

The ASUG logo consists of the letters 'ASUG' in a white, sans-serif font, centered within a solid orange square. The background of the entire slide is an aerial photograph of a winding road through a dense green forest, with a large blue lake or reservoir on the left side.

ASUG

# SAP Sustainability / ESG Steering & Reporting

Manage your Green Line like your Top- & Bottom-Line

## Central Texas Chapter Meeting

April 6, 2023

**John W Martin**, National Practice Lead - Sustainability



# Sustainability is more relevant than ever

Companies need to act on sustainability now

## Customers

**79%**

of buyers are changing preferences based on sustainability

Source: Capgemini

## Investors

**50%**

of all professionally managed assets will be ESG-mandated by 2025

Source: Deloitte

## Employees

**90%**

of employees implied that a company's ESG efforts enhances job satisfaction

Source: Business Green

## Regulators

**>600**

voluntary & regulatory ESG standards / frameworks currently exist

Source: WEF

## Companies

**70%**

of EBITDA could be at stake from sustainability challenges

Source: WEF

# The ESG expectations are continually growing

## RECORD

ESG transparency along the value chain

Data spanning multiple sources, formats and organizations without the granular level of details and precision



## REPORT

New and increasing ESG reporting requirements

Multiple frameworks and standards to report against and fulfilling the respective requirements



## ACT

Sustainability touches all business processes

Sustainability strategy and initiatives disjoint from corporate strategy, business models and processes

# ESG transparency is the first step in solving these challenges

SAP's unique position to be your partner

## RECORD

Move from averages to actuals with data across the value chain

**88%** of the World's Supply Chains networked through SAP



## REPORT

Incorporate relevant frameworks with built-in audit & assurance

**>600** ESG frameworks & standards simplified on extensible data foundation



## ACT

Embed sustainability into your business DNA

**50 years** of market leadership in enterprise processes & applications

# Enabling Customer Imperatives

SOXification of ESG

## Data, Data, Data

- Automation
- Assurance
- Auditability
- Attestation

Embed ESG data in  
Business Processes

Business transformation

Supply chain resilience

Sustainability outcomes

# Our approach to drive sustainability impact

## Holistic Steering and Reporting

Complexity of voluntary & regulatory frameworks

### Zero Emissions

with Climate Action

Scope 1,2,3 transparency on **company and product level**

Harmonized, granular & regulatory **compliant calculation logic**

### Zero Waste

with Circular Economy

Data & insights on **material flow and traceability**

Data & insights on **material recovery and reuse**

### Zero Inequality

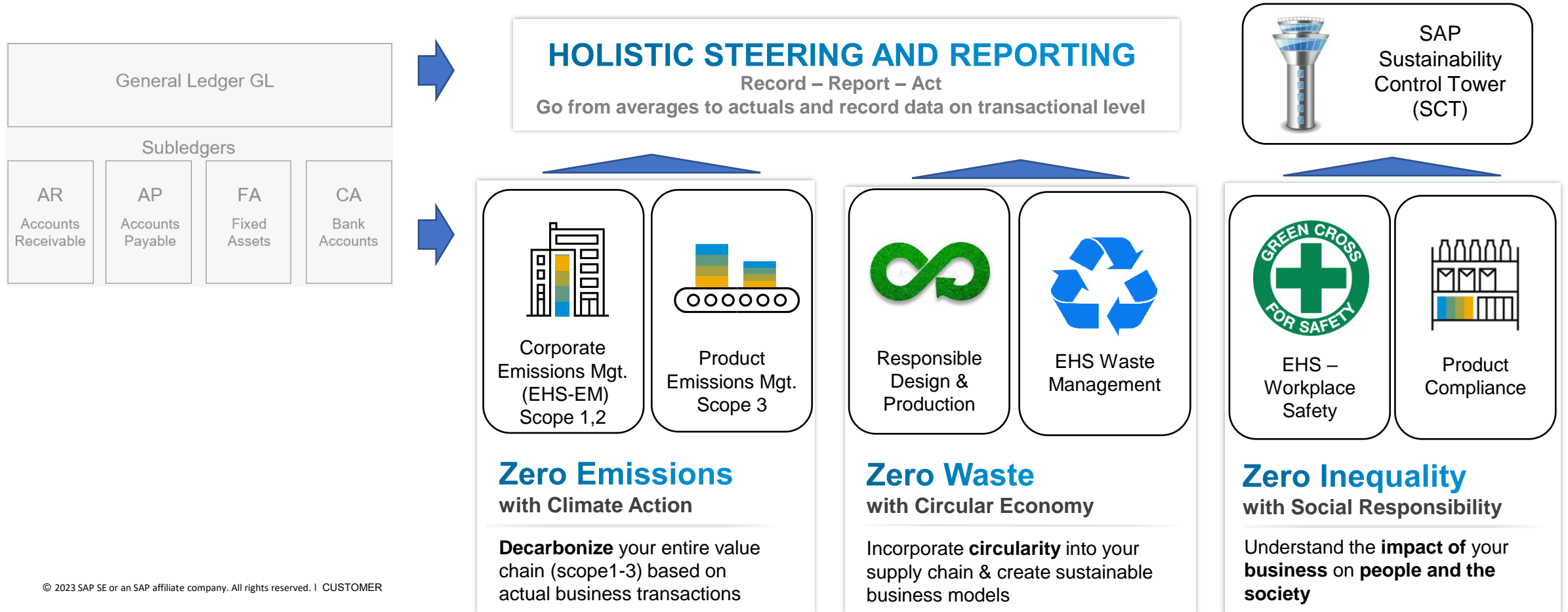
with Social Responsibility

Transparency on **supply chain risks**

**Workers safety data tracking & insights**

# SAP as an enabler

## Our offering – SAP Cloud for Sustainable Enterprises



# Our offering – SAP Cloud for Sustainable Enterprises

**Business Network**  
for carbon data sharing

**Industry Capabilities**  
to solve your specific challenges

**Partner Ecosystem**  
geared towards sustainability

## HOLISTIC STEERING AND REPORTING

Record – Report – Act to go from averages to actuals and record data on transactional level

### Zero Emissions with Climate Action

Decarbonize your entire value chain (scope1-3)  
based on actual business transactions

### Zero Waste with Circular Economy

Incorporate **circularity** into your supply chain  
& create sustainable business models

### Zero Inequality with Social Responsibility

Understand the **impact** of your **business**  
on **people and the society**

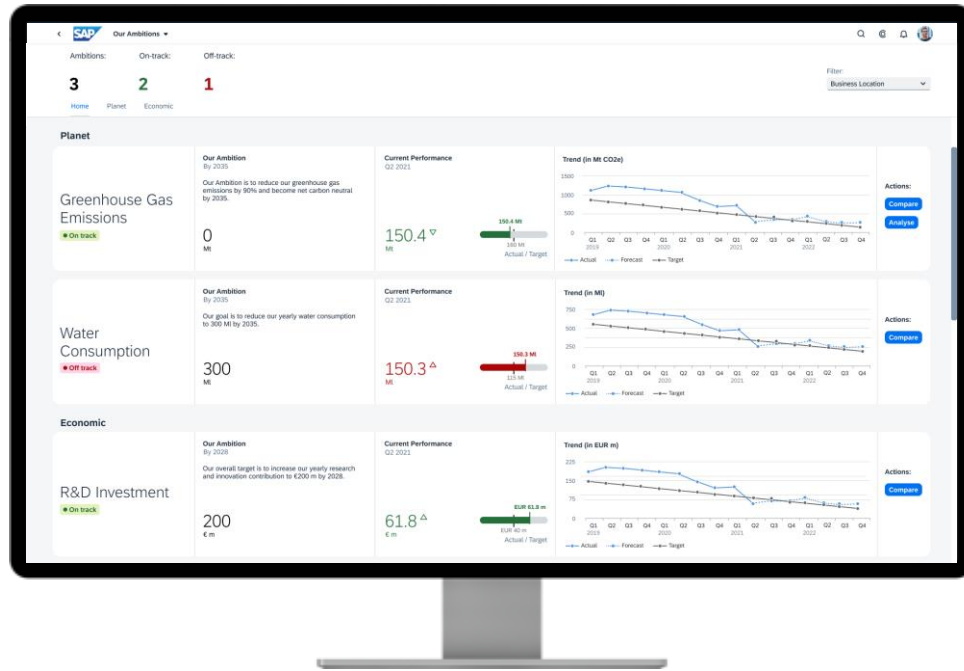
SAP S/4HANA, Customer relationship management, Human capital management, Spend Management and Business Network

Business Technology Platform



# Holistic Sustainability/ESG Steering & Reporting

Integrate ESG performance for strategic decision-making and comply with regulatory reporting



Standard semantic frameworks supported



## Record: Actuals instead of averages

Measure ESG factors with out-of-the-box integration with SAP systems for faster time to value & granular data visibility based on actual data, not averages



