

FN STEEL



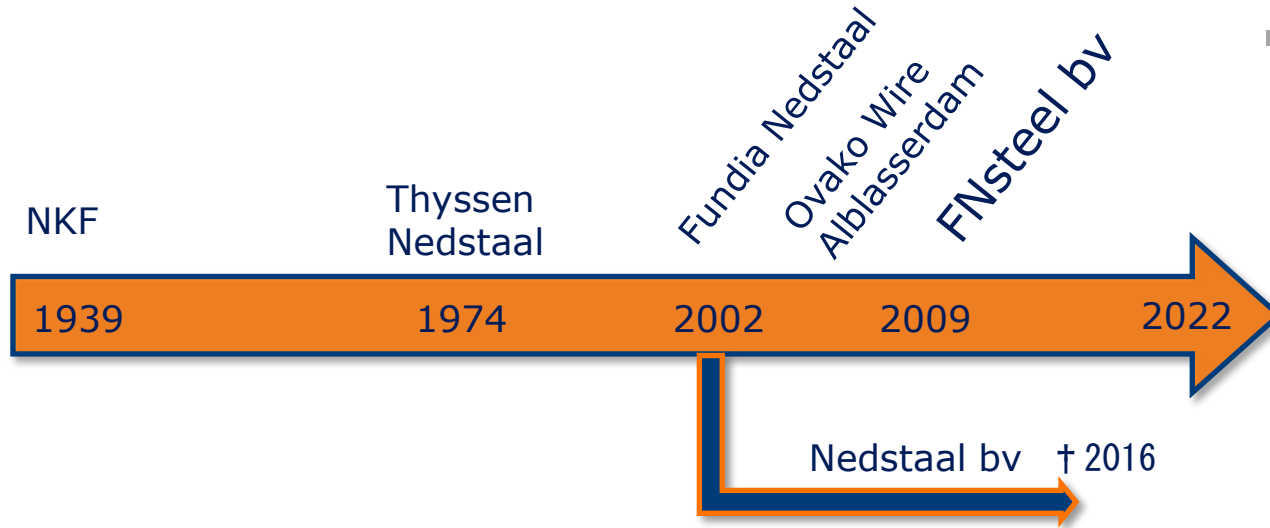
FNsteel is an independent producer and distributor of customized long steel products for high-quality applications.

In a modern rolling mill and state-of-the-art wire processing centre FNsteel produces untreated and treated wire rod and drawn wire.

Thanks to decades of experience, carefully built competences and strong partnerships FNsteel can be highly responsive to customer requirements such as short and reliable delivery times, consistent and high quality, special steel grades and coating and packaging solutions.

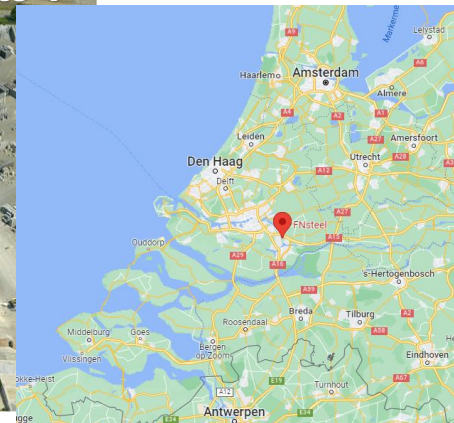
FNsteel's turnover is approx. EUR 180 M with ca 330 employees

