thyssenkrupp Steel Europe

VET contribution to green transformation

23 May 2024, Dr. Veit Echterhoff

thyssenkrupp AG business in key figures

Fiscal year 22/23[1]

Automotive Technology[2]

€ 7.9 billion
Revenue

€ 266 million
Adjusted EBIT

31,689
Employees

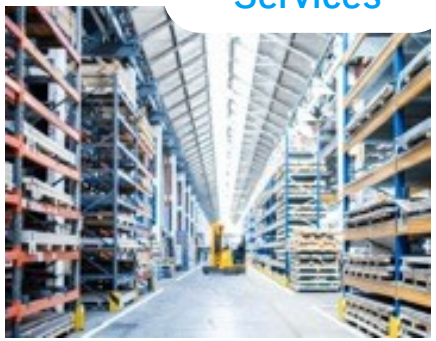
Decarbon Technology[2]

€ 3.4 billion

€ 28 million

15,101

Material Services



€ 13.6 billion

€ 178 million

16,329

Steel Europe

€ 12.4 billion

€ 320 million

26,822

Marine Systems[2]

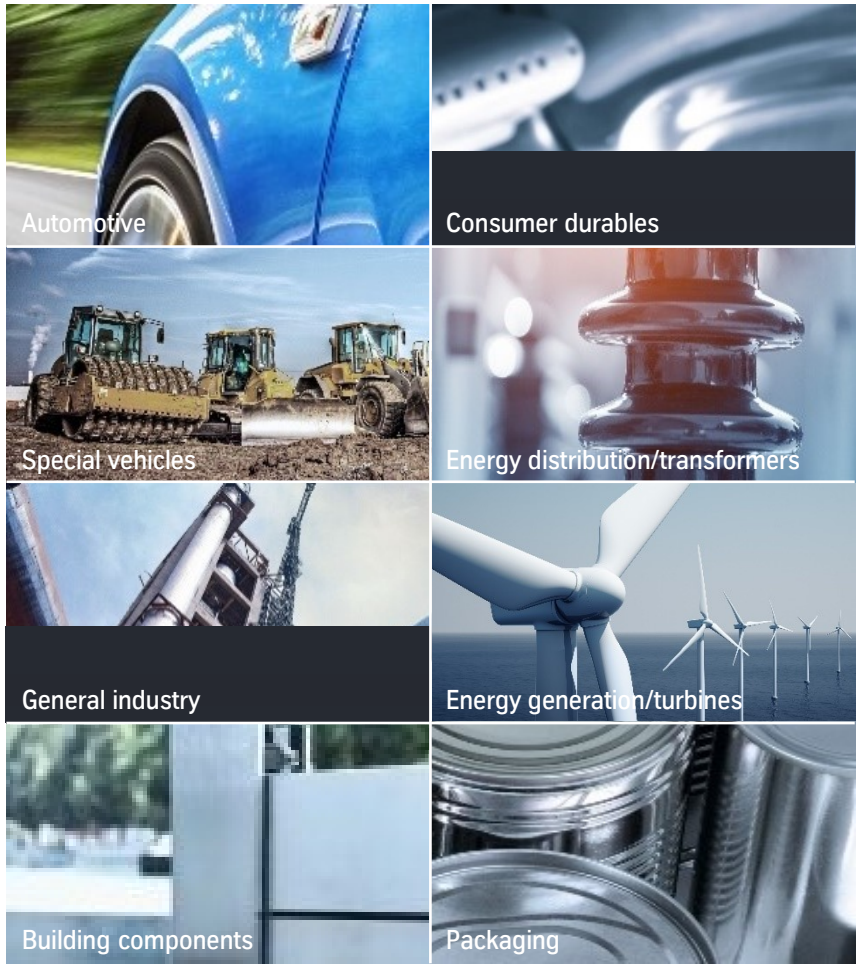
€ 1.8 billion

€ 73 million

7,745

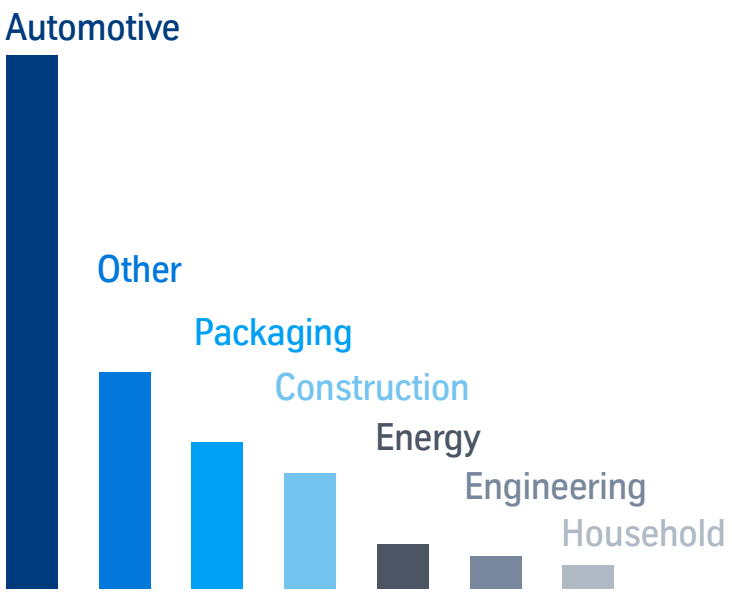
1. thyssenkrupp AG, Annual Report 2022/2023, November 2023. I 2. Pro forma, AT mit neuer Struktur inkl. Forged Technologies, Springs & Stabilizers nd Automation Engineering, DT with new structure Rothe Erde (formerly Bearings), tk nucera, Uhde and Polysius.

