**SAP**

# Sustainability Through An Adaptive Lens

February, 2023

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**Christian Butzlaff,** Chief Sustainability Architect, SAP
**Dania Fayyaz,** Sustainability Program Manager, NA , SAP

# Speakers & Agenda

**Sujatha Kamma**
**Industry Executive Advisor,**
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**Christian Butzlaff**
**Chief Sustainability Architect,**
**Sustainability Go-To-Market, SAP**

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**Sustainability Program Manager,**
**Sustainability Go-To-Market, SAP**

1. Trends Policies to Actions (Climate Adaptability – Sustainability & Integrated Asset Management)

2. Sustainability Breakout Session

3. Sustainability - Act, Report and Measure towards Climate Adaptability, Social Equity & Economy

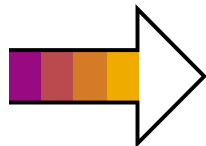4. Integrated Asset Management

5. Call to Action

# Trends to Policies & Framework

**Global and Regional Trends**
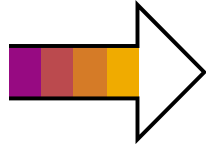
- Warmer climate & Shifting Precipitation Patterns
- Extreme Weather Events
- Pandemic & Global Crisis
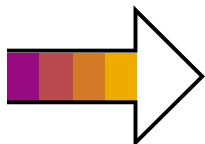- Economy

**Mandates, Framework & Funding**

- **Pledge:** Net Zero 2050
- **Frameworks:** UNSDGs, TCFD, GRI, SASB
- $1.56B for Disaster Mgmt
- **Funding:** $180 billion over 12 years in infrastructure projects across Canada.

**Acknowledging Impact**
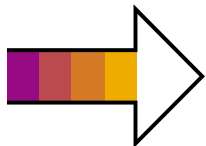
- Impacts on Provinces, Cities and Municipalities
- Socio economical Impacts & Impact to Lives and Livelihood
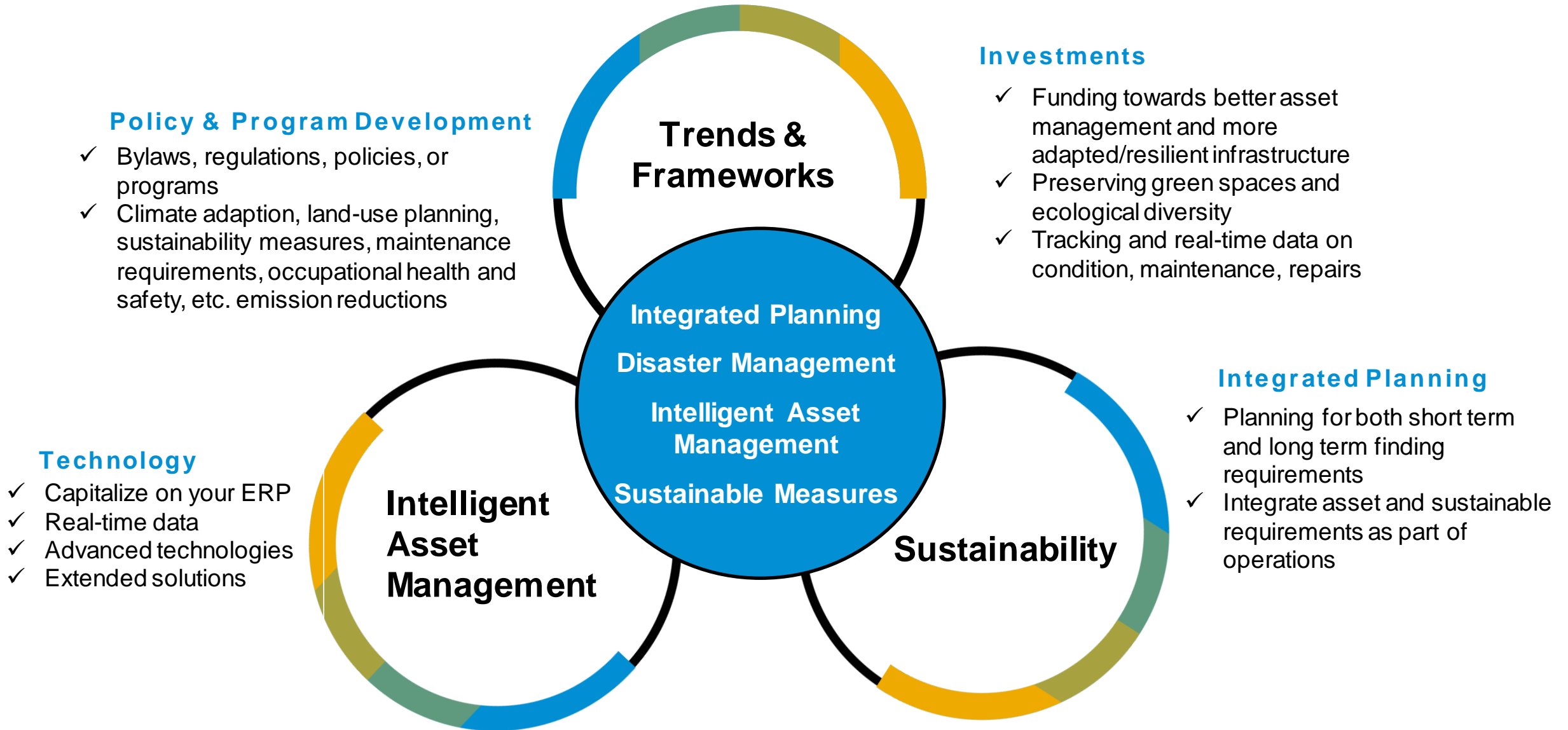- Impact to Infrastructure and Assets

**Taking Action**

- **Climate Change:** Climate Adaptability, Climate Change Measures & Disaster Management
- **Social:** Diversity & Inclusion
- **Economy:** Economic Diversity
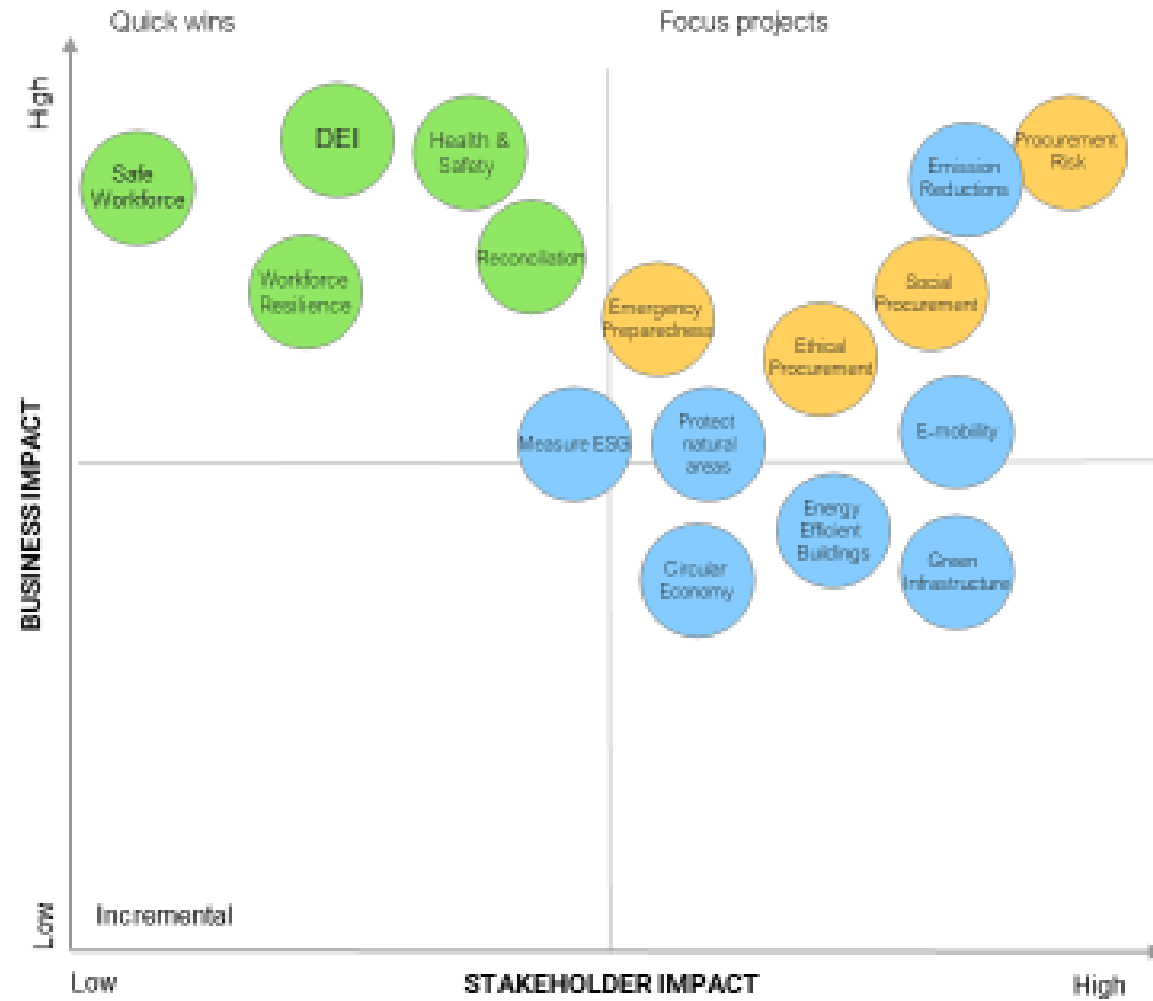
UN Sustainability Development Goals





