SAP

Harnessing Technology for a Greener Tomorrow

Juliana Bruwer
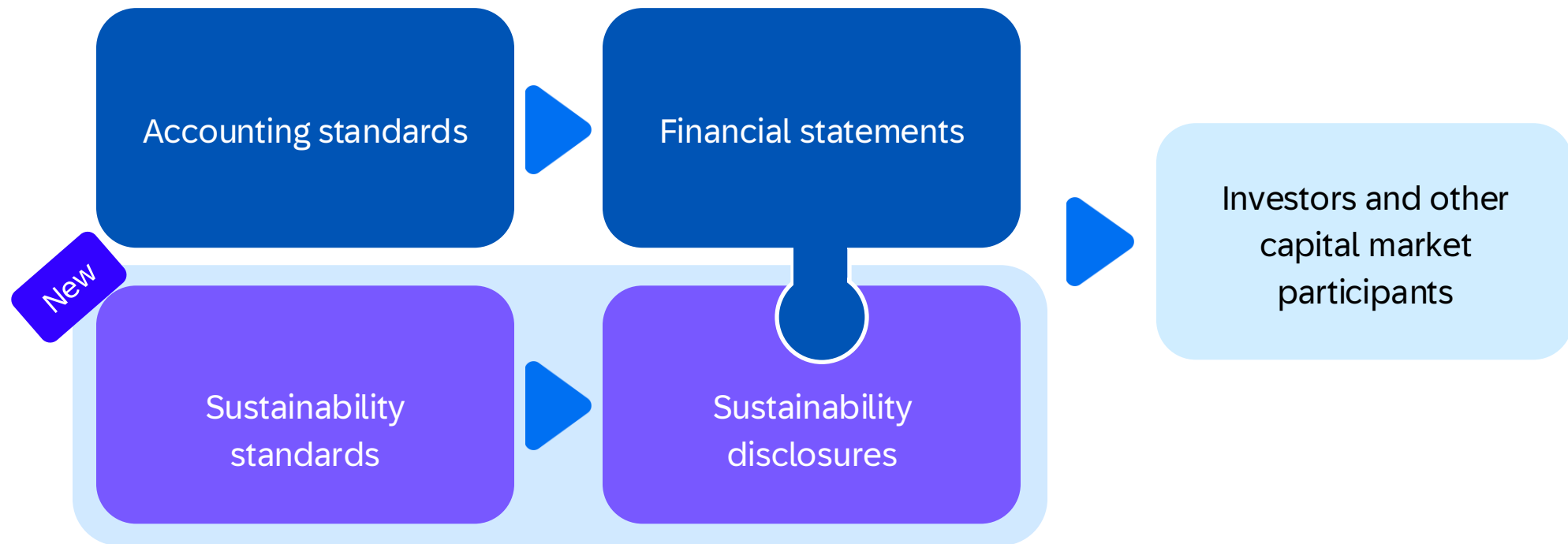
Public

Topics

01 | What is the context?

There is a seismic shift in corporate disclosures, based on the IFRS standards for Sustainability

Accounting standards → Financial statements

New

Sustainability standards → Sustainability disclosures

Investors and other capital market participants

New corporate disclosure regulations are being introduced globally
Businesses needed audit-ready disclosure capabilities today - and tomorrow

Disclosure requirements evolving globally

The Climate Corporate Data Accountability Act requires companies in California to report their Scope 1, 2, and 3 GHG emissions.

SB253

CSRD will start to have impact in 2024, up to 50.000 companies within the EU need to start recording their sustainability impact

CSRD

Comprehensive global baseline of sustainability disclosures focused on the needs of investors and the financial markets
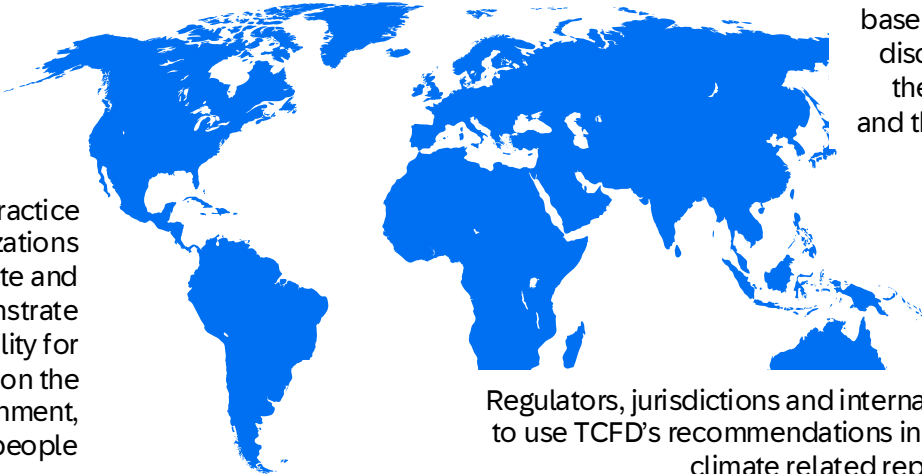
ISSB

