A new future for steel

SSAB in brief

SSAB is a global steel company that is a world leader in high-strength steel and related services.

Our vision is to contribute to a stronger, lighter and more sustainable world.

SSAB aims to become the first steel company in the world to offer fossil-free steel on the market by 2026.

We will largely remove carbon dioxide emissions from our own operations around 2030.

129 MILJARDER KRONOR
Intäkter 2022

Ståltillverkning sedan
1878

15 000
Anställda i över 50 länder

8,8 MILJONER TON
Årlig stålproduktions-kapacitet

Huvudkontor
Stockholm, Sverige

SSAB

SSABs hemmamarknader är Norden (grovplåt, tunnplåt och rör) och Nordamerika (grovplåt). Höghållfasta och seghärdade stål säljs över hela världen. Produktionsanläggningarna ligger i Sverige, Finland och USA och har en årlig produktionskapacitet på 8,8 miljoner ton råstål.

Norden

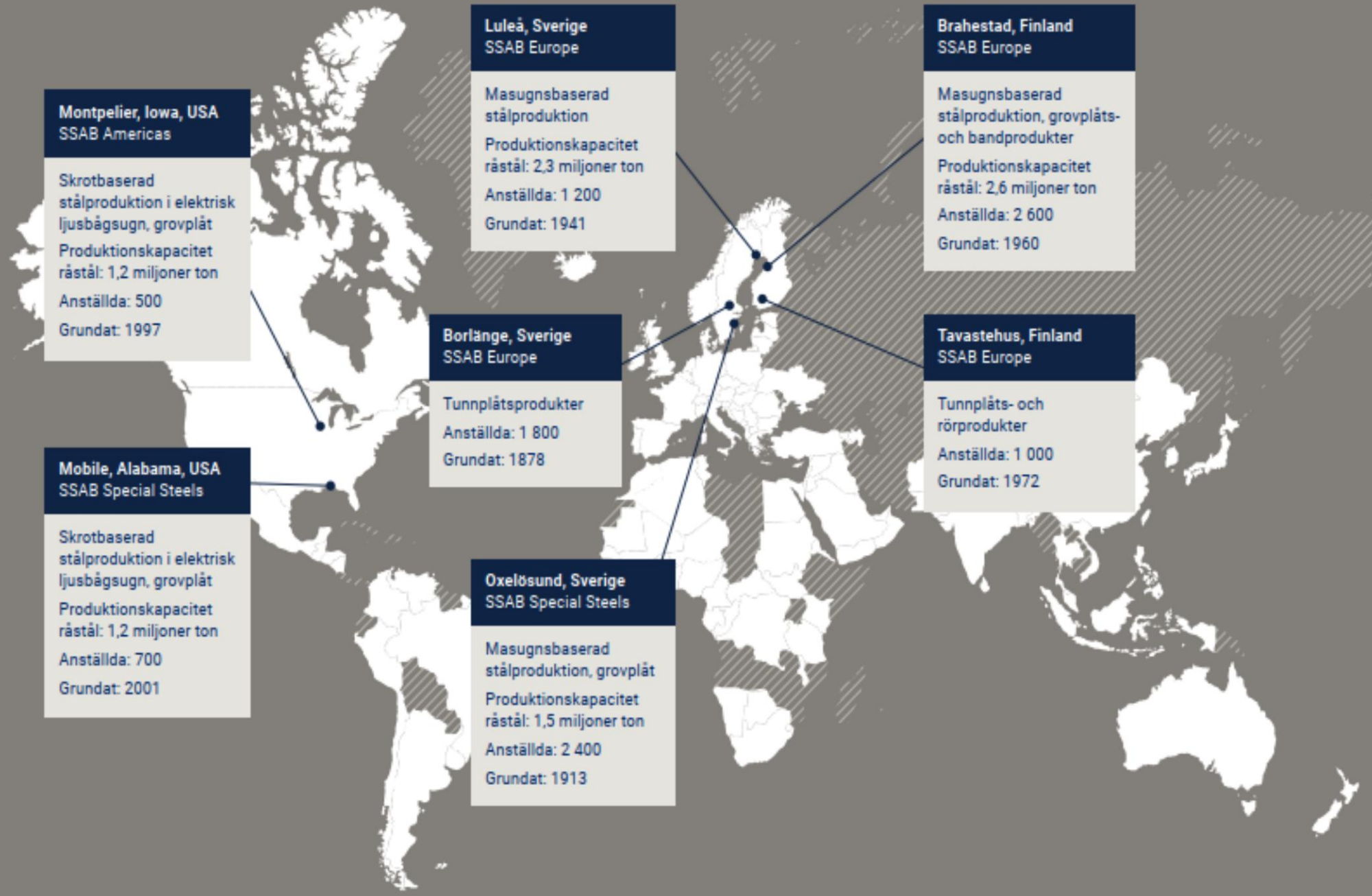
- Grovplåt, tunnplåt och rör

Nordamerika

- Grovplåt

Globalt

- Avancerade höghållfasta stål (AHSS)
- Seghärdade stål (Quenched & Tempered, Q&T)



Montpelier, Iowa, USA
SSAB Americas

Skrotbaserad stålproduktion i elektrisk ljusbågsugn, grovplåt

Produktionskapacitet råstål: 1,2 miljoner ton

Anställda: 500

Grundat: 1997

Mobile, Alabama, USA
SSAB Special Steels

Skrotbaserad stålproduktion i elektrisk ljusbågsugn, grovplåt

Produktionskapacitet råstål: 1,2 miljoner ton

Anställda: 700

Grundat: 2001

Luleå, Sverige
SSAB Europe

Masugnsbaserad stålproduktion

Produktionskapacitet råstål: 2,3 miljoner ton

Anställda: 1 200

Grundat: 1941

Borlänge, Sverige
SSAB Europe

Tunnplåtsprodukter

Anställda: 1 800

Grundat: 1878

Oxelösund, Sverige
SSAB Special Steels

Masugnsbaserad stålproduktion, grovplåt

Produktionskapacitet råstål: 1,5 miljoner ton

Anställda: 2 400

Grundat: 1913

Brahestad, Finland
SSAB Europe

Masugnsbaserad stålproduktion, grovplåts- och bandprodukter

Produktionskapacitet råstål: 2,6 miljoner ton

Anställda: 2 600

Grundat: 1960

Tavastehus, Finland
SSAB Europe

Tunnplåts- och rörprodukter

Anställda: 1 000

Grundat: 1972

SSAB has taken a leading position

HYBRID -

joint venture with LKAB and Vattenfall, established in 2017

World unique

pilot plant in operation in 2020

The world's first fossil-free steel was manufactured and was delivered to Volvo Group 2021

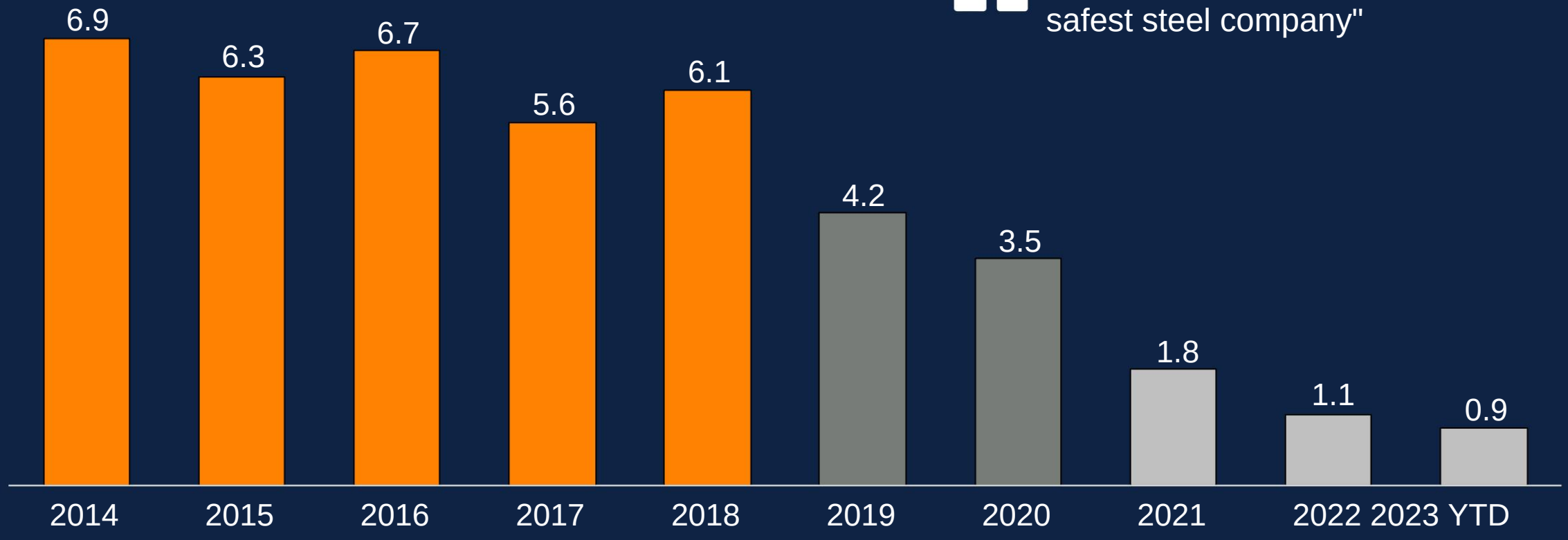
Pilot deliveries to strategic customers

500 tonnes in 2022

SSAB

Great progress towards a safer workplace

> Become the world safest steel company"