From Federation of Canadian Municipalities

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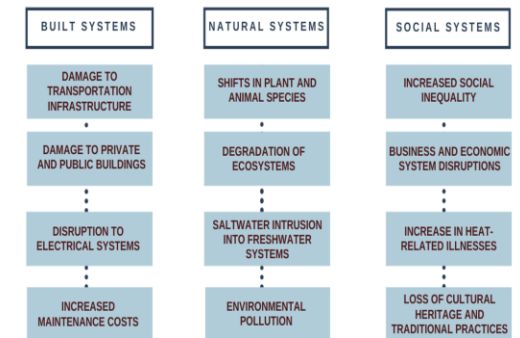
# Policy & Frameworks to Insights



**Policy & Program Development**
- ✓ Bylaws, regulations, policies, or programs
- ✓ Climate adaption, land-use planning, sustainability measures, maintenance requirements, occupational health and safety, etc. emission reductions

**Trends & Frameworks**

**Investments**
- ✓ Funding towards better asset management and more adapted/resilient infrastructure
- ✓ Preserving green spaces and ecological diversity
- ✓ Tracking and real-time data on condition, maintenance, repairs

**Integrated Planning**
**Disaster Management**
**Intelligent Asset Management**
**Sustainable Measures**

**Technology**
- ✓ Capitalize on your ERP
- ✓ Real-time data
- ✓ Advanced technologies
- ✓ Extended solutions

**Intelligent Asset Management**

**Sustainability**

**Integrated Planning**
- ✓ Planning for both short term and long term finding requirements
- ✓ Integrate asset and sustainable requirements as part of operations

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# Sustainability Impact Matrix – For Public Sector Canada



Inclusive and diverse culture

Path to net zero 2050 & climate adaptability

Resilient supply chains

Effective, efficient and sustainable operations

Prevent, prepare, respond and recover climate impacts and disasters

# **Sustainability Break Out Session**

≡ Sections    🔍 Search

**VANCOUVER SUN**

News   Hot Topics   Business   Opinion   Sports   Arts   Life   Puzzles   Comics   Homes   Travel   Remembering   Driving   Healthing   The GrowthOp   Newsletters   ePaper   Local Auction

# How XXX Became the Most Sustainable Company

## XXX was voted the most Sustainable Company in Canada for the Year 2025
## An Exclusive Interview with the CEO and CSO

1   B.C.'s highest court orders forfeiture of three Hells Angels clubhouses
    TRENDING 🔥

2   Is Metro Vancouver in for more snow?
    TRENDING 🔥

3   Tim Hortons is experimenting with returnable cups. I tried it...
    TRENDING 🔥

4   The quick rise and public fall of Vancouver's Coromandel Properties
    TRENDING 🔥

5   Victoria man's killing followed dispute with bikers at nightclub, trial told
    TRENDING 🔥

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# Divide in 3-5 Groups

## In 2025 You Became the Most Sustainable Company

What would that mean for your company?
What would need to happen to make that reality?
How could SAP help you to achieve this goal?

**3 Minutes Brainstorm for each Question, 1 Minute Clustering of Ideas**

1 Idea per Post Its

**Assign One Person for Read Out**

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# Sustainability - Act, Report and Measure towards Climate Adaptability, Social Equity & Economy

# 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

# 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

**Focus today**

## 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

### 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**

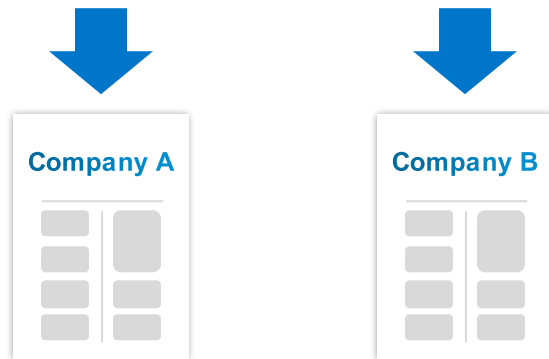**SAP S/4HANA, Customer relationship management, Human capital management, Spend Management and Business Network**

**SAP Business Technology Platform**

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# Climate Action Vision | Evolution of carbon accounting

## Today
### Top-down carbon accounting
based on averages

Company A    Company B

- Top-down carbon calculator or self-developed tools (e.g., in Excel)

## Tomorrow
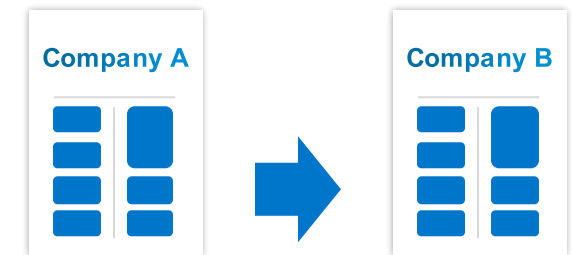### Hybrid carbon accounting
transaction based

Company A    →    Company B
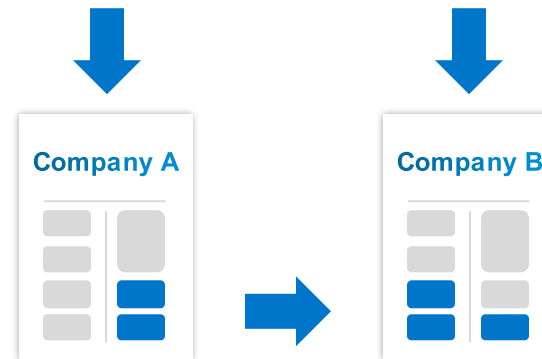
- Bottom-up carbon calculator
- Product-level carbon calculator
- Carbon data sharing
- Transactional ERP data foundation

## Vision
### Ledger-based carbon accounting
based on actuals

Company A    →    Company B

- Green ledger as part of transactional ERP data foundation

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# SASB Standard Publication:

*A robust process to assess the materiality of sustainability topics is data-driven and connected to governance mechanisms that involve the board and the C-suite, and, in turn, are indicative of a healthy company*

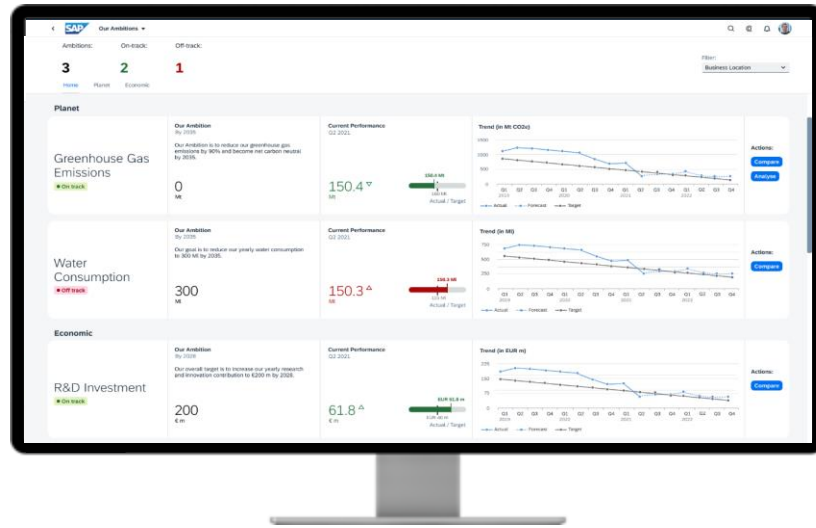*"Using materiality for just reporting is a missed opportunity."*

