



Make your next career step a green one. Together with us.

Working with the Product Carbon Footprint in an international environment: challenges, procedures, and possible solutions

Manuel Zürcher, Specialist Sustainable Lubricants, Lubricant Expo Düsseldorf, 17.09.2024

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Sustainability at Schaeffler

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Global Carbon Footprint Activities

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Customer Interaction

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Sustainable Product Services

5

Supplier Interaction

AGENDA

Sustainability – Our goal is to be climate-neutral from 2040 onwards

SUSTAINABILITY

Ten Action Fields: In order to achieve the goal of climate neutrality by 2040, we have refined our sustainability strategy in a holistic approach and designed it along the three ESG* dimensions.

Environment

- 1 Climate neutrality
- 2 Circularity
- 3 Resource efficiency and environmental protection
- 4 Green products

Social

- 5 Diversity, employees & people development
- 6 Occupational health and safety
- 7 Responsibility in society and supply chain
- 8 Product safety and integrity

Governance

- 9 Corporate governance
- 10 Business integrity

Key Aspects





- Successful sustainability management through cross-functional and cross-divisional activities
- Structure of the sustainability management approach reflected in internal & external reporting



The [Sustainability Report](#) is available online.

* Environment, Social and Governance

Ratings and Rankings

Rating	Rating scale	Current rating	Prior rating
 Climate	“A” to “D-”, whereby “A” is the best grade and “D-” the worst.	“A”	“A”
 Water	“A” to “D-”, whereby “A” is the best grade and “D-” the worst.	“A-”	“A”
	0 to 100 points, whereby 0 is the worst value and 100 the best.	79/100 points and Platinum status	76/100 points and Platinum status
S&P Global	0 to 100 points, whereby 0 is the worst value and 100 the best.	55/100 points ¹⁾	54/100 points
 SUSTAINALYTICS ²⁾	Five risk categories: negligible (0–10), low (10–20), medium (20–30), high (30–40), severe (40+)	10.4 “low risk”-core framework ³⁾	9.4 “negligible risk”-core framework

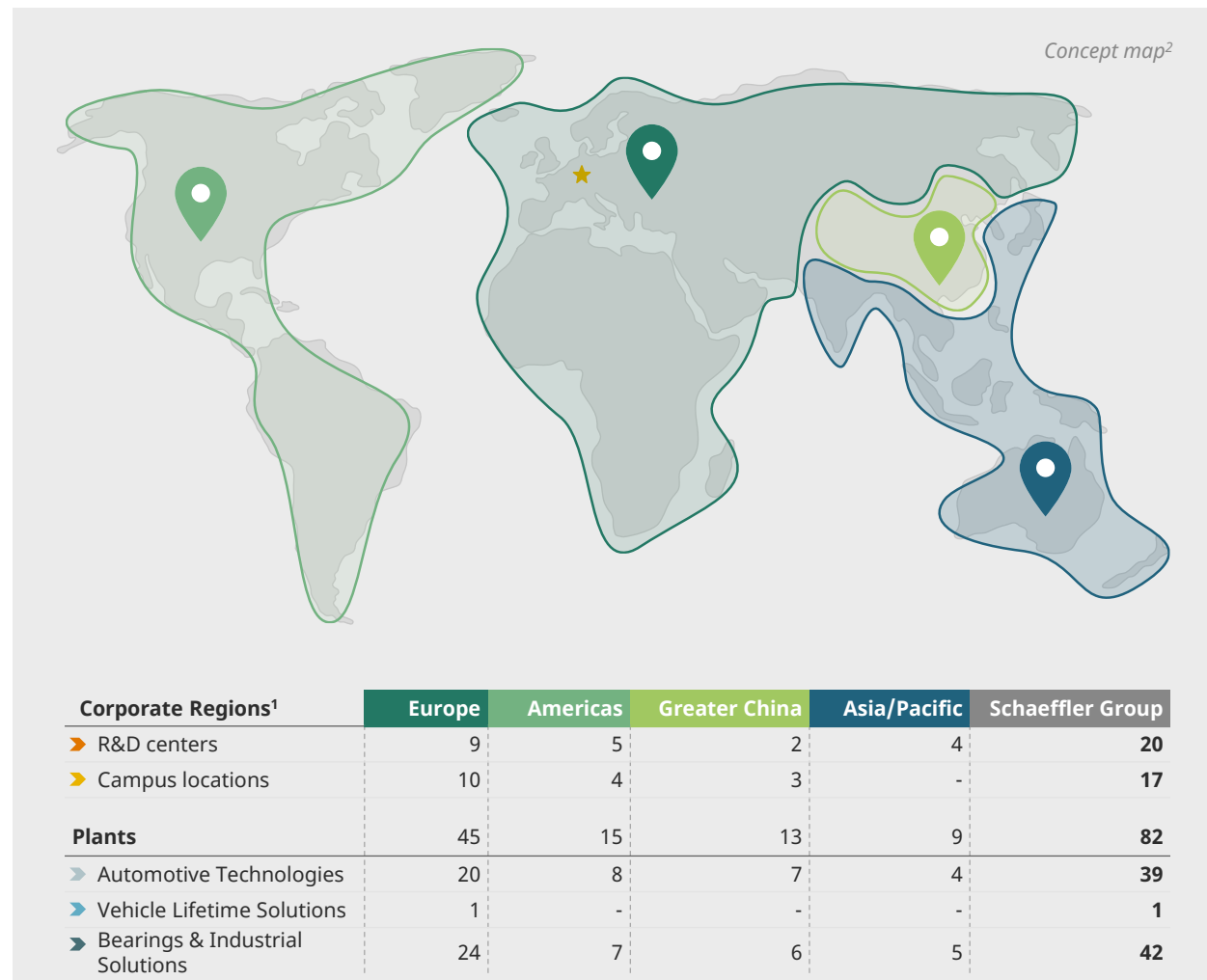
¹⁾ The number of points refers to the score in the S&P Global Corporate Sustainability Assessment 2023, published on 02/16/2024.

