Driving thyssenkrupp Rasselstein’s Competitive Edge with Digital Material Passports

June 2024 | Mario Kossmann (Vice President Digital Solutions)
thyssenkrupp | Steel | Packaging Steel

engineering.tomorrow.together.

thyssenkrupp

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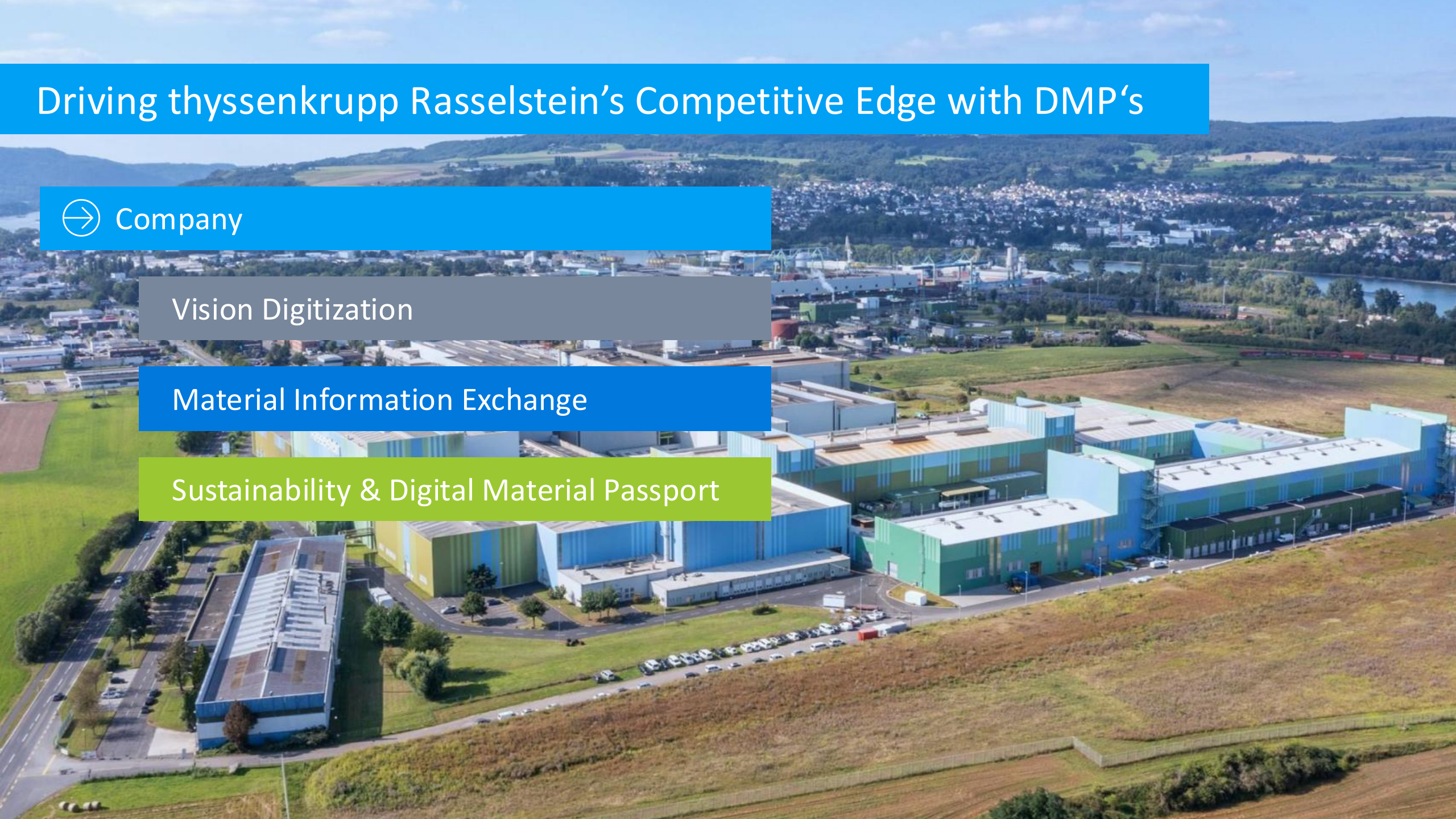