LTIF, Accident frequency

SSAB in a position of strength

Global leader in high strength steels

3.0 Mt

Q&T and Premium

Leading the green transition

500t

fossil-free pilot deliveries

Market leader in the Nordics

40%

market share,

The Nordic countries

Market leader in sheet metal, USA

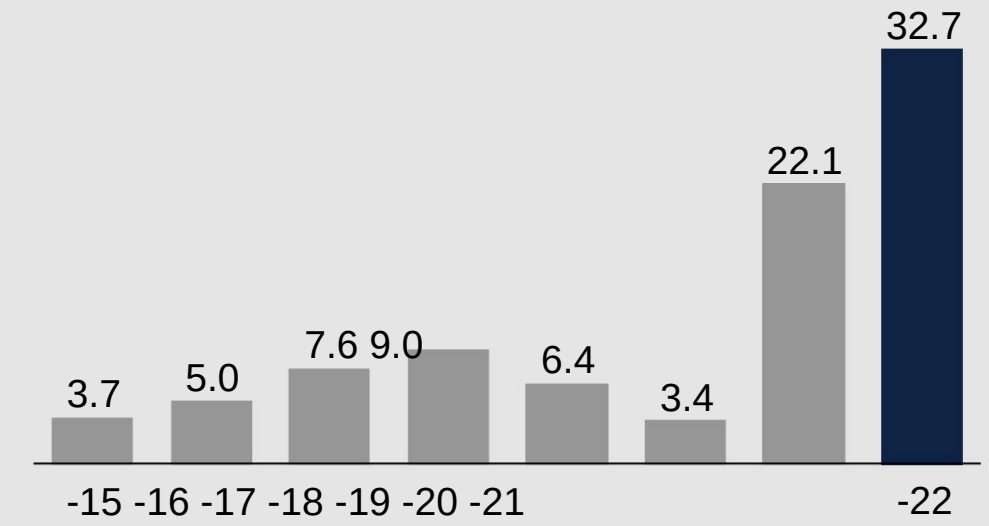
30%

market share, heavy plate USA

Improved profitability

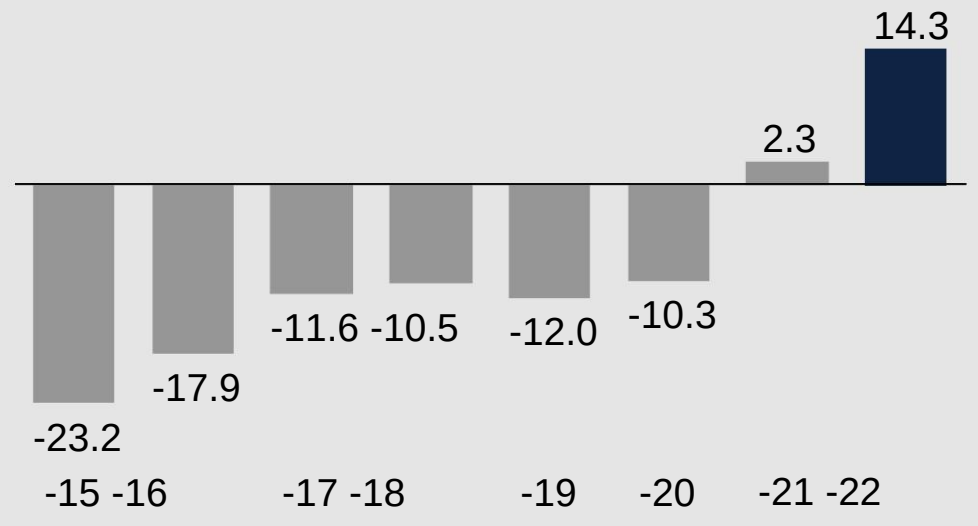
Record results in 2022

Adjusted EBITDA (SEK billion)



Strong balance sheet

Net cash (SEK billion)



SSAB has partnerships with important customers

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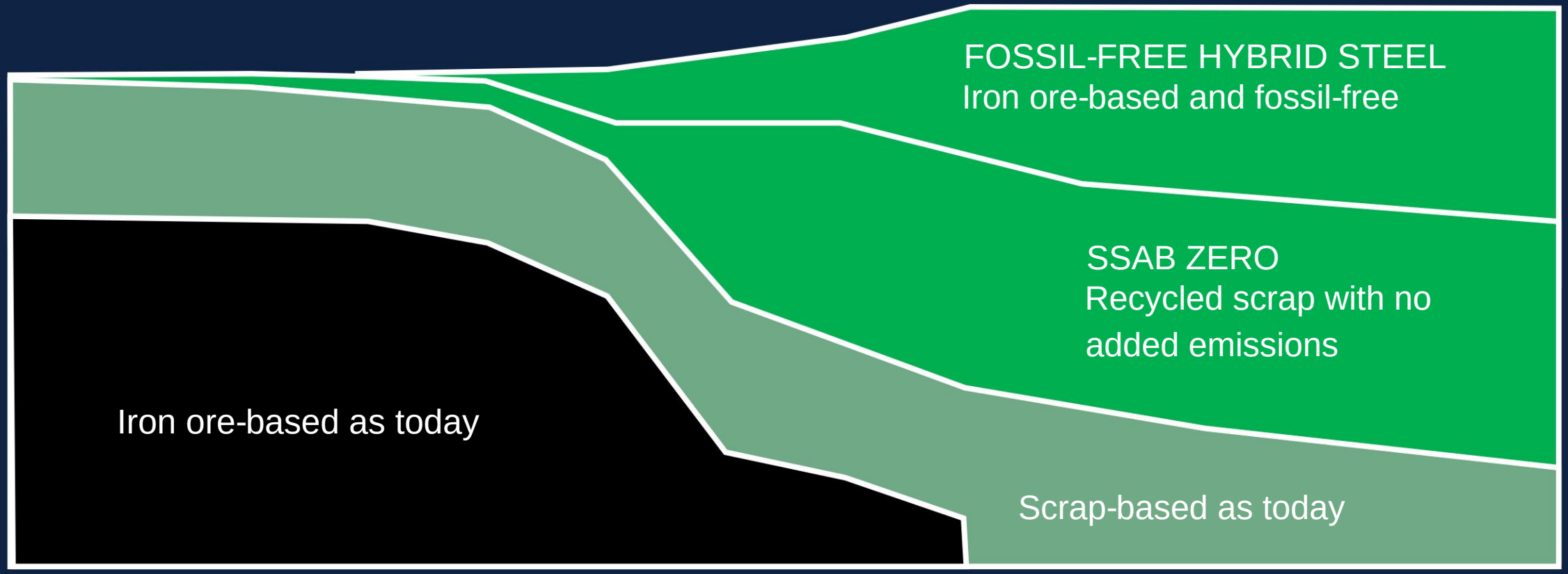
Our successful strategy continues

Global leader in high strength steels	Nordic leader in premium steel	Market leader North American heavy plate	Develop sales channels to the market
3.0 Mt Q&T and Premium	40% market share in the Nordics	30% market share, heavy plate, USA	Tibnor Ruukki Construction SSAB Services

Conversion to fossil-free steel production

- Lower costs and better efficiency
- Increased flexibility
- Higher capacity for high-strength steels and premium steels

Transition to a sustainable product range

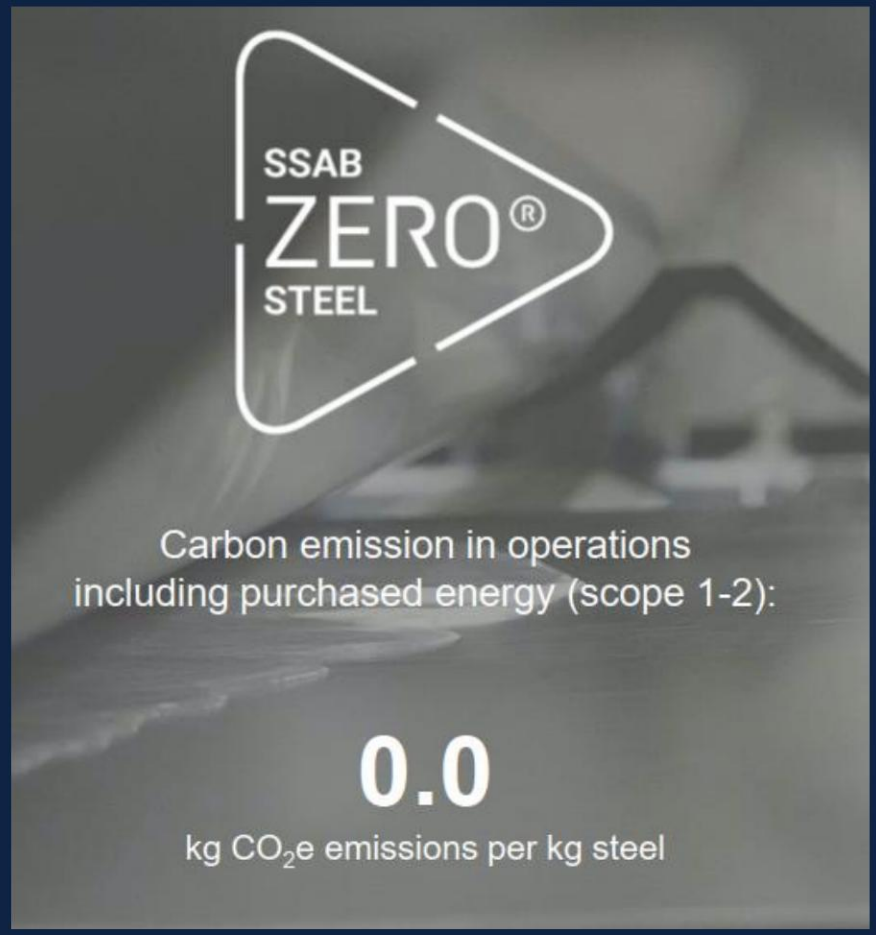


SSAB Zero was launched during Q2

- Zero emissions of fossil carbon dioxide in the business. Verified by Third Party

ÿ Fossil-free electricity, biochar and biogas

ÿ No carbon dioxide compensation or redistribution of emission reductions



Step-by-step plan for conversion until 2030

1

Zero Steel

- Production of SSAB Zero i Iowa, USA
- Fossil-free pilot deliveries continue

100-200 kilotons

CO2 reduction per year

Now

2

Oxelösund EAF

- Replace current blast furnaces and coking plants
- Melting of scrap and HYBRIT sponge iron

~1.5 million tons

CO2 reduction per eater

~2026

Decision: H1 2023

3

Mini-Mill #1

- First mini-mill operational – either Luleå or Raahe
- Shut down coal-based production

