

**TATA STEEL**

#WeAlsoMakeTomorrow



# Tata Steel – Investor Day 2018

Roadmap 2025

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

## Safe harbour statement

---

**Statements in this presentation describing the Company's performance may be "forward looking statements" within the meaning of applicable securities laws and regulations. Actual results may differ materially from those directly or indirectly expressed, inferred or implied. Important factors that could make a difference to the Company's operations include, among others, economic conditions affecting demand/supply and price conditions in the domestic and overseas markets in which the Company operates, changes in or due to the environment, Government regulations, laws, statutes, judicial pronouncements and/or other incidental factors.**

## A. Roadmap 2025

B. Focusing capital for long term value

C. Tata Steel India: Marketing and Sales

D. Tata Steel Kalinganagar: A significant milestone

E. Bhushan Steel: The first 6 months

F. Our Digital Journey



## SAFETY

- WSA has recognized Tata Steel's Process Safety Management practices as one of the best practices for the year 2018
- 100% company run buses at TSJ are equipped with RFID & online GPS tracking system

# 78%

Reduction in LTIFR<sup>1</sup> in last 10 years



## HEALTH

- 17 Industrial Hygiene hazards control projects implemented to minimize the exposure level
- Runathons across locations
- Bi-monthly theme based health awareness campaigns<sup>2</sup>
- Mental health e-learning campaigns at TSE

# 57%

High risk cases<sup>3</sup> transformed into moderate/low risk till date

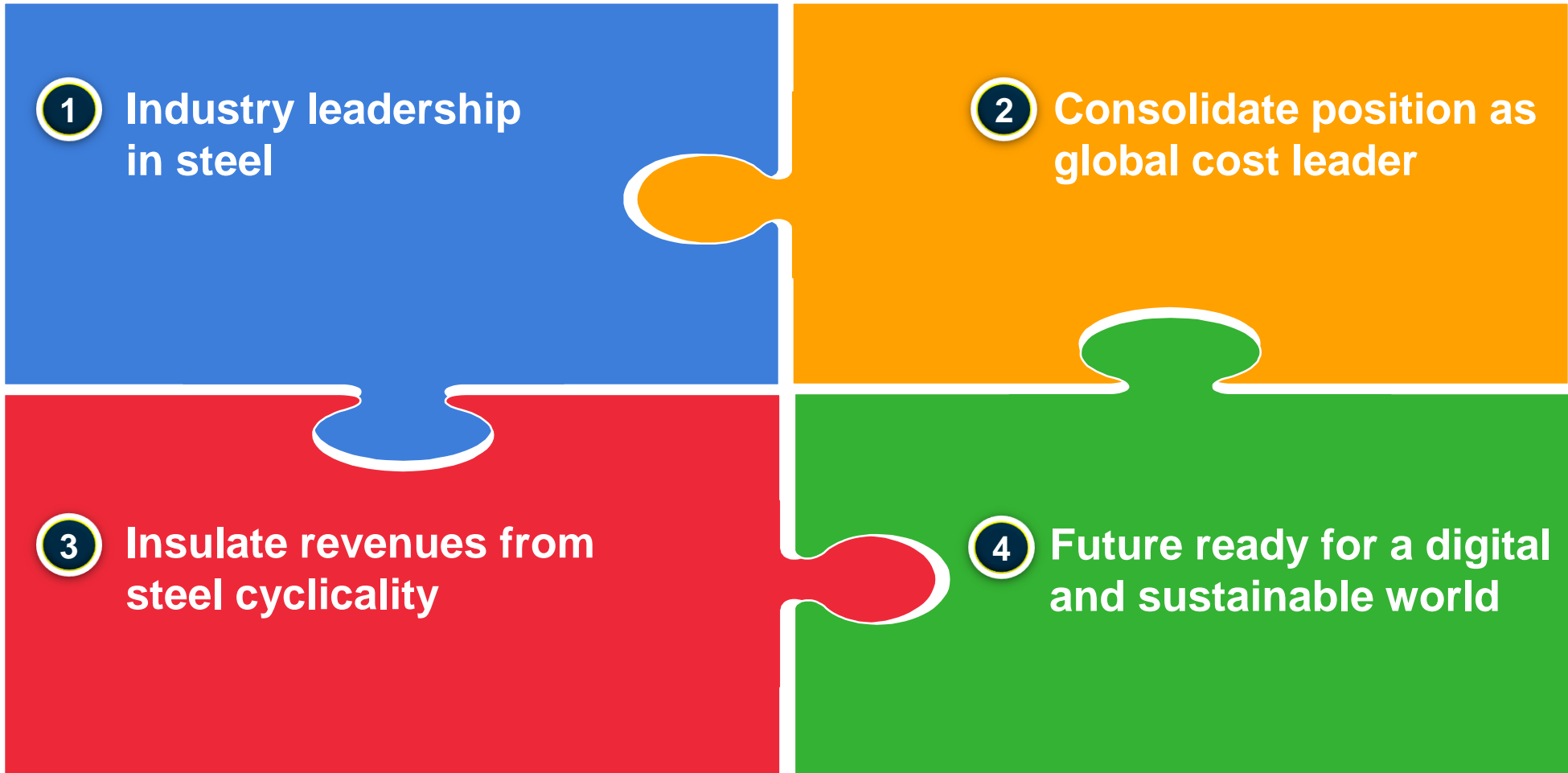


## SUSTAINABILITY

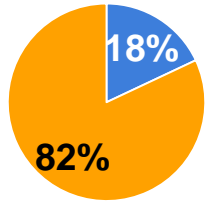
- Industry Leader in DJSI 2018 Assessment amongst 24 companies in Global Steel Industry
- TSJ: Specific Dust Emission reduced by 63% since FY13
- TSE: CO<sub>2</sub> emission intensity reduced by 5.8% since FY13

# 95%

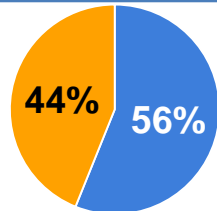
Solid Waste Utilization in 2QFY19



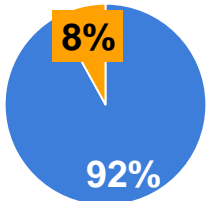
2008: 28.1 MTPA



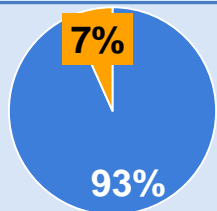
Current: 33.2 MTPA<sup>1</sup>



Post tkTSE JV and TSK Phase – II: 26.8 MTPA<sup>2</sup>

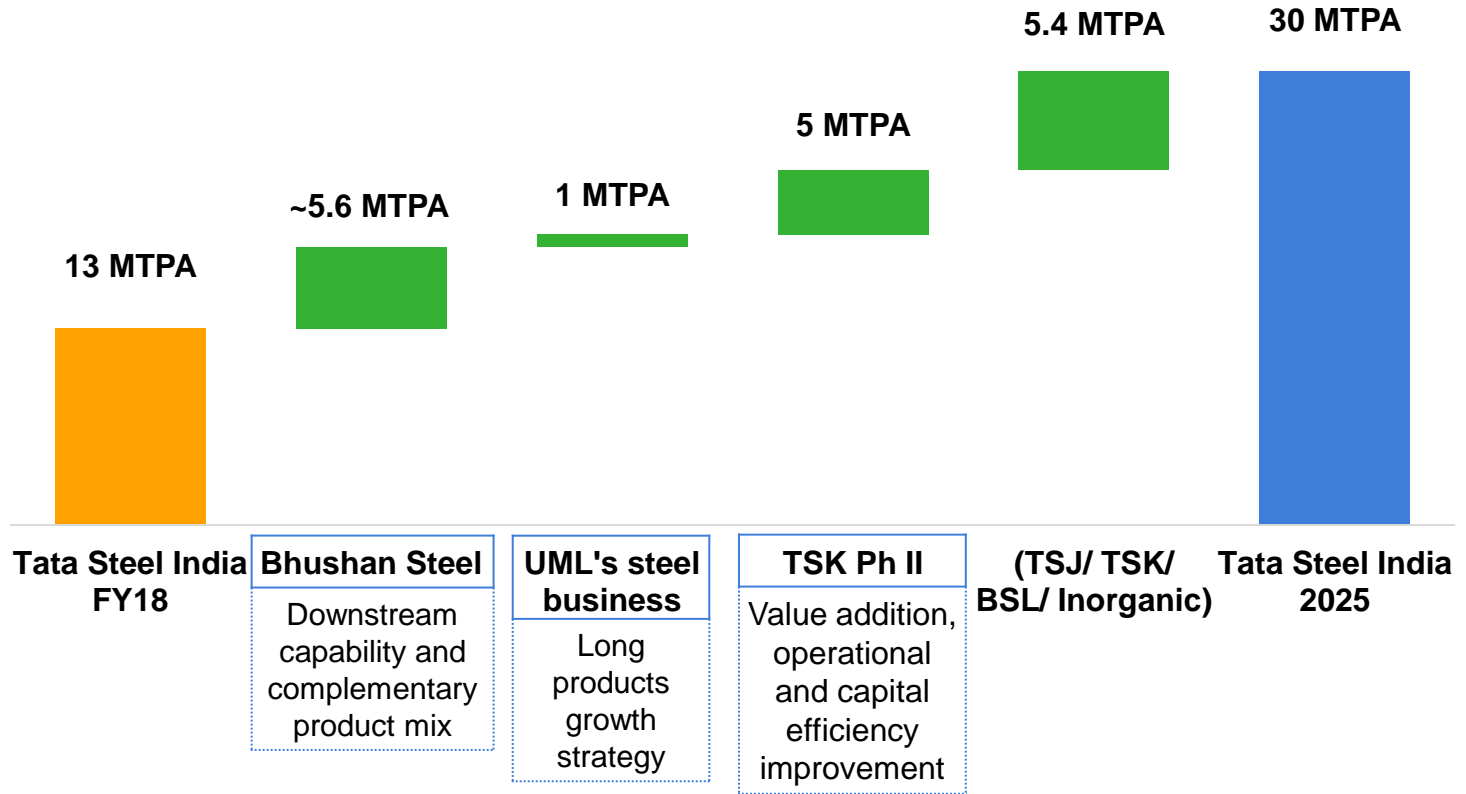


2025: 32.2 MTPA<sup>3</sup>



■ India  
■ Overseas

## Scale India capacity upto 30MTPA by 2025



**Bhushan Steel**  
Downstream capability and complementary product mix

**UML's steel business**  
Long products growth strategy

**TSK Ph II**  
Value addition, operational and capital efficiency improvement

1. India includes Tata Steel Standalone (13 MTPA) and Bhushan Steel (5.6 MTPA), 2. India includes Tata Steel Standalone (13 MTPA), Bhushan Steel (5.6 MTPA), proposed acquisition of Usha Martin's steel business (1 MTPA), and TSK – Phase II (5 MTPA), 3. India capacity target: 30 MTPA by 2025 through organic and inorganic route

Preferred partner  
for customers  
in attractive  
Segments

Most enriched and  
value added  
product mix in  
India

Extensive steel  
processing and  
distribution network  
to service  
customers across  
segments

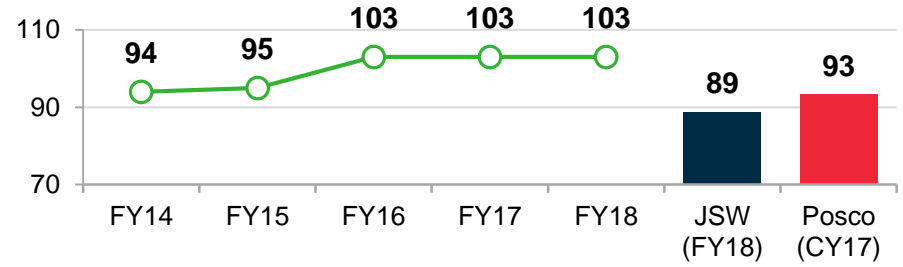
- ✓ Strong market presence and a leader in chosen market segments
- ✓ Differentiated products and service offerings
- ✓ ~69% of revenues through enriched and value added product mix in 1HFY19
- ✓ Consolidating India leadership position with organic and inorganic expansions

# Tata Steel India is the most integrated steel company and a global cost leader with benchmark operational efficiency

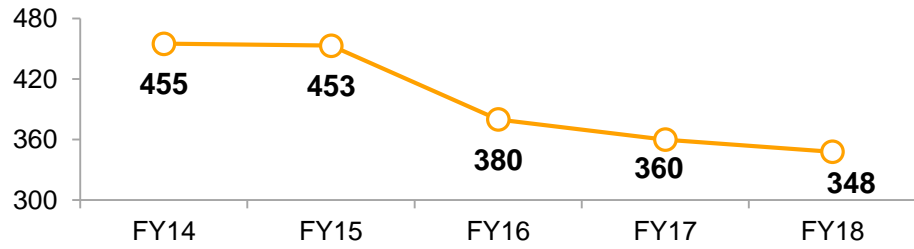


- ✓ India's most integrated steel manufacturer, with current steel making capacity of 18.6 MTPA
- ✓ Captive mines provide raw material self sufficiency till 2030 (Iron ore: 100% and Coal: >25%)
- ✓ Global benchmark in capacity utilization
- ✓ Indian benchmark in operating KPIs; Culture of continuous improvement
- ✓ One of the lowest cost producer globally