- Company
- Vision Digitization
- Material Information Exchange
- Sustainability & Digital Material Passport

Part of a high-performance supply chain

Materials Services

Steel

Automotive Technology

Plant Technology

thyssenkrupp

Sales 37.536 billion EUR | Employees 99,981

Steel

Sales 12.375 billion EUR | Employees 26,822

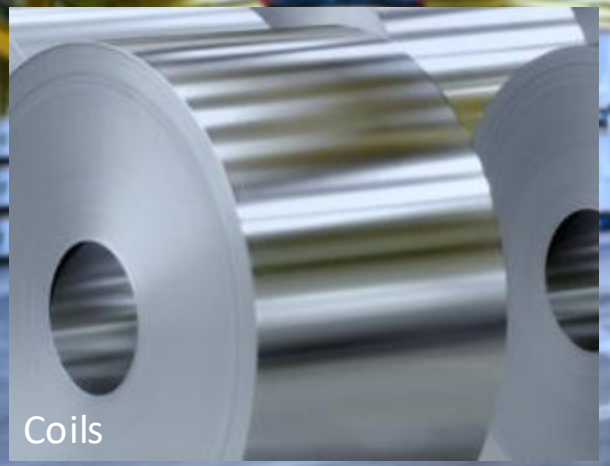
As of fiscal year 2022/2023

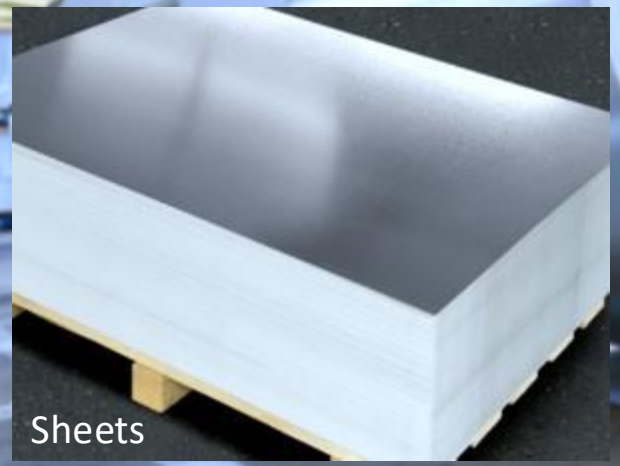
Known worldwide for high-quality packaging steel

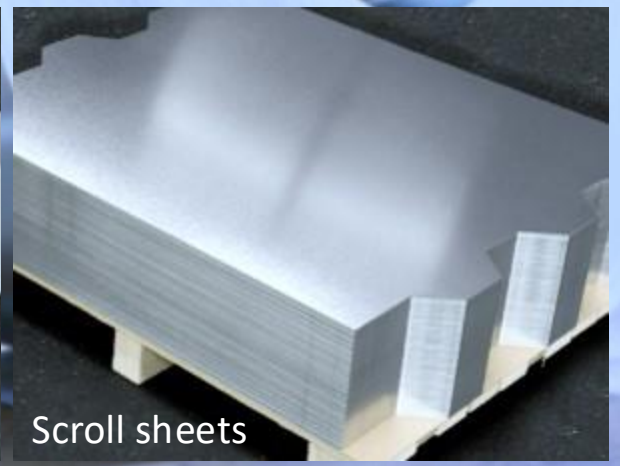
- Founded in 1760
- World’s largest production site for packaging steel
- Partner of about 400 customers in more than 80 countries
- Production capacity of 1.5 million tons per year
- About 2,400 employees

Whole product range from a single source

- Tinplate or special chromium-coated packaging steel in thicknesses from 0.100 mm to 0.499 mm and widths from 10 mm to 1,200 mm
- Organic coating with lacquer and/or foil on request


