

**ARN Relatiedag  
2 oktober 2024**

**HKS**  
THE METAL COMPANY



**Wout Kusters  
HKS Scrap Metals BV**

- **De problemen**
- **Wat zien we gebeuren?**
- **De oplossingen**

## **DE PROBLEMEN**

- **verlagen CO2-uitstoot;**
  - **verminderen afhankelijkheid grondstoffen van niet EU-landen.**
- EU-regelgeving → CO2.**

## **WAT ZIEN WE GEBEUREN?**

- **acties staalverbruikers;**
- **acties staalproducenten.**

# The industry is undergoing a major change process

Decarbonisation goals of the EU

Higher share of recycled material in end products



In Boden, in northern Sweden, H2 Green Steel will produce green steel, reducing CO<sub>2</sub> emissions with up to 95 percent compared to traditional steelmaking.

Source: <https://www.h2greensteel.com/about-us>

voestalpine AG gave the green light to conduct the preliminary work for climate friendly steel production. An investment is made into constructing one electric arc furnace at each of the two sites, Linz and Donawitz in 2024.

Source: <https://www.voestalpine.com/investors/ad-hoc-news/2023-03-22-voestalpine-supervisory-board-approves-eur-1.5-billion-for-further-decarbonization-00001/>

SSAB's Board of Directors took the decision to invest SEK 6.2 billion in an electric arc furnace (EAF) in Oxelösund in June 2023. This was the starting point of the transformation of the Nordic production system. The plan is to transform the sites in Lulea and Raabe into new cost-effective mini-mills with electric arc furnaces.

Source: <https://www.ssab.com/en/company/about-ssab/the-earth-calls-for-action/transforming-from-a-position-of-strength>

ArcelorMittal announced plans to transition the Eisenhüttenstadt plant from BF-BOF production to DRI-EAF by 2030.

Source: [https://www.gem.wiki/ArcelorMittal\\_Eisenh%C3%BCttenstadt\\_steel\\_plantfr--text=ArcelorMittal%20Eisenh%C3%BCttenstadt%20since..Transition,DR%20plant%20with%20unknown%20capacity.](https://www.gem.wiki/ArcelorMittal_Eisenh%C3%BCttenstadt_steel_plantfr--text=ArcelorMittal%20Eisenh%C3%BCttenstadt%20since..Transition,DR%20plant%20with%20unknown%20capacity.)

Mercedes-Benz announced to raise the amount of recycled material per vehicle model by 40 percent by 2030.

Source: <https://www.euwid-recycling.de/news/wirtschaft/mercedes-strebt-umfassenden-einsatz-von-recycling-materialien-an-200422/>

BMW intends to use more recycled materials in their cars. The share of recycled materials should be by 40 percent per vehicle by 2030.

Source: [www.bmwgroup.com/en/sustainability/goals.html](https://www.bmwgroup.com/en/sustainability/goals.html)

Audi intends to use 40 percent of recycled material per vehicle model on a fleet basis over the entire life cycle by 2030.

Source: Audi Sustainability Report 2023 – S. 67

STELLANTIS pursues the goal of launching the first vehicles containing 40 percent of Green Materials by 2030.