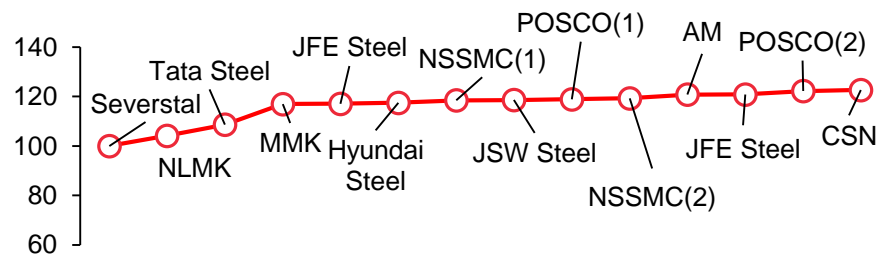
**Tata Steel Jamshedpur capacity utilization vs. peers (%)**



**Tata Steel Jamshedpur Coke rate (Kg/thm)**



**HRC production costs globally- Indexed**



Source: Company data and Tata Steel; Severstal – Cherepovets; NLMK – Lipetsk; Tata Steel – Jamshedpur; MMK – Magntogorsk; JFE Steel – Fukuyama; Hyundai Steel – Dangjin; NSSMC(1)– Kashima, Nippon Steel & Sumitomo Metal Corporation; JSW Steel – Vijayanagar; POSCO(1) – Gwangyang; NSSMC(2) – Oita, Nippon Steel & Sumitomo Metal Corporation;; AM – Areclormittal Dunkerque; JFE Steel - Kurashiki Steel Works; POSCO(2) – Pohang; CSN - Volta Redonda



3

## Tata Steel is pursuing several initiatives to insulate revenues from steel cyclicity



### Initiatives

### Targets

**Expansion of downstream products capacity**

**At least > 30% of total volume from downstream products**

**Services and Solutions**

**~20% of revenue by 2025**

**Grow beyond Steel - New materials** (Graphene, Carbon fibre reinforced polymer, Advanced ceramics etc.)

**>10% of revenue by 2025**



Leverage digital technology



Increase focus on R&D and technology



Mainstreaming sustainability to become “Green” steel



Safety Leadership: Achieve Zero LTI



Industry leadership in CSR - license to operate



## **Tata Steel – Investor Day 2018**

Focusing capital for long term value

**Koushik Chatterjee – Executive Director and Chief Financial Officer**

# Agenda

---

A. Roadmap 2025

**B. Focusing capital for long term value**

C. Tata Steel India: Marketing and Sales

D. Tata Steel Kalinganagar: A significant milestone

E. Bhushan Steel: The first 6 months

F. Our Digital Journey

## Strategic imperatives for long term value creation

### Reshaping Tata Steel

- Focus on Indian markets
- Create sustainable portfolio in Europe
- Generate higher operating cash flows for Balance Sheet redesign and shareholders returns

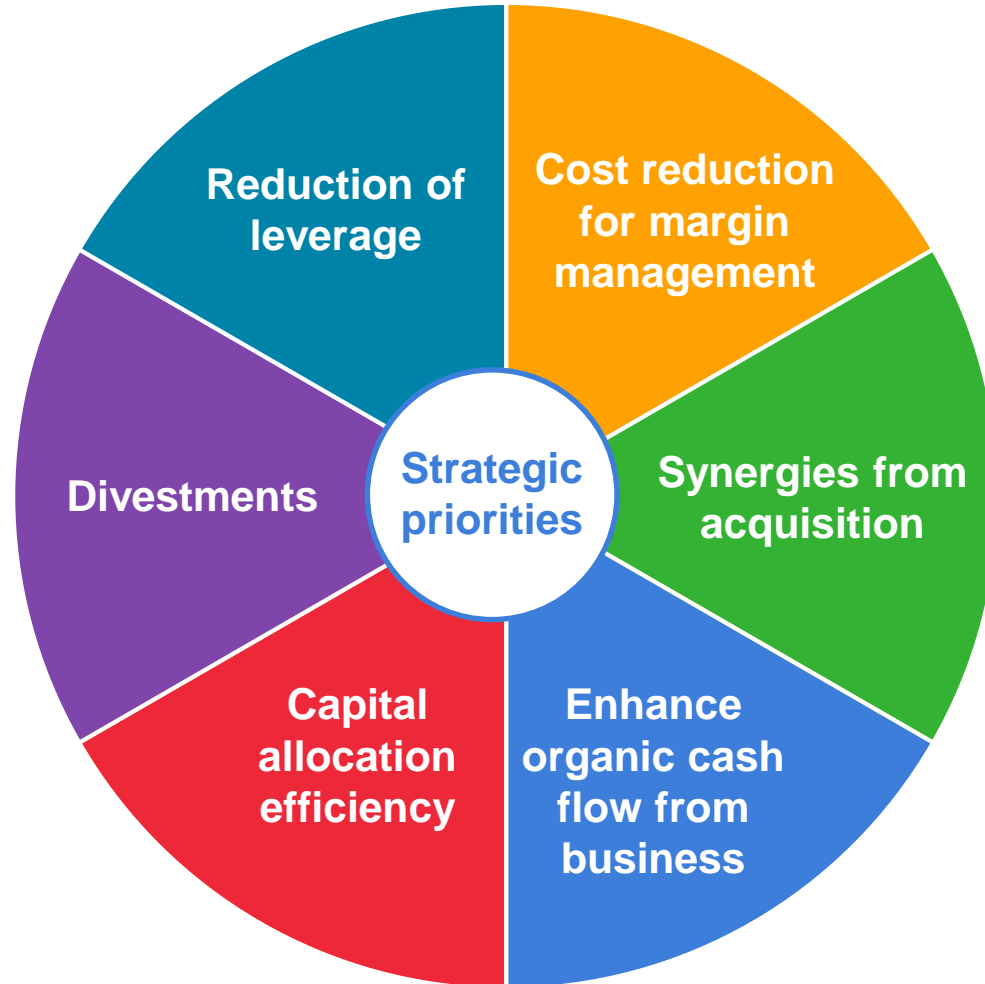
### Portfolio priorities

- Leverage Kalinganagar footprint by 5MTPA expansion
- Acquisition of Value added capacity – Bhushan Steel and UML's Steel business
- Capital deployment in value added downstream assets and ventures
- Divestment, strategic restructuring and monetization of non synergistic ventures

### Building resilience to manage downcycle

- Enhance internal cash generation
- Continue pursuit of operational excellence to drive efficiency & productivity
- Cost take out through structured programs
- Reduction in leverage
- Drive system synergies from acquisitions

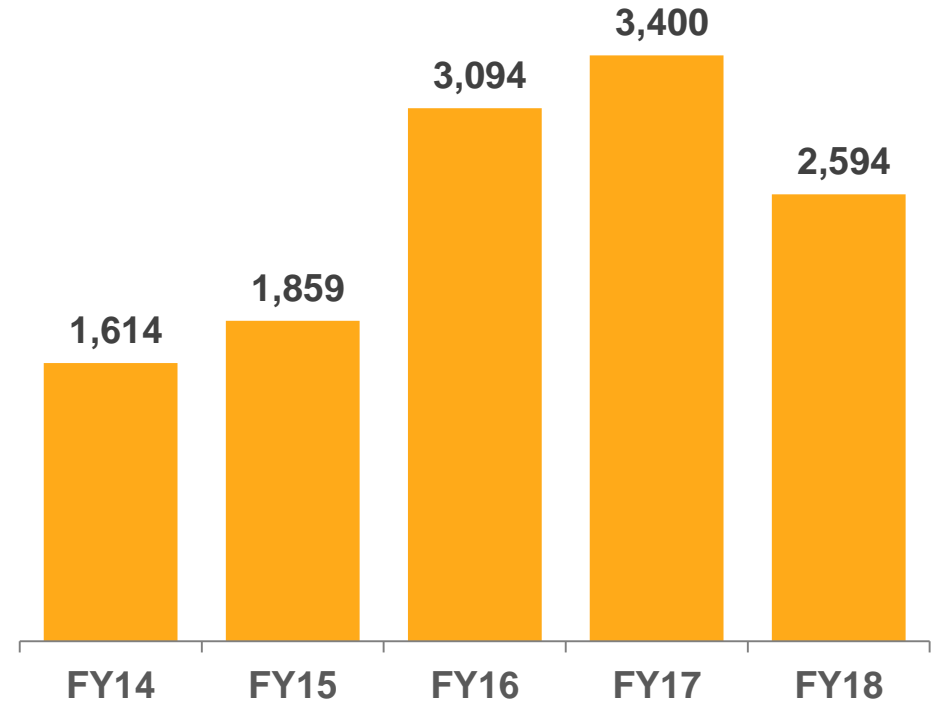
**Drivers for long term value**



# 'Shikhar 25': delivering value through bottoms up margin management

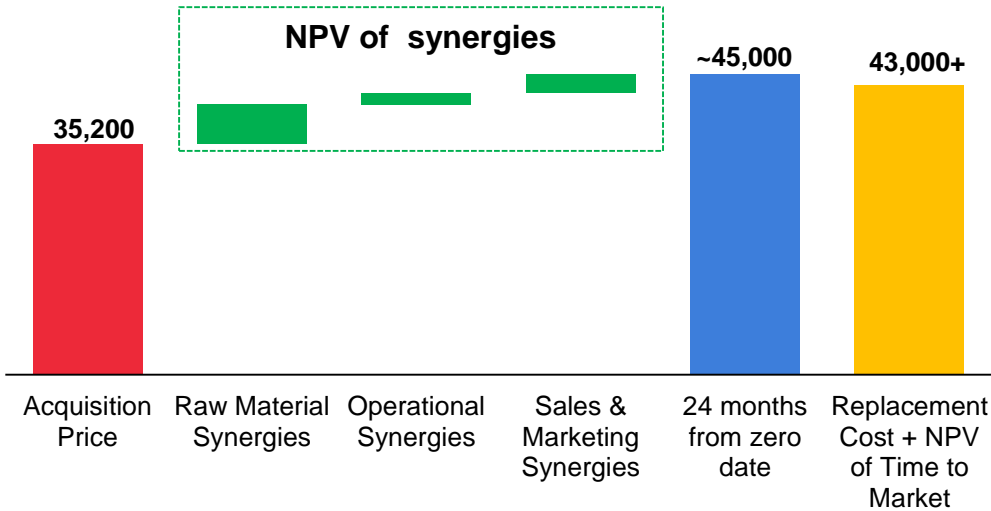
- A structured productivity and operational excellence program have offset adverse cost impact
- Several initiatives across the organisation focuses on continuous improvements and cost savings
- FY18: implemented 11,963 number of suggestions; key levers include –
  - Improvement in fuel rate in Blast Furnaces and throughput
  - Increase in throughput at West Bokaro collieries
  - Reduction in the spend base of Inbound/Outbound logistics, packaging cost and energy efficiency

## Sustained improvement savings every year (Rs. Crores)



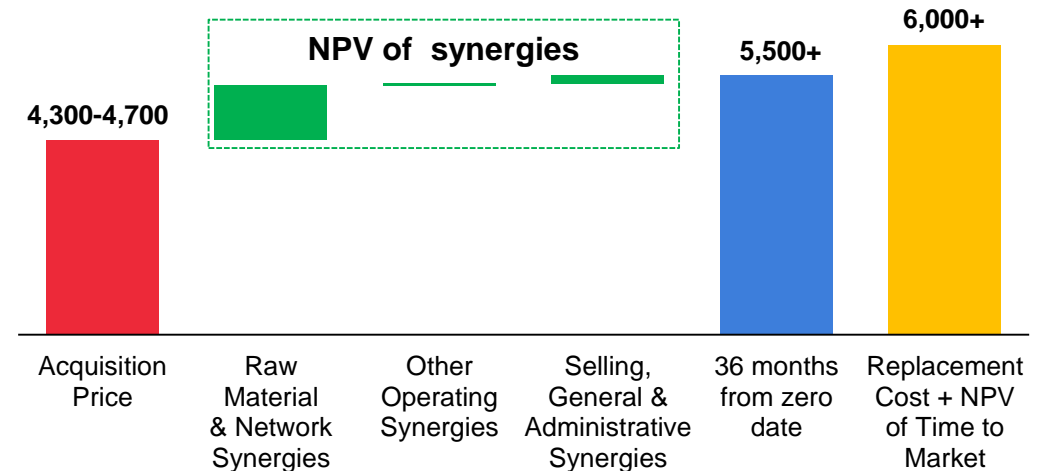
# Synergy potential from recent acquisitions

## Bhushan Steel (Rs. Crores)



- Raw Material synergies includes Tata Steel’s captive ore and renegotiations of raw material contracts
- Operational synergies includes use of BEL’s<sup>2</sup> surplus power
- Selling & Marketing synergies includes use of common brands and sale of slabs from BSL to TSL

## Usha Martin’s Steel Business (Rs. Crores)



- Raw Material synergies includes utilization of Usha Martin’s Iron Ore mines and Tata Steel’s captive ore
- Other Operating synergies includes saving in freight
- Selling, General & Admirative synergies includes saving in corporate overheads

Zero Date: acquisition completion date; 2. Bhushan Energy Limited



# Bhushan Steel is a value-accretive acquisition which delivers several benefits to Tata Steel



## Strategic Rationale

- 1 Retain long products market share in wire rods
- 2 Entry into special steel market
- 3 Enhance product basket for Automotive customers
- 4 Leverage customer base, better customer service with wide offering
- 5 Additional land in Barajamda can be used for setting up Beneficiation plant