~4 million tons

CO2 reduction per year

~2028

Decision: 2024

4

Mini-Mill #2

- Second mini-mill operational – either Luleå or Raahe
- Shut down coal-based production

~4 million tons

CO2 reduction per year

~2030

Decision: 2026

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Adjustment Oxelösund

ÿ Policy decision Jan 2022

ÿ Close coking plant and 2 blast furnaces

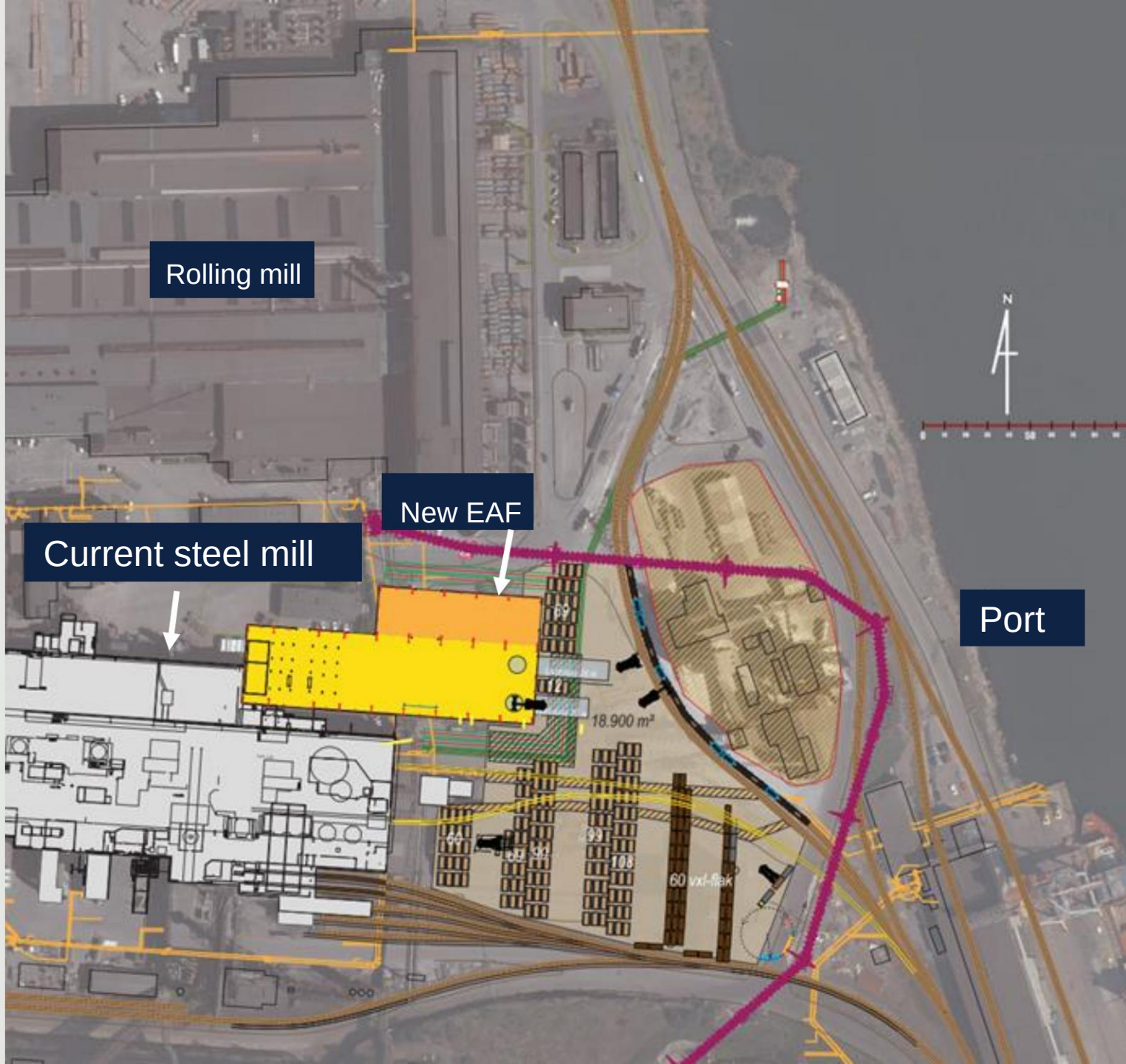
ÿ Construction of electric arc furnace
(Electric Arc Furnace)

ÿ New infrastructure for biofuels

ÿ Expanded scrap handling and
more efficient logistics

- Rolling mills and annealing lines will remain

ÿ Option to run parallel
system during transition period



Mini-mills in Luleå and Raahe

HYBRID – key to flexibility and a fossil-free value chain

- Planning for a demonstration plant with a capacity of 1.3 million tonnes of fossil-free sponge iron

ÿ The joint venture, Hybrit Development AB, owns the intellectual property rights to the technology

- The co-owners have the opportunity to build their own facilities

ÿ The scaling up of the HYBRIT technology for commercial production of fossil-free iron sponge remains to be proven

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Based on the Hybrit technology - a converted and expanded fossil-free value chain

Fossil-free production of iron ore

- New breaking level i Malberget
- Use of biofuel in pelletisation

LKAB

Industrial production of fossil-free sponge iron

- The ore mountain converted to iron sponge
- Industrial hydrogen production and storage

LKAB HYBRIT FOSSIL-FREE STEEL

Steel production in arc furnaces and new mini-mills

- Arc furnace in Ox
- Two new effective mini-mills in Luleå and Brahestad
- Closed blast furnaces

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Fossil-free industrial products

- Reduced Scope 3 emissions for customers
- New international competitiveness for Nordic production

VOLVO + Others

SSAB

Example of value chain: From mine to end customer

We maintain the entire value chain, create competitiveness and jobs in a range of industries by using domestic resources

Iron

Completely fossil-free production from mine to iron: fossil-free sponge iron for Swedish and international steel production and directly to end customers

Steel

Production of fossil-free steel in integrated steel works that supply to Nordic and international manufacturing industry

Vehicle

New electrified vehicles based on fossil-free material – access critical

End customer

High demand from end customers

NCC

VATTENFALL

Sweden's electricity production needs to double in less than 25 years - fossil-free power production

HYBRIT FOSSIL-FREE STEEL

World-leading research and development for the entire value chain

Source: https://group.vattenfall.com/se; https://www.volvogroup.com/en/sustainability/climate-goals-strategy.html , https://www.volvogroup.com/en/sustainability/climate-goals-strategy/science-based-targets.html ; https://www.ssab.com/news/2022/01/ssab-plans-a-new-nordic-production-system and-to-bring-forward-the-green-transition ; https://www.lkab.com/sv/nyhetsrum/pressmedällenden/hybrit-ssab-lkab-och-vattenfall-starts-the-industrialization-of-the-future-fossil-free-steel manufacturing--establishes-the-world's-first-production-plant-for-fossil-free -iron mushroom-in-gallivar/

Our surrounding world

Trends in our world

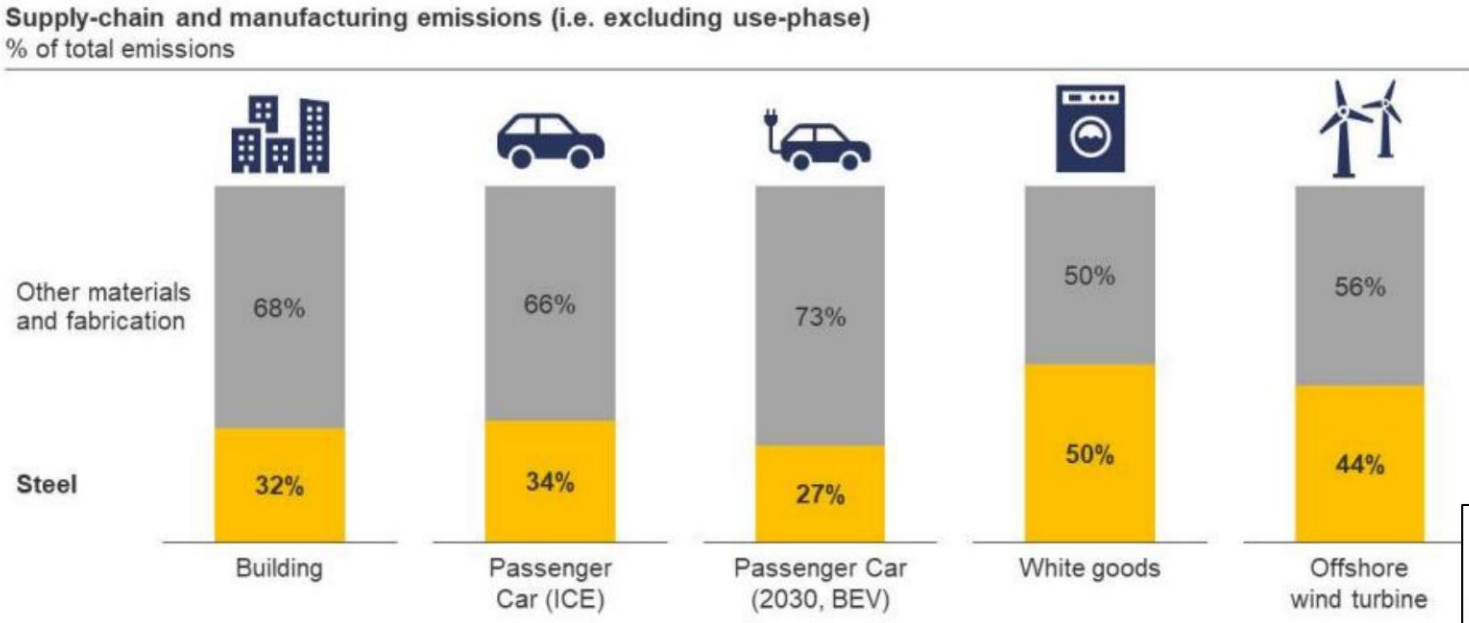
- Our customers' business and sustainability goals drive **the demand** for fossil-free steel

- The **global steel industry is restructuring** to meet the net-zero goal by 2050

- It will **cost more to emit** - new EU ETS rules clearly create a CO2 price

ÿ Risk that large targeted **state aid in other Member States distorts competition**
in the internal market

The market is demanding fossil-free steel to meet its own climate goals



Note: **Passenger cars:** ICE = Internal Combustion Engine; BEV = Battery Electric Vehicle. Use phase included upstream emissions based on EU average emission factor for electricity, assuming a reduction of 40-50%.