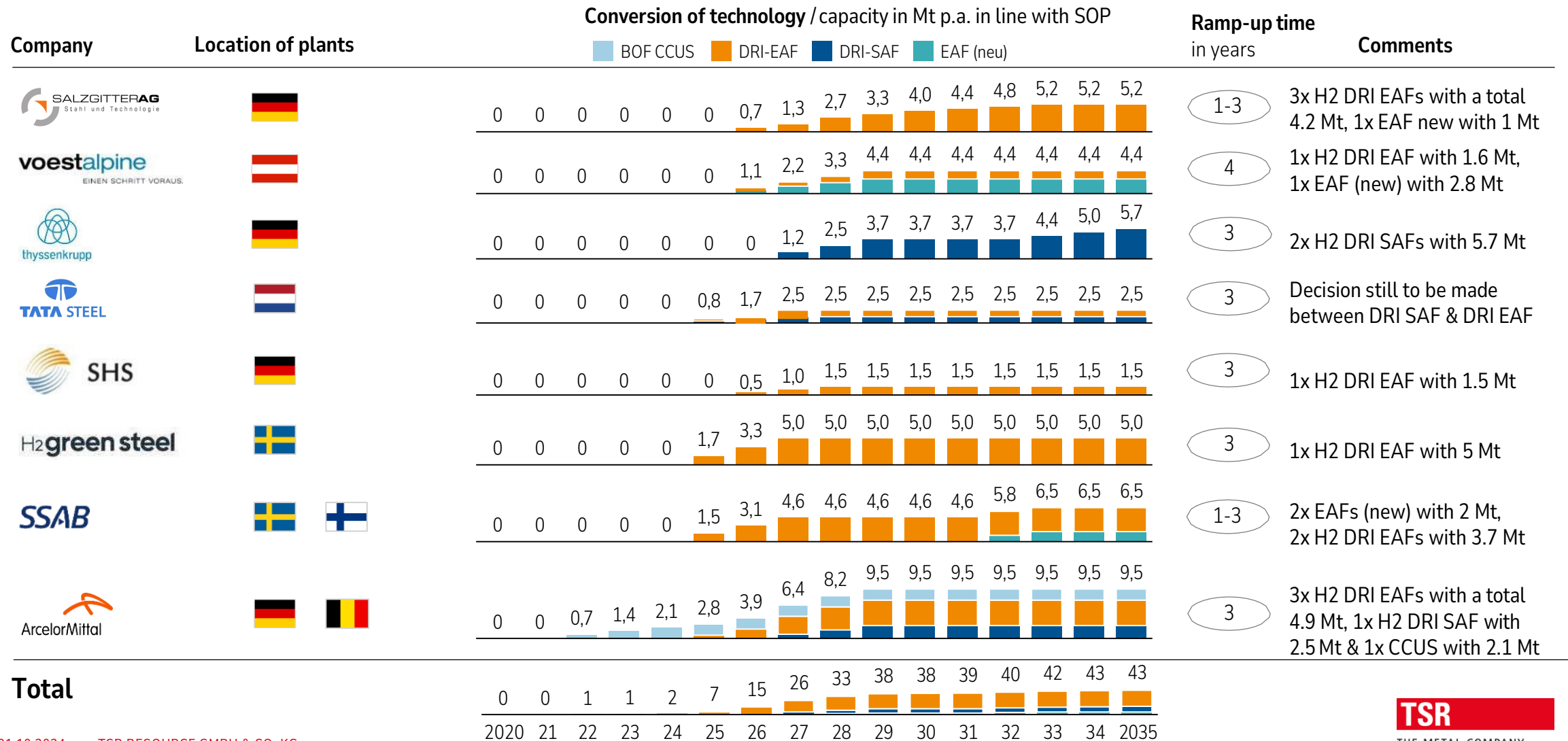
Source: STELLANTIS Sustainability Report 2023 – S. 203

Volvo Car Group intends to reach 30 percent average recycled content across its fleet, with new car models having at least 35 percent recycled content.

Source: <https://www.media.volvocars.com/global/en-gb/media/pressreleases/322528/volvo-cars-reconfirms-its-commitment-to-sustainability-with-new-ambitions-and-a-focus-on-biodiversit>

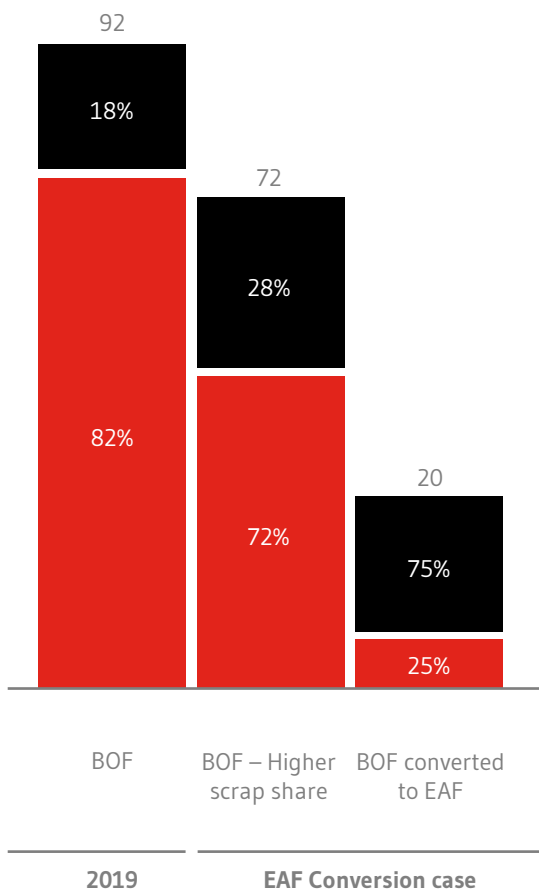
The demand for recycled material is growing fast!