**Tata  
Sponge: a  
preferred  
vehicle**

- Long products business model requires leaner and flexible cost structure
- Comparatively smaller furnace and mill configuration required to enable large number of customized products
- Allows for modular expansion

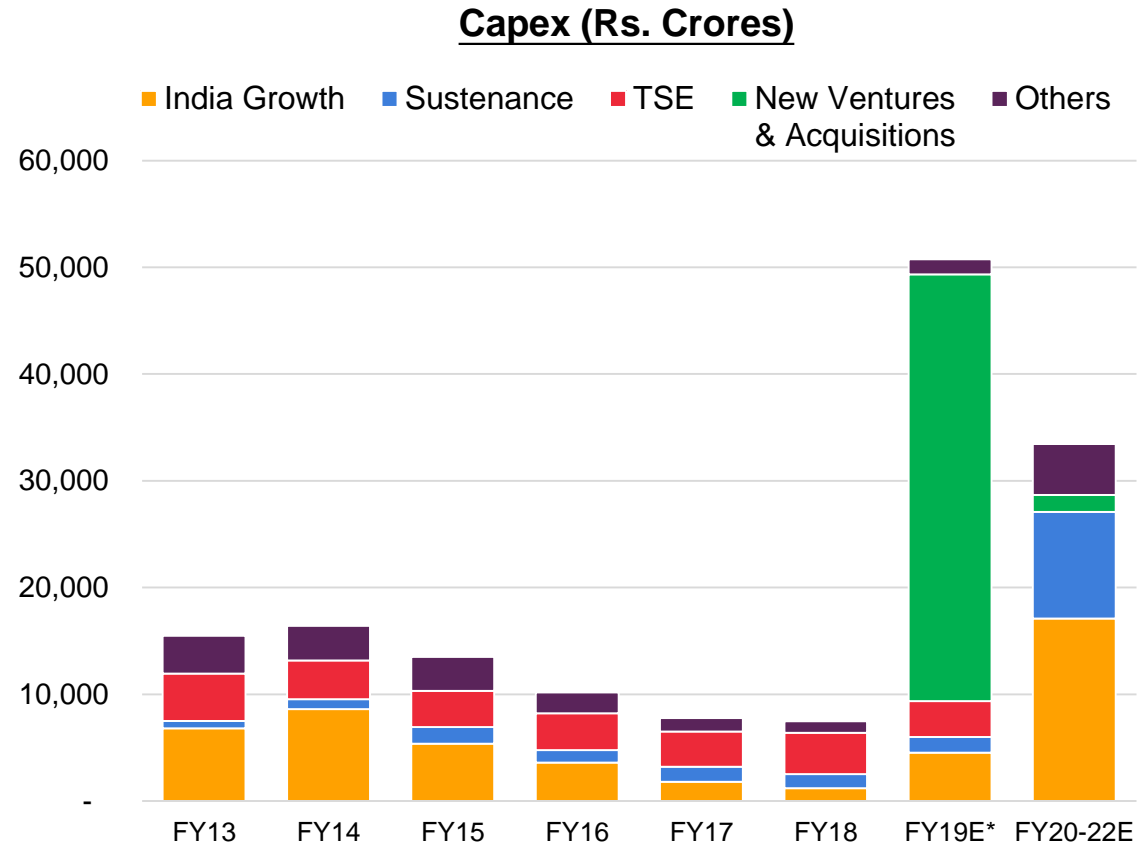
**Future  
Plans**

- Potential to expand into steel recycling & eventually to EAF band steelmaking
- Selective acquisitions, distributed and green manufacturing closer to markets
- Organized processing of steel scrap as raw material for long products
- Downstream linkage to growth in wires business

## Capital allocation on focused capex

Multiple capital efficient and value accretive options to consider in phased manner:

- West Bokaro expansion
- Iron ore portfolio expansion
- Kalinganagar expansion
- Jamshedpur expansion
- Port & logistic infrastructure
- Bolt on acquisitions in or outside the Insolvency and Bankruptcy Code (IBC)
- Expansion at Bhushan Steel
- New Material Business

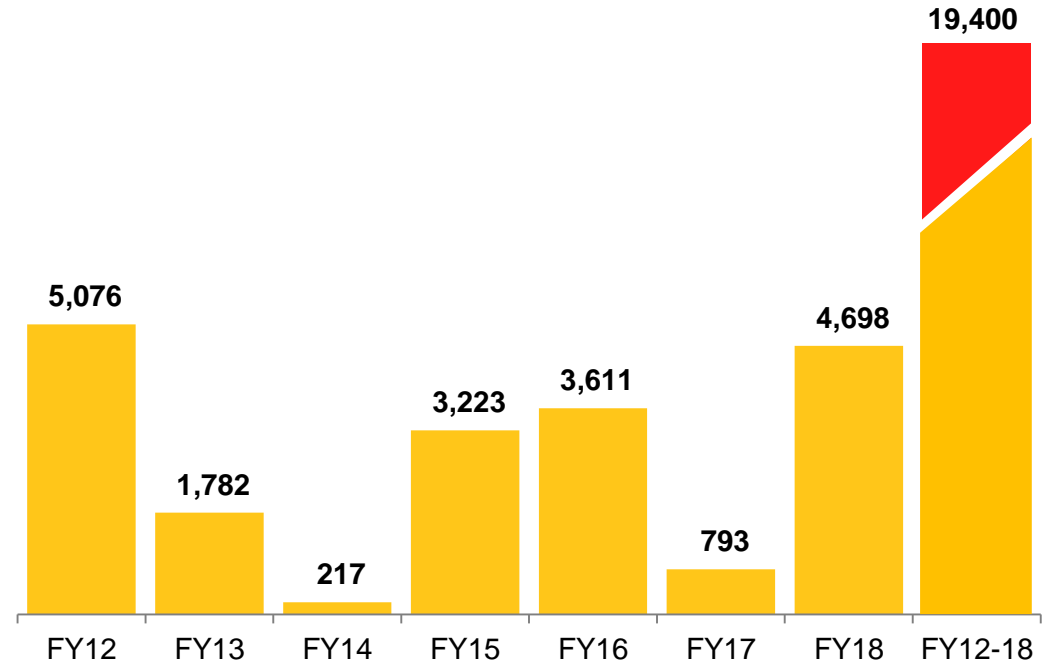


\*New ventures & Acquisitions in FY19 includes acquisition cost of Bhushan Steel and Usha Martin's steel business

## Capital raised from divestments will be used to deleverage

- Total capital raised through divestments in last 7 years was Rs. 19,400 crores
- Other announced portfolio restructuring being pursued:
  - tk-TSE JV
  - Sedibeng
  - Cogent
  - TRL Krosaki
  - South East Asia cluster

**Cash flow from divestments (Rs. Crores)**



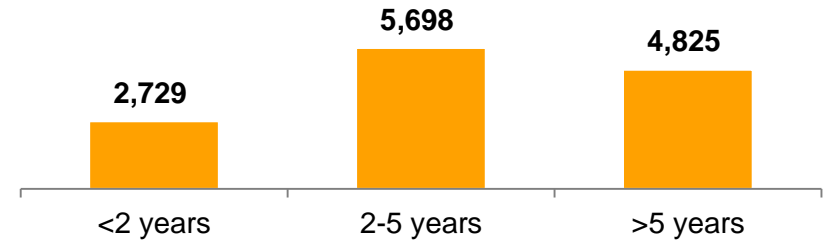
# Balance Sheet redesigned to support ROIC improvement

- Leverage profile has flexible terms, diversified funding sources and well spread maturities

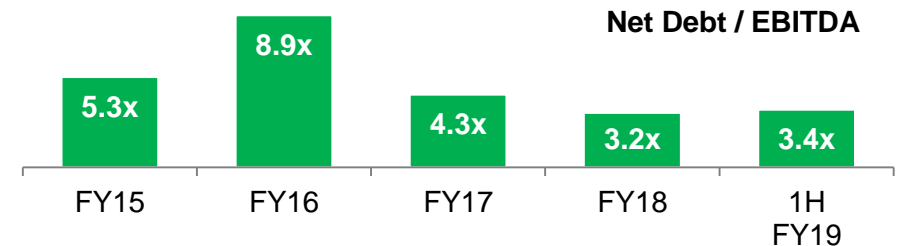
- Deleveraging through superior cash flows and portfolio restructuring

- With proposed portfolio restructuring & high growth investment, expect 300 bps increase in ROIC<sup>2</sup> in future

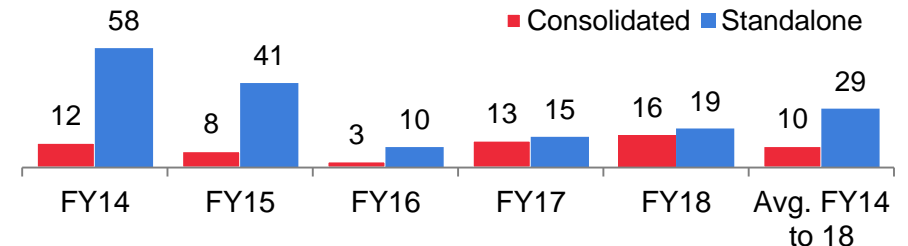
**Maturity Profile (FY18)<sup>1</sup> (mn US\$)**



**Strengthening leverage metrics**



**Tata Steel consolidated & standalone Pre-tax ROIC<sup>2</sup> (%)**



*FX: USD 1 = INR 71.0 GBP1= 91; (1) Consolidated figures - includes future finance charges and capitalization of transaction costs; the maturity profile is as per company internal analysis and not as per IndAS; (2) ROIC (Return on Invested Capital): Adjusted Operating profit before tax/Average Invested Capital (Excluding Capital Work-in-Progress);*

## Strong foundation from 'Best in class' assets and capabilities:

- Jamshedpur, Kalinganagar and Angul are strong & 'best in class' asset profiles
- Globally competitive cost position
- Strong leadership team and talent strength
- Integral part of the Tata Group



## Future opportunities for value creation:

- Best position to leverage India growth story
- Synergies from the European JV
- Expansion of Tata Steel Kalinganagar
- Pursue bolt on acquisition opportunities in downstream and long products
- Redesigned Balance Sheet

- 
- Resilient business profile to manage downside risks
  - Sustain value creation across the cycle

**TATA STEEL**

#WeAlsoMakeTomorrow



## **Tata Steel – Investor Day 2018**

Tata Steel India: Marketing and Sales

**Peeyush Gupta, VP – Marketing & Sales (India & SEA)**

# Agenda

---

A. Roadmap 2025

B. Focusing capital for long term value

**C. Tata Steel India: Marketing and Sales**

D. Tata Steel Kalinganagar: A significant milestone

E. Bhushan Steel: The first 6 months

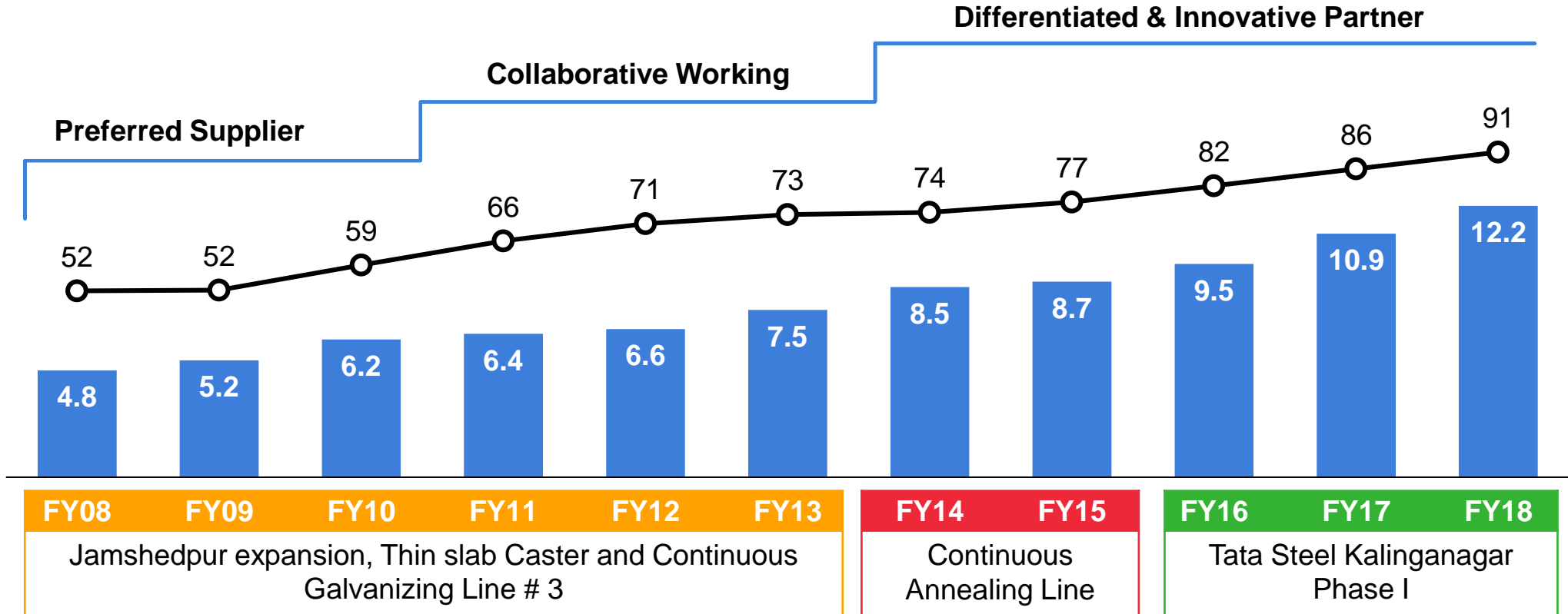
F. Our Digital Journey



# Demonstrated track record of superior growth as compared to the market

■ Tata Steel Standalone sales (mn tons) [FY08-FY18 CAGR: 9.8%]

