ArcelorMittal South Africa

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30 April 2024

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Believe in zero

The South African steel industry – a birds eye view and challenges and opportunities facing the SA steel industry.

Presenter: Franck Wandji, Executive: Group Marketing, Africa at ArcelorMittal

Chapter 1: Global Steel dynamic

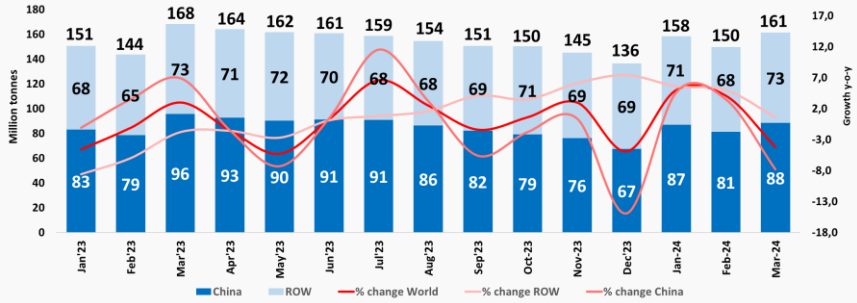
- How much Steel is produced globally?
- How much Steel is consumed globally?
- What drives Steel demand & supply globally?

How much Steel is produced globally?

Global crude Steel production stagnant at ca. 1.89 billion tonnes in 2023, with 54% supplied from China

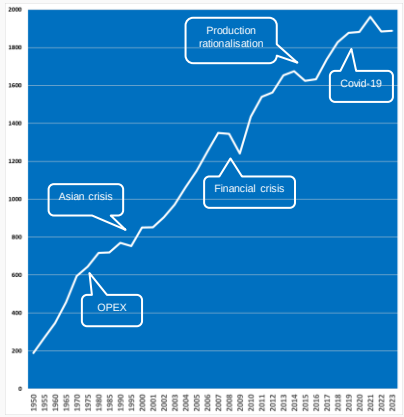
- **From 1950-2022** global crude Steel outputs grew by ca. 10 times, from **189mt to 1,888mt**
- **In 2023**, production remained **stagnant at 1,888mt**
  - **China** at same production level of 2022, at 1,019mt, with very limited impacts from WTO & global trade measures
  - China's capacity into export destinations e.g. Zimbabwe
  - **India** produced 140mt, up 12% Y-o-Y
  - **Europe** at 168mt, down 7% Y-o-Y, impacted by the energy crisis, Russia-Ukraine war and furnace closures
  - **Russia** produced 76mt, up 6% Y-o-Y. Despite sanctions, EU still imported c.a. 5mt of Russian steel
  - **Africa** produced 22mt, up 5% Y-oY; with Egypt at 10mt (+5%) and South Africa at 4.9mt (+11%)
  - Top 5 producers (1-5) include China Baowu, **ArcelorMittal**, Ansteel, Nippon Steel and Shagang
- **Q1'24** est. production outputs at **469mt, ca. ~1% Y-o-Y**

Global crude Steel production, Jan'23 - Mar'24, million tonnes



World Steel Association, crude steel production, April'24

Crude Steel 1950-2023, million tonnes



World Steel Association, Steel in figures, 2023

Top Steel production countries , million tonnes

		2 022	2 023	22/23 (%)
1	China	1 019	1 019	-
2	India	125	140	12
3	Japan	89	87	-3
4	USA	81	81	0
5	Russia*	72	76	6
6	South Korea	66	67	1
7	Germany	37	35	-4
8	Turkiye	35	34	-4
9	Brazil	34	32	-7
10	Iran	31	31	2
32	South Africa	4	5	11
	World	1 888	1 888	-

World Steel Association, Steel in figures, 2023

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How much Steel is consumed globally?

Apparent Steel consumption at ca. 1.76 billion tonnes in 2023, projected to grow by 3% towards 2025

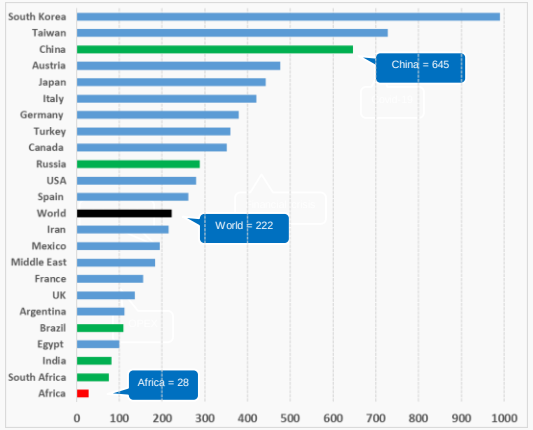
- Expected demand up **by 1.7% in 2024 and 1.2% in 2025**
  - Demand in China expected at 2022 level (~896mt), driven by lower real estate offset with infrastructure and manufacturing
  - India's infrastructure stimulus to push demand by 8%+, with 23mt upsides between 2023 (133mt) and '25 (156mt)
  - MENA, ASEAN and Africa are expected to see growth following 2022 slowdown in ASEAN region
  - US & EU expected to rebound after significant headwinds due to geopolitical shifts, inflation, fiscal reforms and energy costs surge
- **Sectorial demand** likely pushed by Climate change
  - 2023 decline in housing activity in the US, China, Japan & EU, due to interest & costs and lagged monetary policies. Weakened manufacturing due to high cost & uncertainty
  - Expected investment peak in manufacturing facilities, public infrastructure and Auto driven green transition
- Potential for **African Steel intensity** (28) vs World (222)

Global Steel demand forecast, 2023-25, million tonnes

	E2023	F2024	F2025	22/23 (%)	23/24 (%)	24/25 (%)
EU	137	141	148	-10	3	5
Other Europe	44	48	46	14	8	-4
CIS	56	58	59	9	4	1
USMCA	132	134	136	-1	1	2
Central & South America	46	45	47	1	-1	3
Africa	35	37	38	-2	5	4
Middle East	55	57	59	-0	4	3
Asia & Oceania	1 259	1 273	1 282	-1	1	1
World	**1 763**	**1 793**	**1 815**	-1	2	1

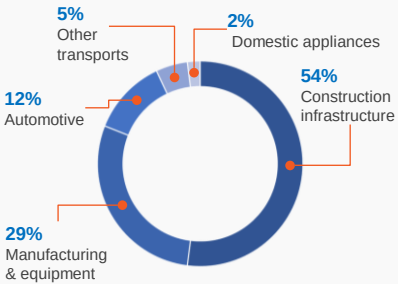
World Steel Association SRO, April'24

Steel consumption per capita, 2022, in FY kg/capita



World Steel Association, 2023 Steel stats, 2023

Steel consumption distribution per sectors, 2022



World Steel Association, AMSA est., 2023

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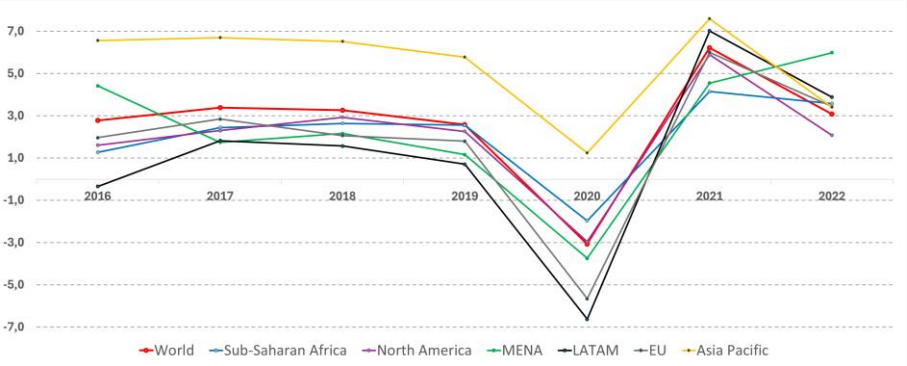
What drives Steel demand & supply globally?

Economic growth & infrastructure spending, China's demand, raw material costs and steel prices

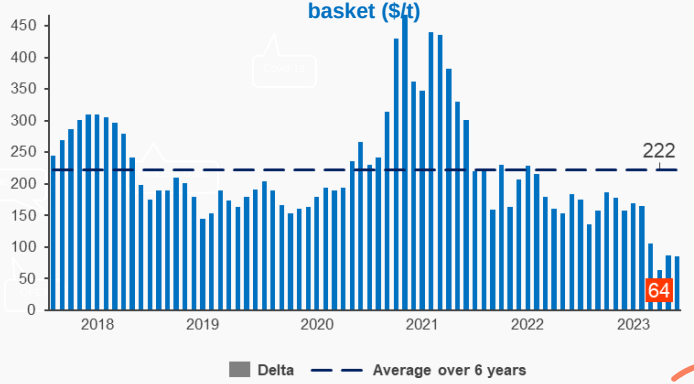
- **Slow albeit resilient economy**, facing the lingering impacts from Covid-19 & Russia-Ukraine war, high inflation, interest rates & costs, geopolitical tension and trade polarisation, monetary tightening
- **China's economy** grew by 5,2% in 2023, however
  - Concerning growth momentum due to weaker property demand, sluggish confidence and weak global growth
  - China exports up 35% - near levels seen during 2014-16
- **Global overcapacity** underpinned through 1.88bt crude steel output (ca. 1,83bt finished) vs. 1.76bt consumed
- **Price-Cost squeeze** in 2023
  - International HRC & Rebar prices down by 15% in $ terms
  - International raw material basket down by 10% in $ terms incl. Coking coal (-19%), Iron ore (-2%), Scrap (-12%)
- Infrastructure and technological investment resulting from **Decarbonisation pressures**

Global GDP growth 2016 - 2022, %



World Bank, Development indicators, 2023

International spread, China HRC (Fob) vs International Raw material basket ($/t)



Fast markets, CRU, group benchmarks, 2023

Chapter 2: How is Steel made?

- What is Steel?
- How is Steel made?
- Why is Steel important?
- What are the benefits of Steel?

What is Steel?

An enriched alloy mix of iron and carbon with improved strength and fracture resistance

- Originates from the proto-germanic adjective **stahlią or stakhlijan** “made of steel” or Stahlią “standing firm”
- Steel is **an alloy of iron and carbon** content between 0.002% and 2.14%, with **improved strength and fracture resistance** vs. other forms of iron
- One of the **most commonly manufactured materials in the world,** used in major economic sectors and over 50 market segments

“Steel vs Metal” Although steel is made up of iron, which itself is a pure metal, steel and metal are not the same thing. Steel is an alloy, while metal is a naturally occurring chemical element e.g. iron, gold, platinum, copper and silver

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How is Steel made?

