

# Corporate Presentation

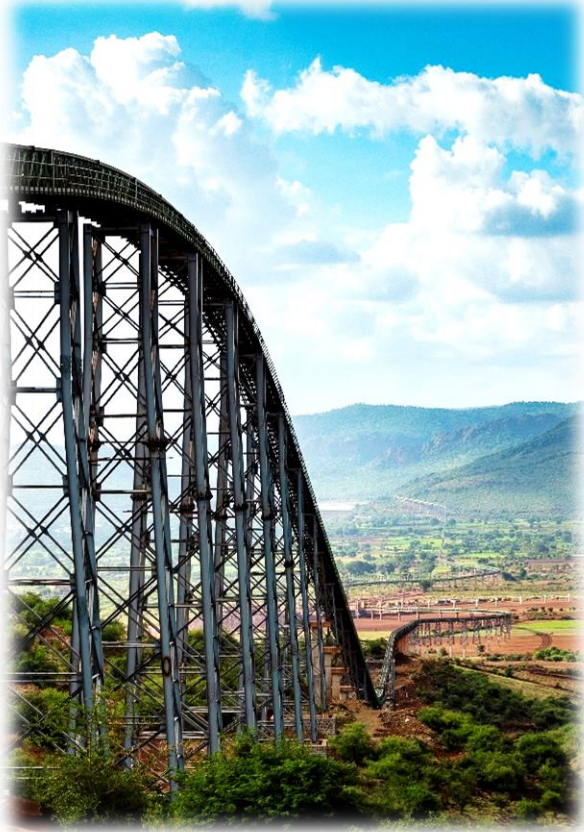
August 2022

Certain statements in this report concerning our future growth prospects are forward looking statements, which involve a number of risks, and uncertainties that could cause actual results to differ materially from those in such forward looking statements. The risk and uncertainties relating to these statements include, but are not limited to risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, intense competition within Steel industry including those factors which may affect our cost advantage, wage increases in India, our ability to attract and retain highly skilled professionals, time and cost overruns on fixed-price, fixed-time frame contracts, our ability to commission mines within contemplated time and costs, our ability to raise the finance within time and cost client concentration, restrictions on immigration, our ability to manage our internal operations, reduced demand for steel, our ability to successfully complete and integrate potential acquisitions, liability for damages on our service contracts, the success of the companies in which the Company has made strategic investments, withdrawal of fiscal/governmental incentives, impact of regulatory measures, political instability, legal restrictions on raising capital or acquiring companies outside India, unauthorized use of our intellectual property and general economic conditions affecting our industry. The company does not undertake to update any forward looking statements that may be made from time to time by or on behalf of the company.

PRINCIPAL SPONSOR



# Agenda



**Sustainability**

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**Overview**

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**Key Investment Highlights**

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**Digitalisation at JSW Steel**

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## Sustainability

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# Sustainability Framework and Priorities

## 17 Focus Areas



### Climate Change:

- Aligned to India's Nationally Determined Contributions for Climate Change as per Paris Accord
- Carbon neutrality at JSW Coated by 2030
- >42% reduction in specific CO<sub>2</sub> emissions by 2030 (vs. base year 2005)



### Waste: 100% solid waste utilization



### Biodiversity: No Net Loss for Biodiversity



### Waste Water: Zero Liquid Discharge



### Water Resources: >39% reduction in fresh water consumption by 2030 (vs. base year 2005)



Resources



Sustainable Mining



Social Sustainability



Local Considerations



Indigenous People



Human Rights



Supply Chain Sustainability



Employee Wellbeing



Air Emissions



Business Ethics



Cultural Heritage



Energy

Aligned to National & International Frameworks



[JSW Policies for each Focus Area are available on our website](#)

## Governance & Oversight By Board-level Business Responsibility And Sustainability Committee

### Independent Directors

Ms. Fiona Paulus (Chair)

Dr. (Mrs.) Punita Kumar Sinha

Mrs. Nirupama Rao

### Executive Directors

Mr. Seshagiri Rao M. V. S.

Mr. Jayant Acharya

## Integrated Reporting



FY 2018



FY 2019



FY 2020



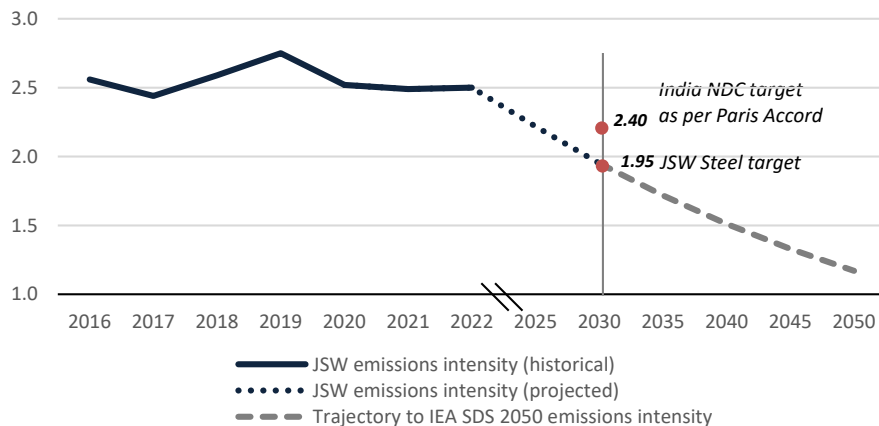
FY 2021

Click on images for reading online.

# Climate Change: Emission Target and Initiatives

## Derivation of carbon emission target for 2030

- The Sustainable Development Scenario (SDS) <sup>(a)</sup> requires direct emission intensity of crude steel production in India to **fall over 60% by 2050 on the path to net zero in 2070**
- The 2030 target is based on following the trajectory needed to reach a derived **emissions intensity of 1.17 tCO<sub>2</sub>/tcs by 2050** <sup>(b)</sup>
- India's Nationally determined contribution (NDC) as per Paris Accord for 2030 is 2.4 tCO<sub>2</sub>/tcs



## Planned/ Potential initiatives to reduce CO<sub>2</sub> intensity

- ✓ Energy Transition from thermal to Renewable in steel making
- ✓ Reduction of Coke rate through iron ore beneficiation, PCI, use of natural gas in BF and DRI
- ✓ Increased use of scrap in steel making
- ✓ Implementation of Best Available Technologies (BATs)
- ✓ Process Improvements based on the world steel 'step up' global benchmarking process
- ✓ Scaling up Carbon Capture & Use (CCU)



Issued Global Steel Industry's First USD Sustainability-Linked Bond in Sept 2021

### Note:

- (a) Based on the International Energy Agency's (IEA) Iron and Steel Technology Roadmap, published in 2020
- (b) Taking account of both the direct (Scope-1) and indirect energy (Scope-2) emissions

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# JSW Group: Key Verticals



- **India's largest steel producer**
- Capacity of 28.5 mtpa, growing to 38.5 mtpa
- Listed on NSE, BSE. Market cap of US\$20.6bn



- Capacity of 4.6 GW (Hydro, Renewable and Thermal)
- Growing to 20 GW by 2030 with **85% renewable portfolio**
- Listed on NSE, BSE. Market cap of US\$6.6bn



- Capacity of **130,000 ktpa**
- Only fully-automated, water-based plant in India



- Ports capacity of **153 mtpa**
- Operations across East, West & Southern coasts of India



- **Capacity of 17 mtpa, growing to 25 mtpa**
- India's leading green cement company



- Social development arm of the Group, with footprint across 11 states and 15 districts
- **Reaching out to +1 mn individuals** around the operating locations



- Aims at nurturing the sporting dream of India
- Trained **Olympic medal winners**
- Associated with champion teams like Delhi Capitals, Bengaluru FC and Haryana Steelers



- Early stage, tech focused **Venture Capital fund**
- Invests in companies building innovative solutions that leverage India's demographic dividend, consumption drivers and technological advancements



## One of the leading steel players in India

- Most geographically diversified steel company in India
- Sustainability and Governance at the core of the enterprise.



## Diversified product portfolio

- **Extensive product portfolio**  
HRC, CRC, Coated, Tinplate, Electrical steel, TMT bar, wire rod, rails, grinding balls, LRPC, etc.



## Integrated manufacturing process

- From raw material processing plants to downstream value-added product capacities



## Technological competence

- Combination of state-of-the-art steel making technologies: Corex, DRI, Conarc, Blast Furnace, BOF



## Global presence

- International presence in Steel making (US), Value-added facilities (US, Italy)

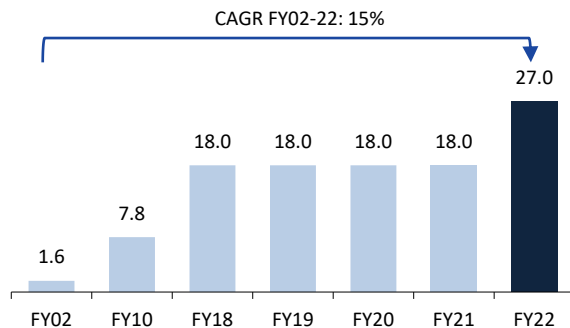


## Strong distribution network and export presence

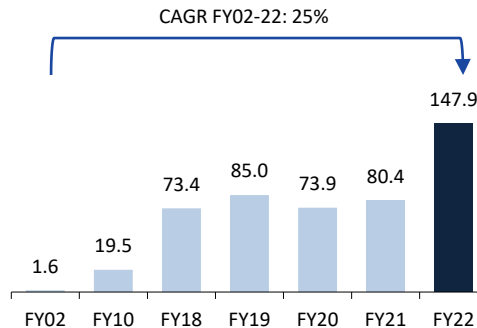
- Pan-India marketing and distribution network
- Export footprint in over c.100 countries across 5 continents

# Transformational Growth and Value Creation

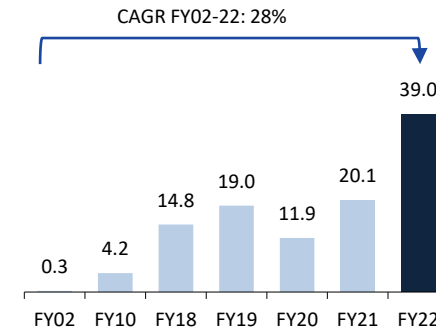
## India Capacity (mtpa)



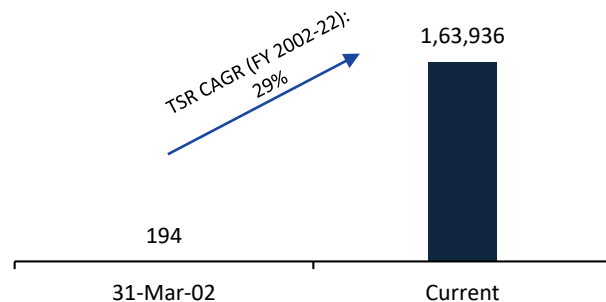
## Total Revenue (₹ 000's Cr)