# Steelmakers have drawn up details about and communicated the first stage of their decarbonisation plans



# Upcoming challenge: Scrap availability shortages with transformation to DRI-EAF based steelmaking

Liquid steel, EU28, Mt

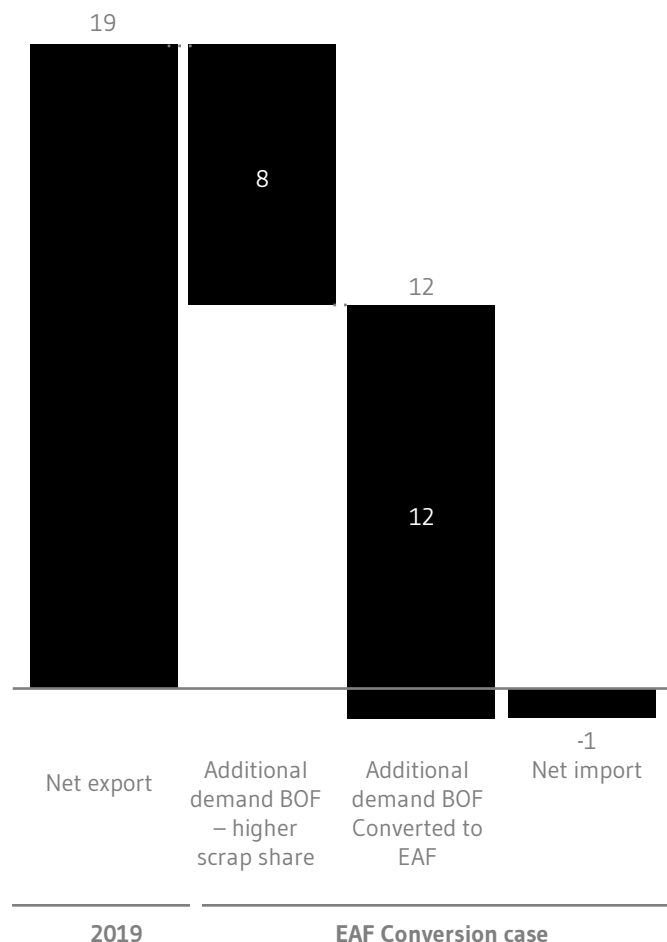


TIs = ton of liquid steel

BOF Scrap/hot-metal split based on Tata Ijmuiden (18/82%)

EAF Scrap/hot-metal split based on Arvedi (75/25%)