Coils


Sheets


Scroll sheets

Narrow strip

Packaging steel is highly efficient

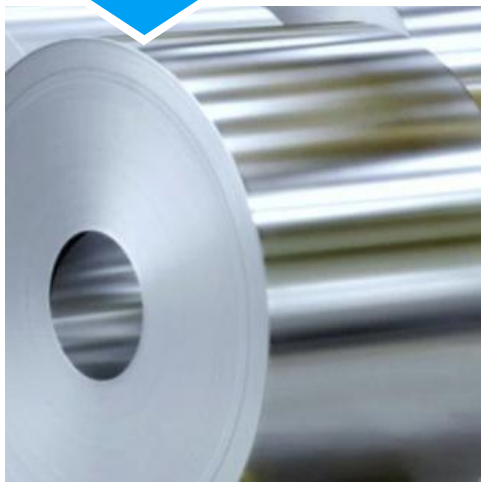
Packaging steel producer

Filler

- Filling speed
- Process reliability
- Product safety

Consumer

- Convenience
- Reliability
- Easy storage
- Ecology



Can maker

- Efficiency
- Production speed

Retail

- Shelf life
- Apeal
- Differentiation

Efficiency along the entire value chain – from the packaging steel producer to the consumer

Packaging steel offers numerous competitive advantages

- Secure packaging material
- High-quality printability
- 100% protection against light and air
- Naturally long shelf life of the products
- Closed material loop
- Permanent material
- Highly efficient

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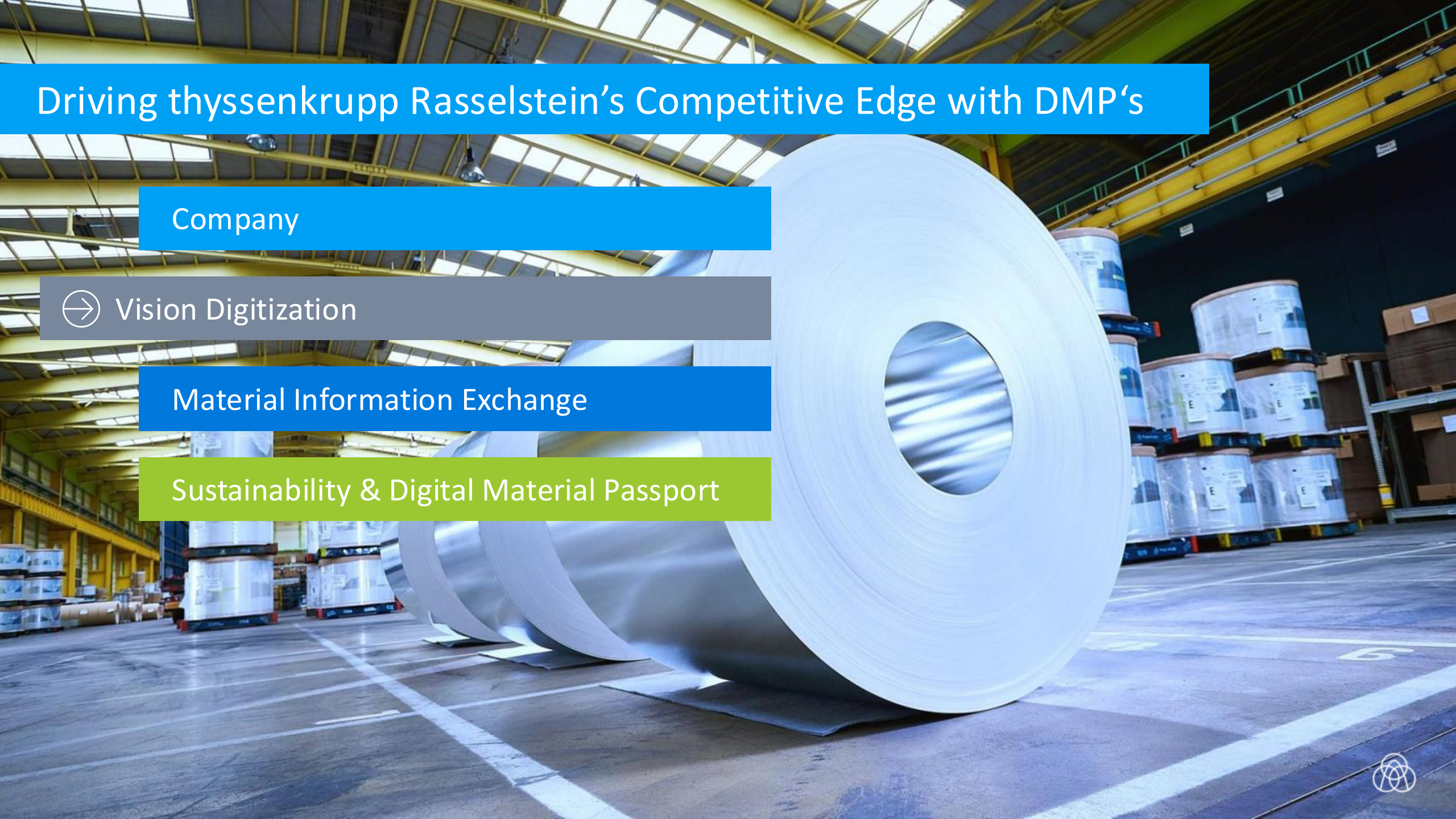