1 steel producer in Germany
2 flat steel producer in EU with broad end-market exposure



Shipments by end market (FJ 22/23)

9.4 Mt



10.4
Mt crude steel production

10
sq km Duisburg area

9.4
Mt shipments

20
production facilities

12.4
bn € revenue

~26,820
employees

0.6
bn € adj. EBITDA

~1,200
customers

1. One of the largest industrial sights in the EU.

thyssenkrupp Steel Europe takes responsibility and has set itself clear targets

Our goal by 2030[1]:

>30 %

Reduction of CO_2 emissions (-6 million tons)

Our goal no later than 2045:

-100 %

CO_2 emissions (-20 million tons)

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Responsible Steel standards & certification

CDP
DISCLOSURE INSIGHT ACTION

Stiftung KlimaWirtschaft

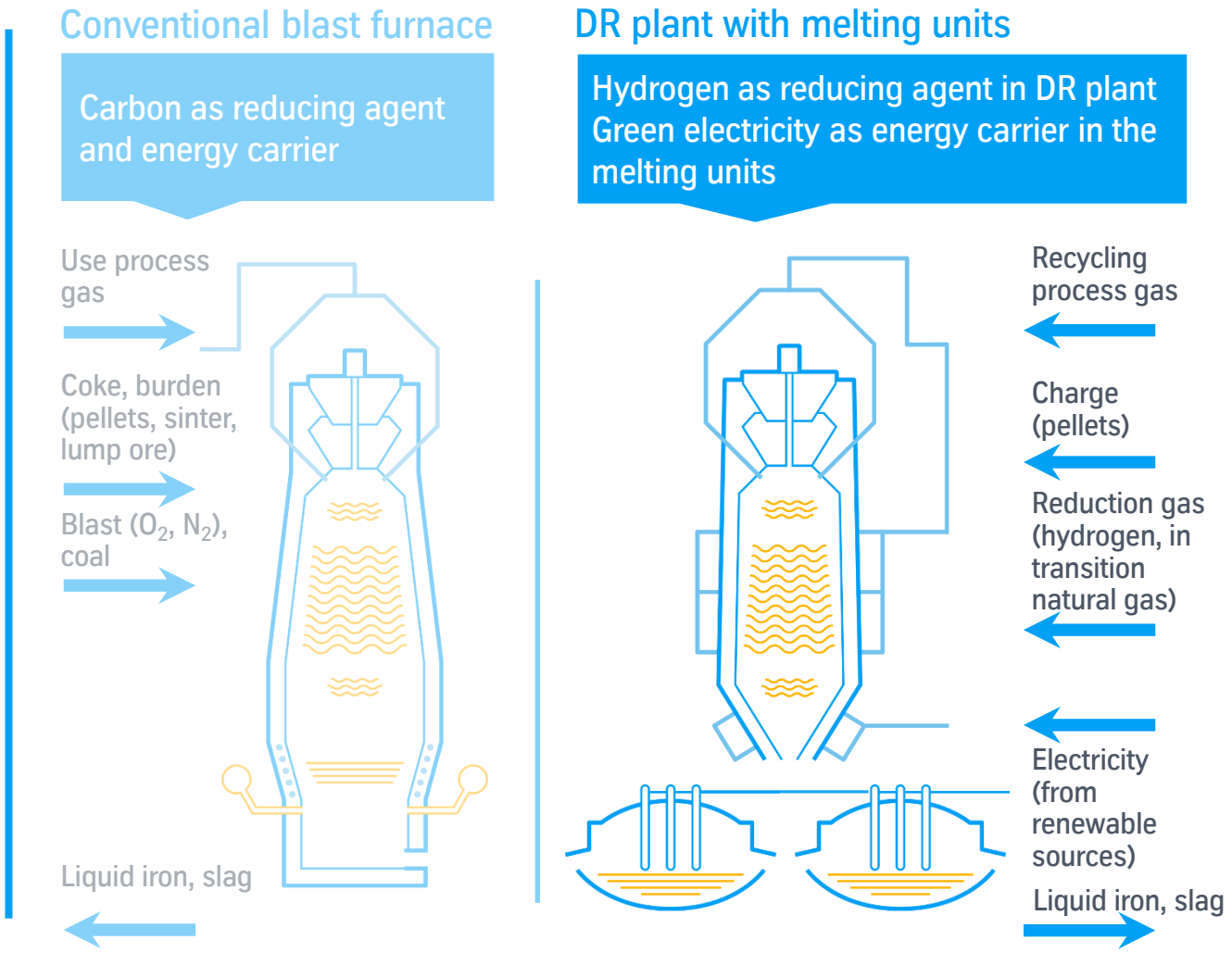
1. -30 % CO_2 emissions in 2030 relates to Scope 1 and Scope 2 emissions (reference year 2018).