Global best practice for how organizations communicate and demonstrate accountability for their impacts on the environment, economy and people

GRI

Regulators, jurisdictions and international standards to use TCFD's recommendations in development of climate related reporting standards

TCFD

IFRS Foundation

More that **20 jurisdictions** are taking steps to introduce ISSB, representing:

➢ nearly **55%** of global GDP

➢ more than **40%** of global market capitalisation

➢ more than **half** of global greenhouse gas emissions

Source: IFRS Foundation News

Regulated carbon pricing has a significant financial impact globally

Instrument Detail	GHG Emissions Coverage	Price	Revenue

Instrument Detail	Issuance

National **50**

Subnational **39**

89 Jurisdictions with compliance instruments

ETSs **36**

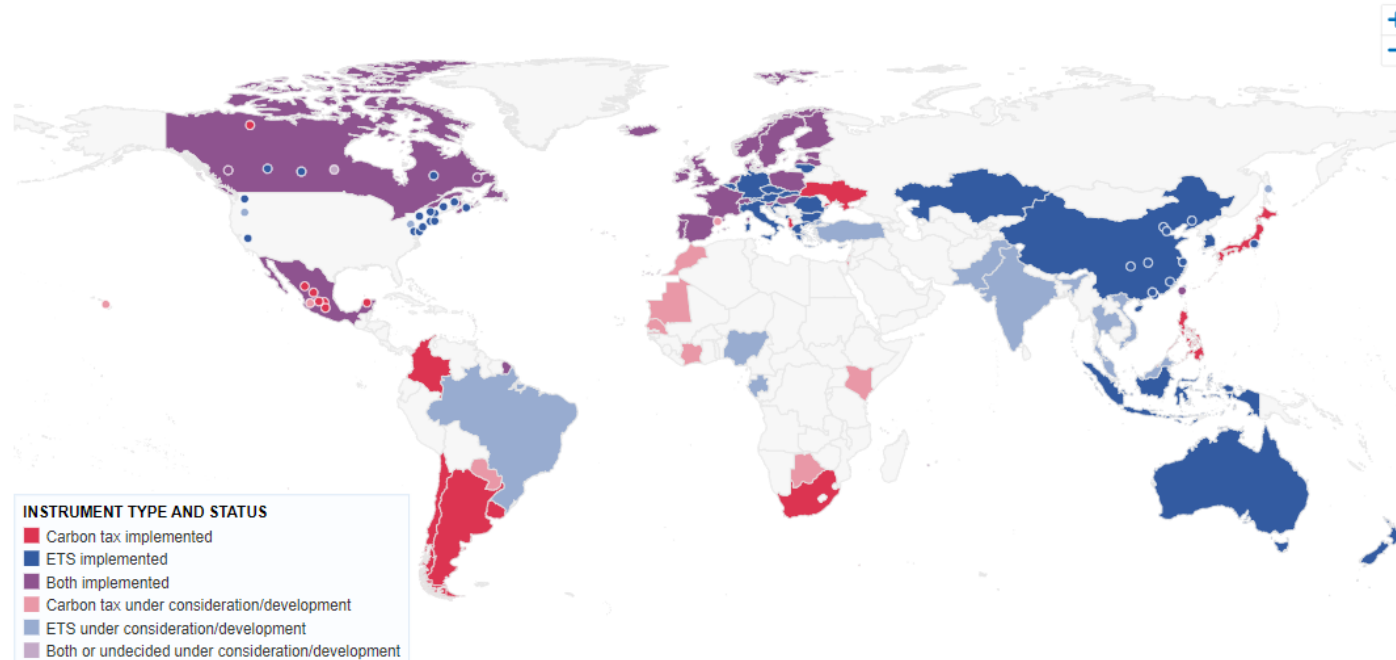Carbon taxes **39**

75 Instruments implemented

104 billion USD in government revenue in 2023

Compliance carbon pricing instruments around the world, 2024

Map shows jurisdictions with carbon taxes or emissions trading systems implemented, under development or under consideration, subject to any filters applied in the table below the map. The year can be adjusted using the slider below the map.

☰ Download

+
−

INSTRUMENT TYPE AND STATUS
- Carbon tax implemented
- ETS implemented
- Both implemented
- Carbon tax under consideration/development
- ETS under consideration/development
- Both or undecided under consideration/development

Source: World Bank - State and Trends of Carbon Pricing 2024

02 | What is the business impact?

What are the key drivers and opportunities?

Drivers for Change

Regulations
- ETS linked to CBAM
- ESG reporting CSRD, EU Taxonomy
- Digital Product Passports, ESPR
- Energy Performance of Buildings Directive, EPBD
- Critical Minerals Act
- Deforestation Regulation, EUDR
- Supply Chain Acts, CSDDD

Standards
- IFRS S1, S2 sector specifics
- Greenhouse Gas Protocol
- wbcsd PACT; Catena-X

Business Opportunities

New business models
- Mining waste, secondary extraction
- Recycling rules, plastic & minerals
- Construction materials shift

Public Investment
- US Inflation Reduction Act
- EU Green Public Procurement

Brand Opportunity
- Investor pressure
- Consumer demand

The main imperative

Show proof of sustainable operations, across multiple steps of the chain

What is unique for each of the industries?