²⁾ Copyright ©2024 Morningstar Sustainalytics. All rights reserved. More information is available at: Sustainalytics.

³⁾ This rating refers to the score in the Morningstar Sustainalytics ESG Risk Assessment of November 2023.

Global plants and R&D centers

Americas	Europe	France	Greater China
Brazil	Germany	France	China
▶▶▶ Sorocaba	▶▶▶ Bühl	▶ Chambéry	▶ Anting
Canada	▶ Erlangen	▶ Chevilly	▶▶ Nanjing
▶▶ Stratford	▶ Gunzenhausen	▶▶ Hagenau	▶ Pinghu
Mexico	▶▶ Herzogenaurach ★	Great Britain	▶ Suzhou
▶▶ Huejotzingo	▶ Hirschaid	▶ Sheffield	▶▶▶▶ Taicang
▶ Irapuato	▶▶ HÖchstadt	Hungary	▶ Xiangtan
▶ Puebla	▶▶▶ Homburg	▶ Debrecen	▶▶ Yinchuan
USA	▶ Ingolstadt	▶▶ Szombathely	▶ Changsha
▶ Armada	▶▶ Lahr	Italy	Taiwan
▶▶ Cheraw	▶ Meckesheim	▶ Momo	▶ Taoyuan
▶ Danbury	▶ Morbach	Portugal	Asia/Pacific
▶▶▶ Fort Mill	▶ Nürnberg	▶ Caldas da Rainha	India
▶ Joplin	▶▶▶ Schweinfurt	Romania	▶▶ Hosur
▶ Troy	▶ Steinhagen	▶▶▶ Braşov	▶▶ Pune
▶▶ Wooster	▶ Suhl	Slovakia	▶ Vadodara
	Austria	▶▶▶ Kysucké Nové Mesto	▶ Savli
	▶ Berndorf-St. Veit	▶▶ Skalica	Japan
	Bulgaria	South Africa	▶ Yokohama
	▶ Sofia	▶ Port Elizabeth	South Korea
	Czech Republic	Spain	▶ Ansan
	▶ Lanškroun	▶ Elgoibar	▶▶ Changwon
	▶ Svitavy		▶ Jeonju
			Thailand
			▶ Chonburi
			Vietnam
			▶ Biên Hòa City



¹ The Schaeffler Group has a regional structure | ² Visual reference only. Not intended for accurate geographical reference. | ★ Headquarters

Methodologies and Carbon Footprint activities around the world

Worldwide methodologies:

- Greenhouse Gas Protocol
- DIN ISO Norm 14067, 14021,.....
- Catena-X Product Carbon Footprint Rulebook (Automotive sector)
- Together for Sustainability Guideline
- Product Category Rules:
 - PCR Bearings
 - PCR Steel
 - PCR Magnets

USA:

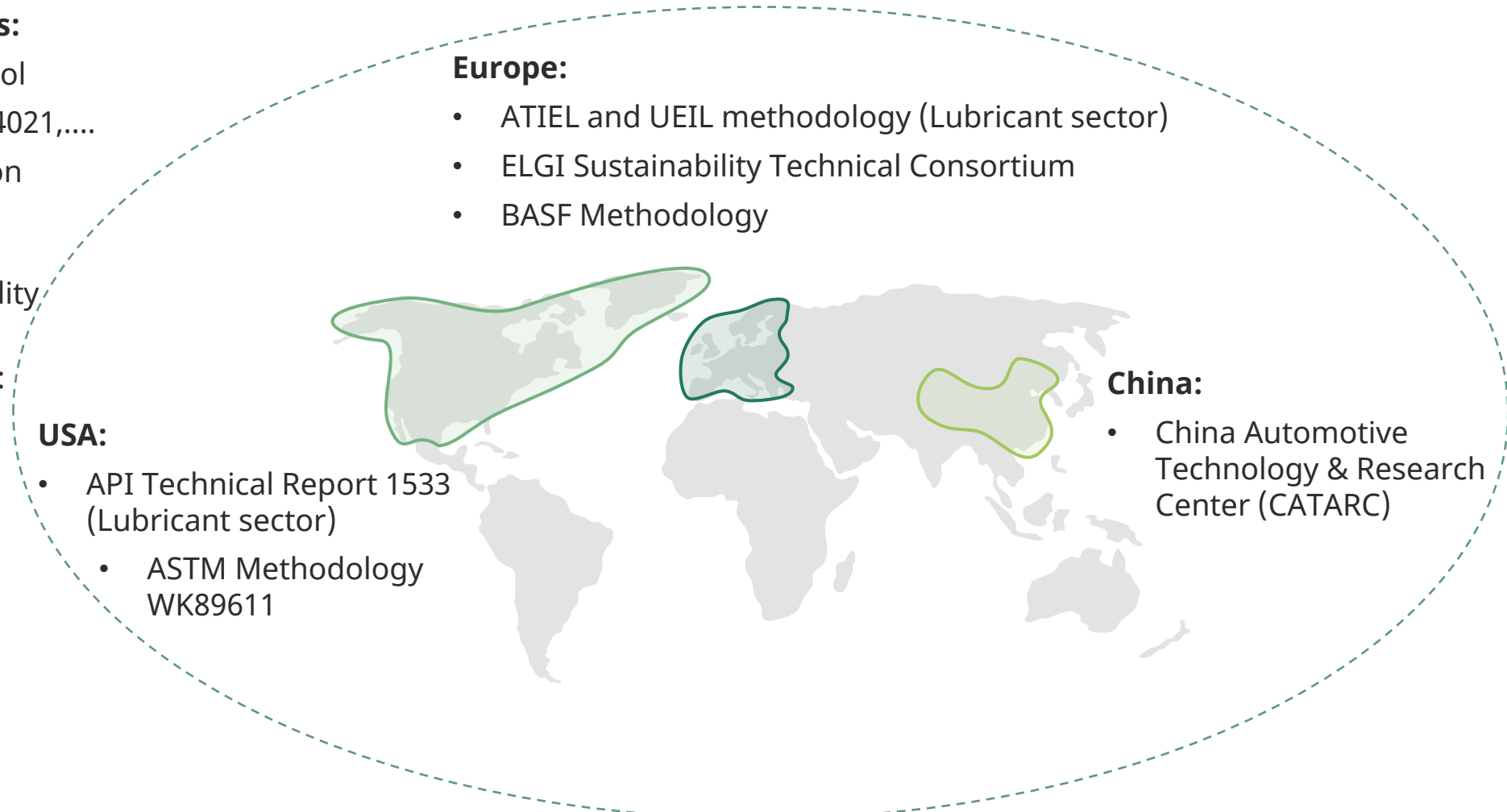
- API Technical Report 1533 (Lubricant sector)
- ASTM Methodology WK89611

Europe:

- ATIEL and UEIL methodology (Lubricant sector)
- ELGI Sustainability Technical Consortium
- BASF Methodology