Company

Vision Digitization

Material Information Exchange

Sustainability & Digital Material Passport

Vision Digitization Packaging Steel

we make tinplate digitally … tangible!

“Our suppliers experience us as an innovation driver in digital transformation.

We enable them to react quickly and gain added value in their collaboration through information exchange and flexible, transparent processes.”

Supply Chain

"Our employees experience us as an innovative company with high-quality, future-proof jobs that connect tinplate with data.

We offer them challenging jobs, innovative tools and digital support to make their work more flexible and to qualify for their tasks."

Employees

“Our customers experience us as an innovation driver in the digital transformation of the tinplate world.

We offer our customers added value through information exchange, flexible, transparent processes and fast support in their business processes.”

Customer

“We use the digital toolbox in production to analyze product and plant data in order to make our manufacturing, logistics and maintenance processes more efficient and stable.”

Product & Production-process

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with no possibility of connecting this information to digital processes and machines.

But: Our Customer‘s want more and integrated data

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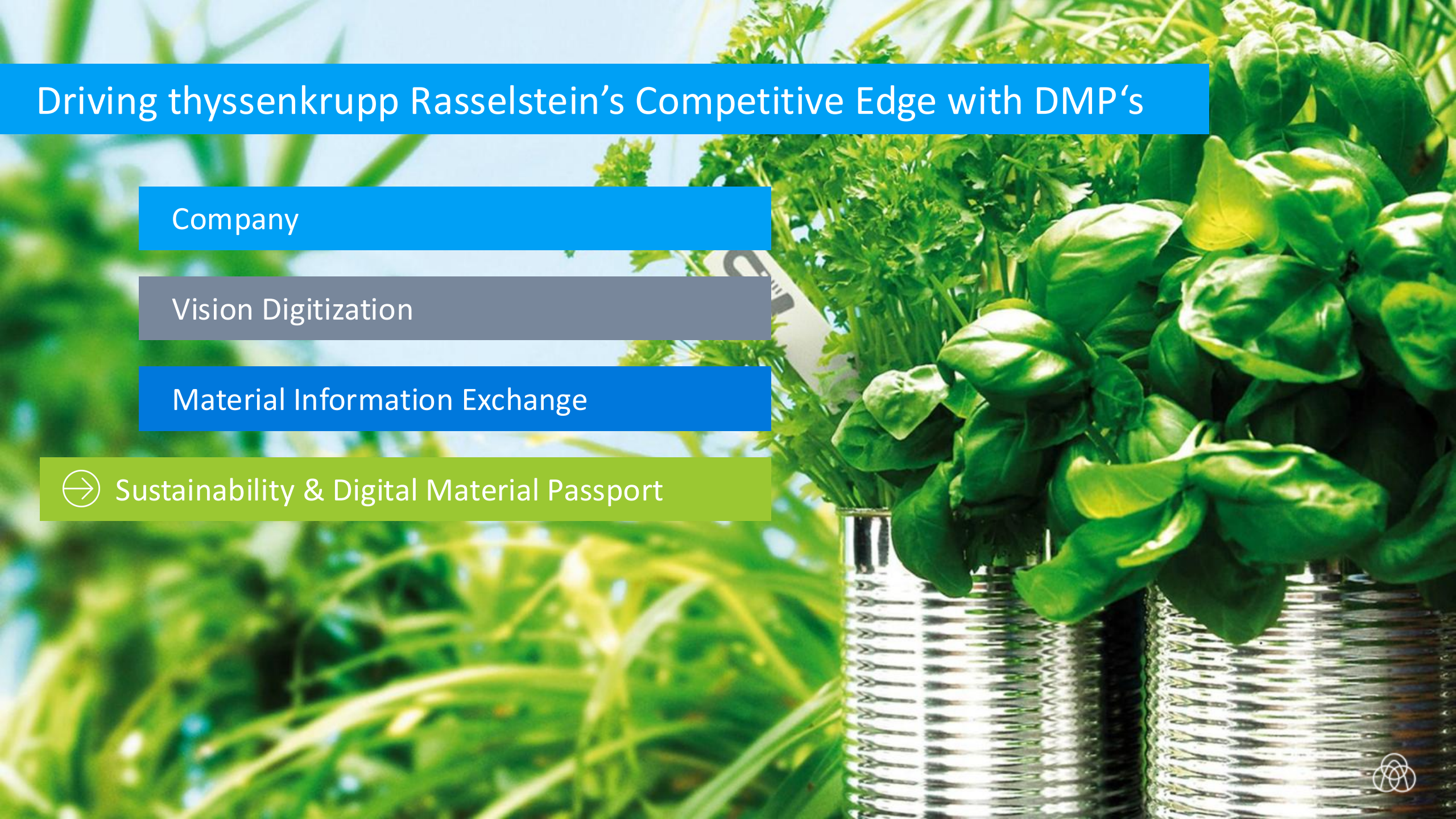
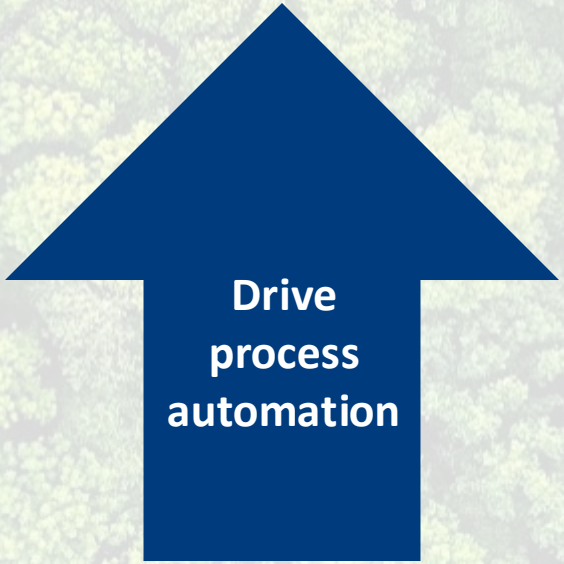


Clear commitment to environmental protection

- Modern facilities for the purification of air and water
- Efficient use of raw materials and energy
- Continuous development of packaging steel
- Environmental management system certified acc. to ISO 14001:2015
- Sustainable sourcing according to the BME Code of Conduct principles (UN Human Rights Conventions)
- With a recycling rate of 92.4 % (2020) tinplate is number one among all packaging materials in Germany

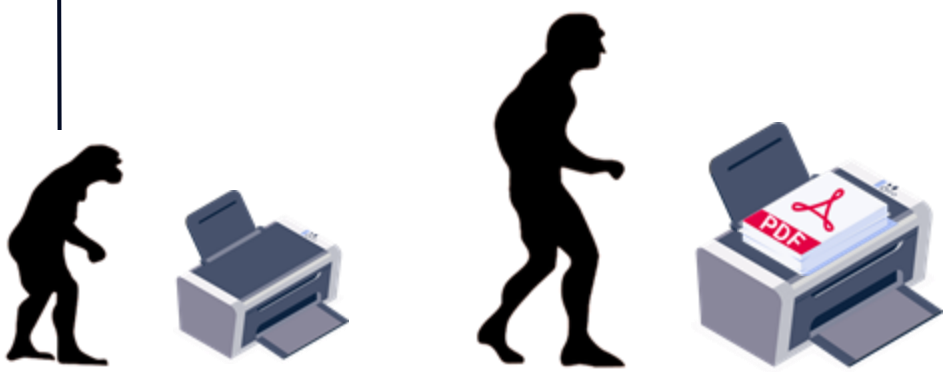
Importance of material quality and sustainability data for tinplate

