Apr 02, 2007	GBP	101.68	1,16,298.96	(67,065.84)	49,233.12	0.00	49,233.12	-	0.51	-	0.51	-	100.00
107	Tata Steel UK Limited	Apr 02, 2007	GBP	101.68	22,793.39	(18,747.38)	25,465.40	21,419.39	2,656.21	31,794.10	(2,695.32)	4,019.92	(6,715.24)	-	100.00
108	Tata Steel USA Inc.	Apr 02, 2007	USD	82.17	1.15	64.97	76.65	10.53	6.07	-	(0.08)	0.30	(0.38)	-	100.00
109	The Newport And South Wales Tube Company Limited	Apr 02, 2007	GBP	101.68	0.00	5.75	5.75	0.00	0.00	-	-	-	-	-	100.00
110	Thomas Processing Company	Apr 02, 2007	USD	82.17	0.00	157.77	195.88	38.11	-	32.86	(15.76)	-	(15.76)	-	100.00

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111	Thomas Steel Strip Corp.	Apr 02, 2007	USD	82.17	65.74	(122.91)	650.78	707.95	31.21	1,159.62	82.07	14.94	67.13	-	100.00
112	TS South Africa Sales Office Proprietary Limited	Aug 31, 2015	ZAR	4.62	0.00	7.55	7.80	0.25	-	-	5.37	1.39	3.98	-	100.00
113	Tulip UK Holdings (No.2) Limited	Apr 02, 2007	GBP	101.68	1,16,237.93	(61,784.72)	54,453.29	0.08	54,453.28	-	-	-	-	-	100.00
114	Tulip UK Holdings (No.3) Limited	Apr 02, 2007	GBP	101.68	1,16,241.36	(61,667.15)	54,574.21	0.00	54,574.21	-	-	-	-	-	100.00
115	UK Steel Enterprise Limited	Apr 02, 2007	GBP	101.68	101.68	126.67	213.15	(15.20)	49.08	-	4.56	-	4.56	-	100.00
116	Unitol SAS	Apr 02, 2007	EUR	89.29	53.57	72.84	672.01	545.60	2.37	2,113.76	7.39	(4.48)	11.87	-	100.00
117	Fischer Profil Produktions -und- Vertriebs - GmbH	Apr 01, 2021	EUR	89.29	0.22	0.39	4.00	3.39	-	-	0.38	(0.01)	0.39	-	100.00
118	AI Rimal Mining LLC	Feb 25, 2008	OMR	213.42	21.34	(0.45)	22.26	1.37	-	-	14.17	-	14.17	-	51.00
119	TSMUK Limited	Sep 23, 2010	USD	82.17	4,922.22	(463.61)	8,856.92	4,398.31	8,159.59	-	0.25	-	0.25	-	100.00
120	T S Canada Capital Ltd	Dec 31, 2012	USD	82.17	0.00	35.39	37.79	2.40	-	-	(0.65)	-	(0.65)	-	100.00
121	Tata Steel Minerals Canada Limited	Dec 31, 2010	USD	82.17	7,215.76	(8,435.93)	7,049.33	8,269.50	-	664.78	(1,112.66)	-	(1,112.66)	-	82.00
122	Tata Steel (Thailand) Public Company Limited	Apr 04, 2006	THB	2.40	2,023.19	1,182.43	3,243.86	38.24	-	147.85	68.74	0.77	67.97	101.16	67.90
123	Tata Steel Manufacturing (Thailand) Public Company Limited (formerly N.I.T.S Steel Group Public Limited Company)	Apr 04, 2006	THB	2.40	1,627.51	710.41	2,970.76	632.84	-	7,385.18	159.82	(2.17)	161.99	65.10	67.83
124	T S Global Procurement Company Pte. Ltd.	Apr 23, 2010	USD	82.17	818.73	746.62	18,622.05	17,056.70	6.69	75,791.36	(111.01)	16.52	(127.53)	-	100.00
125	TS Asia (Hong Kong) Ltd.	Sep 27, 2006	USD	82.17	-	-	-	-	-	-	(0.24)	(0.21)	(0.03)	-	-
126	Tata Steel International (Shanghai) Ltd.	Jan 25, 2008	CNY	11.95	5.84	0.42	6.50	0.24	-	11.55	0.70	-	0.70	-	100.00
127	Tata Steel Downstream Products Limited	Jul 14, 2009	INR	1.00	243.04	3,123.04	4,120.52	754.44	2,245.61	7,393.73	294.18	47.80	246.38	-	100.00
128	Tata Steel Advanced Materials Limited	Jun 22, 2012	INR	1.00	56.22	8.87	65.21	0.12	35.31	-	(0.53)	-	(0.53)	-	100.00
129	Ceramat Private Limited	Feb 28, 2022	INR	1.00	19.64	(4.45)	17.51	2.32	-	0.18	(4.29)	0.03	(4.32)	-	90.00
130	Tata Steel TABB Limited	May 23, 2022	INR	1.00	15.30	(0.76)	18.68	4.14	-	-	(0.76)	-	(0.76)	-	100.00
131	Tayo Rolls Limited <sup>c</sup>	Dec 01, 2008	INR	1.00	-	-	-	-	-	-	-	-	-	-	54.91
132	The Template Company of India Limited <sup>d</sup>	Apr 01, 2011	INR	1.00	104.80	1,158.28	1,925.62	662.54	252.45	3,982.77	192.91	50.09	142.82	31.40	74.96
133	Tata Steel Foundation Private Limited	Aug 16, 2016	INR	1.00	1.00	12.32	64.27	50.95	-	458.36	7.47	-	7.47	-	100.00
134	Jamshedpur Football and Sporting Private Limited	Jul 07, 2017	INR	1.00	40.80	(37.52)	9.82	6.54	-	47.79	(28.61)	-	(28.61)	-	100.00
135	Bhubaneswar Power Private Limited	Aug 06, 2008	INR	1.00	253.25	153.54	802.50	395.71	7.69	597.12	58.91	14.21	44.70	-	100.00
136	Angul Energy Limited <sup>d</sup>	May 18, 2018	INR	1.00	10.00	928.60	1,011.74	73.14	19.61	195.00	53.95	-	53.95	-	99.99
137	Tata Steel Support Services Limited (formerly Bhusan Steel (Orissa) Ltd.)	May 18, 2018	INR	1.00	0.05	1.18	22.28	21.05	-	59.89	(0.09)	(0.02)	(0.07)	-	100.00
138	Bhusan Steel (South) Ltd.	May 18, 2018	INR	1.00	1.30	(1.14)	0.17	0.01	0.00	-	(0.02)	-	(0.02)	-	100.00
139	Tata Steel Technical Services Limited (formerly Bhusan Steel (Madhya Bharat) Ltd.)	May 18, 2018	INR	1.00	0.05	2.62	46.32	43.65	-	144.13	(1.03)	(0.24)	(0.79)	-	100.00
140	Bhusan Steel (Australia) PTY Ltd.	May 18, 2018	AUD	54.95	286.12	(282.14)	14.60	10.62	-	-	(0.29)	-	(0.29)	-	100.00
141	Bowen Energy PTY Ltd.	May 18, 2018	AUD	54.95	111.33	(111.33)	0.00	(0.00)	-	-	(0.00)	-	(0.00)	-	100.00
142	Bowen Coal PTY Ltd.	May 18, 2018	AUD	54.95	0.00	-	0.00	-	-	-	-	-	-	-	100.00
143	Creative Port Development Private Limited	Sep 18, 2018	INR	1.00	222.36	(12.78)	223.90	14.32	198.69	-	(0.74)	0.00	(0.74)	-	51.00
144	Submarekha Port Private Limited	Sep 18, 2018	INR	1.00	10.92	214.54	269.86	44.40	-	-	(8.40)	1.21	(9.61)	-	50.67
145	S & T Mining Company Limited <sup>e</sup>	Apr 11, 2022	INR	1.00	37.05	(36.81)	1.15	0.91	-	-	1.01	-	1.01	-	100.00
146	Medica TS Hospital Pvt.Ltd.	Jan. 07 2022	INR	1.00	73.75	(29.91)	50.21	6.37	-	22.77	(3.37)	(0.03)	(3.34)	-	51.00

## Notes

- & Closing exchange rate as on March, 31 2023 has been considered for calculation
- && Includes share application money
- \* Subsidiary under liquidation
- \*\* Reporting period for subsidiary companies at Sl. 26, 31 and 40 is December 2022
- @ Subsidiary merged
- # Entity converted from joint venture to subsidiary
- ~ Not considered for consolidation as the subsidiary is undergoing Corporate Insolvency Resolution Process under the Insolvency and Bankruptcy Code, 2016.
- \$ Under amalgamation

0.00 represents value less than ₹1 lakh

### I Name of the subsidiaries which have been liquidated/ sold/ merged during the year:

- 1 Tata Steel France Batiment et Systemes SAS
- 2 NatSteel Asia Pte. Ltd.
- 3 TS Asia (Hong Kong) Ltd.

### II Name of the subsidiaries liquidated/struck-off with no assets, liabilities and transactions during the period:

- 1 British Steel Service Centres Limited
- 2 DSRM Group Limited
- 3 Europressings Limited
- 4 02727547 Limited (Formerly known as Firststeel Holdings Limited)
- 5 Lister Tubes Limited
- 6 Precoat International Limited
- 7 Precoat Limited
- 8 Stewarts & Lloyds Of Ireland Limited
- 9 The Templeborough Rolling Mills Limited
- 10 Toronto Industrial Fabrications Limited
- 11 Walkersteelstock Ireland Limited
- 12 Westwood Steel Services Limited

- 13 TSIL Energy Limited
- 14 Blastmega Limited
- 15 Corus Engineering Steels Holdings Limited
- 16 Grant Lyon Eagre Limited
- 17 Hammermega Limited
- 18 Plated Strip (International) Limited
- 19 Runmega Limited
- 20 Stewarts And Lloyds (Overseas) Limited
- 21 U.E.S Bright Bar Limited
- 22 Bowen Consolidated Pty Ltd

### III Name of the subsidiaries under liquidation with no assets, liabilities and transactions during the period:

- 1 The Siam Construction Steel Company Limited
- 2 The Siam Iron and Steel (2001) Company Limited
- 3 British Steel Directors (Nominees) Limited
- 4 Orb Electrical Steels Limited
- 5 Tata Steel Denmark Byggsystemer A/S
- 6 Tata Steel Sweden Byggsystem AB

### IV Subsidiaries yet to commence operations:

- 1 Subarnarekha Port Private Limited
- 2 Bhushan Steel (South) Ltd.
- 3 Bhushan Steel (Australia) PTY Ltd.
- 4 Bowen Energy PTY Ltd.
- 5 Bowen Coal PTY Ltd.