ArcelorMittal South Africa is the only primary Steel producer in SA

Two routes for producing Steel (**Making steel | ArcelorMittal**)

- **Primary steel making** route delivers **“prime” or pure Steel**, produced from iron with rigorous inspection and **compliance to stringent international standards** e.g. in safety critical and highly specialised steels for Auto, Mining, Civils etc. 70% of global steel is produced using the BF-BOF route
- **Secondary steel making** route delivers Steel out of used or surplus. It is the process of making Steel from remelted scrap cast ingots. It is a less refined process, that can generate impurities, with limited end-use application

ArcelorMittal South Africa is the only primary Steel producer in SA, which help the Country achieving higher international standards, enabling large end-use industry and infrastructure to happen locally

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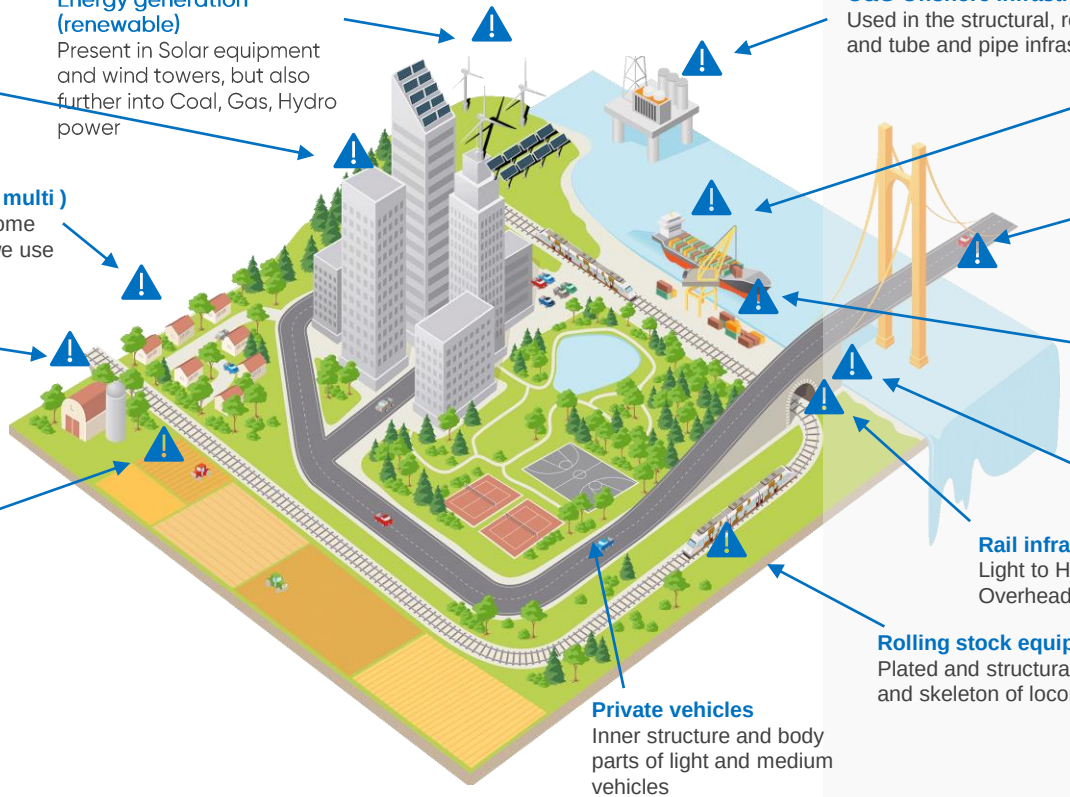
Why is Steel important?

Steel is the "fabric of life" and the most used material in the world. It provenly enables industrialisation, infrastructure, economic expansion and job creation. Average South African uses ca. 25g steel per day



Multi storey buildings
Present in the envelop and structure of these buildings

Energy generation (renewable)
Present in Solar equipment and wind towers, but also further into Coal, Gas, Hydro power

O&G Offshore infrastructure
Used in the structural, reinforcing and tube and pipe infrastructure

Containers & Ship buildings
Used in the fabrication of ship bodies and internal components

Residential buildings (single, multi)
Present in the envelop of our home and any furniture & appliance we use

Roads and Bridges
Present in the reinforcing and structural shapes of steel / concrete bridge, roads and safety barriers; but also signalling / sign boards

Chemical & water
Used in the manufacturing of chemical and water storage and conveyance infrastructure and equipment

Port & Jetties infrastructure and equipment
Use reinforced concrete decks and surrounding infrastructure, structurals for equipment

Tunnels & Dams construction
Reinforcing Steel

For Agriculture and industrial vehicles
Be it for agriculture, EME Mining, trucking etc. Steel is the solution for the manufacturing these vehicles and sector equipment

Rail infrastructure
Light to Heavy gauge rails, clips, fasteners. Overhead infrastructure

Rolling stock equipment
Plated and structural welded steels for envelope and skeleton of locomotives, bogies, wagons

Private vehicles
Inner structure and body parts of light and medium vehicles

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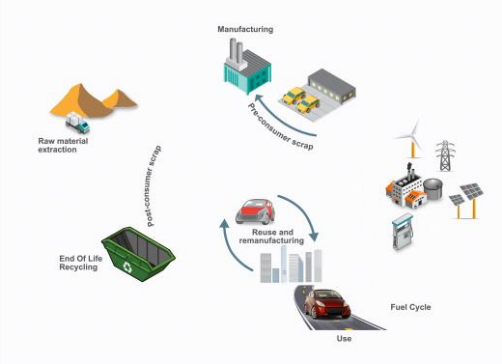
What are the benefits of Steel?

Steel eliminates design boundaries and is the infinite most recycled material on earth

- Infinitely recyclable material
- Quality
- Flexibility, push design beyond traditional boundaries
- Safety
- Effectiveness



Exposition building in Italy, Constructalia

Controversially, primary Steel production is a contributor to CO2 emission, but also the answer to addressing technological shifts and greener infrastructure

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Chapter 3: South African Steel industry

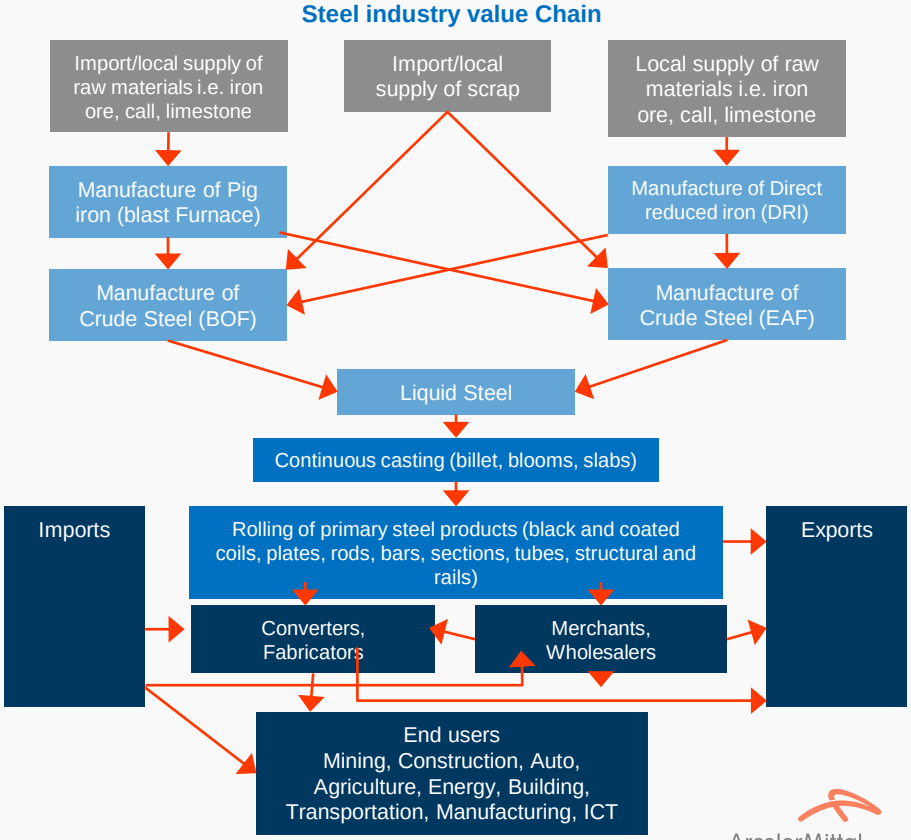
- Why is SA called an integrated Steel industry?
- Primary steel production mapping
- Market demand and supply dynamic
- Challenges and opportunities
- Some iconic achievements
- Case study

Why is SA called an integrated Steel industry?

SA's value span from raw material sourcing to finished products supplies, with world-class standards

Strengths and advantages of the industry

- **140+ years** of existence and experience in the domestic and international markets
- **Core raw materials** i.e. iron ore, scrap available locally
- **4 spheres of steel value chain** i.e. raw material, iron & steel making, primary steel rolling, finished product fabrication and supply; with technological equipment recognised internationally
- In-country **primary Steel making** enable supplies into stringent industries & end-use product applications, to international standards
- **Skilled workforce,** production & industry knowledge
- **Access to logistic** (rail, road, ports) and energy infrastructure



Who owns whom, manufacture & wholesales of basic iron and steel in SA, May 2022

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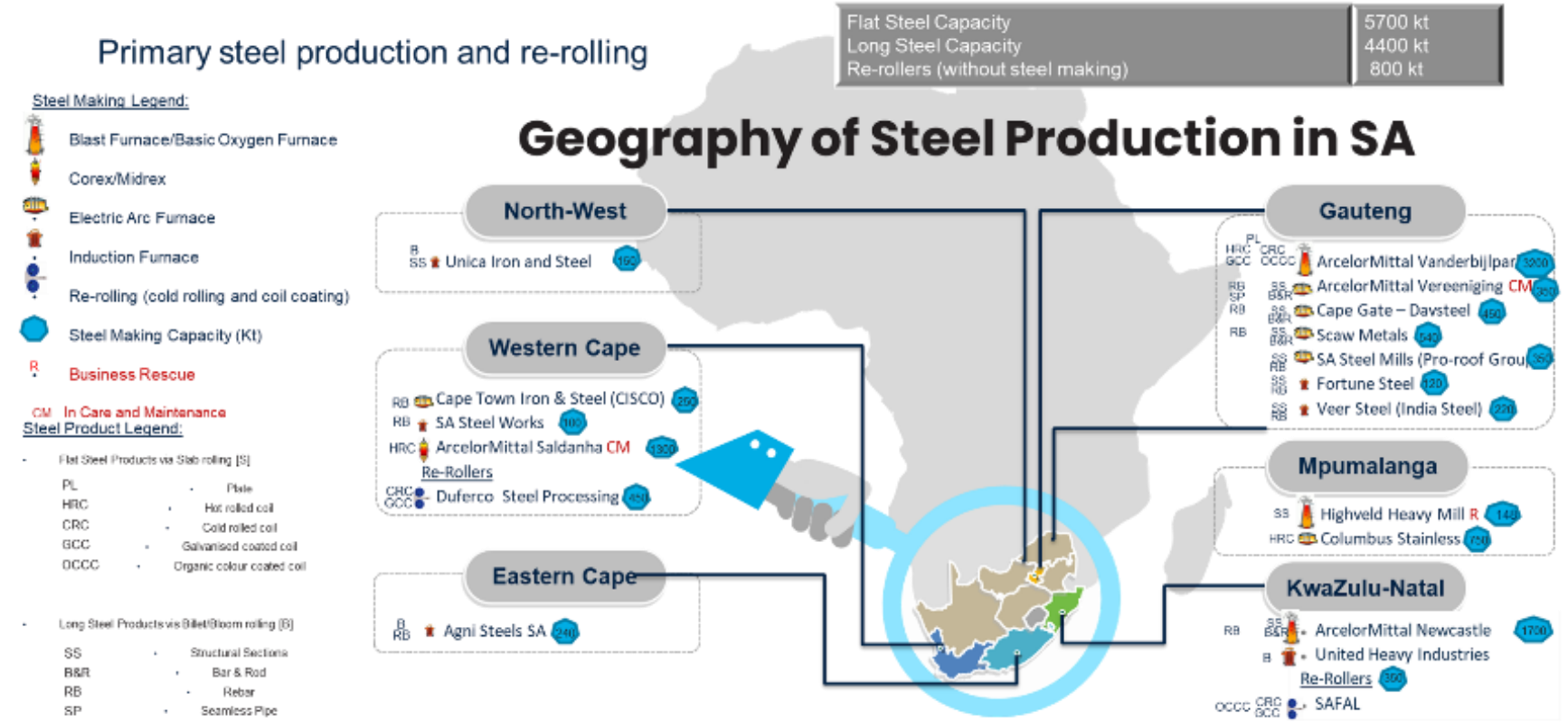
SA primary Steel producers

About 16 sites, with installed crude steel capacity of ca. 10 million tonnes. 2 large re-rollers



Steel manufacturing in South Africa, CDResearch, 2022

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SA Steel demand and supply dynamic

Apparent Steel consumption at ca. 4mt in 2023, expected stagnant in 2024. Domestic capacity at 10mt