○ Market demand (mn tons) [FY08-FY18 CAGR: 5.7%]

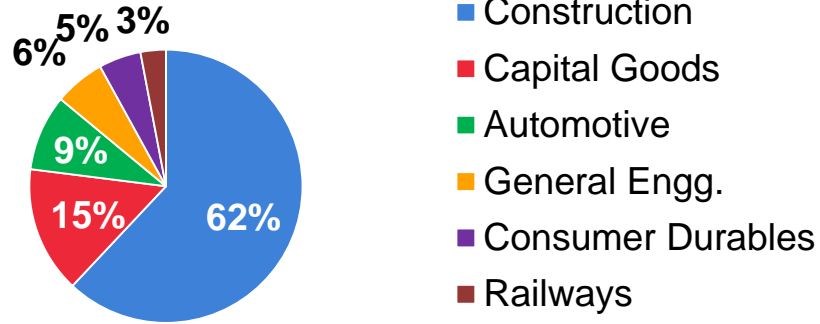


Source: Joint Plant Committee, Tata Steel; Market demand is apparent Steel Use; Chart is subject to scale

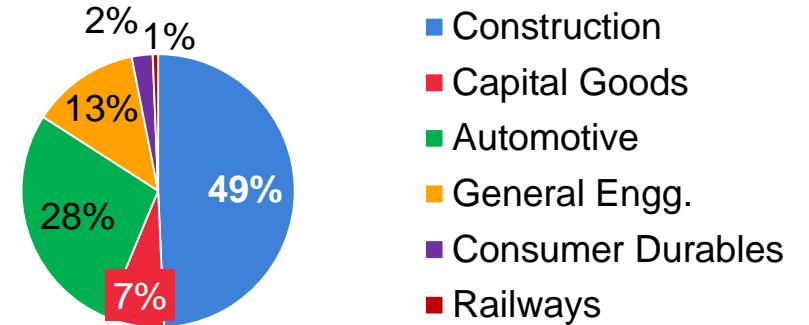
# Tata Steel is present in ~85% of domestic carbon steel market and has a unique way of segmenting the market



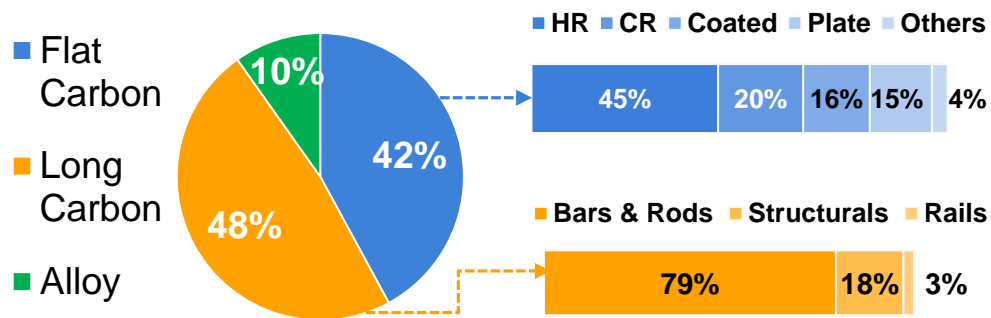
## Sector-wise India steel demand



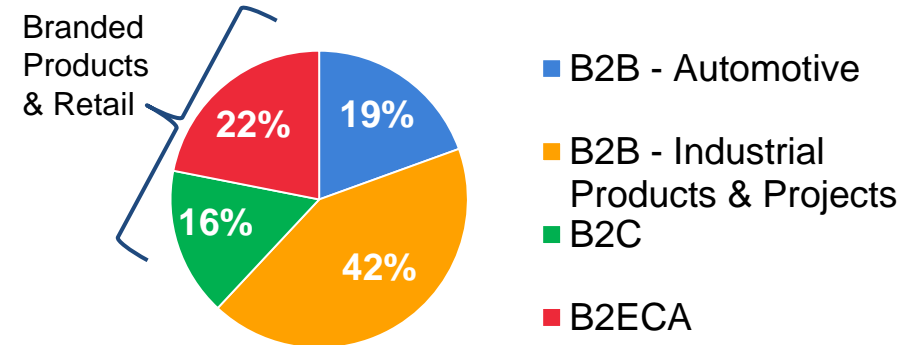
## Tata Steel domestic sales (Sector wise)



## Product-wise India steel demand (mn tons)



## Tata Steel domestic sales (Vertical wise, mn tons)



Source: World Steel Association, JPC and Tata Steel; Note: All data for FY18; HR: Hot Rolled; CR: Cold Rolled; Others in Flat Carbon: includes Tinplate and Electrical Steel; B2B: Business to Business; B2C: Business to Consumer; B2ECA: Business to Emerging Corporate Accounts

# Automotive & Special products: Market leadership driven by focus on technology and strong customer relationship

## Growth enabled by:

- ✓ Faster localization
- ✓ Extensive network of steel processing centers
- ✓ 4 Hot Strip Mills, 3 Cold Roll Mills & TSK Phase 2 in future

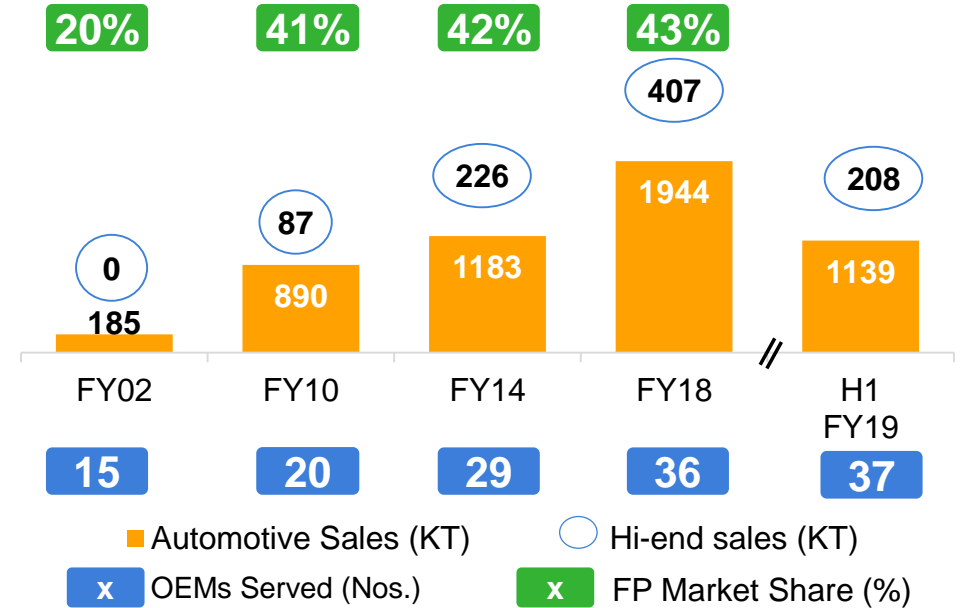
## Softer leadership through:

- ✓ Customized relationship platforms like 'Customer Service Teams', 'Value Analysis Value Engineering' and Driving Steel
- ✓ Advanced technical support system like 'Product Application & Research Centre', 'Early Vendor Involvement' and Technology Day

## Gearing up for transformation:

- ✓ Light-weighting: Shift to hi-strength
- ✓ Transition to BS VI: poly-coat in 2W fuel tank

## Automotive vertical sales



- ✓ Chosen partners in new launches
- ✓ Commercialization of hi-tensile grades

# Industrial Products, Project & Exports: Enriching product mix and shaping industry practices

## Growth enabled by:

- ✓ Investments in Thin Slab Casting and Rolling Facility and Tata Steel Kalinganagar

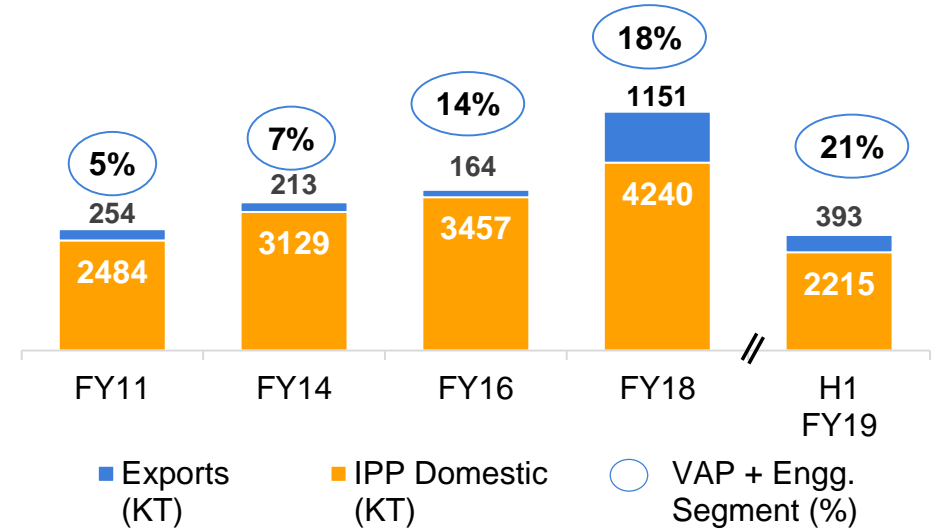
## Maintaining leadership through:

- ✓ Focus on value added products and Engineering segments
- ✓ Partnership with select customers
- ✓ Supply chain visibility through COMP@SS

## Gearing up for transformation:

- ✓ 'Ready to use' steel (eg. CAB, Sm@rtFAB)
- ✓ Pioneering services (e.g. wired2win, CST)
- ✓ Promoting steel intensive construction

## Industrial Products, Projects & Exports Sales



- ✓ Leadership position in chosen segments (LPG, MCHC, Railways, Wire rods)
- ✓ Exports play in select markets (Neighboring countries, SEA, ME)

# Branded Products & Retail: Using long term partnerships to deliver superior consumer experience

## Delivering delight to underserved market:

- ✓ Building customer capability (Qualithon, Skills4India)
- ✓ Digitally enabled Finance solution “URJA”

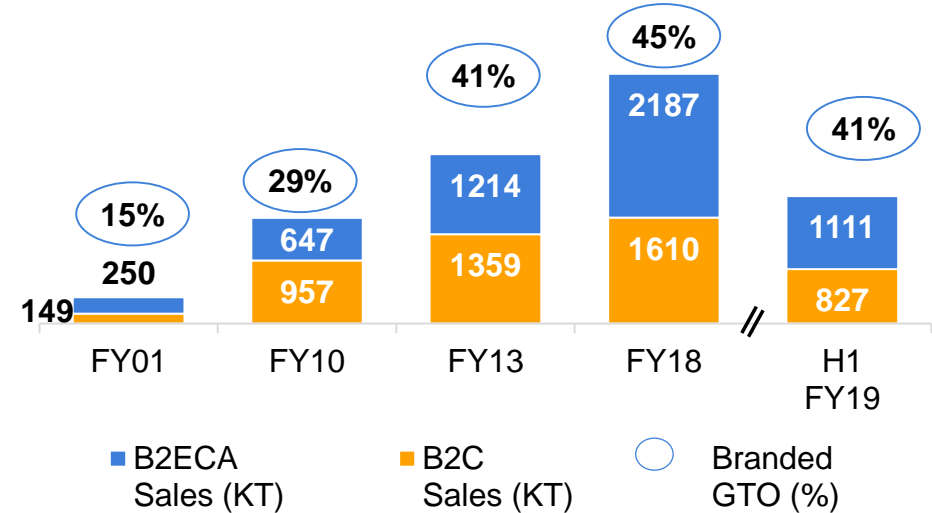
## Enhancing premium play through:

- ✓ Deep dive in >40 micro segments
- ✓ Largest number of service centers & unmatched country-wide network

## Unique solutions to product usage and real time customer support:

- ✓ Category conversion (Thatch to Steel)
- ✓ Customer Service Engineers
- ✓ Aashiyana: Early engagement & e-commerce platform with knowledge sharing

## Branded Products & Retail Sales



- ✓ Meteoric increase in B2C play
- ✓ Deeper engagement with Emerging Corporate Accounts (Small & Medium Enterprises)

# Services & Solutions: New initiative to capture a value multiplier and insulate from revenue cyclicity

## Growth enabled by:

- ✓ Leveraging Tata Steel ecosystem
- ✓ Collaborations with industry experts & manufacturing partners

