

PREMIUM QUALITY ELECTRICAL STEEL WITH REDUCED CARBON FOOTPRINT: voestalpine greentec steel Edition



May 15th, 2024

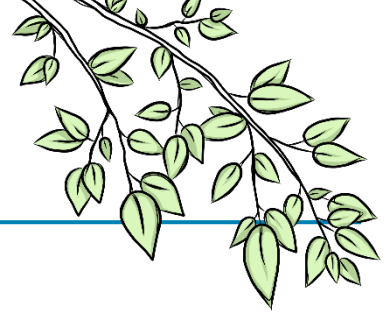
Dominik Füreder
Sustainability Management

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ONE STEP AHEAD.

OUR FUTURE MISSION

AMBITIOUS 2030 TARGET



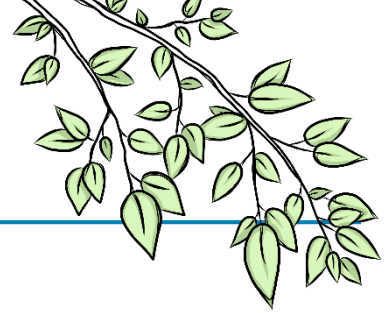
Benchmark in technology,
quality and **sustainability**

- » Development of **sustainable production technologies**
- » Achievement of **CO₂-neutral steel production**

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CHART-TOPPING SUSTAINABILITY



voestalpine AG

- » Climate protection targets within the Science Based Targets Initiative (SBTi)
- » Only European steel company in the Dow Jones Sustainability Index Europe
- » FTSE4Good (since 2020)
- » CDP (Carbon Disclosure Project): A-Ranking in Category Climate Change

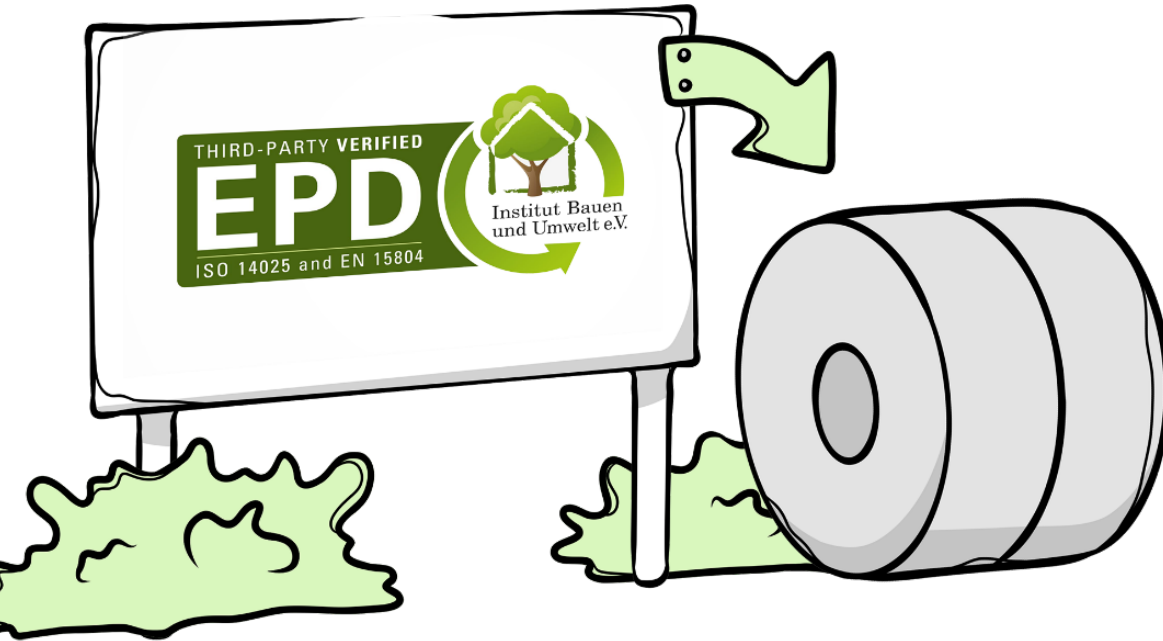
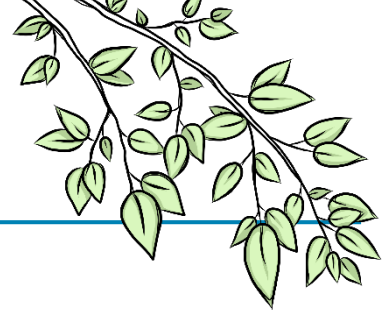
voestalpine Steel Division

- » ResponsibleSteel certification of the Linz site
- » EcoVadis ranks voestalpine among top 5% → Gold Ranking

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WHY EPDs?




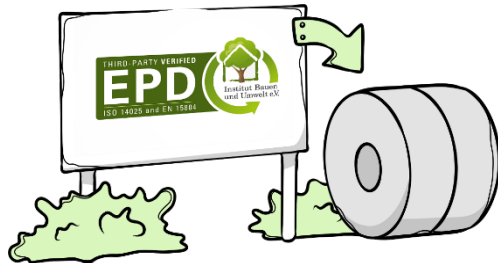
- » Transparent
- » Reliable
- » Objective

CARBON FOOTPRINT

voestalpine = BENCHMARK



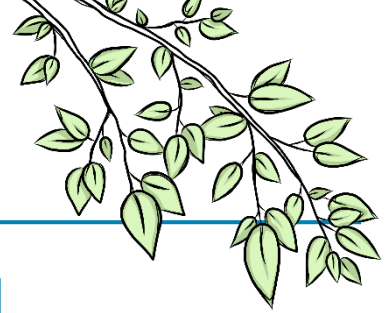
Product	worldsteel average* LCI data 2019		voestalpine EPD CO ₂ e footprint (base year 2019)	
	EUROPE	GLOBAL		
	Semi-processed electrical steel	2.63**	2.80**	2.34
	Fully processed electrical steel	2.63**	2.80**	2.52




Unit: kg CO₂e per kg of product
 * Blast furnace and EAF route
 ** compared to cold-rolled steel strip

