

Sustainability Strategy

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Public



Agenda

Agenda item/divider headline

- Details

Agenda item/divider headline

- Details

Agenda item/divider headline

- Details



Sustainable Mining and Metals Operations

Sustainable Mining and Metals Operations



Higher safety risk



Manage risk

Environmental and
product regulations



Enable effective
operations

Higher demand



Satisfy stakeholders

Be Successful



Support



Collaboration



Excellence

- Embrace safety and risk management
- Protect brand and revenue by ensuring product marketability and compliance
- Foster a culture of continuous improvement and support related endeavors with operational excellence

Environment, Health and Safety



Incident Management

Empowering every worker to communicate safety issues and enabling experts to respond, investigate, analyze, correct, prevent, and report incidents.

EHS Compliance and Risk Management

Identify operational risks and hazards; implement effective controls; develop and execute required occupational health, safety and environmental programs

Emissions and Waste Management

Manage air, water and waste emissions for voluntary or regulatory disclosure.

Management of Change

Make mine changes safer through automation and the use of approval processes, effective rules, risk assessments and the involvement of mining workers

Maintenance Safety and Permit to Work

Control hazardous situations such as high-voltage work, hot work, and confined-space entries

23%

Lower audit costs for organizations that standardize environment, health, and safety–related processes

Source: SAP Performance Benchmarking



Ongoing Investments and Customer Co-Innovation

Ongoing investment: EHS environment, health and safety and MOC innovations and roadmap – 5 releases in 3.5 years

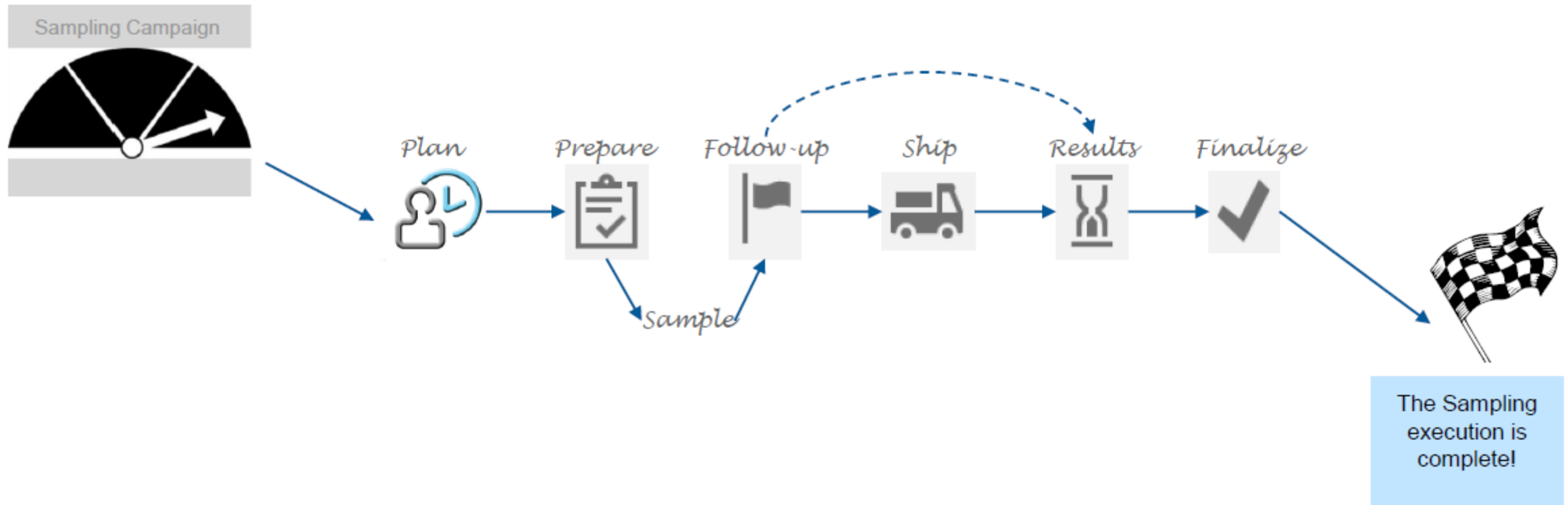
| Release | RTC* | Significant New Functionality |
|-----------------------|----------------------|---|
| EHSM 1.0 | Dec 2010 | <ul style="list-style-type: none"> Incident Management |
| EHSM 2.0 | Oct 2011 | <ul style="list-style-type: none"> Risk assessment <ul style="list-style-type: none"> 4 types (safety, health, environment, JHA) - risks, hazards, controls, configurable risk matrix IH amounts and OEL comparison |
| EHSM 3.0 EHSM 3.03 | Aug 2012 Apr 2013 | <ul style="list-style-type: none"> Similar Exposure Groups, Personal Exposure Profile Risk-based Health Surveillance Proposal with integration to OH or 3rd party |
| MOC 1.0 | Oct 2012 | <ul style="list-style-type: none"> Highly flexible and fully auditable tool for monitoring, implementing, and reporting changes |
| EHSM 4.0 | Jul 2013 | <ul style="list-style-type: none"> Risk-based controls inspections Chemical health and safety processes <ul style="list-style-type: none"> SDS approval, Hazcom, HazMat Inventory |
| EHSM 5.0 EHSM 5.01 | May 2014 Oct 2014 | <ul style="list-style-type: none"> Role-based homepages, Fiori apps, chem H&S (continued) Workplace Sampling |
| MOC 1.0x | 2015 planned | <ul style="list-style-type: none"> Usability and functional innovations |
| EHSM 6.0 | 2015 planned | <ul style="list-style-type: none"> Emissions, calculations, and reports |