V The Company is continuing with its focus on simplifying the corporate structure which saw a significant number of entities enter into voluntary liquidation in the previous and current year. There remains an objective to simplify the structure further by dissolving additional entities which are either dormant or have ceased to have business operations.

PART 'B' - Joint-Ventures and Associates

SL No.	Name of the company	Latest audited balance sheet date	Date on which the Associate or Joint Venture was associated or acquired	Reporting currency*	No. of shares held by the company in associate/joint venture on the year end	Amount of Investment in associate/joint venture (₹ crore)	Extend of holding %	Description of how there is significant influence	Reason why the associate /joint venture is not consolidated	Net worth attributable to shareholding as per latest balance sheet (₹ crore)	Share of profit/loss for the year (₹ crore)	Not Considered in consolidation
<b>A Joint Ventures</b>												
1	njunction services limited	Mar 31	Feb 01, 2001	INR	40,00,000	4.00	50.00	1		150.16	36.66	36.66
2	Tata NYK Shipping Pte Ltd.	Mar 31	Mar 19, 2007	USD	6,51,67,500	535.50	50.00	1		145.46	1.86	1.86
3	Tata NYK Shipping (India) Pvt. Ltd.	Mar 31	Apr 01, 2015	INR	12,50,000	0.13	50.00	5		3.43	0.51	0.51
4	TM International Logistics Limited	Mar 31	Jan 18, 2002	INR	91,80,000	9.18	51.00	4		130.80	27.94	26.85
5	International Shipping and Logistics FZE	Mar 31	Feb 01, 2004	USD	1	1.24	51.00	5		194.11	26.42	25.38
6	TKM Global China Ltd	Mar 31	Jun 25, 2008	CNY	1	4.39	51.00	5		3.75	0.70	0.67
7	TKM Global GmbH	Mar 31	Mar 01, 2005	EUR	100	1.11	51.00	5		94.51	2.99	2.88
8	TKM Global Logistics Limited	Mar 31	Jan 18, 2002	INR	36,00,000	5.16	51.00	5		16.52	13.44	12.91
9	Industrial Energy Limited	Mar 31	May 18, 2018	INR	17,31,60,000	173.16	26.00	1		281.79	30.13	85.77
10	Andal East Coal Company Pvt. Ltd.	Mar 31	Jan 9, 2008	INR	3,30,000	1.46	33.89	1	**	-	-	-
11	Naba Diganta Water Management Limited	Mar 31	Apr 24, 1995	INR	1,36,53,000	13.65	74.00	5		24.25	5.64	1.98
12	Jamipol Ltd.	Mar 31	May, 2001	INR	47,25,000	18.17	40.22	1		62.42	12.41	18.45
13	Nicco Jubilee Park Limited	Mar 31	Sep 15, 2010	INR	36,19,945	3.62	26.00	1	&	7.95	2.88	8.20
15	Air Products Llanwern Limited	Sep 30	Apr 02, 2007	GBP	50,000	0.01	50.00	2		9.87	2.06	2.06
16	Laura Metaal Holding B.V.	Dec 31	Apr 02, 2007	EUR	2,744	11.12	49.00	2		185.48	1.01	1.05
17	Ravenscraig Limited	Dec 31	Apr 02, 2007	GBP	100	0.00 <sup>55</sup>	33.33	2		(82.08)	(6.67)	(13.35)
18	Tata Steel Tiscaret AS	Dec 31	Apr 02, 2007	TRY	80,000	0.03	50.00	2		13.01	14.12	14.12
19	Texturing Technology Limited	Mar 31	Apr 02, 2007	GBP	10,00,000	10.17	50.00	2		25.03	4.49	4.49
20	Hoogovens Court Roll Service Technologies VOF <sup>56</sup>	Mar 31	Apr 02, 2007	EUR	No shares since it is a partnership by agreement only	11.76	50.00	2		12.64	(2.01)	(2.01)
21	Minas De Benga (Mauritius) Limited	Mar 31	Nov 30, 2007	USD	27,77,69,593	2,596.31	35.00	2		(1,030.84)	44.74	83.08
22	Tata BlueScope Steel Private Limited	Mar 31	Feb 09, 2005	INR	43,30,00,000	433.00	50.00	1		760.82	139.43	139.43
23	BlueScope Lysaght Lanka (Pvt) Ltd	Mar 31	April 01, 2015	LKR	1,06,35,000	2.66	50.00	5		9.85	2.74	2.74
24	Jamshedpur Continuous Annealing & Processing Company Private Limited	Mar 31	Aug 17, 2012	INR	73,03,20,000	730.32	51.00	4		832.41	121.79	117.01

SL No.	Name of the company	Latest audited balance sheet date	Date on which the Associate or Joint Venture was associated or acquired	Reporting currency*	No. of shares held by the company in joint venture on the year end	Amount of investment in associate/joint venture (₹ crore)	Extend of holding % influence	Description of how there is significant influence	Reason why the associate / joint venture is not consolidated	Net worth attributable to shareholding as per latest balance sheet (₹ crore)	Share of profit/loss for the year (₹ crore)	Not considered in consolidation
<b>B Associates</b>												
1	Kalinga Aquatics Ltd.			INR	10,49,920	0.00 <sup>₹</sup>	30.00	1	**	-	-	-
2	Kumardhubi Fireclay & Silica Works Ltd.			INR	-	-	27.78	1	**	-	-	-
3	Kumardhubi Metal Casting and Engineering Limited			INR	-	-	49.31	1	**	-	-	-
4	Strategic Energy Technology Systems Private Limited		Jan 16, 2009	INR	2,56,14,500	25.62	25.00	1	***	-	-	-
5	Tata Construction & Projects Ltd.			INR	-	-	27.19	1	**	-	-	-
6	TRF Limited	Mar 31	Oct 16, 1963	INR	37,53,275	204.02	34.11	1	\$	6.51	29.93	57.82
7	TRF Singapore Pte Limited	Mar 31	Apr 01, 2015	SGD	1,90,86,929	126.28	34.11	5		20.78	(0.23)	(0.45)
8	TRF Holding Pte Limited	Mar 31	Apr 01, 2015	USD	1	0.00 <sup>₹</sup>	34.11	5		0.01	0.15	0.29
9	Dutch Lanka Trailer Manufacturers Limited	Mar 31	Apr 01, 2015	USD	15,23,06,150	154.02	34.11	5		16.57	2.82	5.44
10	Dutch Lanka Engineering (Private) Limited	Mar 31	Apr 01, 2015	LKR	11,50,000	0.71	34.11	5		(0.86)	(0.67)	(1.29)
11	Malusha Travels Pvt Ltd.	Mar 31	Aug 05, 2014	INR	3,352	0.00 <sup>₹</sup>	33.23	1		-	-	-
12	Bhushan Capital & Credit Services Private Limited	Mar 31	May 18, 2018	INR	86,43,742	9.40	42.58		@	-	-	-
13	Jawahar Credit & Holdings Private Limited	Mar 31	May 18, 2018	INR	86,43,742	9.40	39.65		@	-	-	-
14	European Profiles (M) Sdn. Bhd.	Dec 31	Jan 25, 2008	MYR	7,00,000	0.00 <sup>₹</sup>	20.00	1		12.57	(0.25)	(1.02)
15	GietWals Onderhoud Combinatie B.V.	Dec 31	Apr 02, 2007	EUR	50	11.52	50.00	2		23.13	3.64	3.64
16	Hoogovens Gan Multimedia S.A. De C.V.	-	Apr 02, 2007	MXN	455,000 shares of the variable part; 25,000 of the minimum fixed part of the capital stock	0.01	50.00	2	#	-	-	-



Sl No.	Name of the company	Latest audited balance sheet date	Date on which the Associate or Joint Venture was associated or acquired	Reporting currency*	No. of shares held by the company in associate/joint venture on the year end	Amount of investment in associate/joint venture (₹ crore)	Extend of holding %	Description of how there is significant influence	Reason why the associate /joint venture is not consolidated	Share of profit/loss for the year (₹ crore)	
										Net worth attributable to shareholding as per latest balance sheet (₹ crore)	Considered in consolidation
17	ISSB Limited	Jun 30	Apr 02, 2007	GBP	500	0.01	50.00	2	#	-	-
18	Wupperman Staal Nederland B.V.	Dec 31	Apr 02, 2007	EUR	2,400	74.57	30.00	2	#	127.90	5.17
19	Fabsec Limited	Dec 31	May 18, 2001	GBP	250	0.00 <sup>ss</sup>	25.00	2	#	-	-
20	9336-0634 Québec Inc	-	Mar 30, 2017	CAD	1	-	27.33	1	&	-	-

- 1 Controls more than 20% of the total share capital
- 2 Controls more than 20% of the total share capital and has significant influence over operational and financial decision making
- 3 Insignificant influence on the financial and operating policy decisions
- 4 More than 50% stake, instead considered as joint venture as there is less significant influence over the control of the entity.
- 5 Under the Ind AS regime, subsidiary of an associate/ joint venture is also an associate/ joint venture of the holding company.
- # The operations of the companies are not significant and hence are immaterial for consolidation
- \* Closing rate as on March 31, 2023 has been considered for calculation
- \*\* Companies are in liquidation
- \$ Under amalgamation
- ## Partnership without Share capital
- \*\*\* Not consolidated, as the investment value is impaired
- & Financial information are not available
- \$\$ Represents value less than ₹1 lakh
- @ Tata Steel BSL Limited (TSBSL) (earlier known as Bhushan Steel Limited), an erstwhile subsidiary (acquired through the corporate insolvency resolution process) which amalgamated with the Company during the year ended March, 2022 was being identified as the promoter of Jawahar Credit & Holdings Private Limited (JCHPL) and Bhushan Capital & Credit Services Private Limited (BCCSPL). These entities were connected to the previous management of erstwhile TSBSL, before acquisition of TSBSL by the Company (through Bammipal Steel Limited) in May 2018. TSBSL had written to JCHPL, BCCSPL and the Registrar of Companies (National Capital Territory of Delhi & Haryana) intimating that TSBSL should not be identified as promoter of these two companies; accordingly, legally, neither erstwhile TSBSL nor the Company had any visibility or control over the operations of these two companies nor currently exercises any influence on these entities.