CARBON FOOTPRINT

voestalpine = BENCHMARK



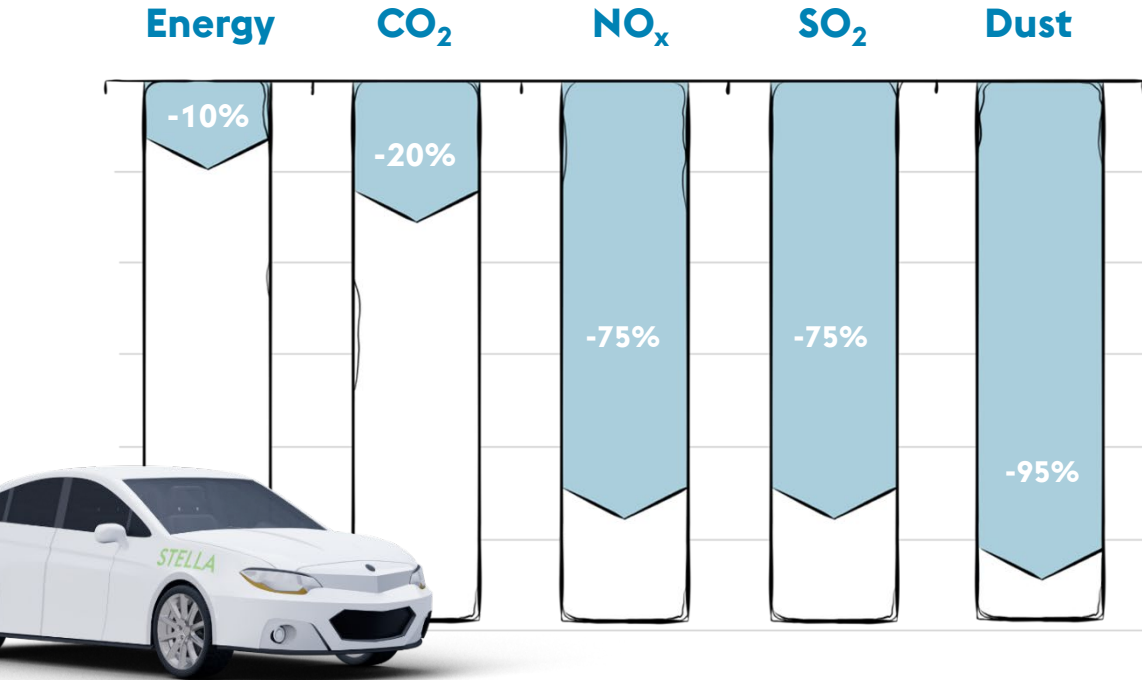
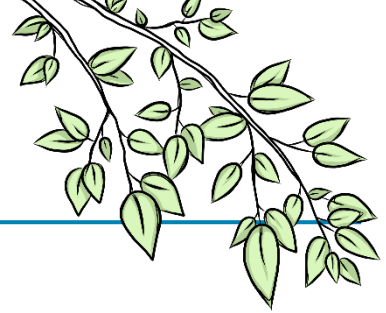
Product	voestalpine EPD CO ₂ e footprint (base year 2019)	
	Semi-processed electrical steel	2.34
	Fully processed electrical steel	2.52

Currently no other EPDs published for electrical steel (as of April/2024)



Unit: kg CO₂e per kg of product
* Blast furnace and EAF route
** compared to cold-rolled steel strip

A STRONG FOUNDATION

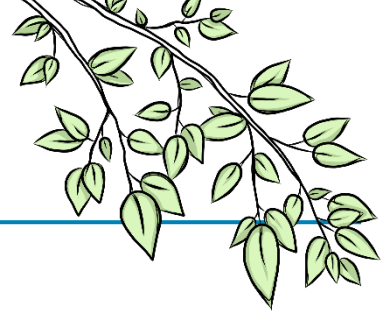


- » Significant reduction of specific emissions
- » More than **€2.3 billion** in environmental investment in the last **10 years**

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FIRST STEPS



We think
GREENER!



2019

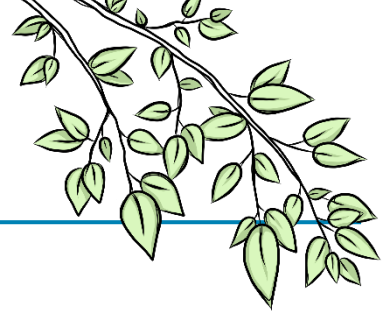
H2FUTURE

world's largest pilot plant
for CO₂-neutral
production of **hydrogen**
in the steel industry