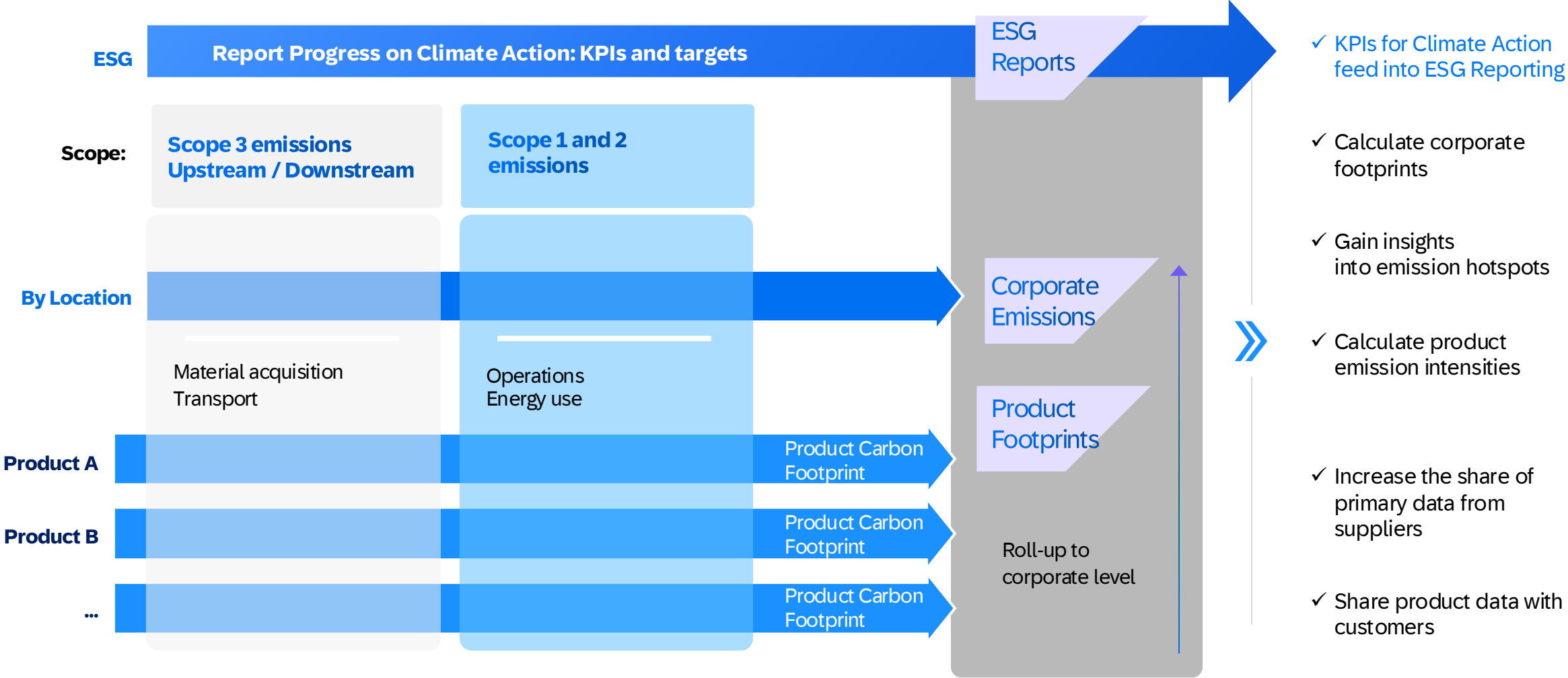|	**Obligation**	**Opportunity**
General	• ETS and Carbon Pricing • ESG: IFRS S1 S2, CSRD, EU Taxonomy • Supply Chain Acts, CSDDD	• Product emissions: PACT, ISO, RMI, etc. • Differentiators: Social Procurement
Mining	• Permits, license to operate • Land, water, bio diversity and rehab • Digital Product Passports, ESPR	• Critical Minerals Act • Mining waste, secondary extraction • Portfolio adjustments (M&A)
Metals	• ETS and CBAM • Digital Product Passports, ESPR • Circular Economy	• US IRA investment needed • EU Green Public Procurement • Catena-X automotive; EPD construction
Building Materials	• Deforestation Regulation (EUDR) • Energy Performance of Buildings Directive (EPBD)	• EU Green Public Procurement • Requires shift from LCA, EPD labels • Shift to alternative materials
Packaging Materials	• Extended Producer Responsibility • Packaging and Packaging Waste Directive • Single-Use Plastic Directive • Plastic packaging taxes (UK, Spain)	• Consumer demand, market opportunity • Requires shift in product labels
Chemicals	• Chemicals of Concern • REACH • CBAM evolution	• Together for Sustainability TfS • Consumer demand, market opportunity • Requires shift in product labels

One size does not fit all!