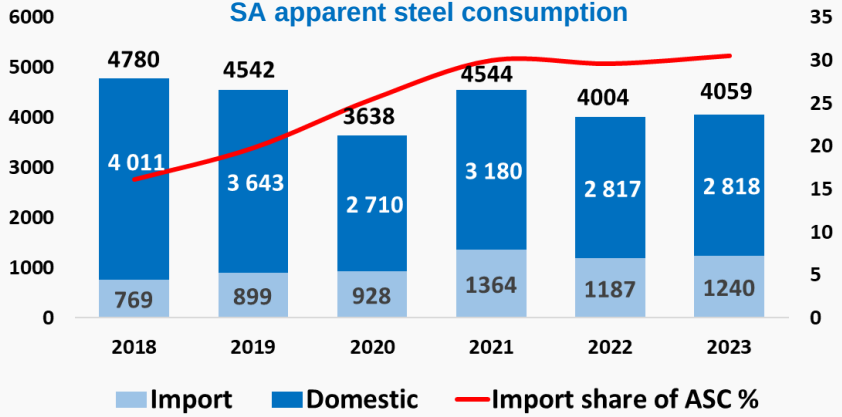
- **GDP growth** at 0.9% in 2024 and ca 1.5% up to 2027, be driven by auto, appliance, machinery & packaging
- **Export opportunities** in SADC (3.6%) & SSA (3%)
- **Infrastructure demand expected from 2Y capex spread** (2021-22) and 2-3% uplift basis load-shedding ending. Energy, Transport & Water may be 55-70%
- **Apparent Steel Consumption** marginal increase 22-23 at 4.06mt, however possibly stagnant in 2024
- **In absence of trade remedies, Steel imports** up by 4.6% to 1.2mt (most China & EU), 30% share of ASC
- **Excessive domestic overcapacity** at 10mt, for ca. 4.4mt supplies in 2023 (2.8mt domestic + 1.5mt exports). Further 2mt capacity being installed in SADC
- **Persisting cost and price** pressure & margins squeeze, limiting SA's abilities to address future green transition

SA key indicators

	2 023	2 024	2 025	2 026	2 027
GDP	0,6	0,9	1,3	1,4	1,5
CPI	5,9	5,1	4,8	4,7	4,6
PPI	6,8	5,1	4,7	4,7	4,7
GFI	4,3	3,2	3,1	3,9	4,3
FX ZAR / USD	18,5	18,4	18,5	19,3	20,0

Econometrix, Macro forecast, Q2 2024

SA apparent steel consumption



SARS, SAISI, ArcelorMittal South Africa estimates, Q1 2024

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Challenges and opportunities of the industry

Industry challenges and opportunities can be categorised into demand, profitability and investment

Challenges

Demand and revenue

- Weaker **domestic economic growth & delayed infrastructure roll-out;** and associated pressure on production, inventories and prices
- Weaker **global growth** and overcapacity resulting in excessive exports and price pressures
- **Gaps in regulatory environment** towards localisation i.e. trade policies, response to CBAM, public procurement act
- **Domestic** supply/demand imbalance resulted from overcapacity built

Profitability

- **Increasing costs of doing business** i.e. raw materials, electricity, logistics & labour as threats to industry vs. China
- **Margins squeeze** to "pockets of growth" and "areas of scarcity“
- **Regulations** resulting in artificial competitive imbalance

Investment and job creation to cope with Industry transition

- **Disadvantaged** in the international industry shift to decarbonisation and associated CAPEX (gap in funding & decarb. regulations)
- **Limited CAPEX ability** towards next Gen. products e.g. high-performance steels, electrical steels and wide plates for wind towers
- **Jobs and skills losses** e.g. declined from 31k in 2016 to ~20k in 2022

Opportunities

Demand and revenue

- **Import replacement**; ca 46% of imported products are not manufactured locally. However requires intensive CAPEX and product development enablement
- **Energy transition** likely results in intensified demand for renewable energy and transmission infrastructure
- **Rail transport and Water** infrastructure needs revamp / renewal
- SA positioning as **global hub for Auto manufacturing** open-up Steel demand opportunities
- **AFCFTA launch** may enable greater access to regional export markets

Profitability

- **SOEs showing more attention** to the industry challenges

Investment and job creation to cope with Industry transition

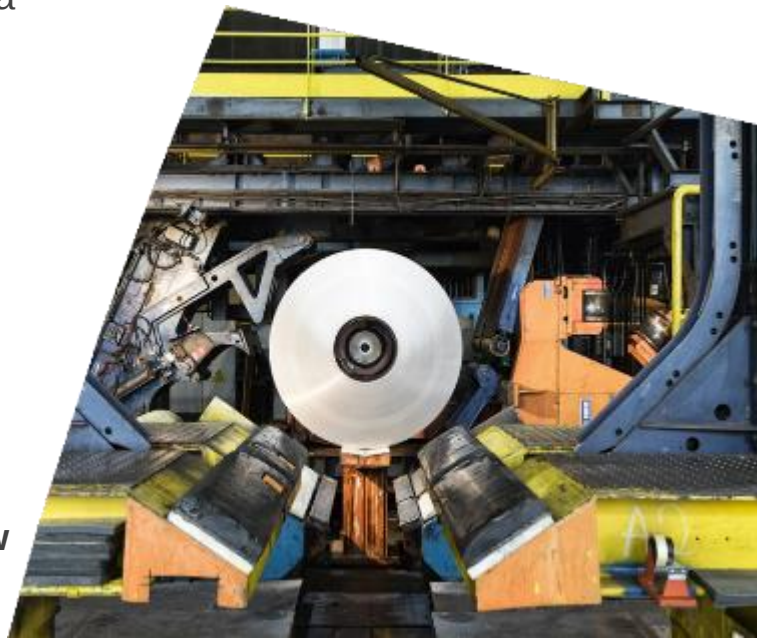
- SA well positioned to partake in the **global shift to decarbonisation** as ArcelorMittal South Africa receives the BRICS decarbonisation awards
- Global engineering and design powerhouse show **appetite for more quality and high-performance Steels**
- The **4th industrialisation era** looks promising towards the development of new skills in the industry

Chapter 4: ArcelorMittal South Africa

- Our Group
- Our strategic focus
- Our values
- Our value creation model
- Our footprint
- Our products and industries (Flat & Long products)
- Case studies
- Iconic projects

Our Group

- **ArcelorMittal South Africa has 100 years** of experience
- Largest steel producer in **sub-Saharan Africa**
- **6 production parks and mines** across 5 provinces in South Africa
- Installed crude steel capacity exceeding **5 million tonnes**
- Local employment base of about **10 000 people**
- Produce the broad spectrum of **primary flat and long steel products**, in a wide variety of grades and dimensions and with compliance to international specifications
- Products are used across over **27 market segments,** predominantly in the African region but also in USA, Middle East and Asia
- **Regional leader** in all major markets including Automotive, Construction, household appliance and packaging
- **Technological edge**, as well as sizeable **captive supplies of raw materials** and **distribution networks**
- **Access to world-class R&D**, **industry best practices**, procurement contracts and international market leverage



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Our strategic focus

Our strategy is to become the champion of:

- innovative
- export-driven
- steel-based

industrialisation in South Africa, for Sub-Saharan Africa and other key regions

This requires a shift of focus:

- towards localisation and import replacement; and
- from local to export markets

by investing in technologies to produce specialised products and building an adequately competitive supply chain in South Africa

The focus sectors for local production for export are:

- Automotive
- Renewable energy and gas
- Mining
- Rail
- Construction & infrastructure

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Our values

Success starts with training, empowering and keeping all our employees **safe**

Local leadership through visionary thinking and willingness to challenge the status quo and be open to doing things differently

Sustainability through our strive and actions to remaining competitive in the world of tomorrow

Quality is essential to our competitive edge

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Our value creation model

Inputs

Financial capital	2023	2022
Equity	R7 799m	R11 675m
Borrowings	R6 700m	R6 200m

Manufactured capital	2023	2022
Non-current assets (PPE)	R7 974m	R9 570m
Current assets (inventories)	R12 441m	R11 973m

Natural capital	2023	2022
Iron ore consumed	4 245 kt	3 574 kt
Coal consumed	2 562 kt	2 275 kt
Electricity purchased	1.61 TWh	1.69 TWh

Our working business model

At large, capital-intensive plants, we transform iron ore and scrap into primary steel products for beneficiation by large and diverse domestic and export markets

As sub-Saharan Africa's only primary steel producer, our company is closely integrated into the economic and social fabric of South Africa while our products and our procurement of goods and services have far-reaching consequences. Our business model and our execution of strategy require us to demonstrate that we are creating meaningful value not only for investors but for multiple stakeholders.

We have four types of products: flat steel, long steel, coke and enriched products (by-products)

Outputs

Financial capital	2023	2022
Revenue	R41 637m	R40 771m
EBITDA before impairment	R56m	R4 270m
(Loss)/profit from operations	(R2 937m)	R3 499m

Manufactured capital	2023	2022
Steel products sold	2 412 kt	2 160 kt
Domestic market	1 898 kt	1 872 kt
Export market	514 kt	288 kt

Natural capital	2023	2022
Total greenhouse gas (CO_2 equivalent Scope 1 and Scope 2)	9.52 Mt	8.35 Mt
Sulphur dioxides (SO_2)	8 197 t	3 925 t
By-products generated	1.88 Mt	2.18 Mt

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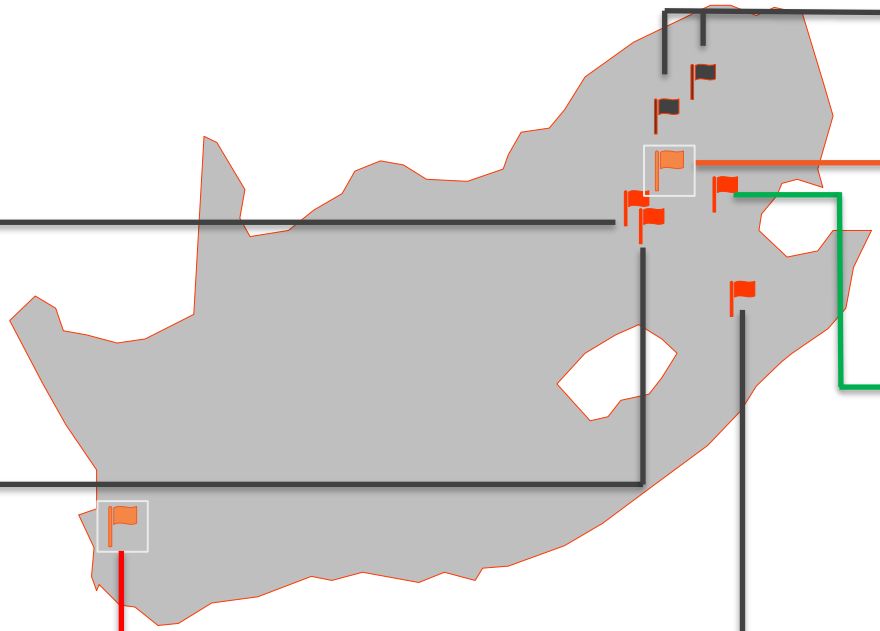
Our footprint



Vanderbijlpark Works
- 2 blast furnaces; 3 basic oxygen furnaces
- Slabs, plates, hot-rolled, cold-rolled, electrogalvanized, colour coated
- 3.2 mtpa+ crude steel capacity

Vereeniging Works
- Electric arc furnace
- Long Steel operation focusing on speciality steel products
- Seamless tube mill
- ~0.5 mtpa capacity

Saldanha Works
- Corex, Midrex continuous process
- Hot rolled coil
- **On care and maintenance**

Commercial coke & by-products
- Pretoria, Newcastle & Vanderbijlpark
- Commercial coke production for ferro-alloy industry; metallurgical and steel by-products beneficiation, including coal tar

Mining activities (excl. ROA)

Pretoria Works
- Small section mill
- Focus on smaller long steel profiles for the windows and fencing industries
- **On care and maintenance**

ArcelorMittal Rail and Structures
- Heavy section rolling mill
- Focus on universal column and beams and heavy gauge mainline rail

Newcastle Works
- 1 blast furnace; 1 ladle furnace;
- 2 basic oxygen furnaces
- Wire rod, Profiles, Billet rebar, & other
- 1.8 mtpa crude steel capacity

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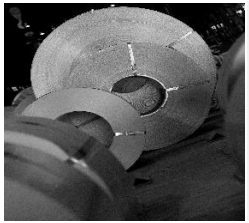
Our Flat Steel products

Hot rolled plate manufactured in a wide range of sizes for applications in several industries including manufacturing of heavy engineering equipment, wind towers, coal, nuclear & gas power, rail rolling stock, yellow goods and mining



Hot rolled Coil is a rolling of steel at high temperature where recrystallisation occurs. Pickled & Oil is descaled of oxide film by mechanical & chemical methods and oiled to prevent corrosion. Used in Auto, Tube & pipe, general industry, containers, cylinders, trailers, tanks, rolling stock, racking & shelving, Solar trackers, SA mint Coins etc.