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FIRST STEPS



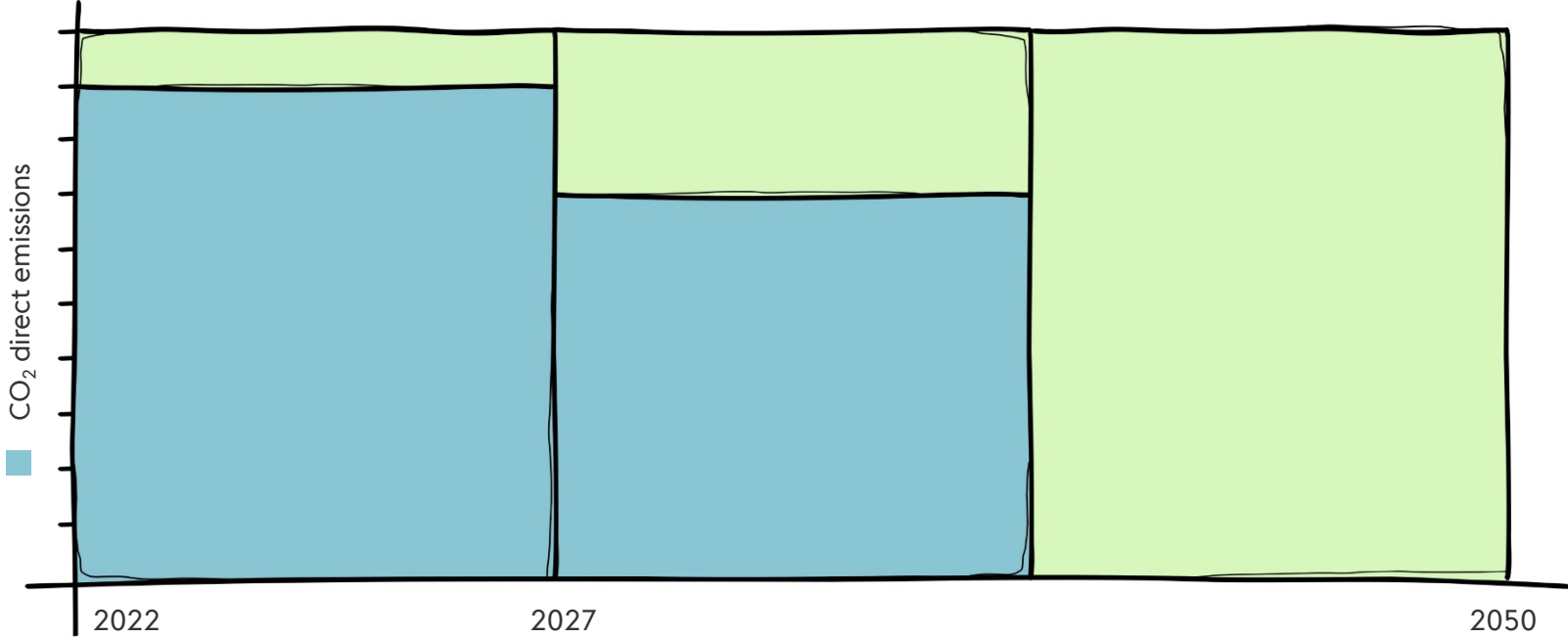
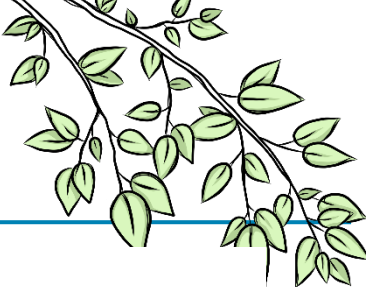
2016

direct reduction plant
produces **sponge iron (HBI)**,
a high-quality iron carrier

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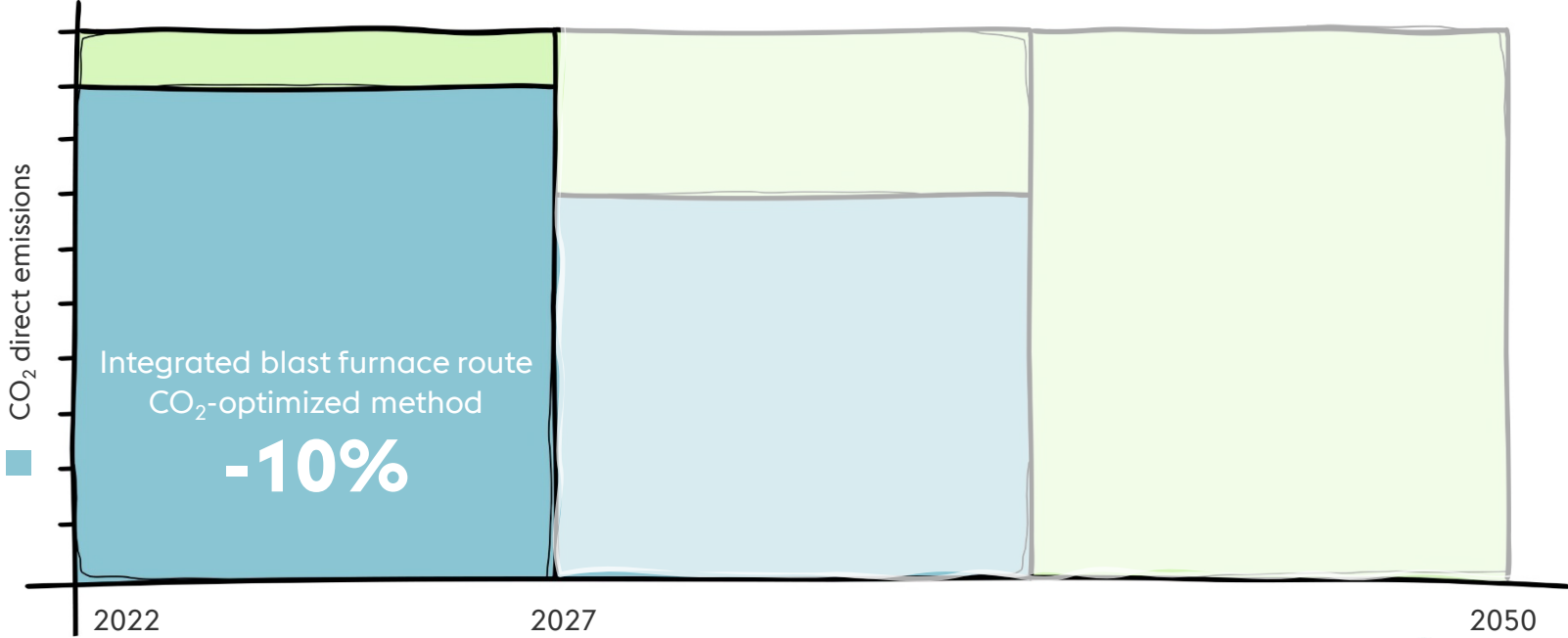
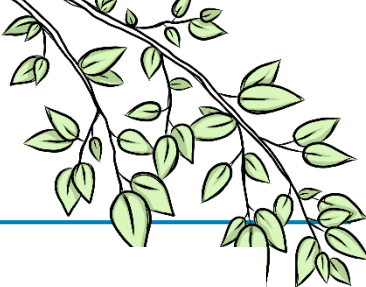
OUR DECARBONIZATION PLAN



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ONE STEP AHEAD.