Diverse requirements & highly regulated, hard to abate sectors

03 | How to seize the opportunities?

Revisiting existing processes to meet new requirements

ESG

Report Progress on Climate Action: KPIs and targets

ESG Reports

✓ KPIs for Climate Action feed into ESG Reporting

Scope:

Scope 3 emissions Upstream / Downstream

Scope 1 and 2 emissions

✓ Calculate corporate footprints

✓ Gain insights into emission hotspots

By Location

Material acquisition Transport

Operations Energy use

Corporate Emissions

✓ Calculate product emission intensities

Product Footprints

Product A

Product Carbon Footprint

✓ Increase the share of primary data from suppliers

Product B

Product Carbon Footprint

...

Product Carbon Footprint

Roll-up to corporate level

✓ Share product data with customers

The SAP Sustainability portfolio is integrated to support these business needs

SAP Sustainability Control Tower

SAP S/4 HANA Environment Management
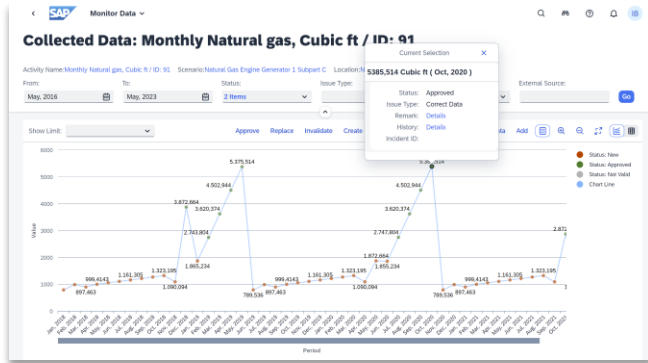
Corporate GHG Emissions (scope 1 & 2), Waste, Safety

Organizational Footprint (Total CO_2e)

SAP Sustainability Footprint Management

GHG Emissions (Scope 1 & 2)
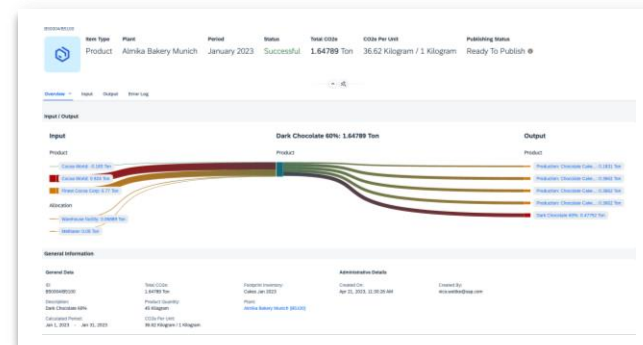
SAP Sustainability Data Exchange

Product Footprints – supplier specific (CO_2e)

The importance of an ERP-centric approach for Sustainability data
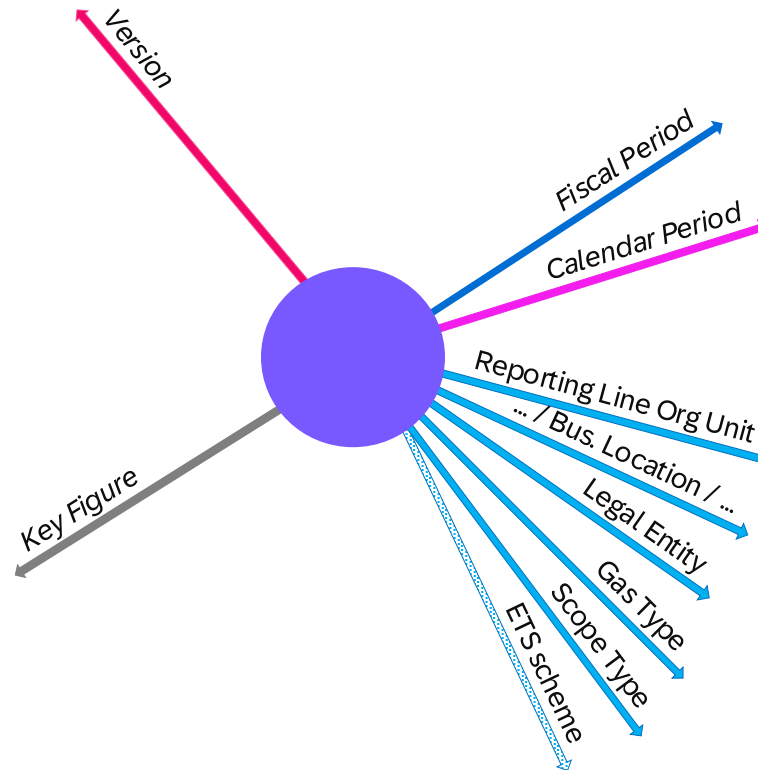
Mandatory requirements

Multiple outputs are needed:

- By Country, Region, or State
- By Location, or Equipment
- By Operating Control
- By Financial Control
- By Equity Share % JV