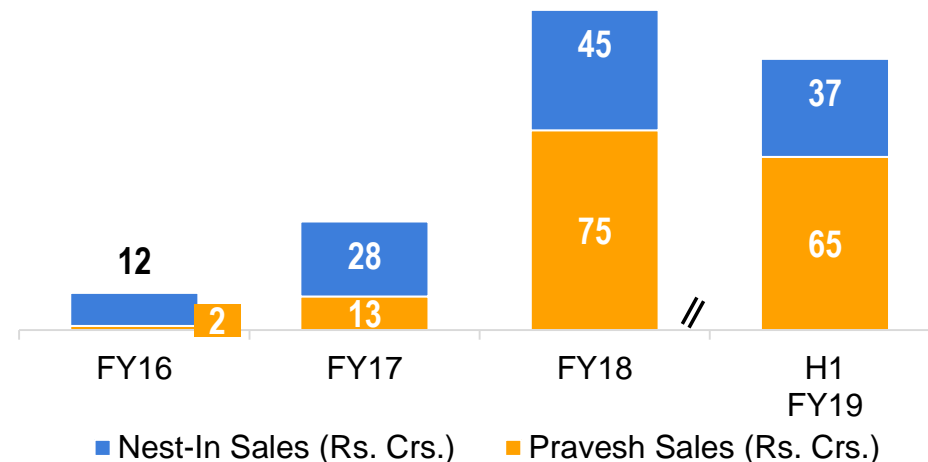
## Building new business through:

- ✓ Enhancing consumer convenience
- ✓ Newer avenues of steel consumption
- ✓ Solutions beyond steel through alternate material

## Shaping the market through:

- ✓ Pioneering brands catering to latent needs
- ✓ Post manufacturing differentiation

## Service and Solutions business sales



# Multiple production hubs, world-class stockyards and a strong pan India distribution network is a unique competitive advantage

## BSL Khopoli + TSL Tarapore

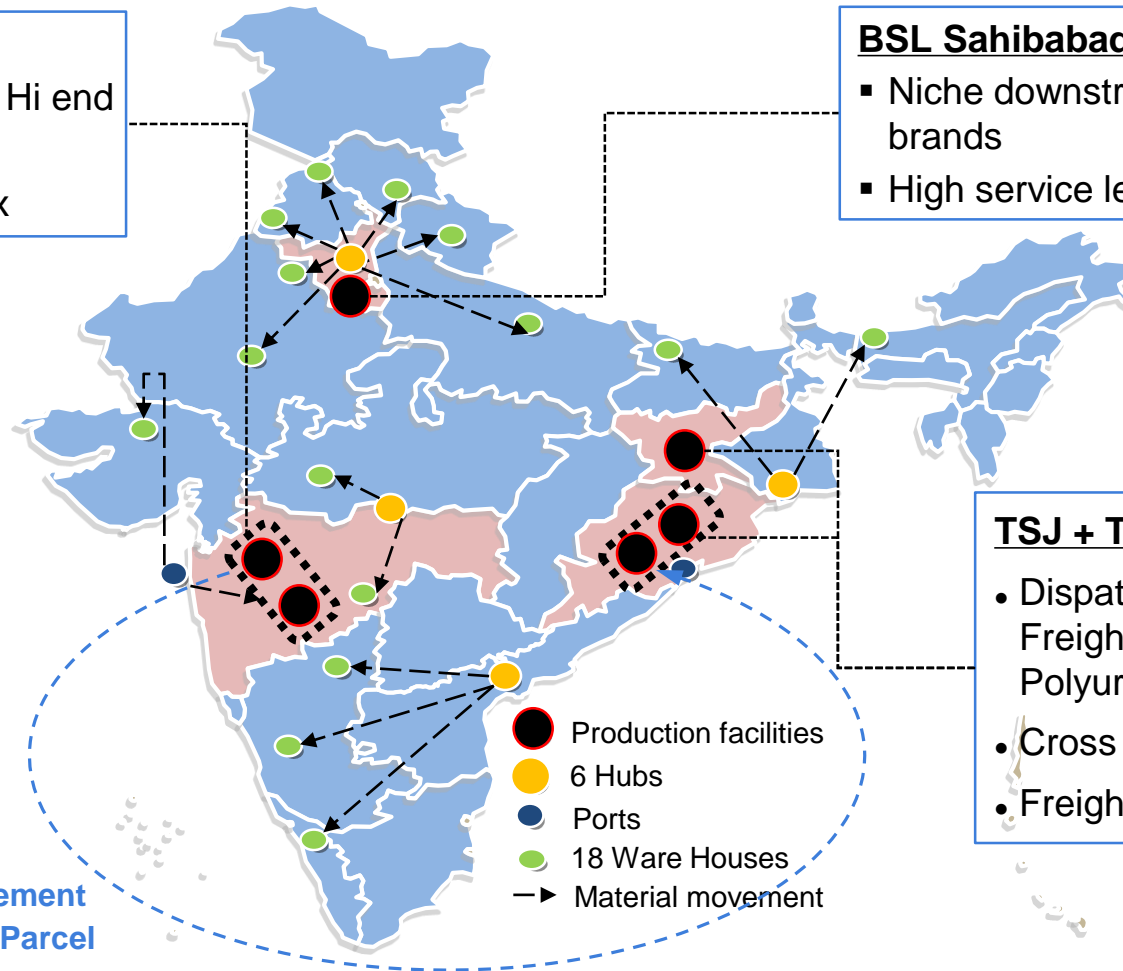
- Modern API & Large dia. Pipes for Hi end
- Competitive exports
- Optimizing customer & product mix

## BSL Sahibabad

- Niche downstream products for TSL brands
- High service levels due to proximity

- **Theory Of Constraints** based supply chain
- **Channel Strength\*** (93 distributors, 1,500 distributors' feet, ~12,000 dealers)
- **Managed** by 230+ Customer Account Manager# and 50+ Application Engineers

**Coastal Movement  
of Combined Parcel**



## TSJ + TSK + BSL Angul

- Dispatch efficiency (Special Freight Train Operator, Polyurethane Saddles)
- Cross utilization of Mills
- Freight optimization



## Access to New markets/ segments

- Complementary products through Bhushan Steel:
  - Wider (>1540mm) & Thinner (<0.5 mm) Cold Rolled, Galvanized, Colour Coated
  - Hardened & Tempered products
  - API Tubes and Large dia. pipes
- Higher reach through Tata Steel distribution channel



## Greater Synergies at Market Place

- Largest supplier of Skin Panels
- Enhance presence in Colour Coated & Precision Tubes
- Leverage Emerging Corporate Accounts (SMEs) brands for greater play
- Joint promotion of products through customer & influencer



## Integrated planning & logistics

- Stockyard network optimization
- Joint Coastal Movement
- Special Freight Train Operator & slab sales



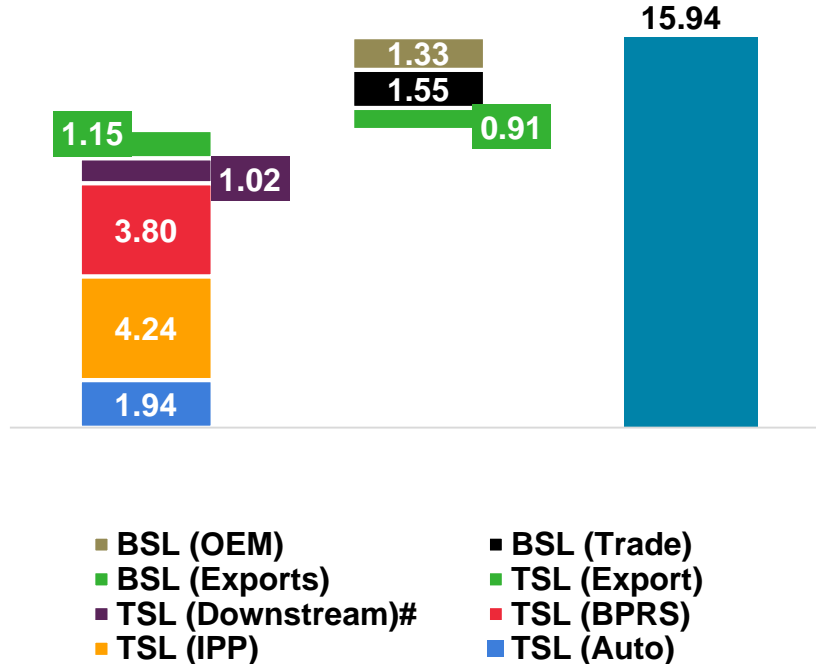
## Bhushan Steel helps in consolidating our market leadership

Reorganization of Bhushan Steel's Marketing & Sales in customer facing segments

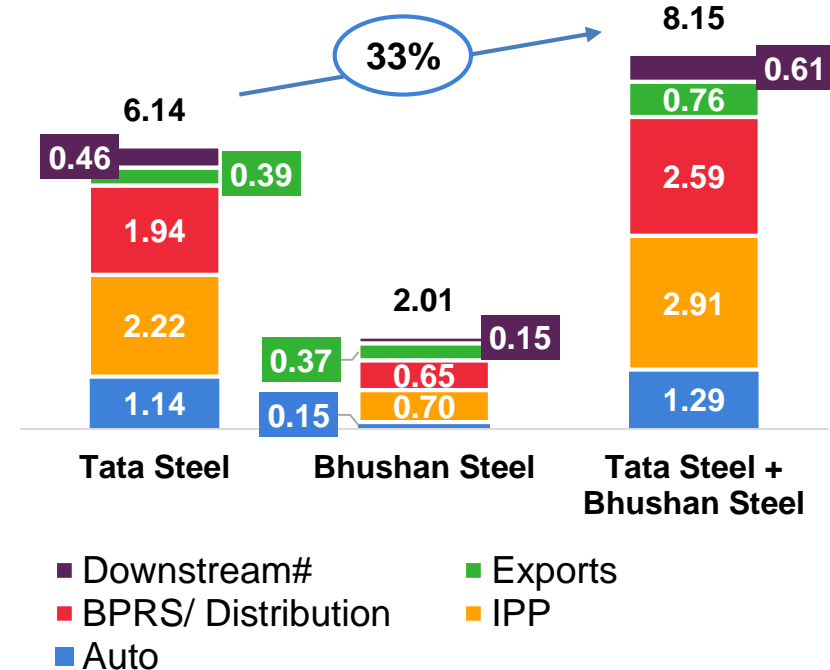
### Common Processes:

- Annual business planning
- Channel management
- Monthly sales planning
- Credit policy

**Tata Steel\* and Bhushan Steel: FY18**



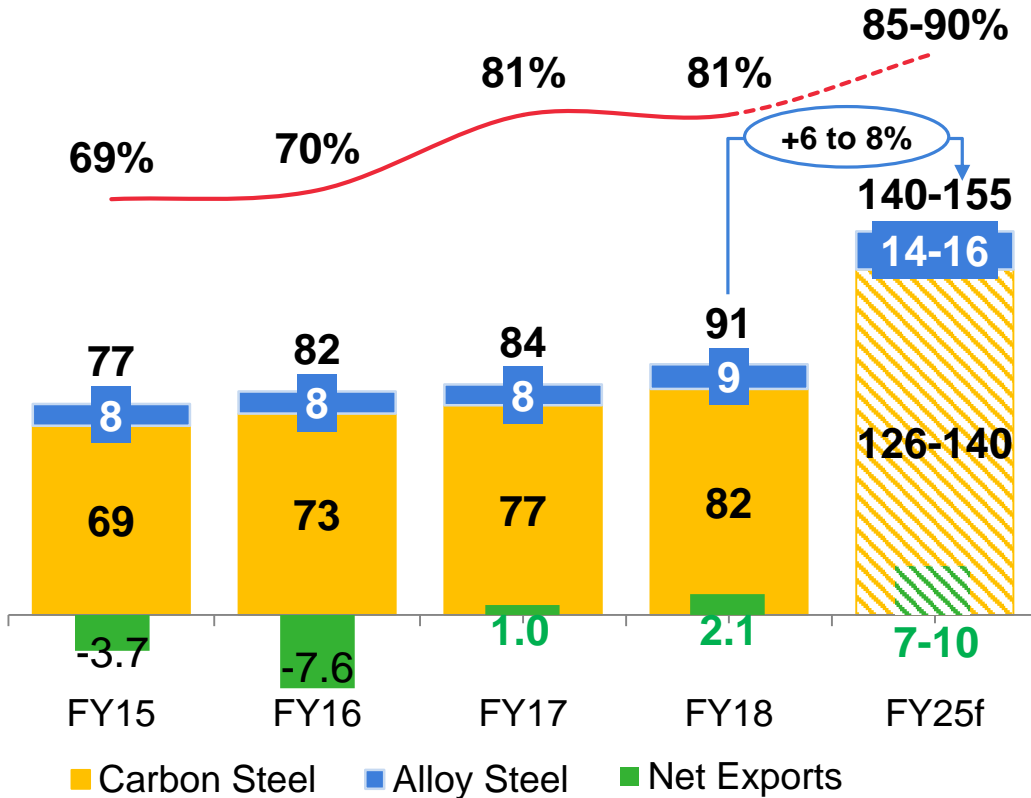
**Tata Steel\* and Bhushan Steel : H1 FY19 (Post Integration)**



Source: Tata Steel; All figures in mn tons; \* Tata Steel Standalone; # includes transfer to tubes & wires divisions

# India steel demand to remain strong in medium term; utilization to improve with resolution of stressed assets

Outlook: Demand-supply (mn tons) and capacity utilization (%)



## Opportunities

- 1) Service & Solutions: Customers are ready to pay for convenience
- 2) Rural market: New & sustainable steel products
- 3) Growth in Long Products: Greener and Efficient construction

## Challenges

- 1) Intensifying protectionism globally
- 2) Poor Infrastructure and logistics
- 3) Entry of new competition