## Report: Audit-ready ESG metrics

Report regulatory compliant ESG metrics covering common frameworks (e.g., GRI) based on an open & extensible solution with the largest ESG ecosystem

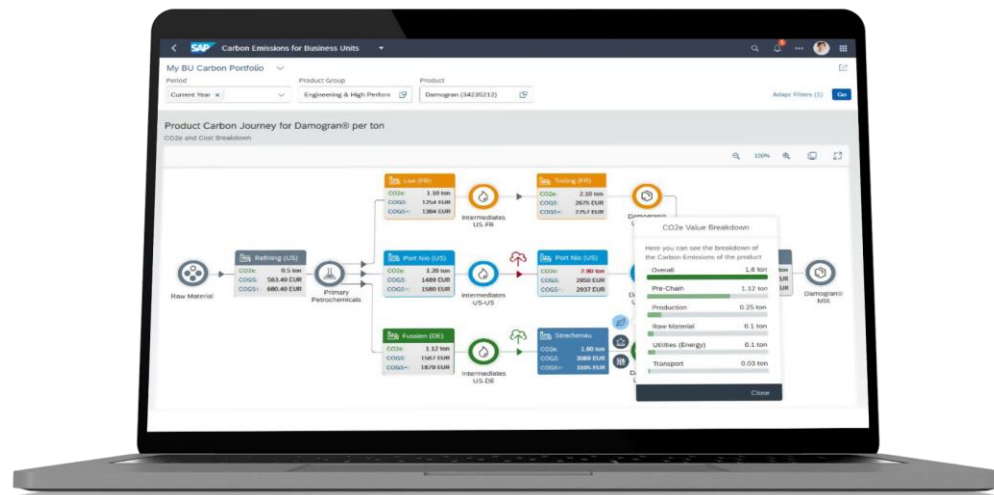


## Act: ESG embedded business processes

Act by planning your future with actionable insights, forecasts and setting targets as well as tracking initiatives & changing business processes

# Zero Emissions with Climate Action

Integrate emissions data across the entire value chain to manage and reduce your carbon footprint



Climate Action example



[Read full story](#)

## E2E emission management

- Decarbonize the value chain with corporate & product emissions management (scope 1-3) based on calculated and real data

## Inbuilt integration

- Integration and reuse of existing business data from S/4HANA and other ERP systems

## Efficient calculation & reporting

Standardized & fast data acquisition, calculations and reporting

## Elevated decision making

Real-time, actionable insights into footprint scores and emission reduction

# Zero Waste with Circular Economy

Unlock Circular Economy to eliminate waste, deliver resilient supply chain & enable regenerative business models



Circular Economy example



[Read full story](#)



## Design for circularity

Switch to sustainable alternatives based on upstream and downstream insights



## Resource use optimization

Understand impact of extended producer responsibility obligations, fees and taxes



## Business model innovation

Industry Cloud solutions supporting takeback, re-use and rental models

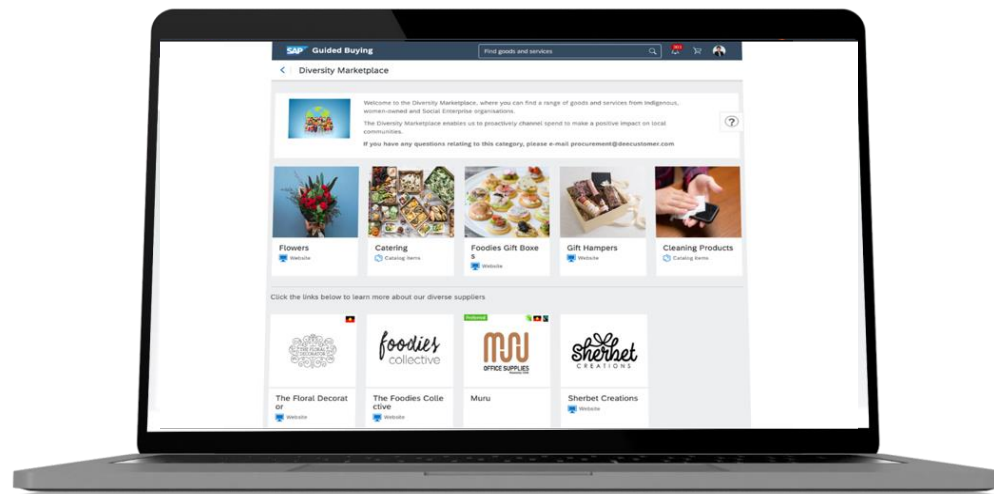


## Enablement of sustainable commerce

Extend sourcing solutions to connect markets for re-use & residual waste materials

# Zero Inequality with Social Responsibility

Manage your business impact on workforce, suppliers and community efficiently



Social responsibility example

MARY KAY®

[Read full story](#) ↗

## Equality and human rights

Foster Diversity, Equity & Inclusion culture and provide supply chain transparency to protect human rights and reduce inequalities

## Health, safety and well-being

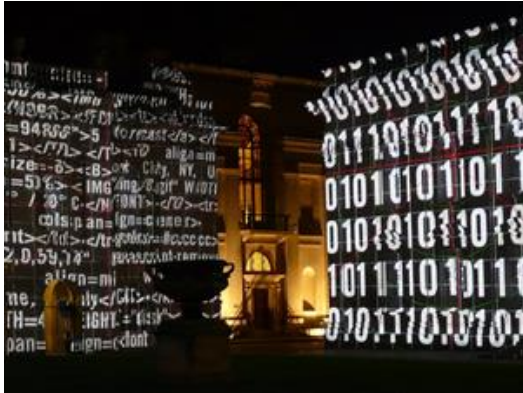
Create a strong culture of workforce health & safety and ensure product compliance throughout its lifecycle

## Learning, skills & capabilities development

Provide equitable learning access and connect people to opportunities

# The Big Challenge – Data, Data, Data...

What data is relevant for ESG Management and where does it come from across the business value chain?



# 26%

of companies point to the lack of data as the main difficulty in effectively managing holistic sustainability performance. Majority of climate impact of business, for instance, comes from Scope 3 emissions in the extended supply chain.

Anything new can seem complex...



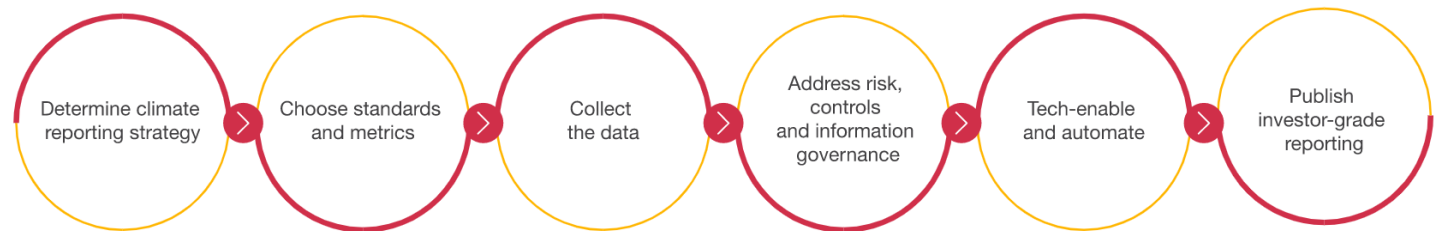
# The Big Challenge – Data, Data, Data...

...until we apply a methodology



How to deal with the difficulty of accessing relevant data to measure ESG performance, carry out climate risk assessments for the business, and ensure the automation, auditability, assurance and attestation of ESG data reported.

Six steps to transitioning to investor-grade, tech-enabled ESG reporting

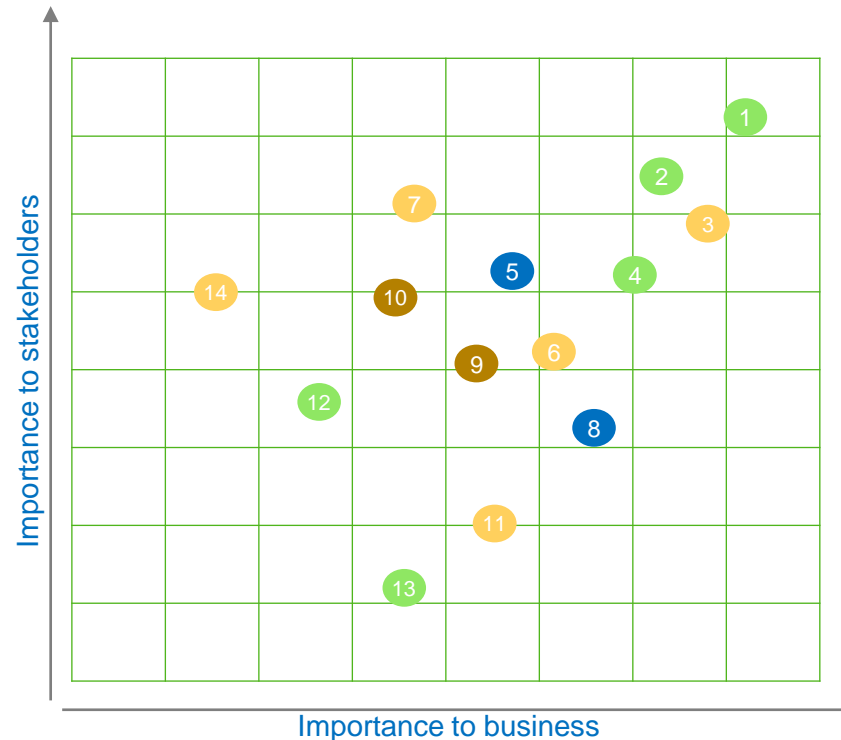


# The Big Challenge – Priorities and supporting Data

How to deal with the difficulty of accessing relevant data to measure ESG performance, carry out climate risk assessments for the business, and ensure the automation, auditability, assurance and attestation of ESG data reported.