*Elisa Moscolin,* Head of Sustainability & CSR at Santander

**SASB**

# SAP Sustainability Control Tower

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



**Standard semantic frameworks supported**

WORLD ECONOMIC FORUM

TCFD — TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

GRI

EU Taxonomy

## 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
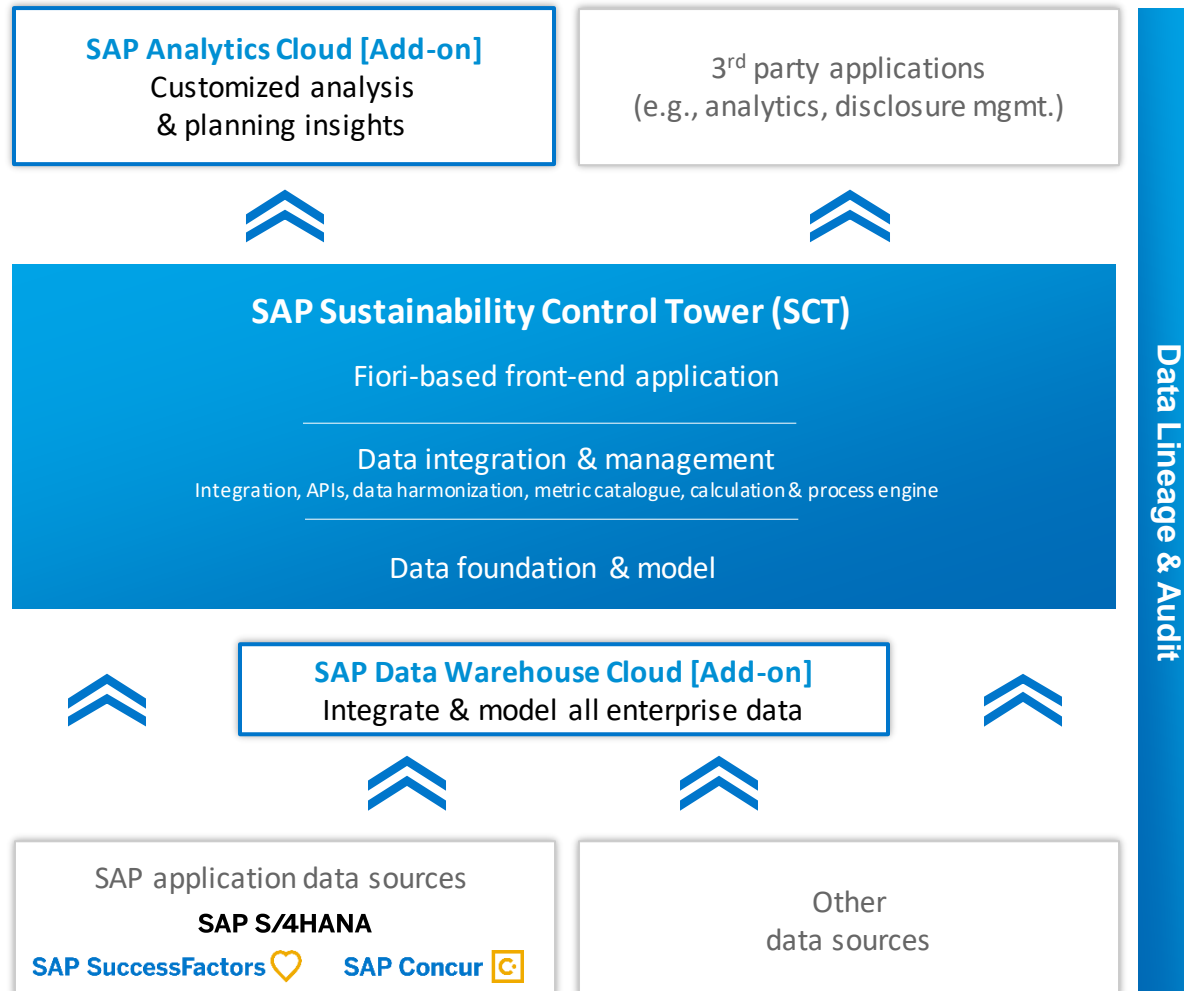
## Act: ESG embedded in business processes

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

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# Achieving Holistic Steering and Reporting

Empower your business to act with ESG transparency along the value chain

**SAP Analytics Cloud [Add-on]**
Customized analysis
& planning insights

3rd party applications
(e.g., analytics, disclosure mgmt.)

**SAP Sustainability Control Tower (SCT)**

Fiori-based front-end application

Data integration & management
Integration, APIs, data harmonization, metric catalogue, calculation & process engine

Data foundation & model

**Data Lineage & Audit**

**SAP Data Warehouse Cloud [Add-on]**
Integrate & model all enterprise data

SAP application data sources
**SAP S/4HANA**
**SAP SuccessFactors** ♡    **SAP Concur** ⊂·

Other
data sources

- **Harmonized insights** by consolidating, modelling and enriching ESG, financial and operational data enabling boardroom and business-level decisions

- **ESG performance management** with enterprise planning, predictive forecasting, what-if simulations and impact analysis across the value chain

- **Pre-built data models** to support established reporting frameworks and customer-specific adaptations based on SAP, non-SAP, structured and unstructured data

- **Embed sustainability dimension** into business applications and processes through enterprise data integration and modelling and enriched partner content

SCT          SCT SCT Extended (add-on)

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# Auditability, Assurance and Attestation Capabilities
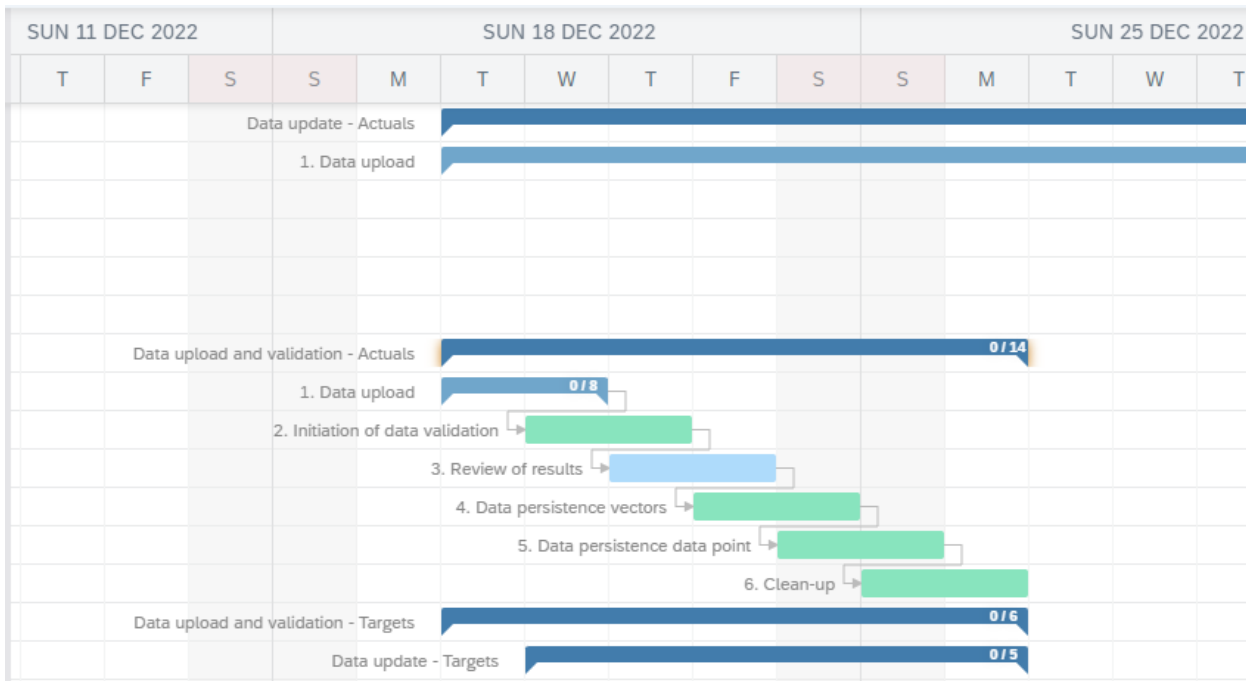


- ❑ **Data Validation and Approval Workflows**
- ❑ **Workflow Task Ownership/ Access Control**
- ❑ **Audit Trail (Who changed what and when)**
- ❑ **Period Assignment**
- ❑ **Data Lineage**

Home    Our Performance    Insights    Performance Improvement    Data Management    Configuration

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Climate Change and Its Impact on Regulations – Introduction to TCFD Recommendations Product Information

Fri, 21 Jan 2022 20:22:23

**ESG Report 2020**

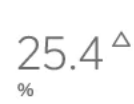**ESG Website**

**Get involved!**

## Our Performance

| Greehouse Gas Emissions | Water Consumption | Women in Leadership | R&D Investment | Work-related Incidents |
|---|---|---|---|---|
| Current Month | Current Quarter | Current Month | Current Month | Current Month |
| 528.4 Mt | 51.5 Ml | | 27 M | |
| **528.4** ▽ | **51.5** ▲ | **25.4** ▲ | **27** ▲ | **54** ▲ |
| Mt CO2e | Ml | % | M EUR | Number of incidents |
| 550 Mt | 40 Ml | | 25 M | |
| Actual / Target | Actual / Target | | Actual / Target | |

## Insights

**Our Ambitions**

**WEF SCM Dashboard**

**TCFD Dashboard**

**Greenhouse Gas Emission Analytics**

## Performance Improvement

**Our Initiatives**

Press Ctrl\ to show the Figma UI again    Copy sharing link

# Sustainability Solutions | SAP S/4HANA For Environment Management



**Emissions**
- Manage emission sources, verify incoming data, trends
- Automated calculations
- Reduce manual effort to report
- Manage exceedances

**Energy**
- Capture energy produced or consumed and keep track of improvement over time in energy use and associated emissions

**Water**
- Capture the amount of water used or recycled
- Assess sampling results from environmental monitoring

**Waste**
- Capture the amount and type of waste produced, reduced or eliminated

**Environment Monitoring**
- Monitor substances in the environment, with reference to regulations, permits or standards
- Flexible data aggregations

**Compliance Tasks**
- Schedule pro-active, recurring tasks and perform ad-hoc tasks
- Capture references to permits or regulations
- Visibility of critical outstanding tasks, overdue permits and exceedances

**Deviations**
- Exceptions are automatically raised for permits or limits
- Capture data anomaly reasons, corrections
- Manage and report exceedances
- Implement corrective actions