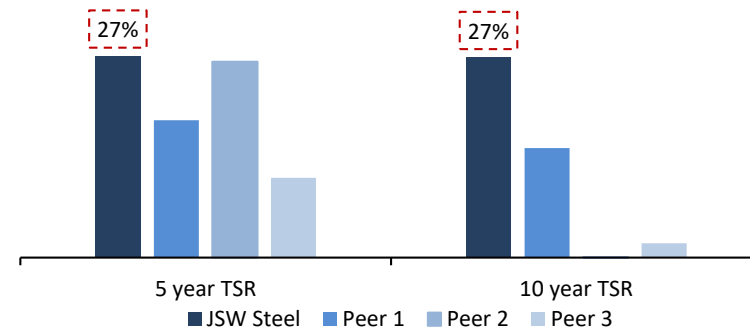
## EBITDA (₹ 000's Cr)



## Market cap (₹ Cr)



## 5 year and 10 year Total Shareholder Return



# Agenda

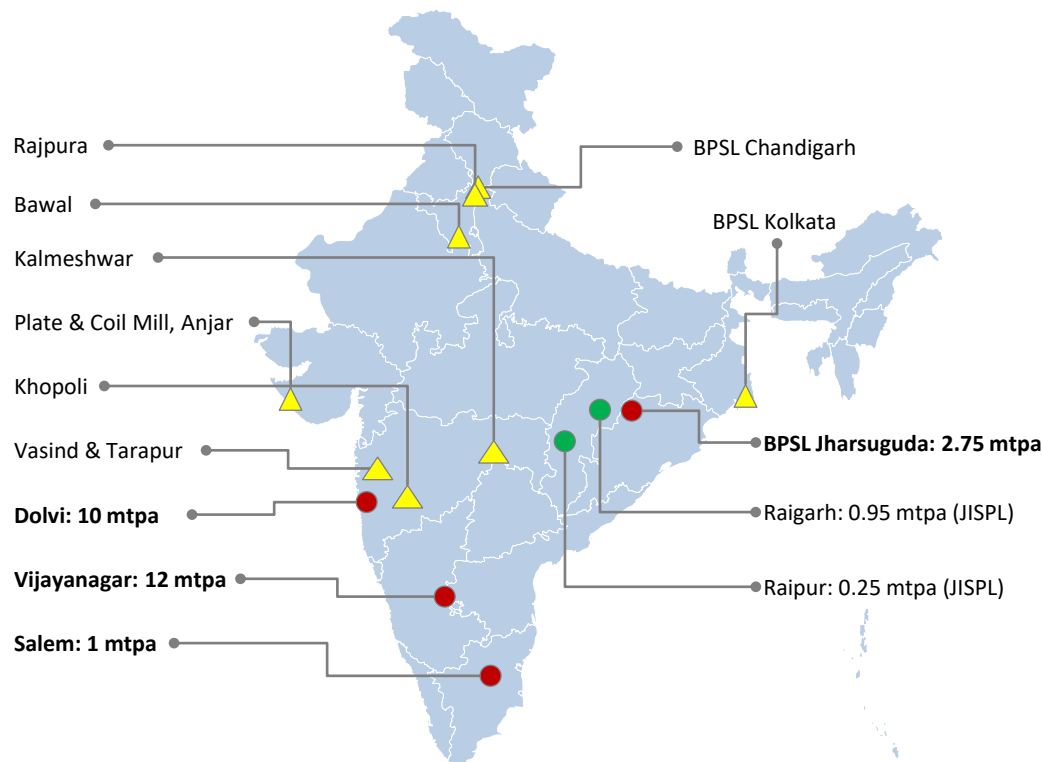


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# Key Investment Highlights

- 1 Size, Scale & Growth** Leading steel producer in India with near-term growth to take capacity to 37 mtpa
- 2 Efficiency** Lowest cost of conversion in India, one of the lowest globally. Strong domestic iron ore linkage
- 3 Product Mix** Strong margins further enhanced by significant downstream capacities producing value added and special products
- 4 ESG** Sustainability at the core of the enterprise. Actively pursuing climate change agenda
- 5 Governance & Management** Strong board and experienced management team
- 6 Track Record of Growth** Track record of efficient organic and inorganic growth: India capacity growth of 15% CAGR (FY02-FY22)
- 7 Shareholder Value** Prudent capital allocation: 20 year TSR CAGR of 29%, and uninterrupted dividends
- 8 Balance Sheet Strength** Strong balance sheet and access to diversified funding sources globally

## India

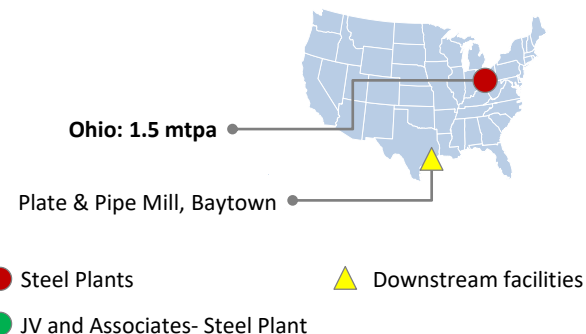


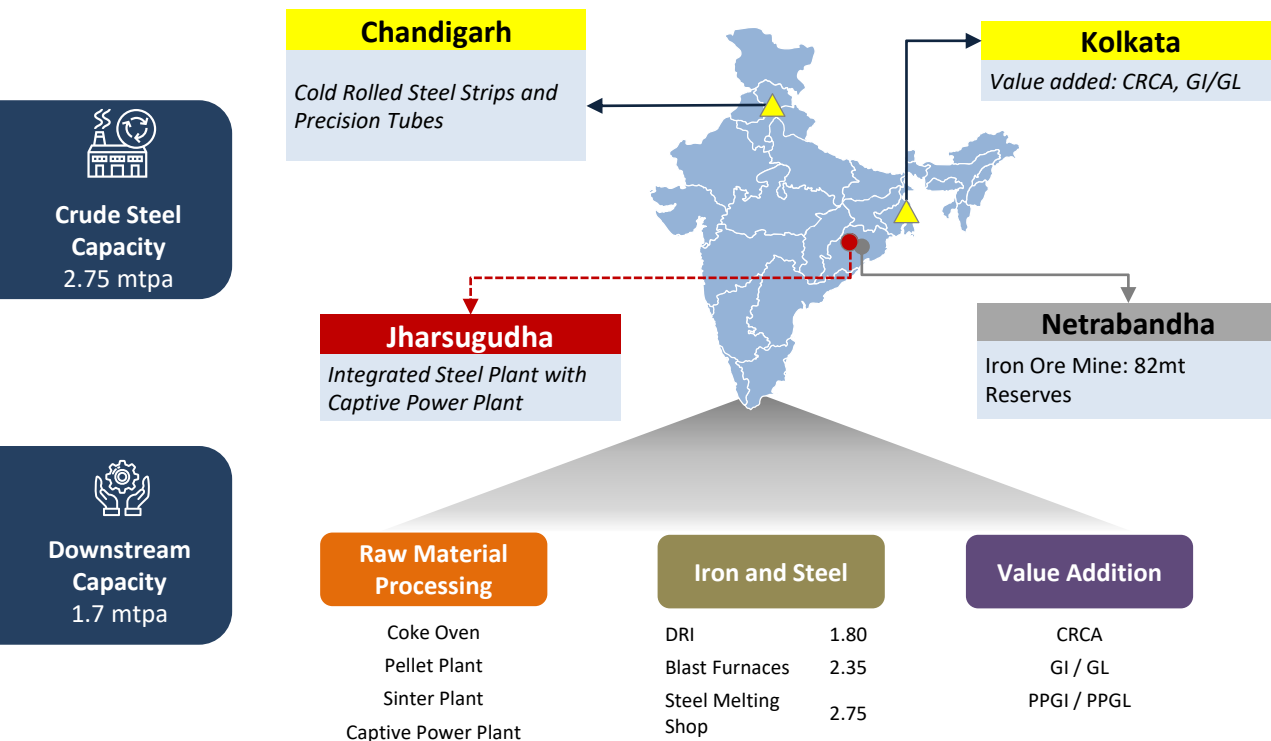
## International

### Europe

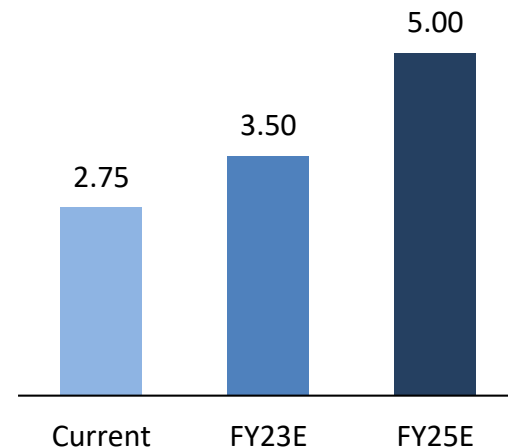


### USA

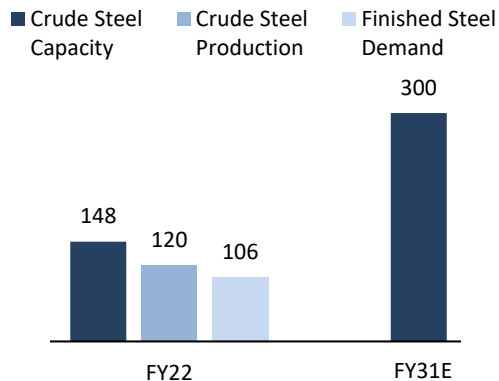




Expansion Plan

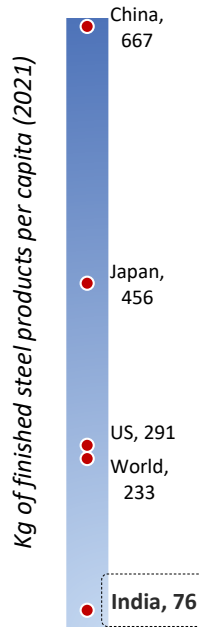


## India Steel: Strong Fundamentals (mt)



- Govt. thrust on infrastructure, housing, and increasing the share of manufacturing in GDP
- \$1.4tn National Infrastructure Pipeline over next 5 years
- Realignment of global supply chains and “China+1” sourcing approach of MNC’s
- Production-Linked Incentive scheme launched by govt. to promote manufacturing in select sectors
- Robust demand from energy transition and resi. real estate

## Significant room for growth in steel consumption in India



## Recent changes of export and import duties on the sector

- Govt. of India announced several duty changes on 21 May 2022:

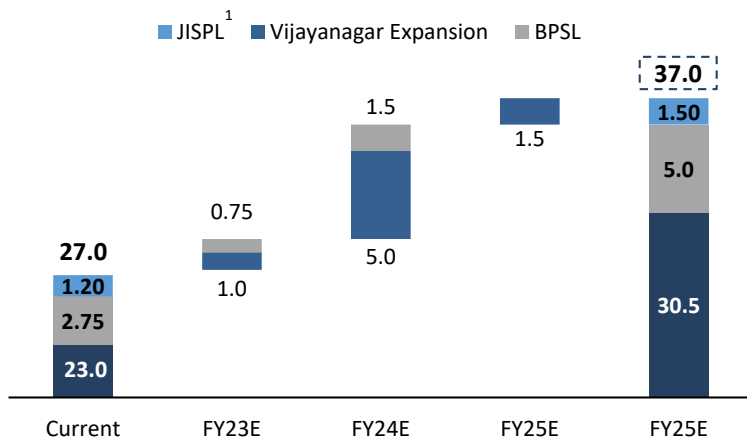
Product	Change in duties	Impact
Steel	Imposition of 15% export duty on most products	Red Circle
Iron Ore	Imposition of 50% export duty on Iron Ore and 45% on Pellets	Green Circle
Coking Coal	Removal of 2.5% import duty on Coking Coal	Green Circle

- Export duty on Iron Ore has brought down domestic prices
- Benefit from removal of import duty on Coking Coal
- Export duty on steel imposed to address inflation. Expected to be a temporary measure, as was the case in 2008

**Best placed Indian steel producer to benefit from strong domestic demand growth**

# Near-term Growth to Take India Capacity to 37 mtpa

Near-term growth in JSW Steel's India steel capacity (mtpa)



- 5 mtpa Dolvi expansion commenced integrated operations in FY22
- 5 mtpa brownfield expansion at Vijayanagar
  - Value-accretive with low capex of c.\$400-500/ton
- Incremental expansion at Vijayanagar of existing facilities to enhance capacity by further 2.5 mtpa (1.0 + 1.5) in phases
- BPSL on track to expand capacity from 2.75mt at present to 5mt by FY25
- Organic brownfield capacity expansion capex well below global benchmarks of replacement cost of c.\$1,000/ton for BF-based capacity

Value-accretive brownfield growth at low capex per ton

## Resilient business model based on continued focus on cost leadership



Leading position on global conversion cost curve

- Conversion cost of c.\$136/tonne in FY22



Technology, analytics and innovation continue to be the key levers to further optimize cost and operational efficiencies



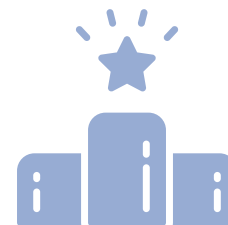
Implementation of cost reduction projects targeting overall cost savings and reduced dependencies

- Pellet plant and coke oven facilities at Vijayanagar and Dolvi
- Utilisation of pipe conveyor system for transporting iron ore fines

## WSD Aggregate Ranking<sup>(a)</sup>

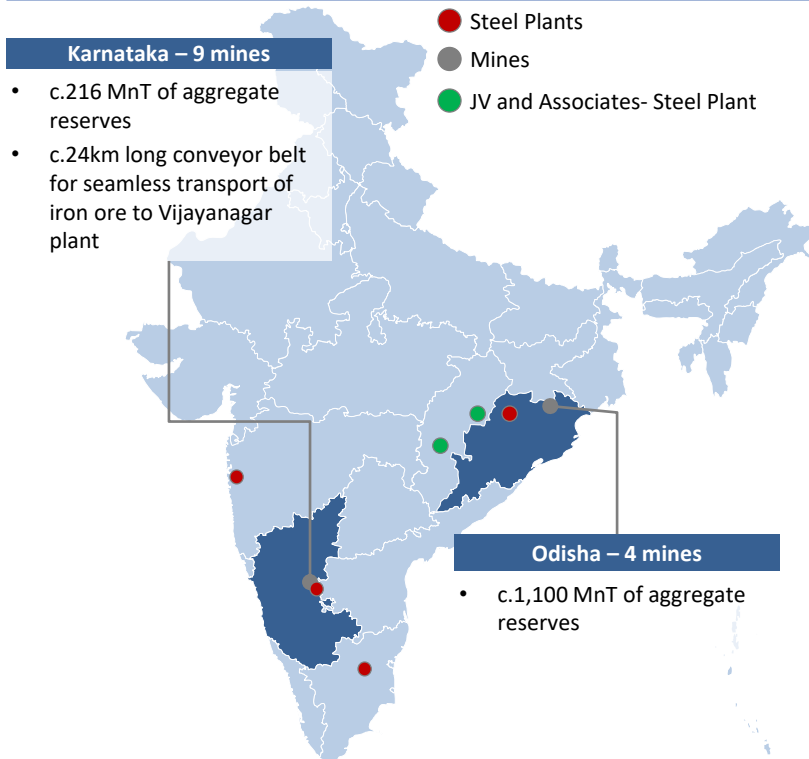


**# 4 ranked  
in Asia**



**# 12 ranked  
in Globally**

## 13 Captive iron ore mines ensuring adequate raw material supply



## Raw material security

- Won 6 iron ore mines in Karnataka through auctions in 2016 and 2018, and 3 mines in FY20.
  - Targeting 6-7 mtpa from the Karnataka mines
- Acquired 4 iron ore mines in Odisha with c.1.1bn tonne reserves
  - Strategic long term iron ore security for Dolvi and Salem works
  - Consistent and high quality iron ore grade to enhance BF productivity
  - Opportunity to optimize and significantly reduce logistics cost over time
- Cost of captive iron ore comprises
  - Bid premium based on prevailing domestic prices declared by IBM
  - Royalties & other statutory levies
  - Mining & logistics costs

## Strengthening Mining Operations in Odisha

- Enhance mining capabilities and efficiencies
  - Estimated capex of ₹3,450 crore over FY22-24
- Key strategic benefits of the project
  - Enhance own mining infrastructure to reduce reliance on outsourced mining
  - Grinding and washing facilities to improve the quality of the ore, aiding higher productivity at the steel-making operations
  - Implement digitalization across the mining operations

## Non-DLMS

### Production

### Stockyard

## DLMS

- 5 **Parking Management**  
(Day of despatch activities)  
Entry control through RFID authentication and Boom Barrier/traffic lights
- 5a **Parking Entry**  
(DO-Tagging validation)
  - ✓ Through FASTag reader (primary)
  - ✓ Through vehicle number punch (failover)
- 5b **Parking Exit**  
LED display to show trucks to proceed to mines for tare weight  
✓ FIFO
- 6 **Mines (Tare weighbridge)**  
Automated tare weightment  
Proceed to loading point
- 7 LED displays for assisting navigation from primary bifurcation
- 8 **Loading Point**  
Mobile app based authentication  
Geofence based authentication
- 9 **Gross Weightment**  
Automated gross weightment  
Proceed to mines exit
- 10 **Mines Exit**  
eTP, eWaybill and invoice generated



- 1 **Integration with i3MS**  
Permit details generated in i3MS and fetched

- 2 **Integration with SAP**  
DO creation in SAP  
DO-Permit Tag

- 3 **Despatch scheduling**  
(Day-wise despatch scheduling)
  - By Rail
  - By Road

- 4 **Transporter Management**  
Transporter accepts permits/ DO to despatch

- ✓ Transporter tags i3MS verified vehicle
- ✓ Transporter checks for proper FASTag. Flags if FASTag not available
- ✓ Post JSW approval of tagged vehicles, transporter tags in i3MS

- 11 **Receipt at railway siding/plant/port**
  - Mobile app
  - RFID

# Strong Margins Further Enhanced by Significant Downstream Capacities Producing Value Added and Special Products

## Coated Products



Pipes & Tubes, Roofing,  
General Engg., Solar,  
Appliance, Colour Coater

## Colour Coated Products



Appliance, Roofing,  
Sandwich panel

## Tin Plate



Oil Can, Non-oil Can,  
Food Cans

## Hot Rolled Products



Construction, Infrastructure,  
General Engg., Pipe & Tubes,  
Yellow goods

## Cold Rolled Products



Automotive, General Engg.

## Electrical Steel



Automotive, General Engg.

## Alloy Steel Products



Automotive

## Colour Coated



- Super premium, colour coated coils & sheets, with a 20 year warranty



- Premium colour coated coils & sheets, with a 15 year warranty.
- 3 variants - Cool Roof, Anti Dust & High Gloss



- High quality Al-Zn alloy & colour coated roofing sheets with anti-corrosion technology



- Superior colour coated sheets for OEM customers
- 6 variants – Anti Microbial, Anti Graffiti, Anti Dust, Anti Statics, Cool Roof and High Gloss

## Galvalume



- Premium category Al-Zn coated roofing sheets & coils with 7 year warranty



- Desired weight as per customer requirements
- Corrosion protection and enhanced durability

## GC



- Premium GC (galvanized corrugated) sheet with high durability



- Tinplate coils and sheets with high strength and formability, used in food and non-food packaging



- Al-Zn coated coils and sheets designed for complete requirement of solar structures (purlin, rafter, bracers, etc.)



- Galvanised steel that is lead free, suited for consumer durable sector with high safety and non-hazardous-material needs



- Greenpro certified TMT bars. Manufactured through primary production process to ensure purity & superior quality
- Unique rib pattern that provides best bonding with cement

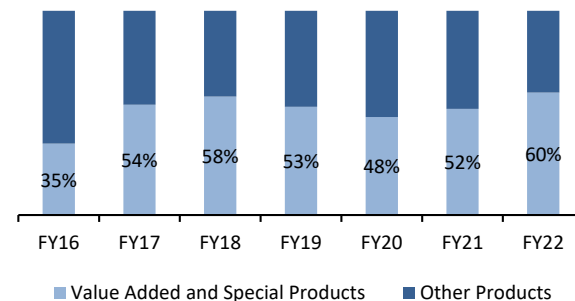


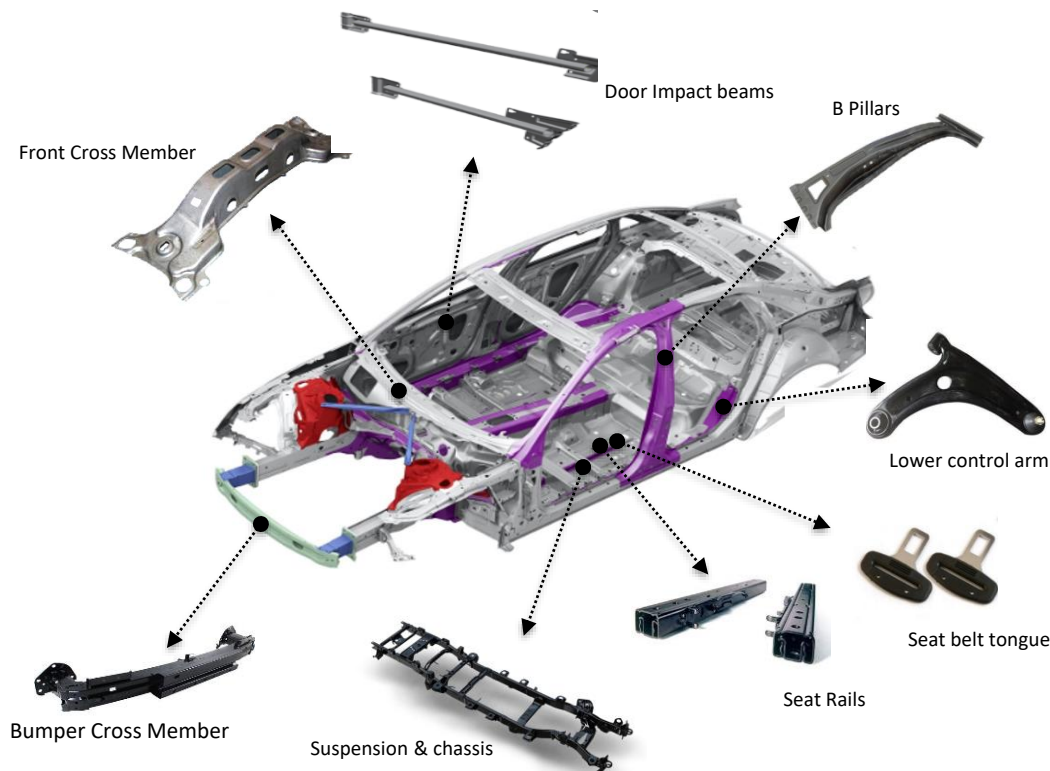
- Cut-to-Length HR sheets available in wide variety of sizes and grades