*RTC = "Release to Customer" (General Availability is typically 6 months later)

Co-Innovation with Industry Leaders for SAP EHS Solutions



Recent Co-Innovation driven by Mining and Metals Industries Workplace Sampling



Improving the User Experience: Empowering the Frontline Worker

Web Screens

FIORI Apps

Interactive PDF

Mobile Apps

Improving the User Experience: Empowering the EHS Expert

Exposure Analysis - Risk Matrix

View: By Agent

| Actions | Regulation / Regulatory List | Value Type | Latest Amount | Current Limit | Result |
|----------------------------|------------------------------|------------|---------------|---------------|--------|
| Cyclohexane (Agent) | | | | | |
| ... | Directive 2000/15/EC | TWA | 500 mg/m3 | 700 mg/m3 | |
| ... | Directive 2000/15/EC | TWA | not available | 200 ppm | |
| Toluene (Agent) | | | | | |
| ... | Directive 2000/15/EC | STEL | requested | 350 mg/m3 | |
| ... | Directive 2000/15/EC | STEL | not available | 100 ppm | |
| ... | Directive 2000/15/EC | TWA | 165 mg/m3 | 182 mg/m3 | |
| ... | Directive 2000/15/EC | TWA | not available | 50 ppm | |
| Xylene (Agent) | | | | | |
| ... | DC TROS 900 | TWA | 165 mg/m3 | 440 mg/m3 | |
| ... | DC TROS 900 | TWA | not available | 100 ppm | |
| ... | Directive 2000/09/EC | STEL | not available | 100 ppm | |
| ... | Directive 2000/09/EC | STEL | not available | 442 mg/m3 | |
| ... | Directive 2000/09/EC | TWA | 165 mg/m3 | 221 mg/m3 | |
| ... | Directive 2000/09/EC | TWA | not available | 50 ppm | |

SAP Performance Business Client - Home

Overview Service Desk

Worklist: Incident Lifecycle (27), Near Miss Lifecycle (20), No Task Type selected

Risks - UXT InnoProd: View: By Risk Level, Include Substitutions

Discussions: Create, Edit, Delete, Mark as Completed

Services - Industrial Hygienist: Manage Risks, Manage Exposures, Manage Master Data

Analytics - Industrial Hygienist

Feed: M. Schmid created the group test 1, M. Schmid has a new account

Web Screens with Guided Activities Intuitive Visualization Role specific Homepages

Report Incident: Step 1 of 9 (Basic Data)

Basic Data Injured Witnesses Environment Equipment Vehicles Property Documents Review and Send

What happened and which immediate actions have been carried out?

Title:

Description of Events:

Immediate Actions:

When did it happen?

Date / Time: 13.05.2014 00:00 CET

Where did it happen?