Scrap trade balance, EU28, Mt



## Implications on scrap price and scrap trade

In total, the scrap price in the future will likely increase

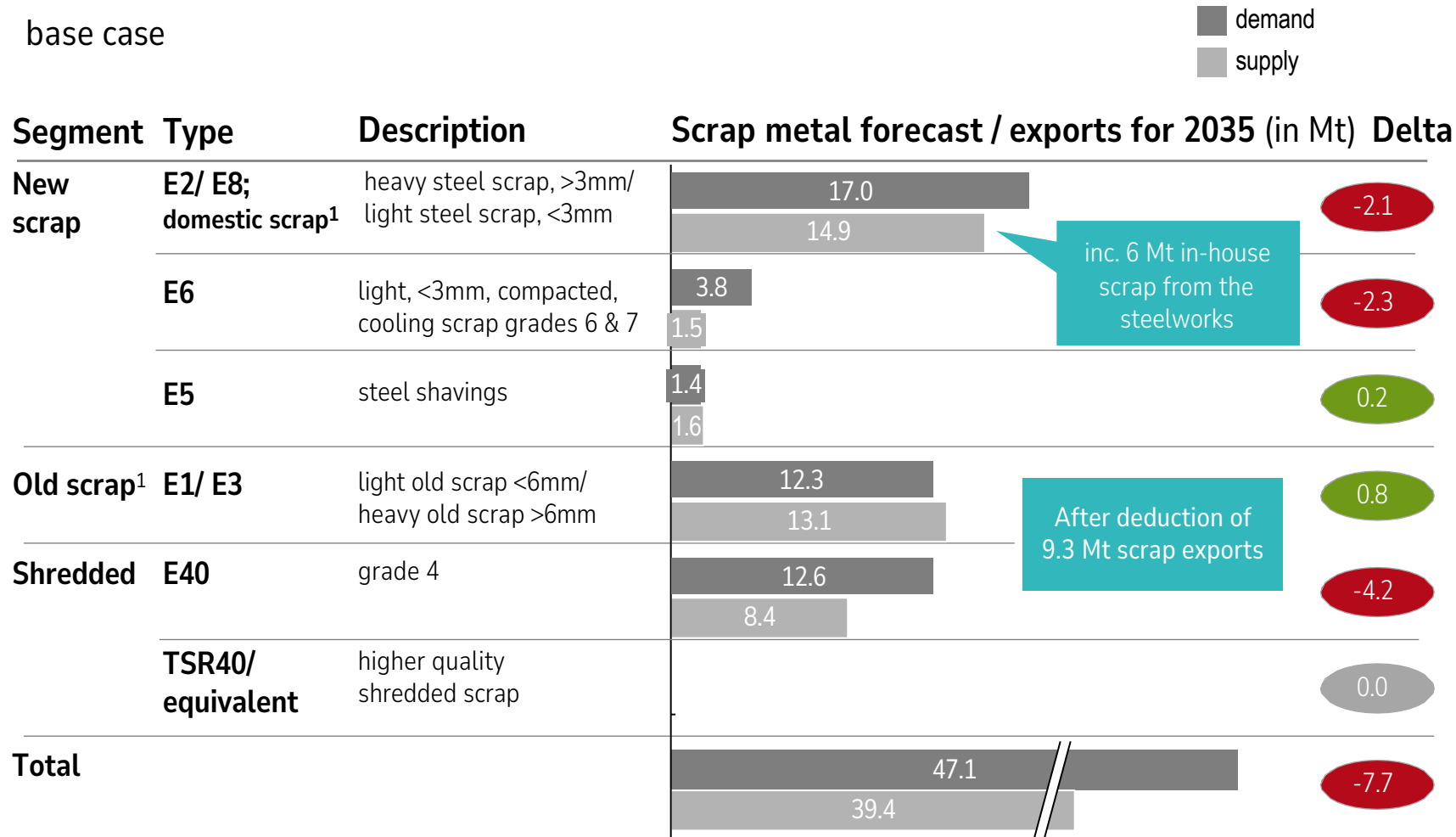
### Logic

- Scrap demand increases by ~20 Mtpy as a result of scrap share in remaining BOFs increasing by 10 pp and additional ~20 million tons of integrated capacity converted to EAF
  - This increases scrap consumption by ~23% (scrap consumption 87.7Mt in EU28 2019) and makes EU28 a ~1Mt net importer of scrap
  - As EU28 start importing scrap, prices rise
- Realistically 5-6 Mtpy conversions modeled in EU 2021-30 ramp-up**

■ Scrap ■ Pig iron

# The ~8 Mt deficit in supply will primarily be for new scrap

base case



## Key findings



A greater deficit of ~4 Mt for **new scrap** that can be partially offset by processing old scrap better and/or blending



All in all, there will still be an **overall surplus in demand of ca. 8 Mt** which will be able to be covered by reducing scrap exports and/or importing HBI