Exhibit 4: Steel represents a major share of materials and manufacturing emissions in several key products.

Source: Material Economics & Energy Transitions Commission's analysis based on multiple sources.[x]

Decarbonizing steel: How the demand for greener steel will upend the supply chain

Companies such as Mercedes and BMW increasingly want sustainable steel to meet their own climate targets. New tech is helping.

By **Nils Naujok** & **Holger Stamm** & **Markus Knopf** March 24, 2022

Increased demand for fossil-free products from SSAB's customers

Examples of collaborations

Demand exceeds supply

- Demand from existing customers already exceeds the planned supply of 1.3 million tonnes in 2026
- Demand for a wider product portfolio of premium products – for example for the automotive industry
- New customers contact us

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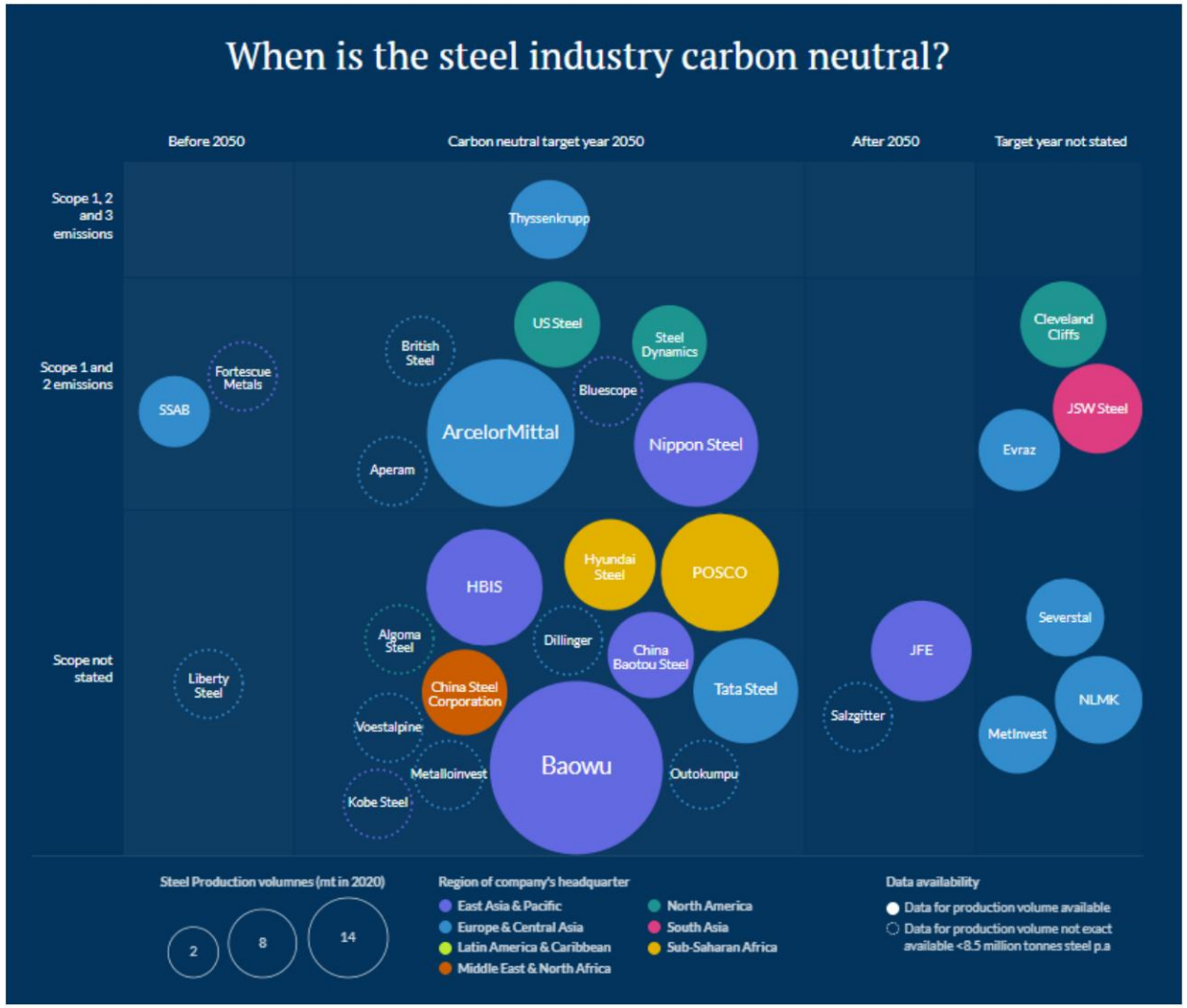
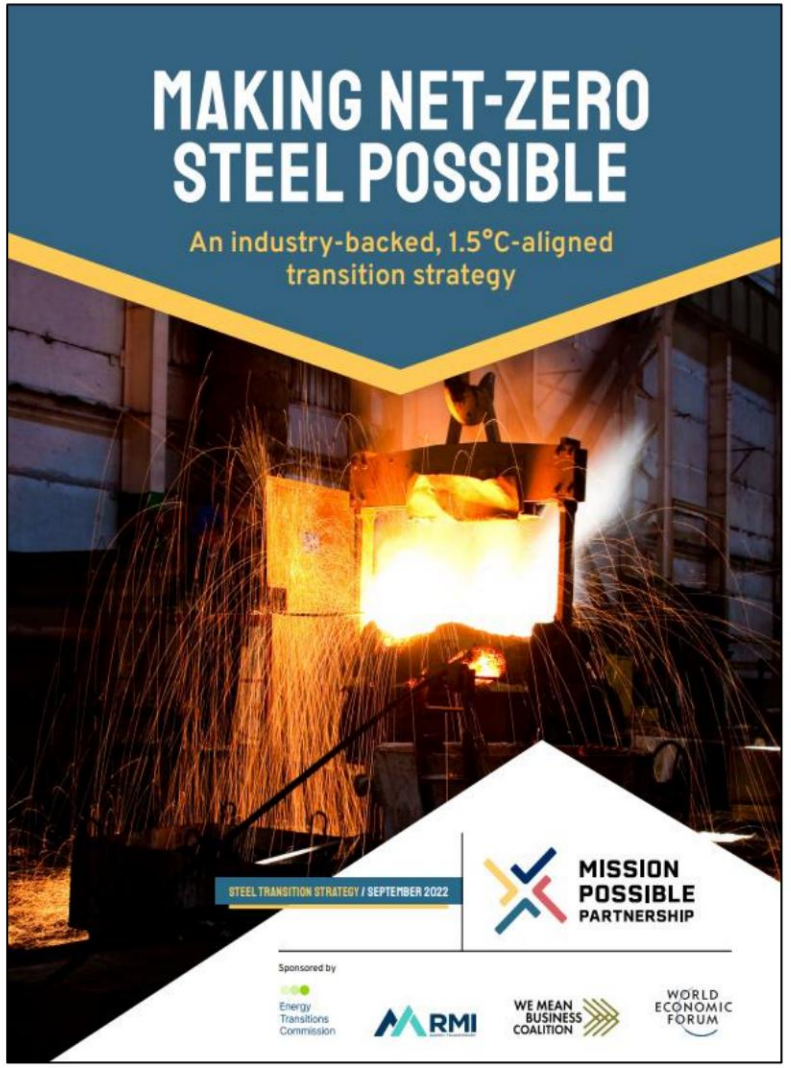
Global change is underway
- consensus around needs and the possibility to change



LeadIt: Green Steel tracker



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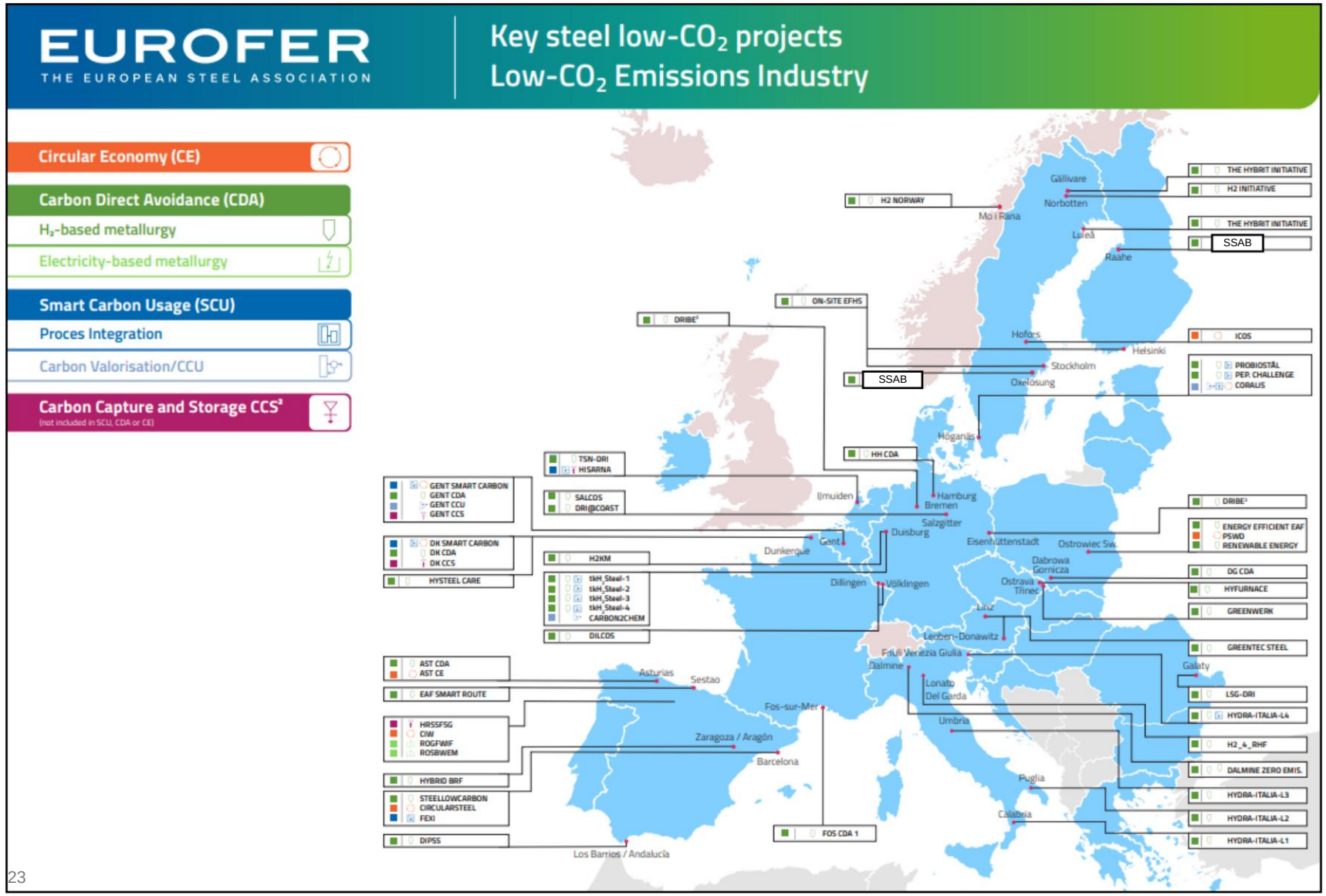
Restructuring is underway within the EU +60 project