FNsteel Alblasserdam History



Ownership since 2020





High-quality varieties of steel sources

Iron ore based > Basic Oxygen Steelmaking
Scrap based > Electric Arc Furnace

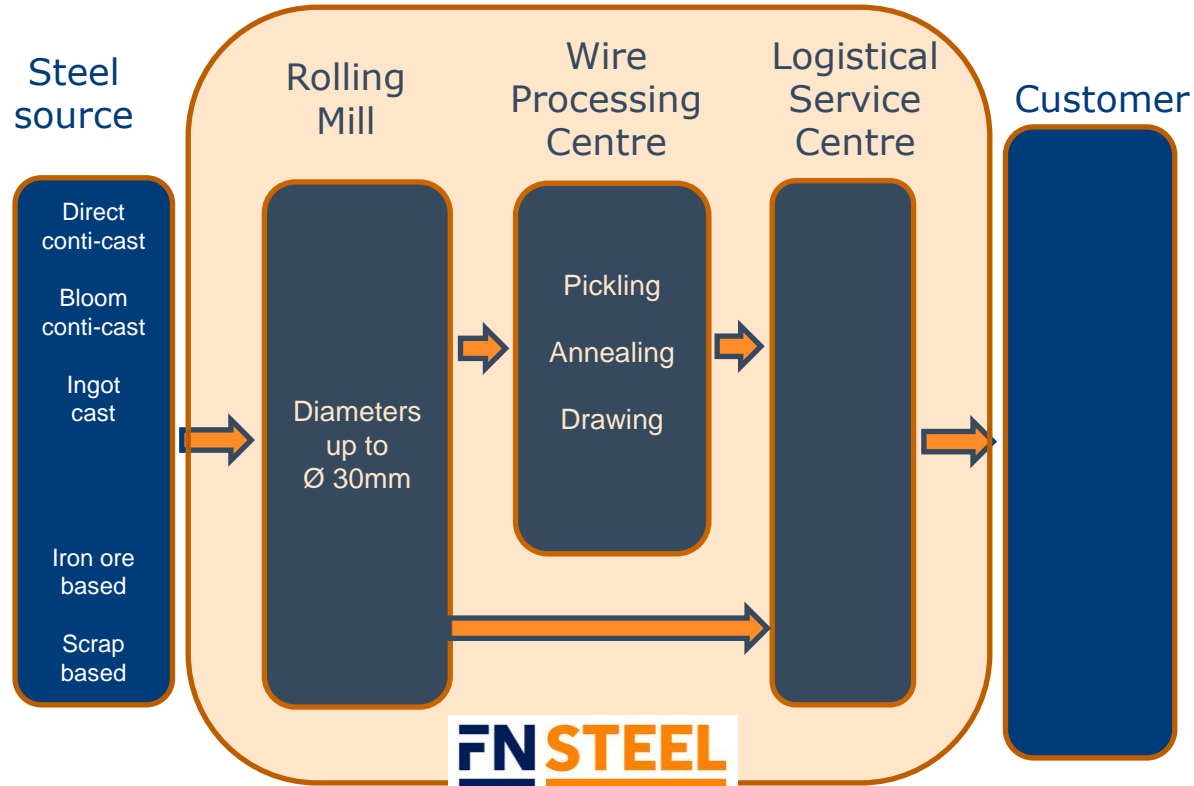


The background of the slide is a photograph of numerous steel billets stacked in rows, creating a strong sense of perspective. The billets are dark, weathered, and show signs of rust. An orange semi-transparent rectangle is overlaid on the left side of the image, containing the text.

High-quality varieties of billets

Continuous Cast
Bloom cast
Ingot cast

Process & Material Flow



- 
- The background image shows a large industrial rolling mill. A glowing red-hot metal billet is being processed by heavy machinery. A large, semi-transparent orange rectangle is overlaid on the left side of the image, containing a list of technical specifications. The scene is dimly lit, with the primary light source being the heat of the metal and some industrial lighting.
- Capacity 300kton
 - Square billet sizes 140mm ... 160mm
 - Diameters up to 30,00mm
 - Rolling speed 100m/s
 - Coil weight up to 2,5ton
 - Air Cooling Line 100 m
 - In-line Surface Inspection
 - In-line Laser Dimension Inspection
 - Industry 4.0 Oriented



Billet Furnace

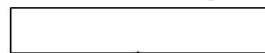


Roughing Mill



Garret-line \varnothing 16,5 - 30 mm

Coil Handling



Intermediate Section



Finishing Block

RSM

Cooling Conveyor



EC

Morgan-line \varnothing 5,5 - 16 mm



A man with a beard and glasses, wearing a blue and orange high-visibility work shirt with the 'Insteel' logo, yellow earplugs, and black gloves, is operating a large industrial machine. He is pulling a long, thin metal wire through the machine. The machine has a green upper section and a dark, perforated metal lower section. The background is a blurred industrial setting with various structures and equipment.

Wire Processing Centre

Pickling
Annealing
Drawing

A photograph of a large industrial facility, likely a steel mill, showing a complex system of yellow and blue structural beams, pipes, and machinery. The scene is brightly lit with overhead industrial lights. In the foreground, there are yellow safety railings and a concrete walkway. The background shows more industrial structures and a high ceiling with exposed steel beams.