## Preparation

- Study and prepare the materiality matrix
- Determine your strategy and which indicators are most relevant to stakeholders
- Choose appropriate reporting taxonomies - standards, frameworks and metrics



- 1 Climate change & GHG Emissions
- 2 Energy use
- 3 Product Safety
- 4 Environmental impact of materials
- 5 Corporate Governance
- 6 Diversity, Equity, Inclusion
- 7 Human rights
- 8 Fair share of tax
- 9 Responsible and ethical supply chains
- 10 Supply Chain Resilience
- 11 Employee health & safety
- 12 Waste management
- 13 Responsible consumption
- 14 Community engagement

# The Big Challenge – Data, Data, Data...

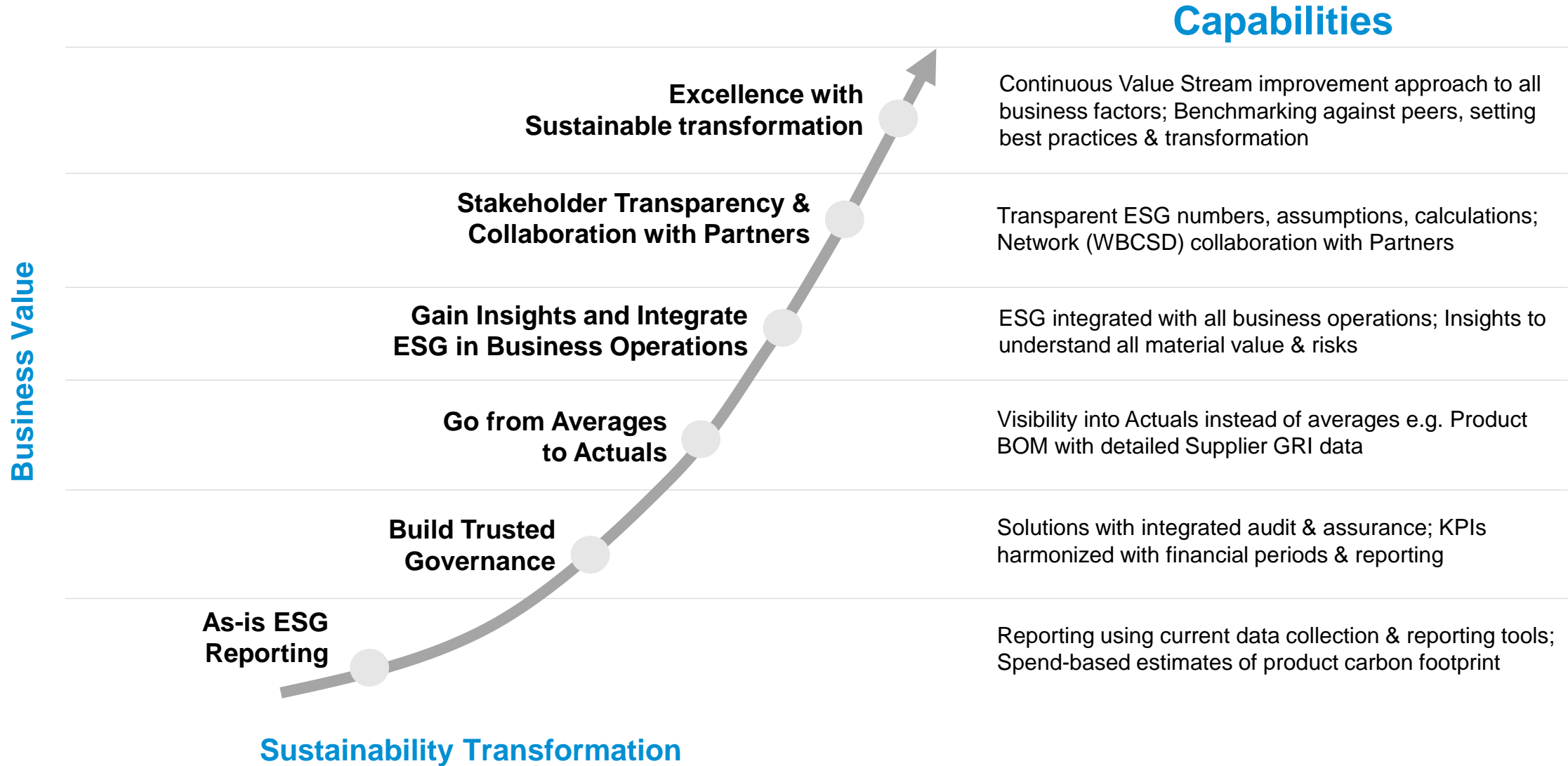
How to deal with the difficulty of accessing relevant data to measure ESG performance, carry out climate risk assessments for the business, and ensure the automation, auditability, assurance and attestation of ESG data reported.

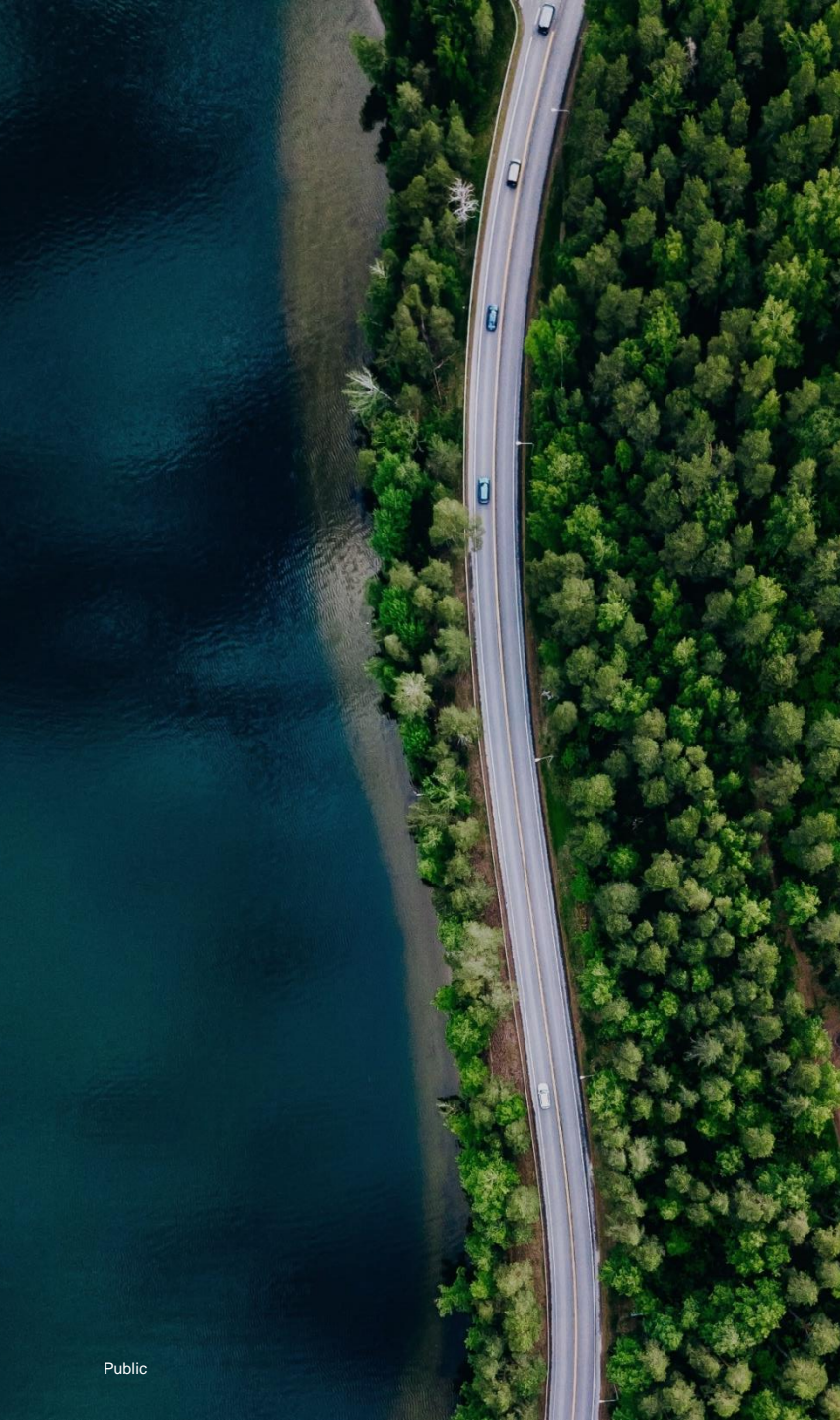
## Intelligent Enterprises are Sustainable Enterprises