The core of the transformation is the switch from blast furnaces and coking coal to direct reduction plants (DR) and green hydrogen

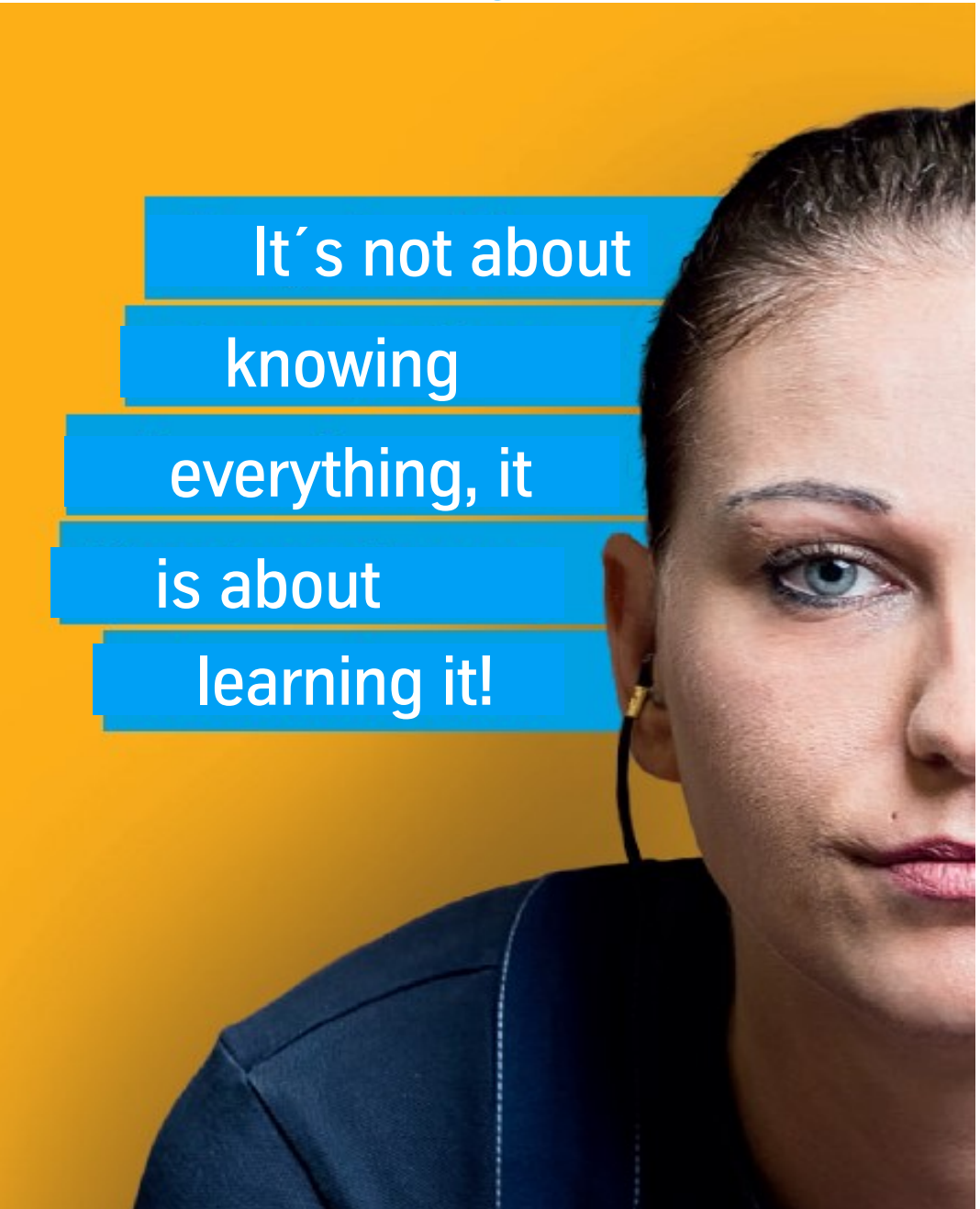
Use of hydrogen in DR plants, in combination with innovative melting units.

