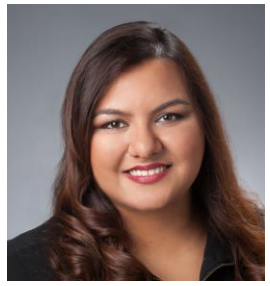
Innovation Tour 2021 - Session 8 of 8

Environment, Health and Safety

Records Management and Regulatory Reporting



Mike Censurato, EHS Solution Manager, SAP
Sana Zaidi, Vice President, Global Business Development, Rizing EAM
26th August 2021

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Intelligent Asset Management Live 2021 Environment, Health and Safety

3 August	EAM Foundation for Success Replay Available
5 August	Field Scheduling and Dispatching Replay Available
10 August	Intelligent Asset Management Update - What's New in 2021 Replay Available
12 August	Collaborative Asset Management Replay Available
17 August	Enterprise Portfolio and Project Management Replay Available
19 August	Visualise your Assets and Work on a Map Replay Available
24 August	EAM Reporting and Analytics Replay Available Soon
26 August	Environment, Health and Safety **This Session**

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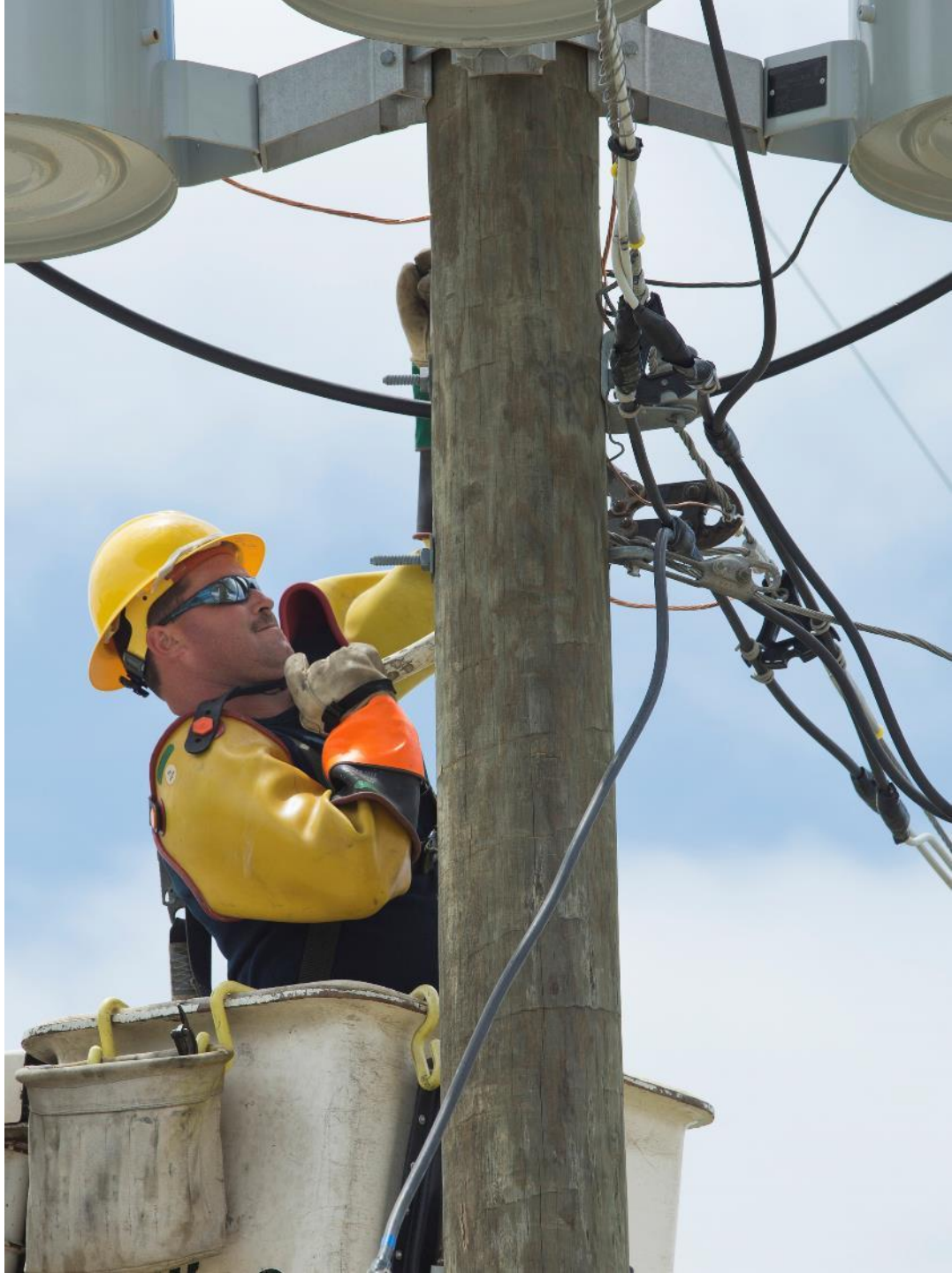
Agenda

- SAP Sustainability Strategy
- EHS and Sustainability Solution Offerings
- Managing GHG Emissions for Sustainability
- EHS & Sustainability on the Intelligent Enterprise
- Rizing EHS Services Overview
- Solution Benefits and Case Studies
- Q&A



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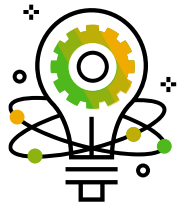
SAP Strategy for Sustainability



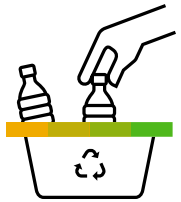
A blueprint to integrate sustainability data into business processes
across all value chains to drive performance, new products & new markets

Complete the transition to a high-performance Sustainable Intelligent Enterprise by combining operational data mapping with holistic sustainability reporting

Steering to Zero with a **Sustainability Performance Management**

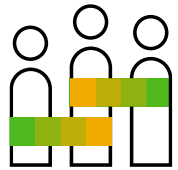
Zero Emissions with
Climate Action

Generate cost savings by transitioning from “Low to No” carbon across your entire network.



Zero Waste with
Circular Economy

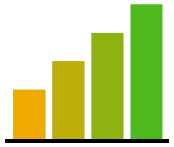
Contribute to a zero-waste world by incorporating resilience and circularity into your supply chains.



Zero Inequality with
Social Responsibility

Ensure zero incidents, accidents and harm to communities, people and the environment.

Industry Innovation



Generate additional value by incorporating industry-specific solutions from across our Partner Ecosystem and Industry Cloud

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SAP Sustainability Solutions
Solution Scope

HOLISTIC STEERING AND REPORTING

- SAP Sustainability Control Tower *
- SAP Ariba - EcoVadis Supplier Sustainability Rating
- SAP Spend Analytics and Category Intelligence
- SAP Environment Management (EHS)
- SAP S/4HANA for Product Compliance
- SAP Health and Safety Management (EHS)

Industry Innovation

- SAP Profitability and Performance Management by msg

ZERO EMISSIONS with Climate Action

- SAP Environment Management (EHS)
- SAP Product Footprint Management
- SAP Business Ecology Management for Small and Midsize Businesses
- SAP E-Mobility *
- SAP Product Carbon Footprint Analytics (SAC)
- SAP Transportation Management
- SAP Concur
- SAP Treasury and Risk Management
- SAP Logistics Business Network Material Traceability

ZERO WASTE with Circular Economy

- SAP Responsible Design and Production
- SAP S/4HANA for Product Compliance
- SAP Environment Management (EHS Waste Mgmt)
- GreenToken by SAP
- SAP Rural Sourcing Management
- SAP Logistics Business Network Material Traceability
- Product Lifecycle Management
- Integrated Business Planning

ZERO INEQUALITY Social Responsibility

- SAP Health and Safety Management (EHS)
- SAP Occupational Health (EHS)
- SAP Incident Management (EHS)
- SAP Business Integrity Screening
- SAP S/4HANA for Product Compliance
- SAP Concur (Duty of Care)
- SAP Ariba (Supplier Diversity)
- SAP Fieldglass (Contingent Workforce Diversity)
- SAP SuccessFactors
- Qualtrics Employee XM

INDUSTRY INNOVATION

- Bearing Point LogEC (Logistics Emissions Calculator)
- SAP Traders & Schedulers Workbench
- SAP Cloud for Energy
- SAP Digital Vehicle Hub (SAP AIN)
- SAP Direct Distribution
- SAP Multichannel Order Management
- SAP S/4HANA for Waste & Recycling by Prologa
- SAP Returnable Packaging Management
- SAP Intelligent Returns Management
- SAP Outcome-based Business Insights
- SAP Replenishment Planning
- SAP Work Clearance Management (EHS)
- SAP Management of Change (EHS)

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Solution Approach – Relevant SAP EHS Applications

EHS Incident Management

- Incident Management
- Near Misses
- Safety Observations

EHS Health and Safety

- Chemical Approval
- Chemical Management
- Operational Risk Assessment
- Industrial Hygiene and Sampling
- Occupational Health*
- EHS Audit Management**

EHS Environment Management

- Regulatory and Permit Compliance
- Emissions Management
- Waste Management

Management of Change

- Management of Change

Maintenance Safety

- Permit to Work
- Work Clearance/LOTO

Supporting applications

- Asset Management
- Human Resources
- Contractor Management
- Implementation Add-ons

Real Time EHS Reporting and Analytics

Action Tracking and Task Management

Intelligent EHS Technologies for Awareness, Automation, Ubiquity

***OH licensed separately**

****Audit is complimentary with S/4HANA Enterprise**

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SAP EHS solution for calculating GHG emissions

Business Challenges

Data collection across the enterprise is cumbersome and frequently a manual process

Low confidence in emission calculation results

No mechanism to analyze energy use and emissions against operational data

Business Priority

Compliance with regulations and corporate strategy

Energy monitoring and consumption tracking

Calculation and reporting of GHG emissions in accordance with regulations and company policy

An efficient and accurate way to collect the necessary data for calculations

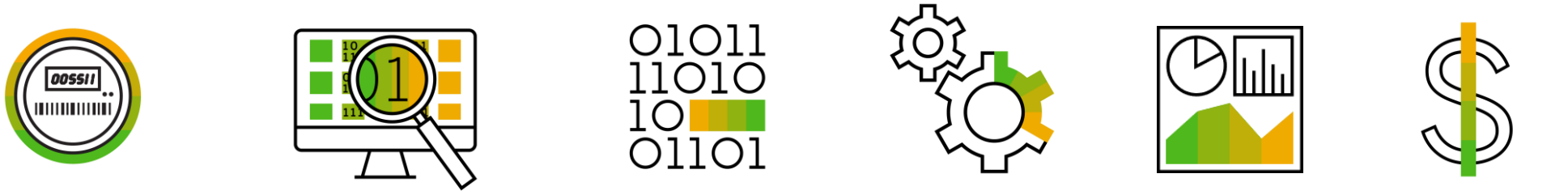
An efficient and accurate way to communicate and report to all relevant stakeholders

Benefits

Improved accuracy and consistency

Reduced effort and cost for data collection and calculations

Real-time visibility into the enterprise for better insight into reducing energy usage and carbon emissions



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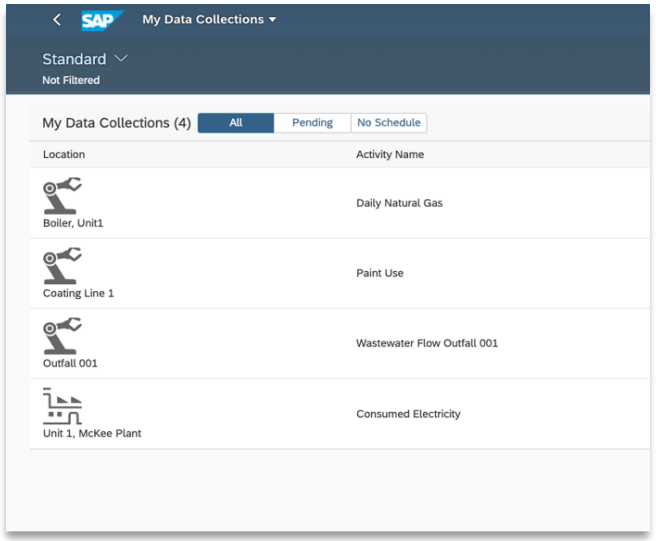
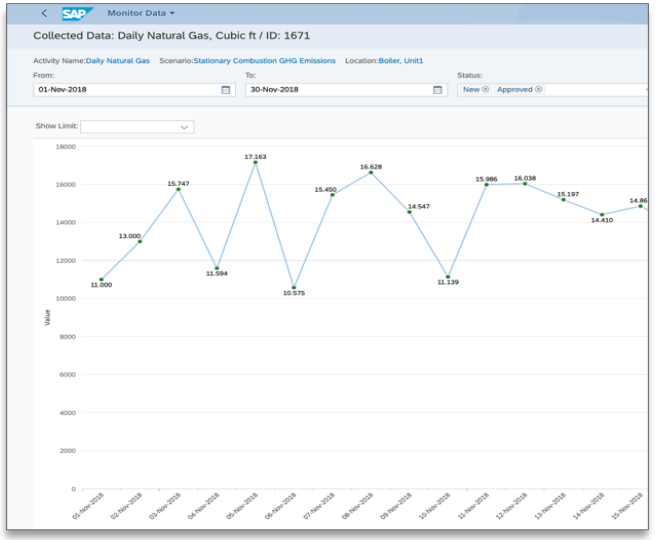
Solution Scope – Emissions Calculations Workflow