Cold rolled Coil produced by processing hot rolled strip through a cold rolling process, followed by annealing and/or temper rolling. Rolled in thinner gauges, closer dimensional tolerances and wider range of uncoated surface finishes. Typically used for Automotive, household appliances, furnitures, Power stations equipment etc.

Galvanised is produced by applying a protective zinc coating to steel to prevent rusting. **Electrogalvanised** coils consists of cold rolled steel substrate coated with zinc by electrolytic deposition on a continuous line. Typically used for Auto, light steel frame, roofing-cladding, tubing, racking & shelving, purlins, general industries, Solar trackers, other electrogalvanised applications

Colour coated Coil **Chromadek® and ULTIM®** are produced with a Zinc coating with a top and backing paint coat available in various colours. Typically used for roof sheeting, cladding, insulated Panels for cool rooms, ceiling strips, garage doors and is suitable for roof mounted Solar PV panels

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Flat Steel core market segments

Automotive

Roofing & Cladding

Insulated panels

Tubing

Fabrication

Appliances

Racking & shelving

Large bore

Mining

Truck & trailers

Solar

Wind

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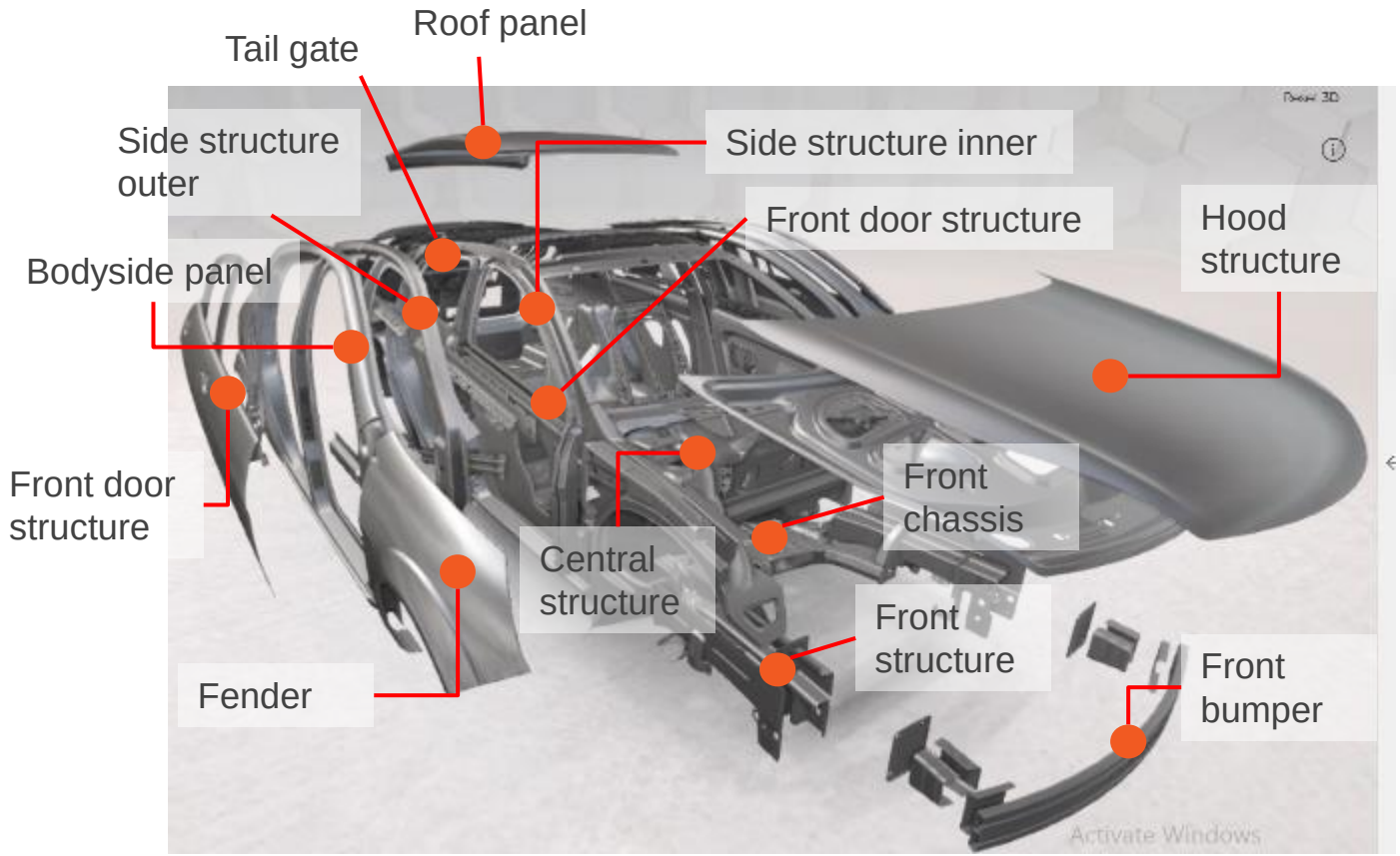
Application example: Automotive



- Universal avg. of **900kg steel product in a car**
  - 40% in body structure, panels, doors and trunk structure
  - 23% in the drive train
  - 12% in suspensions
  - Balance in wheels, tyres, tank, break-systems
- Cost of primary Steel ex-mill is minimal in the overall cost of vehicle
- SA is considered globally competitive for the Auto industry

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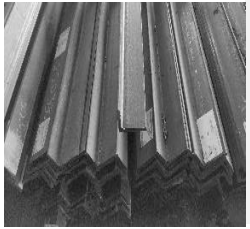
Our Long Steel products (1/2)

Structural I & H sections are crucial components in the construction industry, particularly for large-scale buildings and heavy infrastructure. Their superior load-bearing capacity and structural efficiency make them a preferred choice for that require high strength and stability



Structural angles & channels are widely used in various industrial applications due to their strength, versatility, and load-bearing capabilities. Typically used in infrastructure construction, machinery fabrication, support structures, transmission towers, heavy duty vehicles, mining equipment

Structural beams & columns are used in various applications; known for superior load-bearing capacity. Typically used in the construction industry, fabrication, steel structures such as commercial buildings and warehouses

Hollow bar is an hexagon or round bar with a hole insert in the centre of the bar. Includes round hollow, lined / unlined hexagon, unlined case hardening hollow deformed bars; used in the mining industry as hollow drill bit

Round bars are used for general engineering and rods for grinding mills, bolt and nut industry, chains, auto etc.

Forge and engineering bars are used for engineering, armaments, safety critical applications, rolling stock etc. Engineering bars are used in smelter industry

Square bars (sharp cornered and round cornered square bars) are used for structural welded shapes

Flat bars (rectangular section with square or round corner edges in varying sizes) are used in construction, engineering, manufacturing, mining & fabrication sectors

Special profiles are used in the mining, construction, agricultural implements. rail and road networks and civil engineering industries

Mining bar is a round with deformations designed for adhesion properties when resins and epoxies are applied to it in underground mining. Supplied as micro alloy based and allows ease of threading the bar without impacting on the mechanical properties of the bar. Used for mine roof bolt in mining and geotechnical industries

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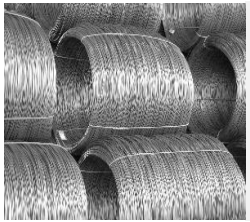
Our Long Steel products (2/2)

Reinforcing bar is is produced for the reinforcement of concrete in two forms: mild steel plain and deformed high strength. Typically used for reinforcement of concrete structures, manufacture of anchor bolts, etc. Can be smooth or deformed.



Wire rod is a long, thin, and cylindrical product with a circular cross-section. Serves as primary raw material for wire and wire products for pre-stressing concrete, Galvanised strand for cables, welding rods, barbed & fence wire, mattress & seats springs, garage springs, oven racks, braai roosters, shopping trolleys, steel wool etc.

Rail: hot rolled rail produced out of blooms and degassed blooms for end use on commercial mining and siding lines, general freight and passenger mainline and crane rail. Range from 15kg/m – 30kg/m in Newcastlle and 40kg/m to 57kg/m in Highveld. AMSA is the sole producer of mainline rail in SSA

Seamless tubes are a metal tube or pipe that is produced without any welding or joining seams along its length. Hot finished seamless line pipe is used for the conveyance of water, gaseous and liquid hydrocarbons in the oil and gas industry. Cold-drawn seamless tube are used for automotive, power generation plants and drilling operations

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Long Steel core market segments

Agri implements

Auto components

Bright bars

Engineering

Fasteners

Industrial fabrication

Light fabrication

Mine roof bolts

Mining consumables

Rail lines

Grid Transmission

Boiler tubes

Smelters

Reinforcing

Wire drawing

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Application example: Transmission line

ESKOM TDP 2023-32 mix (in interim of IRP)

- **14,218kms** of targeted transmission lines of which 45% 765kV / 54% 400kV / 1% 275kV
- 20% of the lines **(2,893kms) in 2023-27** and the balance 80% of the lines **(11,325kms) in 2028-32**
- Above means that 2023-27 should experience **+98% increase in lines installation** vs. previous 5y (2018-22); and further +290% jump in the following 5y 2028-32
- Plan is **70% higher than TDP2021**, targeting +8400kms in the 10y cycle

Transmission Assets Nationally	New Assets expected 2023 - 2027	New Assets expected 2028 - 2032	Total New Assets: 2023 - 2032
Power lines (km)			
765 kV	200	6128	6328
400 kV	2679	5019	7698
275 kV	14	178	192
Total length (km)	2893	11325	14218
Transformers			
Number of units	60	110	170
Total capacity (MVA)	26970	78 865	105865
Capacitors			
Number of units	11	29	40
Total capacity (MVar)	560	2 140	2700
Reactors			
Number of units	6	46	52
Total capacity (MVar)	600	14 113	14713

Eskom TDP 2023-32

ESKOM's Steel demand own estimates

- **452kt from 2025 to 2032 (8y) for 13,740kms** targeted in that period
- This is c.a. 56kta or **~33t per km of installed tower**

Our estimates basis industry supply history

- About 44t of Steel products per km inclusive of
  - tower section & Bolt and nuts
  - ACSR cabling
  - Ground wire conductor
- **Close to 605kt could be required in the period 2025 to 2032**
- **Domestic supply history into Eskom transmission projects demonstrates that**
  - More than enough primary steel capacity to supply ESKOM demand. At peak in 2030 plan entails 2763kms / 121kt / 10ktm. Cumul rolling capacity in SA: 600kt heavy mills, 1.5mt Bar mills, 1.3mt rod mills
  - Long steel product demand falls within local ranges
  - LSP prices have been fairly competitive