Pickling

Capacity 450 kt

Two automatic lines for cleaning the surface

Line 6 for pre-treatment

Line 7 for coating

Interface to coil handling system

Degreasing, HCl-acid, salt-carrier, phosphate, polymer, soap, lime and non-phosphated coatings



Annealing

Capacity 130 kT

- Spheroidise annealing
- Soft annealing
- Recrystallisation annealing



Drawing

Capacity 80 kT


Size range 2.00-28.00 mm

Formers, coils, layer wound coils

Eddy current testing

Laser measurement

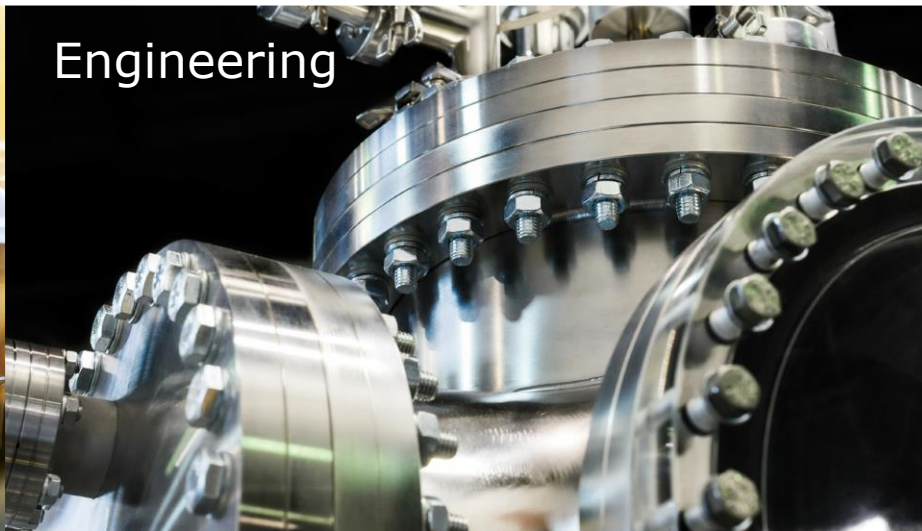
Phosphate free



All expertise and
resources combined,
like no other producer
in Europe can.



Automotive



Engineering



Tools



Welding



Construction

Strategic alliances

British Steel
Ovako

- Hofors
- Imatra
- Smedjebacken

Multi-sourcing billet strategy

Georgsmarienhütte

Arcelor Mittal

Björneborg Steel

Buderus



The image shows four large, cylindrical coils of copper wire, likely for electrical applications, arranged in a row. The coils are made of a reddish-brown metal, and the wire is tightly wound. They are situated in an industrial environment with dark, corrugated metal walls and a concrete floor. The lighting is dramatic, highlighting the metallic sheen of the coils.

Global player

Offices in NL / D / F / UK / IT / E / PL / TR / USA / S.E.Asia
Agents in IN / RoW

Quality & EHS

A male worker in a blue and orange uniform is focused on inspecting a small metal part in his hands. He is in a factory environment, with a large industrial machine visible in the background. The machine has a complex, metallic structure with various bolts and components. A computer monitor is also visible in the background, displaying some data. The worker is holding the part with both hands, looking at it intently. The overall scene conveys a sense of precision and quality control in a manufacturing setting.