Data Collection → Data Validation → Aggregation → Calculation → Insight → Optimization



Collect asset or location-specific operational data
- **Fuel used, e.g. natural gas**
- **Energy used – electricity consumption**



Monitor collected and calculated data:
- **Display data against thresholds**
- **Approve or replace data**
- **Create deviations**
- **Import-export data**

Trend and report emissions data
- **Query and filter data using Data Monitoring or Environmental Explorer apps**
- **Trend emissions data using SAP Analytics Cloud content**
- **Feed emissions data to sustainability reporting process**

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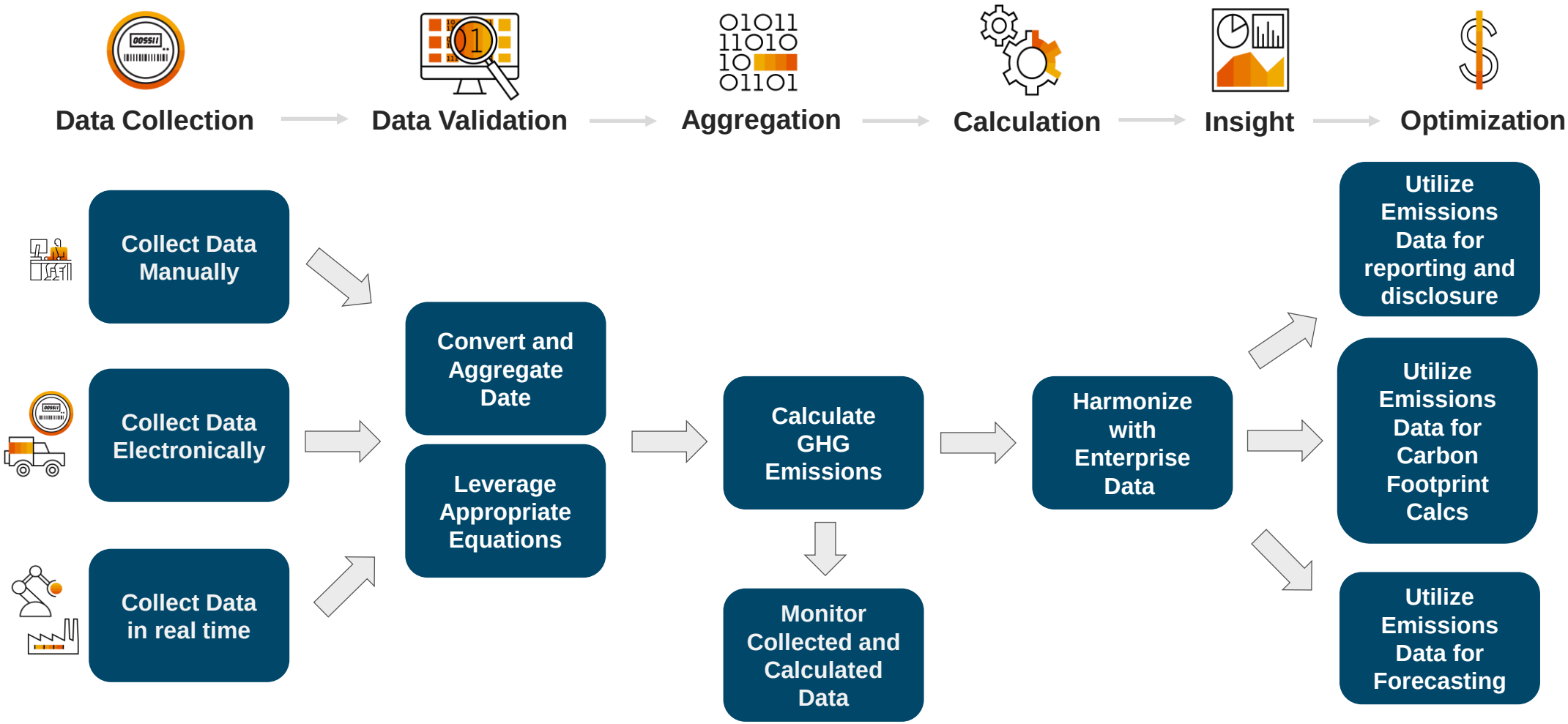
Solution Scope - Process



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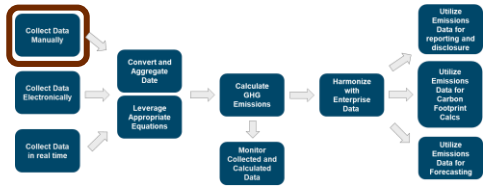
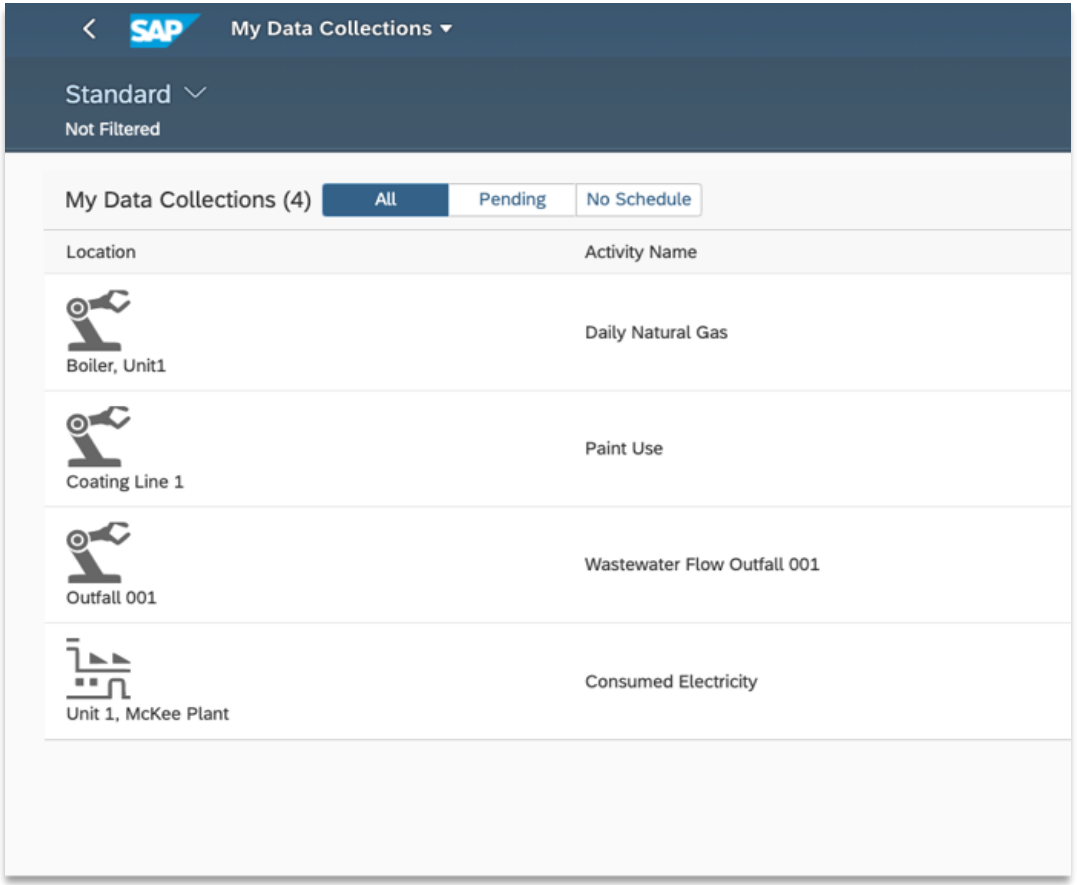
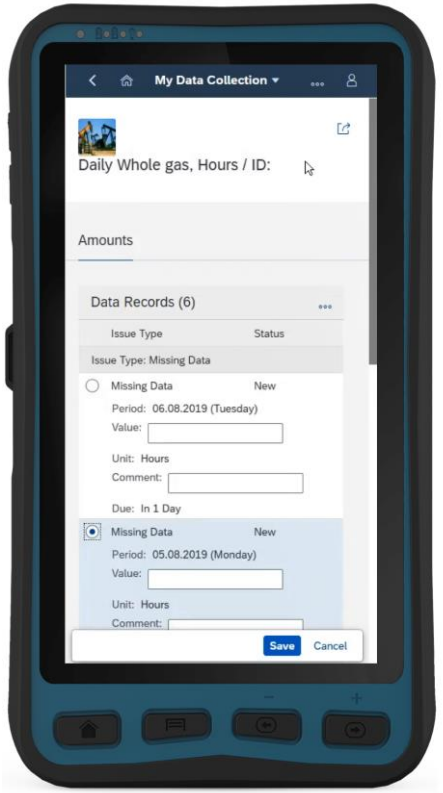
Data Collection – Manual Process







With the My Data Collections app the system provides the production operator a mobile, optimized and more efficient way of collecting the required data related to a compliance scenario.

The extended features in the My Data Collections app improve the process of collecting data in the field with:

- Fiori app with mobile support
- Ad-Hoc collection of event data
- Approval control and ability to correct the collected data
- Import/export data from spreadsheet

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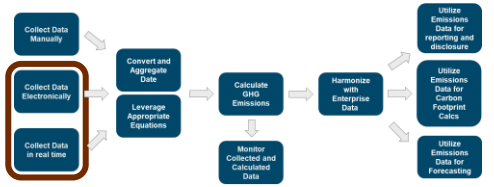
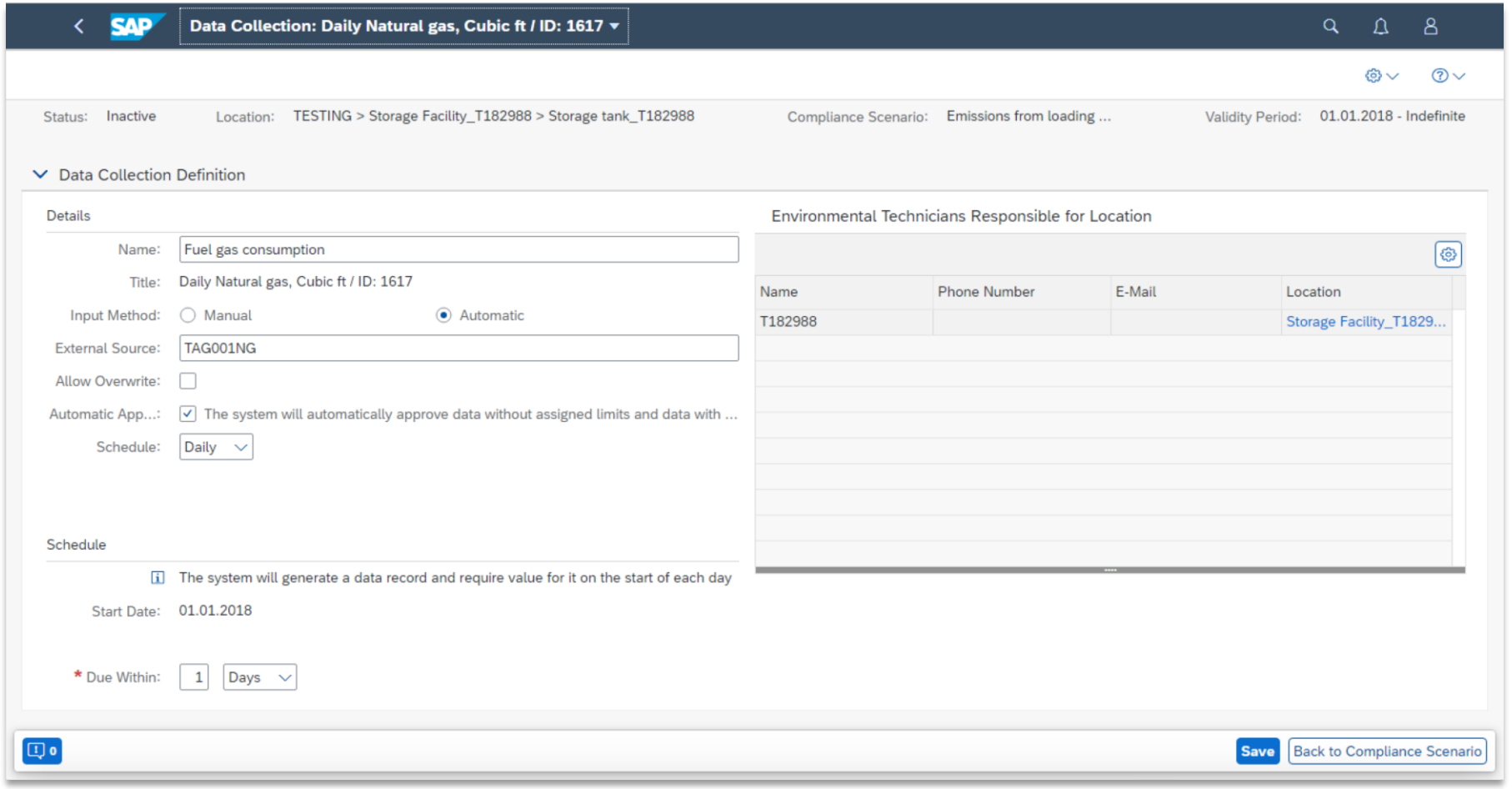
Data Collection – Automated





The Data Collection activity is defined by assigning Environmental Limits and responsible Persons to perform the measurement.