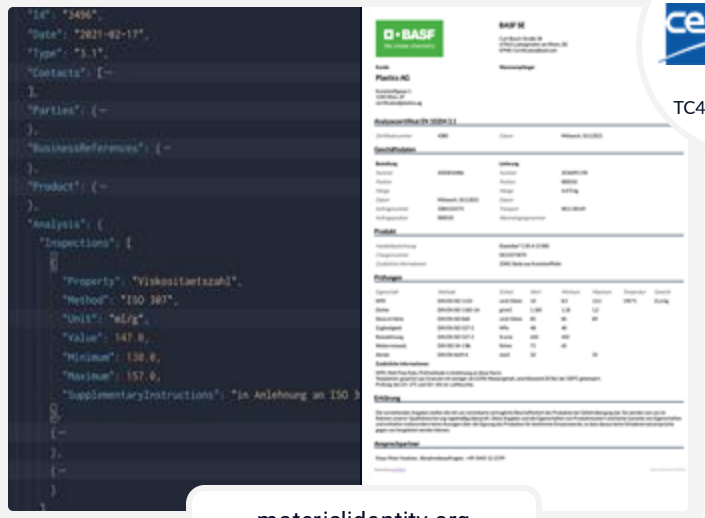
Stay ahead of increasingly complex regulatory needs



Maintain connected with factory and supply chain digitization

Outpace competition and add sustainability based pricing





With DMP, we seamlessly integrate materials with digital workflows

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✓ digital exchange
✓ digital archive

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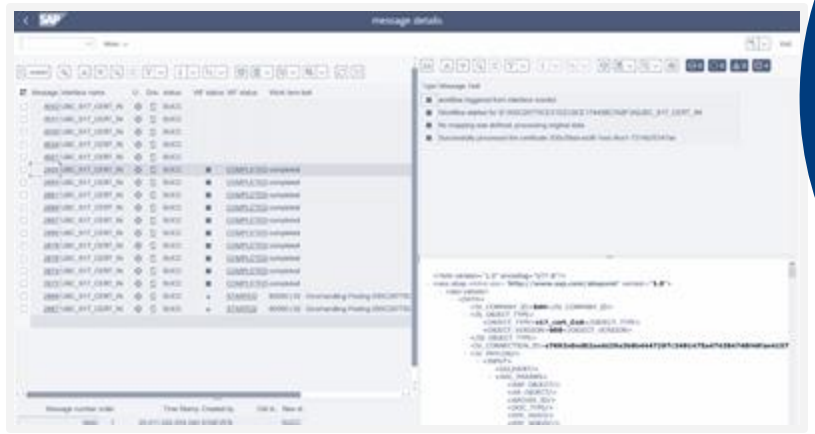
✓ open, industry compliant standard
✓ machine readable data
✓ tamper evident, digitally verifiable

European Committee for Standardization

TC459-SC12-WG4

materialidentity.org
open source data format



Snap-in integration, supporting existing enterprise software

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SAP
message details

Com yos n
Orchestrate data sources and create a DMP from your existing enterprise software.

Notar rz n
Provide immutable credentials to the DMP and its content, secured on the Blockchain

Available on SAP Store

2
1
3

S1SEVEN
Data Hub

wwnl ul usto v nrs r wn rwp un nt-up

w npr n nm
Us nrs

As email and PDF maintain supported, a Material Providers migrate all its customers at once, as the just receive one additional attachment.

Demo certificate

n ro
Check data integrity and the identity of its originator anywhere in the value chain online or via API for free

Subs l r b nm
Us nrs

Conn nl t
Simply integrate DMP data with digital workflows, regulatory registries and industry data ecosystems just one single set-up

Available on SAP Store

Thank you for your attention.