ISO 9001

IATF 16949

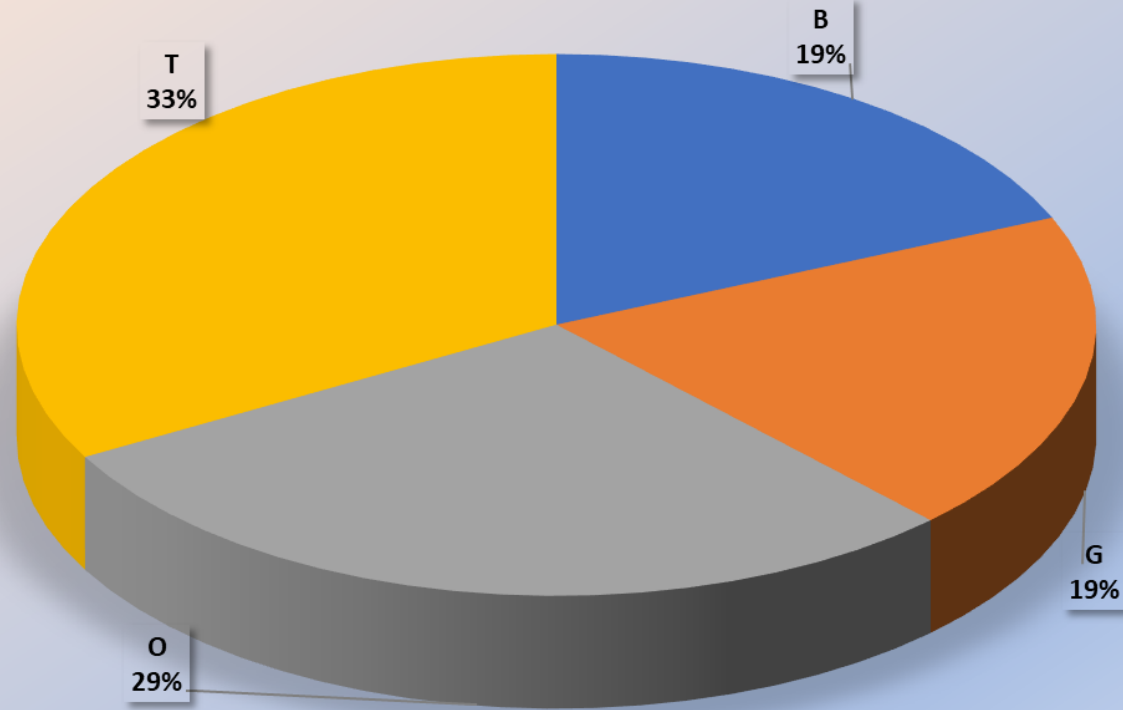
ISO 14001

ISO 45001

ISO 50001

Som van Qty

Volume per Main Product Type



MPT

B

Pickled/treated

G

Annealed

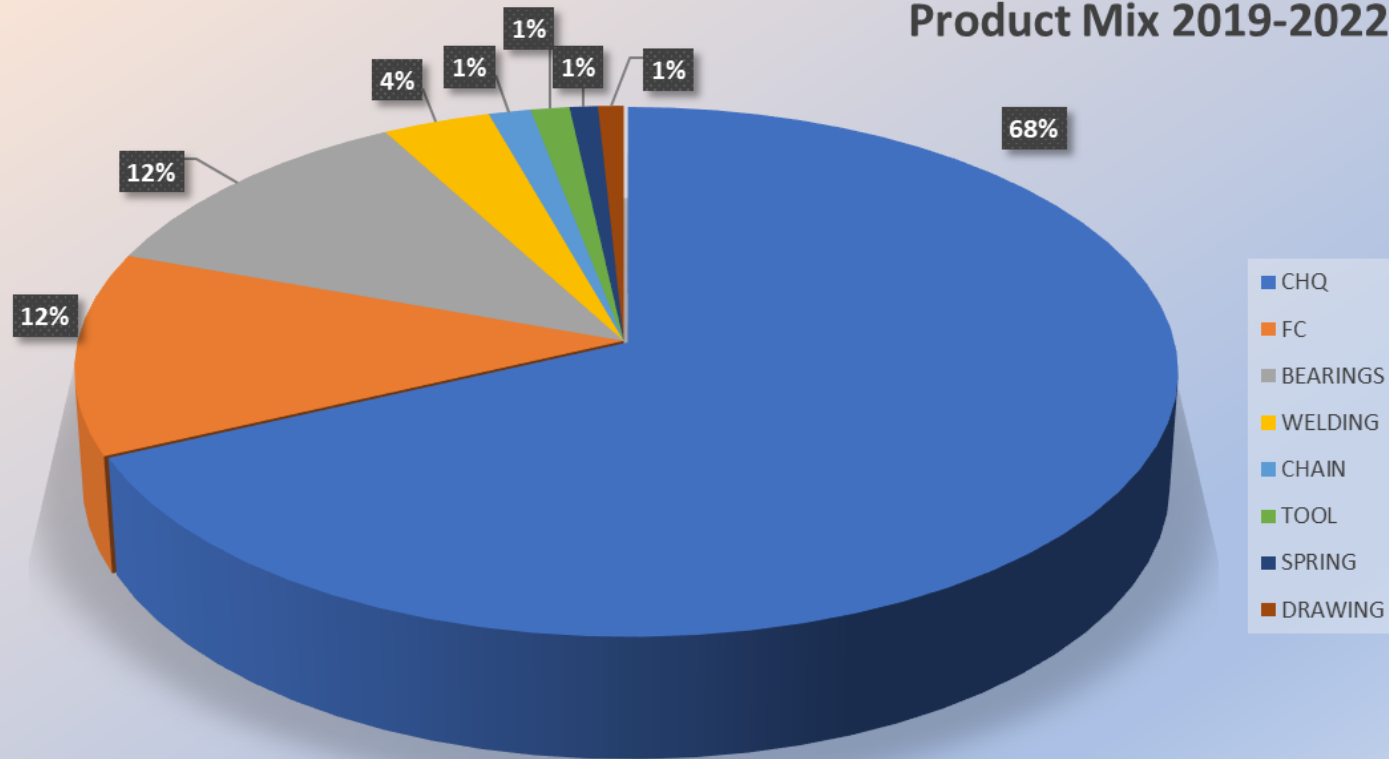
O

As rolled

T

Drawn

Product Mix 2019-2022



Typical Standards for Products

Ball bearing grades

- *EN-ISO 683-17*
- *ASTM A295*

Cold Heading grades

- *EN 10263*

Non specific wire rod standards

- *EN 10025*

Terminology

International	Internal	Description
+U	OWD	<i>As rolled wire rod</i>
+U	BWD/B	<i>Pickled wire rod, generally with a reference on the customer order/spec on required coating</i>
+U+AC	BWD/G	<i>Annealed wire rod</i>
+U+AC	BWD/GB	<i>Annealed pickled wire rod, generally with a reference on the customer order/spec on required coating</i>
+U+C	GD/OG	<i>Cold drawn wire (K)</i>
+U+C+AC	GD/EG	<i>Cold drawn and annealed wire (KG)</i>
+U+AC+C	GD/VG	<i>Annealed wire and cold drawn (GK)</i>
+U+C+AC+LC	GD/TG	<i>Cold drawn and annealed wire with skin pass (KGK)</i>

Quality Control, rolling mill

Process control

- *Laser diameter control*
- *Eddy Current surface quality control*
- *Upset test*

Quality Control, drawing mill

Process control

- *Diameter control, manual measurement*