Additionally the Schedule of the data collection can be maintained as well as Manual versus Automated collection setting.

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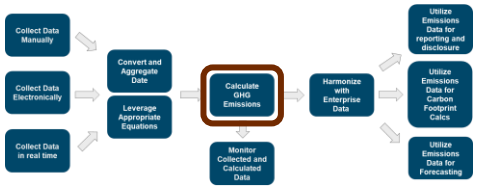
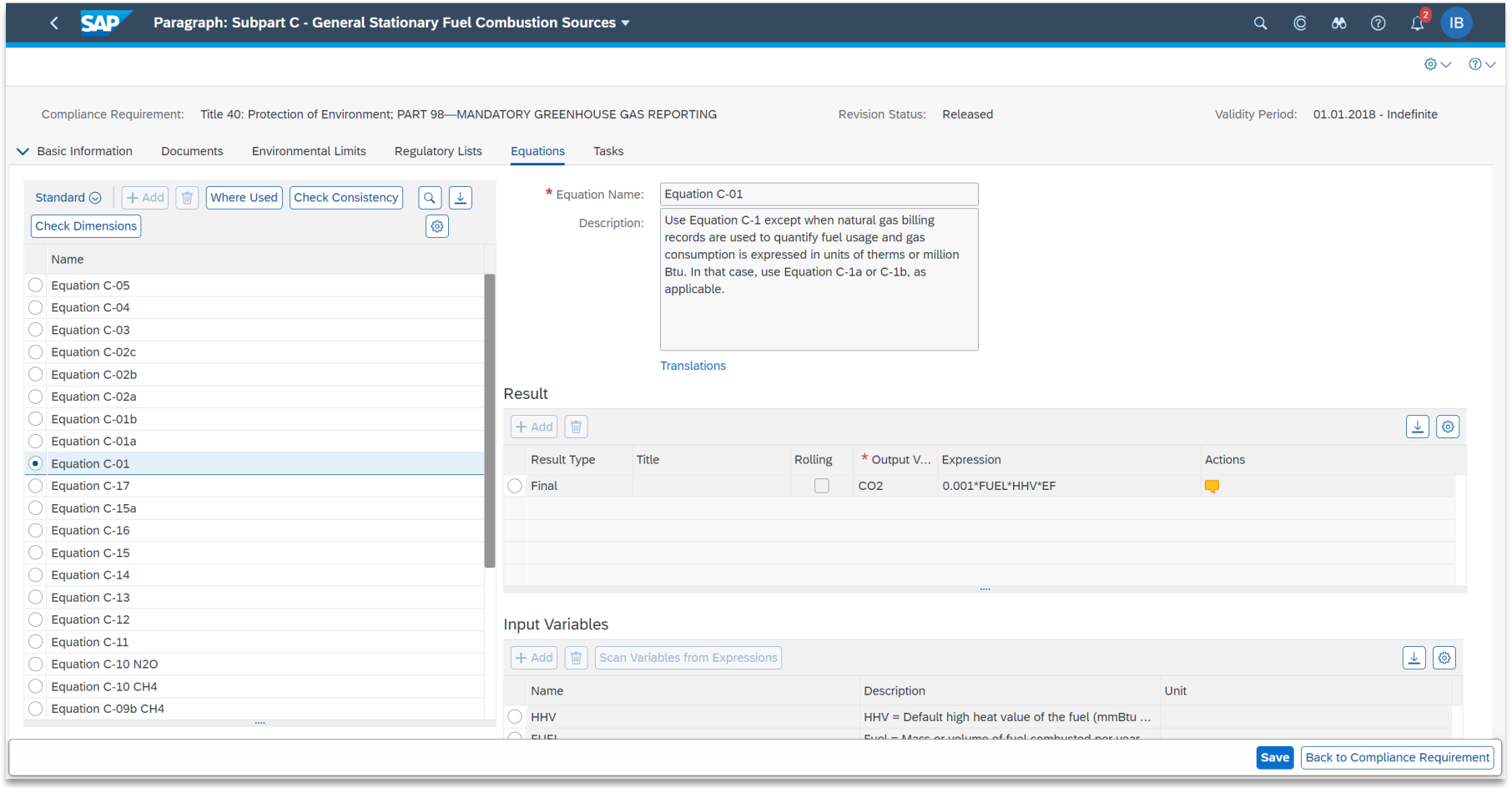
Calculate GHG Emission Values





Equations can be defined within the compliance requirement and can be used for calculating emissions for one or more locations.

Predefined equation library for certain country/region are available out of the box.

Regulatory list such as emission factors can be stored and used for emission calculation.

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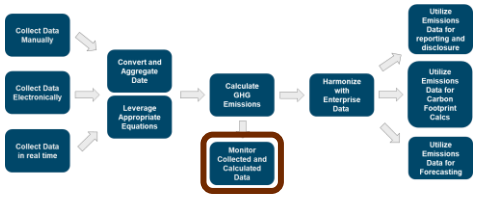
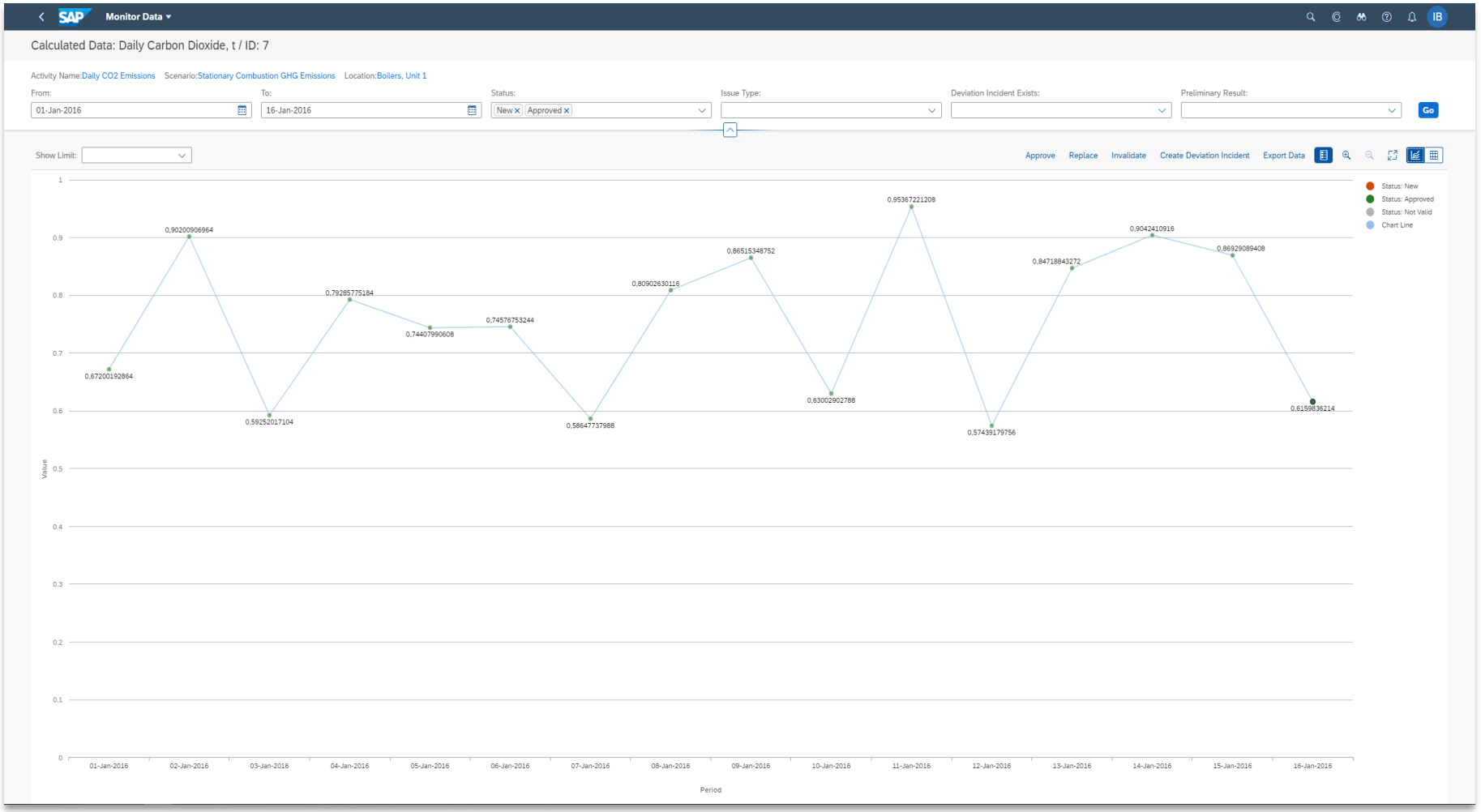
GHG Emission Monitoring





Collected activity data and calculated emissions data can be monitored with Monitor Data app.

The data can be visually displayed if validation limits are configured.

User can Approve, Replace, Invalidate, Create Deviation for warning/exceeded data.

Data can be imported as well using MS Excel within Monitor Data App

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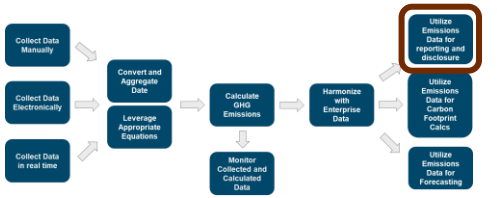
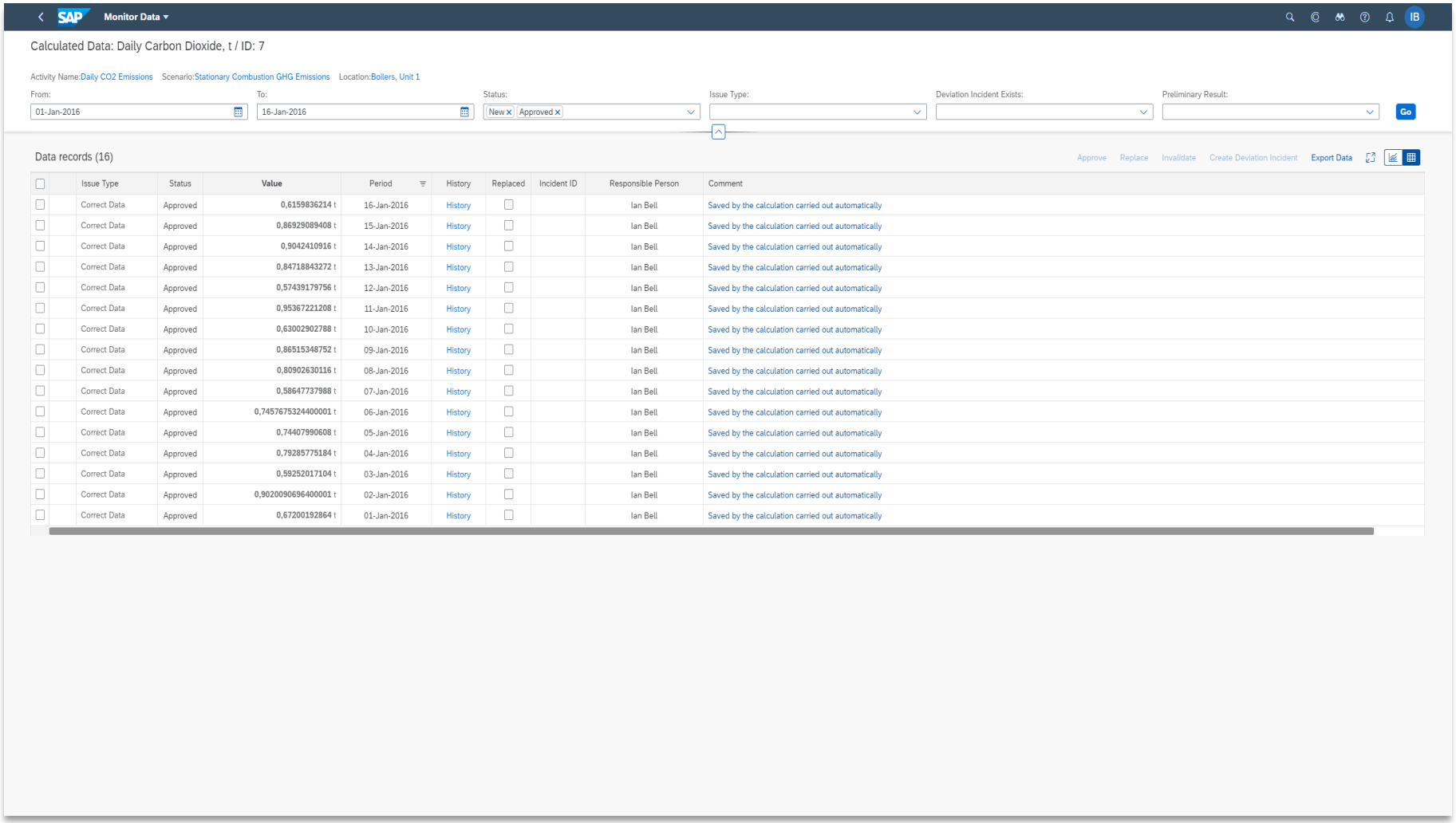
Utilize GHG Emissions results for reporting





Issue Type	Status	Value	Period	History	Replaced	Incident ID	Responsible Person	Comment
Correct Data	Approved	0,6159836214 t	16-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,86929089408 t	15-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,9042410916 t	14-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,84718843272 t	13-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,57439179756 t	12-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,95367221208 t	11-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,63002902788 t	10-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,86515348752 t	09-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,80902630116 t	08-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,58647737988 t	07-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,7457675324400001 t	06-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,74407990608 t	05-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,79285775184 t	04-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,59252017104 t	03-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,9020090696400001 t	02-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically
Correct Data	Approved	0,67200192864 t	01-Jan-2016	History			Ian Bell	Saved by the calculation carried out automatically

Environmental manager can query collected and calculated data.