**Note:** During the financial year ended March 31, 2023 S & T Mining Company Limited was reclassified as a subsidiary from joint venture

For and on behalf of the Board of Directors

sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-
<b>N. Chandrasekaran</b>	<b>Noel Naval Tata</b>	<b>O. P. Bhatt</b>	<b>Deepak Kapoor</b>	<b>Farida Khambata</b>	<b>V. K. Sharma</b>						
Chairman	Vice-Chairman	Independent Director	Independent Director	Independent Director	Independent Director						
DIN: 00121863	DIN: 00024713	DIN: 00548091	DIN: 00162957	DIN: 06954123	DIN: 02449088						
sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-	sd/-
<b>Bharti Gupta Ramola</b>	<b>Saurabh Agrawal</b>	<b>T.V. Narendran</b>	<b>Koushik Chatterjee</b>	<b>Parvathesam Kanchinadham</b>							
Independent Director	Non-Executive Director	Chief Executive Officer & Managing Director	Executive Director & Chief Financial Officer	Company Secretary & Chief Legal Officer (Corporate & Compliance)							
DIN: 00356188	DIN: 02144558	DIN: 03083605	DIN: 00004989	ACS: 15921							
Mumbai											
May 2, 2023											

## ANNEXURE 6

### Companies that have become/ceased to be Company's Subsidiaries or Associate Companies (including Joint Venture Companies)

The names of companies which have become Subsidiaries or Associate Companies (including Joint Venture Companies) during FY2022-23:

Sl. No.	Name of the Company
<b>Subsidiary</b>	
1.	Rohit Ferro-Tech Limited <sup>(a)</sup>
2.	Tata Steel TABB Limited
3.	Neelachal Ispat Nigam Limited
4.	S & T Mining Company Limited <sup>(b)</sup>

The names of companies which have ceased to become Subsidiaries or Associate Companies (including Joint Venture Companies) during FY2022-23:

Sl. No.	Name of the Company
<b>Subsidiary</b>	
1.	British Steel Service Centres Limited
2.	DSRM Group Limited
3.	Europressings Limited
4.	02727547 Limited (Formerly known as Firsteel Holdings Limited)
5.	Lister Tubes Limited
6.	Precoat International Limited
7.	Precoat Limited
8.	Stewarts & Lloyds of Ireland Limited
9.	The Templeborough Rolling Mills Limited
10.	Toronto Industrial Fabrications Limited
11.	Walkersteelstock Ireland Limited
12.	Westwood Steel Services Limited
13.	Tata Steel France Batiment et Systemes SAS
14.	TSIL Energy Limited
15.	Rohit Ferro-Tech Limited <sup>(a)</sup>
16.	NatSteel Asia Pte. Ltd.
17.	TS Asia (Hong Kong) Limited
18.	Blastmega Limited
19.	Corus Engineering Steels Holdings Limited
20.	Grant Lyon Eagre Limited
21.	Hammermega Limited
22.	Plated Strip (International) Limited
23.	Runmega Limited
24.	Stewarts And Lloyds (Overseas) Limited
25.	U.E.S. Bright Bar Limited
26.	Bowen Consolidated Pty Ltd
27.	Eastern Steel Fabricators Philippines, Inc.

Sl. No.	Name of the Company
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<b>Joint Venture</b>	
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1.	S & T Mining Company Limited <sup>(b)</sup>
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**Notes:**

- (a) During FY2022-23, the Company acquired Rohit-Ferro Tech Limited ('**RFT**') through its unlisted subsidiary, Tata Steel Mining Limited ('**TSML**'), on April 11, 2022. RFT was amalgamated into and with TSML effective July 7, 2022.
- (b) During FY2022-23, S & T Mining Company Limited was re-classified as a Subsidiary of the Company from being a Joint Venture.

On behalf of the Board of Directors

sd/-

**N. CHANDRASEKARAN**

Chairman

DIN: 00121863

Mumbai  
May 2, 2023

## ANNEXURE 7

### Form No. MR-3

#### SECRETARIAL AUDIT REPORT FOR THE FINANCIAL YEAR ENDED MARCH 31, 2023

#### (Pursuant to section 204 (1) of the Companies Act, 2013 and rule No. 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014)

To,  
The Members,  
**Tata Steel Limited**

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by Tata Steel Limited (hereinafter called the Company). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company, to the extent the information provided by the Company, its officers, agents and authorised representatives during the conduct of secretarial audit, the explanations and clarifications given to us and the representations made by the Management and considering the relaxations granted by the Ministry of Corporate Affairs and Securities and Exchange Board of India warranted due to the spread of the COVID-19 pandemic, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2023, generally complied with the statutory provisions listed hereunder and also that the Company has proper Board processes and compliance mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records made available to us and maintained by the Company for the financial year ended on March 31, 2023 according to the provisions of:

- (i) The Companies Act, 2013 (the '**Act**') and the rules made thereunder;
- (ii) The Securities Contract (Regulation) Act, 1956 ('**SCRA**') and the rules made thereunder;
- (iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;
- (iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;
- (v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('**SEBI Act**')
  - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
  - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
  - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018 and amendments from time to time;
  - (d) The Securities and Exchange Board of India (Share Based Employee Benefits and Sweat Equity) Regulations, 2021; (Not applicable to the Company during the audit period)
  - (e) The Securities and Exchange Board of India (Issue and Listing of Non-Convertible Securities) Regulations, 2021;
  - (f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client; (Not applicable to the Company during the audit period)
  - (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2021; (Not applicable to the Company during the audit period) and
  - (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018; (Not applicable to the Company during the audit period)
- (vi) Other laws applicable specifically to the Company namely:
  - (a) The Mines Act, 1952 and the rules, regulations made thereunder.
  - (b) Mines and Minerals (Development & Regulation) Act, 1957 and the rules made thereunder.

- (c) Air (Prevention and Control of Pollution) Act, 1981 and the rules and standards made thereunder.
- (d) Water (Prevention and Control of Pollution) Act, 1974 and Water (Prevention and Control of Pollution) Rules, 1975
- (e) Environment Protection Act, 1986 and the rules, notifications issued thereunder.
- (f) Factories Act, 1948 and allied State Laws.

We have also examined compliance with the applicable clauses of the following:

- (i) Secretarial Standards issued by The Institute of Company Secretaries of India with respect to board and general meetings.
- (ii) The Listing Agreements entered into by the Company with BSE Limited and National Stock Exchange of India Limited read with the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

During the period under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, standards etc. mentioned above.

We further report that:

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors and Independent Directors. The changes in the composition of the Board of Directors that took place during the period under review were in compliance of the applicable provisions.

Adequate notice was given to all Directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance for meetings other than those held at shorter notice, and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

As per the minutes, the decisions at the Board Meetings were taken unanimously.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the audit period the Company had following events which had bearing on the Company's affairs in pursuance of the above referred laws, rules, regulations, guidelines, standards etc.

## 1. Amalgamation:

### a) Amalgamation of Tata Steel Long Products Limited into and with Tata Steel Limited:

The Board of Directors of the Company ('Board'), at its meeting held on September 22, 2022, approved the scheme of amalgamation of Tata Steel Long Products Limited ('TSLP') into and with the Company ('TSLP Scheme'). TSLP is the listed subsidiary of the Company. The Board has recommended a share exchange ratio of 67 fully paid-up equity shares of nominal value of Re. 1/- each of the Company for every 10 fully paid-up equity shares of nominal value of ₹10/- each held by the public shareholders of TSLP. As part of the TSLP Scheme, the equity and preference shareholding of the Company in TSLP shall stand cancelled. The Company has received the 'observation letter' dated March 31, 2023 from the National Stock Exchange of India Limited and BSE Limited and has filed an application before the Hon'ble National Company Law Tribunal, Mumbai Bench for necessary directions. The amalgamation is subject to approval from the shareholders and other regulatory/governmental authorities.

### b) Amalgamation of The Tinplate Company of India Limited into and with Tata Steel Limited

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of The Tinplate Company of India Limited ('TCIL') into and with the Company ('TCIL Scheme'). TCIL is the listed subsidiary of the Company. The Board has recommended a share exchange ratio of 33 fully paid-up equity shares of nominal value of Re. 1/- each of the Company for every 10 fully paid-up equity shares of nominal value of ₹10/- each held by the public shareholders of TCIL. As part of the TCIL Scheme, the equity shareholding of the Company in TCIL shall stand cancelled. The Company has received the 'observation letter' dated March 31, 2023 from the National Stock Exchange of India Limited and BSE Limited and has filed an application before the Hon'ble National Company Law Tribunal, Mumbai Bench for necessary directions.

The amalgamation is subject to approval from the shareholders and other regulatory/governmental authorities.