- *Eddy Current surface quality control for certain diameters, on request*
- *Visual checks on surface quality*

Quality Control, laboratory

Product control

Microscopic:

- *Decarburization*
- *Steel cleanliness*
- *Surface defects*
- *Structure*

Mechanical:

- *Tensile strength*
- *Reduction of Area*
- *Elongation*
- *Cold upset test*

Chemical:

- *Composition*
- *Surface Coating*

Typical Standards used for QC

Steel purity

- *DIN 50602 (K or M)*
- *ISO 4967*
- *ASTM E45*

Tolerance

- *10108 (A or B)*

Surface condition

- *EN-ISO 9443*

Structure

- *SEP 1520*

Greener Steel route



Decarbonisation

It's not only about reducing carbon emissions by over 90% but rather about securing continuity and efficiency in the vehicle market

1. Renewable Energy Transfer (Scope I & II)

FNsteel fully transferring to 100% green electricity from Dutch wind park.

Result: 0 emission. (-71kg CO₂/ton of steel).

2. Green Billets (Scope III)

FNsteel is introducing 2 “green” routings the billet supply.

1. “Greenest steel” with Ovako with 90% CO₂ reduction instead of a Basic Oxygen Steelmaking (BOS)

Clean green steel, EAF-routing, post-consumer scrap, hydrogen facilities, no carbon sett-offs.