# SAP unlocks your sustainability transformation





# Sustainability is a team sport

Global Strategic Service Partners & Alliances

**accenture** **BearingPoint.** **Deloitte.** **IBM.**

**BCG**

Capgemini

**EY**

**pwc**

The **SAP® PartnerEdge®** Ecosystem

Thought leadership partners & impact networks

 **BSR®**

 **GLOBAL PLASTIC ACTION PARTNERSHIP**

 value balancing alliance

**WORLD ECONOMIC FORUM**

 **ELLEN MACARTHUR FOUNDATION**

 **United Nations Global Compact**

 **wbcscd**

# SAP Holistic Steering & Reporting

A part of the SAP Cloud for Sustainable Enterprises

**Business Network**

for carbon data sharing

**Industry Capabilities**

to solve your specific challenges

**Partner Ecosystem**

geared towards sustainability

## Holistic Steering and Reporting – SAP Sustainability Control Tower

Record – Report – Act

### Zero Emissions

with Climate Action

**Decarbonize** your entire value chain (scope1-3) based on actual business transactions

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SAP S/4HANA, Customer relationship management, Human capital management, Spend Management and Business Network

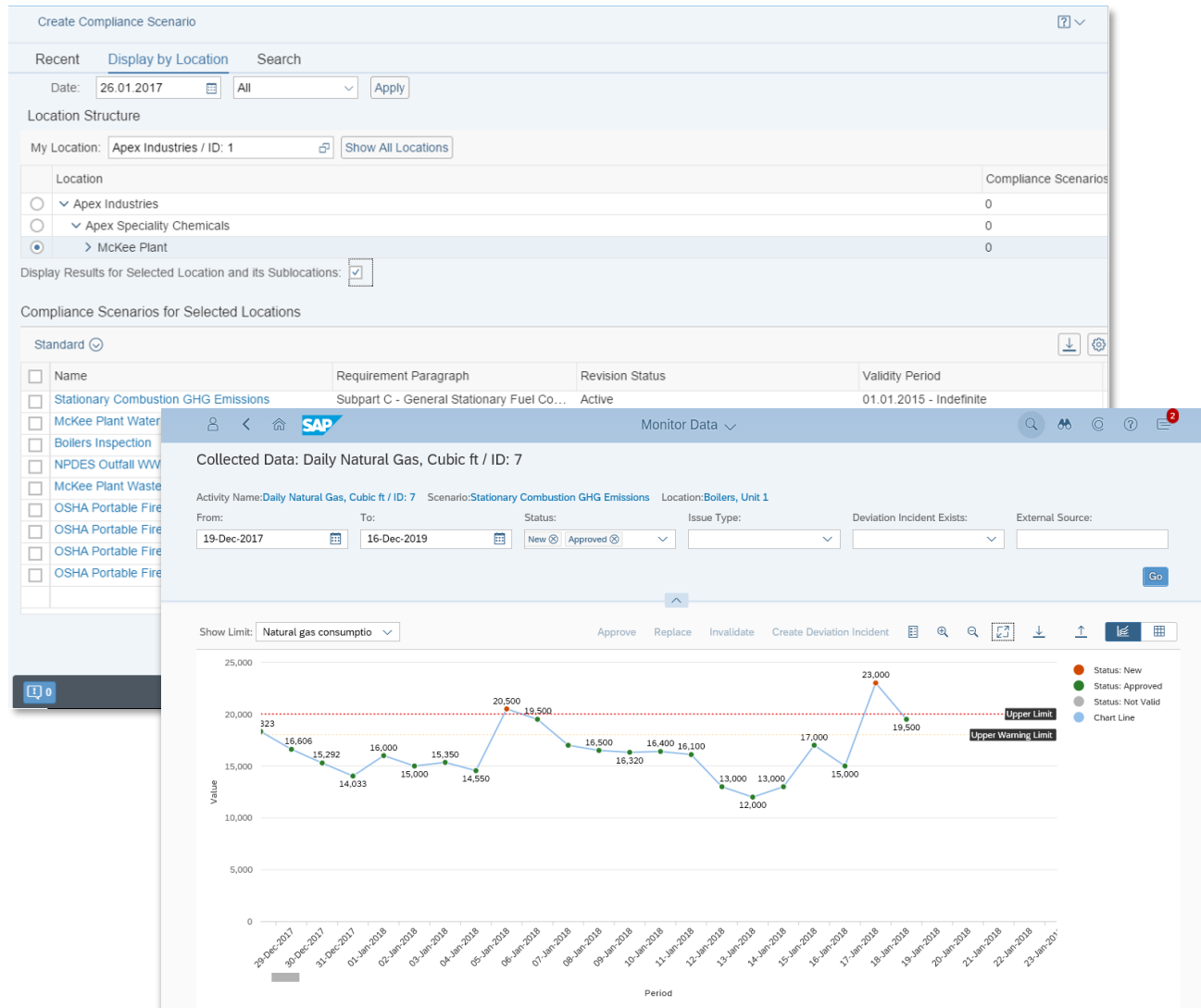
SAP Business Technology Platform

# SAP as an enabler

## Our offering – SAP Cloud for Sustainable Enterprises



# EHS Environment Management



## Objective

Track all aspects of environmental impact from the corporate level down to operations with a flexible and auditable process for calculating emissions and generation of waste.

## Capabilities

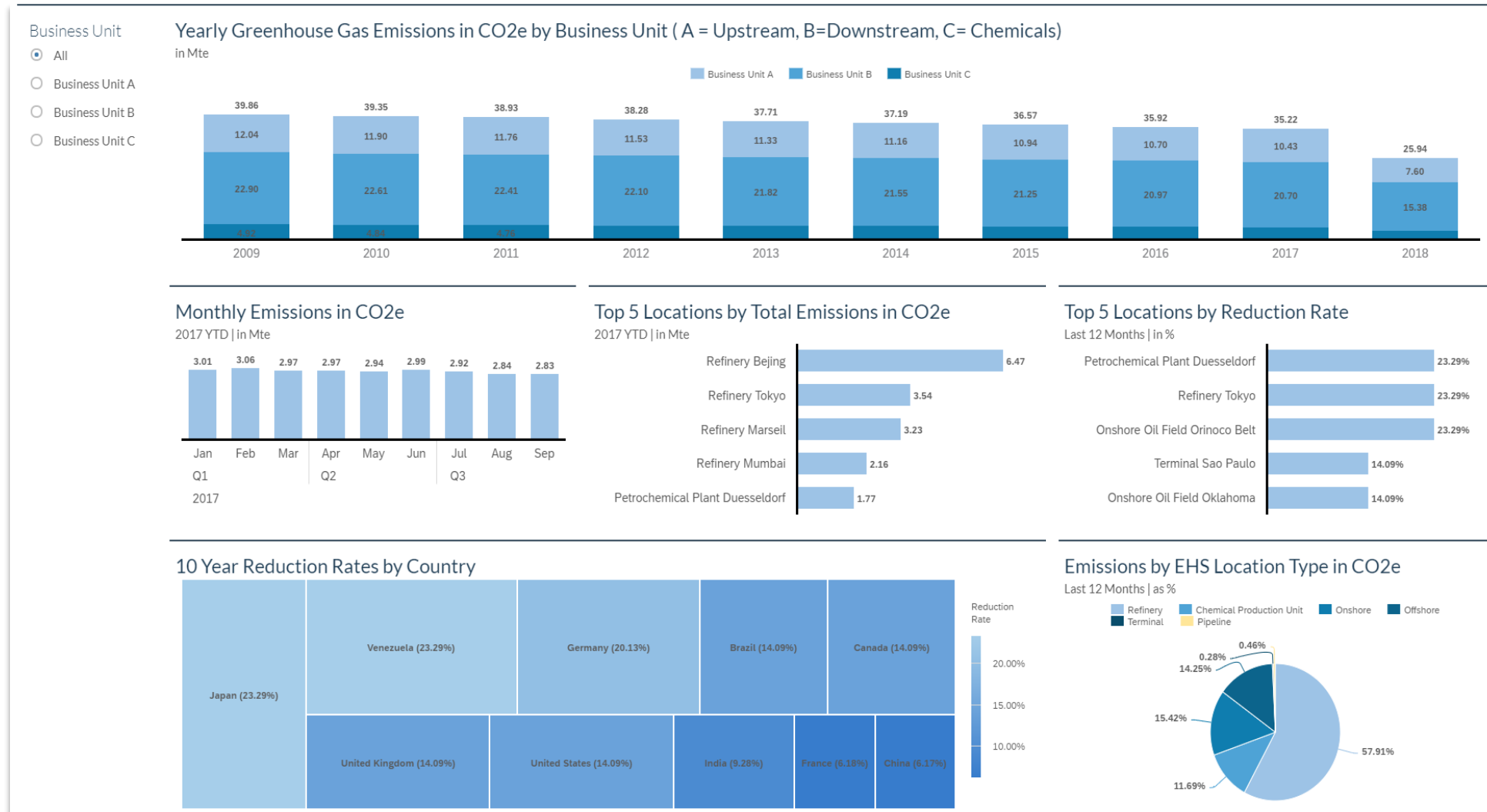
- Many options for collecting data and sampling to be used for compliance tracking and emission calculations
- Cradle-to-grave waste management integrated to logistics and transportation processes
- Built-in equations and content driving a flexible and auditable calculator for hazardous air pollutant and greenhouse gas emissions inventories
- Repository and task monitoring for all regulatory, permit, and policy-based compliance requirements
- Emissions forecasting tools
- Realtime and analytical tools and support for ESG and sustainability reporting