**c) Amalgamation of Tata Metaliks Limited into and with Tata Steel Limited**

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of Tata Metaliks Limited ('TML') into and with the Company ('TML Scheme'). TML is the listed subsidiary of the Company. The Board has recommended a share exchange ratio of 79 fully paid-up equity shares of nominal value of Re. 1/- each of the Company for every 10 fully paid-up equity shares of nominal value of ₹10/- each held by the public shareholders of TML. As part of the TML Scheme, the equity shareholding of the Company in TML shall stand cancelled. The Company has received the 'observation letter' dated March 31, 2023 from the National Stock Exchange of India Limited and BSE Limited and has filed an application before the Hon'ble National Company Law Tribunal, Mumbai Bench for necessary directions. The amalgamation is subject to approval from the shareholders and other regulatory/governmental authorities.

**d) Amalgamation of TRF Limited into and with Tata Steel Limited**

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of TRF Limited ('TRF') into and with the Company ('TRF Scheme'). TRF is the listed associate of the Company. The Board has recommended a share exchange ratio of 17 fully paid-up equity shares of nominal value of Re. 1/- each of the Company for every 10 fully paid-up equity shares of nominal value of ₹10/- each held by the public shareholders of TRF. As part of the TRF Scheme, the equity and preference shareholding of the Company in TRF shall stand cancelled. The Company has received the 'observation letter' dated March 31, 2023 from the National Stock Exchange of India Limited and BSE Limited and has filed an application before the Hon'ble National Company Law Tribunal, Mumbai Bench for necessary directions. The amalgamation is subject to approval from the shareholders and other regulatory/governmental authorities.

**e) Amalgamation of The Indian Steel & Wire Products Limited into and with Tata Steel Limited**

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of The Indian Steel & Wire Products Limited ('ISWP') into and with the Company ('ISWP Scheme'). ISWP is an unlisted subsidiary of the Company. Upon the Scheme coming into effect, the shareholders of ISWP (except the Company) shall receive ₹426 for every 1 fully paid-up equity share of nominal value of ₹10/- each of ISWP held by the shareholders of ISWP. As part of the ISWP Scheme, the equity shareholding of the Company in ISWP shall stand cancelled. The Company has received the 'observation letter' from the National Stock Exchange of India Limited and BSE Limited on March 24, 2023. The amalgamation is subject to approval from the shareholders and other regulatory/governmental authorities.

**f) Amalgamation of Tata Steel Mining Limited into and with Tata Steel Limited**

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of Tata Steel Mining Limited ('TSML') into and with the Company ('TSML Scheme'). TSML is a wholly-owned subsidiary of the Company and upon the TSML Scheme coming into effect, the entire paid-up share capital of TSML shall stand cancelled. The TSML Scheme is pending approval before the Hon'ble National Company Law Tribunal, Cuttack Bench. The amalgamation is also subject to approval from other regulatory/governmental authorities.

**g) Amalgamation of S & T Mining Company Limited into and with Tata Steel Limited**

The Board, at its meeting held on September 22, 2022, approved the scheme of amalgamation of S & T Mining Company Limited ('S&T Mining') into and with the Company ('S&T Scheme'). S&T Mining is a wholly-owned subsidiary of the Company and upon the S&T Scheme coming into effect, the entire paid-up share capital of S&T Mining shall stand cancelled. The S&T Scheme is pending approval before the Hon'ble National Company Law Tribunal, Kolkata Bench. The amalgamation is also subject to approval from other regulatory/governmental authorities.

**h) Amalgamation of Angul Energy Limited into and with Tata Steel Limited**

The Board of Directors of the Company, at its meeting held on February 6, 2023, approved the scheme of amalgamation of Angul Energy Limited ('AEL') into and with the Company ('AEL Scheme'). Upon the AEL Scheme coming into effect, the shareholders of AEL (except the Company) shall receive ₹1,045 for every 1 fully paid-up equity share of nominal value of ₹10/- each of AEL held by the shareholders of AEL. The Company has filed the application with the National Stock Exchange of India Limited and BSE Limited for necessary directions. The amalgamation is subject to approval of the shareholders and other regulatory/governmental approvals.

**2. Acquisitions, Investments and Portfolio Restructuring**

**a) Acquisition of Rohit Ferro-Tech Limited through Tata Steel Mining Limited, a wholly-owned subsidiary**

On April 11, 2022, in terms of the approved Resolution Plan under the Corporate Insolvency Resolution Process ('CIRP') of the Insolvency and Bankruptcy Code 2016 ('Code'), the Company through Tata Steel Mining Limited ('TSML'), a wholly-owned subsidiary, completed the acquisition of 90% stake in Rohit Ferro-Tech Limited ('RFT'). On June 22, 2022, TSML acquired the remaining 10% equity stake of RFT held by the Financial Creditors for a consideration of approx. ₹20.06 crore which was paid by TSML on June 14, 2022. Upon completion of the said acquisition RFT became a wholly-owned subsidiary of TSML. Further, on July 7, 2022, RFT was amalgamated with TSML, pursuant to the order of the Hon'ble National Company Law Tribunal, Kolkata Bench dated April 7, 2022 approving the Resolution Plan submitted by TSML for acquisition of RFT.

**b) Acquisition of Preference Shares of TRF Limited**

On May 13, 2022, the Company acquired 1,30,00,000 - 11.25% Optionally Convertible Redeemable Preference Shares ('OCRPS') of face value ₹10/- each of TRF Limited ('TRF'), a listed associate of the Company, on a preferential basis aggregating to ₹13 crore. Further, on June 8, 2022 and March 1, 2023, the Company acquired 16,50,00,000 - 12.17% (effective yield) Non-cumulative, Non-convertible, Non-Participating, Redeemable Preference Shares ('NCRPS') and 7,40,00,000 - 12.17% (effective yield) NCRPS, respectively of face value ₹10/- each of TRF on a preferential basis aggregating to ₹165 crore and ₹74 crore, respectively.

The OCRPS and NCRPS have been acquired to assist TRF in repayment/prepayment of the whole or a part of it's

existing indebtedness (including financial and operational creditors), additional working capital requirements, payment against long-outstanding vendor dues, to seek their support towards material supplies for completing legacy projects and delivering other committed orders and/or for other general corporate purposes.

The voting rights of the Company as a preference shareholder of TRF will be as per the provisions of the Companies Act, 2013 read with the Articles of Association of TRF. Further, the equity stake of the Company in TRF remains at 34.11%.

**c) Investment in Tata Steel Mining Limited**

On June 14, 2022 and August 30, 2022, the Company acquired 1,04,75,196 equity shares and 2,81,98,433 equity shares, respectively of face value ₹10/- each of Tata Steel Mining Limited ('TSML') at a premium of ₹9.15 per share on a preferential basis aggregating to approximately ₹20.06 crore and approximately ₹54 crore, respectively. TSML continues to be a 100% wholly-owned subsidiary post both the investments.

**d) Acquisition of Neelachal Ispat Nigam Limited through Tata Steel Long Products Limited and investment in Neelachal Ispat Nigam Limited**

On July 4, 2022, the Company through its listed subsidiary Tata Steel Long Products Limited ('TSLP'), completed the acquisition of 93.71% stake in Neelachal Ispat Nigam Limited ('NINL'). The acquisition was completed for an aggregate consideration of ₹12,100 crore as per the terms and conditions of the Share Sale and Purchase Agreement entered into by the Company in accordance with the process carried out by Department of Investment and Public Asset Management (DIPAM) and consequently, NINL became a step-down subsidiary of the Company.

During the year, the Company directly acquired equity shares aggregating to 5.24% in NINL by way of purchase of equity shares from minority shareholders and by acquiring additional equity shares issued by NINL on preferential basis. As on March 31, 2023, TSLP holds 92.68% and the Company holds 5.24% in NINL.

**e) Investment in Tata Steel Downstream Products Limited**

During the year under review, the Company acquired 7,11,743 equity shares of ₹10/- each at a premium of ₹130.50 per share, of Tata Steel Downstream Products Limited, a wholly-owned subsidiary of the Company, on a preferential basis for an amount aggregating to ₹10 crore.

#### f) Investment in Tata Steel Advanced Materials Limited

During the year under review, the Company acquired 4,26,93,207 (75.94%) equity shares of Tata Steel Advanced Materials Limited ('**TSAML**') from Tata Steel Downstream Products Limited, for an aggregate amount of ₹54.69 crore. Further, on March 23, 2023, the Company acquired the balance 1,35,29,959 (24.06%) shares held by Tata Steel Downstream Products Limited for an aggregate amount of ₹17.33 crore. Post the said acquisition, TSAML has become a direct wholly-owned subsidiary of the Company. The shares are of face value of ₹10/- each and were acquired at a premium of ₹2.81 per share.

#### g) Investment in Tata Steel Utilities and Infrastructure Services Limited

On January 31, 2023 and March 23, 2023, the Company acquired 26,97,674 and 4,65,116 equity shares, respectively of face value ₹10/- each of Tata Steel Utilities and

Infrastructure Services Limited ('**TSUISL**') at a premium of ₹205/- per share, on rights basis for an aggregate amount of approximately ₹68 crore. TSUISL continues to be a wholly-owned subsidiary of the Company.

### 3. Divestments

#### Divestment of partial stake in Al Rimal Mining LLC, Oman

On October 3, 2022, T S Global Holdings Pte. Ltd. ('**TSGH**'), an indirect wholly-owned subsidiary of the Company, set up in South-East Asia, concluded the divestment of its 19% equity stake in Al Rimal Mining LLC ('**Al Rimal**') to Oman National Investments Development Company ('**Tanmia**') pursuant to an agreement entered into between TSGH and Tanmia, thereby reducing its equity stake in Al Rimal from 70% to 51%.