# WAT BETEKENT DAT?

- **Schroottekort -> blijft in Europa?**
- **Schrootkwaliteiten?**
- **De oplossingen**



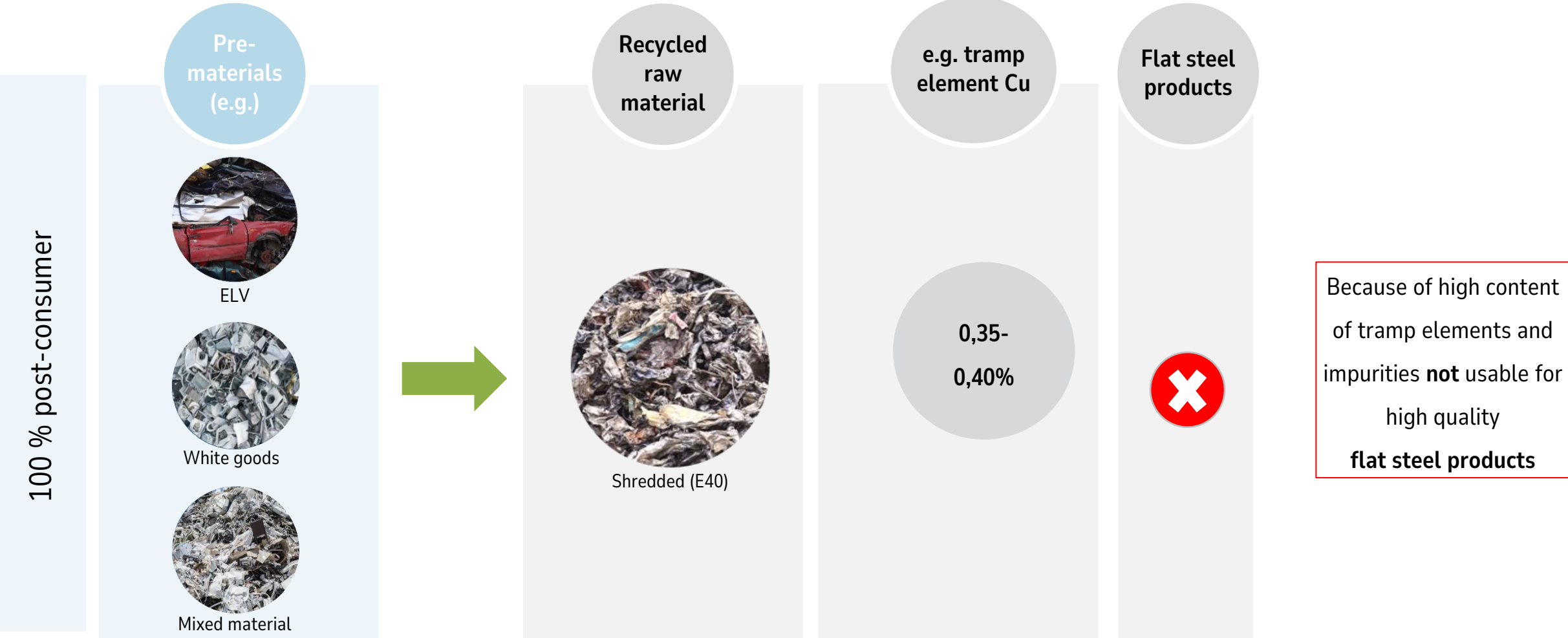
# Development of a new processing line in Duisburg



- \_ Power: 4,000 HP / 2,940 MW
- \_ Capacity: 440,000 mt
- \_ (Output) capacity:  
330,000 mt Ferrous fraction  
110,000 mt residual fractions
- \_ Construction Time: One Year



# Status Quo Recycling of End-of-life material



# High purity recycled material from post consumer pre-materials can be used in flat steel products without any loss of quality



# Verdere uitbreiding TSR-40

- HKS-Amsterdam
- .....
- .....
- .....
- .....



**HKS**

THE METAL COMPANY

**THANK YOU**



[info@hksmetals.eu](mailto:info@hksmetals.eu)



+31 88 606 5000