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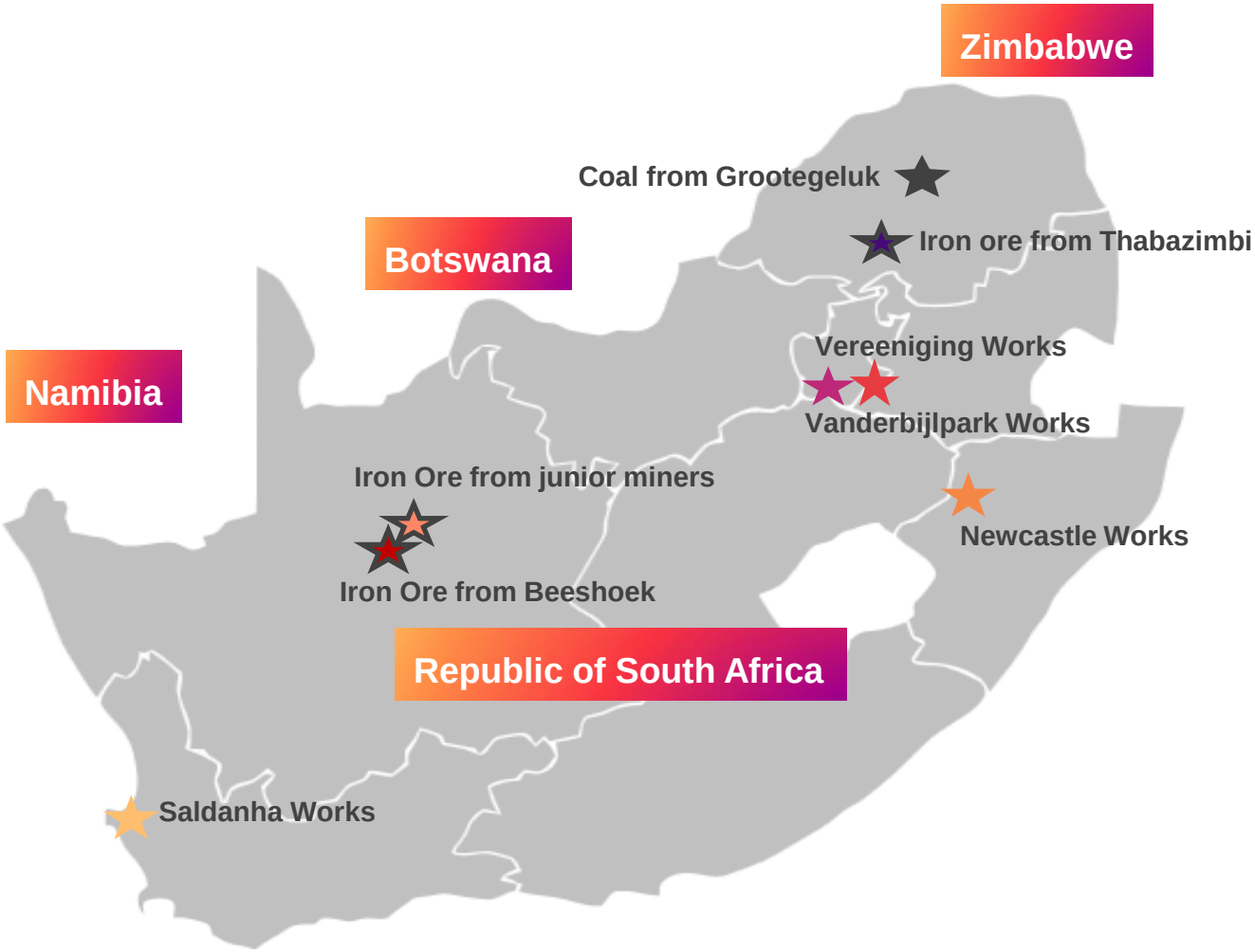
ArcelorMittal South Africa operations

Presenter: Jacques Kotze, Chief Operations Officer

Overview



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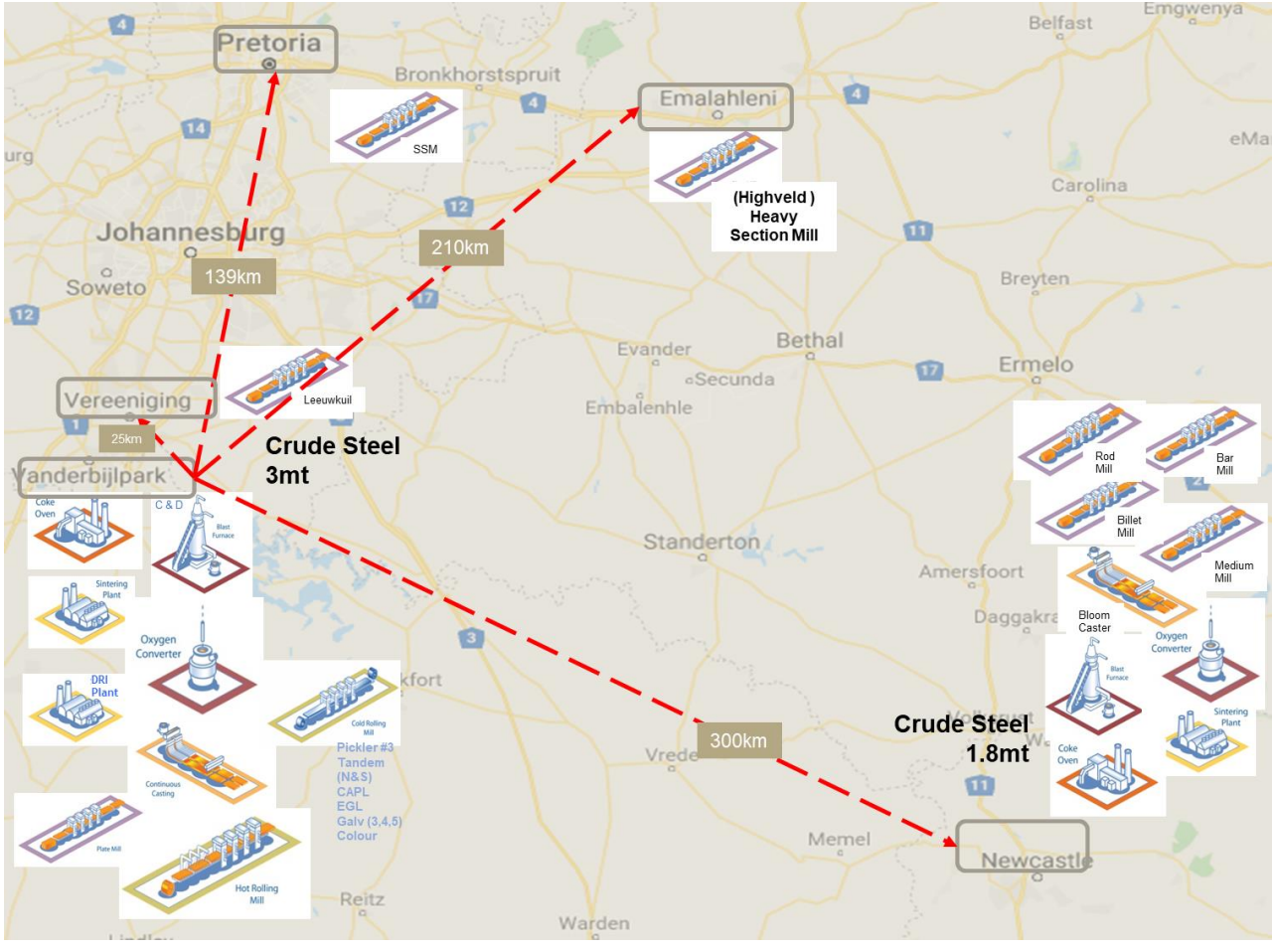
ArcelorMittal South Africa's footprint configuration



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Flat carbon steel - Vanderbijlpark Works

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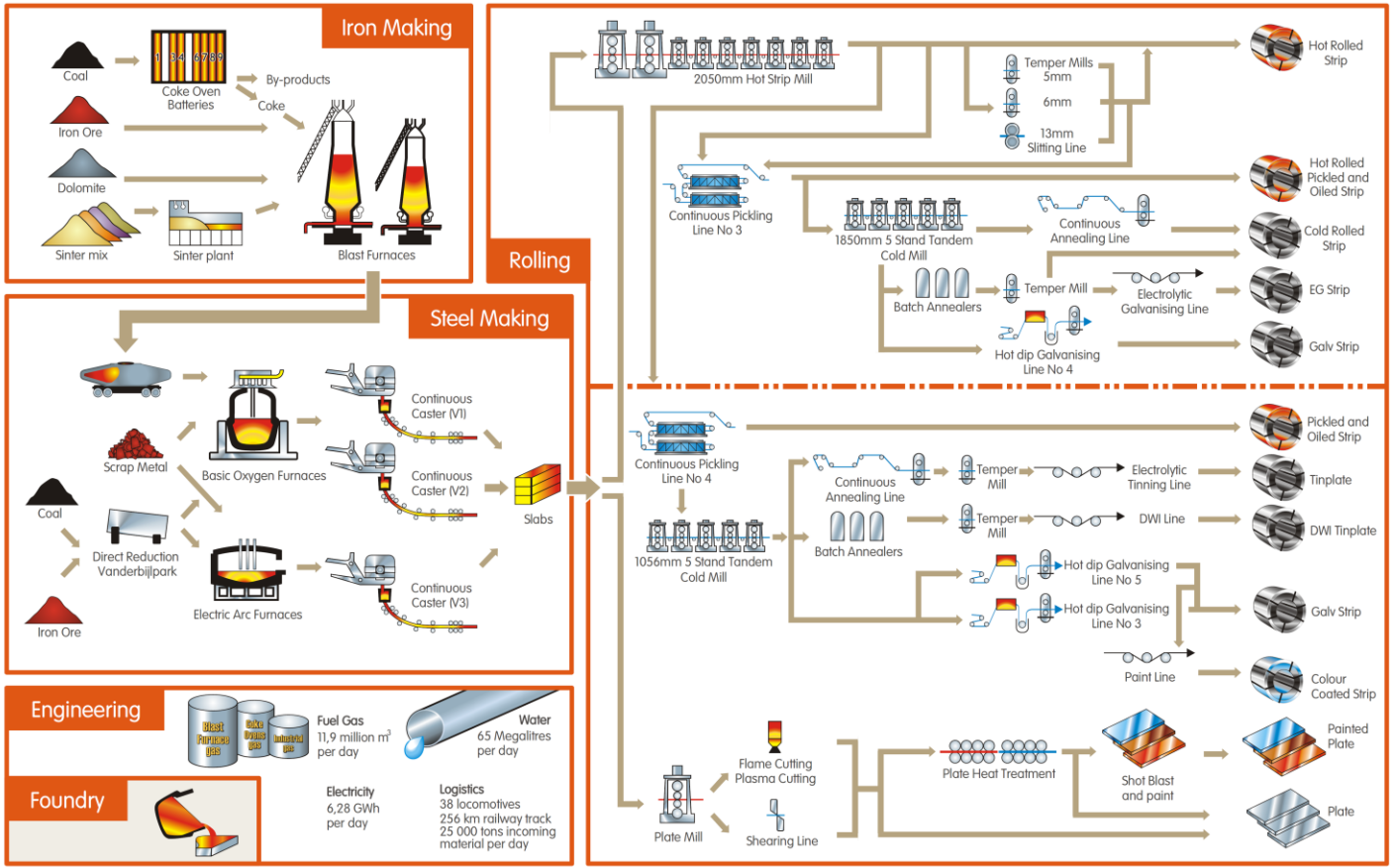
Vanderbijlpark Works: Process Configuration



Flat carbon steel - Vanderbijlpark Works

• Capacity Liquid steel per annum	2 950 000 tons
• Domestic percentage of total sales	±92%
• Export percentage sales (Export / AOL)	± 3% / ± 5%
• Manpower (Permanent / Hired / Contractors)	3507 / 233 / 1183 # avg / month
• Area of site	4652Ha
• Perimeter	33 km
• Rail networks	230 km and 31 locomotives
• Avg Daily electricity consumption	2.9 GW
• Avg Iron ore received	214 Ktons per month
• Avg Coal received	99 Ktons per month
• Avg Fresh water consumption	15.7 mega liters per day

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Long products steel - Newcastle Works