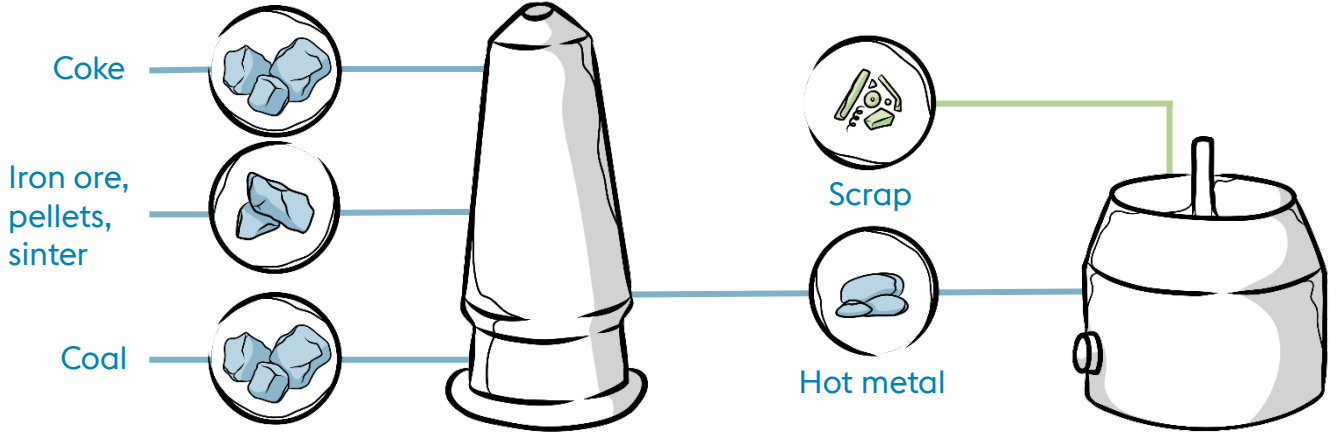
OUR INSTANT SOLUTION



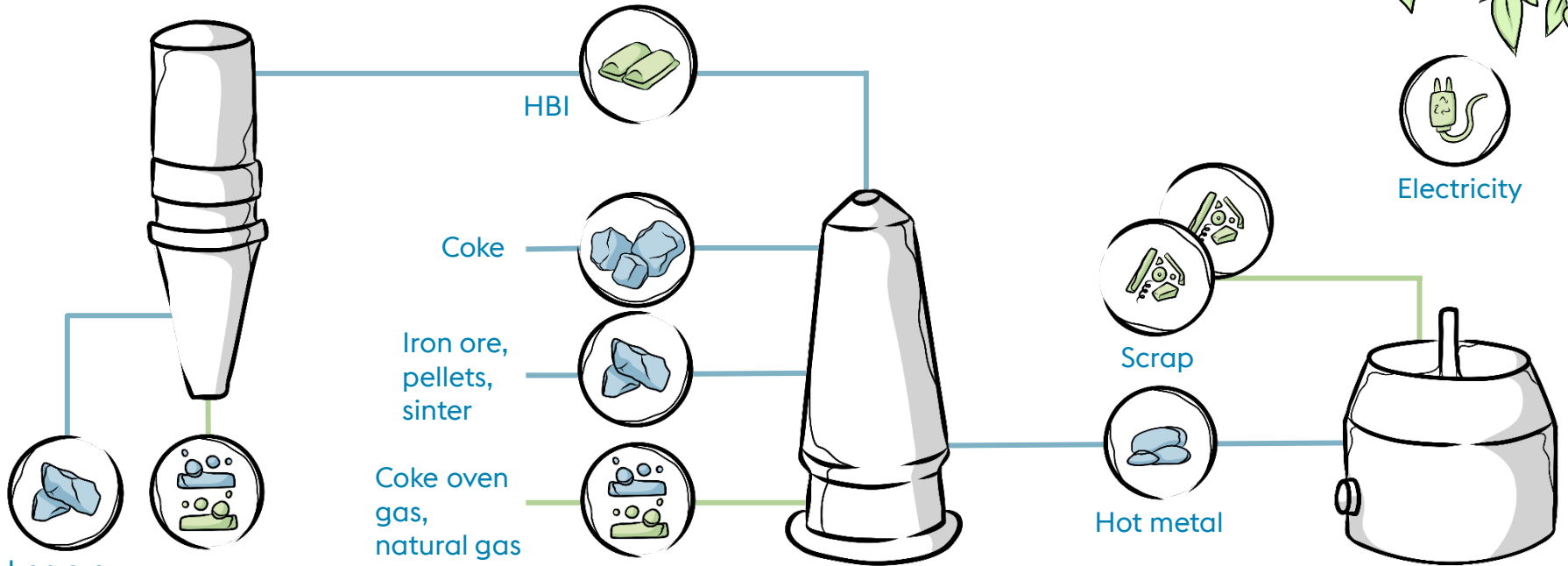
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CONVENTIONAL TECHNOLOGY



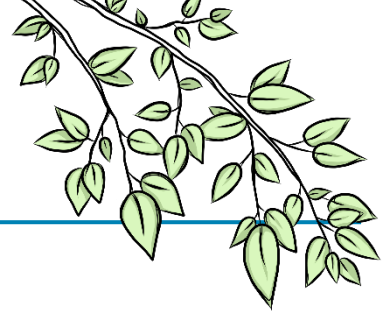
CO₂-OPTIMIZED PROCESS



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CO₂-OPTIMIZED TECHNOLOGY NOW AVAILABLE