Research and development for Hybrit technology has already delivered results:

2000 tons of fossil-free sponge iron - and

SSAB has produced 500 tons of fossil-free steel

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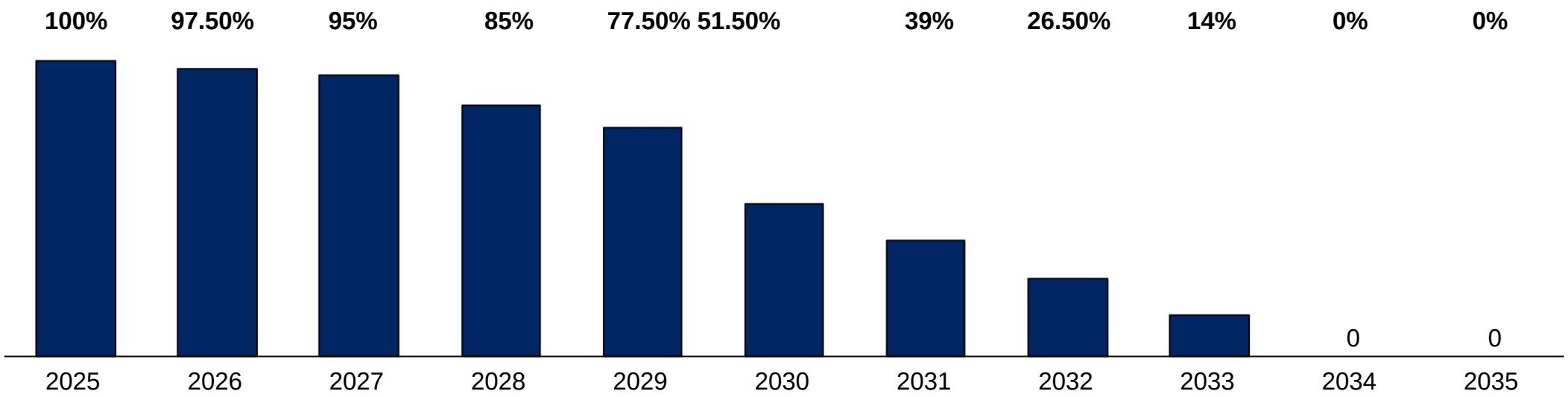
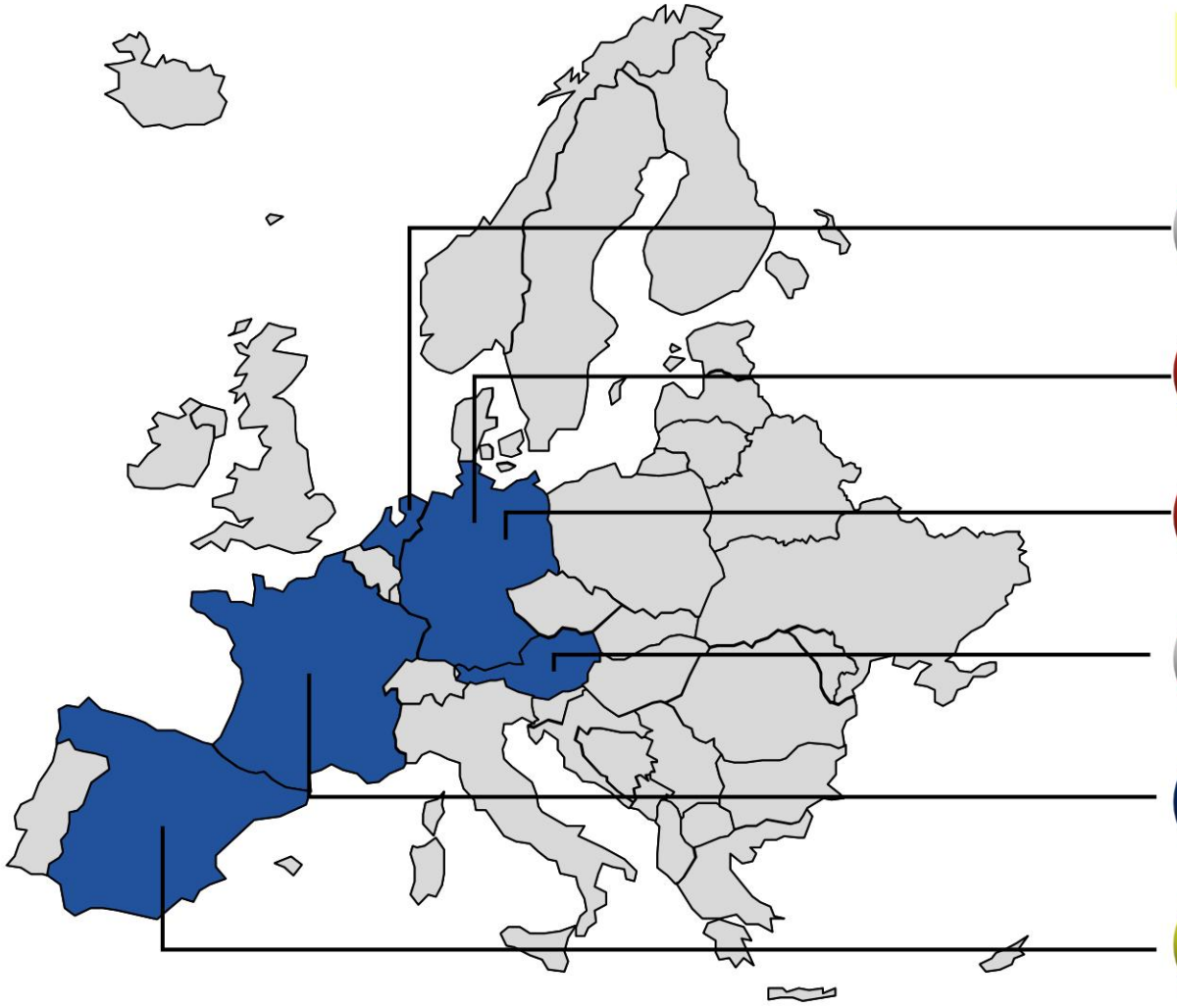
The EU ETS will give a clear CO2 cost



• The EU ETS free allocation is being phased out gradually at the same time as the Carbon Border Adjustment Mechanism (CBAM) is being phased in. • Aim to equalize the CO2 cost between EU-produced steel and imported steel (which does not bear the corresponding CO2 cost in the country of origin)

Major support for green transition – the new normal?

EU member states are planning billions in support for their steel industry



UPDATE decision Salzgitter and upcoming for Th

Netherlands - SDE++
13 BEUR next 12-15 years to stimulate large-scale rollout of green climate technologies

Germany - direct state aid to Salzgitter
EU KOM approves 1 BEUR in conversion grant for plant for direct reduction and electric arc furnace

Germany - direct support to ArcelorMittal
EU KOM approved EUR 55M in conversion grant for demonstration plant for direct reduction

Austria – Voestalpine
The government plans to support H2-DRI and electric arc furnaces with EUR 50-70 million per year between 2025-2035

France - direct aid to ArcelorMittal
1.7 BEUR to be invested by the French government in direct reduction and arc furnaces in Fos-sur-Mer and Dunkirk

Spain - direct aid to ArcelorMittal
EU KOM approves EUR 460M in conversion grant for plant for direct reduction and electric arc furnace

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Status

SSAB's transformation in brief:
SEK 50 billion investment, cuts 10% of Swedish emissions, fossil-free around 2030 and continued long-term competitiveness

This is what we are going to do

ÿ SSAB's board has made a strategic decision to restructure the Nordic production system until around 2030.

• In Sweden, this means the construction of electric arc furnaces and a new steel mill in Luleå, and also investments in Borlänge, as well as an electric arc furnace in Oxelösund

• In Finland, the current facility in Brahestad is to be converted to electric arc furnaces and a new steel mill and investments are also planned in Hämeenlinna.