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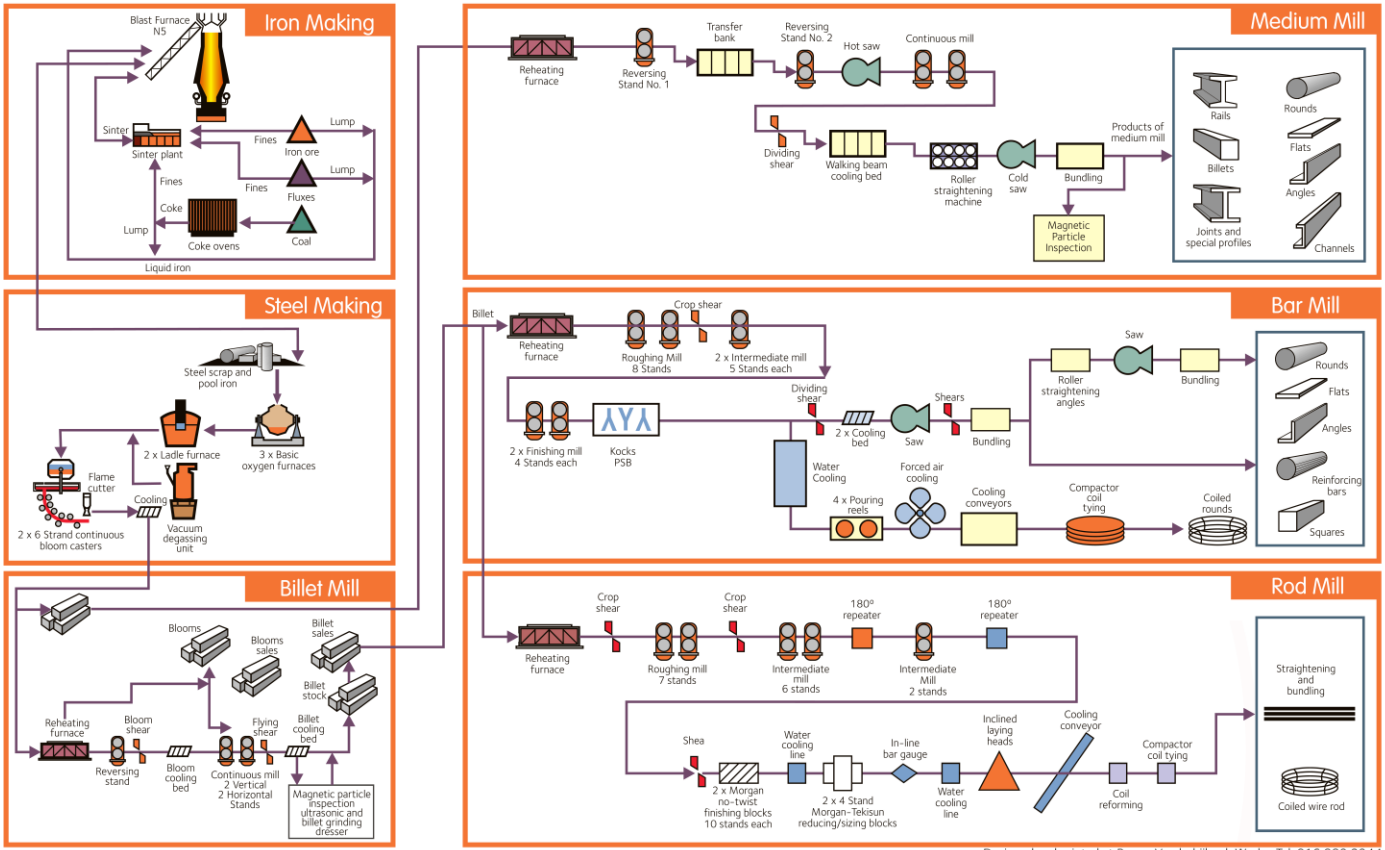
Newcastle Works: Process Configuration



Poster number PS.0183

Designed and printed at Repro, Vanderbijlpark Works, Tel. 016 889 2944

Long Products steel - Newcastle Works

• Capacity Liquid steel per annum	1 780 000 tons
• Domestic percentage of total sales	±78%
• Export percentage sales (Export / AOL)	± 13% / ± 9%
• Manpower (Permanent / Hired / Contractors)	1 694 / 185 / 860 # avg / month
• Area of site	5410Ha
• Perimeter	47 km
• Rail networks	90 km and 4 locomotives
• Avg Daily electricity consumption	1.1 GW
• Avg Iron ore received	104 686 tons per month
• Avg Coal received	99 Ktons per month
• Avg Fresh water consumption	15.7 mega liters per day

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Long products steel - Vereeniging Works

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Long products steel - Pretoria Works

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Gauteng Operations

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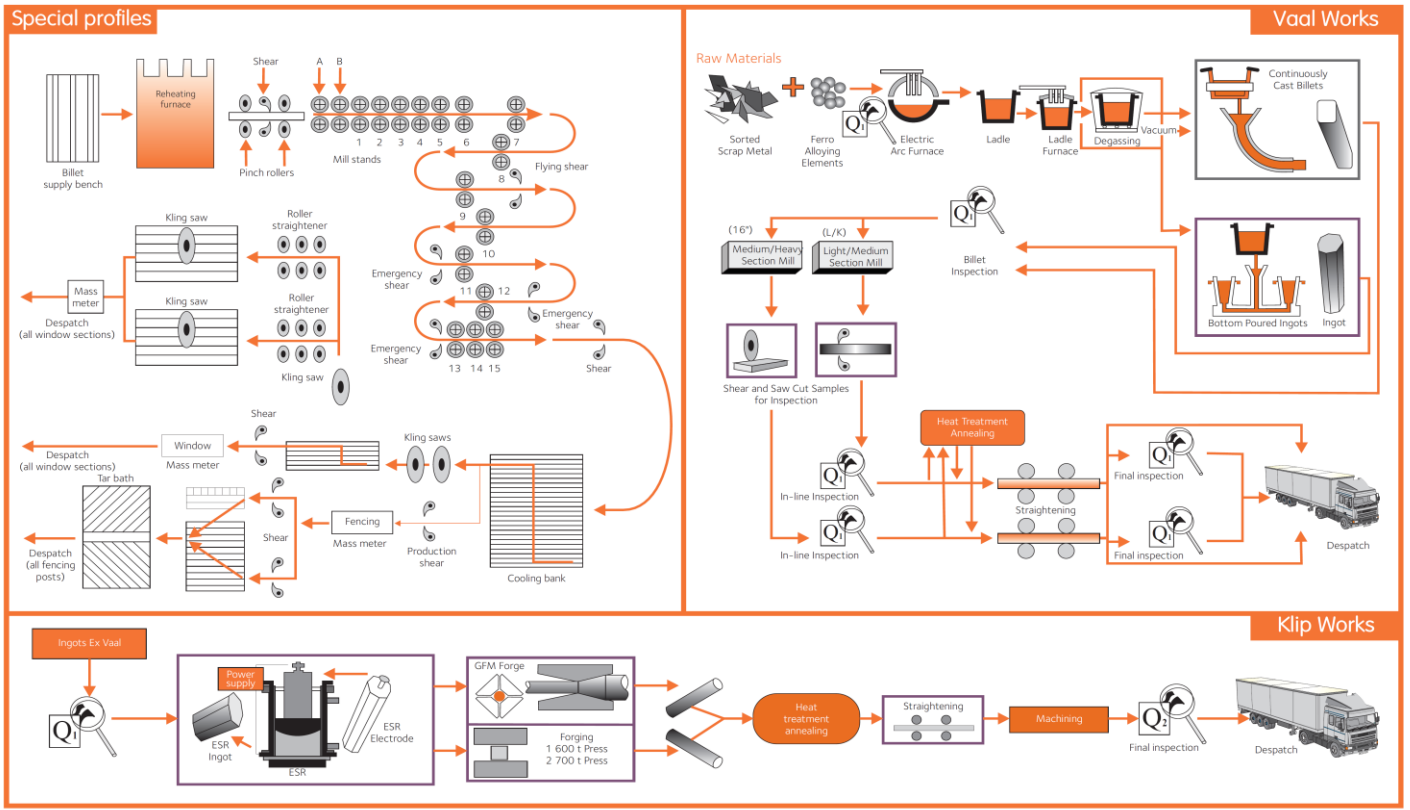
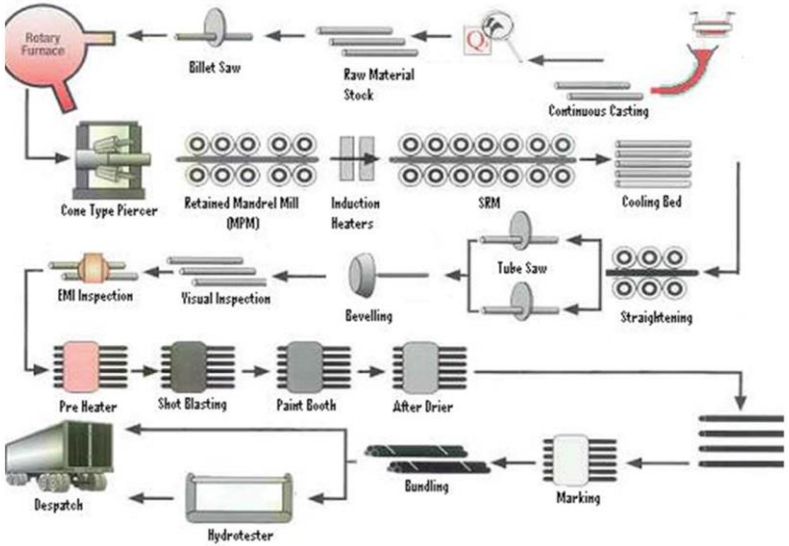
Vereeniging Works: Process Configuration

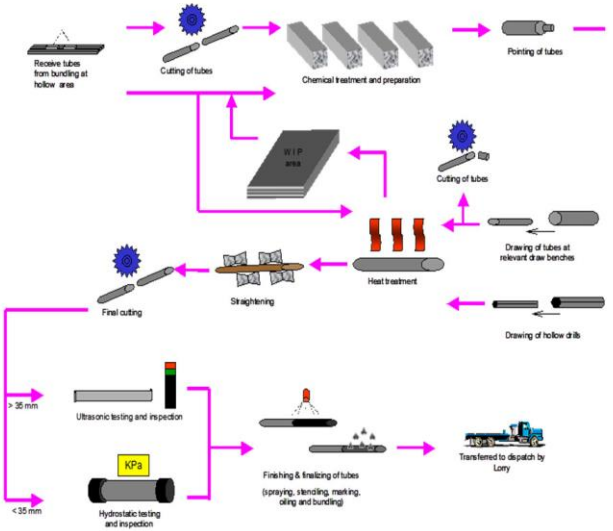


Tubular Products

Seamless tubes



Cold drawn Seamless



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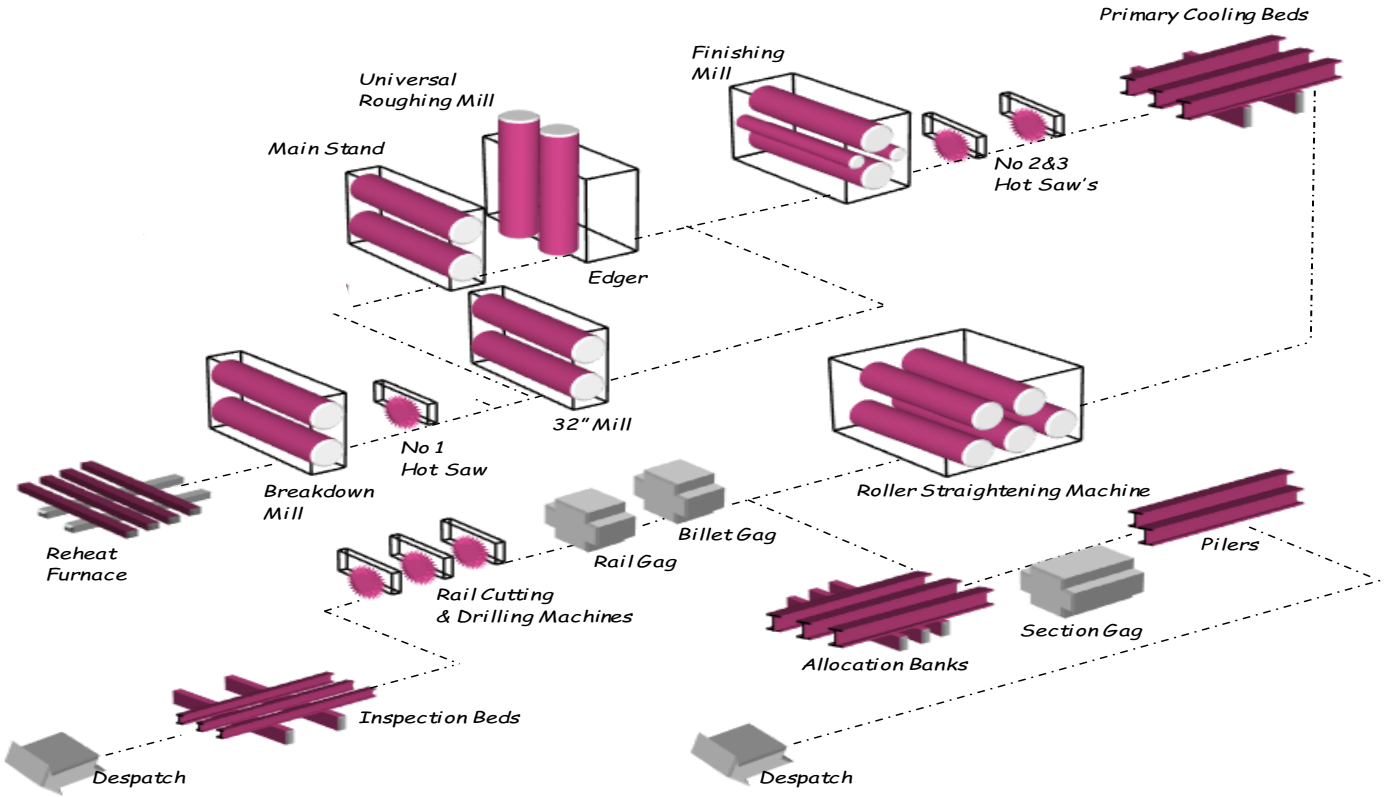
AMRAS – Heavy Section Mill



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AMRAS – AMRAS Heavy Structural Mill

- Capacity Liquid steel per annum — 167 000 tons
- Domestic percentage of total sales — 100%
- Manpower (Permanent / Hired / Contractors) — 293 permanent positions
- Area of site leased from HIP — 11.4Ha
- Product Range:
  - Columns: 152 x 152; 203 x 203; 254 x 254 & 305 x 305
  - Beams: 203 x 133; 254 x 146; 305 x 102; 305 x 165; 356 x 171; 406 x 140; 406 x 178; 457 x 191 & 533 x 210
  - Channels: TFC: 200 x 75; PFC: 230 x 75; 230 x 90; 260 x 75; 260 x 90 & 300 x 100.
  - Rails: 22 kg/m; 30 kg/m; 40 kg/m; 48 kg/m & 57 kg/m.
  - Other produces: Sleeper bar, rounds, joist, equal angles and billets.