Data can be verified and analyzed as well as exported to tools such as MS Excel for reporting

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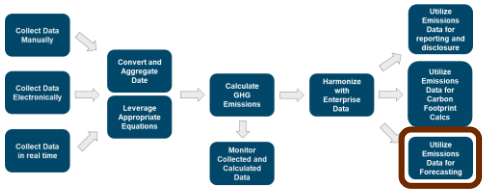
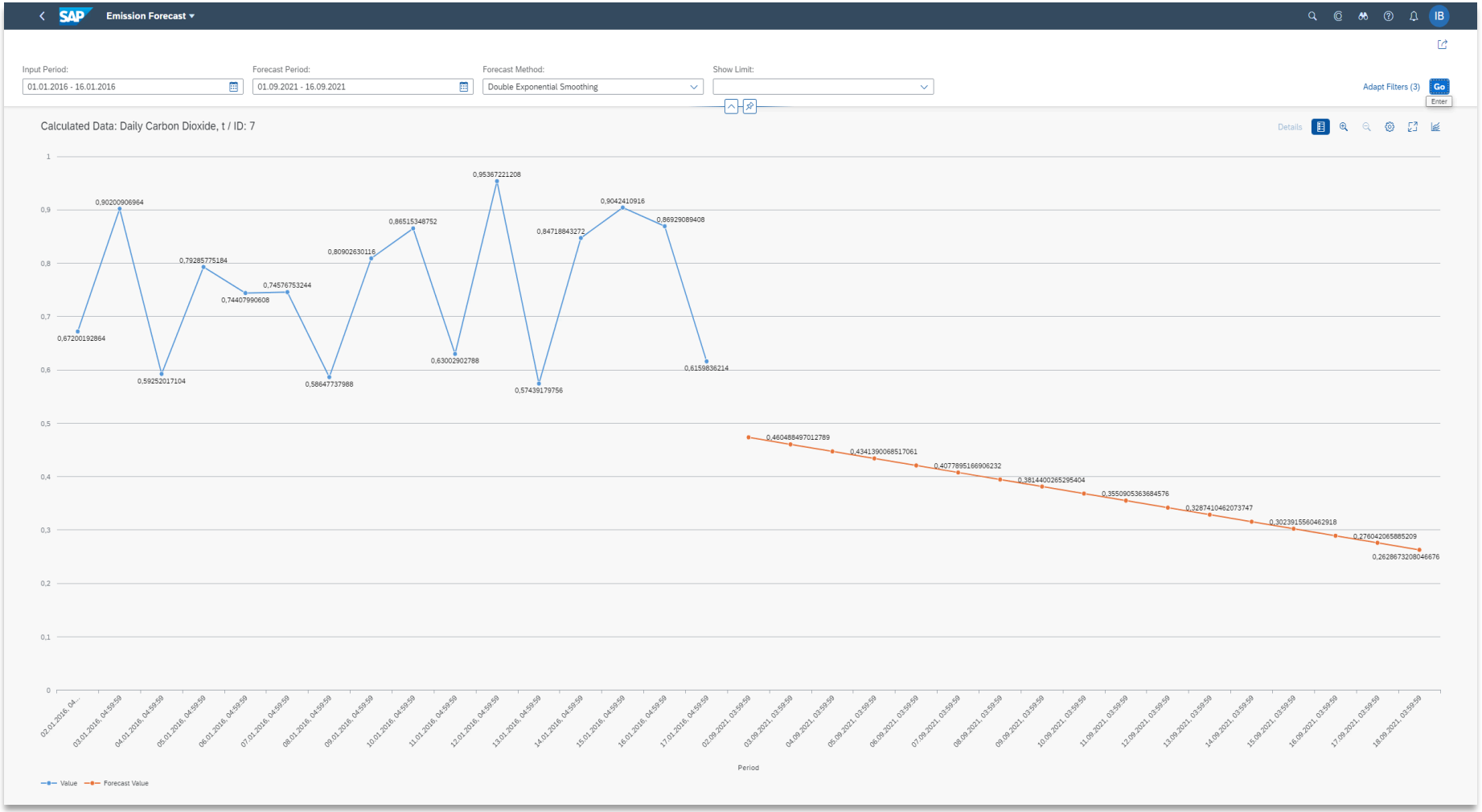
Utilize GHG Emissions data for Forecasting





Historical data can be leveraged to predict/forecast future period data.

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Solution Scope - Calculations and Content

Scope 1	**Calculations for direct Emissions from facility owned assets and operations/services**
Scope 2	**Calculations for emissions based on consumption of purchased energy**
Scope 3	**SAP Environment Management can currently support the following listed categories in GREEN without major modifications. Other categories will be evaluated as customer requirements are communicated in the field** **1. Purchased Goods and Services (Spend Method)** **2. Capital Goods** **3. Fuel and energy related activities (not included in scope1 and scope2)** **4. Upstream transportation and distribution** **5. Waste generated in operations** **6. Business travel** **7. Employee commuting** **8. Upstream leased assets** **9. Downstream transportation and distribution** **10. Processing of sold products** **11. Use of sold products** **12. End of life treatment of sold products** **13. Downstream leased assets.** **14. Franchises** **15. Investments**

Evaluation based on:
GHG Protocol
GHG Protocol - Corporate Value Chain (Scope 3) Accounting & Reporing Standard

Note: EHS-EM is focused first on overall corporate emissions. For a view of emissions based on product, EM is planned to be a source of emissions data for the Product Footprint Management solution that SAP is planning to release later in 2021.

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Solution Scope - Calculations and Content

USA	**USA Part 98—Mandatory Greenhouse Gas Reporting with Oil & Gas focus** • Subpart A - General Provision • Subpart C - General Stationary Fuel Combustion Sources • Subpart W - Petroleum and Natural Gas Systems • Subpart UU - Injection of Carbon Dioxide • Subpart NN - Suppliers of Natural Gas and Natural Gas Liquids • Subpart RR - Geologic Sequestration of Carbon Dioxide • Predefined Equations for GHG Calculations based on 40 CFR Part 98, Subpart C
USA	**AP-42 Compilation of Air Emissions Factors Compliance Requirement** • Chapter 7 - Liquid Storage Tanks • Boiling point • Molecular weight • Liquid density • Vapor pressure at 40, 50, 60, 70, 80, 90, 1000F • Vapor pressure equation constants for organic liquids A, B, C (Antoine coefficients)
Australia	**Australian National Greenhouse Accounts** • Energy – Emission factors in Table 1, 2 and 3 • Appendix 1 - Greenhouse Gas Global Warming Potentials • Appendix 3 – Carbon content factors for fuels
EU	**EMEP/EEA air pollutant emission inventory guidebook 2016 - Regulatory lists with Emission Factors for sectors** • Petroleum refining (1.a.1.b) • Manufacturing of solid fuels and other energy industries (1.a.1.c) • Commercial institutional stationary (1.a.4.a.i) • Fugitive emissions from solid fuels - coal mining and handling (1.a.4.a.i) • Fugitive emissions oil refining storage (1.b.2.a.iv) • Distribution of oil products (1.b.2.a.v) • Chemical industry other (2.b.10.a) • Chemical products (2.d.3.g)
IPCC	**Fifth Assessment Report of the Intergovernmental Panel on Climate Change (AR5)** • Chapter 8 Anthropogenic and Natural Radiative Forcing – Global Warming Potential, Table 8.A.1

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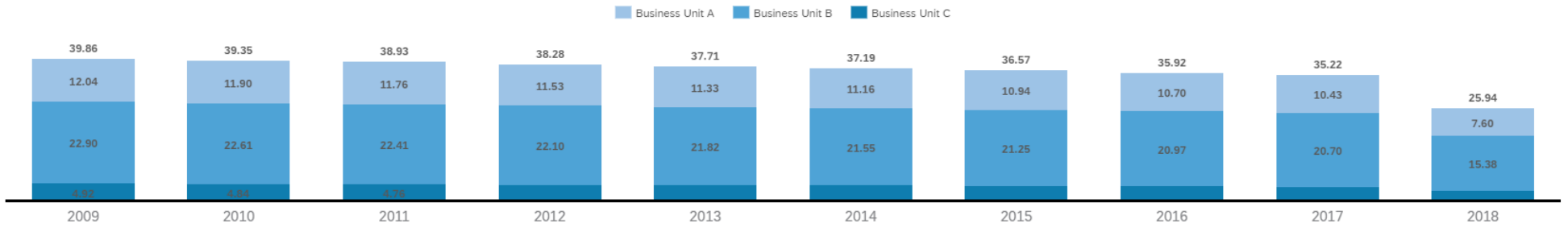
Solution Approach – Outputs using SAP Analytics Cloud

Business Unit
- All
- Business Unit A
- Business Unit B
- Business Unit C

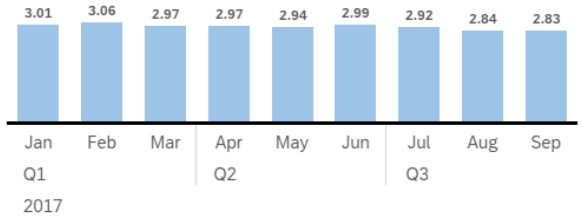
Yearly Greenhouse Gas Emissions in CO2e by Business Unit (A = Upstream, B=Downstream, C= Chemicals)

in Mte



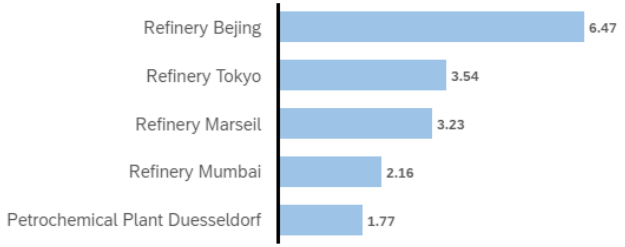
Monthly Emissions in CO2e

2017 YTD | in Mte



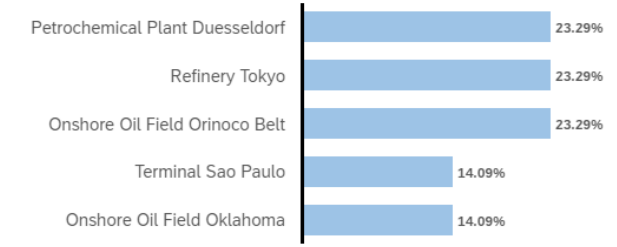
Top 5 Locations by Total Emissions in CO2e