• **Overall, the investment need in SSAB's Nordic is estimated facilities to approximately SEK 50 billion**

This is what we achieve

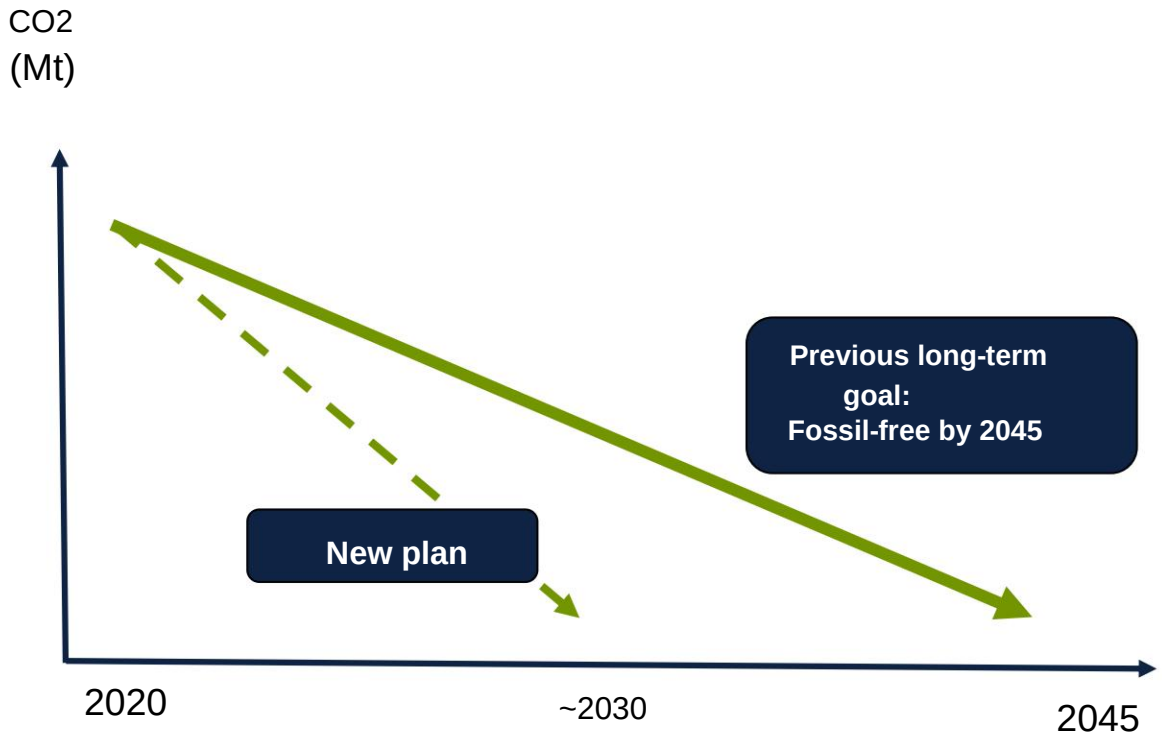
• SSAB's conversion will remove approx. 8 million tonnes of CO2 in the Nordics, corresponding to approx. **10% of Sweden's and approx. 7% of Finland's total CO2 emissions.**

• Through the conversion and changed interface i value chain, the total energy use in SSAB's operations will decrease - thanks to the transition from coal and fossil fuels to fossil-free electricity, biogas and biochar.

• New extended value chains and continued long-term competitiveness

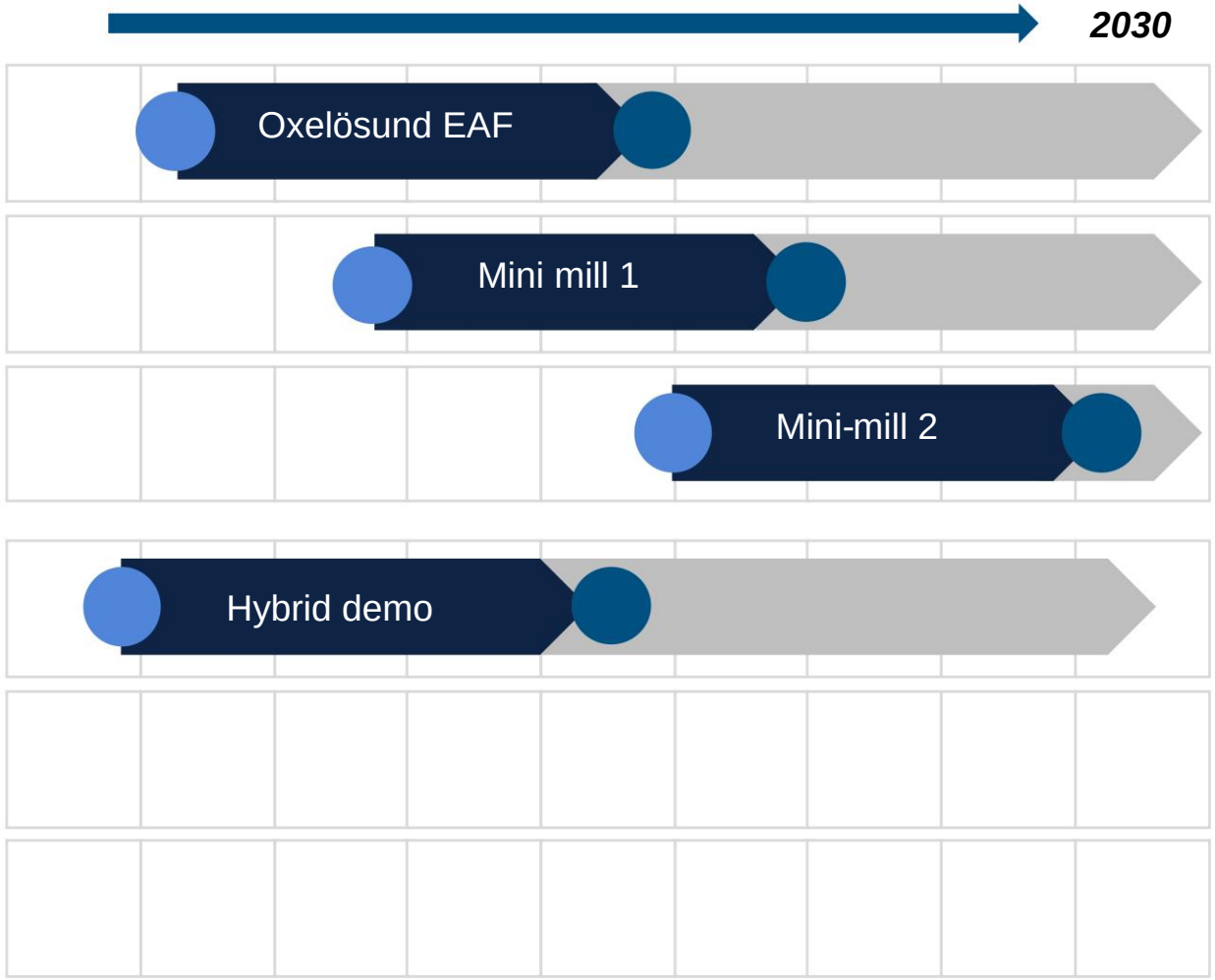
We are removing carbon dioxide emissions 15 years earlier than planned

- We meet the market's needs as quickly as we can
- We offer our customers to be part of a fossil-free value chain
- We contribute to the achievement of Swedish and Finnish climate goals
- SSAB reduces CO2 emissions by around 8 million tonnes per year in the Nordics



*Illustrative graph

Decision points in the near term to realize 2030 - conditions need to be in place



Investment decision, requires

- ÿ Permit (environment, land)
- ÿ Effect assigned
- ÿ Secured logistics
- ÿ Investment calculation
- ÿ Financing

Startup, requires

- ÿ Electrical connection
- ÿ Working mtrl flows
- ÿ Staffing

Factors beyond SSAB's control

		Oxelösund	Luleå	Raah
Environmental permit	Permission to change to a more environmentally friendly production	✓	✓	✓
Network connection	New power lines to connect to the power grid	✓	?	✓
Electricity	Need for additional ~4.5 TWh + 5 TWh for Hybrit Demo	✓	?	✓
Reasonably equal conditions for state aid	?	Competitors within the EU receive billions in support to invest in established technology - In the US, green transition is financed via the Inflation Reduction Act		

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Oxelösund power supply

ÿ SSAB application for increased power in 2017

ÿ Vattenfall electricity distribution started consultations in 2019

ÿ Ei concession decision October 2022

- Appeals received by MMD

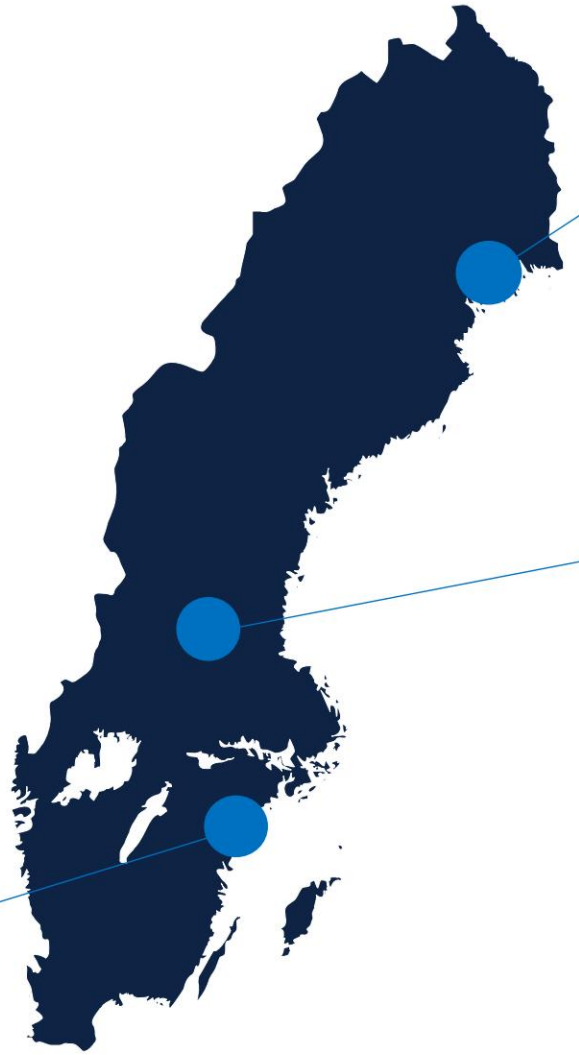
ÿ Process initiated at MMD - main negotiation expected in September 2023

ÿ SSAB has a further deadline of 31/12 2026 to comply with (dispensation in environmental permit)