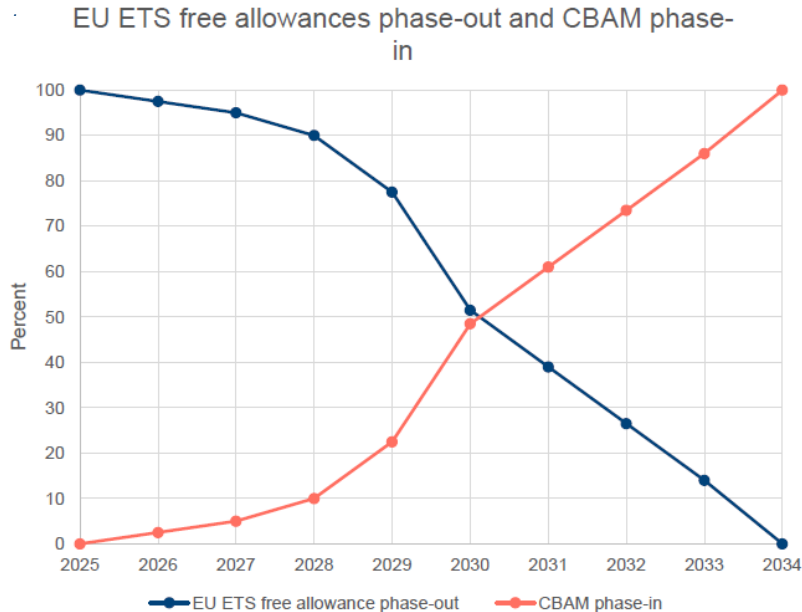
=> Customer trials and first supplies.

2. “Green steel” with British Steel by EAF instead of BOS with 75% CO₂ reduction

3. Scrap collection (Scope III)

Post-consumer scrap. Closed loops with stable supply chains. Partnerships.

The phase-out of free allowances and phase-in of CBAM will increase costs in the supply chain if emissions are not reduced in the same pace



- Less amount of EUAs (EU Allowances) made available to the market each year
- Fewer EUAs given for free each year



Price for auctioned/traded EUAs estimated to ~150€/t CO₂e by 2030 (BloombergNEF)

Potentially increased costs for many players already today due to the reduced number of free allowances within ETS



Total verified emissions divided per total allocation of free allowances received for the period 2008-2022 for selected steel companies.

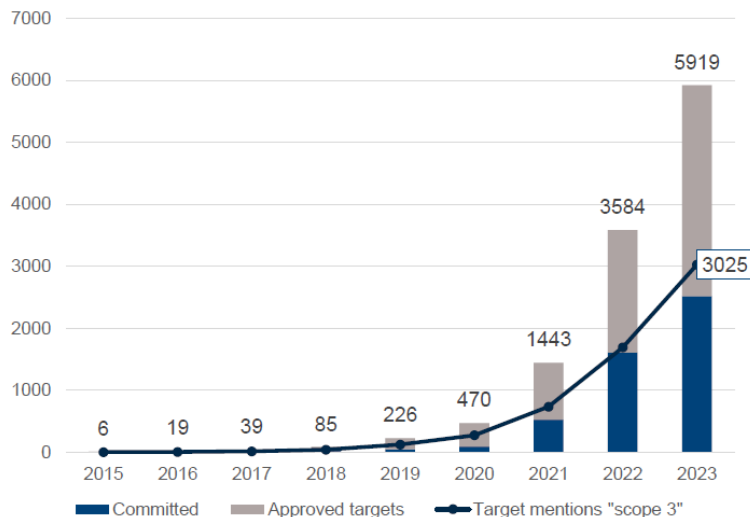
Red area: $100 \% < \text{Total emissions} / \text{Total free allowances} < 140 \%$

Blue area: $70 \% < \text{Total emissions} / \text{Total free allowances} < 100 \%$

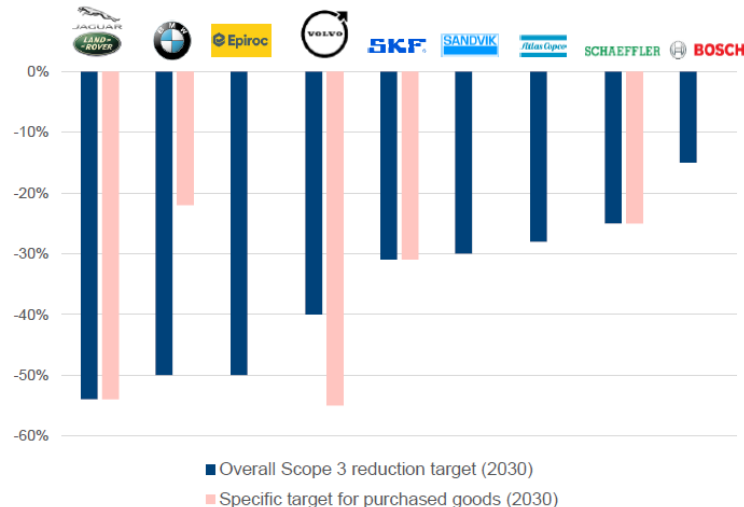
It's about scarcity

Increased demand for low carbon products due to stakeholder's expectations and voluntary commitments such as SBTi