Plant ID:

Location:

Location Description:

Location Classification:

Organizational Unit ID:

Risk Assessment: Health Risks - HAUL TRUCK S523T # 6XY

Risk Assessment ID: 1 Risk Assessment Type: Health Status: In Process Created On/At: 04.09.2014 08:56

| Location | Hazard Category | Hazard | Operational Status | Agent | Method of Use | Risk Type | Risk Level |
|-----------------------|-----------------|----------------------|--------------------|-------|---------------|---------------|------------|
| HAUL TRUCK KOMATSU... | Physical | Fatigue | Normal Operation | | | Residual Risk | Medium |
| HAUL TRUCK KOMATSU... | Physical | Hear Strain | Normal Operation | | | Residual Risk | Medium |
| HAUL TRUCK KOMATSU... | Physical | UV Exposure | Normal Operation | | | Residual Risk | Medium |
| HAUL TRUCK KOMATSU... | Physical | Whole Body Vibration | Normal Operation | | | Residual Risk | Low |

Assessment Steps

| Step | Completion |
|-------------------------------|-------------------------------------|
| Review/Edit Basic Information | <input checked="" type="checkbox"/> |
| Determine Inherent Risk | <input checked="" type="checkbox"/> |
| Review/Edit Existing Controls | <input checked="" type="checkbox"/> |
| Determine Initial Risk | <input type="checkbox"/> |
| Define New Controls | <input type="checkbox"/> |
| Determine Residual Risk | <input checked="" type="checkbox"/> |
| Review Summary | <input checked="" type="checkbox"/> |

Step: Review Summary

Impacts: Low-back Pain

| Risk Type | Severity | Likelihood | Risk Value | Level Icon | Risk Level | Evaluation |
|---------------|----------|------------|------------|------------|------------|------------|
| Inherent Risk | Moderate | Unlikely | 6 | | Medium | Uncertain |
| Initial Risk | Moderate | Rare | 3 | | Low | Acceptable |
| Residual Risk | Moderate | Rare | 3 | | Low | Acceptable |

Controls

| Type | Subtype | Control Catalog | Name | Status | Responsible | Effectiveness |
|----------------|------------|----------------------|---------------------------------|----------|-------------|---------------|
| Person-Related | Monitoring | Vibration Monitoring | Whole Body Vibration Monitoring | Existing | | |

Improving the User Experience: Interactive Design

Quick View

Recent Search Advanced Search Favorites


Request Chemical Approval

Name of the Chemical

- SuperLube
- EASY-Clean Tester6
- Chloramine T Tester6

No Cl

Chemical Details

 **Chloramine T Tester6 Substance**

Internal Names: Machine Cleaner SuperCleaner

Trade Names: Tradename1 Tradename2


Vendors: FutureChem Vertriebsorganisation Deuts

Status: Released

Home Pages by Role

Approved Chemicals - UXT InnoProd

o GHS Include Sublocations



Classification

- Flammable liquids, Cat...
- Flammable liquids, Cat...
- Corrosive to metals, Cat...
- Acute toxicity: Inhalation,...
- Acute toxicity: Inhalation,...
- Acute toxicity: Oral, Cate...
- Acute toxicity: Oral, Cate...
- Skin corrosion/irritation, ...
- Skin corrosion/irritation, ...

(8)

Discussions


Create Edit Details


Mark as Completed


| Group N... | Owner | Updat... |
|-------------|-------------|-----------|
| Risk Ass... | Frank Bü... | 17.07.... |
| EHS - He... | Frank Bü... | 14.02.... |

Feed

Show: All

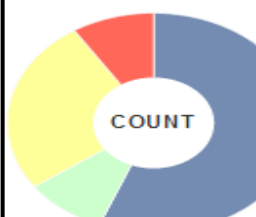
 Frank Büchler updated their member status
Looks as if we have a number of observations and incidents in UXT, has anyone a clue why?
17.07.2014 17:23:02
Reply Bookmark Unlike

 Frank Büchler set a new photo for the group
17.07.2014 14:36:54
Reply Bookmark Like

 Frank Büchler asked the question
Deviations in UXT RA
Does anyone know, why the Health Risk Assessment show significant deviations for the PPE in UXT?
#deviation #ppe #uxt