## 4. Corporate Actions, Financing and Debt Redemption

#### a) Issue of Non-Convertible Debentures

During the financial year 2022-23, the Company allotted the following Unsecured, Rated, Listed, Redeemable, Non-Convertible Debentures ('**NCDs**') to identified investors on a private placement basis:

No. of NCDs	Face value (₹)	Amount (₹ crore)	Date of allotment	Coupon	Tenure	Date of Maturity
5,000	10,00,000	500	September 20, 2022	7.50% (Series 1)	5 years	September 20, 2027
15,000	10,00,000	1,500	September 20, 2022	7.76% (Series 2)	10 years	September 20, 2032
2,15,000	1,00,000	2,150	February 27, 2023	8.03%	5 years	February 25, 2028

The NCDs are listed on the wholesale debt market segment of BSE Limited

#### b) Redemption of NCDs

The Company has redeemed the following NCDs on the relevant due date as per their respective terms of issue:

Amount (₹ crore)	Date of allotment	Coupon	Date of Maturity
1,500	April 23, 2012	2%	April 22, 2022 (Since April 23, 2022 was a bank holiday)

c) During the year under review, the Company issued 8,23,500 units of Commercial Papers aggregating to ₹41,175 crore and redeemed 9,10,500 units of Commercial Papers aggregating to ₹ 45,525 crore.

#### d) Sub-division of Ordinary Shares of the Company

On May 3, 2022, the Board of Directors of the Company, considered and approved the proposal for sub-division of 1 (one) equity share of the Company having face value of ₹10/- each into 10 (Ten) equity shares of the Company having face value of ₹1/- each ('**sub-division**') and consequential amendments in the Capital Clause of

the Memorandum of Association of the Company and Articles of Association of the Company, subject to the approval of the Shareholders of the Company and other necessary approvals. The said proposal was approved by the Shareholders of the Company at the Annual General Meeting held on June 28, 2022.

The Record Date for the sub-division was set as July 29, 2022 and consequently, the face value of the equity shares of the Company (fully paid-up and partly paid-up) was sub-divided to ₹1/- each from ₹10/- each.



**e) First and Final Call on Partly Paid-up Equity Shares**

On February 9, 2021, the Board of Directors of the Company approved the making of the first and final call of ₹461/- (comprising ₹7.498 towards face value and ₹453.504 towards securities premium) per partly paid-up equity share ('**First and Final Call**') on 7,76,36,788 outstanding partly paid-up equity shares of face value ₹10/- each (paid-up: ₹2.504 per share), issued by the Company, on a Rights basis, pursuant to the Letter of Offer dated January 22, 2018. As on March 31, 2022, the Company had 2,23,288 partly paid-up equity shares of face value ₹10/- each (paid-up: ₹2.504 per share) on which the first and final call money remained unpaid.

On March 18, 2023, the Stakeholder Relationship Committee approved the conversion of 3,16,580 partly paid-up shares of face value of ₹1/- each (31,658 partly paid-up equity shares of face value of ₹10/- each on which ₹2.504 was paid-up).

**f) Forfeiture of shares**

The Board of Directors, at their meeting held on March 27, 2023 considered and approved the forfeiture of 19,16,300 partly paid-up equity shares of face value ₹1/- each (prior to sub-division 1,91,630 partly paid-up equity shares of face value of ₹10/- each and paid-up ₹2.504 per share) on which the first and final call money was not paid.

For **Parikh & Associates**  
Company Secretaries

sd/-

**P. N. Parikh**

Partner

FCS No: 327 CP No: 1228

UDIN: F000327E000235672

PR No.: 1129/2021

Place: Mumbai

Date: May 2, 2023

*This Report is to be read with our letter of even date which is annexed as Annexure A and Forms an integral part of this report.*

## 'Annexure A'

To,  
The Members,  
**Tata Steel Limited**

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial record is the responsibility of the management of the Company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and process as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the process and practices, we followed provide a reasonable basis for our opinion.
3. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the Company.
4. Where ever required, we have obtained the Management Representation about the Compliance of laws, rules and regulations and happening of events etc.
5. The Compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedure on test basis.
6. The Secretarial Audit report is neither an assurance as to the future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For **Parikh & Associates**  
Company Secretaries

Signature:

**P. N. Parikh**  
Partner

FCS No: 327 CP No: 1228  
UDIN: F000327E000235672  
PR No.: 1129/2021

Place: Mumbai  
Date: May 2, 2023

## ANNEXURE 8

## Particulars of Loans, Guarantees or Investments

(Pursuant to Section 186 of the Companies Act, 2013)

## Amount Outstanding as on March 31, 2023

	(₹ crore)
	Amount
Loans Given	35,970.29
Guarantees Given	10,848.37
Investments Made	44,138.90

## Loans, Guarantees given or Investments made during FY2022-23

		(₹ crore)		
Name of the Entity	Relation	Amount	Particulars of Loans, Guarantees given or Investments made	Purpose for which the Loans, Guarantees given or Investments are proposed to be utilised
Neelachal Ispat Nigam Limited		396.69		
S & T Mining Company Limited <sup>^</sup>		0.00		
Tata Steel Advanced Materials Limited		72.02		
Tata Steel Downstream Products Limited	Subsidiary	10.00	Investments in Equity Shares	
Tata Steel Mining Limited		699.07		
Tata Steel Utilities and Infrastructure Services Limited		68.00		
Creative Port Development Private Limited		48.00	Investments in Optionally Convertible Redeemable Preference Shares	Business Purpose
TRF Limited	Associate	25.00	Investments in Non-convertible Redeemable Preference Shares	
Bhubaneswar Power Pvt. Ltd.*		1.45		
Tata Steel Downstream Products Limited <sup>#</sup>	Subsidiary	558.70	Loan	
Tata Steel Mining Limited		681.00		

<sup>^</sup>Represents value less than ₹0.01 crore

\*Represents loans given and repaid during the year ended March 31, 2023

<sup>#</sup>Includes loans amounting to ₹236.40 crore repaid during the year ended March 31, 2023

## Advance against equity made during the FY2022-23

		(₹ crore)	
Name of the Entity	Relation	Amount	
Angul Sukinda Railway Limited	Others	50.00	

## Notes:

- (i) During the year ended March 31, 2023, the Company transferred its entire stake held in NatSteel Asia Pte. Ltd. to T Steel Holdings Pte. Ltd. ('TSH'), a wholly-owned subsidiary of the Company, for cash consideration of ₹1,112.42 crore.
- (ii) During the year ended March 31, 2023, the Company has recognised a net impairment loss of ₹1,056.39 crore and net fair value gain of ₹30.99 crore with respect to investments held in its affiliates. The impairment of ₹1,056.39 crore relates to provision for impairment of investment of ₹1,170.00 crore in T Steel Holdings Pte. Ltd. and ₹112.39 crore in TRF Limited, net of reversal of ₹126.00 crore for investments in NatSteel Asia Limited and ₹100 crore for loan provided to TRF Limited. Net fair value gain represents a gain of ₹30.99 crore on preference shares investments held in TRF Limited and Angul Sukinda Railway Limited.

On behalf of the Board of Directors

sd/-

N. CHANDRASEKARAN

Chairman

DIN: 00121863

Mumbai  
May 2, 2023

## ANNEXURE 9

### Particulars of Energy Conservation, Technology Absorption and Foreign Exchange Earnings and Outgo

[Pursuant to Companies (Accounts) Rules, 2014]

#### (A) CONSERVATION OF ENERGY

##### (i) Steps taken or impact on conservation of energy:

##### Jamshedpur

SN	Achievements	Key Enablers
1.	Achieved lowest ever plant Specific Energy Consumption of 5.314 GCal/tcs.	<ul style="list-style-type: none"> <li>Digital predictive model developed and deployed for CO gas generation from coke plant.</li> <li>Arrangements done to increase LD Gas utilisation by injecting in TSCR Gas mixing station.</li> <li>LD Gas recovery improvement from LD1 by enhancing the reliability of LD1 gas recovery system.</li> <li>Launched an idea generation campaign across Tata Steel India focusing on spreading awareness and enhancing sensitisation regarding energy conservation.</li> </ul>
2.	Achieved highest ever LD Gas recovery of 105,089 Nm <sup>3</sup> /hr.	
3.	Achieved by-product gas utilisation of 97.48%	
4.	Achieved highest ever inhouse Power generation of 276.58 MW by utilising by-product in-house gases and through waste heat recovery.	
5.	Achieved lowest ever Argon cost of 930 ₹/T	
6.	Achieved low-pressure process steam consumption of 319.48 tonnes/hour	
7.	Lowest ever specific water consumption of 1.97 m <sup>3</sup> /tcs recorded.	
8.	Lowest ever freshwater intake 12.67 MGD.	
9.	Highest ever CETP production of 5.15 MGD.	

##### Kalinganagar

SN	Achievements	Key Enablers
1.	Reduction in Specific consumption of Clarified water from .081 m <sup>3</sup> /t in FY2022 to .060 m <sup>3</sup> /t in FY2023 due to magnetic treatment of water at sinter plant.	<ul style="list-style-type: none"> <li>Safety enhancement in liquid propane unloading procedure by replacing the hoses with a fully articulated and self-supported hard arm system.</li> <li>Automatic Tube Cleaning System successfully introduced for cleaning the condensers at the Chiller Plants. This method is eco-friendly, saves up to 30% energy (as compared to conventional cleaning procedure) and reduces corrosion failures.</li> <li>VFD installation and commissioning done successfully for Aeration blower-D in BOD area in order to save the power consumption and reduce the standard deviation of Dissolved oxygen.</li> </ul>
2.	Reduction in Gaseous Fuel Rate from 15.63 G Cal/t in FY2022 to 14.14 G Cal/t in FY2023 due to effective coating.	
3.	Reduction in Coke Rate from 358 kg/thm in FY2022 to 347 kg/thm in FY2023.	
4.	Reduction in Fuel rate from 537 kg/thm in FY2022 to 529kg/thm in FY2023.	
5.	Increase in TRT power generation to 110354 MWh (Increase of 6% over FY2022).	
6.	Best ever average cycles of concentration ('COC') in main cooling tower achieved at 8.81 in FY2023 against previous best of 7.97 in FY2022. Higher the COC, lower the make-up water consumption in cooling tower.	
7.	Reduction in specific heat consumption of 705 Kcal/kg of dry coal in FY2023 against FY2022 consumption of 718 Kcal/kg of dry coal. Monthly best ever of 620 Kcal/kg of dry coal in the month of March 2023.	
8.	Reduction in make water consumption to BOD plant by replacement of makeup water to BOD treated water line. Average per day make up water consumption in BOD area in FY2023: 20 m <sup>3</sup> /day against FY2022 average consumption at 160 m <sup>3</sup> /day.	
9.	Annual average Coke Oven Gas quality properties were best ever at 208 mg/Nm <sup>3</sup> H <sub>2</sub> S against the previous best of 228 mg/Nm <sup>3</sup> during FY2022 (lower the better, this gas is used as fuel throughout the plant, cleaner gas helps in improving the combustion efficiency)	
10.	Increase in LD gas recovery from 62.62% in FY2022 to 78.73% in FY2023 by elimination of chronic process interruptions.	