**TATA STEEL**

#WeAlsoMakeTomorrow



## **Tata Steel – Investor Day 2018**

Tata Steel Kalinganagar: a significant milestone

**Rajiv Kumar – Vice President, Tata Steel Kalinganagar Operations**

## Agenda

---

A. Roadmap 2025

B. Focusing capital for long term value

C. Tata Steel India: Marketing and Sales

**D. Tata Steel Kalinganagar: A significant milestone**

E. Bhushan Steel: The first 6 months

F. Our Digital Journey



# Tata Steel Kalinganagar Phase I





# Tata Steel Kalinganagar Phase I expansion has been a significant milestone in our journey



## 3 MTPA Greenfield expansion

- De-risked operations away from single location in India
- Provides optionality of cost effective brownfield expansion

## Lighter and high-tensile strength steel

- Enabling expansion of customer universe to sectors such as Oil and Gas, Lifting and Excavation, Pre-engineered Buildings and Construction & Projects

Key indicators	Capabilities
Thickness	<ul style="list-style-type: none"> <li>▪ Max 25mm</li> <li>▪ Tolerance: +/- 36 to 48 micron max for 1.6 to 6.0 mm</li> </ul>
Width	<ul style="list-style-type: none"> <li>▪ Range: 800 to 2050mm</li> <li>▪ Tolerance: -0/+10 mm up to 1400 mm width and -0/+12 mm &gt; 1400 mm width</li> <li>▪ Width / Thickness ratio: ~30-50%</li> </ul>
Tensile strength	<ul style="list-style-type: none"> <li>▪ Upto 1200 Mpa</li> </ul>
Special coil weight	<ul style="list-style-type: none"> <li>▪ Upto 22 Kg/mm</li> </ul>

## Optimal design

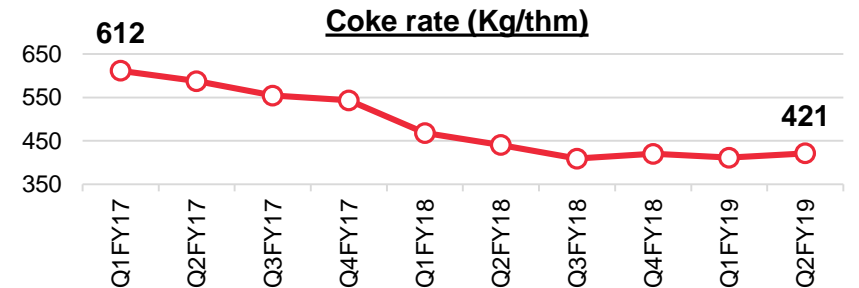
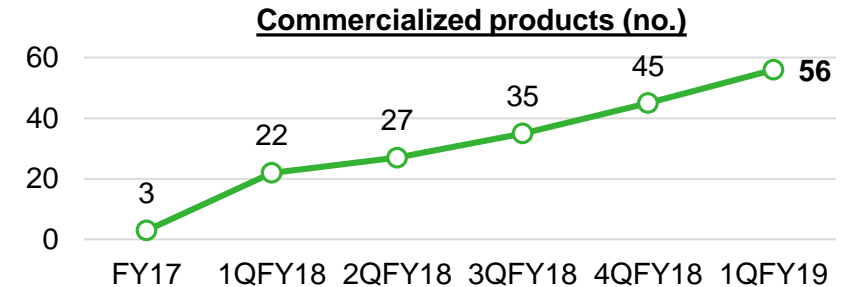
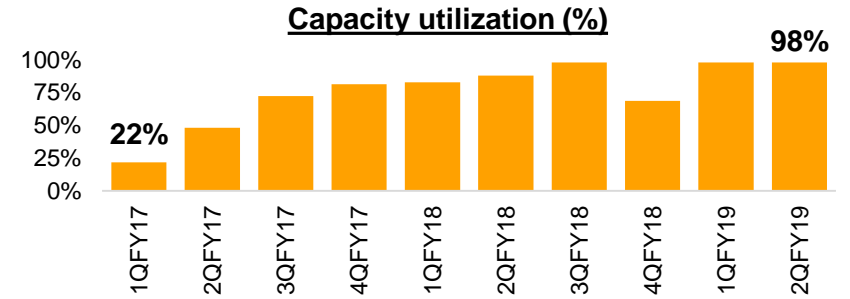
- Higher productivity driven by automation
- Cost competitiveness with superior operating KPIs
- Higher efficiency and sustainability
- Logistics advantage with proximity to ports and captive Iron ore mines

# Focus is now on improving the revenue stream and cost competitiveness

▪ TSK phase – I has now fully ramped

▪ Commercializing 188 number of grades while ramping up

▪ Cost competitiveness will improve over several quarters as focus shifts from ramp-up to operational KPIs



## Key product segment capability

Sector	Key applications	Key commercialized grades
Auto	Wheel grade	SPFH590 (High HER), SPFH540, SPFH440, KWL RIM & DISC, DP600, YST38, WIR019, Gr A CF ( <i>strength 250-700MPa</i> )
	Structural Long member & cross member	HS800, BSK46, E46, E34, E38, DP780, BIL55, Tisten55, Tisten60, 80Ksi ( <i>strength 440 – 900</i> )
	Internal panel	IF <sup>1</sup> CRCA, IF GA, IF ZS(GI)
Lifting & Excavation	Structural	S275J2, S355J2, S460MC, S550MC, S700MC, E410, HS620 ( <i>strength 440-800MPa, thickness 5-25mm</i> )
PEB	Structural	ASTM Gr50 Type2 ( <i>thickness 5-25mm</i> )
LPG	High strength	SG295, HS345, P245, P265
API	Oil & Gas	API X42, API X46, API X52, API X60
High Carbon	Chain link, Seat belt buckle, Cutting tool, High end tube, Suspension of 2 wheeler	C80, C75, C60, C55, C40, C45, SAE1541, C30, SAE1026
Tube grades	High end tube for auto (propeller shaft)	SAE1010/18/20, St52.3, K3 special,

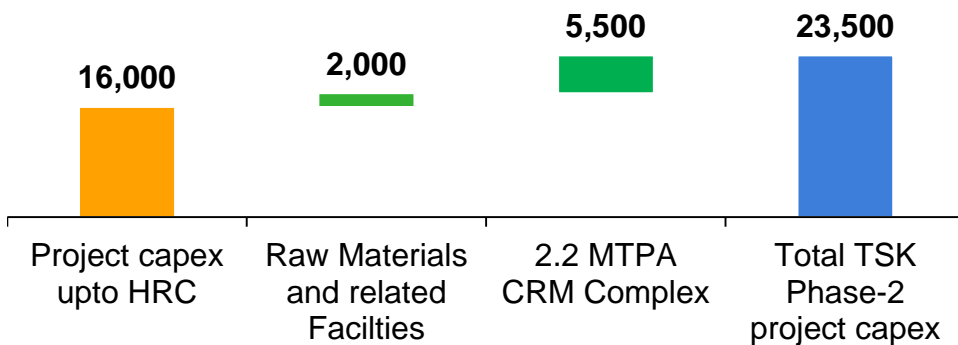
1. Interstitial free



# Tata Steel Kalinganagar – Phase II expansion is underway; adding downstream capability

- 5 MTPA brownfield expansion including 2.2 MTPA cold rolling complex, raw materials and related facilities
- Total Capex: Rs. 23,500 crores
- Timeline: 48 months from zero date

**TSK Phase – II Capex (Rs. Crores)**



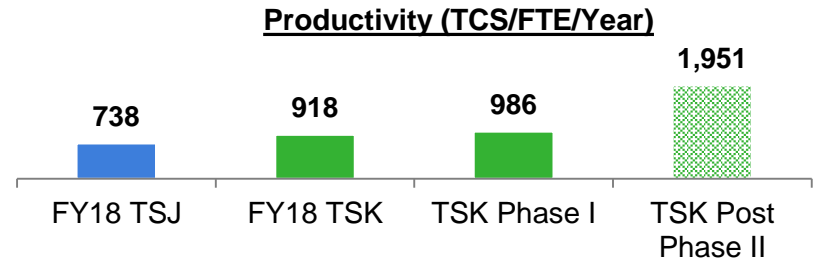
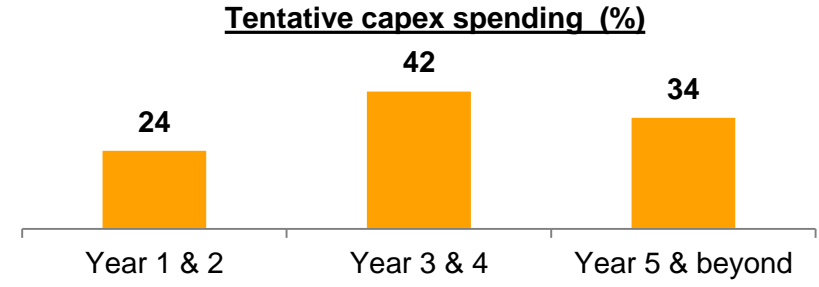
CRM complex capability	Width (in mm)	Thickness (in mm)	Capacity (in MTPA)
Pickling Line and Tandem Cold rolling Mill	1,870	0.3 - 2.3	2.2
Continuous Annealing Line	1,870	0.3 - 2.3	0.9
Continuous Galvanizing Line (non-auto)	1,560	0.3 - 2.3	0.45
Continuous Galvanizing Line (auto)	1,870	0.3 - 2.3	0.55

# Tata Steel Kalinganagar Phase II expansion will create significant value

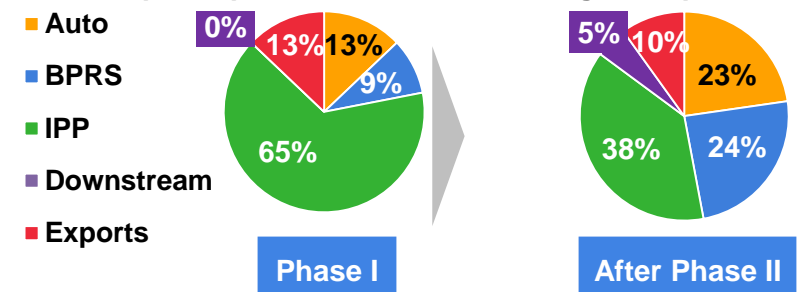
- Capex back ended with less than 25% to be spent in first 2 years

- Productivity to improve significantly
- Energy cost to reduce significantly with better balancing and optimum utilization all facilities

- Cold roll mill complex prioritized to improve product mix and optimize project cash flows



**Phase II to improve product mix with more high end products<sup>1</sup>**



TCS = Tons of Crude Steel; FTE = Full Time Equivalent Employees; Productivity for TSK post phase II is estimated based on ~4,100 number of employees; 1. Internal estimates based on Tata Steel Kalinganagar deliveries in FY25

## Pickling Line and Tandem Cold rolling Mill

- High Quality Steel (IF<sup>1</sup>, High Strength Steel, DP-1180 MPa, TRIP<sup>2</sup>)
- Strip Flatness (6 ~ 10 I Unit)
- IbA Analyser- data Acquisition, data analytics
- Labour Saving – de-straper, auto surface inspection
- Auto roll changing

## Continuous Annealing Line

- Furnace capacity 240 T/Hr, Cooling Capacity >100° Celsius/Second
- Low NOx & SOx Emission (Special design of burners with W Radiant tubes)
- Furnace rolls - thermal crown control for, anti-pick up property (thermal spray coated), automatic coil de-straper & disposal, automatic fish tail detector
- Over-ageing furnace (suitable for DP 1180 MPa Grades)

## Continuous Galvanizing Line

- GA furnace with close loop control and high capacity (5,200 KW)
- Auto zinc charging with bath Al and level control
- Auto Surface Inspection
- 1200 T Dual dia 4 Hi SPM with inline work roll change
- Robotics dross removal