- Steel doors designed to overcome the common issues associated with wooden doors like seasonal door jams, fire, termites and heavy-handed installation process






**JSW Share of Value added products**



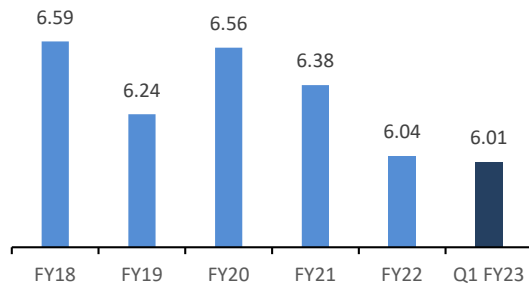


## Focus on safer, lighter and fuel efficient cars

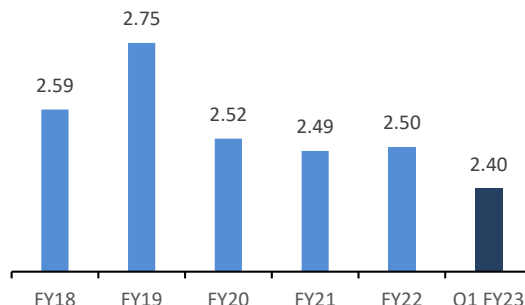
- Indian automotive industry is evolving to adopt consumer demand for 5-star rated cars for safety
- JSW Steel is working closely with auto makers to make cars safer, lighter and fuel efficient
- JSW's AHSS (advanced high strength steel) with high tensile strength and optimum formability enables low cost product solution with clear edge over high cost materials such as Aluminium & Carbon Fibre, to achieve high safety ratings
- All major crash and safety components - A & B pillars, cross-beams, door impact beams, etc. - are being built from JSW's AHSS steel
- JSW has also developed steel for suspension parts, which require optimum fatigue life in addition to high strength
- JSW Steel has become one of the preferred and leading suppliers to the automotive industry

SD Targets	FY05	FY30 Targets	Improvement	Strategic Approach
 <b>Climate Change</b> <ul style="list-style-type: none"> <li>Specific Energy GCal/tcs</li> <li>GHG Emissions tCO<sub>2</sub>e/ tcs</li> </ul>	6.94	5.65	19%	<ul style="list-style-type: none"> <li>Transition from thermal to renewable energy</li> <li>Reduction of fuel rate in BF and DRI</li> <li>Increased use of scrap in steel making</li> <li>Energy efficiency and process efficiency improvements through BATs</li> <li>Process improvements based on the World Steel 'Step Up' global benchmarking process</li> </ul>
 <b>Water Security</b> <ul style="list-style-type: none"> <li>Specific water consumption (steel production) (m<sup>3</sup>/tcs)</li> </ul>	3.60	2.21	39%	<ul style="list-style-type: none"> <li>Maintaining zero liquid discharge across operations</li> <li>Installation of technology for reduction of fresh water in cooling towers</li> <li>Adopting digitalisation for better water control and monitoring</li> </ul>
 <b>Waste</b> <ul style="list-style-type: none"> <li>Specific Waste (Kg/tcs)</li> <li>Waste Recycled (%)</li> </ul>	NC	677	-	<ul style="list-style-type: none"> <li>Integrated Strategy towards efficient waste management</li> <li>Focus on 'Zero waste to Landfill'</li> <li>Promoting Circular Economy</li> </ul>
 <b>Air Emissions</b> <ul style="list-style-type: none"> <li>Specific process dust emissions (Kg/tcs)</li> </ul>	0.93	0.26	70%	<ul style="list-style-type: none"> <li>Adoption of best available technologies like MEROS in sintering, Oven pressure Control technology and CDQ in Coke Plants, TRT's in BF</li> <li>SOx &amp; NOx emission targets for FY30 have been revised to 0.82 kg/tcs and 0.91 kg/tcs respectively</li> </ul>
 <b>Biodiversity</b> <ul style="list-style-type: none"> <li>Biodiversity at our operating sites</li> </ul>	-	Achieve 'no net loss' of biodiversity		<ul style="list-style-type: none"> <li>Continue to enhance Biodiversity at all our locations and operations to achieve 'no net loss'</li> <li>Increase green cover across operations</li> </ul>

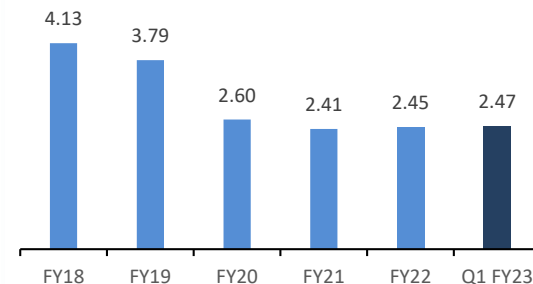
## Specific Energy Consumption (Gcal/tonne)



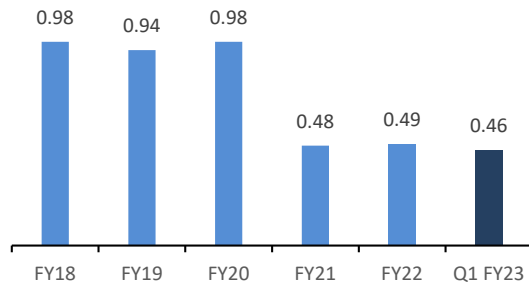
## GHG Emission Intensity (tCO<sub>2</sub>/tcs)



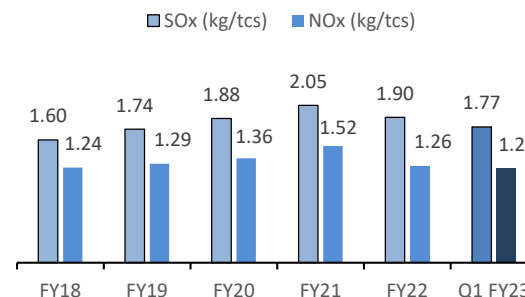
## Specific Freshwater Consumption (m<sup>3</sup>/tcs)



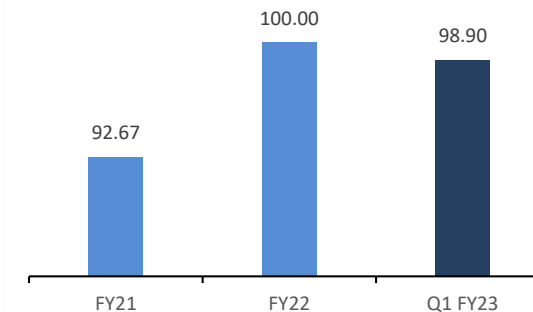
## Dust Emissions (kg/tcs)



## SO<sub>x</sub> & NO<sub>x</sub>



## Waste Utilization (%)



## Initiatives



### 225 MW of Renewable Energy

Solar power supply from 225MW commenced at Vijayanagar, as part of the 958MW renewable energy contracted



### Emission Control Equipment

Redesign of emission control equipment to reduce dust emission and improve ambient air quality at Dolvi



### Sludge Dewatering

Filter Press Installed in Sponge Iron Plant for Dewatering of sludge, and onward utilization in sinter-making at Dolvi



### Steel-Slag Sand plant at VJN

Commissioned 0.30 MTPA capacity low cost eco-friendly Steel-Slag Sand plant which is one of its kind in the world



### CDQ system installed at Dolvi

Coke Dry Quenching System installed to recover sensible heat of hot coke, reduce energy consumption and improve quality of coke



### Solar & Biofuel at Salem

- Solar: Installation of rooftop panels
- Biofuel: Started use of Wooden Briquettes as a partial replacement for steam coal in power plant

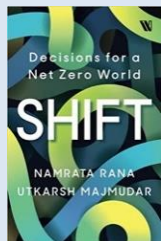


## Recognitions



### Recognized as Climate Leader

**Nikkei Asia** and **Financial Times** have recognised JSW Steel as one of the Climate Leaders Asia-Pacific 2022



**Shift: Decisions for a Net Zero World** book features case study of JSW Steel's innovative process for converting steel slag to sand



**Golden Peacock Award  
for CSR - 2021**



**The Economic Times  
Sustainable Organization - 2022**



For the 4<sup>th</sup> consecutive year JSW Steel recognised as a Sustainability Champion by World Steel Association, for its contribution in 2021



JSW Steel signed the Worldsteel Sustainability Charter  
The new Charter reflects the industry's increasing focus on sustainability and its responsibility to generate positive impacts on people, planet, and society.



THE INTERNATIONAL EPD® SYSTEM



### Eco Labelling and Certifications

Environmental Product Declarations (EPDs) for all finished steel products

GreenPro certification for TMT rebars (JSW Neosteel)

## Vision to achieve 'Zero Harm'

JSW is committed to providing a safe and healthy working environment and achieving an injury- & occupational illness-free workplace

### Building a Culture of Health & Safety



#### Health & Safety Initiatives

- 146,000+ safety observations carried out in Q1 FY23
- 8,700+ Inspections and Audits at plants in Q1 FY23
- Worldsteel **"Bow Tie project"** initiated at Blast Furnace across all ISP's. It involves identifying various risk scenarios and their aversion
- National Fire Service Week observed



#### Competency Development

- 3,900+ Safety E-Learning Modules completed in Q1 FY23
- 140+ Contractors assessed through JSW CARES (Contractor Assessment & Rating for Excellence in Safety) during Q1 FY23
- Skill assessment for 22,500+ workmen carried out in Q1 FY23 across the ISPs



#### Awards & Recognitions

- JSW Steel Dolvi and Salem works won 3 "Platinum Awards" at Confederation of Indian Industry IQ National Safety Practice Competition-2022
- JSW Steel Salem works received the "Award of Honor" for outstanding OH&S achievements from National Safety Council, Tamil Nadu.