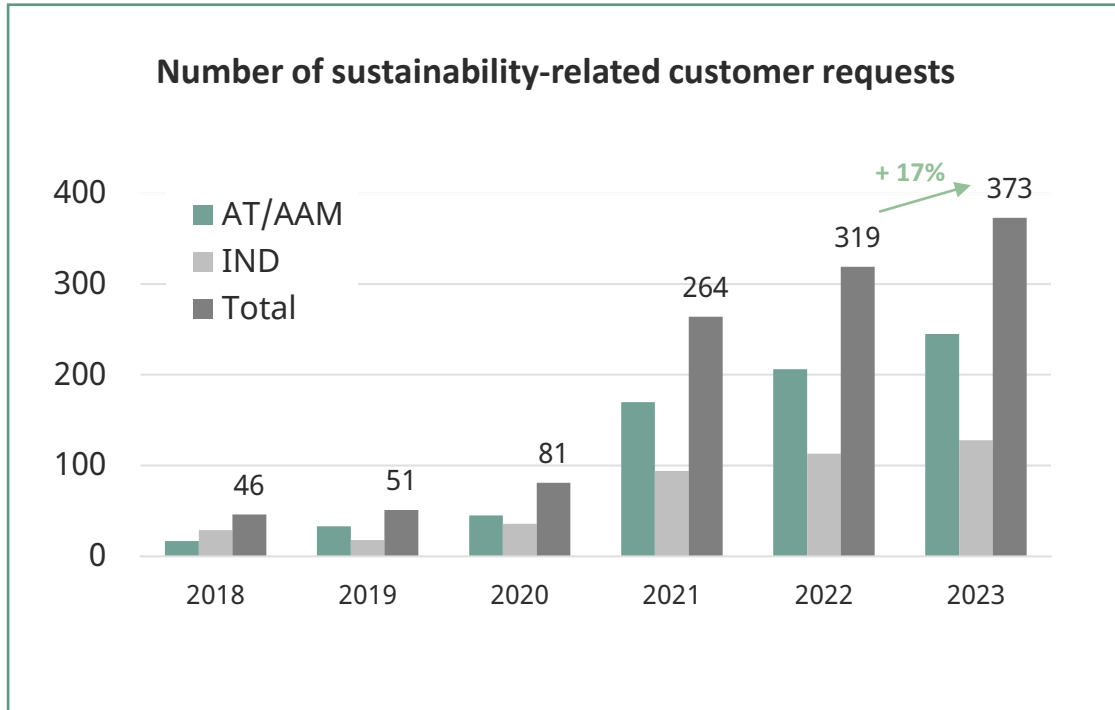
China:

- China Automotive Technology & Research Center (CATARC)



Answering sustainability related customer requests

31% increase of requesting customers in 2023 as well as 17% increase of the number of requests



In 2023, **187 customers** (2022 143 customers) addressed Schaeffler on sustainability topics

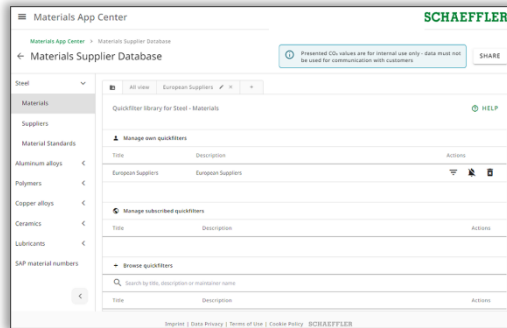
96	91
IND	AT/AAM
PY 80	PY 63



Internal Sustainable Products Services | Product Visions

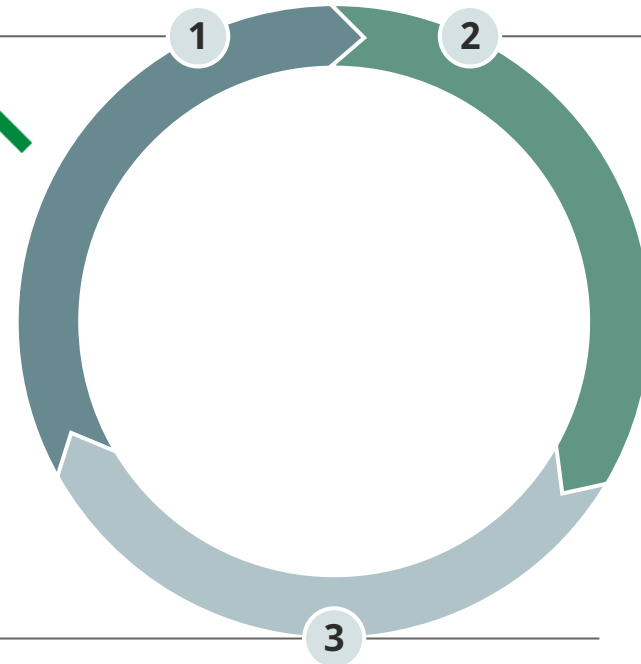
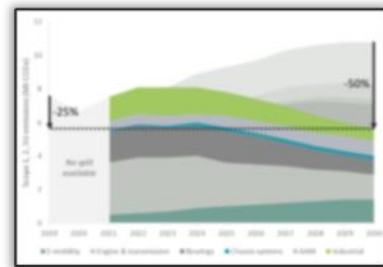
Materials Supplier Database (MSD)

We provide the single source of truth for materials-related supplier data at Schaeffler, incl. CO₂e emissions, and thereby facilitate Product Carbon Footprint (PCF) calculations.