**TATA STEEL**

#WeAlsoMakeTomorrow



# Tata Steel – Investor Day 2018

Bhushan Steel: The first 6 months

**Rajeev Singhal – Managing Director, Bhushan Steel**

A. Roadmap 2025

B. Focusing capital for long term value

C. Tata Steel India: Marketing and Sales

D. Tata Steel Kalinganagar: A significant milestone

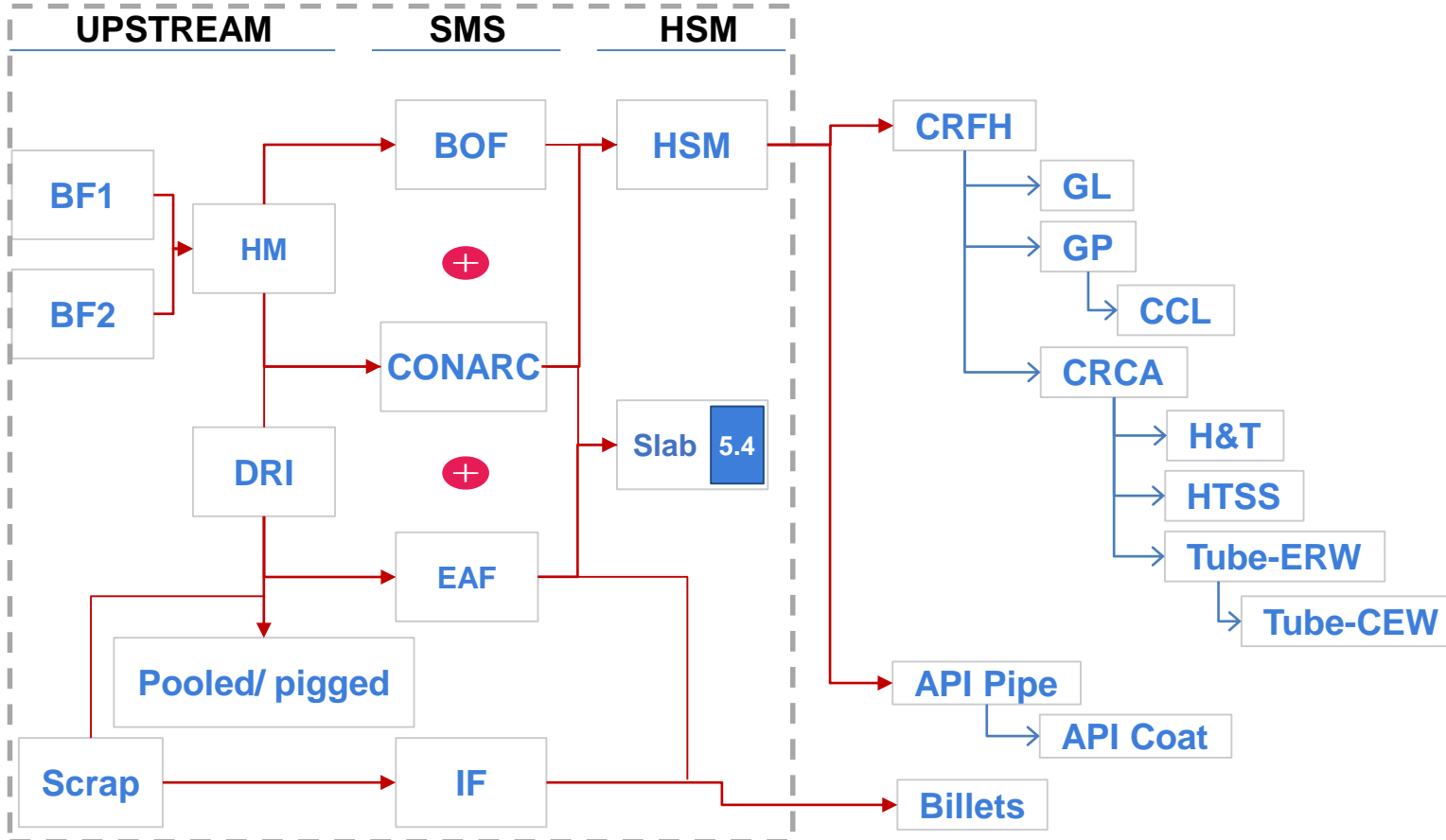
**E. Bhushan Steel: The first 6 months**

F. Our Digital Journey

<b>High Quality Asset</b>	<ul style="list-style-type: none"><li>▪ One of the widest cold rolling mill of 1700 mm in India</li><li>▪ Superior Plant Layout</li><li>▪ Leading process technology partners from Europe/Japan/USA</li><li>▪ Captive railway siding</li></ul>
<b>Locational advantage</b>	<ul style="list-style-type: none"><li>▪ Proximity to markets, raw materials and ports</li><li>▪ Close to Tata Steel plants and mines</li><li>▪ In-house processing centres for high end value-added products</li></ul>
<b>Complementary and rich product mix</b>	<ul style="list-style-type: none"><li>▪ Complimentary product portfolio (&gt;1540 mm wider cold rolled products, &lt;0.5mm thinner products, colour coated products, hardened &amp; tempered products, API Tubes, Galvalume)</li><li>▪ Rich exposure in downstream business (more than 45% of total capacity)<ul style="list-style-type: none"><li>○ First Indian steel plant to supply skin panel to auto makers</li><li>○ Market leader in colour coated supplies to appliance segment</li><li>○ Large product range of Tubes &amp; Pipes; world class Large dia. pipes manufacturing</li></ul></li></ul>
<b>Optionality</b>	<ul style="list-style-type: none"><li>▪ Provides optionality to scale up through brownfield expansion in future</li></ul>

# Value-added product manufacturing capability across 3 locations

## Angul



## Plant Locations

Angul	SBBD	Khopoli	
✓	✓	✓	} 2.10 <sup>1</sup>
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
	✓	✓	
	✓	✓	
	✓	✓	
	✓	✓	
		✓	} 0.50
		✓	
✓			} 0.20

All capacities are in mn tons per annum, 1. Total cold rolling capacity

## Infrastructure & Operations

- Improving safety standards through enhanced awareness, processes & equipment
- Elimination of hazards through improved use of technology
- Strengthening asset health with planned shutdowns & equipment refurbishment across value chain
- Addressing design gaps in utilities

## People & Culture

- Strengthening of systems & processes
- Capability building to achieve benchmark performances
- Increasing people engagement through robust Human Resource processes
- Enhancing automation

## External Stakeholders

- Implementing impact based CSR through engagement with the society
- Improving the environmental performance
- Be a benchmark in corporate governance



# Integration is underway and several areas of synergy have been identified

## Tier-1: Excellence

- Stabilize current performance
- Raise to best demonstrated performance
- Realise synergies

## Tier-2: Elevate

- Achieve benchmark performance in all areas
- Achieve rated capacity
- Generate strong cash flow

## Tier-3: Expand Capacity

- Initiate strategic capital investments
- Consistently replicate industry best performance
- Enhance sustainable returns for the stakeholders

**60+ initiatives being pursued with a potential of > Rs.1,500 crores per year at Tata Steel consolidated level over 2-3 years**

### Operations



- Operational excellence projects & safety processes based on TSL best practices
- Leverage technical knowhow
- Common sales & operations planning

### Marketing & Sales



- Access to Tata Steel distribution channel; Joint product promotion and customer interface
- Migration to common brands
- Common credit policies
- Plug bottlenecks by using facilities at TSL like extra slab sales to group companies)

### Procurement



- Benefit of scale with combined procurement of key raw materials
- Procurement process standardization

### Logistics



- Stockyard network optimization
- Clubbing of port operations
- Combine sea freight movements of finished goods

## Key enablers to achieve 5 MTPA by FY20



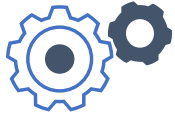
Debottleneck & decouple operations



Embed planned predictive maintenance framework



Capability building & resource augmentation



Restart idle assets



Excellence in planning, procurement, financing and IT

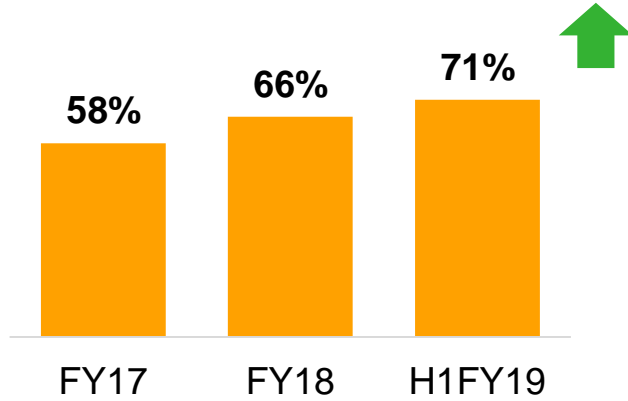


Capex for superior asset performance

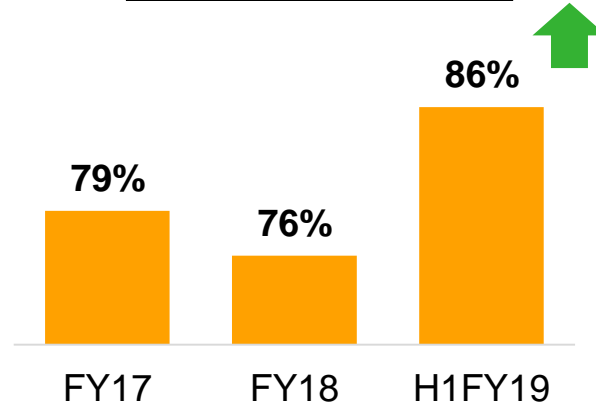
## Structured operations excellence and productivity improvement efforts

- Improve safety performance
- Maximize throughput
- Optimize resource consumption
- Drive energy efficiency
- Minimize waste disposal
- Optimize cost and working capital
- Drive innovation and enrich product mix

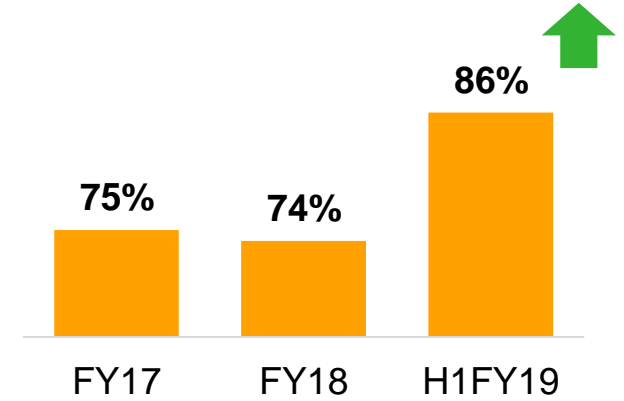
Hot Rolled Sheets/ Coils  
Capacity Utilisation %



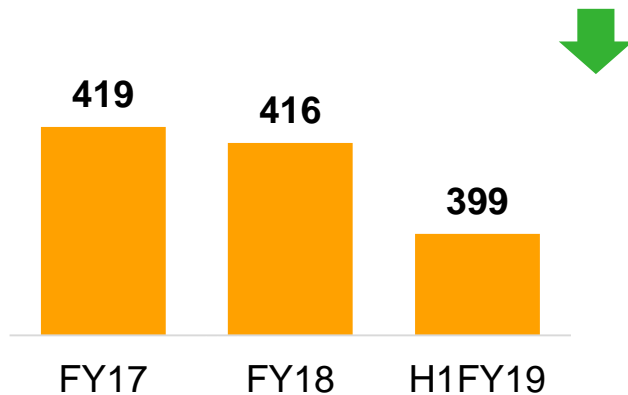
Cold Rolled Sheets/ Coils  
Capacity Utilisation %



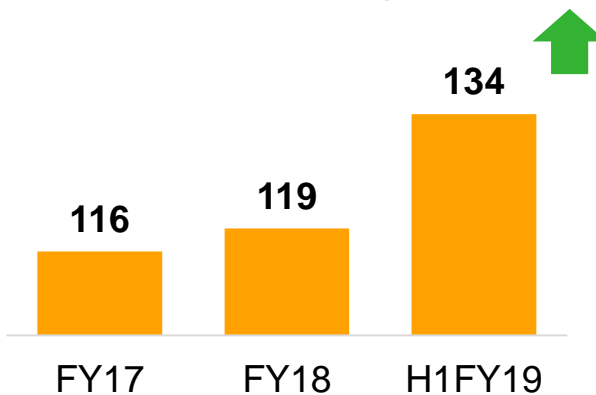
Precision Tubes  
Capacity Utilisation %



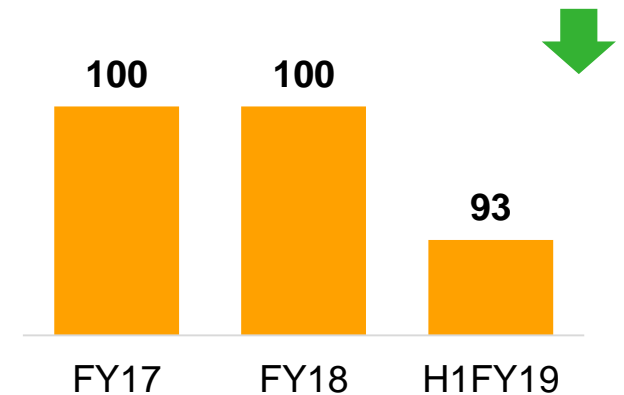
Coke rate (kg/tcs)



PCI rate (kg/tcs)



Power Consumption - HSM (Kwh/MT)