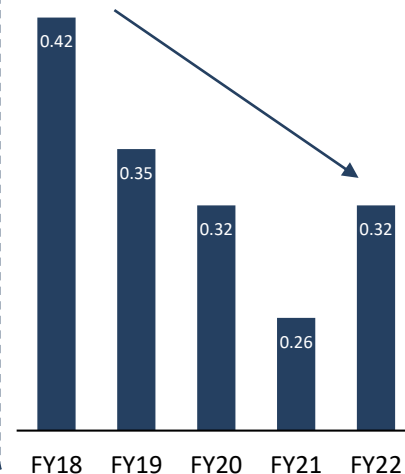
### JSW's Roadmap to Vision 000

Zero major incidents

Zero injury

Zero harm

#### LTIFR



### Supporting Innovations in Circular Economy



- JSW Foundation along with H&M Foundation, Social Alpha and Saamuhika Shakti have joined hands to support technology-based solutions
- The initiative provides funding to startups that are inclusive, efficient and innovative in their approach to preserve both our planet and our people
- The winners of the challenge have been announced and onboarded with pilots to start in Vijayanagar and Dolvi

### Offsetting Plastic and Generating Livelihoods



- In partnership with EcoKaari, JSW Foundation has committed to upcycling more than 4,000 kgs of waste plastic every month
- Project aims to empower communities with sustainable solutions and livelihoods

### JSW Smart Shaala



- Program to improve learning outcomes of children, implementing an innovative solution to build strong foundations in Math & English at the primary level
- Targeting 14,000 schools for 1.4 million children in 6 districts (Raigad, Ratnagiri, Thane, Pune, Nagpur and Palghar) of Maharashtra

# Strong Board and Experienced Management Team

## Chairperson — Emeritus



Savitri Devi Jindal

## Chairman and MD



Sajjan Jindal

## Executive Directors



**Seshagiri Rao M.V.S**  
Joint Managing Director  
and Group CFO



**Jayant Acharya**  
Deputy Managing Director

## Independent Directors



**Seturaman Mahalingam**  
CA, Ex-CFO of TCS, Ex member  
of Tax Admin. Reform  
Commission



**Harsh Charandas Mariwala**  
Chairman of Marico, Chairman  
and MD of Kaya



**Nirupama Rao**  
40 years of experience as a  
diplomat, Ex-Foreign Secretary  
of India



**Dr. Punita Kumar Sinha**  
Former CIO at The Asia  
Tigers Fund



**Haigreve Khaitan**  
Senior Partner at  
M/s. Khaitan & Co



**Ms. Fiona Jane Mary Paulus**  
37 years of experience in  
resources and energy  
investment banking, risk mgmt.

## Nominee Directors



**Dr. M.R. Ravi, IAS**  
Nominee Director  
of KSIIDC



**Hiroyuki Ogawa**  
Nominee Director  
of JFE Steel Corporation



## JSW-JFE partnership

### Partnership overview

- 14.99% minority stake bought by JFE in 2010
- Access to cutting edge technologies
- Operational excellence for cost reduction
- Balance Sheet deleveraging to support growth

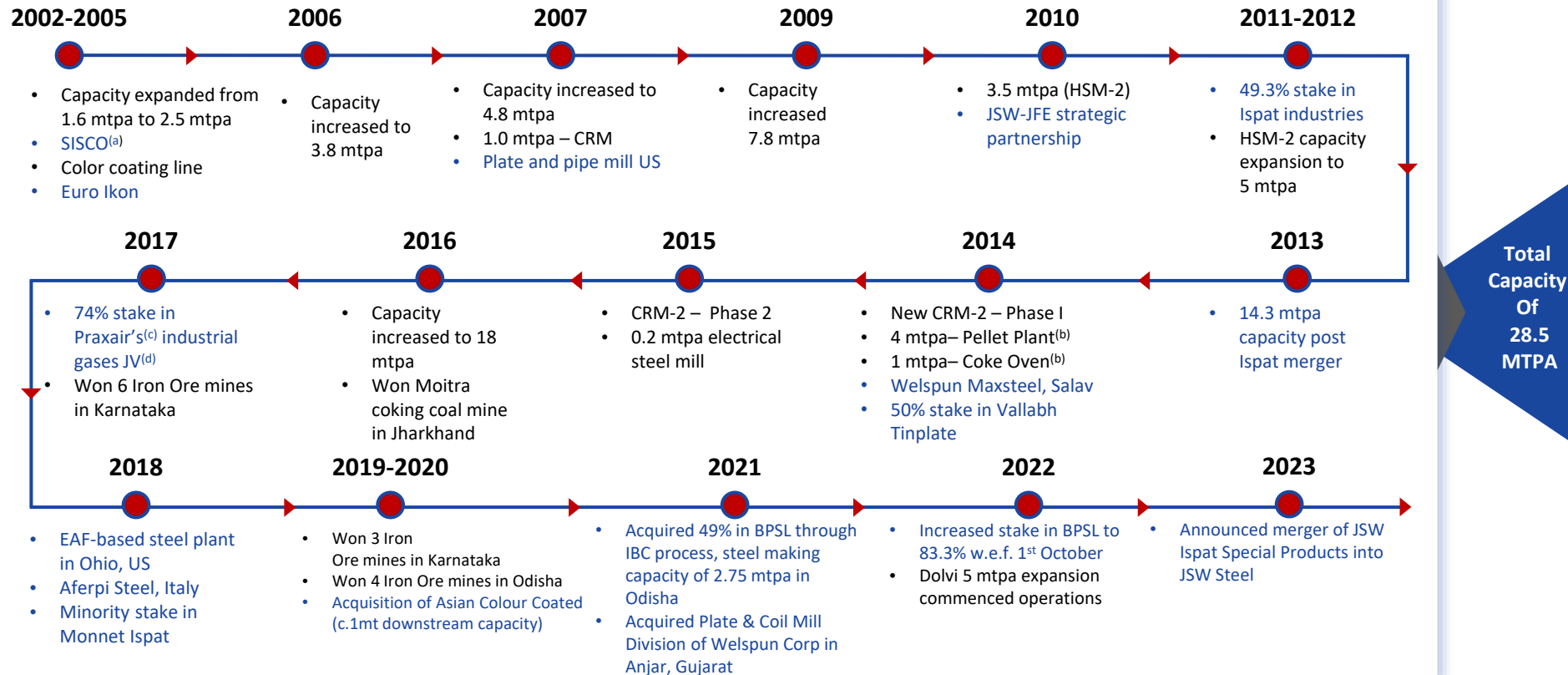
### Technology agreements benefits:

- ✓ Access to fast growing auto steel market
- ✓ Technical know-how for electrical steel manufacturing
- ✓ Short learning curve
- ✓ Application engineering
- ✓ New product development
- ✓ Benchmarking and personnel training

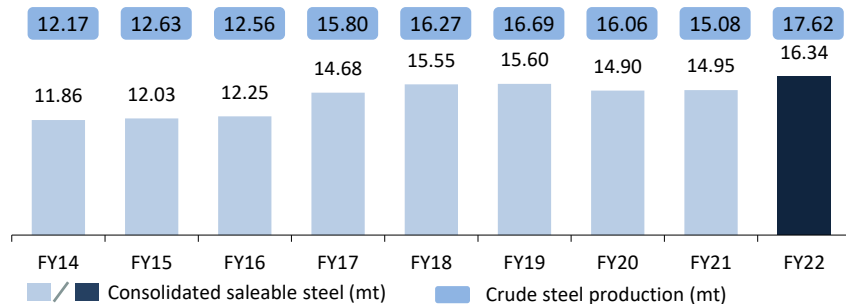
### Other benefits:

- ✓ Improvement in quality, productivity, yield, energy efficiency
- ✓ Sharing best maintenance, environment and safety practices
- ✓ Benchmarking, training and talent sharing
- ✓ Standardization of processes

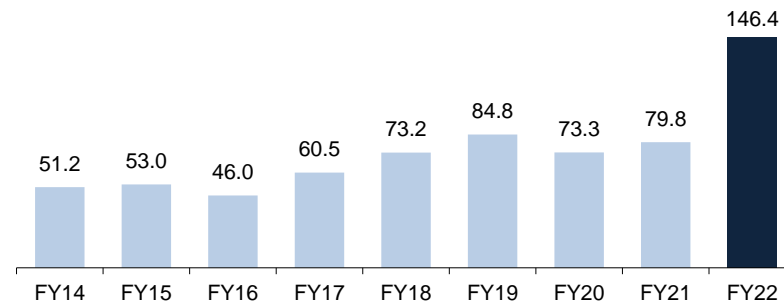
## Combination of organic and inorganic growth



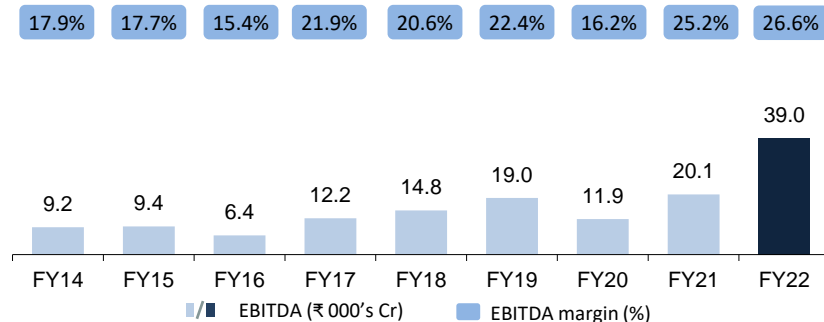
## Strong track record of volume growth



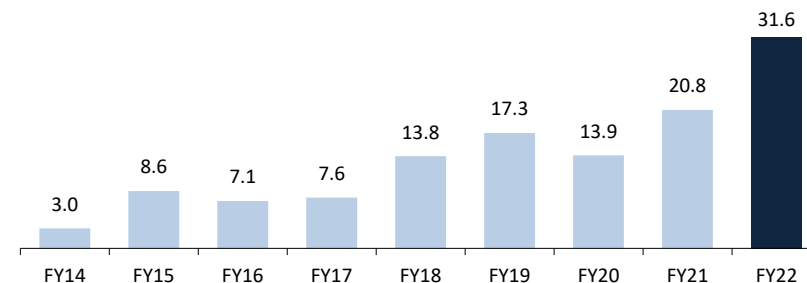
## Track record of Operating Revenues (₹ 000's Cr)



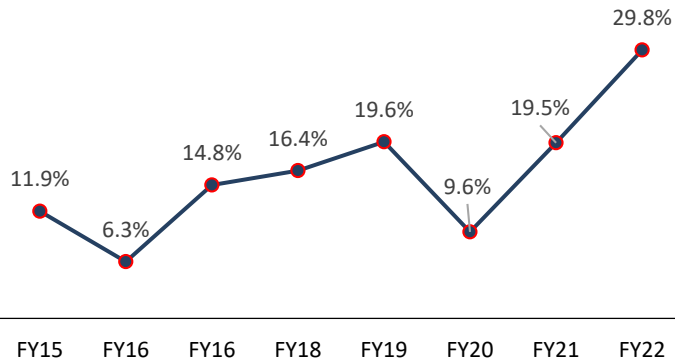
## Robust EBITDA Margin through the cycle