## Benefit

- Reduced risk of non-compliance and penalties
- Reduced effort to calculate emission totals
- Ensure continuity of license to operate
- Improved calculation accuracy and transparency

# EHS Environment Management

## Communicate Emissions results to all stakeholders



# SAP® Product Footprint Management

## Calculate product footprints periodically and at scale across the entire product lifecycle

**Monitor Footprints**

CocBea100  
Cocoa Beans

Period: Jul 2021  
Plant: WDF 1010  
Base Unit Of Measure: KG

Status: Calculation Successful  
Result Type: Calculation Run  
Impact Category: Climate Change (GHG)

Summary | Calculation Details

Previous Inventory	Product Inflows	Product Outflows	Current Inventory
Total Quantity (in SI): 1,200.00 kg	Total Quantity (in SI): 400.00 kg	Total Quantity (in SI): 400.00 kg	Total Quantity (in SI): 1,200.00 kg
Total Footprint: 34,440.00 kg CO2e	Total Footprint: 11,480.00 kg CO2e	Total Footprint: 11,480.00 kg CO2e	Total Footprint: 34,440.00 kg CO2e
Footprint per Unit (in SI): 28.70 kg CO2e per kg	Footprint per Unit (in SI): 28.70 kg CO2e per kg	Footprint per Unit (in SI): 28.70 kg CO2e per kg	Footprint per Unit (in SI): 28.70 kg CO2e per kg

Calculation Details

Product Inflows (3)

Country/Region	Supplier	Sending Plant	Quantity	Footprint per Unit	Total Footprint
Indonesia	IndoCocoa		240.00 kg	40.00 kg CO2e per kg	9,600.00 kg CO2e
Ghana	Cocoa World		120.00 kg	13.00 kg CO2e per kg	1,560.00 kg CO2e
Guatemala	Finest Cocoa Corp		40.00 kg	8.00 kg CO2e per kg	320.00 kg CO2e

Product Outflows (1)

### In a Nutshell

With SAP Product Footprint Management customers gain insights on the environmental impacts of their products across the entire lifecycle for disclosure and internal product & process optimization. The solution reuses existing business data and combines it with environmental factors to calculate the footprints of the products periodically and at scale. The calculated footprints are integrated back into the end-to-end processes.

### Benefits



Extend SAP S/4HANA end-to-end business processes by embedding product footprint information



Reduce effort & cost of calculating, analyzing and reporting product footprints



Gain insights into product carbon footprints to enable actions to optimize



Reuse business data, structure & logic from SAP S/4HANA

### Objective

SAP Product Footprint Management is an SAP Cloud-native application to calculate product footprints periodically and at scale considering the entire product lifecycle.

### Capabilities

- Live connectivity to SAP S/4HANA with vast reuse of existing business data & structures
- Emission factors management & monthly calculation of all products in the system
- Inbuild integration back to SAP S/4HANA systems and the relevant end-to-end processes

### Technology:

- SAP Business Technology Platform
- Live Connected to: SAP S/4 HANA Cloud and SAP S/4HANA

### More Information

[Product Footprint Management | Sustainability \(sap.com\)](https://www.sap.com/sustainability/product-footprint-management)

# Product Footprint Management (PFM)

## Laptop Example



What is the **environmental impact** of a **laptop** considering the entire **product lifecycle**?

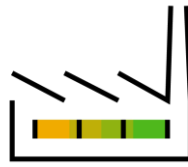


Global Warming Potential measured in kg CO<sub>2</sub>-equivalents

→ **Product Carbon Footprint**

1 Laptop | 3 years usage | take back by manufacturer = **675 kg\*** CO<sub>2</sub>e per Laptop

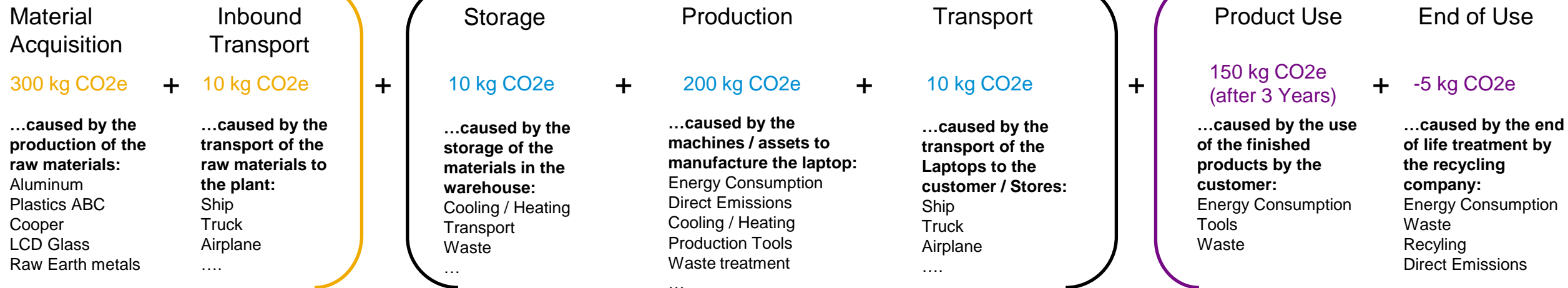
\*this value is just for illustration – not calculated or based on a LCA Study