Number of companies committed to or approved by SBTi, sept-23

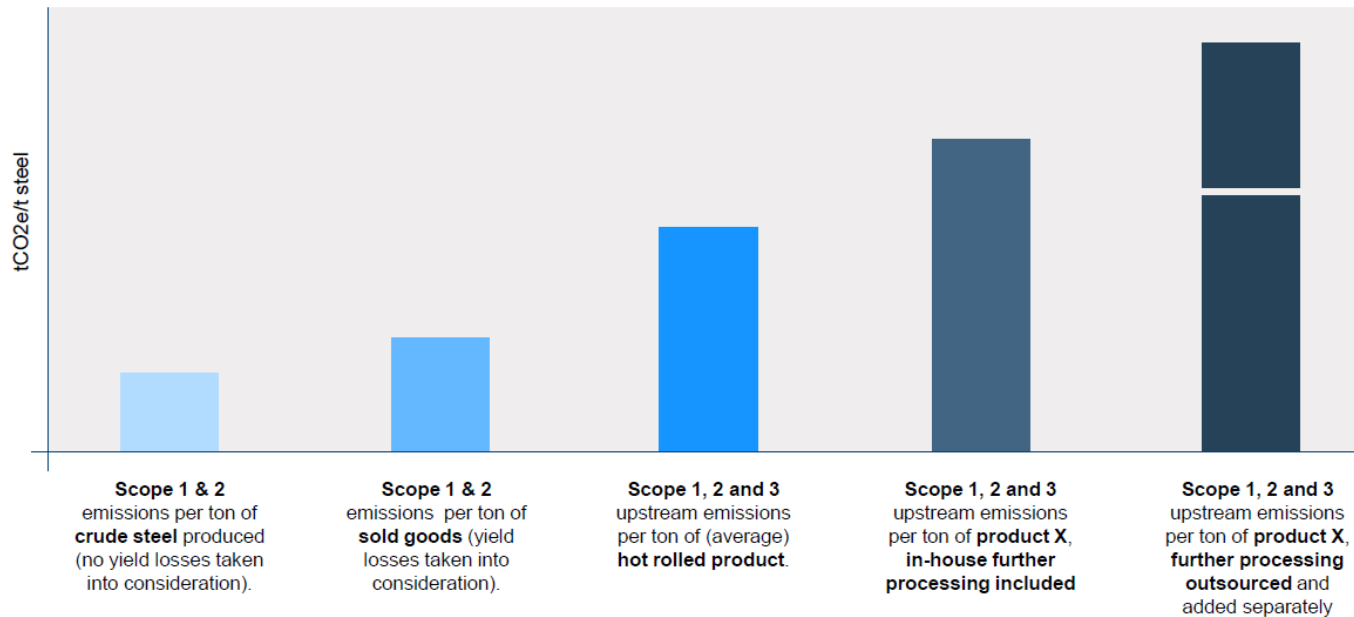


Selected companies' scope 3 targets to 2030, overall and for purchased goods

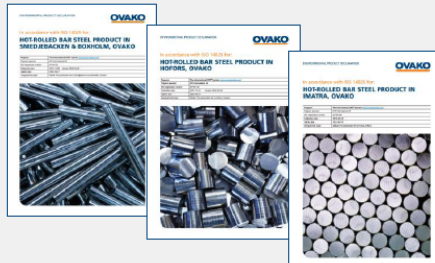


SBTi is a "soft" commitment w/o direct penalties but is increasingly effecting equity stories and debt agreements hence should be considered as "hard"

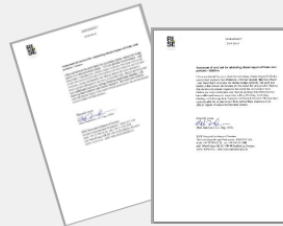
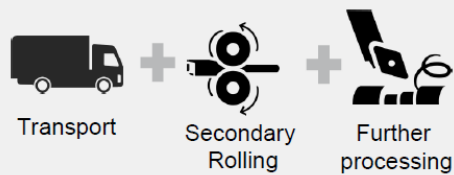
Apples & Peers



Adjusting and adding in accordance with product specification



Third party verified cradle-gate-emission in Okva's Environmental Product Declarations (EPD)



Product specific data on alloying content, further processing and yield effects

$$= \text{Carbon footprint/ product (kg CO2e/t)}$$



What does this mean for you?