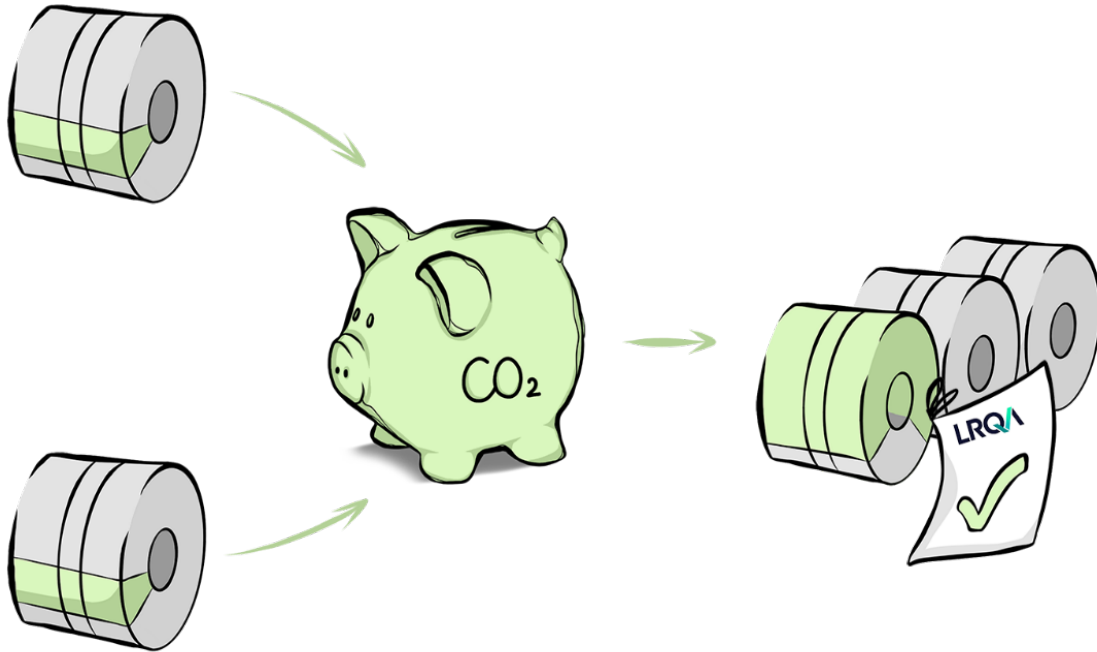
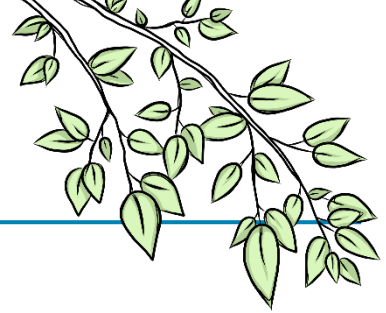
- » Technology available
- » Several quantities already delivered

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greentec steel

ALLOCATION MODEL



» Real

» Transparent

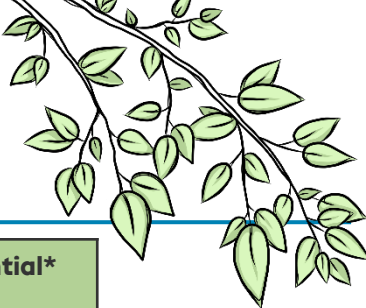
» Verified




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greentec steel

CARBON FOOTPRINTS



Product	Carbon footprint or Global warming potential* [kg CO ₂ e/kg product]	
	greentec steel Edition	greentec steel Edition 600
 <p>Premium quality with reduced carbon footprint</p>	 <p>Semi-processed electrical steel</p>	<p>2.12</p>
	<p>Fully processed electrical steel</p>	<p>0.60</p>

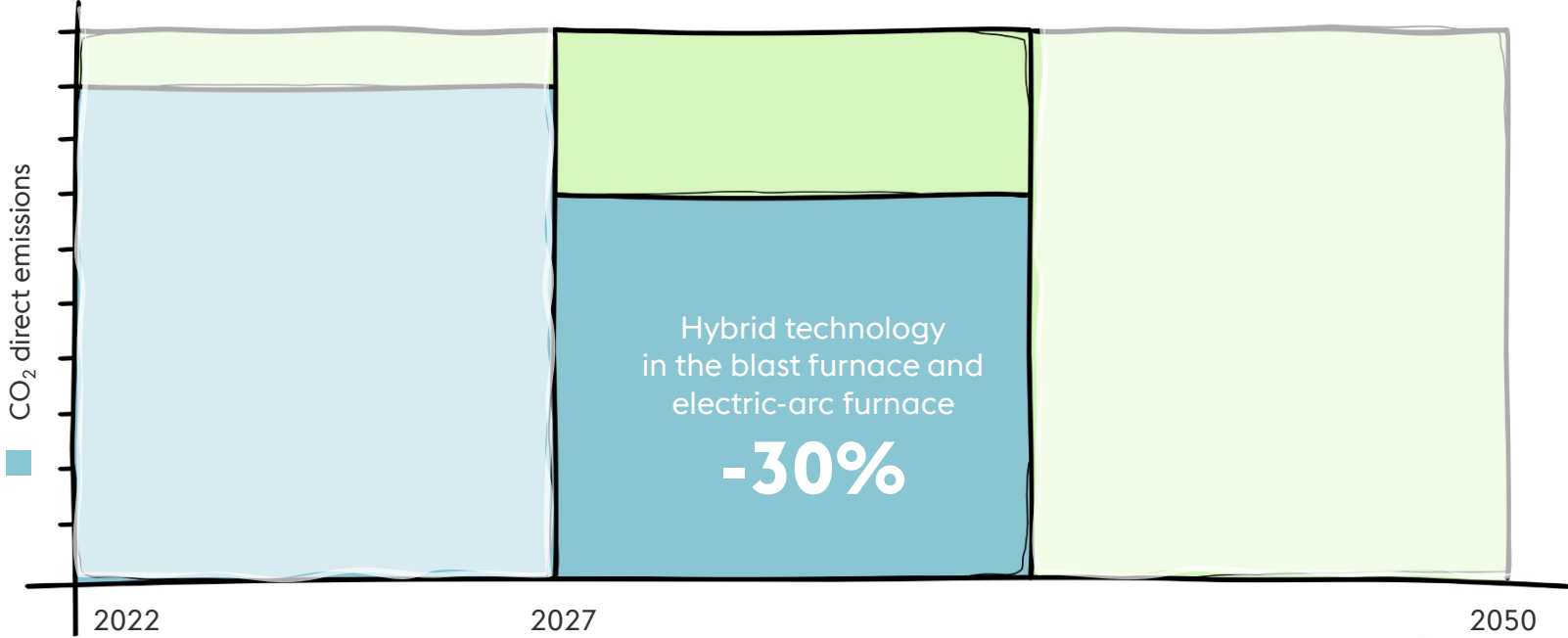
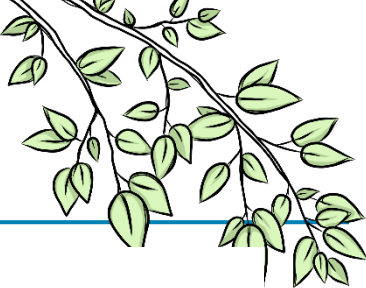