UXT InnoProd

Risk Level Include Sublocations



Risk Level

- Not Assigned
- Low
- Medium
- High

Side Panels





Additional Information

Context Information

Safety Instructions

My Location: UXT InnoProd / ID: 1039

Include Sublocations Hide Other Languages

| Safety Instruction | Location | Method of Use |
|---|------------------|---------------|
|  Display | UXT Assembly | Spraying |
|  Display | UXT Assembly 3 | Dipping |
|  Display | UXT Production 2 | Dipping |
|  Display | UXT Production 2 | Lubricating |

Approved Locations and Usages (List)

| Location | Method of Use |
|-----------------------------|------------------------|
| UXT Production 2 / ID: 1117 | Dipping Lubricating |
| UXT Assembly 3 / ID: 1118 | Dipping |
| UXT Assembly / ID: 1045 | Spraying |

Improving the User Experience: FIORI: EHS Control Inspection

Inspect Safety Controls

Inspections

1 Open
0 Overdue Inspections

Description

Fire Prevention Controls Inspection - Frankfurt 13% Done

Status: In Process
Due Date: 11.04.2014

Inspection

| Item | Location | Status |
|---------------------------------|------------------------------|--------|
| Fire Protection Doors | UXT Production Frankfurt | ? Open |
| Fire Walls | UXT Production Frankfurt | ? Open |
| Fire Alarm in Building | UXT Production Frankfurt | ? Open |
| Fire Brigade Alert | UXT Production Frankfurt | ? Open |
| Sprinkler | UXT Production Frankfurt | ? Open |
| Automated CO2 Fire Suppression | UXT Production Frankfurt | ? Open |
| Emergency Exit Signs | UXT Production Frankfurt | ? Open |
| Dry Chemical Fire Extinguishers | UXT InnoProd Plant Frankfurt | ✓ Done |

Submit

Dry Chemical Fire Extinguishers
UXT InnoProd Plant Frankfurt

| Question | Answer |
|---|------------|
| Is the pressure gauge in the green area ? | Yes N/A No |
| Is the safety pin in place ? | Yes N/A No |
| Extinguisher was turned upside down at least three times (shaken)? | Yes N/A No |
| It is mounted in an easily accessible area, with nothing stacked around it. | Yes N/A No |

Answer All

Improving the User Experience: FIORI: Safety Information

The screenshot shows the SAP Fiori 'Chemicals' app interface. The top navigation bar includes the SAP logo, a search field, and a user profile icon. Below the navigation bar, there is a breadcrumb trail: 'Chemicals (3)' > 'Chemical'. A search bar is also present above the list of chemicals.

The main content area displays a list of chemicals with the following details:

- UXT Assembly Frankfurt**: **EASY Clean**, All Purpose Cleaner, Industry Cleaner, Danger, High hazard level.
- UXT Production Frankfurt**: **Chloramine T**, Machine Cleaner, SuperCleaner, Danger, Medium hazard level.
- UXT Production Frankfurt**: **ACRIFIX® 1R 0192**, Plexiglaskeleber, Danger, Medium hazard level.

Each chemical entry includes a hazard icon (e.g., GHS05, GHS09) and a 'Danger' label. The 'EASY Clean' entry is highlighted with a 'High' hazard level indicator.

This screenshot shows the detailed view of the 'EASY Clean' chemical product. The interface is similar to the list view, but with expanded information:

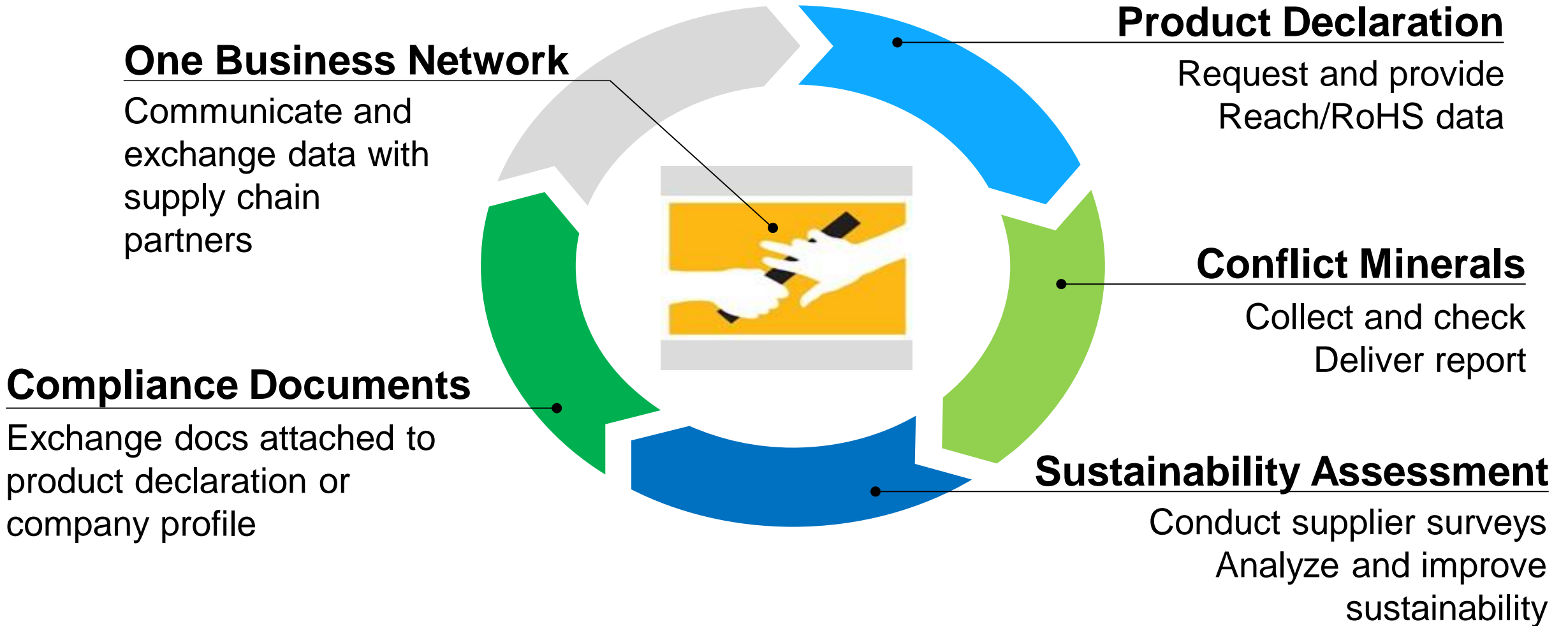
- Hazards Classification**:
 - Hazardous to the Ozone Layer, Category 1
 - Acute toxicity: Inhalation, Category 4
 - Carcinogenicity, Category 1
 - Toxic to reproduction, Category 2
- Protective Equipment**:
 - Neoprene and plastic clothing
 - Safety Spectacles
 - Face shields
 - Leather Clothing

A 'Local Emergency Contact Details' overlay is displayed on the right side of the screen, providing contact information for Frank Rieder:

- Local Emergency Contact Details**
- Frank Rieder**
- Automotive Constructions
- Contact Details**
- Mobile: 0188 90 55 55 55
- Phone: 06227 755555
- Email:
- Company**
- Name: SAP AG
- Address: Neurottstr. 16, 69190 WALLDORF

SAP Product Stewardship Network

Product Information Management Platform for Compliance and Sustainability



SAP Product Stewardship Network

Collaborate with Sustainability Information in Your Supply Chain



Conflict Minerals Compliance

Enable Conflict Minerals Compliance with Product Stewardship Network

- **Determine** the presence of conflict minerals in products sold and distributed
- **Manage** the complex network of suppliers and distributors and benefit from our Supplier Onboarding service
- **Assess** conflict minerals related data and generate the required reports needed to comply with the SEC's final rule
- **Benefit** from our broad Conflict Minerals capabilities based on industry standards
- **Increase margins** by reducing the cost of compliance and integrating safety into daily operations

Conflict Minerals Compliance



Conflict Mineral Declaration

- Request, response and reminder on company or product level
- Status reports



Conflict Mineral Reports

- GeSi sheets analysis
- Report generated to comply with SEC rules



Smelter lists

- CFSI Compliant Smelter List incl. handling, roll-up and notifications
- Compliance check

Next Generation “Sustainability Reporting”

Customer Engagement Initiative / Co-Innovation

Opportunity to Shape the

Next Generation Sustainability Performance Management and Reporting Solution

- Help validate requirements
- Share your business processes today and how global trends in reporting are impacting your processes (e.g. Integrated Reporting, Visibility into Supply Chain, Operational Reporting etc.)
- Validate target architecture