Cradle to Gate



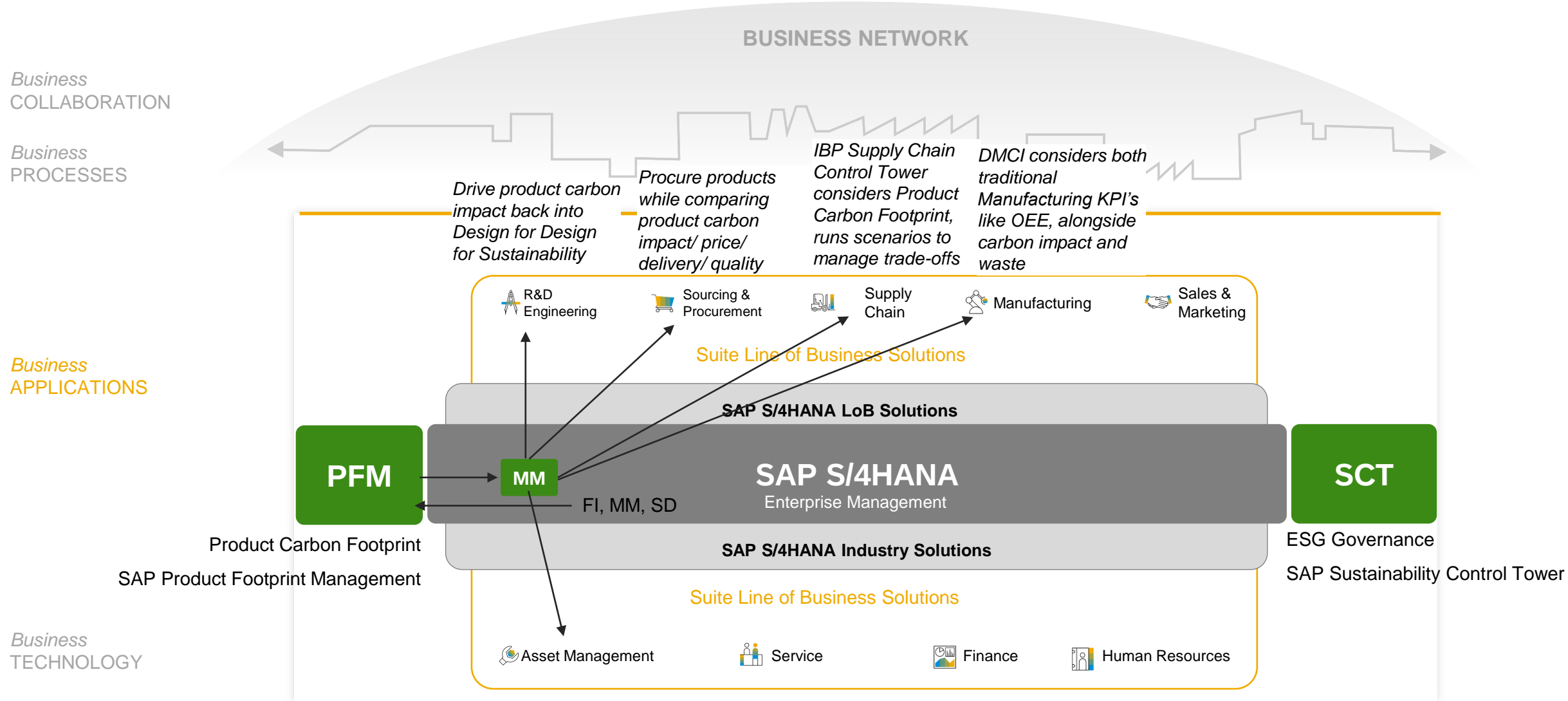
Cradle to Cradle





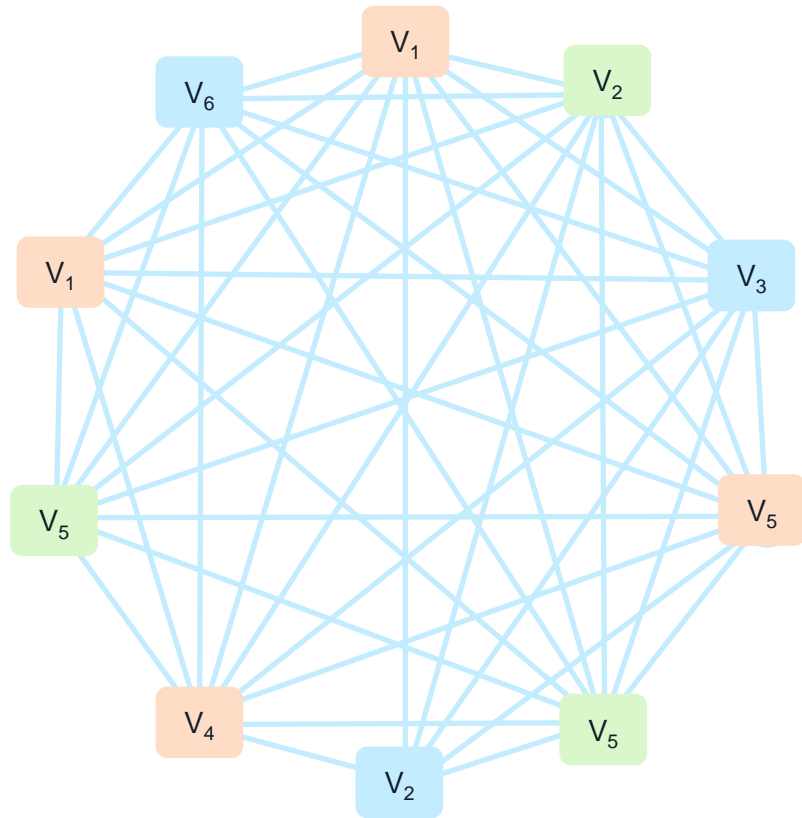
# Act – Actuals of Product Carbon Footprint – Scope 1,2 & 3

SAP Product Footprint Management (PFM) calculate accurate Product Carbon Footprint, saves to MM




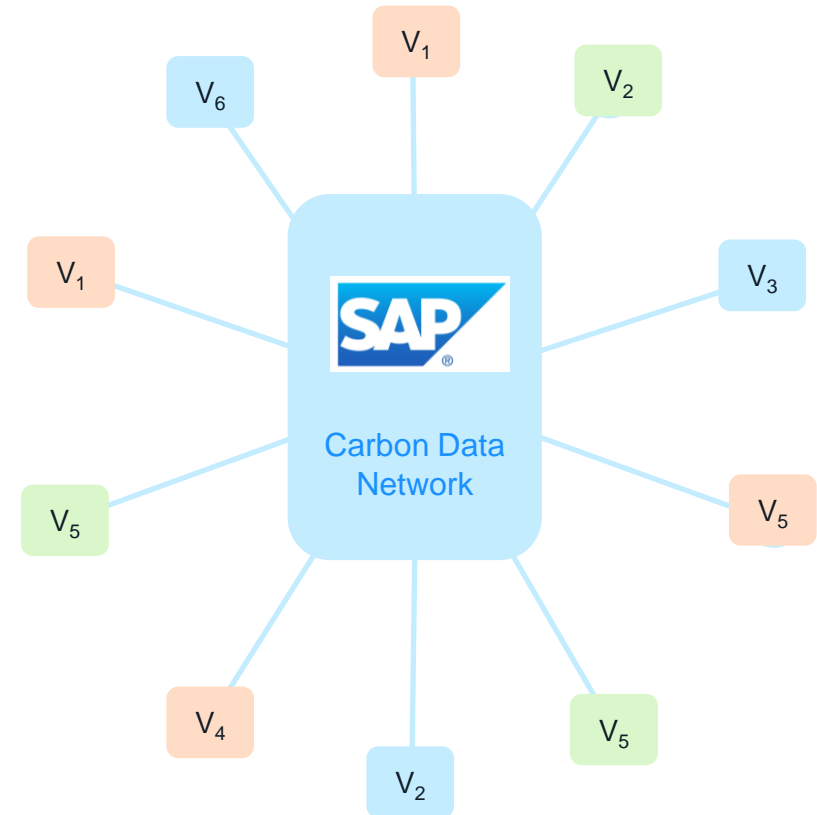
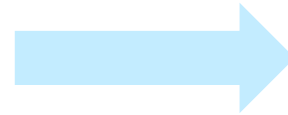
# Carbon Data Exchange

Reducing impact requires sharing sustainability data - but sharing via proprietary interfaces is inefficient & costly - standardized interoperability is needed



Point-to-point integrations  
between proprietary solutions

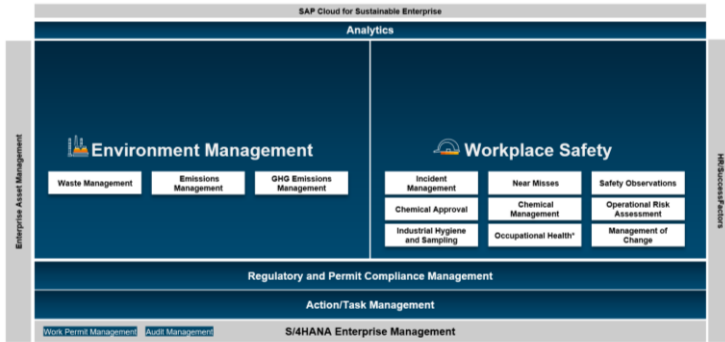
 wbcscd  
Pathfinder Project:  
Standard Format for digital  
exchange of carbon data



Standardized, collaborative  
interoperability solution

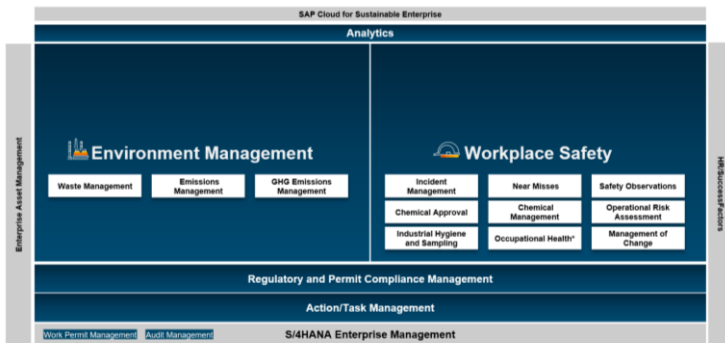
# SAP EHS for ESG disclosures and sustainability reporting