What it means for businesses:

- Results differ by reporting requirement
- Need to recalculate data at group level
- Must keep track of multiple factors used
- Must collect and retain granular raw data

Example of KPI for GHG Scope 1 with CSRD

Version

Fiscal Period

Calendar Period

Reporting Line Org Unit
… / Bus. Location / …

Legal Entity

Gas Type

Scope Type

ETS scheme

Key Figure

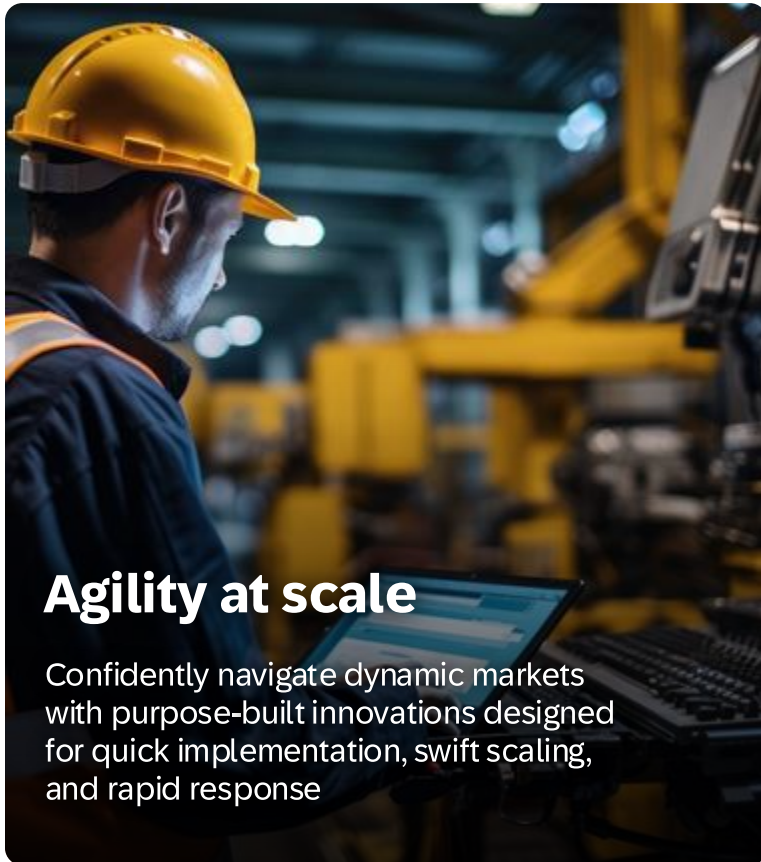**Need for granular data, captured in the context of Organisational and Financial dimensions**

Source data can be modelled in SAP S/4 HANA Environment Management and reported in SAP Sustainability Control Tower

04 | **How to get started?**

We bring out the best in every business

From the perspective of Process and Natural Resources Industries

Agility at scale

Confidently navigate dynamic markets with purpose-built innovations designed for quick implementation, swift scaling, and rapid response

Achieve more across the value chain

Tap into the trusted and scalable business ecosystem, harnessing the intelligence across your internal systems and external partnerships to optimize performance across your value chain

Sustainability at your core

Transform your operations with next-generation solutions that drive more accurate and actionable sustainability management across your entire enterprise