**Meramandali**

SN	Achievements	Key Enablers
1.	Increase in hot blast temperature at Blast Furnace (BF)-1 from 1103Deg C (F2022 Avg.) to 1137Deg C Without Waste Heat Recovery System in line	<ul style="list-style-type: none"> <li>• Change in air to fuel ratio from 0.75 to 0.82 and reduction of stove incubation period time from 12 minutes to 4 minutes</li> <li>• Increased Coke Retention Time and Step Quenching</li> <li>• Additional PCI system introduced for increasing the PCI rate</li> <li>• Availability of Desired Coal and avoid Contamination/mixing.</li> <li>• Increased in Oven Availability and consistency in pushing and improvement in Heating System</li> <li>• Support from OEM experts for rectification of seal</li> <li>• Interconnection of compressed air line between Centralised Compressor House &amp; BFPP-2 Ash Handling Compressor House</li> <li>• Steam Line design modification at 60 TPH &amp; 125 TPH Boiler.</li> <li>• Pressure set point optimisation of Oxygen Horton sphere vessel and Commissioning of 2*250Cum Buffer Vessel</li> <li>• Procurement &amp; Replacement.</li> </ul>
2.	Reduction in coke moisture during wet quenching up to 4.5% at Coke Oven-2	
3.	Increase in Pulverised Coal Injection (PCI) Rate at BF-2 from 157 to 175 Kg/Thm.	
4.	Improvement in Coke Reactivity Index at Coke Oven-1 by 1%	
5.	Increased Coke Dry Quenching (CDQ) -2 Pushing at Coke Oven-2 from 64 Per Day in FY2022 To 72 Per Day in FY2023 (Avg.)	
6.	Revival & Commissioning of LD Gas Holder for utilisation of LD gas	
7.	Reduction of power by optimising no of Operating Compressor at Central Compressor House.	
8.	Utilisation of unused flash steam at Blast Furnace Power Plant #2 (BFPP-2).	
9.	Reduction of Oxygen Venting from 4% to 2.7%.	
10.	Replacement of Energy Efficient motor in place of IE1 Motor (25 Nos) at RMHS for Reduction in power consumption	

**(ii) Steps taken by the Company for utilising alternate sources of Energy:**

- Projects on Power generation from solar and non-conventional energy source gained momentum.
- 28 MW generation capacity through solar power source is in the pipeline.
- Project on Central LDC is in progress, targeted to reduce DISCOM drawl (by ~07 MW).
- Project on installation of 'Energy recovery Micro Turbine' to recover throttling loss in steam pressure are in progress at PH#3, PH#4, and PH#5, G,H,I BF and BPP, TSJ
- Project on retrofitting of existing cooling tower with S.M.A.R.T. system using predictive control strategy, feasibility work in progress for CRM cooling towers.
- Power wheeling across TSL locations to maximise power utilisation from captive units
- Successfully commissioned a solar farm of 1MW capacity at the Raw Water Treatment Plant.
- Utilisation of by product gas-conversion of coal fired boiler to dual fire at Angul Energy Limited is under Progress.
- Initiated of feasibility study for utilisation of natural gases at TSM.
- Power generation by using of microturbine at BFPP-2 is under Progress.
- CDQ-1 installation at Coke oven-1 is under progress.

### (iii) Capital investment on energy conservation equipment:

S. No.	Particulars	₹ crore
<b>Jamshedpur</b>		
1	LD Gas injection in TSCR Gas Mixing Station	0.94
2	Micro turbines at G, H, I BF, TSJ	4.78
3	Micro turbines at BPP, TSJ	3.39
<b>Meramandali</b>		
4	Revamping of Energy Management Centre at Meramandali	0.7

## (B) Technology Absorption

### 1. Efforts made towards technology absorption

#### (i) Projects under Research and Development and Digital initiatives

##### Jamshedpur

Project title	Benefits
<b>Jamshedpur</b>	
Reduction in coke moisture by super absorbent polymer	Super absorbent polymers have high moisture absorption and retention capacity. Therefore, a methodology is developed at a lab scale and implemented at several locations. This method proved in reduction of 15-20 kg coke rate, and 40-45 kg CO <sub>2</sub> emissions per tonne of hot metal production.
Metal Chalcogenide generators to generate green electricity	Thermoelectric generators produce electricity due to Seebeck effect, where an electric potential is generated due to a thermal gradient across 2 surfaces. The present system produces 1 Kilo Watt Hour of green electricity.
Increasing hydrocyclone yield at a wet plant by improving the dewatering screen efficiency.	At wet plant, hydrocyclone underflow product is dewatered through high frequency dewatering screen having conventional 2D panels. R&D is working towards introducing 3D screen panels in place of 2D panels based on encouraging results as obtained from DEM simulation and Demo scale trials at plant site.
Throughput improvement of a Washery by improving Concentrate thickener operation by new design feed well	R&D has taken up a project to improve fine clean coal yield and throughput by improving the fine clean coal thickener performance of a Washery at mine site. Studies suggested that an improved feeding arrangement through new feed well design will enhance the reagent-particle and particle-particle interactions and lesser air entrainment.
Innovative Pulse iron ore sintering	TSL R&D has developed an innovative technology in iron ore sintering called "Pulse Sintering". Unlike conventional sintering process where the suction in the sinter bed is continuously downdraft, in pulse sintering, pulsating action in the suction wind boxes creates back pressure and thereby broadens the flame front and increases sinter heating index by improving heat transfer rate of flowing gas. This concept was successfully implemented in sinter plant.
Enhancement of iron ore grinding process in ball mills thru surface charge modifiers	To improve the grinding of iron ore during ball milling, a polymer-based surface charge modifier has been established and implemented in pellet plant by R&D. Neutralised surface charges on the ore particles during grinding improves particle breakage leading to increase in ball mill thruput and drop in rejects. An improvement of 2.7% in ball mill thruput was observed during plant trials at pellet plant.
Sacrificial anode	A High phosphorus pig iron (HPPi) based sacrificial anode has been developed. This sacrificial anode is useful for enhancing the life of metallic structures inside sea, soil and concrete. The pilot trial has been successfully done and product is ready to be explored on a commercial scale.
Antimicrobial coating	Polymer coated steel sheet is primary product for white good sector, appliances and construction application. The antiviral paints were developed at lab scale complying to the JIS Z 2801 and ISO21702 standards. The antiviral product reduces the secondary transmission of virus & bacterial therefore, it is healthy to use for the in-house applications in house/community centres/hospitals/schools/railway station/airport.

Project title	Benefits
Mesh seam welding	A mathematical model to map the weldability lobe for resistance mesh seam welding of high strength and high thickness grade was developed by R&D team. Time-temperature profile during mesh seam welding provides online assessment of weld quality and prevents coil breakage in line.
Development of hot rolled complex steel with minimum UTS of 780 MPa	The project aims at developing a hot rolled complex phase steel, consisting of different phases like bainite, ferrite and martensite. This steel grade is suitable for manufacturing various automotive components. The advantage of this grade is an excellent combination of strength, toughness and flanging property. The in-house development of this advanced high strength steel grade comprises various steps, such as alloy design, laboratory scale heat making, thermomechanical simulation and pilot scale hot rolling in laboratory.

## Kalinganagar

### Raw Material Handling System & Logistics Operation

Project title	Benefits
Robot Operation In wagon tippler	Elimination of MMI during coupling and decoupling activity.
Modification of CHP HMI mapping of all the piles in yard	By mapping of the Coal stockpiles in HMI resulted in elimination of mixing of different grades of material due to human error.
Productivity enhancement of Conveyor through effective Braking	By measuring and setting up the conveyor stoppage time in sync with preceding and succeeding conveyor which eliminated jamming in conveyor circuits.
Enhanced reliability of Moving equipment through installation of Drag Chain	This system will eliminate the failure of composite cable along with risk of electrocution.

## Sinter Plant

Project title	Benefits
Lime fines visibility dashboard to improve sinter productivity	Central visibility dashboard to track the real time movement of lime fines to maintain a healthy stock to maintain sinter production levels.
Auto surge bin control loop at tsk sinter plant	This control will minimise the interruptions in green mix circuit having a positive impact on life of equipment. Also, it will help in consistency of operations reducing the variations in quality.
Installation & commissioning of online FeO analyser to improve quality and reduce coke consumption at tsk sinter plant.	We are able to monitor real time FeO% in product sinter then Coke trimming can be optimised in real time as per the dynamic value of FeO% in product Sinter.