2017 YTD | in Mte

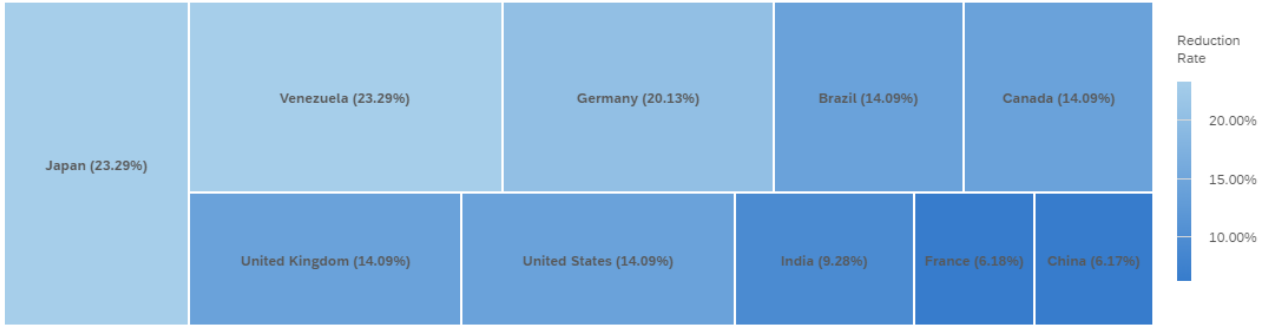


Top 5 Locations by Reduction Rate

Last 12 Months | in %

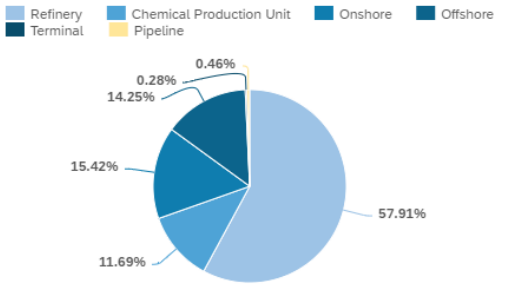


10 Year Reduction Rates by Country



Emissions by EHS Location Type in CO2e

Last 12 Months | as %



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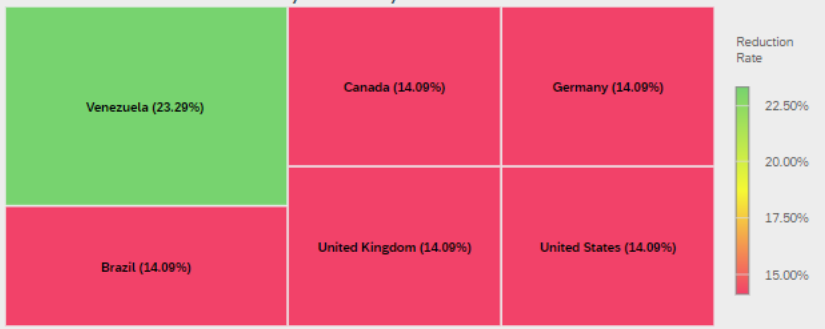
New features are available. Check them out.

Business Area

- All
- Business Unit A
- Business Unit B
- Business Unit C

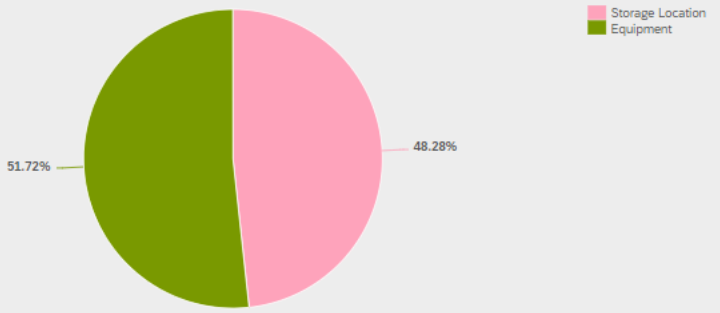
Show Inactive Values (2)

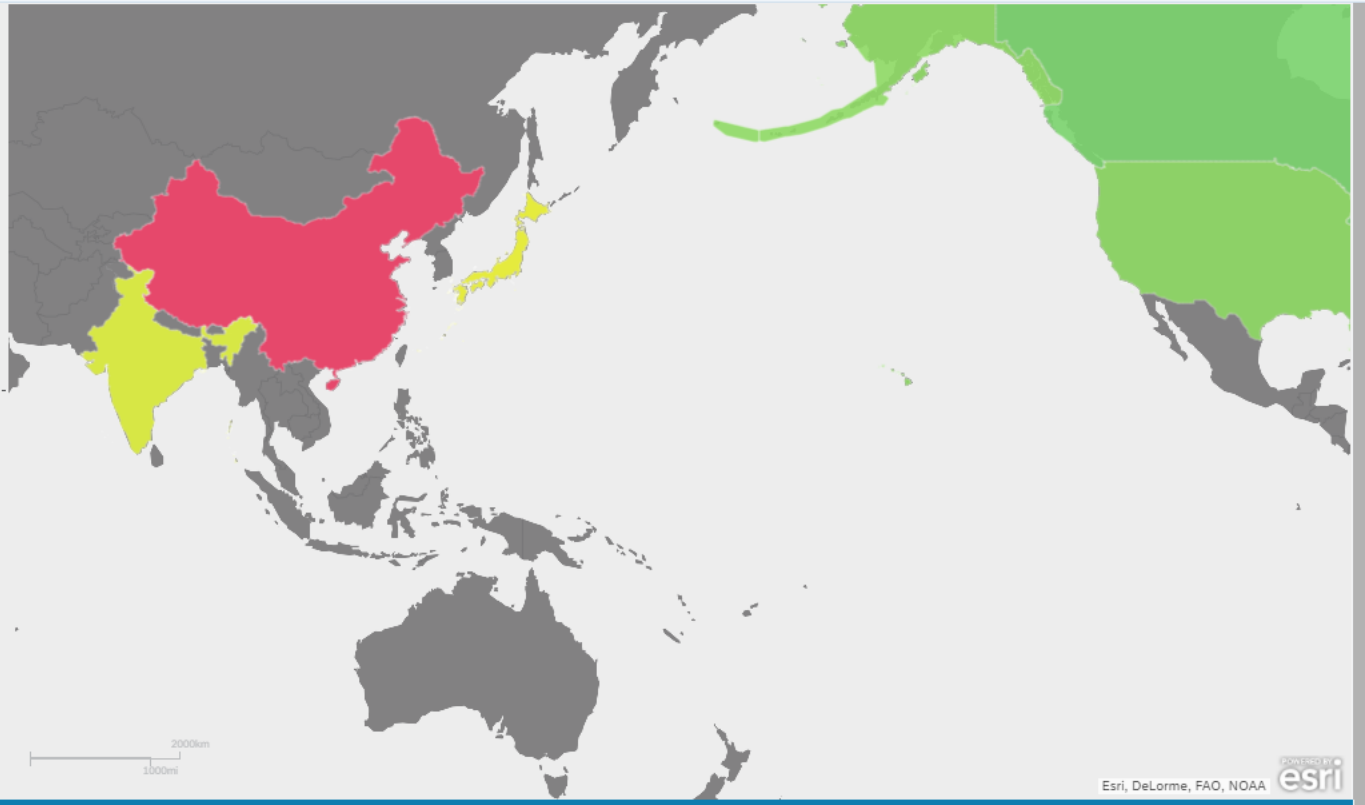
10 Year Reduction Rates by Country



Emissions by EHS Location Type in CO2e

Last 12 Months | as %

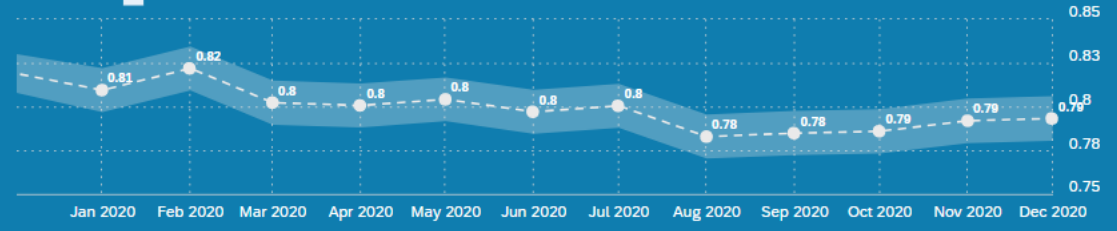




Monthly Emissions in CO2e

2018 YTD | in Mte

1M 3M 6M YTD 1Y All

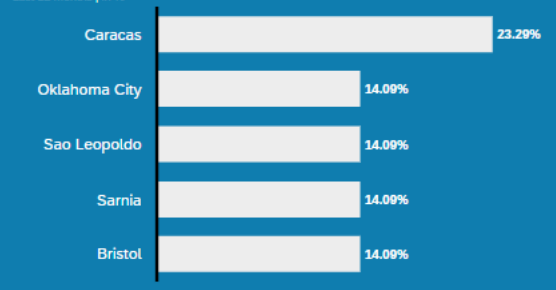


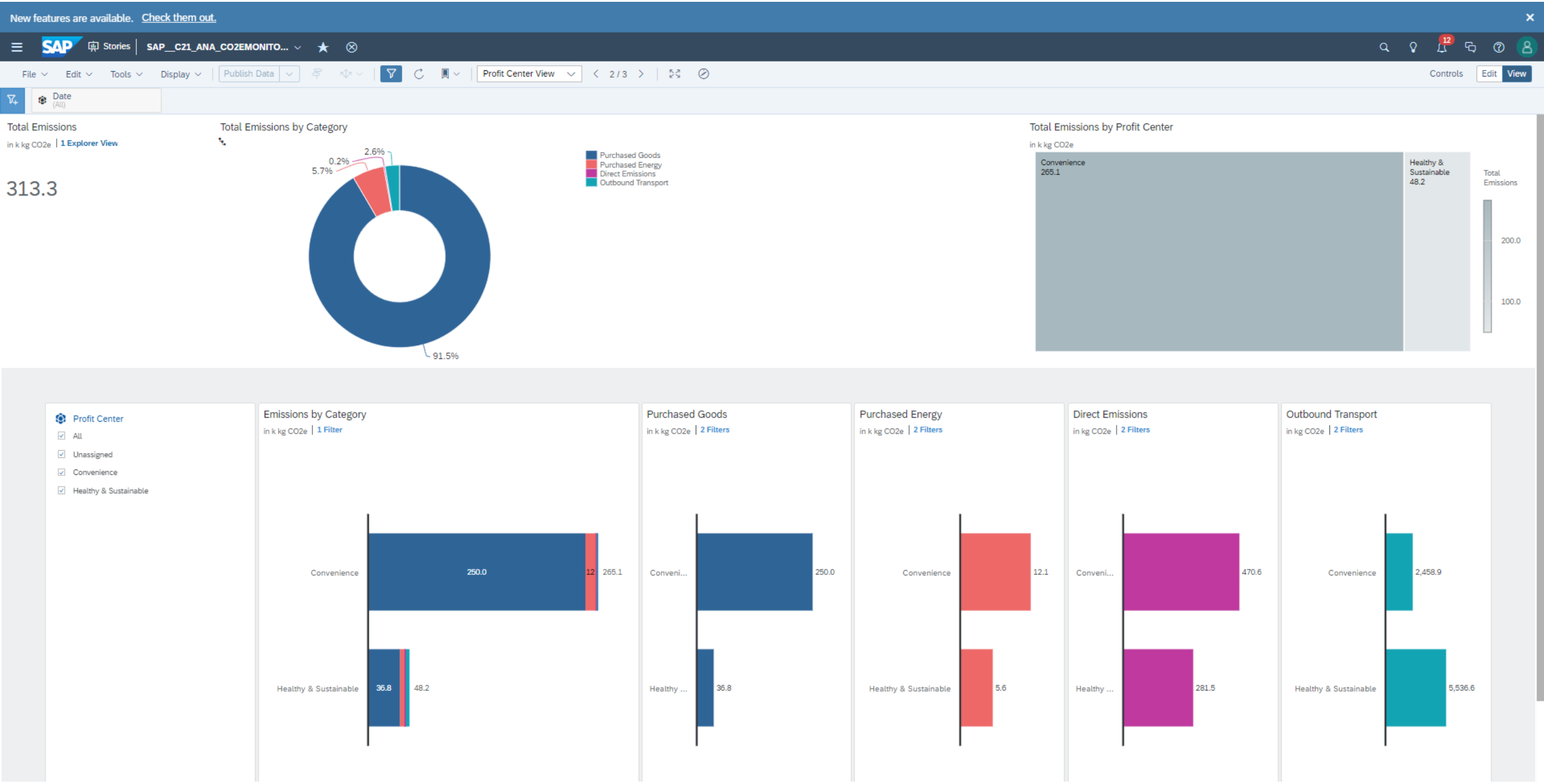
Top 5 Locations by Total Emissions in CO2e

2018 YTD | in Mte

Top 5 Locations by Reduction Rate

Last 12 Months | in %





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EHS & Sustainability on the Intelligent Enterprise

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Rizing EHS Services Overview

RIZING

Leading global SAP® professional services companies

SAP®

Established in **2012**

RIZING

EAM | GEOSPATIAL | HCM | CONSUMER INDUSTRIES

1250 +

employees worldwide

Environment, Health, and Safety Services

Design & Consulting

Implementation

Maintenance & Support

Workplace Health and Safety are top priorities our customers. Rizing has deep industry expertise and can guide you to EHS optimization for stronger employee and workplace safety.