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Saldanha

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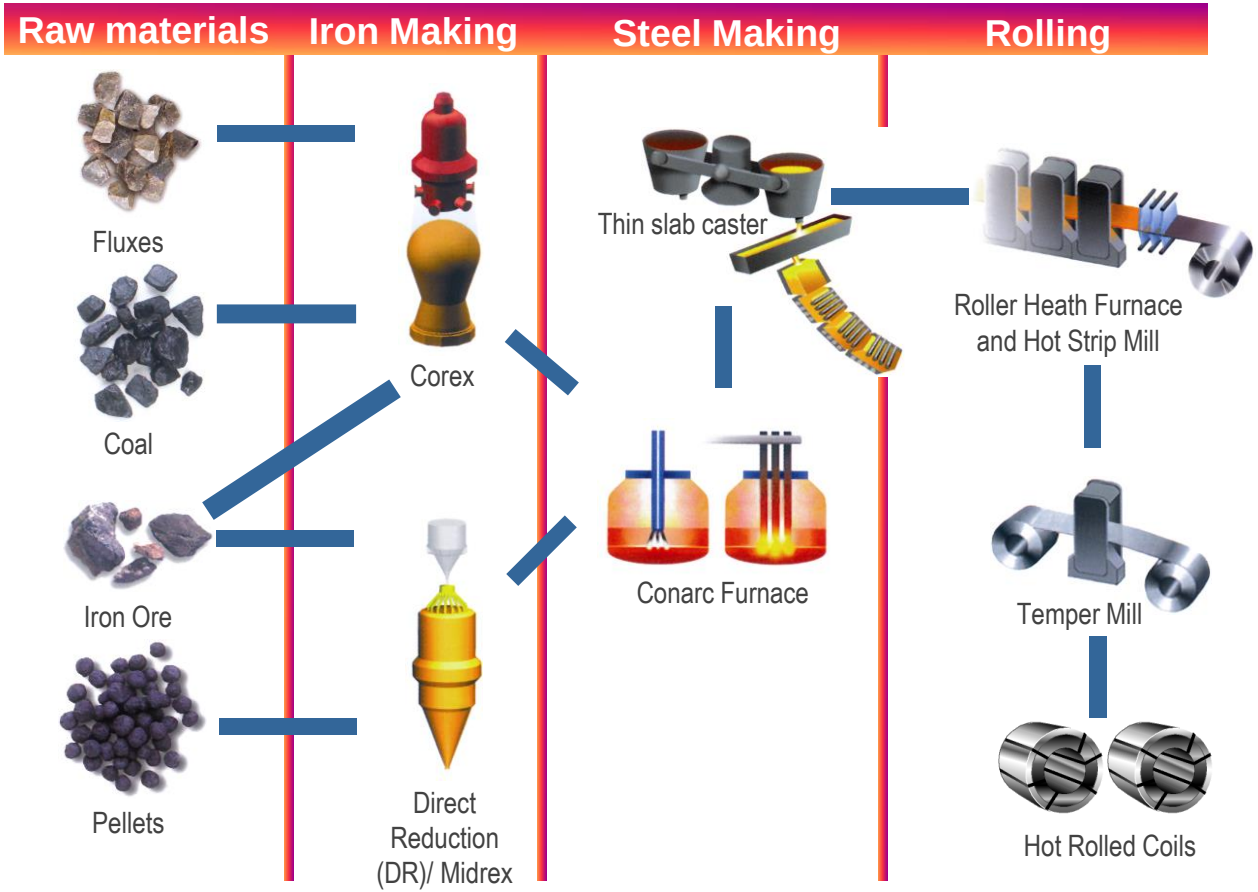
Saldanha



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Saldanha

• Capacity Liquid steel per annum	1350kt
• Domestic percentage of total sales	±46%
• Export percentage sales (Export / AOL)	± 54%
• Manpower (Permanent / Hired / Contractors)	568
• Perimeter	44 km (5.1km Plant)
• Avg Daily electricity consumption	3,8 GW
• Avg Fresh water consumption	7,5 mega litres per day

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Renewable energy and the decarbonisation roadmap

Green energy, green steel, green future, opportunities, and challenges

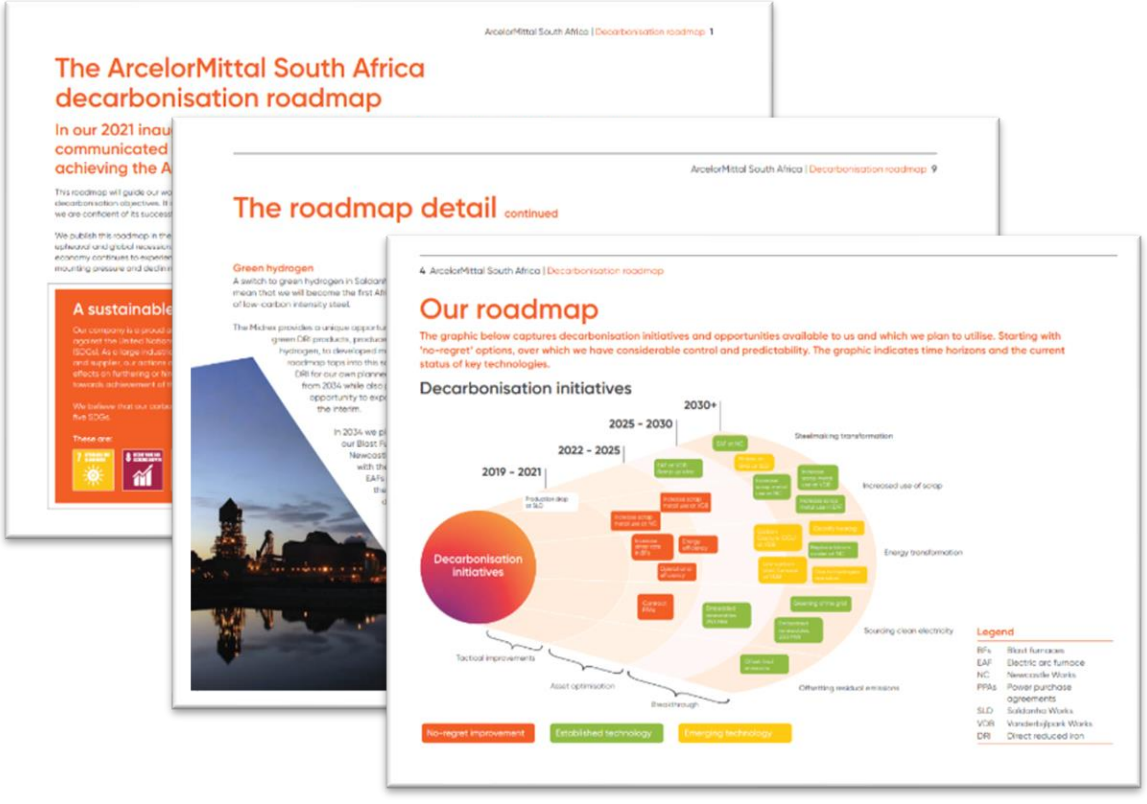
Presenter: Werner Venter, Chief Technology Officer

Steel industry fact sheet

Key Points

- Global steel production today is estimated at 1.9btpa and expected to grow to 2.5btpa by 2050
- Steel is in every market and the most commonly used metal in the world, vital to the construction, transport, manufacturing, motor, medical, aircraft, defence and domestic appliance industries.
- Steel is an industrial enabler and a critical element of the sustainability of South Africa's economy as is the case with economies across the globe.
- Steel as material of choice starts with the lowest carbon intensity comparing it to Aluminium and Carbon Fibre.
- The shear volume of steel produced globally results in the steel industry being responsible for some 2,6 billion tonnes of carbon dioxide emissions annually, equating to 7-9% of the world's total.
- Steel manufacturing is energy intensive, today provided by coal, gas, electricity. Estimated that 70% of world steel today is based on blast furnace / basic oxygen converter technology. Remainer is direct reduced iron / electric arc furnace based.
- Steel is the most recycled commodity in the world.
- Estimated investment globally to decarbonise steel are ca. $6.25 trillion of which 2/3rd is outside of the steel envelope to realise availability of renewable electricity and green hydrogen at scale.
- Collaboration, integrated policy development and incentive system are important enables in the energy transition of industry
- Through focussed R&D improve the cost structure of the technologies. Steel remains a commodity with limited opportunity for premiums based on the carbon credentials of the steel.
- Important to decarbonise steel as vital enabler of a low carbon world.

ArcelorMittal South Africa's Decarbonisation Roadmap published in January 2023. Flexibility in the final solution remains key especially considering the challenges in Sub Saharan Africa



ArcelorMittal South Africa Decarbonisation Roadmap (January 2023) (2).pdf (arcelormittalsa.com)