Process innovation with clear ecological and economic advantages.

- Innovation
  Engineering of melting unit in combination with a DR plant
- Ecological advantage
  Hydrogen and green electricity substitute coal and eliminate CO_2
- Process advantage
  Use of more favorable feedstocks and refractory materials, use of process heat
- Electric furnace iron is used like hot metal, therefore all products can still be produced



Apprenticeship training at thyssenkrupp Steel Europe AG



1039 apprentices

5,6 % constantly high apprenticeship ratio

25 different occupations

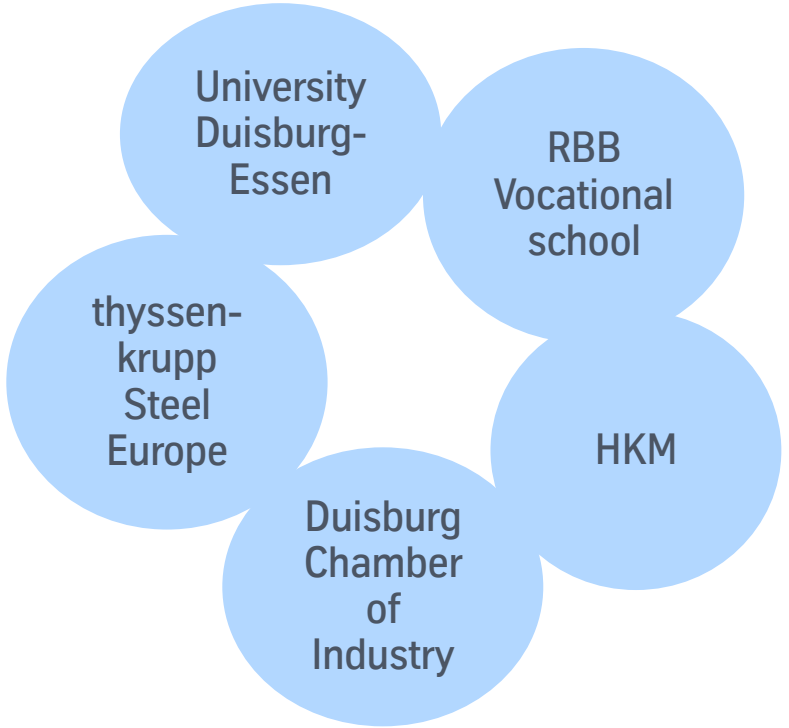
98 % of our apprentices receive an unlimited contract of employment

338 apprentices start their apprenticeship with our company in September 2023

Development of the *additional qualification hydrogen*

- **November 2022**: Exam regulation was issued as an ordinance by Duisburg Chamber of Industry in order to give the qualification a Germany wide recognition
- **April – July 2023**: Trainers training for VET instructors and vocational school teachers led by University of Duisburg-Essen
- **July 2023:** Appointment of board of examiners by Chamber of Commerce in Duisburg
- **September 2023 – Februar 2024**: 1st group of 15 apprentices run the 25 full days training course and passed the oral and written examination in February 2024
- **April – May 2024:** 2nd group of VET instructors run trainers training
- **21st May 2024**: 2nd group of apprentices start their training course

Regional stakeholder of Vocational Education and Training (VET)



25-day-training-curriculum for *additional qualification hydrogen*

practice-oriented approach with excursions

Nr	Training modules (3-4 days)
1	Hydrogen fundamentals and socioeconomic relevance
2	Production, transprt, storage and use of hydrogen
3	Dangers associated with hydrogen
4	Occupational safety at handling hydrogen
5	Hydrogen as a reducing agent in the steel industry
6	Handling and maintanance of gas carrying systems
7	Economical and ecological aspects of hydrogen

Added value of *additional qualification hydrogen*

+ 1st step to implement broad knowledge about hydrogen in VET-system/company training
+ Step by step trainiers-training for VET instructors
+ Graduates understand the big picture and can easily adapt to new tasks in hydrogen touched areas
+ Apprenticeship graduates with additional qualification are ambassadors for our green transformation
+ Contribution to regional approach *Duisburg as a hydrogen city*
+ Exam regulation issued by Duisburg chamber of commerce is a blueprint for industry chambers in other regions
+ Incentive for top-performing apprentices

Any questions?

Thank you for your attention!