NOTABLE CUSTOMERS

Endeavour Energy

agl

Sempra Energy®

METRO®

SOUTHERN CALIFORNIA EDISON®

Newport News Shipbuilding
A Division of Huntington Ingalls Industries

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Our unique services and solutions for **EHS & Sustainability**

RIZING

SAP EHS SOLUTION COVERAGE

- SAP S/4 HANA
- SAP Environment, Health, and Safety
- Incident Management
- Operational Risk Assessment
- Management of Change
- Audit Management
- Managing Chemicals for Health and Safety
- Workplace Sampling and Industrial Hygiene
- Regulatory and Permit Compliance
- Emissions Management
- Maintenance Safety and Permit to Work
- SAP Analytics Cloud for EHS

SAP EHS SERVICES

- Improvement Assessments
- Data and Process Health Check
- Full Cycle Projects
- Optimization Projects
- Process and ISO45001 Alignment
- Analytics and Reporting
- Training and Workshops

EHS CONSULTING

- Health and Safety Management Standard– ISO 45001
- Business Case and Value Realization
- Roadmap Development
- Business Process and Change Management

ADVANCED ANALYTICS

- SAP Core Data Services CDS Views
- SAP Analytics Cloud
- Real Time Dashboards
- Machine Learning
- Predictive Analytics

ESG & SUSTAINABILITY

- Collecting and tracking ESG and Sustainability KPIS that relates to Environmental, Social, Governments and Sustainability
- UN-SDG Data Collection Calculation Tracking and Recording
- Carbon footprint tracking and analytics

Available on SAP Store

Hydrogen

Hydrogen is an SAP Fiori application that provides an intuitive role-based SAP EAM user experience across devices. It is fully functional offline to support maintenance activities and data collection.

Hydrogen Dynamic Forms provide mobile interfaces for front-line users with configurable back-end fields directly tied to SAP Master Data Sources.

Proactive Assessments

Industry Best Practice Advisors
Review of EHS Process and Issues
Solution Demonstration
Propose Solution Roadmap

IMPLEMENTATION

Solution Design
Process Consultation
Configuration
Implementation

MAINTENANCE & SUPPORT

Ongoing Customer Care
Routine Enhancements
SAP Product Team Alignment

EHS INDUSTRY OUTREACH

SAP User Groups
Webinars
Safety Conferences
Accelerated Learning Events

Learn more about Rizing's Environment, Health, and Safety Services at www.rizing.com

Solution Offerings for **EHS**

Drawing from years of client experience of managing Environment, Health, Safety, and Sustainability program globally, the Rizing team of experts has developed a set of **solution offerings** designed specifically for increasing safety and compliance, while accelerating your business value with SAP and improving user experiences.

RIZING OFFERINGS	BASE EHS PACKAGE	EXTENDED EHS PACKAGE	MANAGEMENT OF CHANGE (MOC)	SUSTAINABILITY WITH ENVIRONMENT MANAGEMENT (EM) AND SAC	COMPREHENSIVE EHS & SUSTAINABILITY ASSESSMENT
	A Base EHS Solution that amplify your organization. Effectively manage occupational health, industrial hygiene, and the overall safety of employees, products, and the organization.	An extended EHS Solution that amplify your organization. Embed and execute processes that Monitor, Mitigate, and Respond to COVID-19 Implications.	Provide system to execute and monitor change effectively within an organization so it does not lead to unknown or uncontrolled operational risk. • Reduce risk of environmental non-compliance and penalties • Ensure license to operate • Improved calculation accuracy and transparency	Provide system to track sustainability with Environment Management • Store and track compliance tasks and calculate emissions designated by Regulatory Permits, Policies, and internal procedures • Respond to deviation events • Visualize real-time data and analytics	• Review EHS processes, configuration, and development • Identify current business process, challenges, desired future state • Propose Solution Roadmap based on solution recommendations and industry best practices
SAP Modules	• Incident Management • SAP Analytics Cloud	• Incident Management • SAP Analytics Cloud • Risk Management • Occupational Health	• MOC • EAM • Risk Assessment	• Environment Management • SAC	• Solutions are unique to each engagement.
Engagement Duration	• 8 weeks	• 12 weeks	• 12 weeks	• 8 weeks	• 2 to 8 weeks

RIZING & SAP: INCREASE ENVIRONMENT, HEALTH, AND SAFETY COMPLIANCE WHILE MITIGATING RISKS

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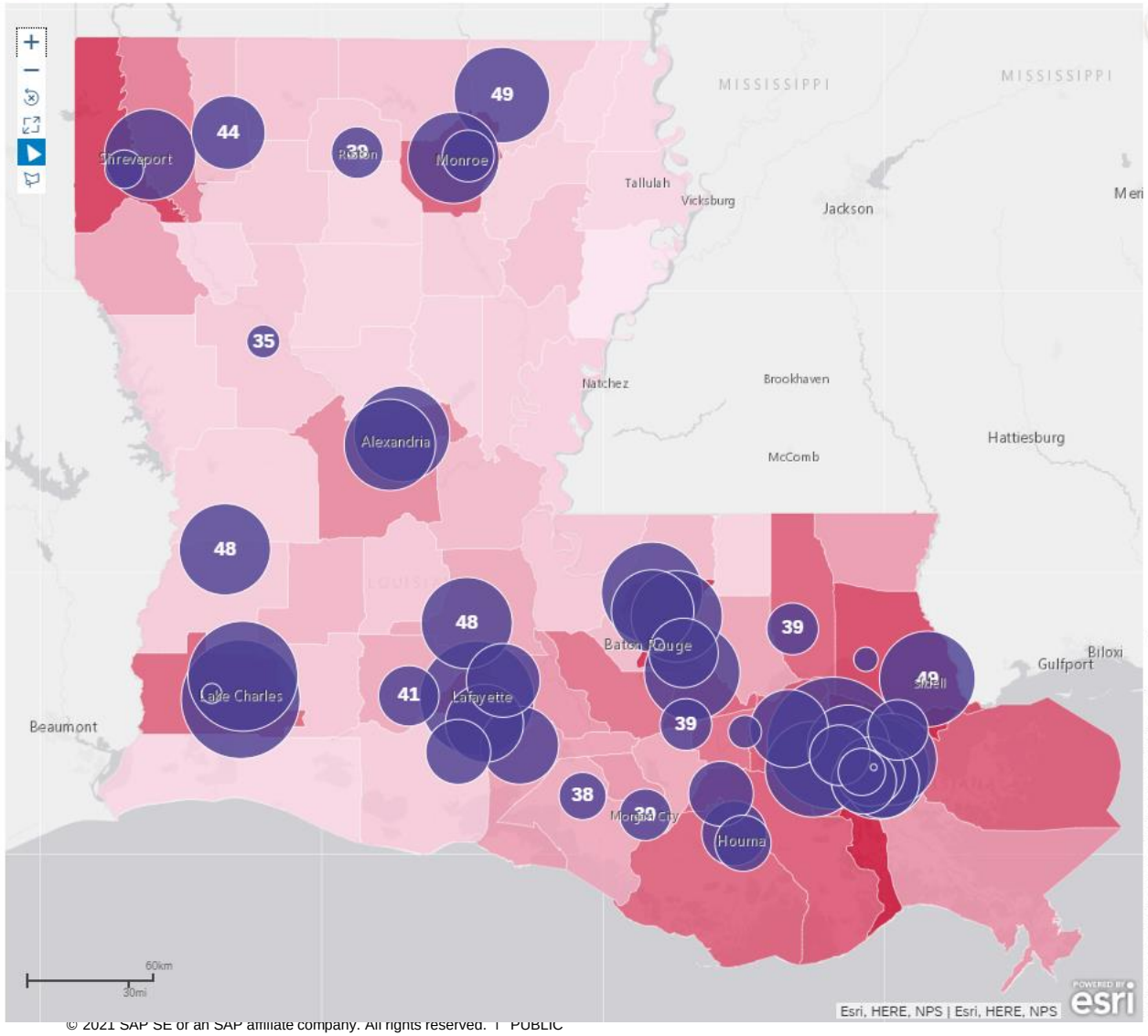

Line of Business
- Distribution
- Generation
- Transmission

WO Category
- All
- Corrective
- Preventative

Priority
- All
- High
- Standard

Show Inactive Values (1) Show Inactive Values

Basic Start Date Range Filter

2019 2020 2021 2022

2019 Jan to 2021 Dec

Basic Finish Date Range Filter

2019 2020 2021 2022

2019 May to 2021 Dec

Workorder Table

WO ID	Line of Business	WO Category	Priority	Basic Start Date	Basic Finish Date	Account	Planned Cost
100002496	Distribution	Preventative	Standard	Feb 21, 2020 (2020)	Feb 21, 2020 (2020)		72.00
100002651	Distribution	Preventative	Standard	Jan 25, 2020 (2020)	Jan 25, 2020 (2020)		0.00
100002653	Distribution	Preventative	Standard	Jan 12, 2020 (2020)	Jan 12, 2020 (2020)		0.00
100002654	Distribution	Preventative	Standard	Jan 10, 2020 (2020)	Jan 10, 2020 (2020)		0.00
100002655	Distribution	Preventative	Standard	Jan 25, 2020 (2020)	Jan 25, 2020 (2020)		0.00
100002658	Distribution	Preventative	Standard	Mar 2, 2020 (2020)	Mar 2, 2020 (2020)		18.00
100002659	Distribution	Preventative	Standard	Mar 2, 2020 (2020)	Mar 2, 2020 (2020)		18.00
100002668	Distribution	Preventative	Standard	Jan 12, 2020 (2020)	Jan 12, 2020 (2020)		0.00
100002669	Distribution	Preventative	Standard	Jan 10, 2020 (2020)	Jan 10, 2020 (2020)		0.00
100002670	Distribution	Preventative	High	Jan 10, 2020 (2020)	Jan 10, 2020 (2020)		0.00
100002671	Distribution	Preventative	Standard	Jan 10, 2020 (2020)	Jan 10, 2020 (2020)		0.00
100002682	Distribution	Preventative	Standard	Dec 12, 2019 (2019)	Dec 12, 2019 (2019)		17.50
100002683	Distribution	Preventative	Standard	Dec 12, 2019 (2019)	Dec 12, 2019 (2019)		17.50
100002684	Distribution	Preventative	Standard	Dec 12, 2019 (2019)	Dec 12, 2019 (2019)		17.50

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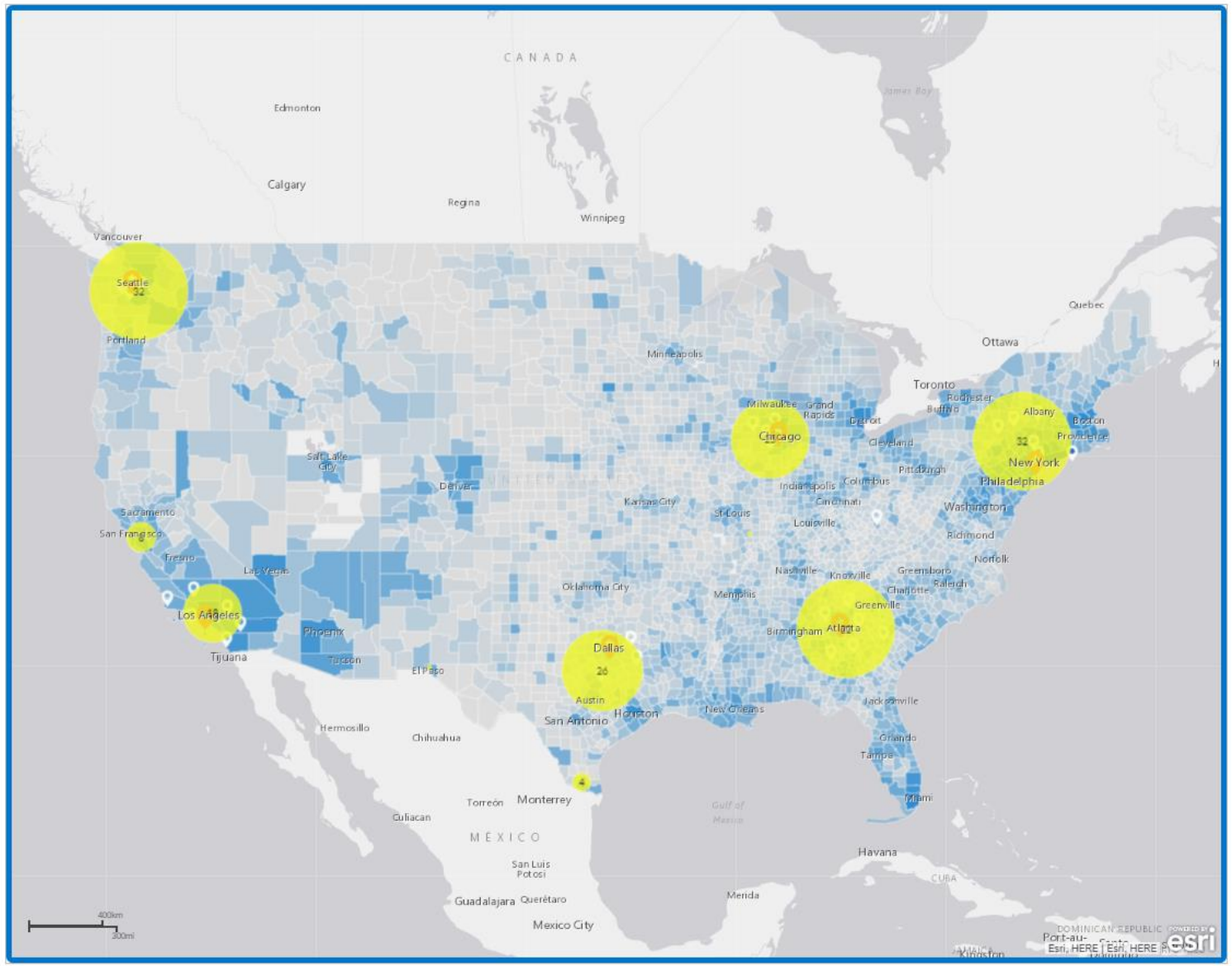