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* per EN 15804+A2 (EPD methodology) cradle to gate, upon customer request also possible per worldsteel CML 2001-2016 (system expansion)

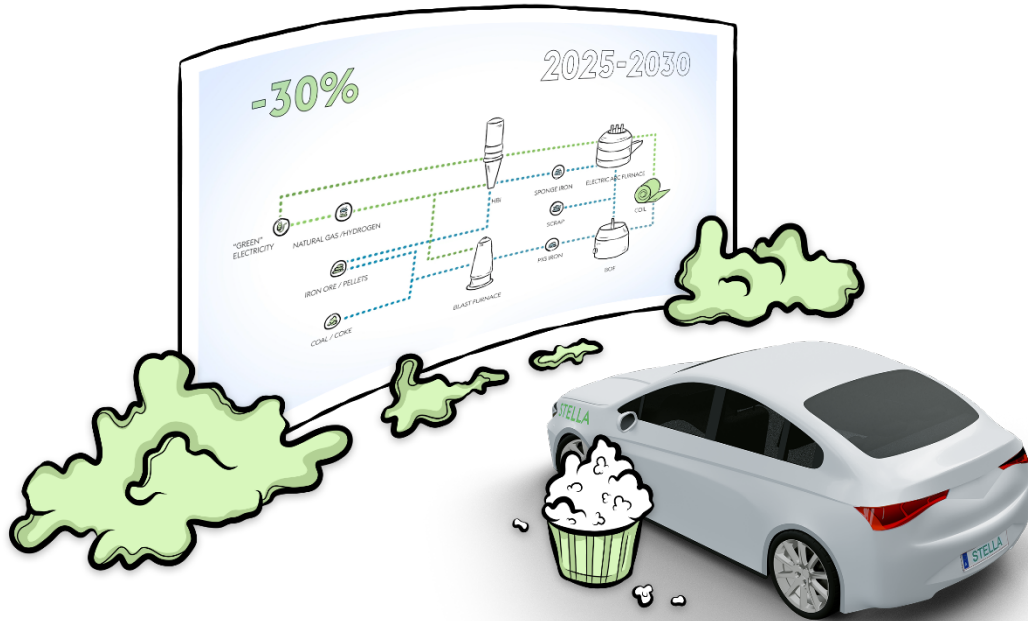
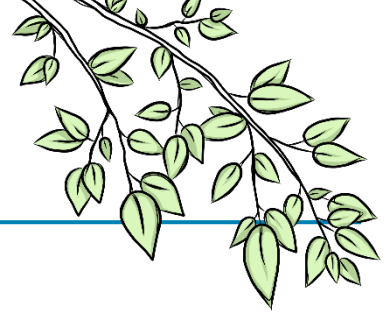
OUR NEXT STEP



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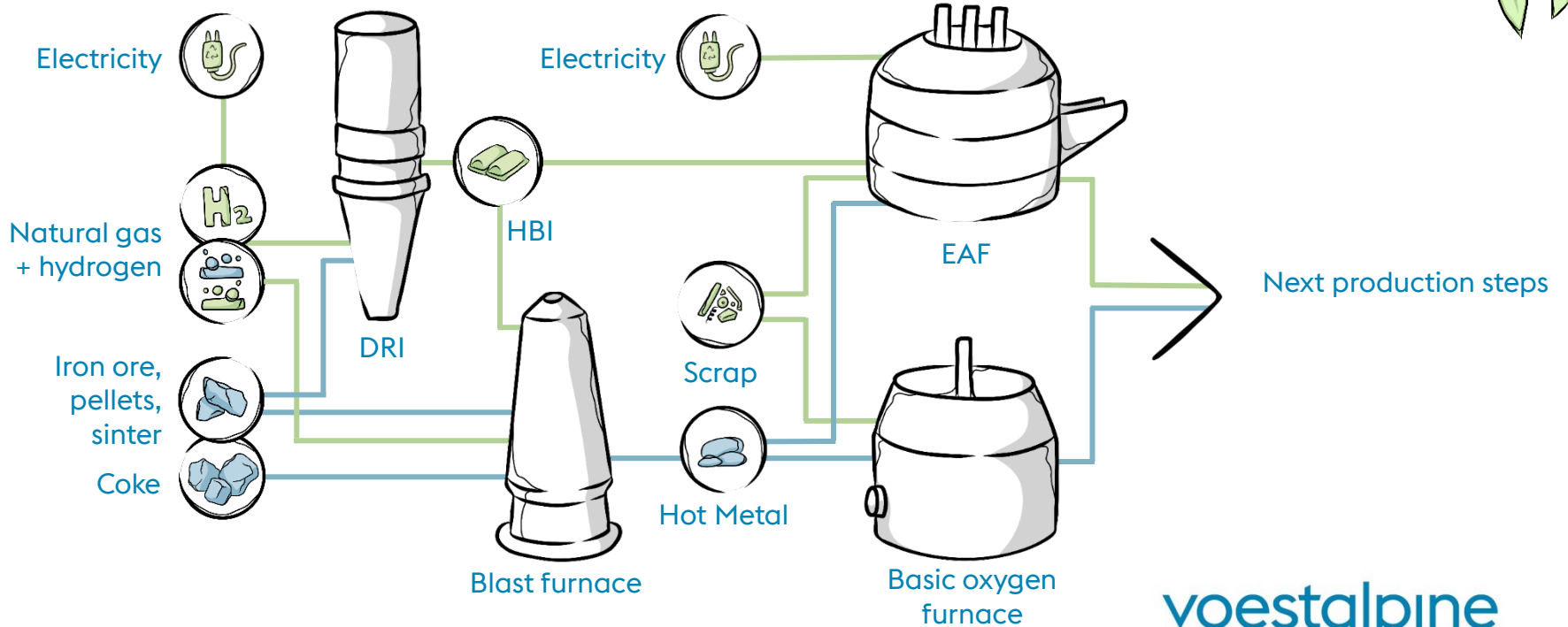
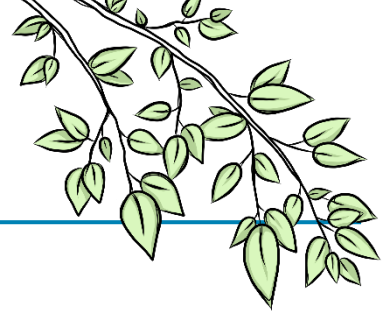
ONE STEP AHEAD.