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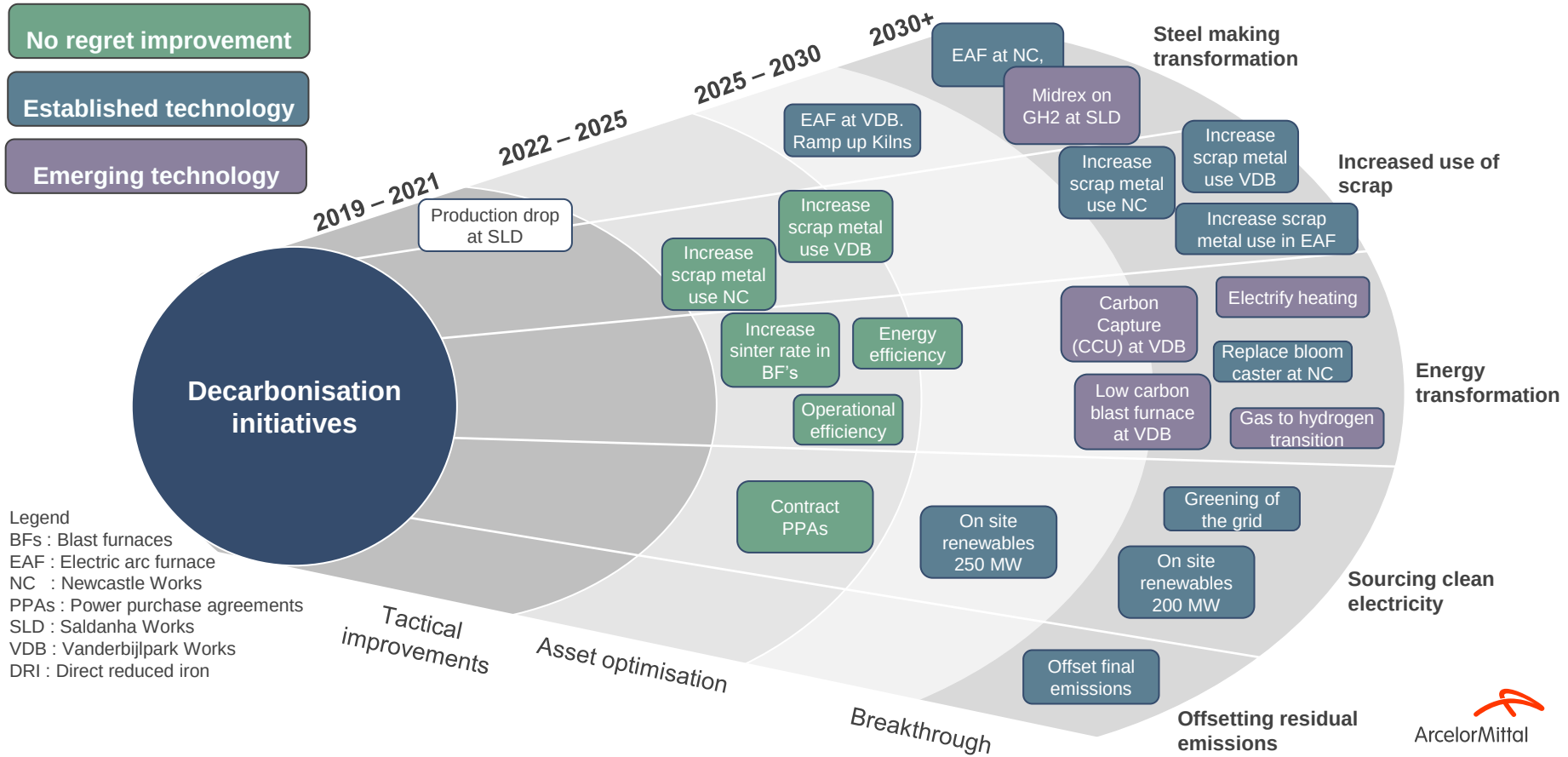
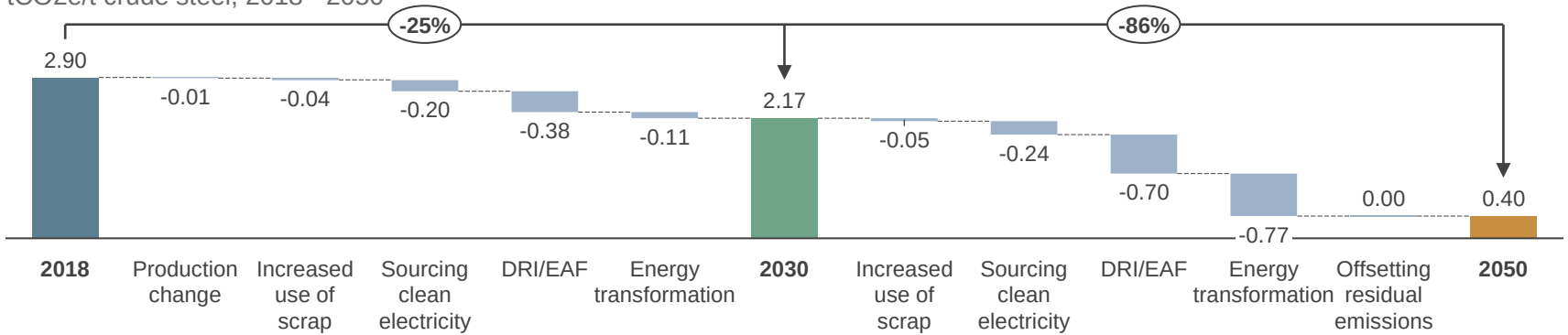
All decarbonisation initiatives have been captured on a time horizon indicating when they are expected to be implemented and current status of key technology required.



Large amounts of clean energy required to effectively decarbonise steel making processes. Steel remains crucial enabler to the SA's economy. Decarbonisation success of its existing primary* steelmaking facilities are mission critical

ArcelorMittal South Africa decarbonisation roadmap projected intensity by category

tCO2e/t crude steel, 2018 - 2050



Natural gas

Availability of low cost natural gas is key to gas based DRI production Natural gas as transitional fuel source enable infrastructure development in support of Hydrogen once Hydrogen is economically available at scale

Electricity

The supply of huge amounts of clean and affordable power uninterrupted in an increasingly electrified operation across all steel facilities. Including green hydrogen, two thirds of the investment required are outside the steel making envelope.

Green hydrogen

The technology maturity of green hydrogen post 2030 is critical beyond electrification, finding application in the production of direct reduced iron, hot metal and critical to the success of CCU.

Carbon capture and utilisation

CCU is an immature technology in post combustion applications, but critical if South African steel is to remain competitive in primary steel making, DRI/EAF and BF/BOF

Carbon Policies

The cost of carbon is a key unknown while steel remains price sensitive. While green steel has not been defined yet, steel needs protection and support during the transition as decarbonisation tech is not at the required cost point today.

*Primary Steel making is defined as group of technologies capable of converting iron ore to steel
**Secondary Steel Making is defined as recycling of scrap

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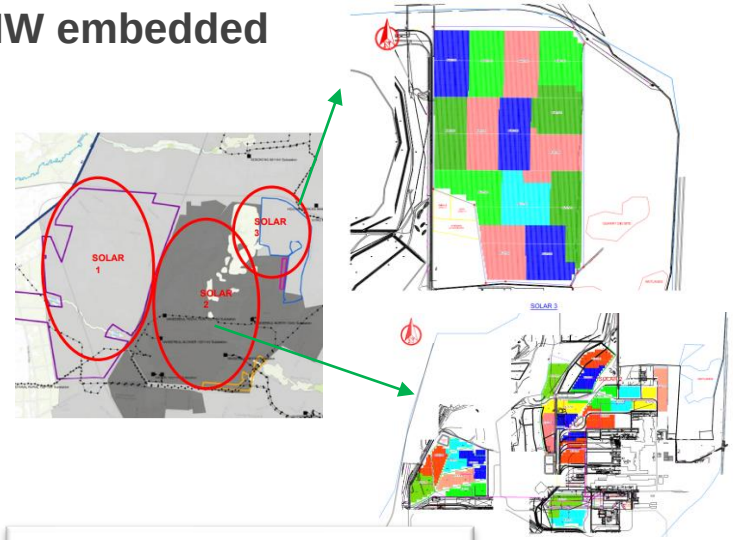
Decarbonisation progress are centered around first 200MW embedded Solar and the new arc furnace facilities at Vanderbijlpark

Progress feedback on the 200MW solar at Vanderbijlpark:
- Indicative project cost in line with benchmarked investments
- Will provide 43% RE penetration of Vanderbijlpark's over the fence electricity
- Associated carbon reduction are 540ktpa. (Scope 2)

Next steps:
- Finalise grid connection approvals
- Obtaining project structure and funding approval once grid connection approvals are complete.
- Final commercial negotiation.



Progress feedback on the new EAF at Vanderbijlpark
- Technical concept and scope report approved.
- Entered market – April 2024.
- Associated carbon reduction to be ca. 1200ktpa (Scope 1 and 2)

Next Steps:
- Submit environmental impact assessment in 2024.
- Eskom (national electricity provider) approval of increased notified maximum demand


Technical Concept Report for
Installation of New Electric Arc Furnace
along with associated facilities
AT ARCELORMITTAL VANDERBIJLPARK, SOUTH AFRICA

ARCELORMITTAL DESIGN & ENGINEERING CENTRE (P) LIMITED
6th Floor, Victoria Park, 37/2, Block-GN
Sector –V, Salt Lake City, India
CIN: U74210WB2008PTC128082

Progress feedback on operational and energy efficiency
- Pending natural gas unavailability by 2026 as Mozambique gas supply to industry dries up
- Variety of projects given priority both in Vanderbijlpark and Newcastle sites

Progress feedback on Saldanha Green Steel opportunity
- Pre-feasibility report nearing completion. Decision to be made in terms of progressing to feasibility.
- H2 price and market demand will be among the deciding factors.
- Alternative pathway proposed whereby the corex/midrex combination is used as a start with phased introduction of carbon capture and green hydrogen.

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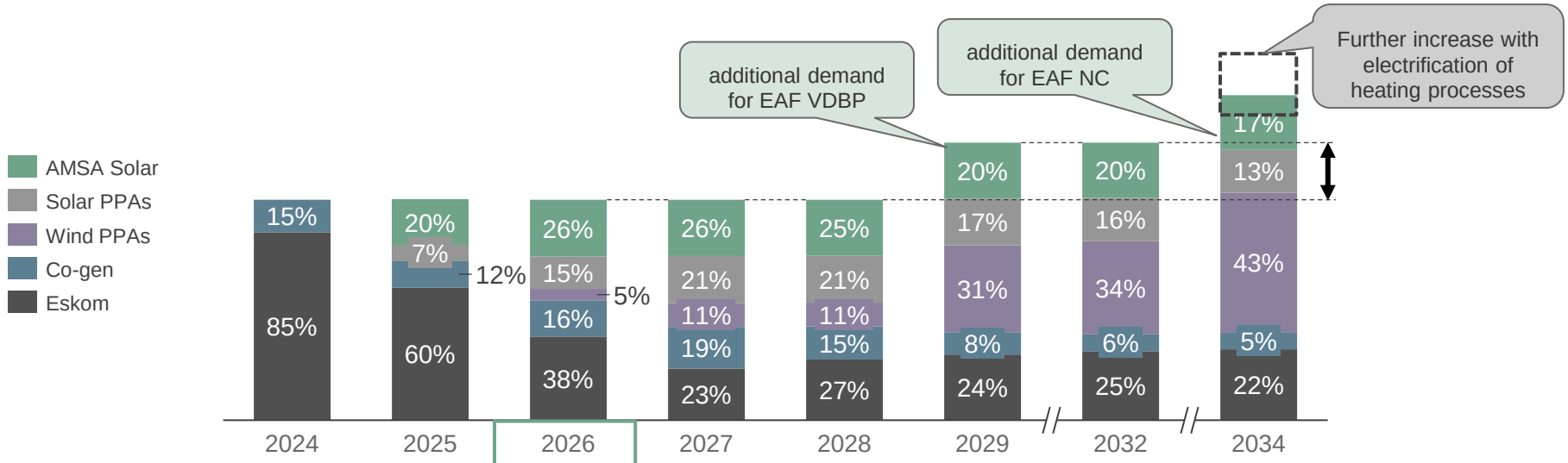
For primary steel making based on blast furnace technology electricity makes up 15% of total embedded emissions combined. Clean energy as no regret initiative will support electrification within ArcelorMittal South Africa



Renewable Capacity	20 MW	210 MW	373 MW	480 MW	480 MW	640 MW	645 MW	765 MW
AMSA Solar		150	200	200	200	200	200	200
Embedded Solar PPAs			53	100	100	100	100	100
Solar PPAs		60	90	120	120	120	105	105
Wind PPAs			30	60	60	220	240	360

- Co-Gen reduces as a result of internal gasses being used to displace Natural gas.
- The additional demand resulting from the EAFs is the net demand.
- The Renewable penetration is determined against Eskom + Co-gen.

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SA Carbon Tax act gazetted 12 January 2023, with significant effect on business from 2026 onwards. Hard to abate industry like steel needs protection and support during the transition as decarbonisation tech is not at the required cost point today.

Country / Jurisdiction	Comments
EU	• Market based Emission Trading System (ETS) in place. • Free allocations are based on historical performance and strict benchmarks. • Unused allowances/allocations are tradeable • Free allocations to gradually be phased out from 2026 to reach zero by 2033. • Variety of contract for difference, electricity subsidies and direct project funding available • Carbon border adjustments to protect local industries from imported products from less carbon sensitive regions
Canada	• Carbon Pricing mechanisms differ in each province, but the net effects are similar and controlled at a federal level. • Ontario province has ETS in place, but not really market based with prices being fixed – hybrid between Tax and ETS. • Free allocations/allowances are based on benchmarks and emission categorization i.e process vs combustion emissions. • Public funded interest free money and 50% of the principle non-refundable based on performance against agreed implementation plan
South Africa	• Carbon price fixed at R308/t CO_2e scope 1 by 2026 and R462 by 2030. • Tax-free emissions relate to performance, trade exposure, emission categorization etc. afforded to all industry • Minor changes to tax-free allowances expected from 2023 onwards with • More radical phase-out under consideration from 2026 onwards to reach zero by 2030. • No additional support available from the public fiscus towards decarbonisation. • Electricity are among the most carbon intensive in the world contributing to high scope 2 contribution for companies

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Thank you