**Data Collection**
Manage incoming data from various sources:
- IoT sensors or devices
- Interfaces
- Sampling campaigns, manual inputs, Excel uploads
- Mobile app for data input

**Rehabilitation**
- Manage closure and rehabilitation at a location, with environmental monitoring and tasks
- Oversight of all activities driven by internal corporate standards, local regulations or permits.
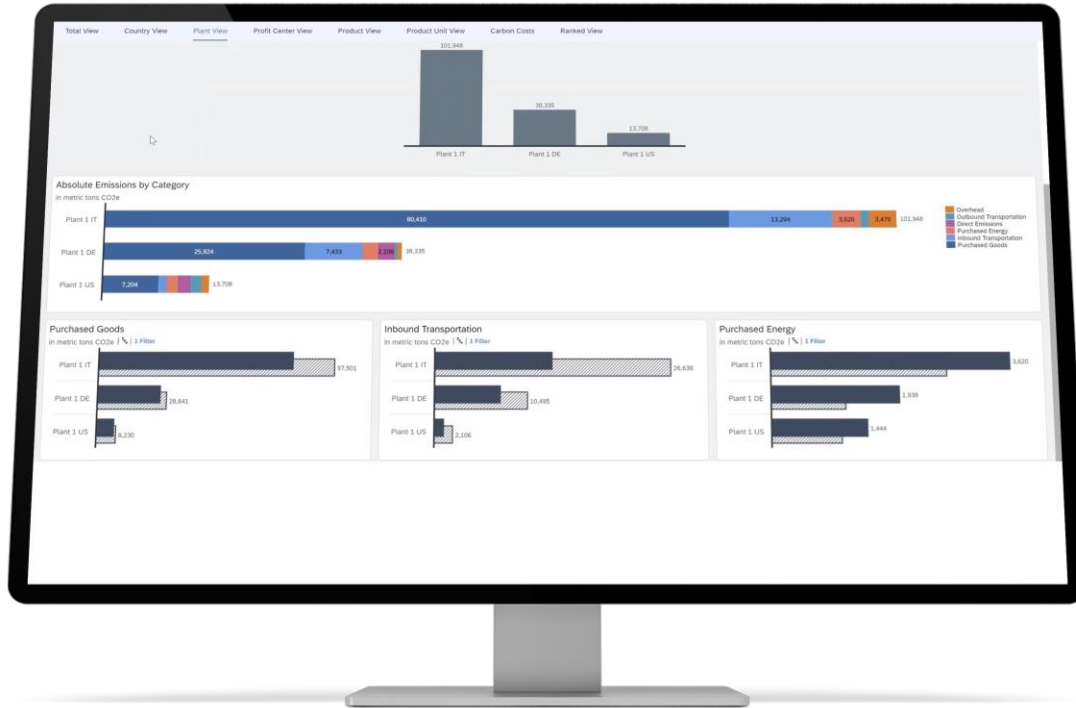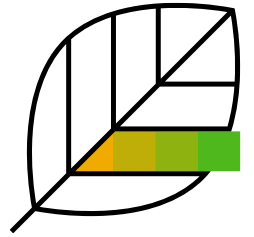
**Permits, Compliance**
- Manage environmental regulatory requirements or corporate standards
- Track auditable records of changes over time

# SAP EHS Environment Management for Corporate GHG Emissions
## Keep on top of your climate obligations, easily and cost-efficiently



## Objective

Establish a robust and auditable data collection, monitoring, and reporting function for managing GHG emissions.

## Capabilities

- Tools and processes for emission data collection and integration

- The ability to gather and combine direct and indirect emissions data encompassing both facility owned assets and services / operations

- Content integration systems that keep processes up-to-date with the very latest regulatory changes

## Supporting Applications

SAP EHS Environment Management for Emission Management is technically embedded in S/4HANA® Enterprise Management.

## Benefits
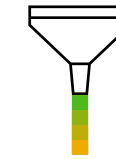
**Single Source of Truth:** improved accuracy and consistency of emissions data across the entirety of the enterprise
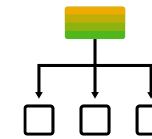
**Elevated Decision Making:** real-time, actionable insight into reducing energy usage and carbon emissions

**Easy Compliance:** reduced effort and cost for data acquisition, calculation, and reporting

## In a Nutshell

This solution delivers a single primary source of emissions data that can be provided both for overall corporate sustainability reporting and carbon credit accounting. As a consequence, fulfilment of compliance obligations becomes both easy and cost effective.

# Foster a strong culture of corporate safety with centralized risk management

## SAP EHS Management, Incident Management
## SAP EHS Management, Health and Safety Management
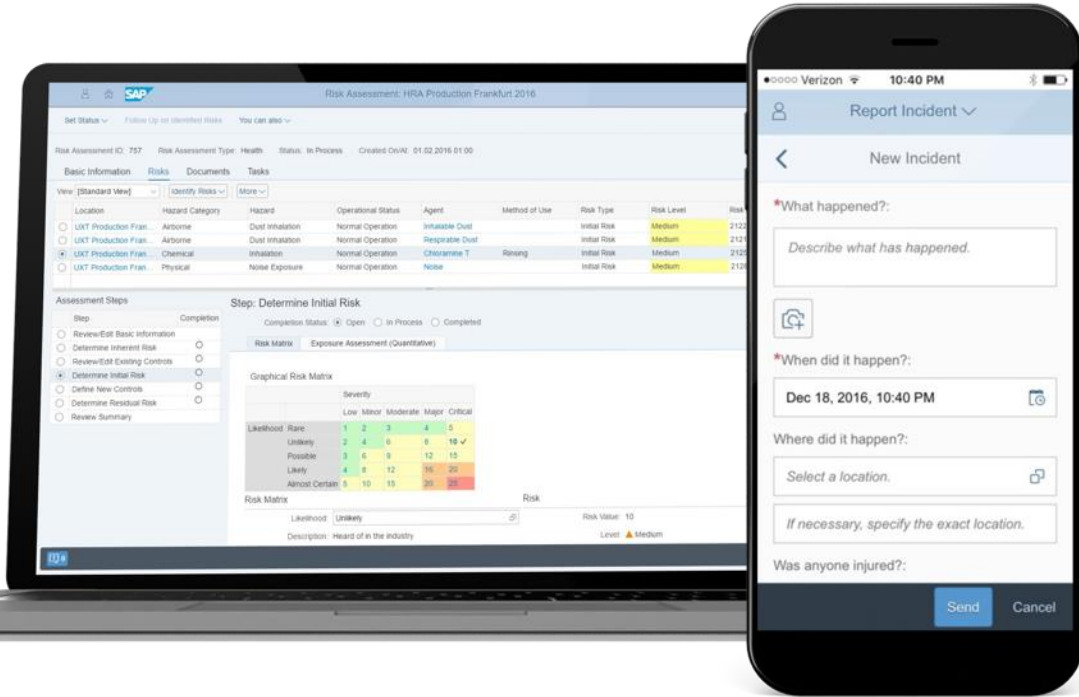
## Capabilities

- Multiple options for incident data entry, including mobile and offline entry as well as mobile-enabled hazard identification

- Real-time inventory reporting, incorporating vendor SDS data for the chemical approval process

- Centralized database that directly integrates with maintenance and HR processes

- User-friendly dashboard view synthesizing different sources of data for fast and easy interpretation

## Benefits

**Reduced Risk Exposure:** End-to-end risk management minimizing the severity and frequency of incidents

**Total Visibility:** Critical safety information available to all – right from the top floor to the shop floor

**Rapid Reaction Speeds:** Reduced time for incident processing, regulatory reporting and corrective action

## In a Nutshell

SAP EHS solutions provide a holistic approach to worker safety that embeds operational risk management systematically across the entirety of your operations. This forms the basis of a robust corporate safety culture able to respond proactively to hazards and withstand future health and safety challenges.

# Integrated Asset Management

# Case Study: City of Selkirk

- In 2016, the City published a Greenhouse Gas Reduction Plan to reduce emissions by 20% in 10 years

- Identified  climate change impacts likely to affect Selkirk's assets and infrastructure were identified and linked to the City's service areas (i.e. transit services, transportation, parks & open spaces, water utility, sewer utility, land drainage, fire services, and government services)

- Risks of these impacts were then assessed in order to prioritize impacts to which the City was most susceptible to. More than 50 actions to tackle each of the high-risk climate change impacts were identified

**Taken from – Federation of Canadian Municipalities**

# Case Study: Prince George, British Colombia



- Prince George was one of the first local governments in Canada to develop a Climate Change Adaptation Strategy in 2009.

- In 2018, a community-wide process with a wide range of stakeholders that represented social, economic, infrastructure and environmental sectors.