OUR PREMISES



- » Unchanged range of grades
- » Availability of all products in voestalpine premium quality

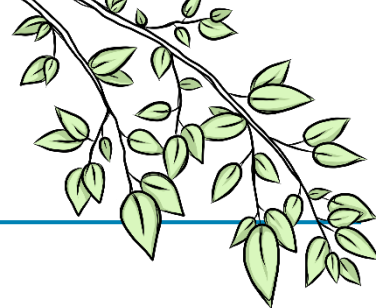
STEP 2: HYBRID PROCESS



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ONE STEP AHEAD.

MILESTONES TO GREEN-POWERED EAF

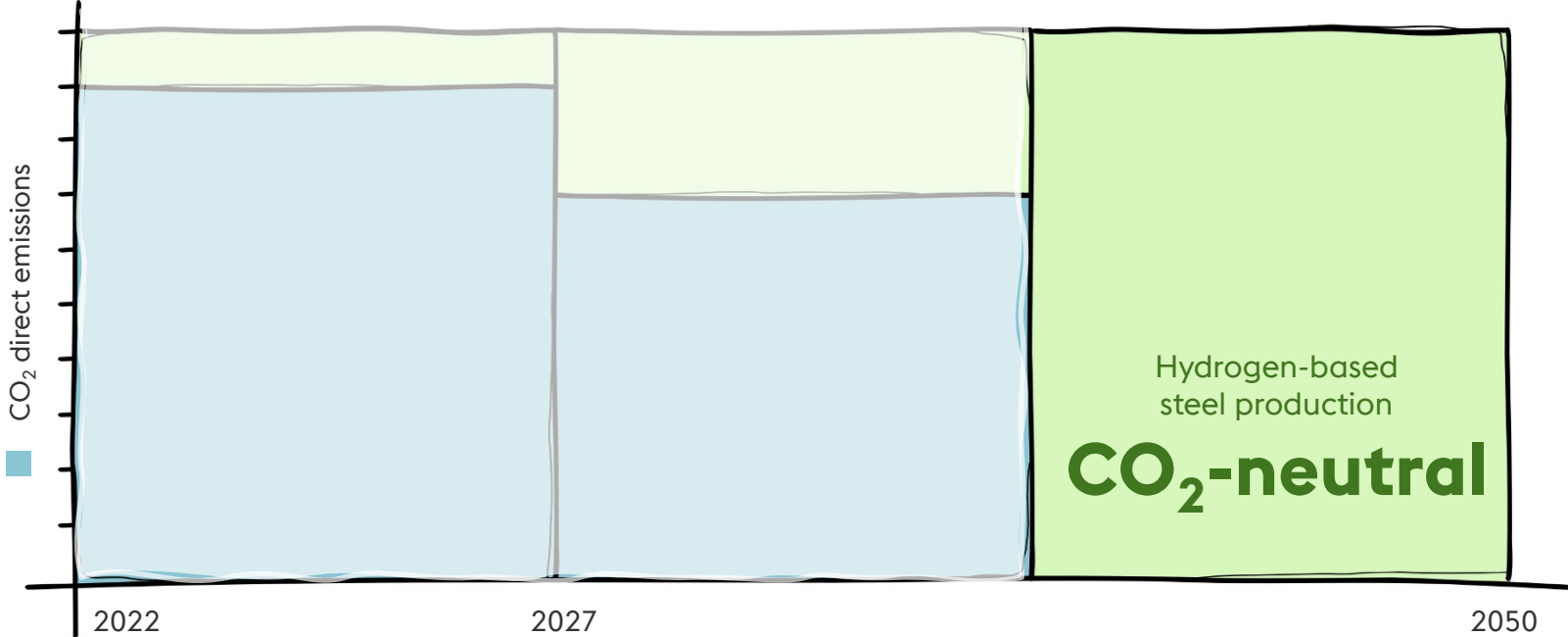
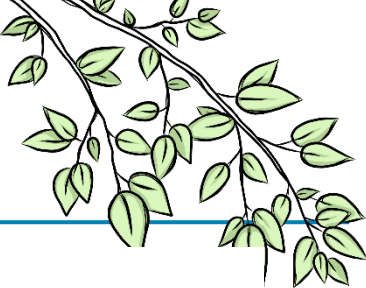


- » 2022: infrastructural construction
- » 2023: approval of €1.5 billion
- » 2023: Groundbreaking
- » 2024: Awarding of the EAF contract

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ONE STEP AHEAD.

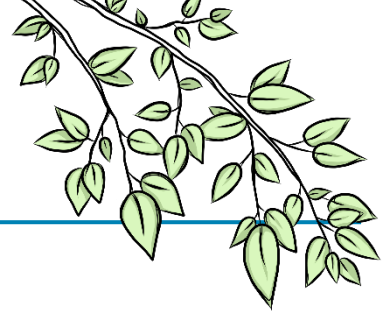
OUR GOAL



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R&D HYDROGEN PROJECTS FOR A GREENER FUTURE