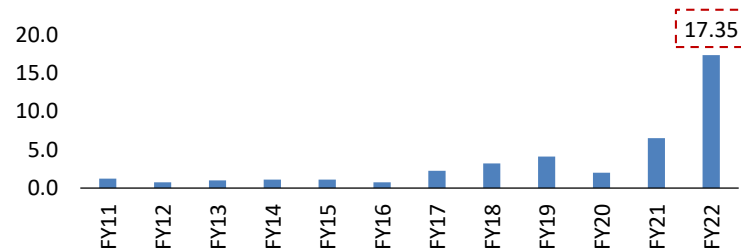
## Cashflow from Operations (₹ 000's Cr)



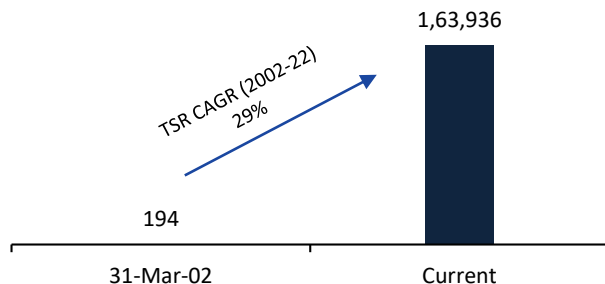
## ROCE



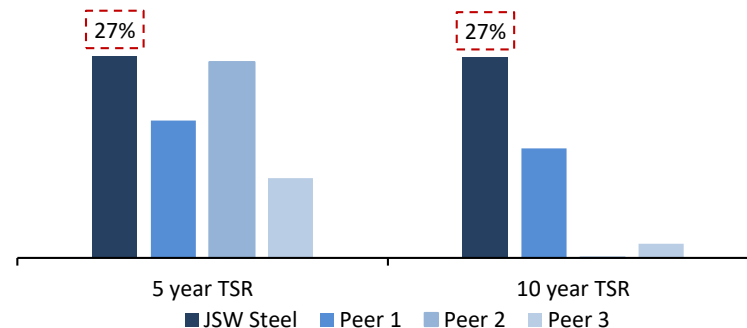
## Uninterrupted Dividends

Dividend Policy of paying out 15-20% of Consol. Net Profit<sup>1</sup>

## Market cap (₹ Cr)

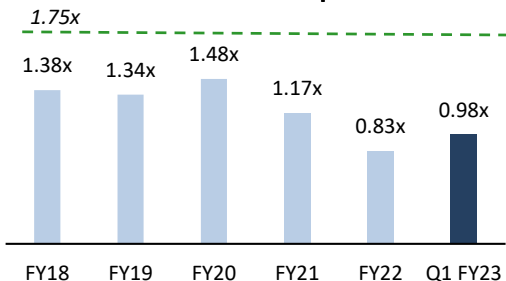


## 5 year and 10 year Total Shareholder Return

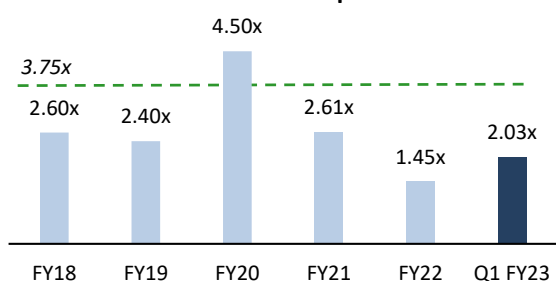


## Value-accretive growth through economic cycles

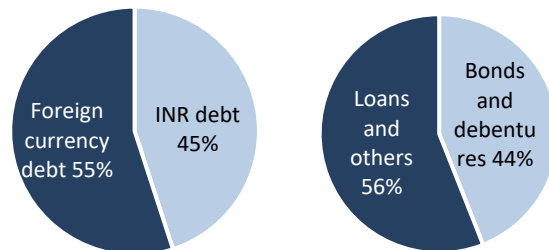
## Net Gearing (ND/Equity) well under the stated cap of 1.75x



## Leverage (ND/EBITDA) well under the stated cap of 3.75x



## Diversified Funding Sources



## Strong Liquidity and Credit Ratings

- Cash and Cash equivalents of ₹9,789 crore
- Credit Ratings:
  - International: Moodys: Ba1 (Positive outlook), Fitch: BB (Stable outlook)
  - Domestic: ICRA: AA (Stable outlook), IndRa: AA (Stable outlook), CARE: AA (Stable outlook)

## Debt Profile

- Access to diverse pools of liquidity. Strong relationships with domestic and international banks and financial institutions
- Net Gearing and Leverage well under stated caps of 1.75x and 3.75x, respectively
- Successfully raised US\$3.69bn through global bond markets since 2014
- Issued global steel industry's first USD Sustainability Linked Bond in September 2021

# Agenda



Sustainability

5

Overview

8

Key Investment Highlights

12

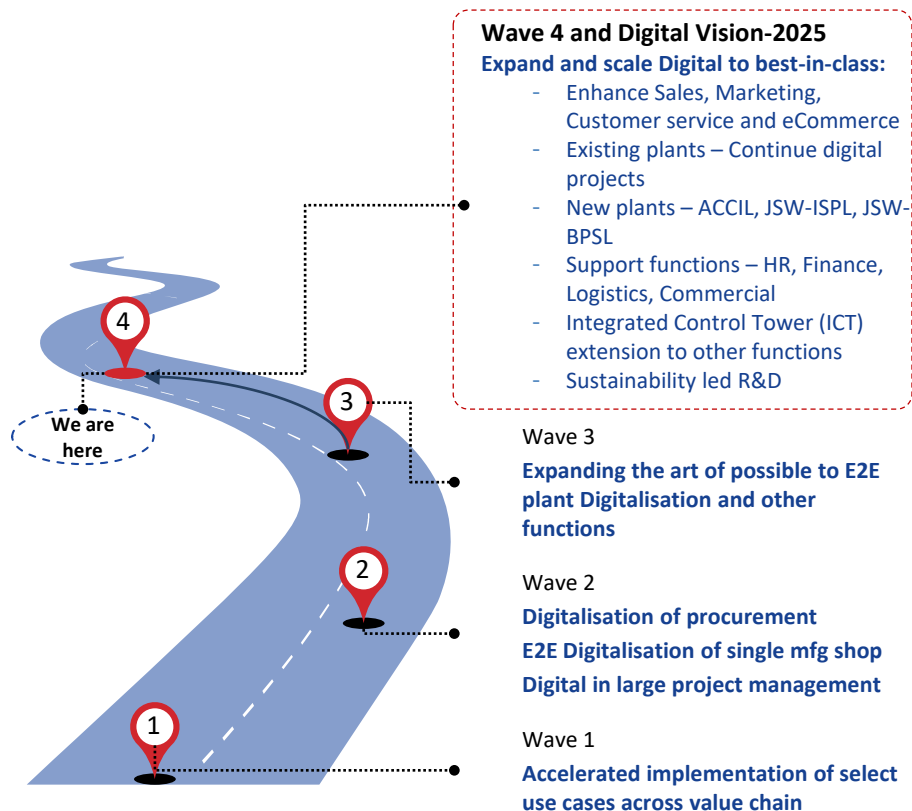
**Digitalisation at JSW Steel**

**36**

Appendix

40

# Digitalization: JSW's Approach & Impact Created



**130+**

**Digital Assets**  
Created



**6,000+**

**Employees** engaged  
in the digital journey



**400+**

Digital lighthouses  
and **projects**

## Guiding principles behind Digitalisation



**Agile**

- Fail-fast approach
- Continuous improvement
- Discreet problems



**Value lens**

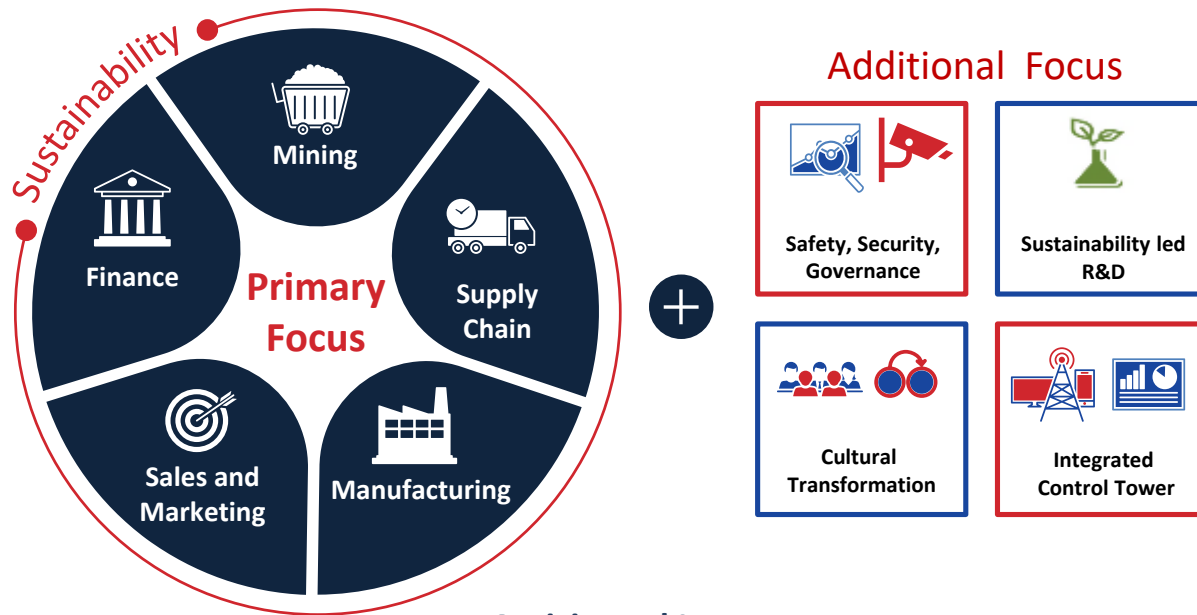
- ROI key to investment
- Safety added focus
- Customer, Supplier & Employees Experience



**Sustenance**

- Nurture inhouse talent
- Promote Horizontal deployment
- PMO & Governance

# JSW's Digital Focus Areas



## Anticipated Impact



## Technologies Used

Core Systems (SAP, Salesforce, Microsoft Azure, DarwinBox), IoT, AI/ML, Analytics, Cloud/Edge Computing, RPA, Intelligent Cameras  
→ Leveraging JSW Digital team, Tech Partners and Startup ecosystem



## End-to-End Functional Transformation focus

From point projects to E2E Transformation approach enabled by platform-driven strategy



## People Upskilling

Data Science and IoT Skillings, Tech sessions, Online courses, Symposiums enabled through Cultural Transformation efforts

# Successful Digital Initiatives for Safety and Sustainability



## CRM-2: Dross Cleaning Robot for Productivity and Employee Safety

- Zinc dross in coated steel plants is valuable from financial and safety perspective
- Robots enhance the efficiency and precision in dross pick-and-place operation