- The completed document Climate Change Adaptation Strategies for the Community of Prince George, is divided into four core objectives, with five corresponding themes:

  1. Strengthen Infrastructure Resilience and Reduce Risk to Buildings and Property
  2. Protect Public Health and Improve Economic Resiliency
  3. Enhance Resilience of Ecosystems and Protect Natural Areas
  4. Integrate Climate Change Thinking and Response

**Taken from – Federation of Canadian Municipalities**

# Public infrastructure considers a wide range of assets & public agencies

## Relevant for …

- Cities, counties and states
- Roads administration
- Departments of transportation
- Ports
- Transit agencies
- Airports
- Public utilities
- …
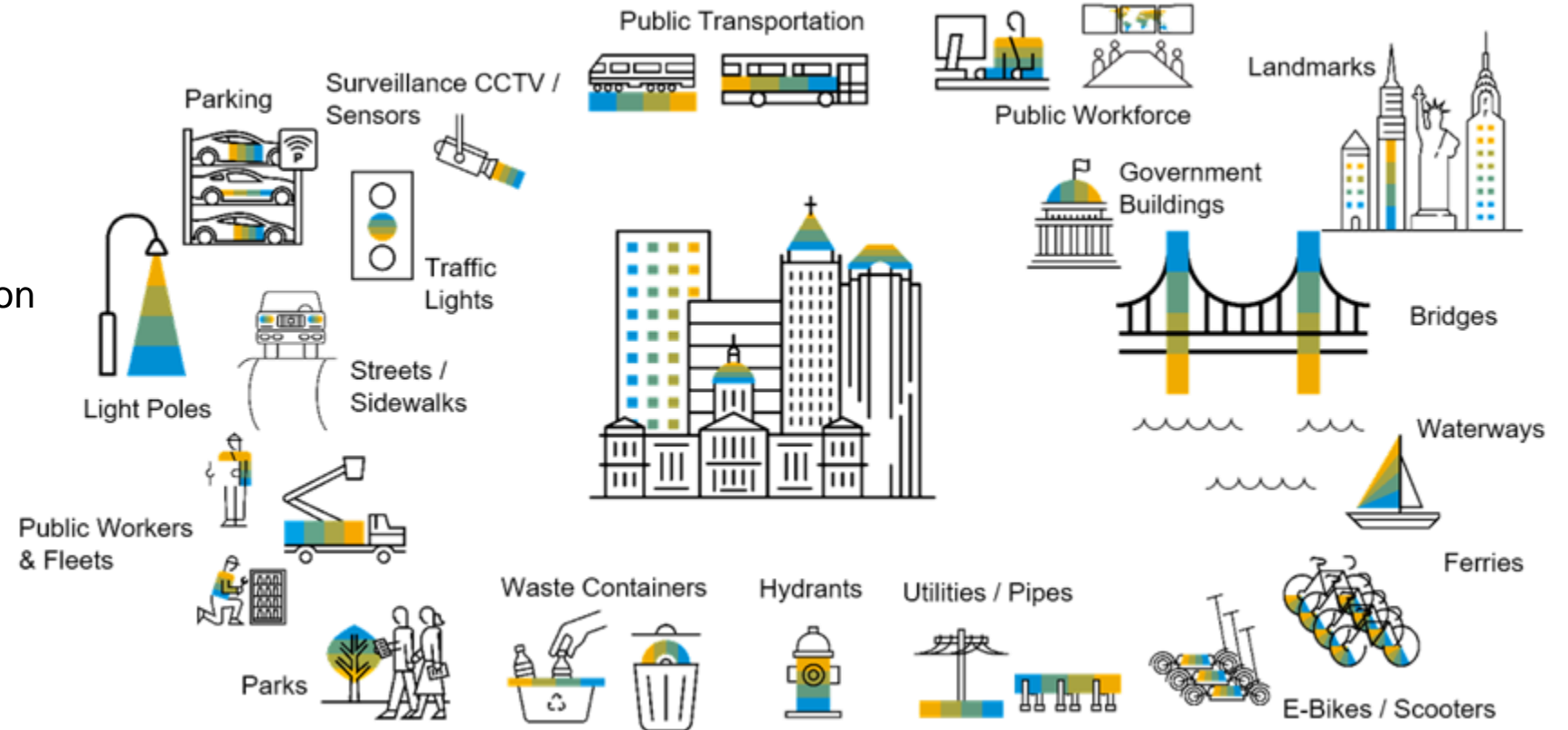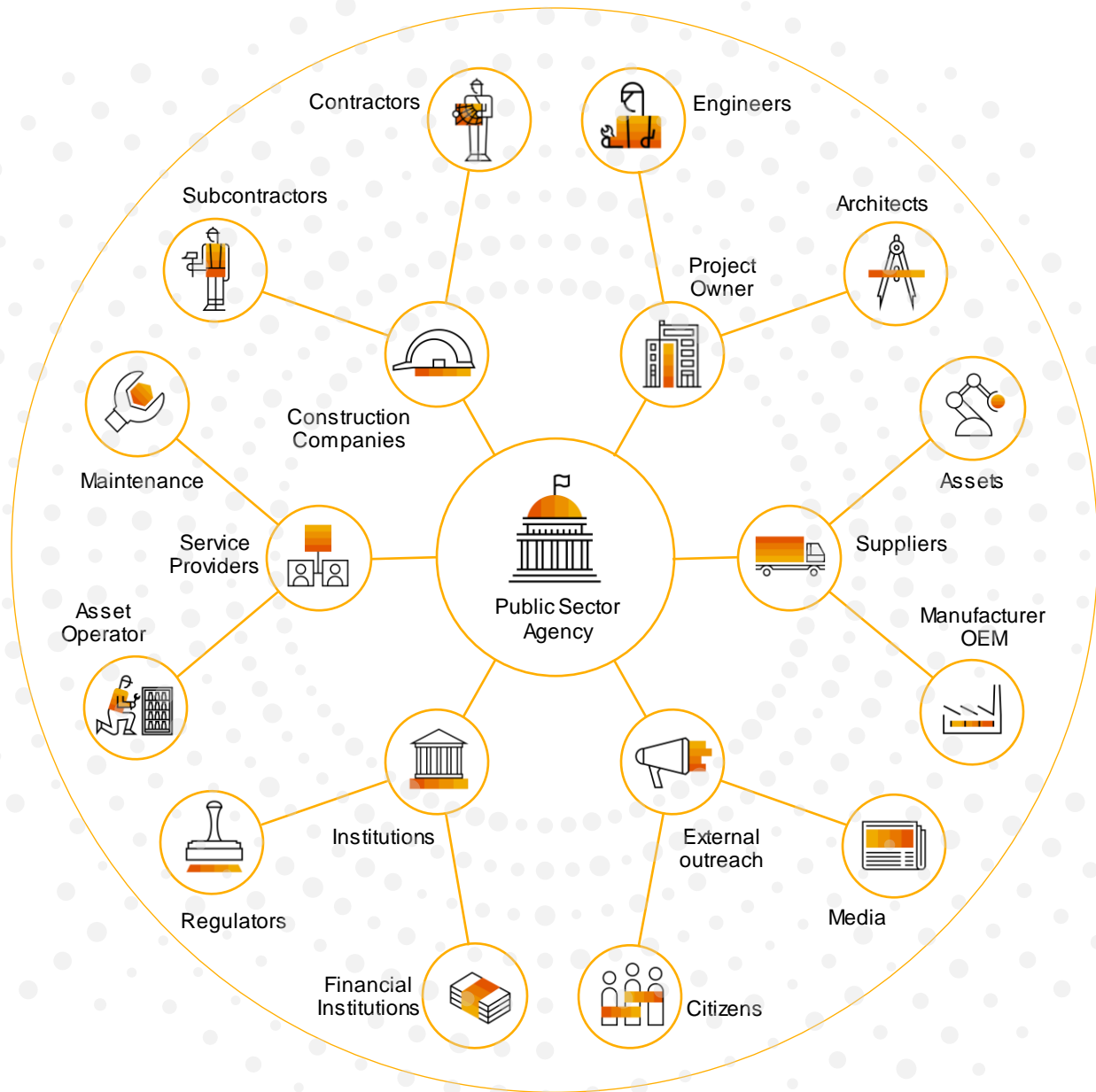
**SAP Intelligent Infrastructure Management Network** connects partners and assets

Transform today's fragmented asset management processes into a unified, collaborative and intelligent network

# Evolve from reactive to reliability-centred & proactive maintenance

### Reactive maintenance
after failure is too late for efficient planning and optimization and leads to higher cost at lower availability

### Calendar based maintenance
results in over-maintaining assets at higher costs and less availability

### Proactive maintenance
Intelligent Asset Management supports data driven proactive maintenance strategies based on reliability & other goals. This achieves the delicate balancing of profitability, asset health and availability

Prevention, Preparedness, Response & Recovery model (PPRR) is an approach used in disaster and emergency management