## SAP EHS



\*OW licensed separately

## SAP PFM



\*OW licensed separately

Data Feeds

Forecasts

Analytics

## GRI



Energy consumption (renewable and non-renewable)	302-1
GHG Emissions, Scope 1	305-1
GHG Emissions, Scope 2	305-2
GHG Emissions, Scope 3	305-3
Water consumption	303-1
Water volume, recycled and reused	303-3
Waste consumption	306-3
Waste volume, hazardous and non-hazardous	306-4
Non-compliance with environmental laws and regulations	307-1
Incidents, Near Misses (Occupational disease rate)	403-2

## UN SDGs



## ESG and Regulatory Disclosures

*GHG Protocol*

*US EPA CFR 40 Part 98*

*CDP*

*TCFD*

*Australian National Greenhouse Accounts*

*European Residual Mixes 2020*

*eGRID*

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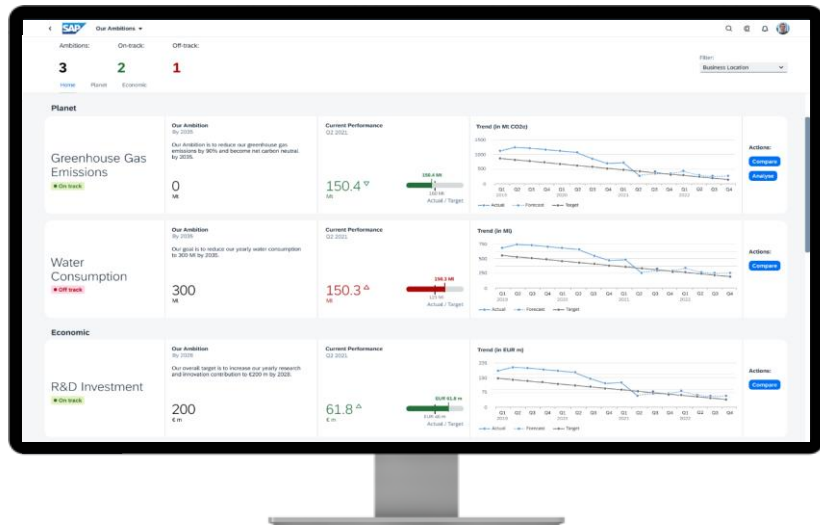
Understand the **impact** of your **business** on **people and the society**

SAP S/4HANA, Customer relationship management, Human capital management, Spend Management and Business Network

SAP Business Technology Platform

# SAP Sustainability Control Tower

Automated, auditable, compliant reporting with actual data & insights to embed sustainability into business processes



## Record: Actuals instead of averages

Record ESG factors with out-of-the-box integration with SAP systems for faster time to value & granular data visibility based on actual data, not averages

## Report: Audit-ready ESG metrics

Report regulatory compliant ESG metrics covering common frameworks based on an open & extensible solution with the largest ESG ecosystem

## Act: ESG embedded in business processes

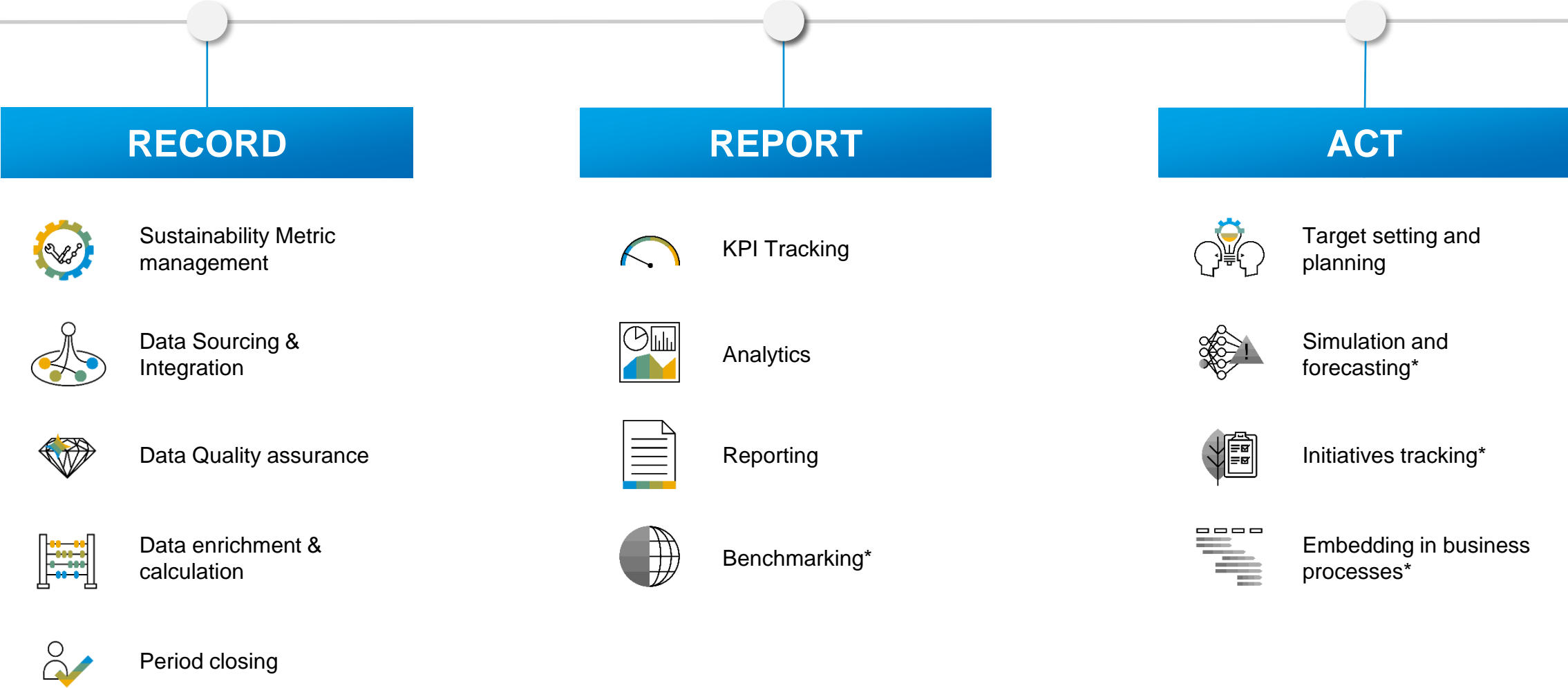
Act by planning your future with actionable insights, forecasts and setting targets; track initiatives & optimize business processes to make an impact



Strong, agile data foundation, which enables our customers to address multiple frameworks, standards and region specific regulations and requirements

# Solution Capabilities | OVERVIEW

Providing integrated end to end capabilities for holistic steering and reporting



Ambitions On Track Off Track

11 3 4

All On Track Off Track Add Ambition

Governance ▾ Economic ▾ Social ▾ **Environmental ▾**



**Environmental**

**GHG emissions Scope 1**

**Our Ambition**  
By 2025  
Reduce CO2 emissions by 75%

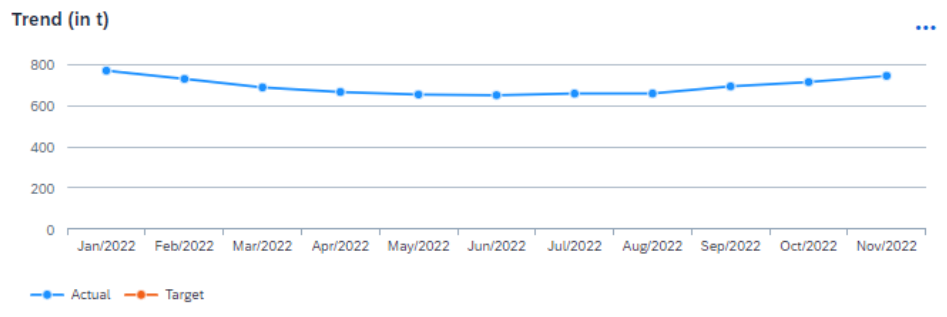
200.0 t

**Current Performance**  
By Nov/2022

745.1 t

t 745.13

Actual/Target



**GHG emissions Scope 2**

**Our Ambition**  
By 2025  
Reduce CO2 emissions by 75%

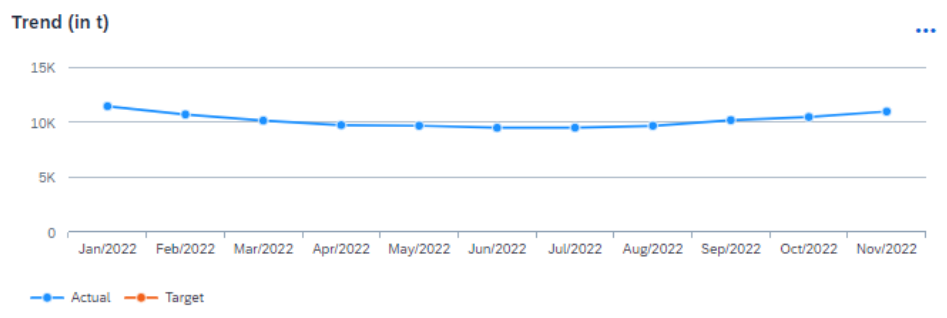
2.4K t

**Current Performance**  
By Nov/2022

11.0K t

t 11K

Actual/Target



Ambitions On Track Off Track

11 3 4

All On Track Off Track Add Ambition

Governance ▾ Economic ▾ Social ▾ Environmental ▾



### Total GHG Emissions

Off Track

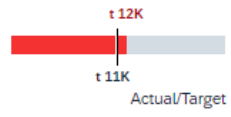
**Our Ambition**  
By 2025  
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2.5K<sub>t</sub>