The screenshot displays the SAP Customer Influence interface. At the top, the SAP logo and 'Customer Influence Collaborate and Co-Innovate' are visible, along with a search bar. Below this is a navigation menu with 'Navigate to ...' and 'Projects by ...' sections. The 'Projects by ...' section includes 'Lines of Business', 'Products', 'Industries', and 'Localization'. A user greeting 'Welcome, Chris Zerlaut!' with a 'logout' link is on the right. The main content area features a project title 'Research on "Next Generation Sustainability Performance Management and Reporting"' and a 'Phase Widget' with 'Registration', 'Running', and 'Finished' tabs. A '16 Days Remaining' banner with a 'Register now' button is on the right. Below the project title, there is a 'Project Start: March 2014' and a paragraph of text about sustainability reporting trends. A bulleted list of factors is provided at the bottom.

Customer Influence
Collaborate and Co-Innovate

Search Customer Influence

Navigate to ... Projects by ...

My Influence » Lines of Business » Products »

Private Communities » Industries » Localization »

Welcome, Chris Zerlaut!
[logout](#)

Research on "Next Generation Sustainability Performance Management and Reporting"

Home Blog « Back

Phase Widget

Registration Running Finished

Research on "Next Generation Sustainability Performance Management and Reporting"

Project Start: March 2014

Sustainability Reporting is no longer just a trend – it has become a norm as the number of companies that disclose sustainability information reaches new heights. Today, most companies focus on collecting data and disclosing that information to stakeholders at aggregate levels to meet compliance obligations without truly understanding underlying risk considerations or identifying new opportunities to drive performance.

Our objective is to understand how trends around "Sustainability Reporting and Performance Management" impact our customers' internal processes and behaviors and how companies keep pace with their relevant data sets given the growing complexities with:

- More disclosures
- More regulations
- More pressure from the financial markets
- Integrated reporting
- Growing needs for insights by management into the operational details

16 Days Remaining
[Register now »](#)

★ Follow this project »

✉ Send as email »

👤 Contact project manager »

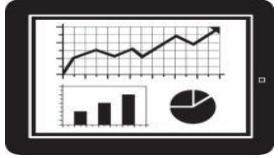




Future Direction

Future direction

Overview



Sustainability for competitive advantage

- Drive operational excellence
- Embed sustainability reporting into the business
- Deliver sustainable products and services



Sustainability in the value chain

- Reach into the value chain to drive sustainability performance
- Establish sustainable supply chains
- Enable seamless communication of detailed product data to trading partners



Sustainability and the real-time enterprise

- Go mobile first
- Use predictive and real-time analytics to improve safety and risk management
- Leverage native visual and model-oriented systems



Customer Benefits

MMG Proactively Manages Safety, Health, Environment, and Community with SAP® Solutions



Company

MMG Limited

Headquarters

Melbourne, Australia

Industry

Mining – base metals

Products and Services

Mined and milled ore, zinc, copper, lead, and gold

Employees

Approximately 10,000 people including contractors

Web Site

www.mmg.com

Partner

Environmental Resources Management (ERM), Australia
www.erm.com

Objectives

- Support growth strategy with global, standardized incident management
- Proactively reduce safety, health, environment, and community (SHEC) risks based on valid data and reports
- Continuously improve the SHEC process and outcomes by analyzing hazards, incidents, near misses, and safety observations

Why SAP

- Ability of the SAP® Environment, Health, and Safety Management application to support a closed-loop process for incident and event management
- Prebuilt data and process integration with HR and plant maintenance
- Fast reporting of incidents and near misses; systematic tracking and closure of corrective and preventive actions

Benefits

- Broader involvement in incident management; visible accountability; easy initial reporting; faster preparation of reports
- More reporting levels, better data visibility, and better analysis, allowing a performance view immediately after the integration of new sites
- Ability to learn from incidents and share best practices across sites to reduce risks, prevent incidents, and drive continuous improvement

“It is vital that we build risk management strategies based on valid data. With SAP software, we have access to strong analytics and reports, which is key to ensuring broad use across all business levels.”

Tania Fiegert, Health and Safety Systems Manager, MMG Limited

Broader

Involvement in incident management

Faster

Preparation of team, site, and global reports

Better

Data visibility and analysis





Thank you

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