Current production system

(numbers indicate consumption/year)

Steelmaking from ore can be divided into the following steps:
1. Extraction of iron ore from the mine 2. Refinement of ore into raw material for a reduction process (pellets)
3. Reduction of iron ore (in a blast furnace or in direct reduction - with existing technology (in the future with HYBRID technology)
4. Melt iron
5. Refining molten iron into molten steel
6. Cast steel blanks before hot rolling
7. Hot rolling into thick sheet (flakes) or thin sheet (coils)
8. Further processing (Q&T, formatting, cold rolling, annealing, coating, painting)



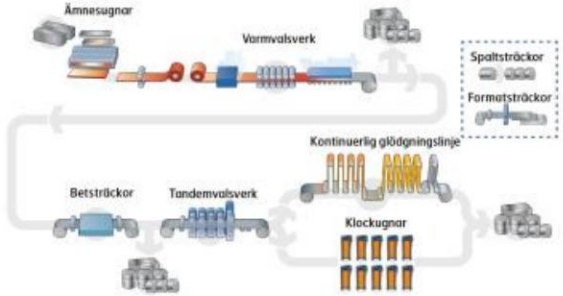
SSAB Luleå: Iron ore to slabs (train transport to Borlänge)

12 TWh coal for blast furnace process

0.6 TWh electricity

0.6 TWh of fuel

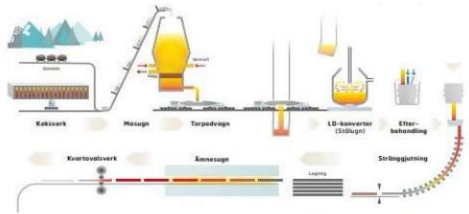
SSAB Borlänge: Slabs for steel products



0.4 TWh electricity

1.2 TWh of fuel

SSAB Oxelösund: Iron ore for steel plate



6 TWh coal for blast furnace process

0.6 TWh electricity

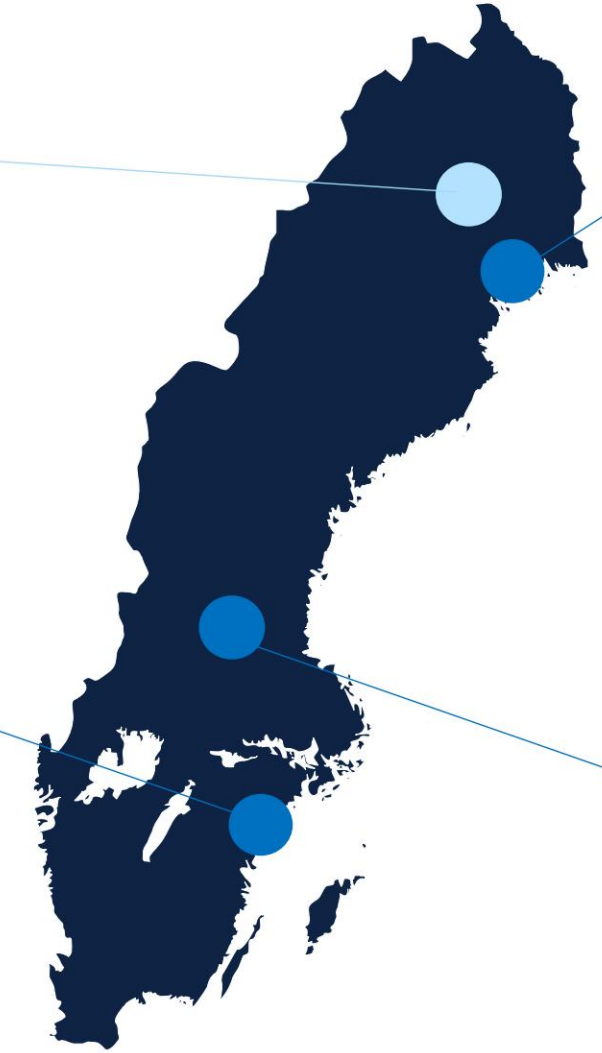
0.6 TWh of fuel

Tomorrow's production system

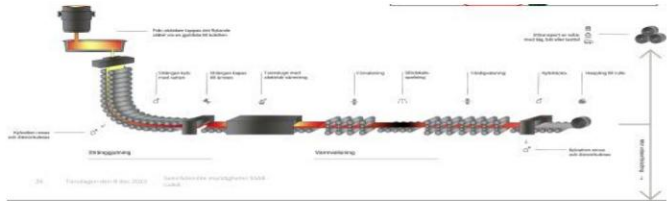
(numbers indicate need/year)

HYBRID demo Expires:

Construction 2026
Additional needs approx. 5 TWh electricity (SE1)

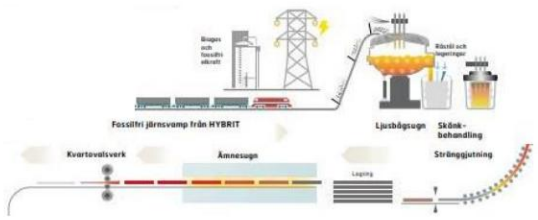


SSAB Luleå: Sponge iron/scrap for coils and steel products



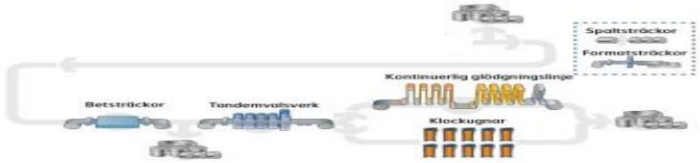
Changeover around 2030
Additional needs approx. 2 TWh electricity (SE1)

SSAB Oxelösund: Sponge iron/scrap for sheet steel



Changeover in 2026
Additional needs approx. 0.6 TWh electricity (SE3)

SSAB Borlänge: Coils for steel products



No additional need for electricity (SE3)

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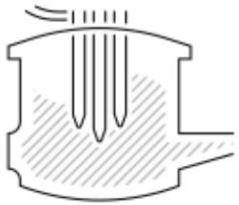
Change in energy demand

ÿ SSAB today:

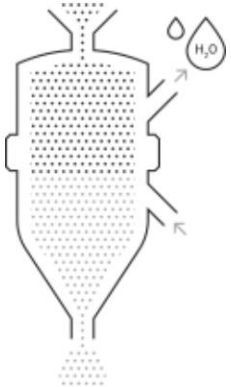
ÿ About 18 TWh of imported coal to reduce the oxygen from the iron ore in our blast furnaces -> 5 Mton CO2

ÿ About 1.6 TWh electricity



ÿ SSAB production locations in Sweden converted (around 2030):

- About 2.6 TWh additional electricity

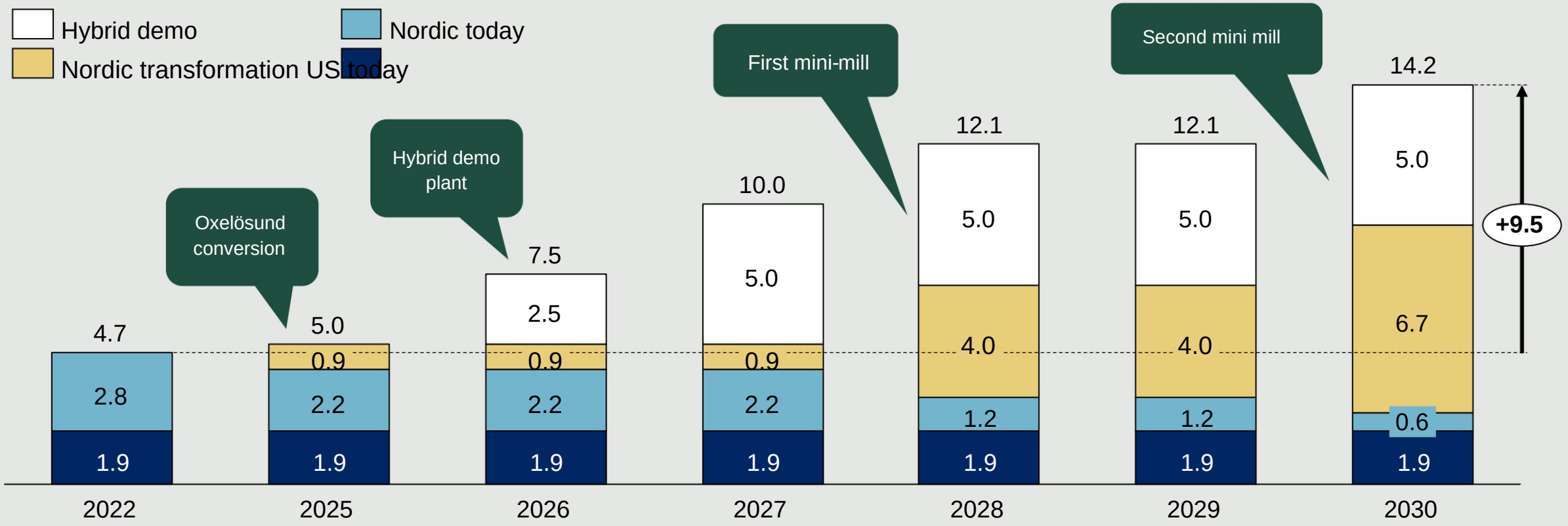


ÿ Iron fungus production:

ÿ About 5 TWh Hybrid demo (2026)

SSAB needs ~9.5 TWh for the transformation (including the Hybrit demo plant)

SSAB electricity needed, TWh per year



What is needed?

Sweden has unique conditions

ÿ Access to raw materials crucial for the transition (forest, iron ore, copper, rare earth metals) ÿ Over 90% of all iron ore produced in Europe, over 35% of all lead and zinc (used in batteries) and about 10% of all copper (in vehicles, for power transmission, etc.)