Line of Business

- Distribution
- Generation
- Transmission

WO Category

- All
- Corrective
- Preventative

Show Inactive Values (1)

WO Priority

- All
- High
- Standard

Show Inactive Values

Overdue

- All
- Unassigned
- Y

Show Inactive Values

WO Status

- All
- Unassigned
- Complete

Show Inactive Values

Start Date Range Filter

2019 | 2020 | 2021

2019 Jan to 2021 Dec

Finish Date Range Filter

2019 | 2020 | 2021

2019 May to 2021 Dec

Workorder Table

WO ID	Line of Business	WO Category	WO Priority	WO Status	Start Date	Finish Da
100009231	Distribution	Corrective	Standard	Complete	May 28, 2019 (2019)	May 28, 2
100061555	Distribution	Corrective	Standard	Complete	Jan 31, 2020 (2020)	Jan 31, 20
100061556	Distribution	Corrective	High	Complete	Jan 31, 2020 (2020)	Jan 31, 20
100066926	Distribution	Corrective	Standard	Complete	Aug 7, 2019 (2019)	Aug 8, 201
100096717	Distribution	Corrective	High	Complete	Jan 31, 2020 (2020)	Jan 31, 20
100103221	Distribution	Corrective	High	Complete	Nov 6, 2019 (2019)	Nov 6, 201
100115419	Distribution	Corrective	Standard	Complete	Oct 10, 2019 (2019)	Oct 10, 20
100115460	Distribution	Corrective	Standard	Complete	Oct 10, 2019 (2019)	Oct 10, 20
100129324	Distribution	Corrective	High	Complete	Jan 31, 2020 (2020)	Jan 31, 20
100129589	Distribution	Corrective	Standard	Complete	Dec 5, 2019 (2019)	Dec 5, 201
100147804	Distribution	Corrective	Standard	Complete	Nov 11, 2019 (2019)	Nov 11, 20
100148005	Distribution	Corrective	Standard	Complete	Nov 12, 2019 (2019)	Nov 12, 20
100148063	Distribution	Corrective	Standard	Complete	Nov 12, 2019 (2019)	Nov 12, 20
100152075	Distribution	Corrective	Standard	Complete	Nov 20, 2019 (2019)	Dec 3, 201
100153152	Distribution	Corrective	Standard	Complete	Nov 20, 2019 (2019)	Nov 20, 20

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Operations

Year End Forecast (vsBudget)

in m | 1 Variance

22.15 m (-3.24%)

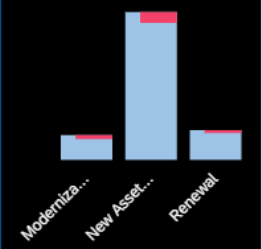
Active Project Cost To Date (vs Budget)

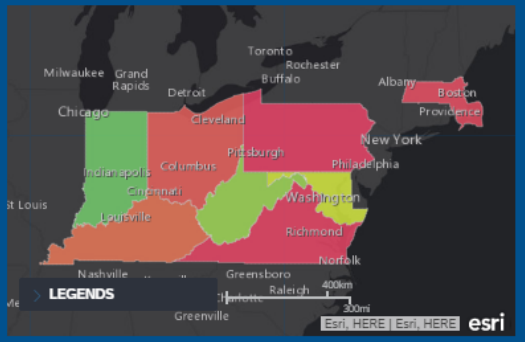
1 Filter | 1 Variance

19.84 m (+6.3%)

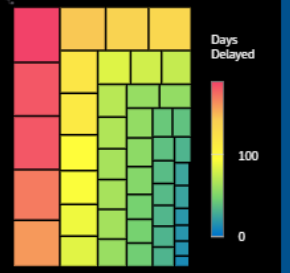
Project Cost

1 Filter | 1 Variance





Days Delayed per Project Name ...



Safety

Incident Rate

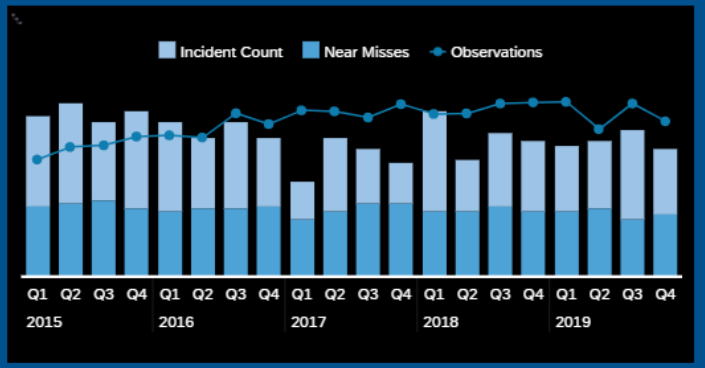
1.29 (-0.07)

Δ 2018

DART Rate

0.78 (-0.06)

Δ 2018



Incidents by Location

Finance

Electric Latest Month Revenue

2 Filters 1 Variance

97.2 m (+5.0%)

Δ 2018 Aug

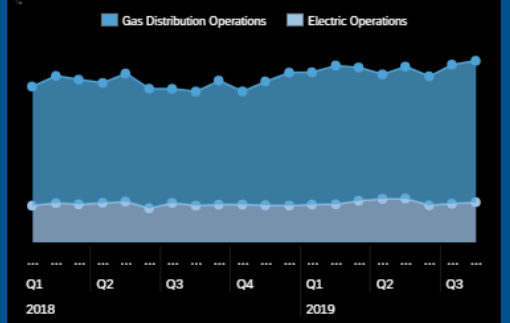
Gas Distribution Latest Month Revenue

in m | 2 Filters | 1 Variance

191.5 m (+0.2%)

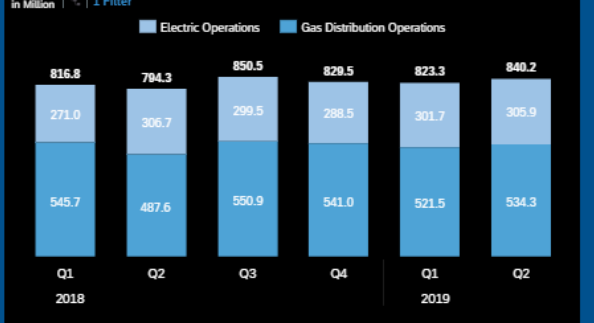
Δ 2018 Aug

Operating Cost per Division



Revenue Per Division

in Million | 1 Filter



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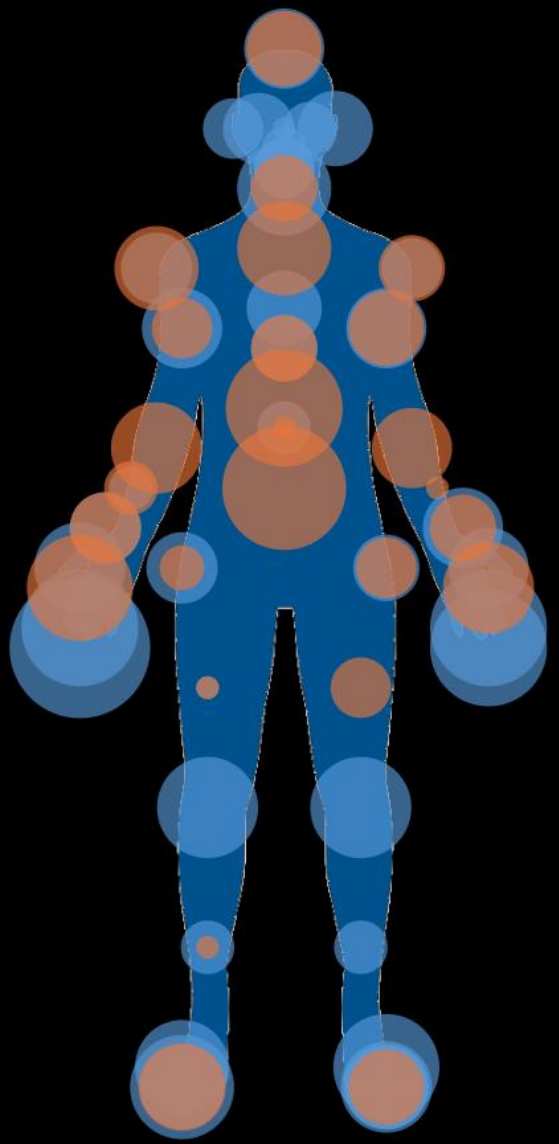
Front Back