Scalable solutions that
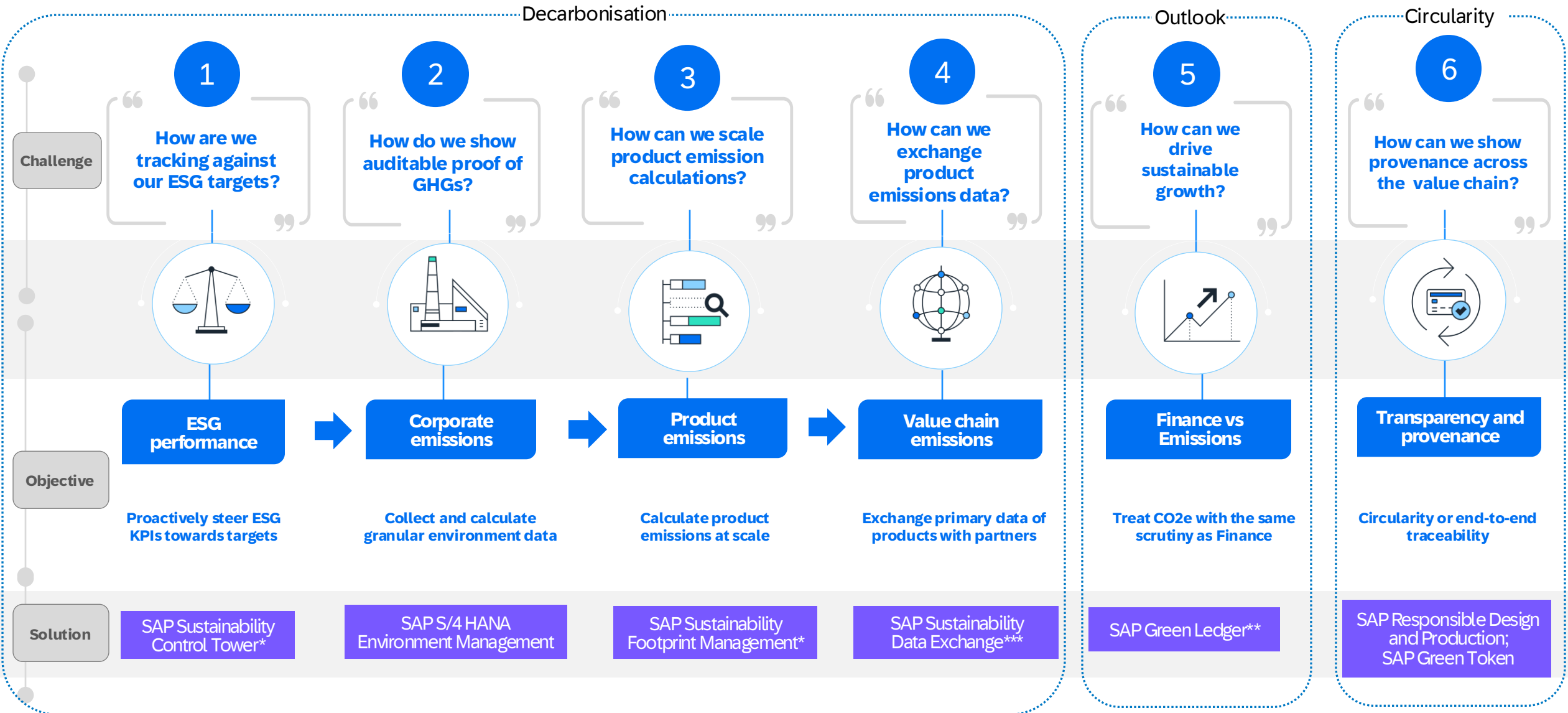are fit for the future

Leverage sustainable
business partners globally
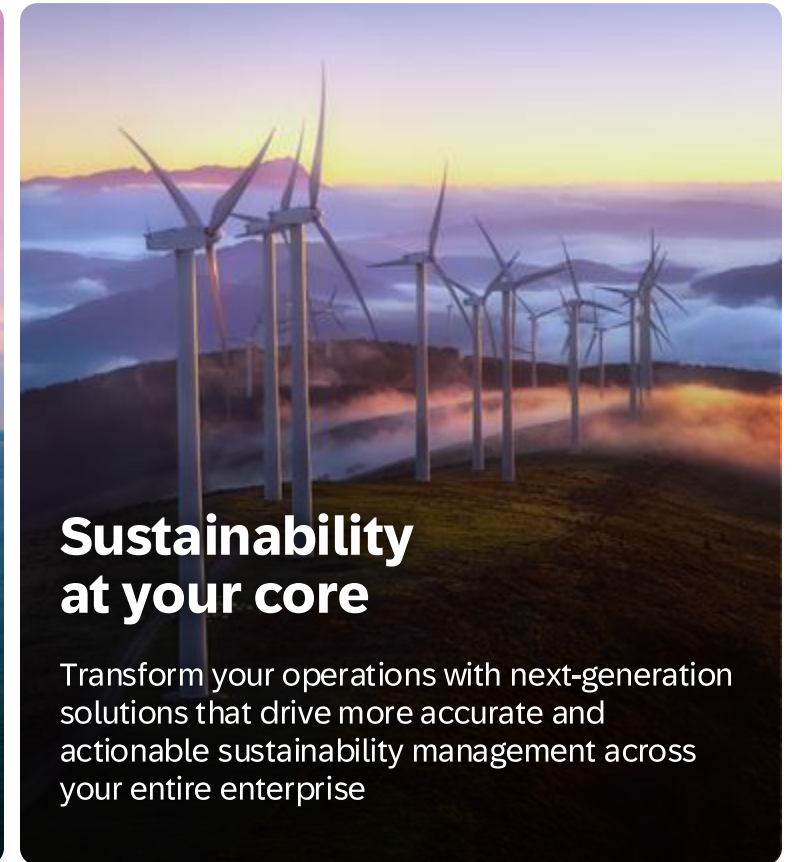
Ensure license to operate and
access to capital

How SAP's Sustainbility portfolio can address typical business challenges

Decarbonisation

Outlook

Circularity

Challenge

1 How are we tracking against our ESG targets?

2 How do we show auditable proof of GHGs?

3 How can we scale product emission calculations?

4 How can we exchange product emissions data?

5 How can we drive sustainable growth?

6 How can we show provenance across the value chain?

Objective

| ESG performance | → | Corporate emissions | → | Product emissions | → | Value chain emissions | Finance vs Emissions | Transparency and provenance |