Sustainability Manager

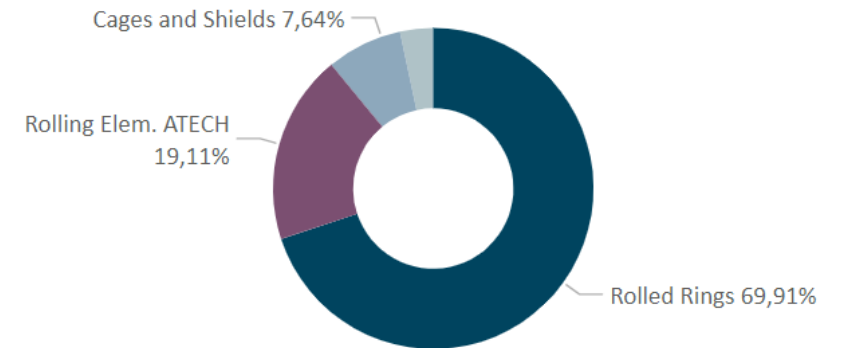
We enable the selection of optimal CO₂e reduction measures for Schaeffler products by providing the central platform for creating decarbonization scenarios and roadmaps.



PCF Data Service

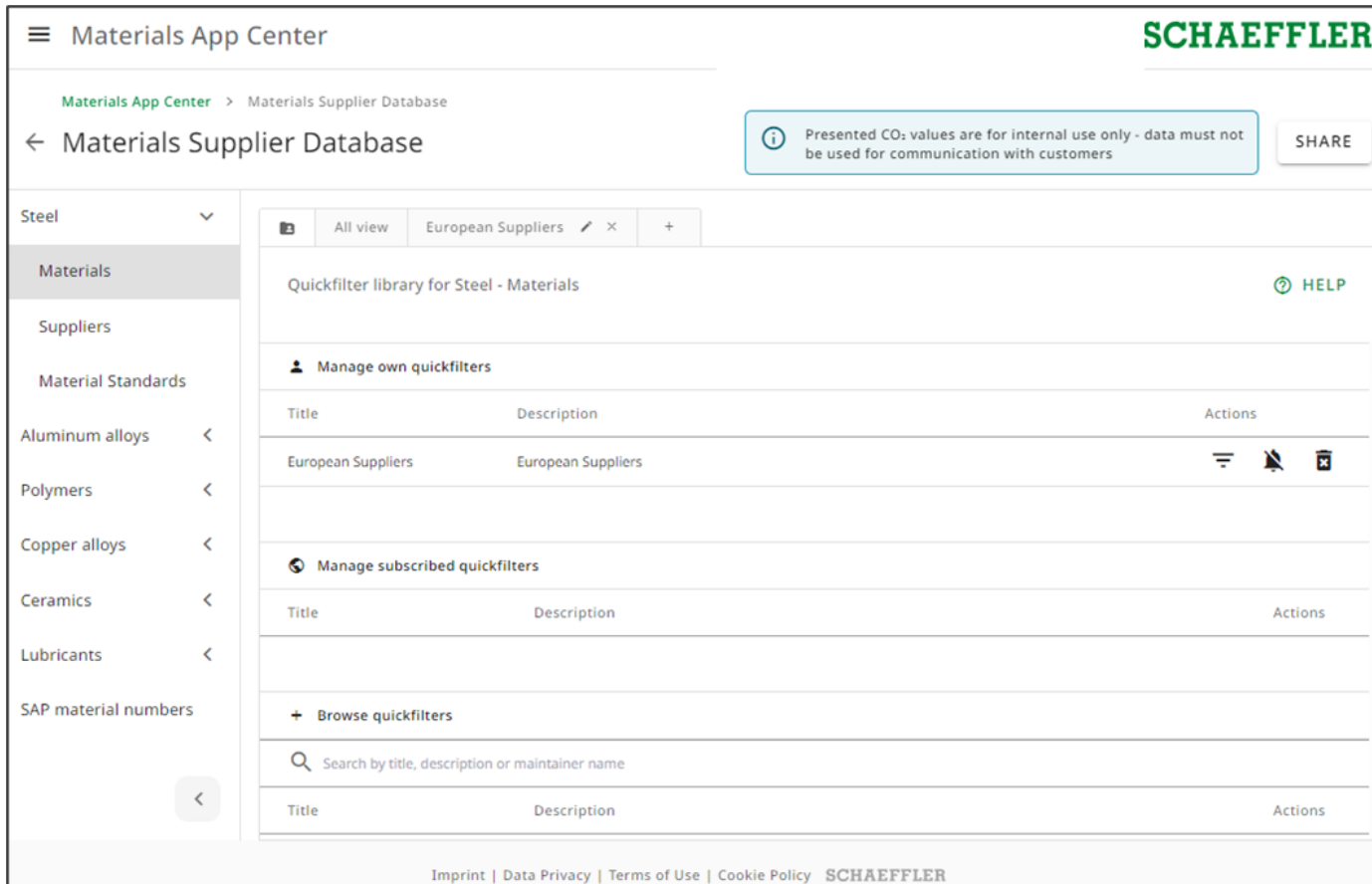


We provide reliable PCFs for all Schaeffler products, incl. bill-of-material (BOM) resolution, and decarbonization measures.



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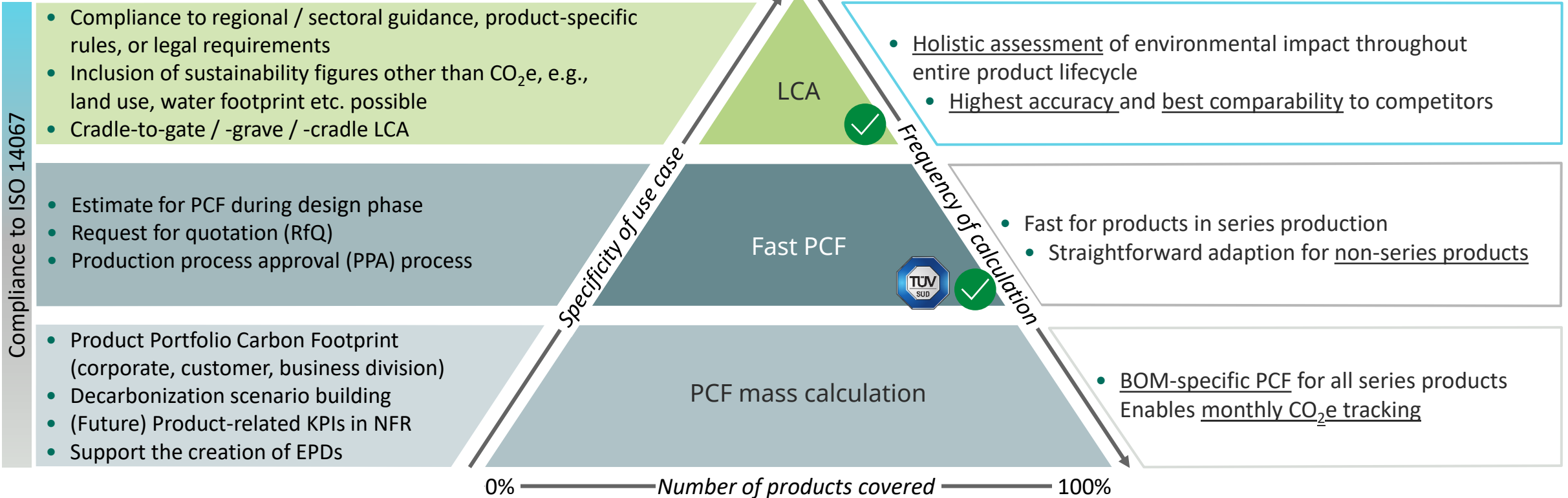
Data source maturity

DSM Score	Description
10	Supplier's PCF value evaluated by third party
9	Supplier's PCF calculation method/tool evaluated by third party
8	Supplier's PCF value checked for plausibility by Schaeffler experts
7	Emission factor calculated by Schaeffler experts from service weight and material source provided by supplier
6	Emission factor estimated from internal material and process expertise
5	Emission factor taken from external database based on supplier country, purchasing category (and material group)
2	Emission factor indirectly derived from external database