## Logistics: Multi-control Remote Operation from Loco at JSW Vijayanagar

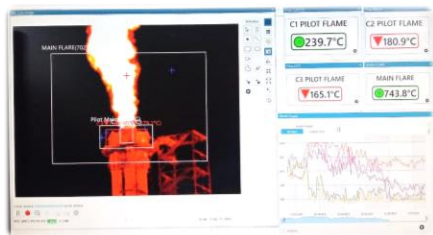
5 in 1 Unique Remote: First time in the world

- Loco movement
- Route setting
- Auto signal/ siren
- Boom Barrier operations
- Coupling/ Decoupling with Torpedo



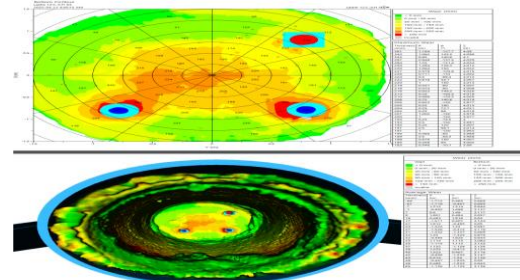
## SMS: Flare Stack Thermal Imaging

Thermal cameras to remotely monitor the temperature of flare from safety and reuse of energy perspective



## Laser Scanner for LF Ladle

Laser scanning in ladles improves safety and extends Steel ladle life



## Other Key Initiatives

### Steel Ladle Tracking System

Prediction modelling based tracking system in SMS Ladle furnace area to track and optimize casting speed through maintaining super heat temperature

### PPE Violation Detection System

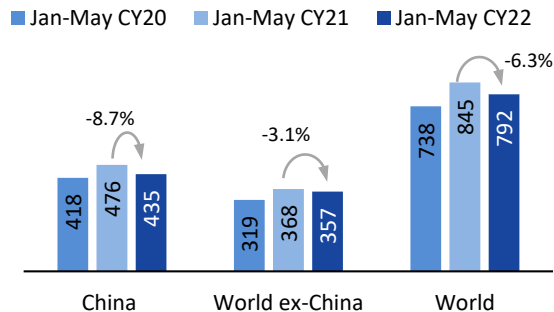
PPE Violation detection system helps to find out the PPE violators and improves safety by PPE adherence

# Agenda

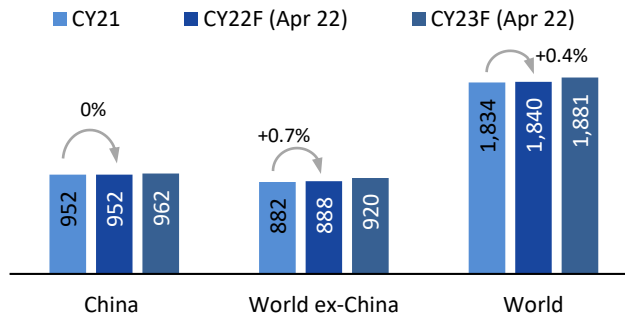


Sustainability	5
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<b>Appendix</b>	<b>40</b>

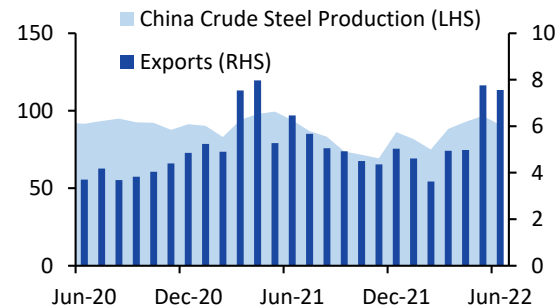
## Crude Steel Production – Jan-May (mt)



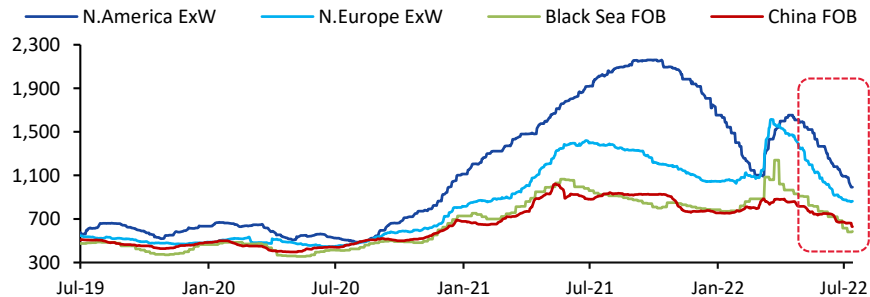
## Steel Demand (mt)



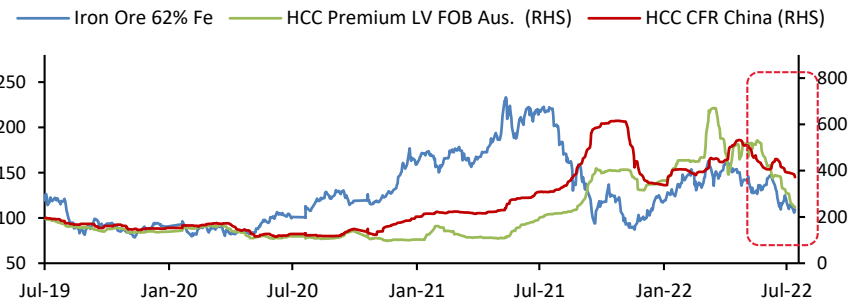
## China Steel Production and Export (mt)



## HRC Prices US\$/t



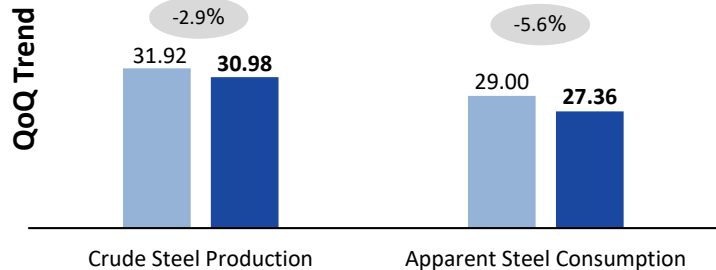
## Raw Material Prices (US\$/t)



Raw material price correction lagging the fall in steel prices

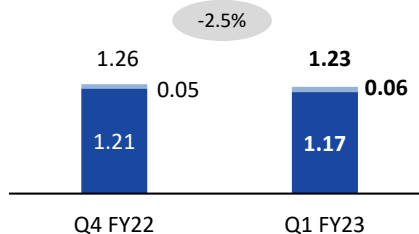
## Production and Consumption (mt)

■ Q4 FY22 ■ Q1 FY23



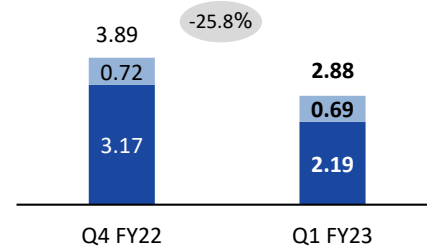
## Steel Imports (mt)

■ Finished ■ Semis

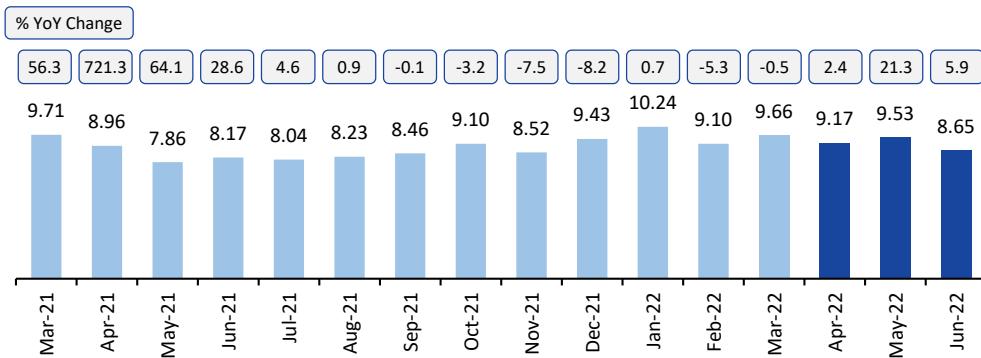


## Steel Exports (mt)

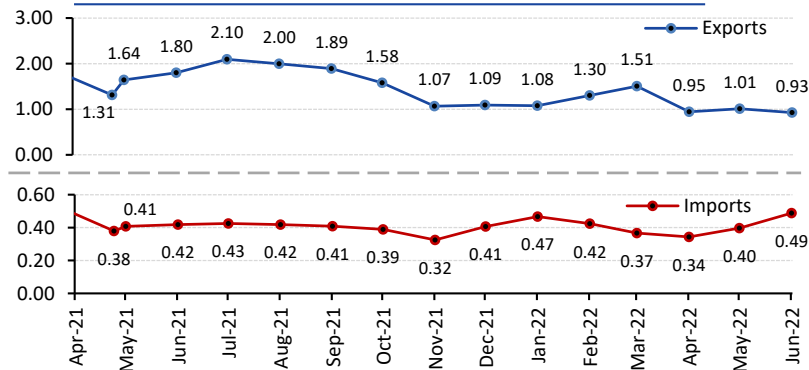
■ Finished ■ Semis



## Apparent Steel Consumption (mt) and YoY Growth



## Monthly Steel Imports (mt) and Exports (mt)



High energy costs and supply chain disruptions impacting steel demand and prices

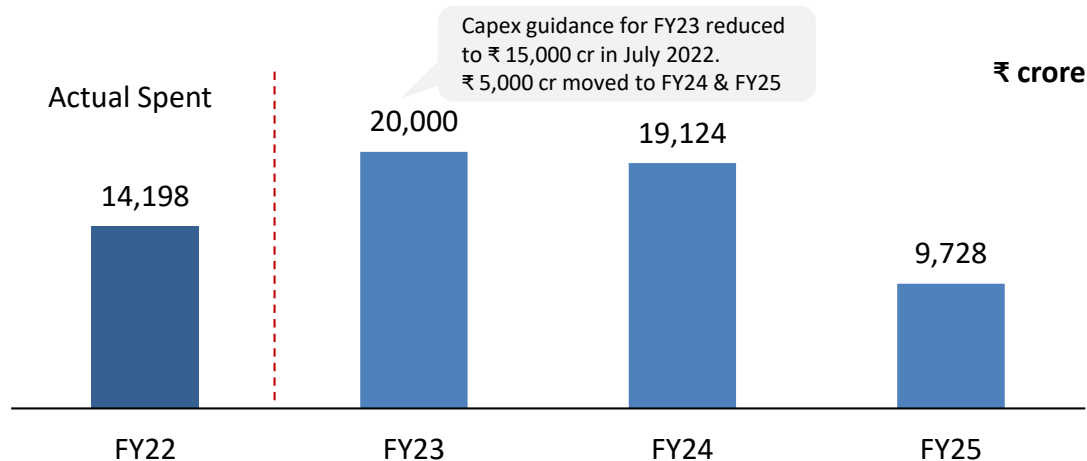
- Committed to Sustainability targets with focus on 5 key areas: Climate Change, Water Security, Waste, Air Emissions, Biodiversity
- Maintain healthy margins despite challenging external environment:
  - Leverage low conversion cost advantage
  - Optimise raw material costs by increased usage of Odisha captive ore and optimum blending of coking coal
  - Continued focus on value-added and special products
  - Remain nimble and adapt to evolving market scenario
- Realise full benefits from 5mt Dolvi-II expansion, BPSL expansion, and expanded downstream capacities
- Focus on delivering next phase of growth: value-accretive 5mtpa brownfield project at Vijayanagar
- Continued focus on adoption of Technology and Digitalisation to create value and drive sustainability
- Committed to maintaining a strong balance sheet and credit ratings