Reactive

Calendar based

Proactive

**TODAY**

Reactive

Calendar based

Proactive

**FUTURE**

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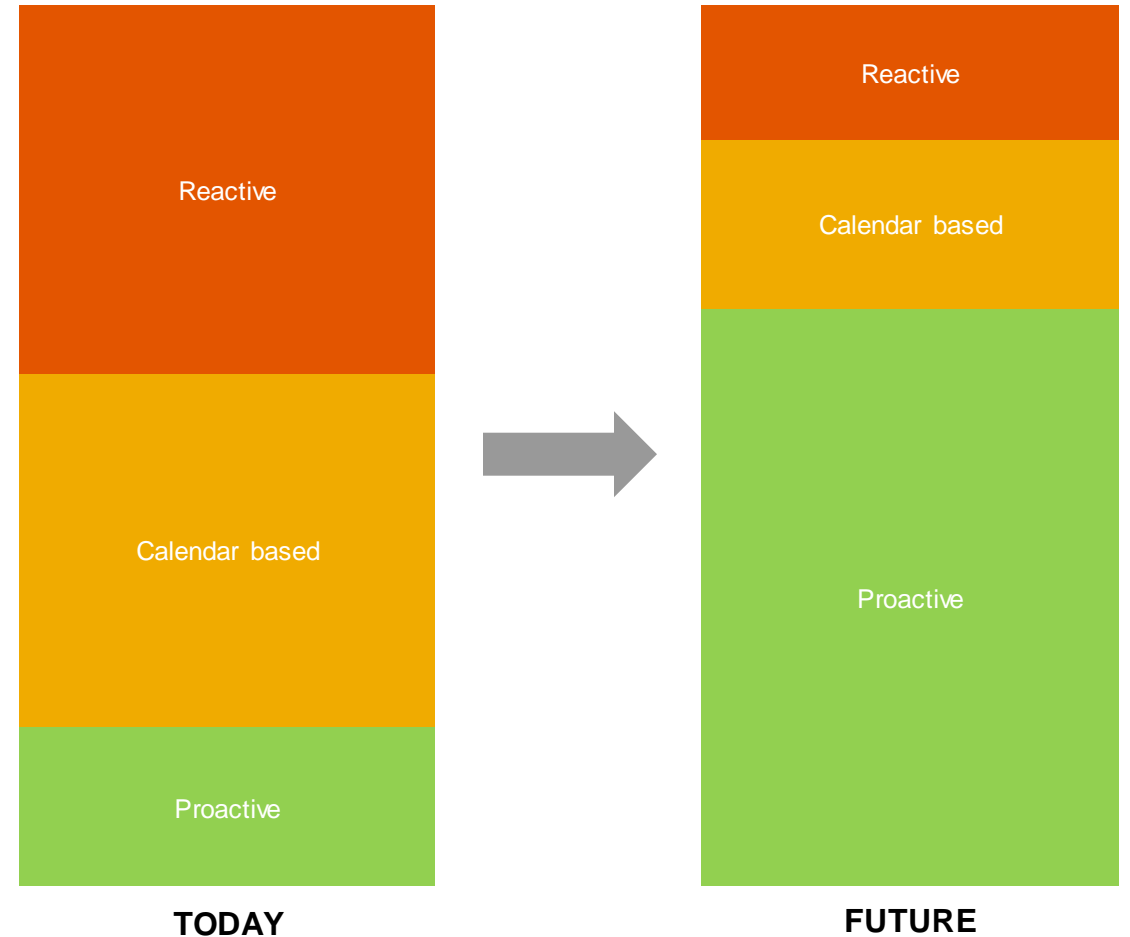
# Priorities in asset management

## Changing Maintenance Strategy

Move away from emergency and unnecessary preventive maintenance towards predictive and prescriptive maintenance.

## Utilize Digital Twin

Have a digital twin of your equipment in your system. Have access to real-time sensor data, 3D visualization and synchronize across all systems.

## Stay Connected

Employ mobile devices in your day to day work, utilizing Fiori Launchpad on your mobile as well as native mobile apps.

## Transparent Maintenance Cost

Analyze the actual cost of maintenance to further optimize your processes and maintenance strategy to reduce cost.

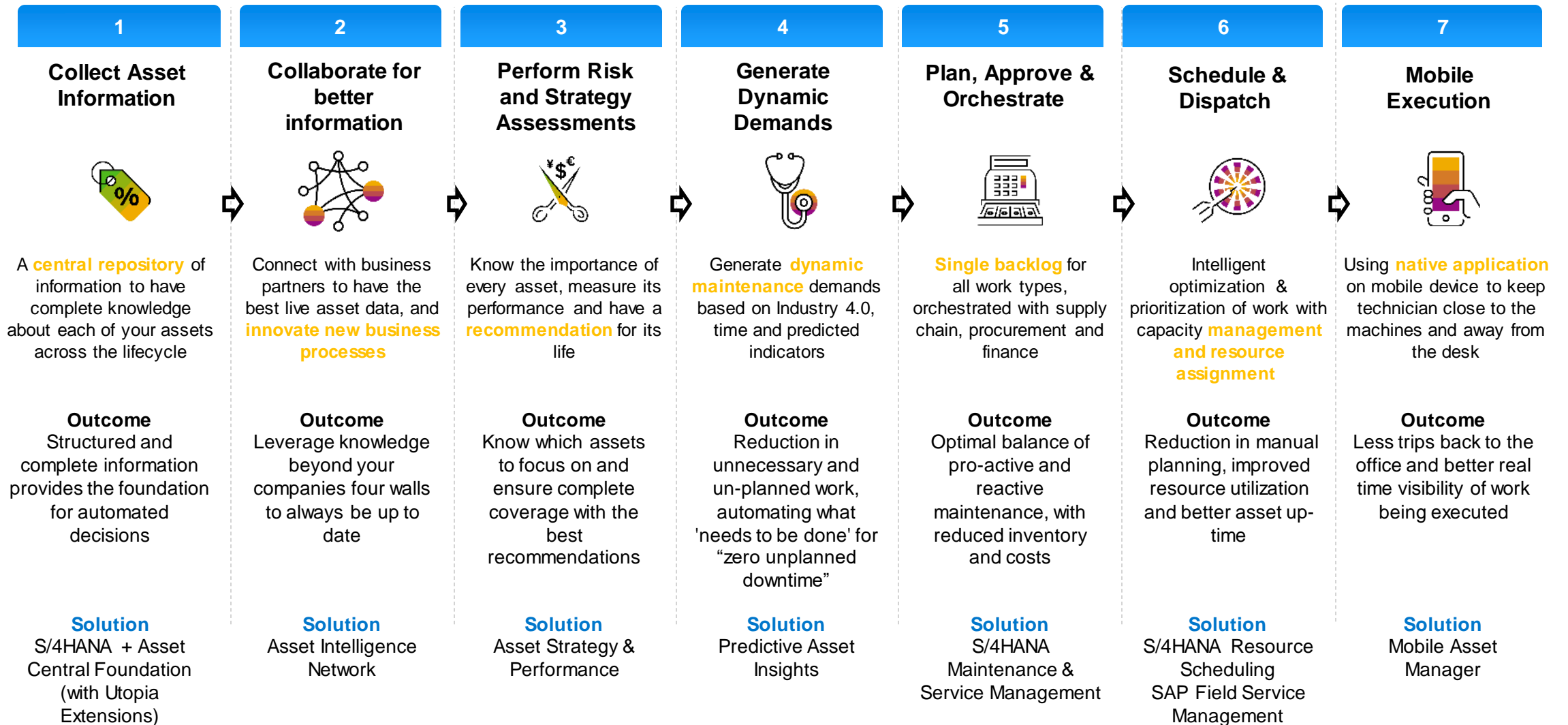SAP | Industries and Customer Advisory

# Integrating Planning and Execution with SAP Intelligent Asset Management

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| **Collect Asset Information** | **Collaborate for better information** | **Perform Risk and Strategy Assessments** | **Generate Dynamic Demands** | **Plan, Approve & Orchestrate** | **Schedule & Dispatch** | **Mobile Execution** |
| A **central repository** of information to have complete knowledge about each of your assets across the lifecycle | Connect with business partners to have the best live asset data, and **innovate new business processes** | Know the importance of every asset, measure its performance and have a **recommendation** for its life | Generate **dynamic maintenance** demands based on Industry 4.0, time and predicted indicators | **Single backlog** for all work types, orchestrated with supply chain, procurement and finance | Intelligent optimization & prioritization of work with capacity **management and resource assignment** | Using **native application** on mobile device to keep technician close to the machines and away from the desk |
| **Outcome** Structured and complete information provides the foundation for automated decisions | **Outcome** Leverage knowledge beyond your companies four walls to always be up to date | **Outcome** Know which assets to focus on and ensure complete coverage with the best recommendations | **Outcome** Reduction in unnecessary and un-planned work, automating what 'needs to be done' for "zero unplanned downtime" | **Outcome** Optimal balance of pro-active and reactive maintenance, with reduced inventory and costs | **Outcome** Reduction in manual planning, improved resource utilization and better asset up-time | **Outcome** Less trips back to the office and better real time visibility of work being executed |
| **Solution** S/4HANA + Asset Central Foundation (with Utopia Extensions) | **Solution** Asset Intelligence Network | **Solution** Asset Strategy & Performance | **Solution** Predictive Asset Insights | **Solution** S/4HANA Maintenance & Service Management | **Solution** S/4HANA Resource Scheduling SAP Field Service Management | **Solution** Mobile Asset Manager |