## Coke Plant

Project title	Benefits
<ul style="list-style-type: none"> <li>Automation of Ammonia stripper top temperature done with external steam flow.</li> <li>Installation and commissioning of automatic foam type fire extinguishing system for coal tar tanks.</li> </ul>	This will improve safety and better process control at CP By-product plant
Deploying drones at coal yard by to capture tonnage of coal and linking it with its corresponding properties.	This will improve better inventory management and also reduce coal mix-up probability

### Steel Melting Shop (Data warehouse/Digital)

Project title	Benefits
Successful implementation of Desulphurisation Advanced analytics model	This will reduce desulphurising reagent consumption
Successful implementation of Heat weight model	This will increase cast weight by 2 T/heat
Adaptive ferro-alloy model developed	This will lead to better product mix and process efficiency
Development of superheat model for Ladle Furnace	This will improve steelmaking process control and stability

### Hot Strip Mill (Digital)

Project title	Benefits
Soft Sensor for width Measurement	Data Analytics Model has been implemented for predicting product width to avoid rolling stoppage in case of unavailability of width measurement device after finishing mill
Auto Coil Decision System	Auto Coil Decision System has been implemented to reduce quality decision cycle time. Automatic decision is taken based on dimensional measurement, chemistry, lab testing & inspection results
3D View of Yard Management system	Improved visualisation and control of Coil Yard management system through 3D view mapping

### Utilities

Project title	Benefits
10 Tons per Day Waste-to-Energy ARC-Cat-Polycrack technology-based plant (under construction)	The plant shall primarily generate syn gas (CO+H <sub>2</sub> ) along with mixed gas, oil and biochar from carbonaceous waste in a cost-effective and eco-friendly manner.

### Meramandali

#### Blast Furnace 1 & Blast Furnace 2

Project title	Benefits
BF level 2 system is developed based on first principles of physical laws of BF process and operation practices. The system consists of the following mathematical models: a) Burden Calculation Model b) Stock House Matrix editor c) Shaft Simulator d) Lab Browser e) Water Ingress Model f) Liquid Level Monitoring System	It calculates the optimum burden recipe required to achieve the desired hot metal and slag chemistry using the raw material analysis and adopting the typical mass balance principles. It generates the setpoints of raw materials that are transferred automatically with minimum operator's intervention.
Torpedo Ladle Tracking System was implemented in Hot Metal Logistics area using RF technology and IoT sensors.	Auto weighing of hot metals is captured, on-line tracking of torpedoes help hot logistics team to assign torpedoes to blast furnaces and upstaging to higher level system for further process analysis and data analytics projects.



**Coke Plant 1 & Coke Plant 2**

Project title	Benefits
<p>Coke oven Level 2 systems brings high regularity in oven operations, consistency in coke quality and eliminates human coordination in operating the oven machines. The system consists of the following functions.</p> <ul style="list-style-type: none"> <li>• Dynamic Scheduling for Oven</li> <li>• Machine group management</li> <li>• Heating control</li> </ul>	<p>This system helps to improve the consistency of operations of the battery by the help of computer-generated pushing/ charging schedules. Computerised heating control improves the standard deviation of the coke mass temperature and therefore ensures consistent coke quality. This system provides for comprehensive data analysis and report generation, which help in overall efficient operations.</p>

**Sinter Plant**

Project title	Benefits
<p>Level-2 system consisting of process models like Sintering temperature simulation model, Stack PM prediction model, Decision support system (recommendations model) and Alert systems- real time alerts on key parameters in case of any abnormality was implemented in Sinter Plant-2 and Sinter Plant-3.</p>	<p>Provides real process visualisation of the Sinter plant and in turn assists the operation with better optimisation and control facilities. The prediction and simulation models of the level II system guides the operators to take early corrective actions for process control.</p>

**Maintenance Technology Roadmap (MTR)**

Project title	Benefits
<p>Maintenance Transformation was enabled for predictive maintenance under MTR.</p> <p><b>Track1:</b> End to end predictive maintenance was developed using Conventional Sensor's and in House Machine Learning Model were deployed for BOF Primary ID Fan and Secondary ID Fan, Sinter Plant Waste Gas Fan, Conarc Secondary ID Fan, LF3 Booster Fan, BF2 MB Belts Motor and Conveyor Driving System.</p> <p><b>Track 2:</b> Predictive maintenance was implemented using OEM SMART (Vibration &amp; Temperature) sensors for rotating equipment having no conventional sensors. 268 IOT Based smart sensor's installed in BF1, BF2, SMS and HSM.</p>	<p>Reduction in unplanned &amp; planned downtime &amp; achieve benchmark OEE. Early decision to user regarding Sensor Health, Abnormality, and failure. Optimise maintenance cost and resources. Perform real time monitoring &amp; raise flags by predicting critical events.</p>

### Lime Plant:

Project title	Benefits
<p>Lime Plant Level-2 - The following was implemented as part of Lime Plant Level-2:</p> <ul style="list-style-type: none"> <li>• <b>Data acquisition and centralised historisation:</b> A system to historise real time process parameters for better visualisation and analysis of the process.</li> <li>• <b>Visualisation of process and operational Data:</b> Process visualisation and parameter trends to all stakeholders for better decision making.</li> <li>• <b>A setup to deploy process models:</b> Scope of process optimisation through model deployments.</li> <li>• <b>Kiln operation in Closed loop control mode:</b> Operation of kiln using Optimised set points in semi-automatic mode through level#2</li> </ul>	<p>Improvement in lime quality, transparency (single version of truth) leading to increase in agility in decision making, reduction in quality deterioration of product lime, System based decision over tacit knowledge and standardised operation (independent of operator) and increase in Kiln availability.</p>

### Steel Melting Shop (SMS)

Project title	Benefits
<p>SMS Control Tower Phase1 - SMS Control Tower main dashboard has been developed which gives real time, to the scale visualisation of process and equipment at SMS shop. SMS Shop have eighteen (18) process units (BOF, Conarc, slab casters, LF, RH etc.) and thirty-nine (39) mobile equipment (ladle transfer cars, overhead cranes, slag pot carriers etc). Status of process units and mobile equipment changes every minute which leads to dynamic constrain. Shift planner faces challenge in managing such a complex combination of process and equipment for optimum production leading to loss of production due to unavailability of logistic. Realtime to the scale visualisation of all process and equipment gives shift planner bird eye for optimising equipment availability to have maximum production.</p>	<p>Increase in production and decrease in delay due to logistic issue.</p>

Project title	Benefits
<p>Torpedo Level 2 system – It implements new heat id concept in hot metal area. Blast furnace heat id and torpedo information is linked with SMS batch id using this system. The system enables representative hot metal analysis and temperature being available to BOF and Conarc for optimum process control. It works as basic infrastructure for further implementation of BOF/Conarc level-2.</p>	<p>Reduction in flux consumption at BOF and Conarc. Increase in transparency and reduction in phone calls.</p>
<p>Quality Evaluation System (QES) - The system provides automated slab decision and visualisation of slab-wise abnormalities</p> <p>The system has following feature.</p> <ul style="list-style-type: none"> <li>• Online visualisation screen for the slab quality inside the casting strand.</li> <li>• Historisation of product abnormalities for future analysis (Customer complaint investigation, through process analysis etc.)</li> <li>• Automated quality decision based on process charts.</li> <li>• Suggestion for alternate grade in case of exception.</li> </ul>	<p>To prevent manual mistakes while giving slab decision with adequate system check. Faster and automated quality decision.</p> <p>Online visualisation screen available for QA team for slab decision to see each slabs abnormalities and for big data analytics.</p>

**Hot Strip Mill**

Project title	Benefits
<p>Integrated Quality Management System (IQMS) at HSM - It provides Coil Quality Decision and visualisation of Coil-wise abnormalities.</p> <p>The system has following feature:</p> <ul style="list-style-type: none"> <li>• It has integrated platform for PDI, PDO data and capture process parameter data for real-time data visualisation.</li> <li>• Online Visualisation screen for the Coil Quality Decision.</li> <li>• Automated quality decision based on TDC parameter.</li> <li>• Historisation of product abnormalities for future analysis (Customer complaint investigation, Through process analysis etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Online visualisation screen available for QA team for Coil Decision.</li> <li>• Quicker Decision.</li> <li>• Coil Quality assurance.</li> <li>• Coil abnormalities and defect analysis</li> </ul>

**Cold Rolling Mill**

Project title	Benefits
<p>Reversing Mill-3 level-2 system at Sahibabad has been implemented with help of OEM (MS Primetal). Rolling through level-2 has been enabled. Integration with MES has been done.</p>	<p>Better process control coil defect analysis</p>

## (ii) Process Improvement

### Raw Material Division

#### Ferro Alloys

- **Reduction of ferrochrome production cost by introducing low-cost carbon composite briquette:**

To tap the cheaper reductant source and utilise in Ferrochrome making process, an innovative approach is developed to utilise the coke fines. In this process, composite briquette is prepared with coke fines and chrome ore mix and utilise into the submerged arc furnace in Ferrochrome making process. Through this approach sized coke requirement is reduced substantially and as a result the cost of production has come down.

- **Convert low value FeCr fines into prime lump product through induction melting:**

Ferrochrome is sold according to the size grading specifications of users. Due to this lots of undesirable fines are generated during size reduction process. An induction furnace melting process of FeCr fines has developed, through this route FeCr fines can be melted and converted back to prime lump product easily which will help Ferrochrome makers to recover the full value of its product.

#### Mining Technology

- **Identification of Eccentric Ripper Technology as an alternate Blast free mining solution for Extraction of overburden at West Bokaro:**

Trial is in progress to establish techno-commercial feasibility & decision on way forward.

- **Novel mining approach proposed for extraction of friable chrome ore (~20 million Ton) below ultimate pit limit at Sukinda:**

Feasibility study is completed & Techno-commercial feasibility is established. Decision on way forward is in progress.

#### Ore Beneficiation

- **Technology development to upgrade sub grade iron ore (45%<Fe<55%) for self-sufficiency and enhancing captive resource utilisation:**

To be a leader in the Raw material technology area, Process Technology Group is exploring innovative

approaches to upgrade sub-grade to make it usable for downstream process. In this regard, two non-conventional techniques were identified, namely reduction roasting and ultra high dense media separation. Lab studies for captive ore have been completed and achieved encouraging result, pilot scale study will be carried out for validation of test work result. These technologies will help Tata steel to set a direction for forthcoming Iron ore mines auction in FY2030.