Proactively steer ESG KPIs towards targets

Collect and calculate granular environment data

Calculate product emissions at scale

Exchange primary data of products with partners

Treat CO2e with the same scrutiny as Finance

Circularity or end-to-end traceability

Solution

| SAP Sustainability Control Tower* | SAP S/4 HANA Environment Management | SAP Sustainability Footprint Management* | SAP Sustainability Data Exchange*** | SAP Green Ledger** | SAP Responsible Design and Production; SAP Green Token |

Business AI

*Integrated with SAP S/4HANA Cloud and as a feature of SAP RISE and GROW; **Future vision *** General Availability soon

Reinvent the "R" in ERP

The Path to the Green Ledger

Expand the definition of "resources" to act on carbon in sync with financial data

- Quantify CO2e at a granular level

- Leverage the same rigor for CO2e as for Finance

- Make informed operational and strategic decisions

Innovations and Road Maps for SAP Business AI

SAP Business AI capabilities in Sustainability

Automated emission factor mapping with AI

SAP Sustainability Footprint Management:. AI saves you time by generating proposed mappings for emission factors for products and product groups.

See SAP Help Portal

ESG Report Generation with AI

SAP Sustainability Control Tower: Streamline the generation of periodic reports, freeing up valuable time on driving sustainability strategy and executing impactful programmes.

Visit sap.com

SAP Business AI capabilities related to Procurement

### Accelerate category strategy development with AI

SAP Ariba Category Management: Generative AI-enabled features can assist category managers by generating recommendations in the solution's category segmentation, market dynamics, and cost structure tools.

Watch the video or Read the blog

Accelerate, automate & scale document processing with AI

Document Information Extraction, Premium Edition: Transform unstructured documents to structured information and embed the information into business processes for instant value.

Read the blog

Visit sap.com and SAP Roadmap Explorer
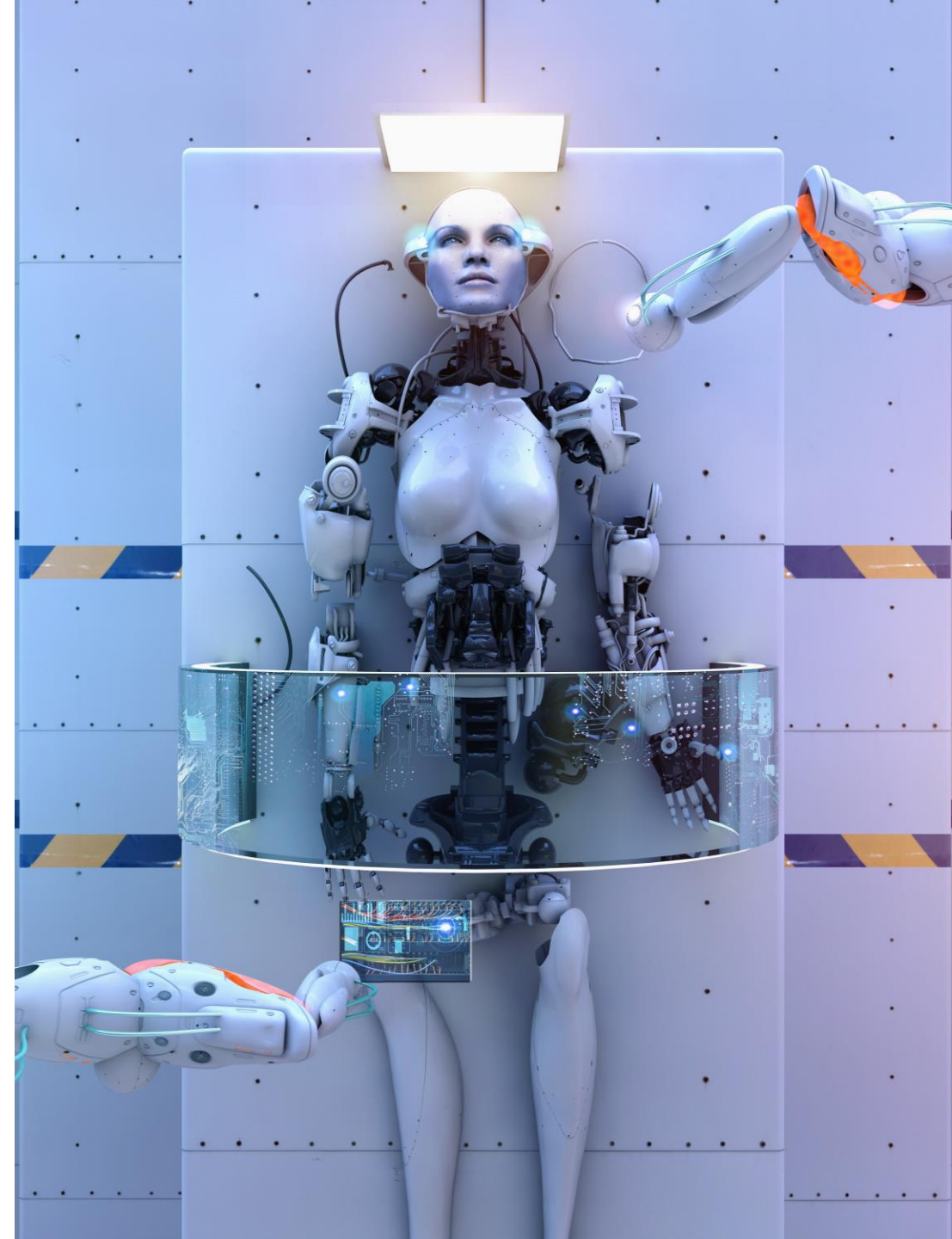
Select sustainable seat covers with AI

by MARTUR FOMPAK INTERNATIONAL

Martur Fompak International (MFI) is one of the world's leading suppliers in automotive seat production.