PCF Data Service

Use case

Top Features

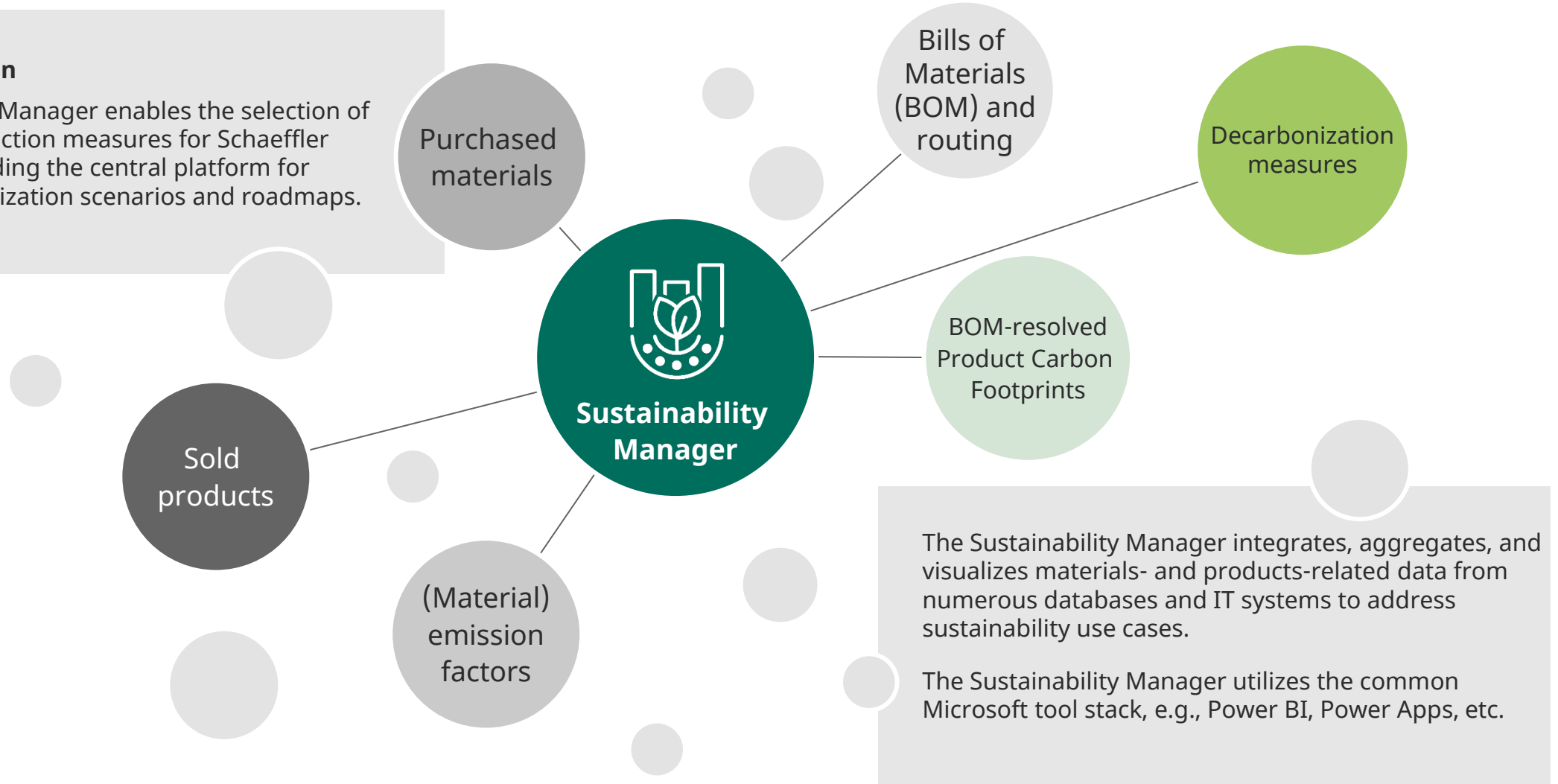


KPI: Key-Performance-Indicator; BOM: Bill of Materials; EPD: Environmental Product Declaration; NFR: Non Functional Requirement

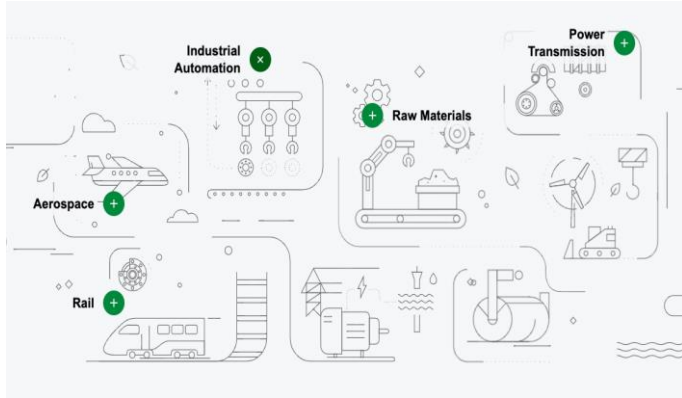
Sustainability Manager

Our product vision

The Sustainability Manager enables the selection of optimal CO₂e reduction measures for Schaeffler products by providing the central platform for creating decarbonization scenarios and roadmaps.



Publicly available Apps



CO₂ Tool provides CO₂ values

How much CO₂ can be saved in your industry? Based on application examples, we show you how many tons of CO₂ you can potentially save by using our products.