Choosing green today reduces your overall emissions by >80%

FNsteel is ideally situated to electrify its production processes using green electricity. This drives clean and economic operation for the near future. We are committed to increase the volume of green processing offering to our markets.

FNsteel's processing route CO₂e emissions in kg CO₂e/ton finished product

Traditional processing		2025	2030	2035	Green processing		2025	2030	2035
Scope 1	Natural gas	146	124	0	Scope 1	Natural gas	146	124	0
Scope 2	Electricity	128	90	0	Scope 2	Electricity	0 ^a	0 ^a	0
Scope 3	Steel	2481	2481	2481	Scope 3	Steel	190 ^b	95 ^b	47
Total	kg CO₂e/ton	2755	2695	2481	Total	kg CO₂e/ton	336	219	47

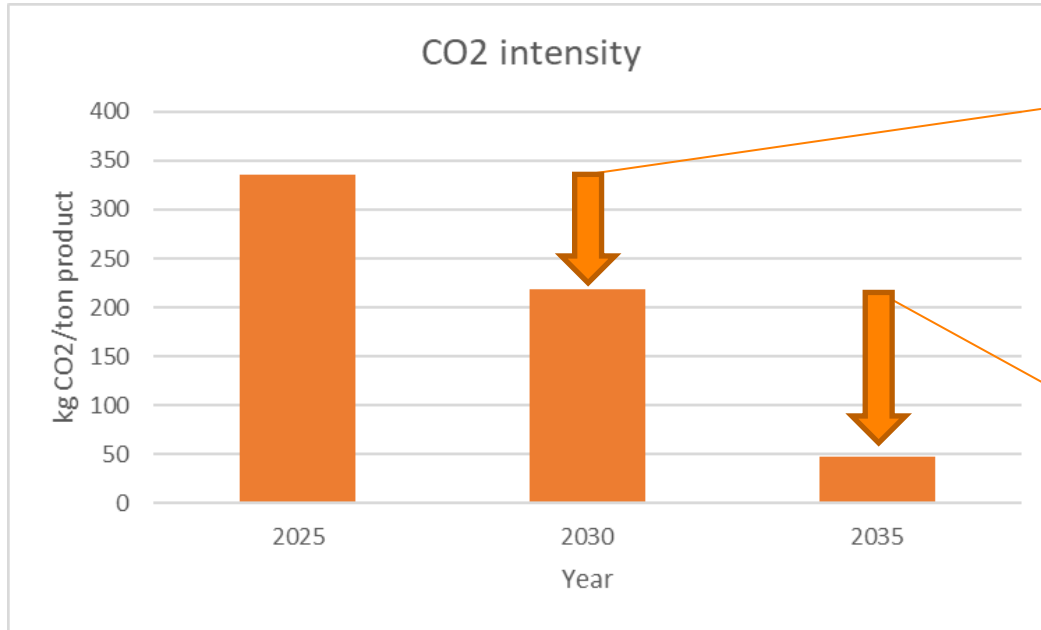
All emission in kg CO₂e/ton product using CBAM methodology (but allowing scope 2 carbon offsetting)

^a:FNsteel buys green electricity (GVO) from a nearby windmill park (Jaap Rodenburg II, Almere) compensating scope 2 emissions of electricity (128 kg CO₂e/ton in 2023).

^b:Ovako off-sets their scope 1 and 2 emissions (Carbon Neutral Now).

CO2 reduction projects: Green processing route

Planned projects outlook to 2035



2030

- Implementation e-boiler
- Scope 2 reduction (grid and PPA's)
- Reductions in upstream emissions

2035

- Annealing furnaces electrified
- Billet re-heating electrified
- Scope 2 zero due to net-zero grid
- Further reduction upstream emissions

Thank you!
Any questions?