SUSTEEL

- » Carbon-free production of crude steel using hydrogen plasma



HYFOR

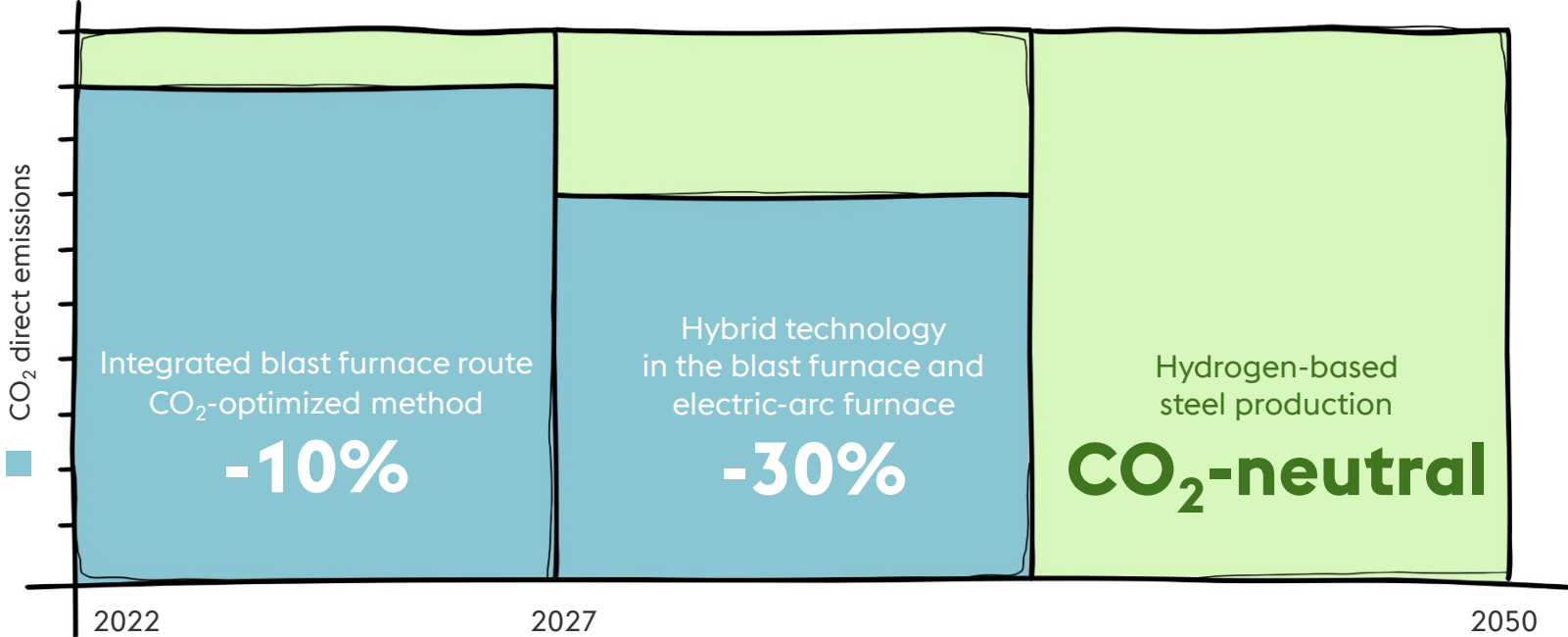
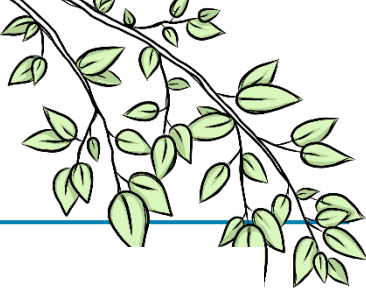
- » CO₂-neutral direct reduction of fine ore



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OUR DECARBONIZATION PLAN

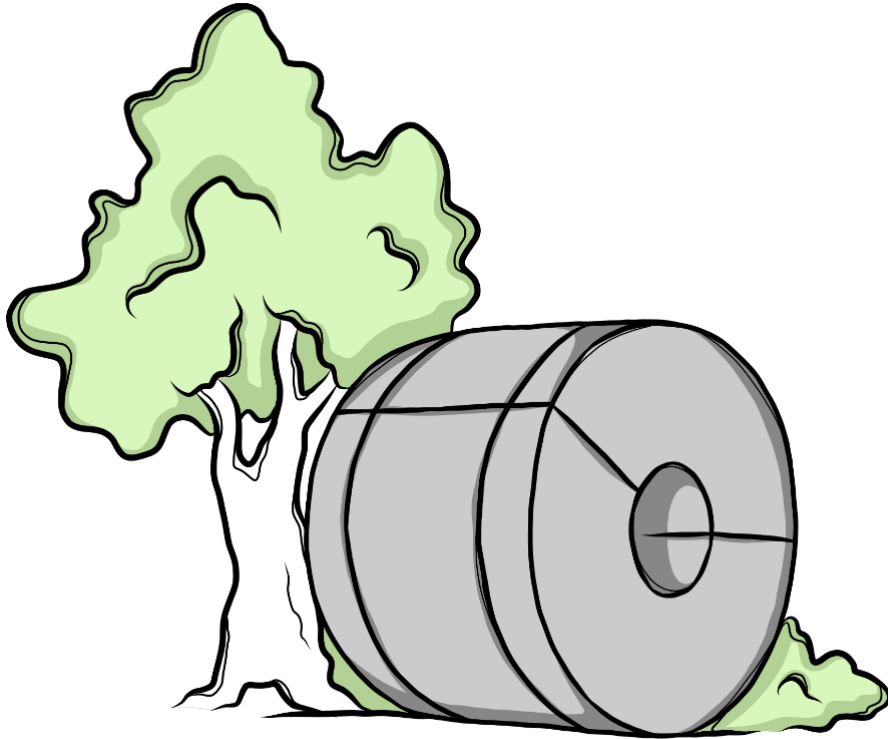
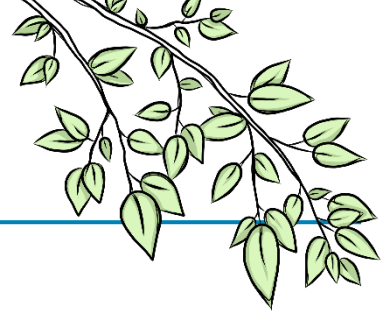


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BE PART OF IT



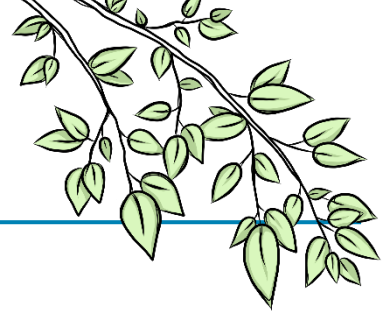
Stop by at our
booth!

Hall 2.2, Stand 22E20

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VISIT STELLA SUSTAINABLE



BECAUSE WE CARE



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