Available on:

medias.schaeffler.de/en/co2-tool



Try CO₂ Tool



medias EasyCalc provides CO₂ values

Enter a bearing designation to calculate rating life, frictional powerloss, lubrication parameters, overrolling frequencies and CO₂ emissions.

Available on:

medias-easycalc.com **medias**



Try medias EasyCalc!



Grease App CO₂ values missing

TheSchaeffler Grease App comfortably assists in selecting the right greasing for a certain bearing application.

Available on:

greaseapp.com **medias**



Try the Grease App!

Expectations towards our suppliers to create a sustainable supplier portfolio

Fulfilment of basic requirements towards Sustainability

- **Consideration** of Schaeffler Sustainability Policies
- **Acceptance** of Schaeffler Supplier Code of Conduct
- **Conflict Mineral Compliance***
- **Support of addressed measures** based on Sustainability risk assessment according **German Act on Corporate Due Diligence Obligations in Supply Chains**
- **Completion** of requested CCF/ PCF disclosures*

Status Quo



Further Development towards Sustainability

- **Implementation of risk mitigation measures** based on Sustainability risk assessment
- **Continuous** improvement of SAQ Score via NQC 
- **Improving transparency towards carbon emissions / decarbonization strategies**
- **Validated CO₂ calculation** based recognized standards (e.g. ISO 14067, GHG etc.)
- **CDP disclosure*** 

2024

* upon request



Continuation of Sustainable Business Relationships

- **100% usage of renewable energy sources @ suppliers latest till 2030**
- **Continuous development** of carbon-reduced product portfolio
- **Circular economy** strategy support*
- **Transparent and risk free** critical raw materials* supply chain



More Information | News for suppliers

[Schaeffler Supplier Landing Page Sustainability](#)

2025 +

Sustainability Target Agreement (STA)



Sustainability Target Agreement as instrument to align suppliers with Schaeffler’s Sustainability targets & expectations

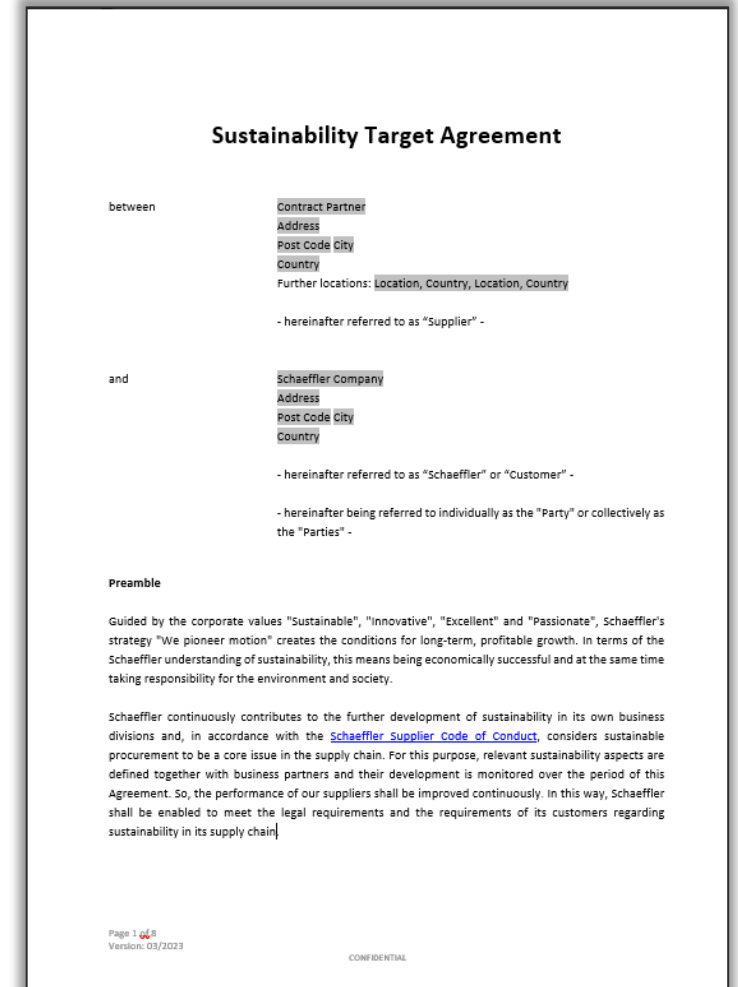
→ joint supplier development towards better sustainability performance



Holistic agreement covering all relevant sustainability figures such as ratings, environmental & carbon figures (renewable energy, recycled content, ...), governance measures on a cooperate level



Agreement on the method used for the PCF calculation based on the sector



SCHAEFFLER