**TATA STEEL**

#WeAlsoMakeTomorrow



# Tata Steel – Investor Day 2018

Our Digital Journey

Jayanta Banerjee - Chief Information Officer

A. Roadmap 2025

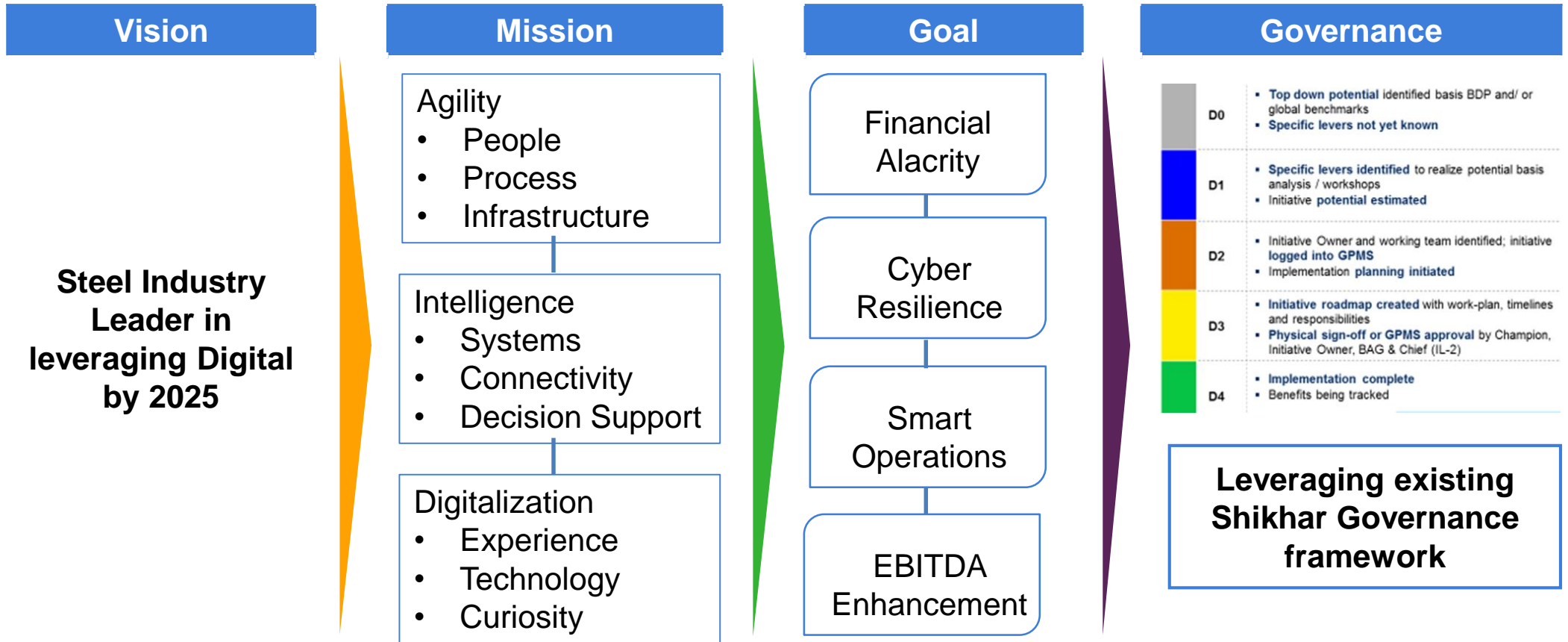
B. Focusing capital for long term value

C. Tata Steel India: Marketing and Sales

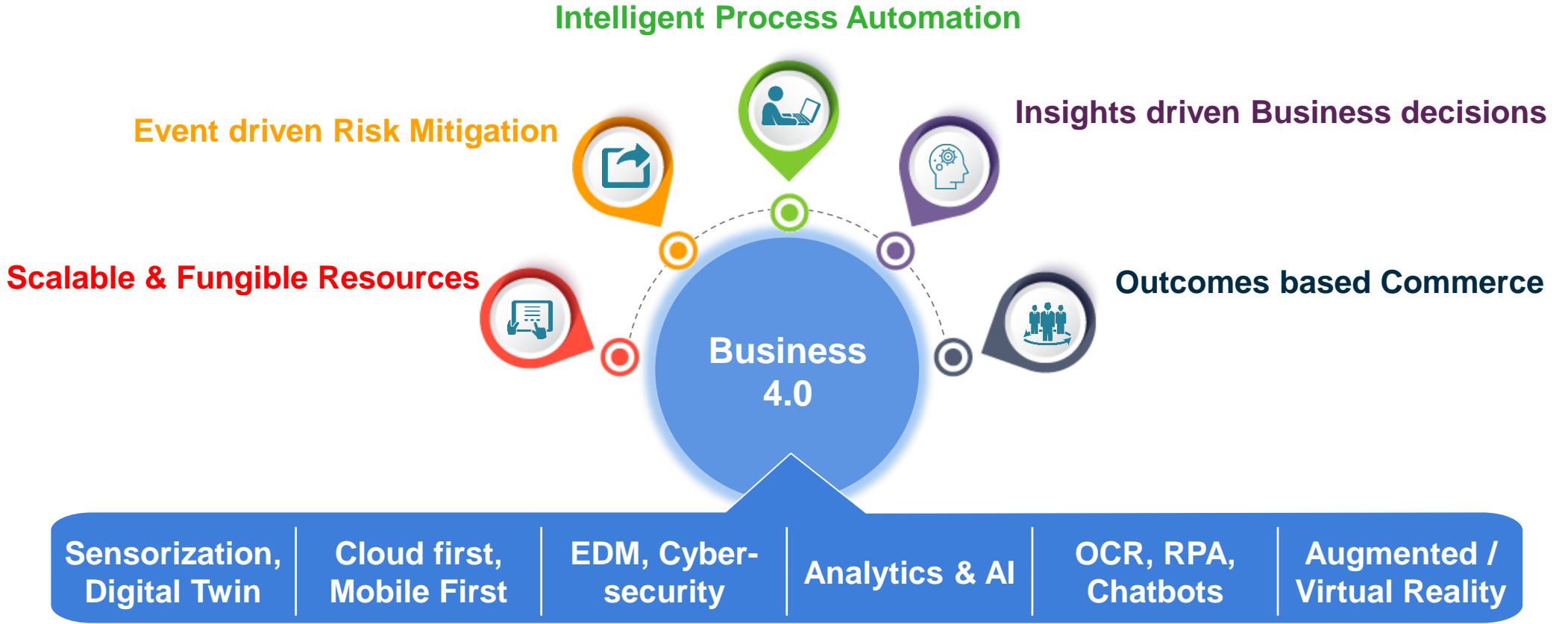
D. Tata Steel Kalinganagar: A significant milestone

E. Bhushan Steel: The first 6 months

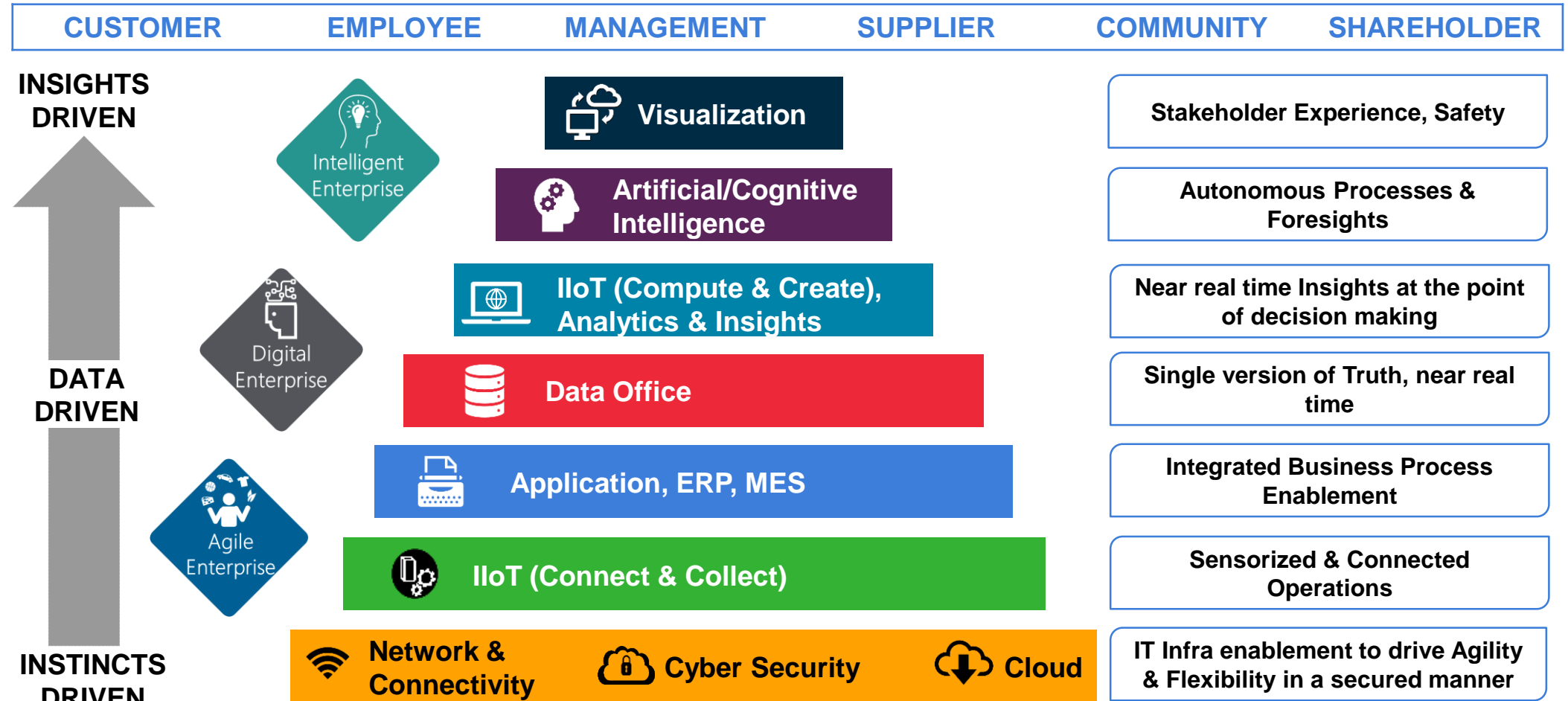
**F. Our Digital Journey**



# What the best in class Business 4.0 might look like when enabled by Technology



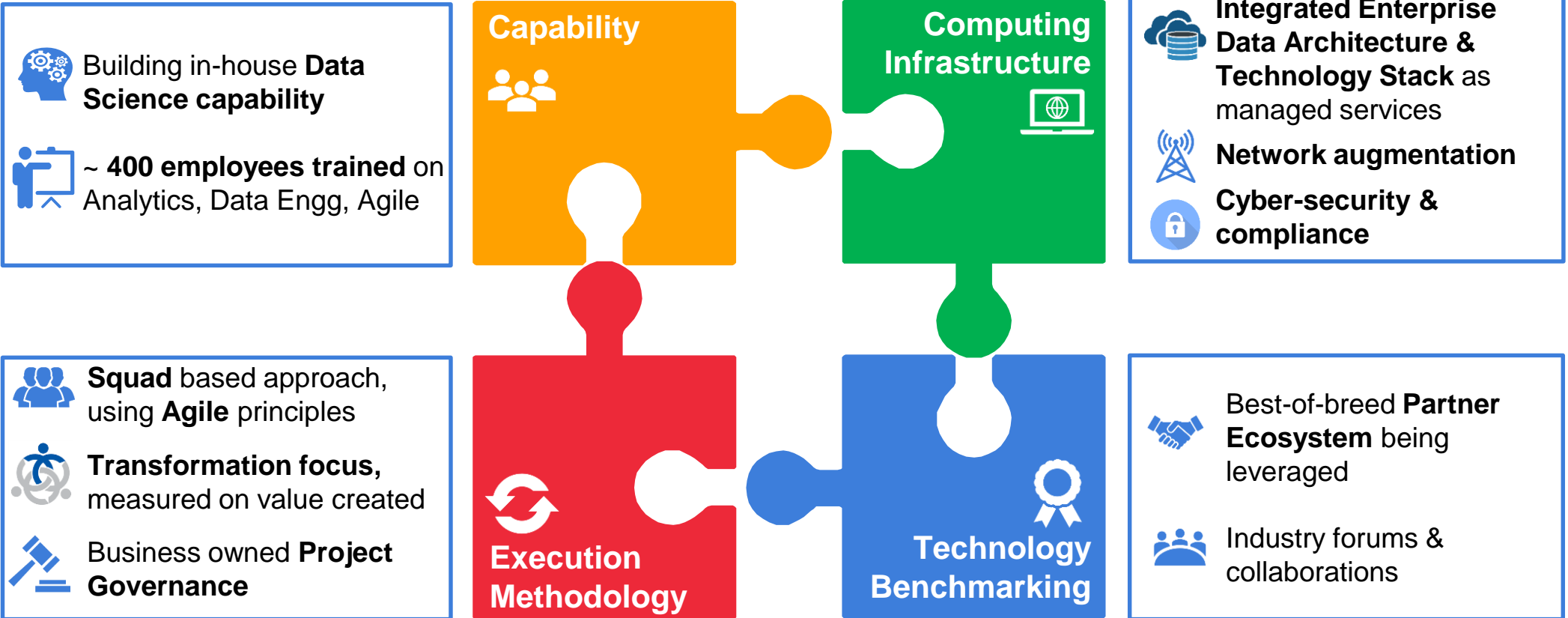
# IT & Digital strategy design principles for enhanced stakeholder experience



IIoT: Industrial Internet of Things; MES: Manufacturing Execution System; ERP: Enterprise Resource Planning



# Components put in place for rapid scale-up of Business Transformation



# Key Initiatives in motion to study & enable exploitation of large spend bases, revenue pools over next 30 months

...driving Cost Reduction, Increased Productivity & Agility, Enhanced Stakeholder Experience and Reduced Time-to-Market

## Key Initiatives

Maintenance Technology Roadmap

Energy Management

Customer facing Digital Platforms

Integrated Supply Chain  
 Integrated Logistics (Inbound, Outbound)

Procurement 4.0

## KPIs Impacted

Availability, Reliability

Cost

Customer Experience, Cycle Time, Revenue

Cost, On Time in Full

Cost, Cycle Time

## Desired Outcome

Predictive Asset Maintenance, Smart operations

Greener, sustainable operations at reduced cost

Improved customer experience, Enhanced revenue

Lower cost to serve, Smart operations

Agile & responsive procurement process



### Investor enquiries :

Sandep Agrawal

Tel: +91 22 6665 0530

Email: [Sandep.agrawal@tatasteel.com](mailto:Sandep.agrawal@tatasteel.com)