**Continued focus on creating shareholder value**

All fig. in million metric tonnes

	FY23	
Particulars	Crude Steel Production	Sales
<b>Consolidated Indian Operations</b>	<b>23.60</b>	<b>22.60</b>
<b>Joint Control Entity:</b>		
JSW Ispat Special Products Ltd.	0.70	0.70
<b>Indian Operations incl. Joint Control</b>	<b>24.30</b>	<b>23.30</b>
JSW Steel USA Ohio	0.70	0.70
<b>Total Combined Volumes</b>	<b>25.00</b>	<b>24.00</b>

# Annual Capex Update



Particulars	₹ Cr
Unspent Capex including creditors & acceptance	33,259
Sinter plant and other facilities to support 5mtpa expansion at Vijayanagar <sup>1</sup>	5,000
LRPC <sup>2</sup> and Other Projects	1,401
Sustenance Capex	4,704
<b>Sub Total</b>	<b>44,364</b>
BPSL: Expansion from 2.75mtpa to 5mtpa in 2 phases & Sustenance Capex	4,488
<b>Total</b>	<b>48,852</b>

# Key Project Updates - Vijayanagar

## 5mtpa brownfield project

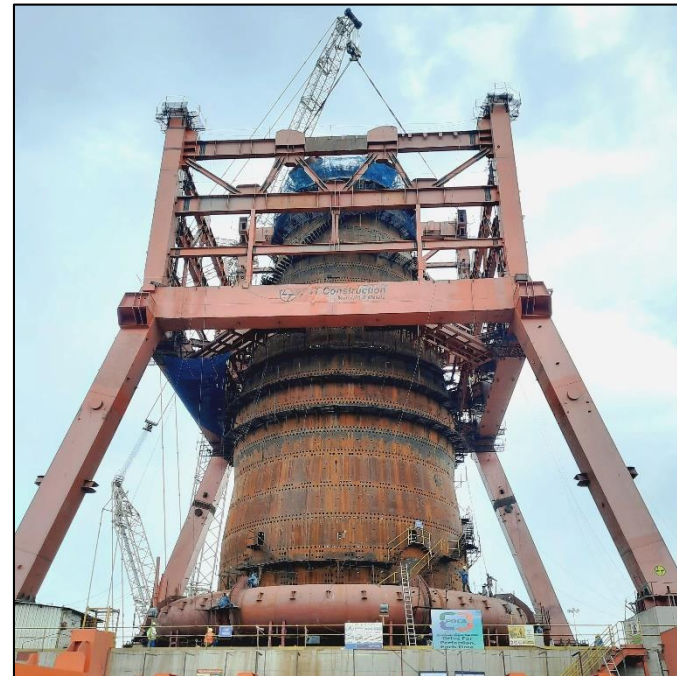
- Long lead-time items ordered, Letters of Credit established
- Construction activities for all packages underway
- Project to be completed by FY24

## Coke Oven Plant

- 1.5 mtpa Coke Oven battery: Commissioning in phases from Q2 FY23
- Capacity enhancement of further 1.5 mtpa to support the 5 mtpa steel-making expansion. Phased commissioning in FY24

## CRM-1 & Colour coating lines

- All facilities relating to expansion of CRM complex and Colour coating line commissioned



5mtpa expansion: Blast Furnace under construction

## Phase-I expansion to 3.5 MTPA (By Q2 FY23)

- EAF Modification: Completed in Q4 FY22
- Caster Modification: Commissioned in Q1 FY23
- Sinter Plant-2: Commissioned in July 2022
- SMS modification in advanced stage



Sinter Plant-2 at JSW BPSL

## Phase-II expansion to 5 MTPA (By FY24)

- Long lead-time items ordered (New wire rod mill-2 and SMS-2, BF-1 & 2 PCI upgradation)
- Civil work & Structural Erection work in progress in New wire rod mill-2 and SMS-2 Project
- Project to be completed by FY24.



SMS-2 at JSW BPSL

## Downstream projects

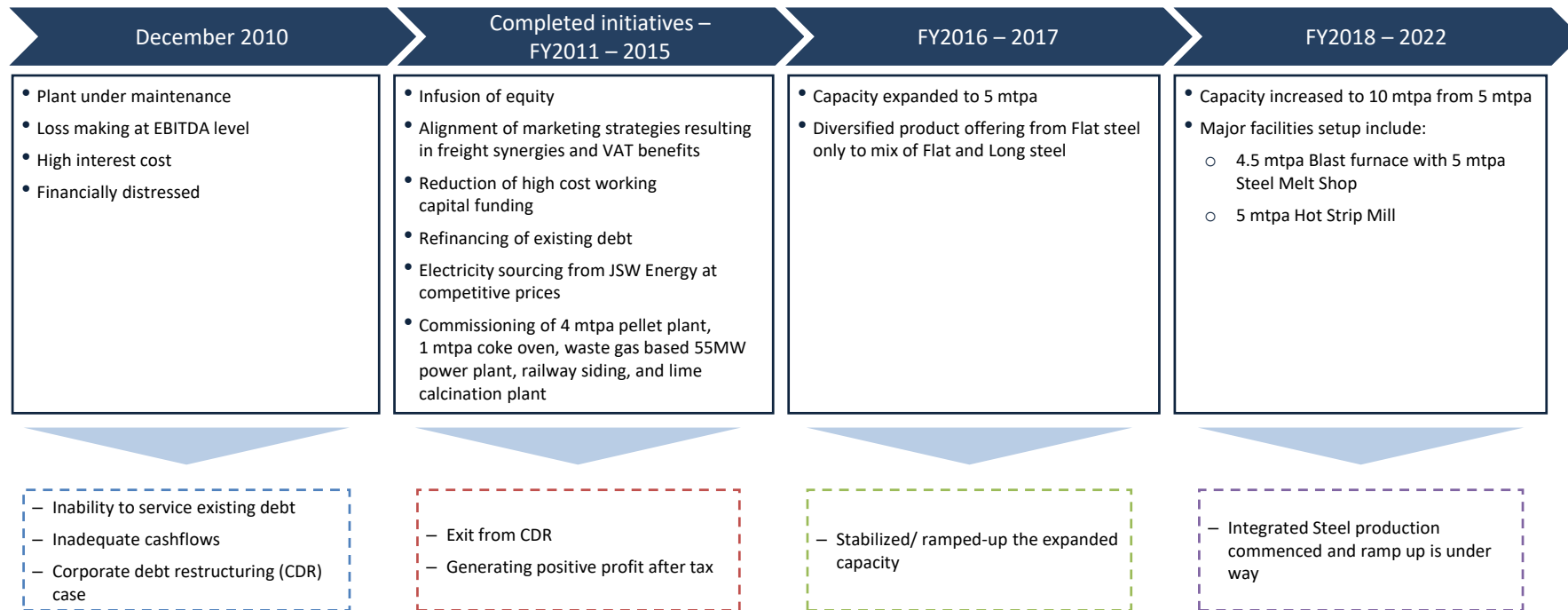
- **0.5mtpa Continuous Annealing Line at Vasind**
  - To be commissioned in July 2022
- **Second Tinplate line of 0.25 mtpa at Tarapur**
  - To be commissioned in July 2022
- **0.25 MTPA Colour Coating line at Rajpura, Punjab**
  - To be commissioned in Q4 FY23
- **0.12 MTPA Colour Coating line in Jammu & Kashmir**
  - To be commissioned in Q1 FY24



Second Tinplate line at Tarapur

# Case study: Turnaround Strategy at JSW Ispat's Dolvi plant

JSW Steel has a proven track record of identifying, acquiring and integrating assets creating synergies and optimizing costs



Able to leverage an acquisition to maximum value accretion through application of knowledge and experience

# Awards & Recognitions



- Rated at **Leadership Level (A-)** by CDP
- **JSW Steel** included in the **Dow Jones Sustainability Index** for Emerging Markets
- **WSA Steel Sustainability Champions** for 4<sup>th</sup> consecutive year in 2021
- **Corporate Governance & Sustainability Vision Awards 2020**
- **“Steelie Award”** by WSA for **Excellence in Life Cycle Assessment** for JSW Neosteel FE550D Grade TMT rebar
- Environmental Product Declarations (EPDs) for all finished steel products
- GreenPro certification for TMT rebars (JSW Neosteel)

**2020 & 2021**

**2019**

- Recognized as one of the **“Steel Sustainability Champion”** by World Steel Association (2018)
- Deming Prize for **Salem Works**

**2018**

- Deming Prize for **Vijayanagar Works**
- JSW Steel included in the **NIFTY 50 Index**

**2017**

**Golden Peacock Innovative Product Award**

**2016**

**“National Award for Supply Chain and Logistics Excellence”** under the steel industry category by the Confederation of Indian Industry

**2015**

**“Industry Leadership Award”** in steel, metals and mining at Platts Global Metals Awards



**Mr. Sajjan Jindal**  
Chairman of World Steel Association (2021-22)  
**First representative from India to serve in this position**

# Our Steel is Helping Build Key Infrastructure in India



**Solar Project:** Contributed **9.1 GW**  
**Wind Project:** Contributed **620MW**



**Metro Projects:** c.41km of metro project lines (Mumbai, Pune, Nagpur, Bengaluru, Ahmedabad, Chennai, Indore, Kochi & Delhi)



**Water Pipelines:** c.916 km of water pipelines across major projects



**Oil & Gas Pipelines:** c.1,020 km of pipelines across major projects



**Railway Freight Corridors:** c.217km of railway corridors (Mumbai-Haryana WDFC & Ludhiana-West Bengal EDFC)



**High Speed Rail** (Mumbai - Ahmedabad)  
c.90kT supplied



**Expressways and Highways:** Over **1,145km of roads**. Over **121km of expressways** (Dwarka, Purvanchal & Mumbai-Nagpur Samruddhi)



**Sealinks and Bridges:** Over **219 km of major projects** (Trans-Harbour Nhava Seva Link- Mumbai, Zuari river eight lane bridge- Goa & Nadia Bridge- West Bengal)



**Nuclear Power Plants:** Supplied for Kudamkulam, Tarapur, Kakrapar Power Projects



**ISRO & Airports** (Bangalore, Pune, Chennai, Hyderabad, Goa, Gujarat)

# THANK YOU

Investor Relations Contact:  
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