#### Coal Beneficiation

- **Performance Improvement of Reflux Classifier (RC) at JCPP:**

RC clean coal ash reduced from 24.4% to 22.5% by optimisation of classifying cyclone operating parameters (pulp density & feed pressure) along with implementation of preventive measures.

- **Real time performance monitoring of DMC using Electrical Impedance Spectroscopy (EIS):**

EIS Installed for one stream of Dense Media Cyclone (DMC) of Washery#3 in Dec'22, which eliminates traditional way of monitoring media density comprising manual collection & analysis of samples – time consuming & a costly affair. Upon implementation in all four streams, this will have a potential impact of 0.2% on overall yield of the washery#3.

- **Beneficiation of Intermediate Size Fraction using Fine DMC:**

To produce low ash clean coal, fine DMC Pilot Test work was carried out at PESCO lab, South Africa. Targeted clean coal ash of 13% was achieved at the yield of 55%.

#### Jamshedpur

##### Agglomeration

- A cold bonded agglomerate consisting of Fe bearing in house generated waste material is used in blast furnaces, resulting in carbon rate reduction of 1.5 kg/thm with 1% addition in Blast furnace burden.

##### Coke Making

- **Coke Yield Improvement at Coke Dry Quenching system:**

Of the several reactions that occur during CDQ, the reaction of CO<sub>2</sub> with Carbon leads to weakening of the coke structure and thus, adversely affecting its

CSR and coke yield. Based on this theory, researchers found that by optimising the CO and CO<sub>2</sub> % in the circulating gas led to improvement in coke yield and coke CSR. A trial was conducted at Battery 10,11 wherein CDQ 10-11 was operated at optimised CO%. During trial, there was improvement in coke yield by 0.2-0.3% and now this has been implemented at Battery 10-11.

**Blast Furnace**

- **Enhance sinter fines usage at HBF by 1%:**  
Implemented 4mm sinter fines material at HBF stock house on Nov'22. Its enabling generation of coarser sinter return fines that can be charged in BF and as a result HBF has increased its utilisation. Due to 1% higher agglomerate in burden coke rate dropped by 1.5 kg/thm at BF"

**Process visibility**

- **Improved sensorisation at sinter plant:**  
To monitor difficult to measure parameters like bed heating uniformity in sinter bed, a thermal imaging-based sensor has been installed in at the discharge end. Heating non uniformity index is developed and correlating with upstream parameters are being explored.

**Kalinganagar:**

**Sinter Plant**

- Achieved Best ever Annual average BF return fines of 13.77. (Previous best was 14% in FY2022).
- 100 KT Sinter was dispatched to NINL while managing Sinter Plant MSD and monsoon.
- Maintained 77% burden with 427 KT higher production than ABP partially replacing procured pellet and reduced moisture load during monsoon.
- Buffer stock maintained at 100 KT (quickly recovered post monsoon).
- Benchmark MTTR for replacing DCTC.
- 97.98% RDI compliance.
- Uninterrupted sinter supply during 6 days standalone MSD.

**Steel Meting Shop**

- Achieved best scrap consumption of 9.2% in FY2023 surpassing previous best of 7.7% in FY2022 enabling reduced carbon footprint.
- Successful casting of 1.2%, 2.4%, and 3.35% Si Electrical steel.
- Lowest ever annual flux consumption of 83 Kg/TCS achieved with best monthly consumption of 79.3 Kg/TCS.
- Achieved highest ever average heat size of 305.2 T/heat in FY2023.
- Segregation of Converter#1 tilt field devices by installation of separate RIO to avoid downtime of both Converters in case of any mishaps.
- Installation of Linear Heat Sensing cable system in LC#18 conveyor to avoid major damage due to fire in conveyor line.
- Positioning of RH transfer car using laser sensor instead of limit switches.
- Implementation of control stop in LF transfer car.
- Installation and commissioning of redundant turret drive.
- Reliability improvement of converter skirt PLC for easy troubleshooting.
- Upgradation of server at HMDS, Converter, and RH.
- Installation and commissioning of tundish anti-tilting to prevent unequal submergence of SEN in mould thereby increasing SEN life.
- Installation of sensors for slab width measurement.
- Risk reduction from R2 to R4 risk scenario by installation and commissioning of auto-flushing system in converter flare stack COG line.
- 1<sup>st</sup> in India, IBOS (Improved Bottom Optimised Solution) – Precast block for Steel Ladle bottom has been installed to reduce metal return.
- Lowest ever internal rejection in FY2023 0.06% against ABP target of 0.30%.
- 1<sup>st</sup> time achievement of ultra- low Carbon 5ppm in IF grade.

- Longest Tundish sequence length of 739 heats (2,26,810 tons) cast in February 2023 surpassing previous best of 538 heats (1,63,844 tons) in January 2023.

### Hot Strip Mill

- Successfully rolled 300Kt+ TSM Slabs through synergy initiatives.
- Improvement of gross yield from 98.21% in FY2022 to 98.22% in FY2023 through daily management.
- Successfully rolled Electrical Steel up to 2.4% Silicon.
- Achieved Width Performance (97.3%) among the entire product mix through improvement in width control model.
- Consistent supply of API grades rolling with superior quality (for nation building–City Gas Project, CGP) with respect to surface, shape & mechanical properties. Produced 200 KT+ API grade steel in FY2023 with API X70 as major share (63%) in it.

## (iii) Product Development

### Jamshedpur

- Cr-free secondary coated GA fuel tanks of Bharat Stage VI (BS-VI) compliant two-wheelers.
- High strength, high ductility 6mm air cooled rebars with superior weld shear strength for welded wire mesh.
- Grade Fe 550D CRS rebar to cater to the requirement of high strength corrosion resistant rebar.
- Grade HC58A wire rod addressing customer requirement of high-speed direct drawing wire rod.
- Grade HC78BX wire rod was developed for rope application.
- C80 HR with improved cold rollability.

### Kalinganagar

Following Grades were developed in FY2023:

- **S355MC (impact guarantee at -48 degree Celsius):** Developed HR steel for arctic region transformer cover. It is a first in India product.

- **HS900:** Developed and successfully tried out for bulk trailer application. This resulted in 550 kg of weight saving per trailer. It is a first in India product.
- **SPFH590 (100% HER Min.):** Developed for JBM (for Suzuki, Gujarat). Component trial successful in the first attempt itself. It is a first in India product.
- **SPFH 590 (low Si):** To improve the surface finish for wheel disc application, grade with low silicon was developed.
- **X42 (Sour):** For API sour service.
- **X65 (low Moly):** A low-cost version of X65 was developed for API non sour application
- **S355J2 (low Si):** HR developed for export structural tubes application with improved surface finish.
- **0.6%, 1.2% CRNO Electrical Steel:** Developed 2.5mm thick sheets for Posco and Surahammer.
- **SPFH540 (Mn / Si) for Kalyani Maxion Wheels:** Developed for wheel rim of LCV.
- **IRS Grade A:** Developed 5 to 20mm thick sheets for various ship builders.
- **16MnCr5, SCM435, 15Cr3 for Tubes Products of India:** Developed these alloy steels for application in Sprocket and Chain components.

### Meramandali

- **ASTM A 572 - Gr 50 Type 1 (8 to 12 mm):** Developed for Pre-Engineered Building segment
- **E46:** Developed for Heavy Commercial Vehicle chassis
- **YST38:** Developed for Commercial Vehicle wheel disc
- **EN 10025 S235+AR J2 (5 to 12 mm):** Developed for Exports market for structural application
- **EN 10025 S275+AR J2 (5 to 12 mm):** Developed for Exports market for structural application
- **Fe330:** Developed for Brake Back plate application
- **JIS G3113 SAPH370:** Developed for Car wheel application
- **Grade A CF:** Developed for Wheel disc and brake component

**2. Benefits derived from key projects like product improvement, cost reduction, product development or import substitution:**

Project title	Benefits derived
Jamshedpur	
Rolling of Fe550SD at high-speed using lean chemistry	Less diversions with consistent billet quality. Expected savings of ₹22.5 crore in FY2023
Developing TSCR as an alternate route for Steelium Coil production instead of HSM	Savings of ₹3.68 crore in FY2023
Use of coated sink roll to extend campaign length in GA (GA Skin) Campaign	Savings of ₹0.66 crore in FY2023
Developing heat optimisation model for tunnel furnace in LD#3 TSCR	Gas consumption savings of ₹3 crore in FY2023

**3. Information regarding imported technology (last three years):**

S. No.	Technology Imported	Financial year of Import	Status
<b>Jamshedpur</b>			
1	Electro Magnetic Brake (Phase-2)	2020 - 21	Commissioned
2	Electro Vessel 2 Trunion and Guide System (Part of LD#2 Converter Scheme)		
3	Granshot	2021 - 22	Commissioned
4	Surface inspection system at PLTCM		
5	Revamping of ARP 1, 2 ar TSJ CRM		
6	Revamping of ARP at CRM Bara		
7	Extrusion briquetting machine for plant reverts	2022 - 23	Yet to be commissioned
<b>Kalinganagar</b>			
8	2 <sup>nd</sup> Barrel Reclaimer (Make: TAKRAF Tenova) in RMBB Sinter Plant	2019-20	Commissioned

**4. Expenditure on Research & Development (R&D)**

		(₹ crore)
(a)	Capital	4.27
(b)	Recurring	270.65
(c)	<b>Total</b>	<b>274.92</b>
(d)	Total R&D expenditure as a % of Total Turnover	0.21%

**(C) Foreign Exchange Earnings and Outgo**

		(₹ crore)	
		FY2022-23	FY 2021-22
Foreign Exchange Earnings		8,612.98	17,187.78
Value of direct imports (C.I.F. Value)		42,522.99	29,071.56
Expenditure in foreign currency		799.51	505.33

On behalf of the Board of Directors

sd/-

**N. CHANDRASEKARAN**

Chairman

DIN: 00121863

 May 2, 2023  
 Mumbai