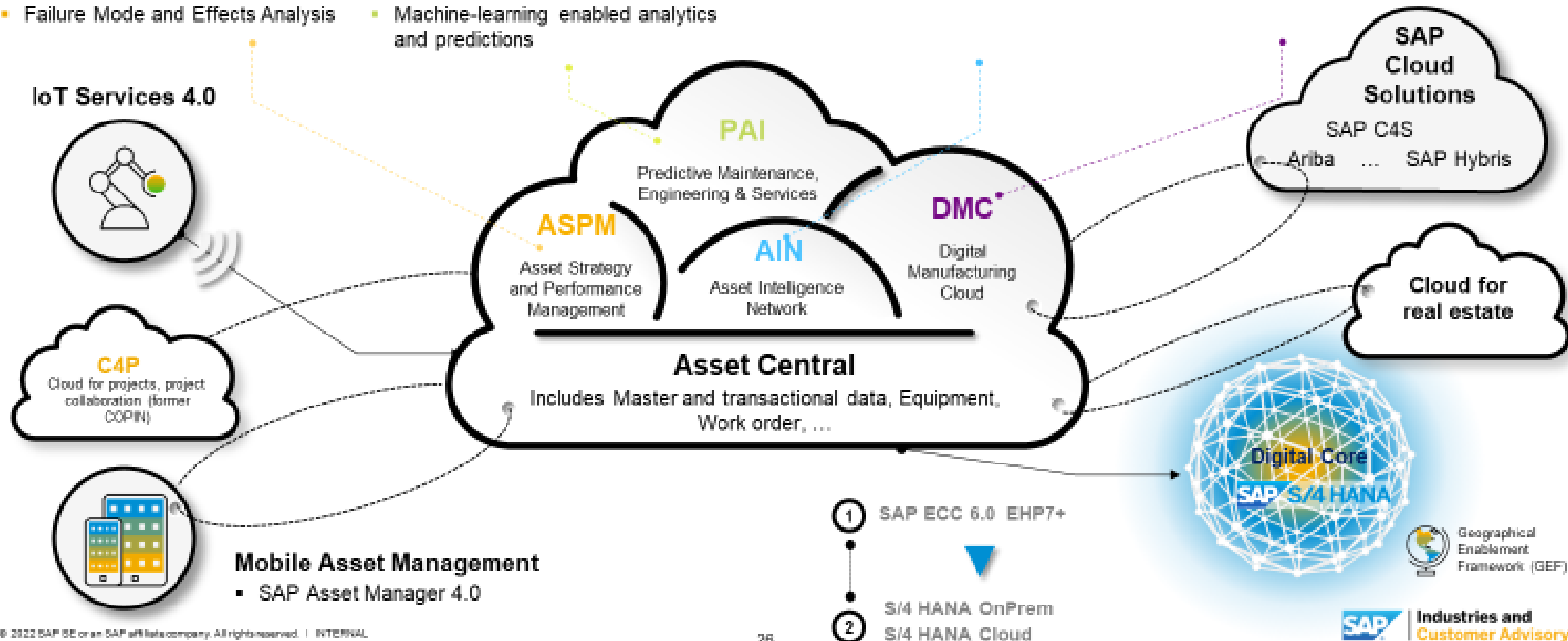**SAP** | Industries and Customer Advisory

# Sample customer journey for Intelligent Asset Management
## Step 3 – Connect to your full environment with predictive maintenance and intelligent networks

- Risk and Criticality
- Strategy Review
- Risk Centered Maintenance
- Failure Mode and Effects Analysis

- Condition Monitoring
- Dynamic Maintenance
- Derived Indicator Management
- Machine-learning enabled analytics and predictions

- Network
- Collaboration
- Equipment Portal

- 3D Virtual Simulation
- Real time engineering
- Dynamic 3D visualization



IoT Services 4.0

**SAP Cloud Solutions**
SAP C4S
Ariba     ...     SAP Hybris

**PAI**
Predictive Maintenance, Engineering & Services

**ASPM**
Asset Strategy and Performance Management

**AIN**
Asset Intelligence Network

**DMC***
Digital Manufacturing Cloud

**Cloud for real estate**

**C4P**
Cloud for projects, project collaboration (former COPIN)

**Asset Central**
Includes Master and transactional data, Equipment, Work order, ...

**Digital Core**
SAP S/4 HANA

**Mobile Asset Management**
- SAP Asset Manager 4.0

① SAP ECC 6.0 EHP7+

② S/4 HANA OnPrem
   S/4 HANA Cloud

Geographical Enablement Framework (GEF)

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# NPRA and SAP combine IoT sensors, digital twin technology, and real-time asset intelligence to make bridges safer.

**By deploying the SAP® Predictive Engineering Insights solution enabled by ANSYS and applying the Industry 4.Now approach** to Norway's Stavå Bridge, SAP and partner ANSYS Inc. are helping NPRA improve bridge safety and maintenance with:

- Bridge sensors that detect vehicle vibrations and give real-time alerts when motion and displacement thresholds are exceeded
- Digital models that simulate the dynamics of a bridge's structure down to the materials level, creating a digital twin that delivers real-time insight into the bridge's behavior and warns of potential structural failures
- Reliable, finite element model to understand the complex physical behavior of the bridge using sensor output, with plans to expand to hot-spot analysis
- Deeper insight into bridge stability, carrying capacity, and the degree of wear and tear based on estimated loads over an extended period, helping target and prioritize inspections and maintenance
- What-if analysis for planned bridge maintenance and upgrades to predict the various effects of changes to bridge structure before they are made
- The ability to use global data on bridge failures to simulate various structural and load scenarios to predict future failures and address issues before they occur
- Integrated smart technology and maintenance applications, unifying bridge data and analytics on one platform
- The ability to scale the solution across multiple bridges, providing network-wide insights, helping prioritize maintenance across NPRA bridges, and reducing maintenance costs overall

"We expect that SAP Predictive Engineering Insights enabled by ANSYS will help **maximize the lifetime of our bridges** and optimize the timing of maintenance. If we can keep bridges safe and postpone replacement by 10 years, it's a win-win on cost and safety."

Trond Michael Andersen, Director Technology, Norwegian Public Roads Administration

**Ansys**

Picture Credit | Customer Name, City, State/Country. Used with permission.

| | | | |
|---|---|---|---|
| **Norwegian Public Roads Administration (NPRA)** Oslo, Norway www.vegvesen.no/en | **Industry** Public sector | **Employees** >7,000 | **Revenue** €5.14 billion |

**Statens vegvesen**
Norwegian Public Roads Administration

**Featured Solutions and Services**
SAP Predictive Engineering Insights enabled by ANSYS and Industry 4.Now

BTS link

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# San Diego uses GIS applications to connect with residents and make the city an even safer, cleaner place to live.

By connecting its geographic information system (GIS) technology with **SAP S/4HANA®** and the **SAP HANA® platform,** the City of San Diego now has:

- Custom-built applications that were developed in two weeks, have a live connection to SAP S/4HANA, are supported by Esri ArcGIS, and have SAP HANA as an enterprise geodatabase
- SAP® Geographical Enablement Framework, which connects Esri ArcGIS to SAP S/4HANA
- Custom-built sidewalk condition assessment application that allows the public to report sidewalk issues and helps the city prioritize improvements
- A hydrant pressurization application that gives the fire department direct access to data from public utilities to ascertain the pressurization of hydrants, enhancing emergency response
- "Get It Done" app used by the public to request tasks, which the app then forwards to the work order management system – representing more than 50% of total work orders and thousands of requests per day
- Easily consumable data from a variety of master sources that is pushed to mapping interfaces, making data accessible for users – residents and city workers – at all levels
- Faster development and delivery of new applications for the public

"SAP and Esri **help the City of San Diego run better**. The new tool improves efficiency and helps make the city safer. Our firefighters can now plan and respond to calls faster and better. Within a few weeks, we had a map viewer showing hydrant status."

Scott Daeschner, GIS Manager, City of San Diego

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The City of
**SAN DIEGO**

**City of San Diego**
San Diego, California
www.sandiego.go

**Industry**
Public sector

**Featured Solutions and Services**
SAP S/4HANA, SAP HANA, and SAP Geographical
Enablement Framework

BTS link

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# Closing Remarks

# Jointly we unlock your sustainability transformation

**Capabilities**

**Business Value** →

| Stage | Capability |
|---|---|
| **Excellence with Sustainable transformation** | Continuous Value Stream improvement approach to all business factors; Benchmarking against peers, setting best practices & transformation |
| **Stakeholder Transparency & Collaboration with Partners** | Transparent ESG numbers, assumptions, calculations; Network (WBCSD) collaboration with Partners |
| **Gain Insights and Integrate ESG in Business Operations** | ESG integrated with all business operations; Insights to understand all material value & risks |
| **Go from Averages to Actuals** | Visibility into Actuals instead of averages e.g. Product BOM with detailed Supplier GRI data |
| **Build Trusted Governance** | Solutions with integrated audit & assurance; KPIs harmonized with financial periods & reporting |
| **As-is ESG Reporting** | Reporting using current data collection & reporting tools; Spend-based estimates of product carbon footprint |

**Sustainability Transformation**

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# The Cloud for Sustainable Enterprises offers your use cases

## Holistic Steering and Reporting

ESG reporting and performance management | Voluntary and regulatory sustainability frameworks | ESG impact measurement & real-time insights

### Zero Emissions
**with Climate Action**

- Corporate & product emission management
- Sustainable travel & transport
- Green IT
- Carbon markets

### Zero Waste
**with Circular Economy**

- Design for circularity
- Responsible sourcing & material traceability
- Waste management
- Takeback management

### Zero Inequality
**with Social Responsibility**

- Ethical procurement & sourcing
- Product safety & compliance
- DEI, Health and Safety Management

## Industry Innovation | Business Network | Ecosystem

Data exchange network | Energy transition | Sustainable farming | Sustainable banking & portfolio management

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# Thank you.