MFI has built a metaverse platform using **RISE with SAP, SAP Sustainability Footprint Management, SAP AI Launchpad, and SAP AI Core**, allowing customers to select their seat cover designs by uploading pictures and choosing from recommended sustainable fabric options.
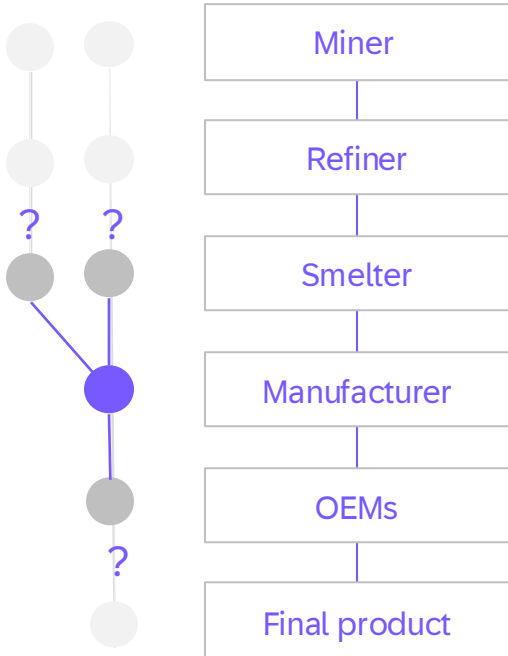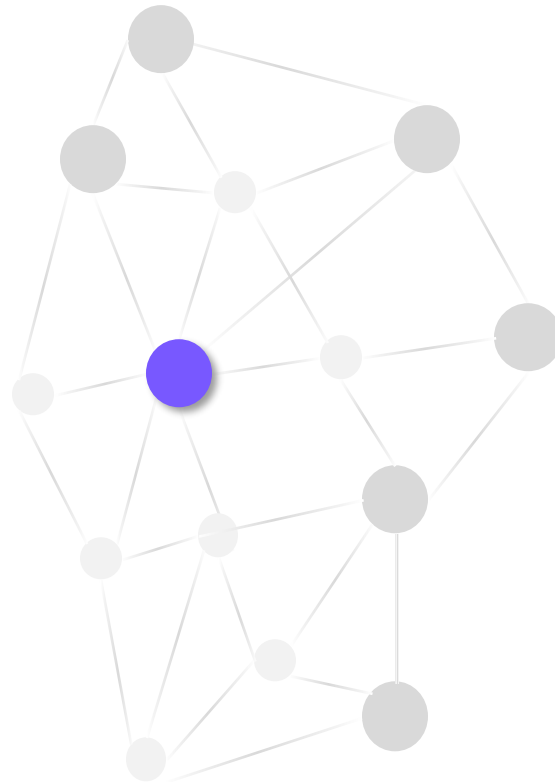

Read the full details here or watch their story

SAP Sustainability Data Exchange supports the move from estimates to actuals

From estimates

Miner

Refiner

Smelter

Manufacturer

OEMs

Final product

To actuals

Leveraging the
SAP Business Network

SAP Sustainability Data Exchange allows for…
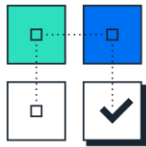
1 Exchange of CO_2e through the value chain, for increased accuracy of Scope 3 emissions

2 Harmonizing product carbon footprint accounting

3 Obtaining data sovereignty and interoperability

4 Adding industry specific extensions, aligned with wbcsd

RMI
ENERGY. TRANSFORMED.

In collaboration with:

wbcsd

Member of
Catena-X

Where to find more information

Explore the solutions

SAP Sustainability Solutions

Discover SAP Sustainability Solutions as part of the broader portfolio with SAP Cloud for Sustainable Enterprises.

Sustainability Navigator

Use the Sustainability Navigator to explore other solutions beyond the Sales Play use cases

Find a connection

Sustainability Community

The SAP Sustainability Community is an active space where the public can engage with others, get the latest news and attend info sessions and webinars

Customer References

Explore the wide range of customer reference stories

Keep learning

SAP Learning

Say goodbye to OpenSAP, and hello to SAP Learning, as your all new one-stop-shop

LearningHub

Subscribers have several training options are available as Learning Journeys, such as this course on SAP Cloud for Sustainable Enterprises

Thank you.

Juliana Bruwer

Solution Expert, SAP Industry Business Unit

j.bruwer@sap.com

linkedin.com/in/julianabruwer