The Journey to Develop a New Standard for the Industry

Next Steps

Chris Welsh – ETDX Workgroup Chair
Define Proof of Concept for Data Exchange

Run POC

Evaluate Results and Publish to Industry

Define Alignment with WBCSD and PACT

Develop Production Standards for Publication

Aug 2021
Feb 2023
Mar 2023
Sep 2023
Dec 2023
# POC Between Operator and Service Co.

## Data Source Comments:
- Cement Class A is supplier's data (single supplier - single plant - US location)
- Cement Class C are supplier's data (single supplier - single plant - Germany location)
- Lime is supplier's data (single supplier - single plant - Australia location)
- Calcium Carbonate is supplier's data (single supplier - single plant - Italy location)
- Product package not included in CO2e factor

## Other Findings:
- List provided has line-items without UoM
- List provided contain fluids (product blends) without fluid density reference

<table>
<thead>
<tr>
<th>Column C</th>
<th>UoM</th>
<th>Attribute #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>BARITE  A-1</td>
<td>not provided</td>
<td>KG CO2e per KG of product</td>
</tr>
<tr>
<td>BENTONITE EXTENDER</td>
<td>not provided</td>
<td>0.180</td>
</tr>
<tr>
<td>CALCIUM CARBONATE D15I-10</td>
<td>not provided</td>
<td>0.279</td>
</tr>
<tr>
<td>LIME</td>
<td>20 KG &amp; 400KG</td>
<td>N/A</td>
</tr>
<tr>
<td>CLAAS C CEMENT</td>
<td>not provided</td>
<td>N/A</td>
</tr>
<tr>
<td>CEMENT, CLASS A</td>
<td>not provided</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

**Notes**
- Scope 3: Scope only for emissions associated with the use of this material by the consumer.
- Category 1: The category of the emission is identified as direct, indirect, or embedded emissions.
Challenges

- Carbon footprint information is complex
- UOMs
- Different facilities
- Need more Product Category Rules for O&G
- Sensitive information
- Some companies may not have the platform to...
Define Proof of Concept for Data Exchange

Run POC

Evaluate Results and Publish to Industry

Define Alignment with WBCSD and PACT

Develop Production Standards for Publication

Aug 2021
Feb 2023
Mar 2023
Sep 2023
Dec 2023
Pathfinder Framework
Guidance for the Accounting and Exchange of Product Life Cycle Emissions
Version 2.0

Guidelines for emissions accounting
Relating to existing product standards and methods
- Hierarchy of application
- Unification of relevant approaches

Additional elements
- Hierarchy of allocation approaches
- Approach to secondary data sources
- Exemption rules

Guidelines for data integrity
- Hierarchy of data types
- Data quality assessment based on data quality matrix
- Calculation process for determination of primary data share in PCFs
- Assurance and verification guidelines

Guidelines for data exchange
- Temporal validity of exchanged PCFs
- Minimum required data elements for exchange

Exchange of PCFs along the value chain

---

a. Additional technological guidelines and mechanisms for standardized data exchange have been developed in parallel by the Pathfinder Network (e.g., technical data specifications, company onboarding mechanism, or governance structure for the extension of required data elements).
Define Proof of Concept for Data Exchange

Run POC

Evaluate Results and Publish to Industry

Define Alignment with WBCSD and PACT

Develop Production Standards for Publication

Aug 2021

Feb 2023

Mar 2023

Sep 2023

Dec 2023
### Change Management Log:

<table>
<thead>
<tr>
<th>Version</th>
<th>Person</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep2007</td>
<td>Original</td>
<td>2007-09-15</td>
<td>From Sep2007 release</td>
</tr>
<tr>
<td>1.51</td>
<td>PIDX BMNG</td>
<td>2012-01-11</td>
<td>Transfer to PIDX, Inc.</td>
</tr>
<tr>
<td>1.61</td>
<td>PIDX BMNG</td>
<td>2014-09-09</td>
<td>Creation of new PIDX Schema PriceSheet</td>
</tr>
<tr>
<td>1.61</td>
<td>PIDX BMNG</td>
<td>2015-08-03</td>
<td>Update to PIDX v1.61</td>
</tr>
<tr>
<td>1.7</td>
<td>C. Welsh</td>
<td>2020-07-20</td>
<td>Fixed missing ParameterValue in Parameters</td>
</tr>
<tr>
<td></td>
<td>C. Welsh</td>
<td>2020-11-12</td>
<td>Added EmissionsData complex type and namespace upgrade to V1.7</td>
</tr>
</tbody>
</table>

### Emissions Data for Products and Services (Scope 3 Category 3):

<table>
<thead>
<tr>
<th>#</th>
<th>Attribute</th>
<th>Unit</th>
<th>Notes / Relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Product GHG Emissions (direct-to-gate)</td>
<td>kg CO₂</td>
<td>General purchase of the products, this attribute is expected to become part of the standardizing component of the Scope 3 emissions.</td>
</tr>
<tr>
<td>15</td>
<td>Operational GHG Emission</td>
<td>kg CO₂</td>
<td>This attribute is a guidance to the upper emissions in the case of the product. This could be a GRI proof of reference - default of usage, real case studies, etc.</td>
</tr>
<tr>
<td>16</td>
<td>Service ODI Emission</td>
<td>kg CO₂/ Se</td>
<td>This attribute is expected to be used in the future to provide emissions for the entire life cycle of the service provided.</td>
</tr>
<tr>
<td>17</td>
<td>Emission Uncertainty</td>
<td>%</td>
<td>An estimate of how certain the company is of the value in Attribute 15/16.</td>
</tr>
<tr>
<td>18</td>
<td>Emission Methodology</td>
<td>String</td>
<td>A description of whether or not any calculations were conducted to quantify emissions in Attribute 15/16, and a description of the data sources used for the validation of the emissions.</td>
</tr>
<tr>
<td>19</td>
<td>Emission Verification &amp; Validity</td>
<td>String</td>
<td>This attribute verifies the validity of the emissions. Based on ISO 14064-1:2006.</td>
</tr>
<tr>
<td>20</td>
<td>Scope &amp; Category</td>
<td>Unspecified</td>
<td>To give a representation of the sector in which the goods and services are used.</td>
</tr>
</tbody>
</table>

---

**Emissary**

Emissions Transparency.
Technical Specifications for PCF Data Exchange (Version 2.0.0)
Living Document, 21 February 2023

This version:

Latest published version:
http://wbscd.github.io/data-exchange-protocol/v2/

Feedback:
public-dev@pathfinder.sine.dev with subject line "[data-exchange-protocol] ~ message topic ~"

Editors:
Martin Pompéry (SINE Foundation) martin@sine.foundation
Cecilia Valeri (WBCSD) valeri@wbscd.org

Abstract
This document specifies a data model for GHG emission data at product level based on the Pathfinder Framework Version 2, and a protocol for interoperable exchange of GHG emission data at product level.

JSON Data Format

Exchange Using REST Web Services
Define Proof of Concept for Data Exchange  
Run POC  
Evaluate Results and Publish to Industry  
Define Alignment with WBCSD and PACT  
Develop Production Standards for Publication

Aug 2021  
Feb 2023  
Mar 2023  
Sep 2023  
Dec 2023