Front-Back
- Back
- Front

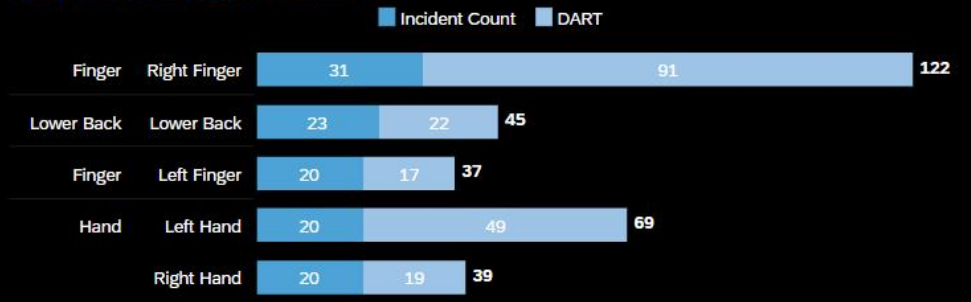
Upper-Lower
- Lower
- Upper

Side
- All
- Center
- Left
- Right



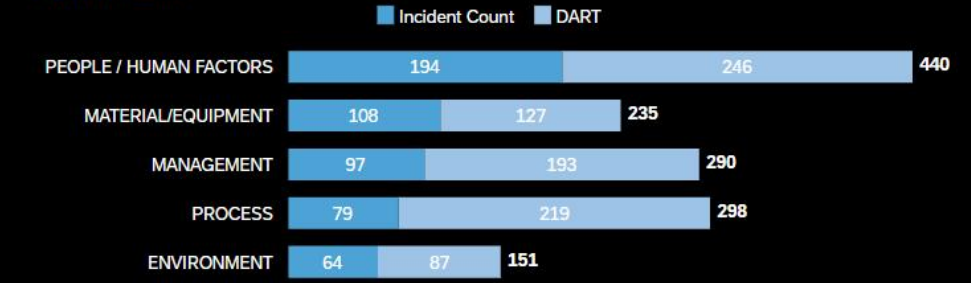
Incidents and DART by Body Part

Top 5 (Incident Count) | Explorer Available



Incidents and DART by Root Cause

Explorer Available

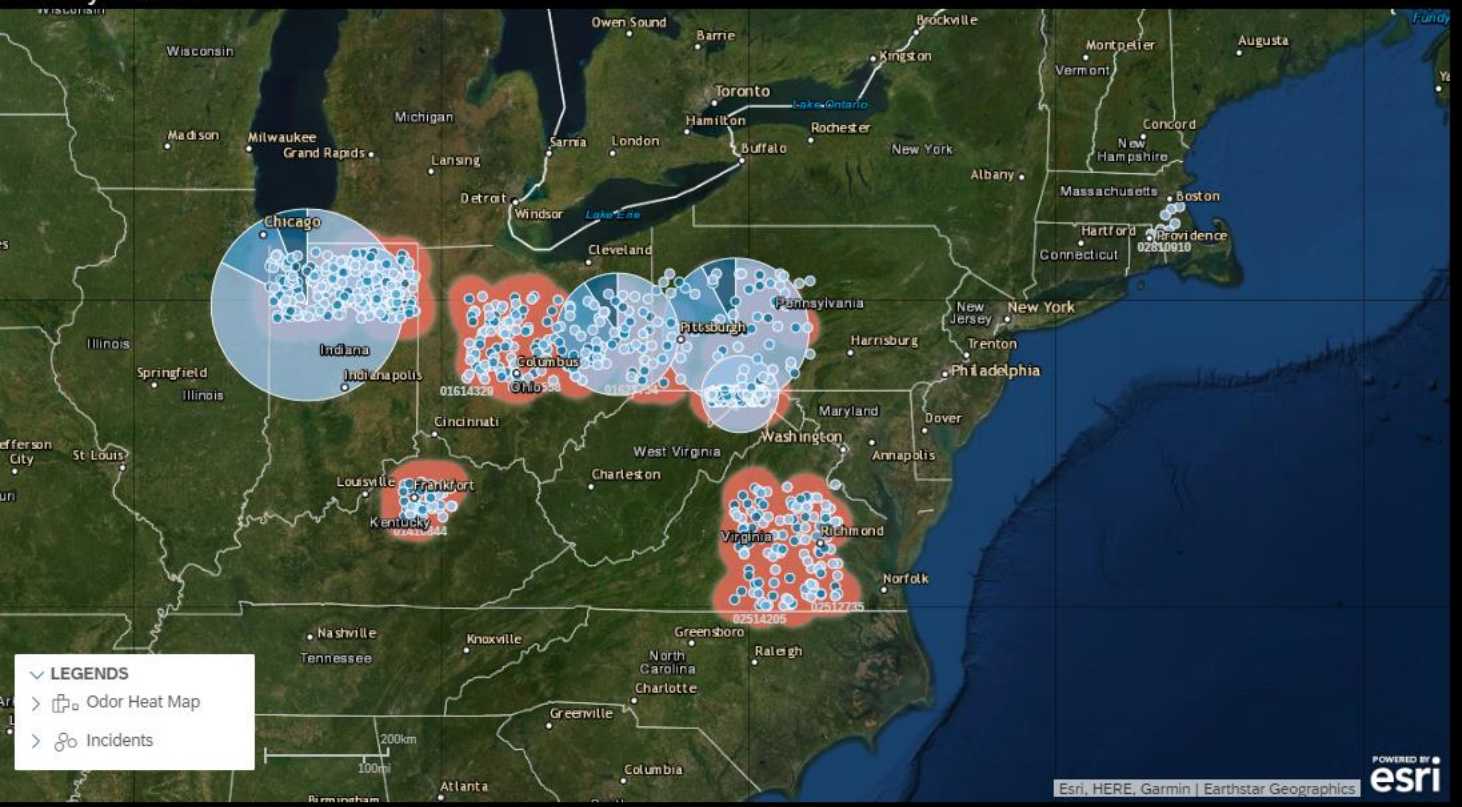


Incident Detail

Navigate to External URL

Body Part	Root Cause
Mouth	Asbestos exposure
Middle Back	Other
Left Sole of Foot	Impaired hearing
Left Back of Hand	Inadequate / lack of housekeeping
Lower Back	Mould exposure
Lower Back	Inadequate / lack of job knowledge
Left Wrist	Job procedures / safe work practices not followed
Right Hand	Training material incorrect
Neck	Inadequate / lack of safety procedures

Alerts by Location



High Pressure Alerts (>67 PSI)

12 (-5)

Δ 2018

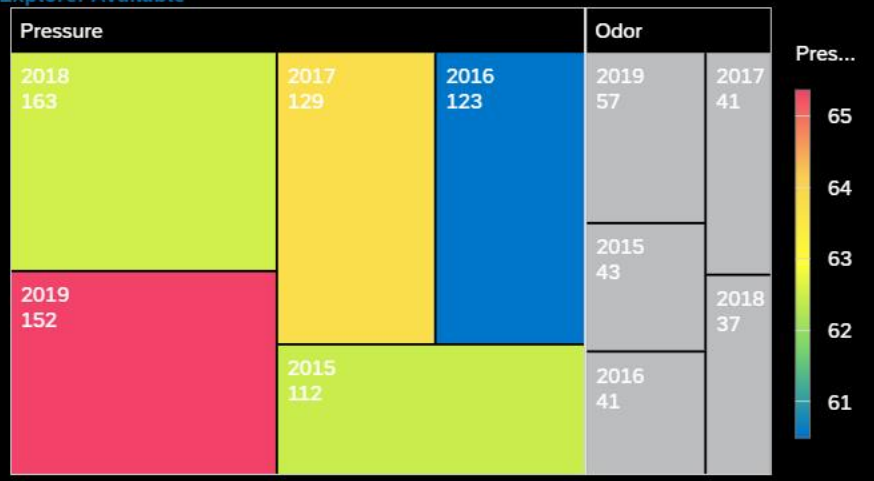
Odor Alerts

57 (+20)

Δ 2018

Preasure and Odor Events

Explorer Available



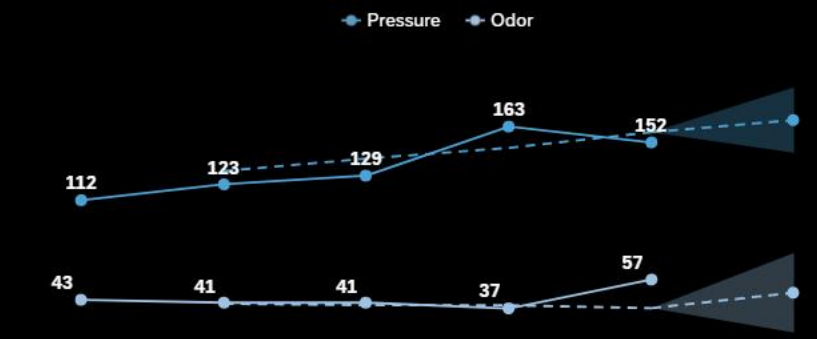
NiSource_EHS_Gas_Distribution_Alerts

1

Region	Main ID	Year	Event Type	Pressure Level	Account	Pressure Lvl
	01410844	2018	Pressure	Very High		68.00
	01412032	2018	Pressure	High		64.00
	01412537	2019	Pressure	High		65.00
	01413725	2018	Pressure	High		66.00
	01414108	2018	Pressure	High		65.00
	01414161	2016	Pressure	Low		45.00
	01418443	2019	Pressure	Low		33.00

Gas Distribution Alerts Over Time

Forecast



Solution Benefits

The combination of the calculation and forecasting engine within SAP EHS Environment Management with analytical outputs from SAP Analytics Cloud provides an end-to-end solution for tracking GHG emissions integrated with business processes across the enterprise.

Corporate

- Real-time visibility into the enterprise for better insight into reducing energy usage and carbon emissions
- Reduced risk of non-compliance
- Primary source of emissions data that can be provided for overall corporate sustainability reporting and carbon credit accounting

EHS Practitioner

- Real time analytical reporting across all processes
- Direct integration to sources of truth for equipment, locations, people, and chemicals
- Flexible calculations engine to model and forecast plant-specific processes and resulting emissions

Operations

- Empowerment to drive reductions in carbon emissions and improve sustainability performance

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RHI Magnesita

Challenges and Opportunities

- RHIM was looking for a replacement for their existing emission management application.
- Key drivers for the replacement was to get a robust solution which will support the data gathering for emission including the related business processes. An efficient and accurate way to collect the necessary data for calculations
- Moreover RHIM wanted to have a Carbon Accounting solution as part of the overall EHS implementation project. This should allow to set the basis for EU-ETS trading (9 accounts) as this was previously done manually via an excel solution.

Scope

- **SAP EHS Emissions Management** for reporting of CO2, SOx, NOx, Energy in accordance with regulations and company policies
  - Data gathering and aggregation
  - Comprehensive emission calculation and aggregation
  - Establishing one single source of truth for emission data for subsequent processes in the company

- **SAP EHS Emissions Management** plus project based enhancement for documentation and management of CO2e according to EU-ETS.
  - Managing Carbon Credit Accounts according to the CO2e credit allowances
  - Direct mapping of emissions to CO2e credits
  - Document and manage CO2 certificates transactions including transfers, external purchase / sell as well as returns or offsets.
  - Leveraging forecasting capabilities for adjusting carbon credit allocations on a corporate level

Benefits and Value

- Reduced effort and costs for data acquisition and calculation
- Improved accuracy and consistency of emission data
- Standardized process to establish a solid and reliable emission data
- Emission data is used as basis for subsequent calculations and also as main input to the CO2e EU-ETS.
- Auditable and robust management of CO2e certificates within one platform based on the calculated emissions

Company Info

RHI Magnesita N.V. provides refractory products, systems, and services. The Company mines, produces, and supplies refractory products for industrial high-temperature processes in the steel, non-ferrous, cement, and glass industries. RHI Magnesita serves customers worldwide.

Industry

Refractories

Products and Services

RHI Magnesita N.V. is a supplier of refractory products, systems and services.

Employees

14,000

External: Interview at the Hannover Messe 2021

External: Presentation at the SAP Sustainability Summit 2021

Please contact the SAP account team to make a reference request

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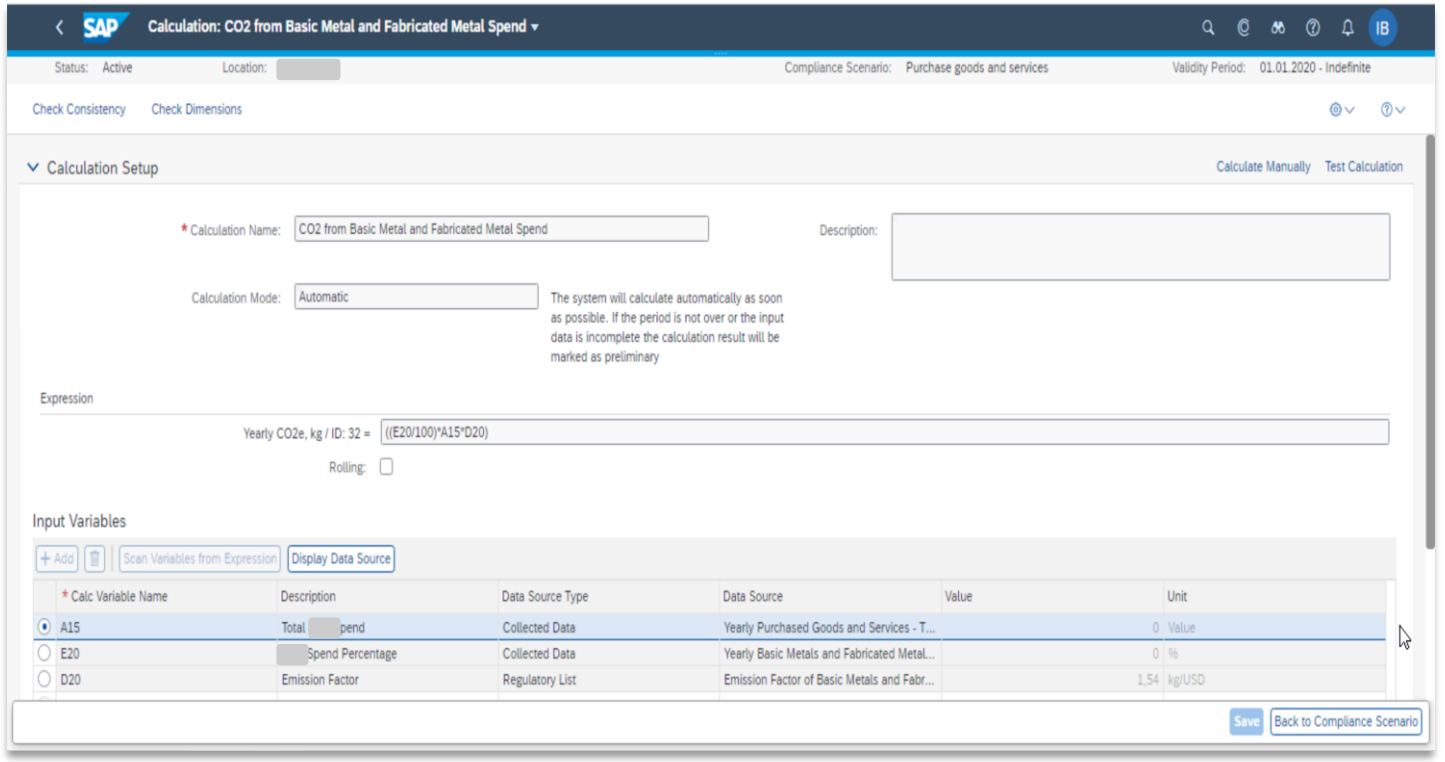
GHG Emissions Tracking at mining company in APJ

SAP is working with a large mining company in Australia to evaluate and map their Scope 1-2-3 greenhouse gas emissions to SAP functionality

Top priorities:

- *Calculate Scope 3 emissions resulting from outbound maritime shipping on chartered vessels*
- *Calculate all other transportation-related Scope 3 emissions*
- *Calculate Scope 3 emissions related to purchased goods/services, including fuel*



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Q & A Time

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Thank you.

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Sana.zaidi@rizing.com

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Intelligent Asset Management Live 2021 Environment, Health and Safety

3 August	EAM Foundation for Success Replay Available
5 August	Field Scheduling and Dispatching Replay Available
10 August	Intelligent Asset Management Update - What's New in 2021 Replay Available
12 August	Collaborative Asset Management Replay Available
17 August	Enterprise Portfolio and Project Management Replay Available
19 August	Visualise your Assets and Work on a Map Replay Available
24 August	EAM Reporting and Analytics Replay Available Soon
26 August	Environment, Health and Safety **This Session**

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