- Largest forests in Europe 28 million hectares - which can replace both fossil-based products and energy

ÿ Fossil-free energy system with excess capacity – (15 TWH in price range 1 and 2 and 33 TWH electricity export in 2022)

- World-leading companies that already work in **value chains** with great technical know-how and good conditions for innovation

- A long and successful tradition of collaborating between business, society and academia with a base in innovation, research and development

ÿ Access to well-educated labor with opportunities to skills development and a low degree of conflict in the labor market

- The market - our customers and other forward-leaning Swedish companies - demand green and digital solutions

AB Volvo dumps to NCC produced from fossil-free steel from SSAB

SSAB

To succeed with the changeover, you need:

1. **Permit processes**
2. **Electrification**
3. **Emissions trading**
4. **Policy and support**

Permit processes

ÿ **Change testing as a norm.** In accordance with the Environmental Assessment Investigation in the Environmental Code, introduce that amendment assessment must be the main rule when applying to change an environmentally hazardous activity.

ÿ **Clarifies the boundary between permit and notification obligations.** In accordance with the Environmental Assessment Investigation increase predictability by clarifying the boundary between permit and notification obligations in case of changes to permit-required activities.

ÿ **Set a maximum limit for permit review.** The time required for permit review should be limited to a maximum of one year from the time the application is submitted. The court should be required to draw up a concrete timetable in each case, similar to the proposal in the Environmental Assessment Investigation.

ÿ **Abolish or tighten up the general completion round.** The Environmental Code should be clarified so that the court decides whether additions to the case are necessary and which specific authority should be contacted for any information. Alternatively, a strict timetable should apply to authorities' requests for additions.

ÿ **The right competence, resources and clear role for authorities.** Ensure that authorities and courts have the right skills and resources for effective trials. Increased overall perspective including societal benefit, use of oral preparation and clarification of the authorities' role in review processes similar to the proposal in the Environmental Review Investigation.

ÿ **Strengthen the environmental code's sustainability dimension.** Environmental, economic and social sustainability should be given a more prominent assessment basis in permit examinations by authorities.

Electrification

ÿ **Social benefit and positive side effects** of conversion of existing operations need to be included as part of assessment for prioritization of electricity network expansion and decisions on allocation of power.

ÿ **Define the responsibility for** the planning of Sweden's electricity grid, which also includes opportunities for review of the application and enables forecasting and analysis.

ÿ **Actual needs** must be compared to those requested in order to eliminate the risk of strategic overbooking and possible double bookings with the consequence of crowding out other projects.

ÿ **Gradual allocation. Applications** and allocation should be handled and distributed in stages according to the activities' successively increased power requirements not final power.

ÿ **Value chain perspective.** Prioritization of existing and growing value chains and geography with potential for synergies, instead of allocation of electricity to individual actors.

ÿ **More efficient technology selection process. Clarify** legislation in accordance with proposals in the Climate Law Investigation in order to clarify and announce regulations regarding the choice of technology between overhead line and cable.

Emissions trading

ÿ **Effective implementation of the EU ETS.** Emissions trading creates the conditions for the transition and a clear timetable for the phasing out of free allocation and the introduction of CBAM are important components. However, a mechanism for exports from the EU needs to be included.

ÿ **Implementation of revised benchmarks in ETS.** It is important that the benchmark for 'hot metal' now in implementation also includes emission-free technologies without affecting the level of the benchmark.

Policy and support

ÿ **Equal conditions in the EU's internal market.** Government support must focus on research, development and scale-up of new technologies, not finance the conversion to already existing commercially available technologies.

ÿ **Face competition from the outside world.** In order for Sweden to maintain its leading position, Sweden must face subsidies and regulations, e.g. through the investigation proposals recently submitted by the Climate Rights Investigation and the Environmental Assessment Investigation. SSAB needs information on environmental permits and allocation of power as well as concessions for power lines as soon as possible.

ÿ **Take inspiration from the EU.** The regulation on net zero industry/Net Zero Industry Act (NZIA) several of the proposals should be implemented generally in legislation, among other things regarding "one stop shop", time limits, priority status and regulatory sandboxes. ÿ **The**

importance of standardization. Sweden should actively continue to pursue the issue of ambition and comparability emission intensity in materials and products. It is about standardization and clear rules for fossil-free steel (near zero emission steel). SSAB believes that this standard must be ambitious and include the manufacturing processes for both iron ore and scrap-based steel in the same system.

With SSAB's future Nordic production system, long-term competitiveness is created

- We develop new and proprietary technology (patent pending HYBRIT technology)
- We are strengthening and extending our value chain
- We are facing increased customer demand for fossil-free products
- We are improving our product range and our lead times
- We make our operations more energy efficient
- We reduce import dependence and strengthen energy security
- We preserve and develop jobs
- We increase the climate benefits

Annex

Power allocation and grid reinforcement

Situation:

- Power shortage & Electricity crisis
- Willingness to change
- Fossil-free demand
- Need for energy security
- Need for Resource Efficiency
- Great deals. investments

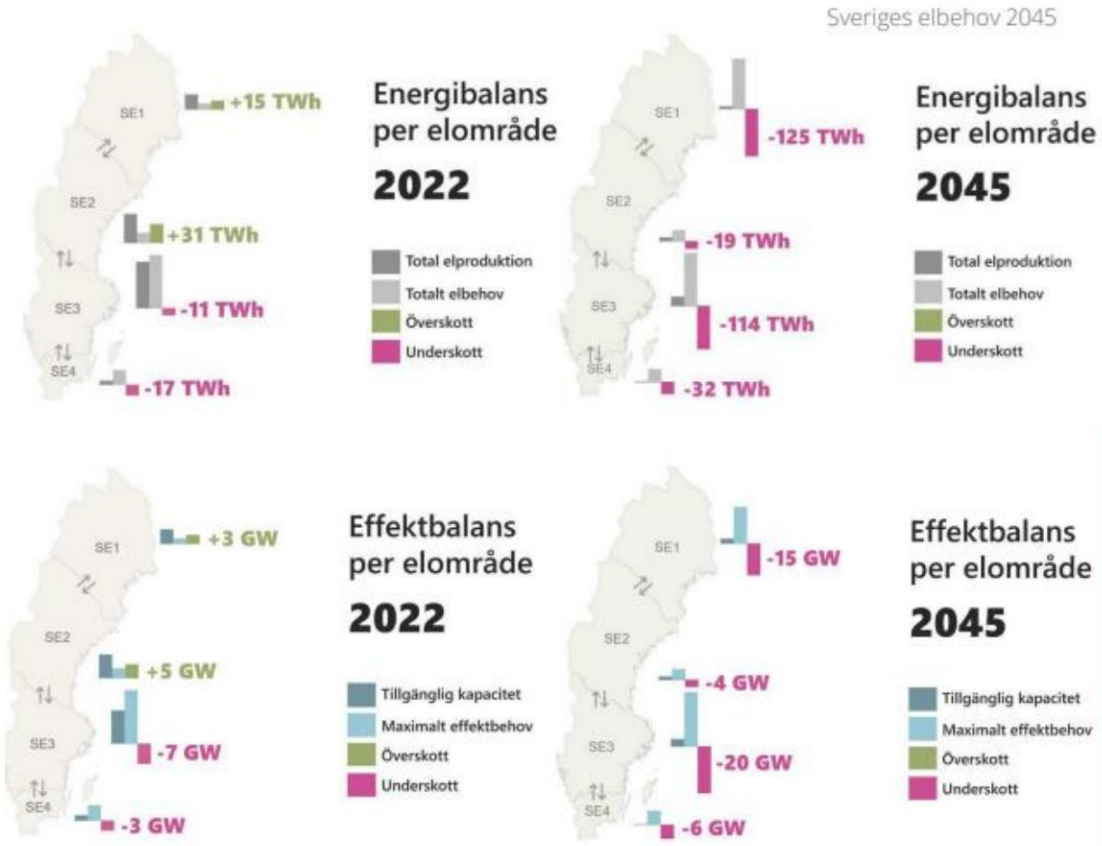
Problem:

- Large unverified effect bookings that enable air bookings
- Allocation principles and queuing systems do not require social benefit
- Industries crowd out society's and other industries' opportunities for adjustment
- Sequential and "industry separating" planning and execution
- Large emissions – difficult to reach the climate targets
- An outdated allocation procedure without transparency and requirements of social benefit
- Weak in innovation and construction of power lines determined by practice

Solution:

- Active utility management for allocation and grid reinforcement that increases transparency and predictability - authorities and state-owned companies
- Allocation that stimulates industrial symbiosis, cluster formation and energy trimming
- Allocation that geographically connects and secures value chains
- Paralleling and co-planning of power grid projects
- Transparency of power bookings and tangible consequences for air bookings.

Need SSAB's converted production system



Stor tillkommande elanvändning till 2045 visas i tabellen nedan:

Järn- och stålindustrin	114 TWh
Transporter	30 TWh
Grön konstgödselproduktion	5 TWh
Batteriproduktion:	2 TWh
Elektrobränslen:	3 TWh
Massa & papper:	oklart
Raffinaderi + kemi:	oklart

SSAB part:

Electricity today: 1.6 TWh

Electricity demand adjusted production system around 2030 (arc furnaces + new steel mill Luleå): approx. **4.2 TWh**

Electricity demand sponge iron production, Hybrit demo approx. 5 Twh (2026)

Converted SSAB production system - cuts 10% of SE emissions - need approx. 10 TWh

This is how HYBRIT is financed

ÿ The ownership companies in HYBRIT account for the vast majority of the financing

ÿ For preliminary study, pilot phase and a preliminary study on demo phase, the investment amounts to approximately 2 billion kroner

ÿ The ownership companies have together invested SEK 1.5 billion, or approximately 75%. Via Industriklivet has HYBRIT received just over SEK 500 million in government support from the Energy Agency

ÿ In order to take the first step in industrialization, the owner companies have previously identified an investment need

ÿ HYBRIT has also been granted 143 million euros from the EU Innovation Fund for financing research and demonstration facilities

ÿ To share the risk, HYBRIT has applied for support from an EU program for sustainable hydrogen chains, IPCEI Hy2Use, approved by the EU Commission and covering 35 projects in 13 EU countries

ÿ HYBRIT has applied for SEK 4.9 billion in support to share the risk in large-scale industrialization of the technique

Refinement with fossil-free hydrogen instead of fossil coal - driving a gradually increasing need for electricity in the north