# **GREEN SCRAP**

#### THE KEY TO SUSTAINABLE STAINLESS STEEL

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family business founded in **1980** with over 70 locations on six continents

**sustainability** as a core value

diversified portfolio: recycling trading production services **1.6 million tons** of recycled steel

(about 7 million tons of saved CO2)







#### STEEL INDUSTRY MOVING TOWARDS GREEN STEEL







2.6 billion tons of CO2

7-9% of the total CO2 emissions 7% global greenhouse gas emissions

#### Goal: Decarbonizing the industry by 2050

Source: World Steel Association 2021, UN Emissions Gap Report 2020



#### SUSTAINABLE STAINLESS STEEL ACHIEVEMENTS



reduces CO2 emissions by 58%



reduces water consumption by 40%



saves 72% of the energy needed for primary production



reduces water pollution by 76%

Source: Broadbent 2015; Johnson et al. 2008





#### **SCRAP MODEL: CIRCULAR ECONOMY**



#### SCRAP A KEY INGREDIENT FOR SUSTAINABLE STAINLESS STEEL



more than 600 million tons of ferrous scrap are recycled annually worldwide scrap could cover 60% of stainless steel demand in Europe recycling quote of stainless steel: 90%

Source: BIR 2019, Worldstainless 2019, Material Economics 2018



# 1 ton of stainless steel scrap saves 4.3 tons of CO<sub>2</sub>

Source: Fraunhofer Institut 2019



#### **BUT WAIT - ISN'T EVERY SCRAP GREEN?**



transport to the steel mill

scrap from production



#### **SWITCH TO GREEN SCRAP**

#### **GREEN COMPANY**

GREEN VALUE CHAIN, YARD AND LOGISTICS

#### INNOVATION

OPENNESS TO NEW MATERIALS AND TECHNOLOGIES



## HOW WE SOLVE THE PROBLEM



#### **Renewable Energy**

- 100% certified green electricity
- several of our locations own photovoltaic plants, more in planning
- biogas as a further source of energy



- accounting of GHG emissions
- reduction of emissions as far as possible



## HOW WE SOLVE THE PROBLEM





#### **Electrification**

#### • new mobility guidelines

- several electric vehicles at our yard:
  - forklifts
  - excavators
  - cars
  - wheel loaders
  - locomotive

Efficiency

- innovative recycling solutions
- downsizing
- smart planning



#### **GREEN SCRAP FOR THE FUTURE**





## THE KEY TO SUSTAINABLE STAINLESS STEEL

Status Quo: steel industry as one of the largest emitters globally

Solution: sustainable stainless steel with green scrap as the main ingredient for the reduction of emissions

Key: renewable energy, electrification, innovation & efficiency  $\rightarrow$  build a circular economy





# THANK YOU!

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