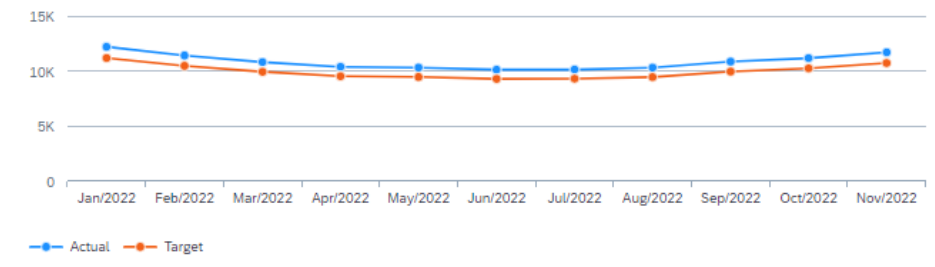
**Current Performance**  
By Nov/2022

11.7K<sub>t</sub> ⚠

Compare



Trend (in t)



### Water Consumption

Off Track

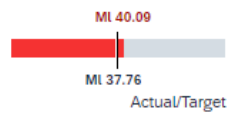
**Our Ambition**  
By 2025  
Reduce Water Consumption by 10%

40.0<sub>MI</sub>

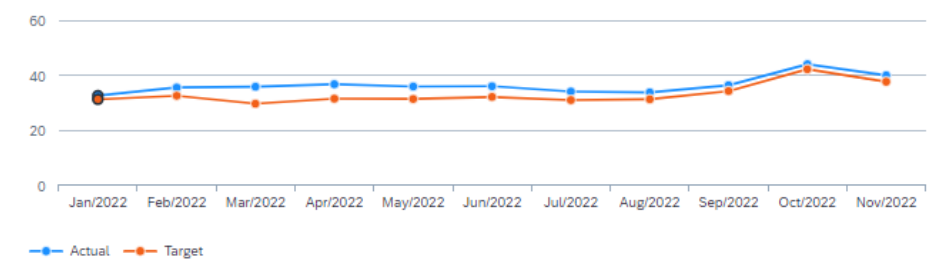
**Current Performance**  
By Nov/2022

40.1<sub>MI</sub> ⚠

Compare



Trend (in MI)



### Water Withdrawal

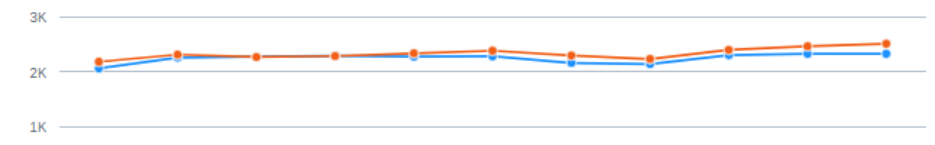
On Track

**Our Ambition**  
By 2025

**Current Performance**  
By Nov/2022

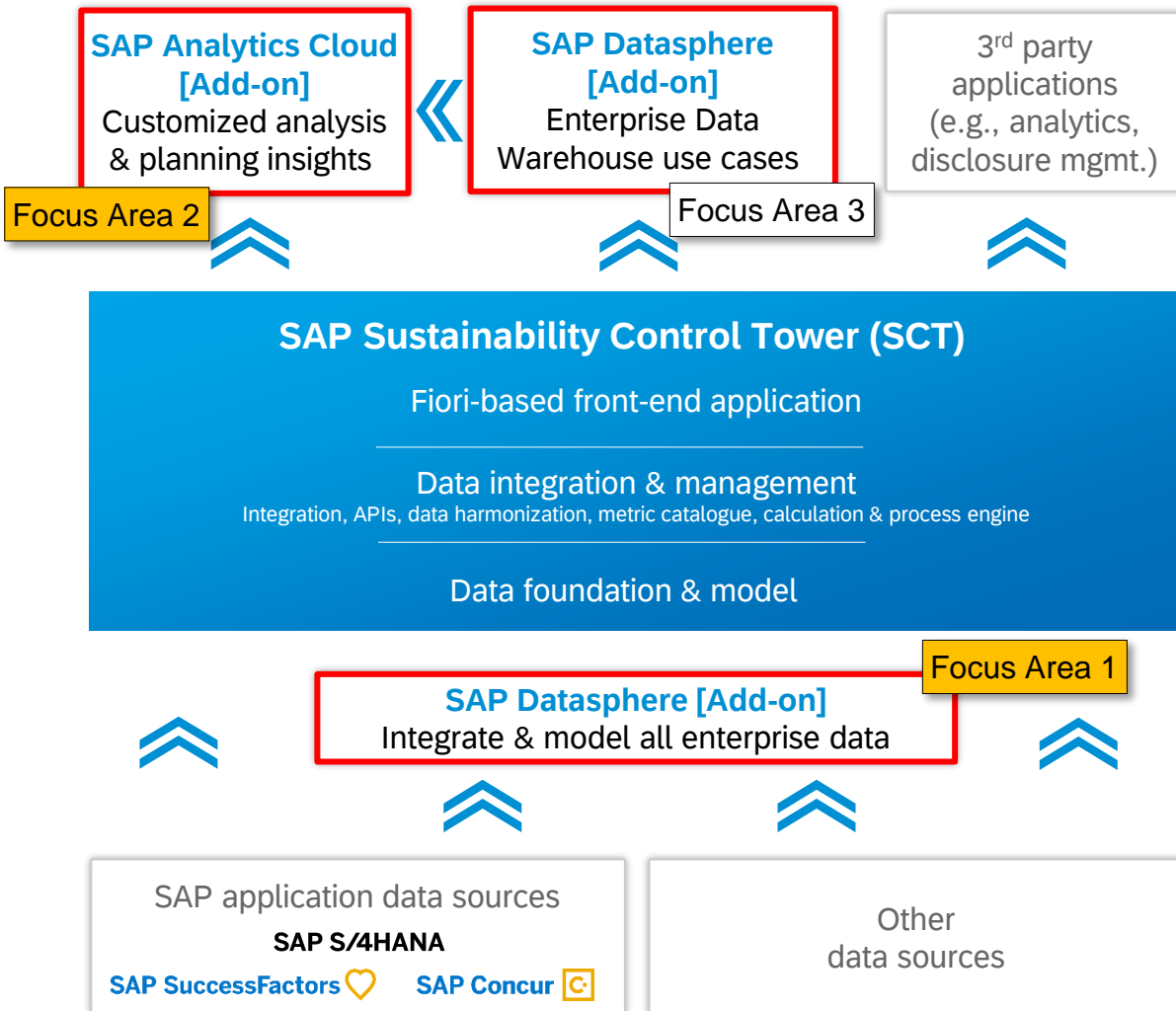
Compare

Trend (in MI)





# Additional focus topics: Datasphere and SAC integration



## SAP Datasphere Integration Approach

1. Sustainability data replicated from Datasphere to SCT structures, via SCT PULL
2. Datasphere will enable productive integrations; SCT promotes replication

## SAC Live Connectivity Approach

1. Goal: Connect Enterprise SAC to SAP managed multi tenancy HANA Cloud systems
2. Proposed approach: use extended HANA Live connectivity to connect HANA Cloud via OEM Integration service deployed in BTP
3. Next steps: SCT to validate proposed approach

# Transform into a sustainable future with SAP

Enable Holistic Sustainability Steering & Reporting with SCT and other embedded Solutions

## Record

Move from averages to actuals with data across the entire value chain

## Report

ESG KPIs for most relevant frameworks with built-in audit & assurance

## Act

Embed sustainability into your business DNA & drive transformation

Adopt the right mix of sustainability solutions from SAP to...

Enable compliant ESG reporting

Gain transparency & insights on ESG

Improve ESG performance

Improve Business performance

Ensure assurance & auditability of ESG

Track and achieve ESG targets/goals



# Thank you.

Contact information:

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NA Solution Advisory  
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Learn more about SAP's strategy to embed Sustainability into your business DNA. Scan the QR code to visit the SAP Sustainability website on SAP.com