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# Appendix

# Intelligent Infrastructure Management Network

| Design & Plan | Build | Handover | Operate | Maintain |
|---|---|---|---|---|

**ONE CONSISTENT UX**

**BTP**

**S/4HANA**

**S/4HANA Cloud**

**SAP ANALYTICS CLOUD**

Partner Integration and Collaboration with open APIs

Other SAP solutions

SAP Enterprise Product Development (for visualization) <=> BIM \ Digital Twin \ IoT

SAP Cloud for Projects

SAP Intelligent Real Estate

SAP Asset Intelligence Network

SAP S/4HANA EPPM
(Enterprise Portfolio and Project Management)

SAP S/4HANA Real Estate Mgmt.
(Contract, lease and real estate management)

SAP S/4HANA Enterprise Asset Management

SAP S/4HANA Procurement

SAP S/4HANA Finance and Controlling

**SAP HANA Cloud**

**SAP Data Warehouse Cloud**

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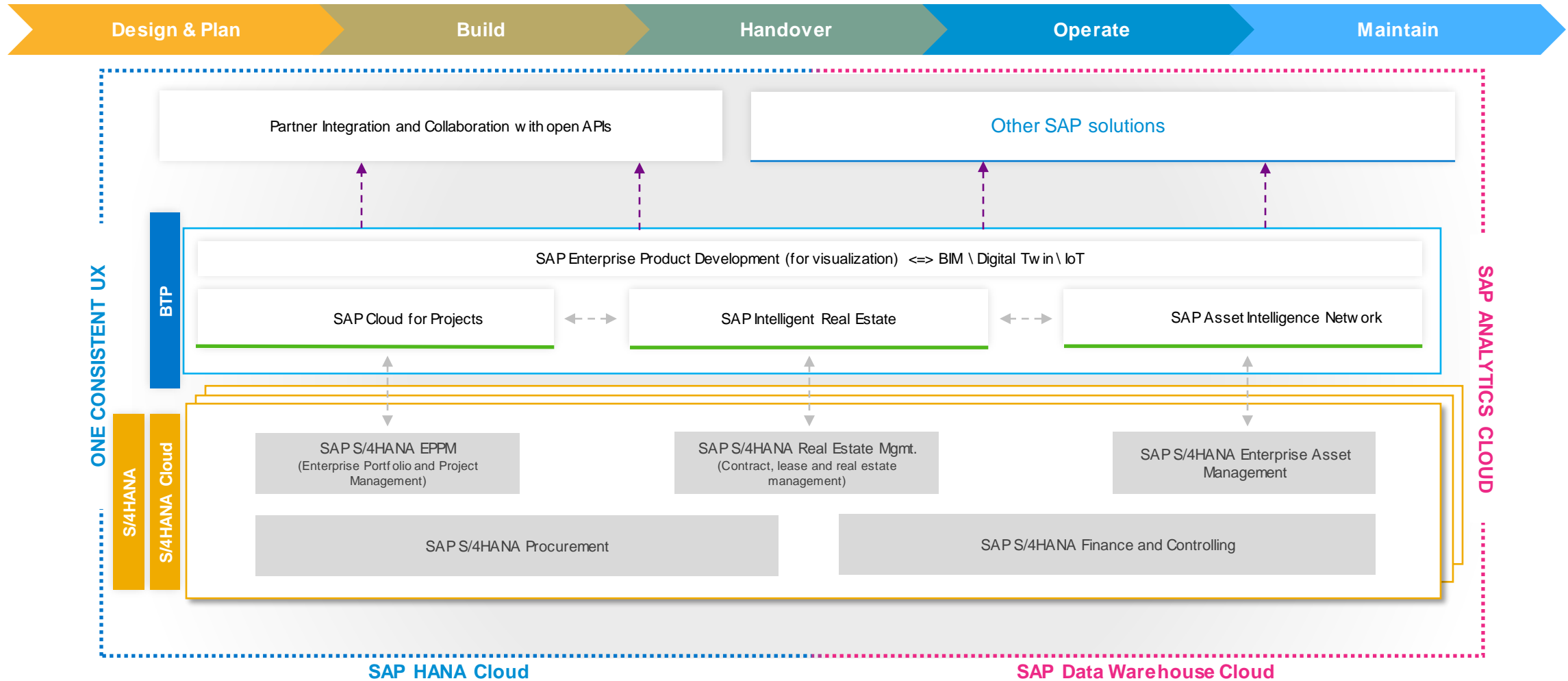
# Customer stories



- SAP Geographical Enablement Framework connects Esri ArcGIS to SAP S/4 HANA
- Development of apps to provide better citizen services (sidewalk condition, hydrant pressurization, service requests, etc.)
- Visualization of data from multiple sources in mapping interfaces:
  - Easier to consume
  - Faster app deployment



- Optimized reliability-centered maintenance processes using SAP ASPM
- Gained operational efficiency by adopting proactive maintenance approach with SAP PAI
- Increase efficiency by optimizing labor planning and resource management



- Created a digital twin of a bridge using SAP PAI, delivering real-time insight into the bridge's behavior, warning of potential structural failures
- What-if analysis for planned bridge maintenance and upgrades to predict the various effects of changes to bridge structure before they are made
- Ability to scale the solution across multiple bridges, providing network-wide insights, helping prioritize maintenance across NPRA bridges
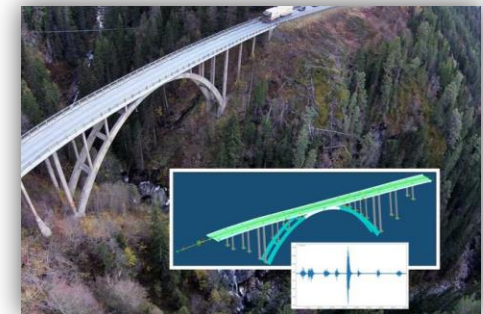
# Additional resources



**Digital Transformation of Public Infrastructure**
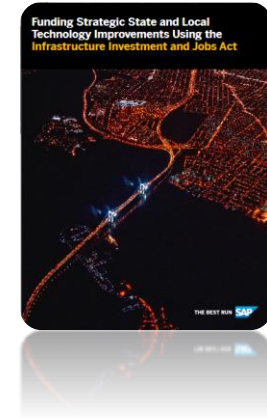


**Funding Strategic S&L Technology Improvement using IIJA**

- SAP Intelligent Asset Management Jam page
- SAP Intelligent Real Estate Management POV
- SAP Enterprise Portfolio and Project Management Jam Page
- S/4HANA Cloud for projects, project collaboration (aka. Project Intelligence Network) Jam Page
- Lifecycle & Infrastructure Management – Further information and webinar

## Learn how…



Province Noord-Brabant is enabling better decision-making with data-driven insights using SAP Real Estate Management

City of Cape Town is improving quality and safety of their roads with Field Service Management





Dubai Electricity and Water Authority is completing its digital transformation to provide a digital backbone for the city of Dubai

Germany's air traffic control company, DFS extends asset life and reduces disruptions using intelligent asset management solutions

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# Customers are creating positive impact on environment and people with SAP Solutions

## Climate Action – Zero Emissions

**EWE GO** Charging networks for sustainable mobility I SAP E-Mobility

**City of Zug, CH** Smart mobility platform I SAP Cloud Platform (BTP) More

**Fiscalité Brussels, BE** Low Emission Zone project with vehicle tax I SAP BRIM, SAP Citizen Engagement Accelerator

**Ministry of Defense, Germany - Sustainable Real Estate Management** Managing sustainable infrastructure projects More

**ERG Italy** Managing a sustainable supply chain with SAP Ariba solutions More

**Sustainable Entertainment Events** Music of the Spheres World Tour App

## Circular Economy – Zero Waste

**Ministry of Environment (MESTI) Ghana** Driving circular economy and minimizing waste in the country I SAP Rural Sourcing Management More

**HMRC UK** Administration of UK Plastic Packaging Tax I SAP Tax and Revenue Management More

## Social Responsibility – Zero Inequality

**Employee Health and Safety** Ensuring employee health and wellbeing with solutions for incident management, occupational health and employee safety

**Environment Protection Authority Victoria** More

HALIFAX

DB NOVA SCOTIA

**South Australian Police**  **Victoria Police**  **Australian Federal Police**

## Emergency and Disaster Management

**United Nations OCHA I** Improved the coordination of disaster relief missions and humanitarian outcomes based on SAP Business Technology Platform More

**Kanton Zurich, CH** SAP Robotic Process Automation supported payments of COVID-19 benefits

**City of Cape Town, SA** Public Safety Platform I Emergency Policing and Incident Command More

**Sanctuary Care, UK I** Awarded for best socially Sustainable project with Pandemic Analytics Response More

**German Red Cross I** Safeguarding the COVID-19 vaccination mission in the state of Saxony with speed and agility More

**New South Wales Rural Fire Service** A data-driven approach to better respond to bushfire emergencies More I BTS

**Morocco Ministry of Health I** Saving lives in a pandemic with a real-time COVID-19 monitoring system More

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