Functional Documentation

Computations in background are performed:

Every week day at 1pm : load of only Advanced_GBU_Access_rights_PROD_

Weekly

- **every Tuesday** evening: Validation + Cerise load + calculation based on input flat files
- **every Thursday** evening: Validation only

Monthly every 14th of each month for a full load (all sources) + validation + calculation

Data source and Lineage

Data source mapping and lineage, DPL creation:
sheet **DataLineage_BQ_2025** 03 Data Knowledge PCF - Sustainability IT11672
Looker Studio https://lookerstudio.google.com/s/u7OZwfhNNSM

Data sources	Filters
SAP ZWEHST098	Filter to keep only **(authorization_group** IN (ALL , ZZ_BU_00 , ZZ_RM_SCO , ZZ_RM_ECO) OR **business_unit** IN (CS, SP, PA, CM, TS, OG) **)** and **material_code** not equal to "" For info to get the commercial product code (basic_material or material_group for SPP)(case when source_system like 'SP' then material_group else basic_material end) as specification_code JOIN DM.DIM_sap_zwehst098 AS sapON sap.source_system_material_name = material_code

This file can be found here: Functional documentation links

Overview on the calculation flows : PCF Calculation Functional documentation

Flat File management

- Flat Files Links to Input Data for PCF
- Flat File management documentation **DOCUMENTATION!**
- **PCF_InputFile_ Specifications (data quality check of input files)**
- **How-to update Ecoinvent - How to get and extract the useful dataset from Ecoinvent files**

Data Preparation

- Fact_BOM and FACT_bom_spp
- **New CALC BOM WP1**
- WRK_imep_site_net_output
- Tables: WRK_finished_product_std_qty, DIM_plant_site, DIM_conversion_unit
- **PF1 Intermediates BOM/IMEP: FACT_BOM_imep & FACT_CALC_BOM_imep for PF1**

***New* FACT_imep from ODS.imep_conso (without order_type for WP2) and ODS_imep_pf2 (with order type for PF2):**

Validation process

- PA-933 Implement PCF validation flow

Historization & Flat files mgt including Ecoinvent

- PCF Historization rules
- Functional historisation: Rules definition and implementation related to the functional process (from inputs - Flat Files)

Scope 3.1 Raw Materials

Flat Files Links to Input Data for PCF

FOR PROD. ENV. PROD

3.4.1 Configuration PROD

Advanced_GBU_Access_rights_PROD_

PCF_InputFile_Master_Unit_conversion_PROD_

Config_default_PDS_DQR_PROD_ ***TFS compliant***

EcoinventData_for_GCP_PROD

GEO_GCP (Geographical classification master table)

AO_GCP (Activities overview from the Database Overview xls file)

LCIA_GCP (Emissions factors by activity)

3.4.2. RM-Mapping PROD

PCF_InputFile_ef_supplier_PROD_ ***TFS compliant***

PCF_InputFile_ef_rm_mapping_PROD_ ***TFS compliant***

PCF_InputFile_sp_proxy_PROD_ ***TFS compliant***

PCF_InputFile_Substitution_BOM_Imep_PROD_ ***NEW***

PCF_InputFile_ef_wastes_sites_PROD_

PCF_InputFile_ef_transp_routes_PROD_

PCF_InputFile_energy_mapping_PROD_

Consistency checks over Energy mapping: cerise-em-imep-bom-consistency

PCF_InputFile_Energy_contribution_correction_PROD_

Biogenic_Master_GCP /!\ one file for each GBU

Syensqo_PCF_InputFile_biogenic_masterdata_CS_PROD_

Syensqo_PCF_InputFile_biogenic_masterdata_SPP_PROD_

Syensqo_PCF_InputFile_biogenic_masterdata_TS_PROD_

- Suppliers / Secondary (Proxy or Ecoinvent) Emission Factor :

Initial calculation of ef_rm for Scope 3.1 Calculation EF at Raw Material Level

>>>> Updated with PA-2551 | Update Scopes 3.1 and 3.4 to comply with TFS guidelines

Updates from primary and secondary data import up to
FACT_CALC_scope_3_1_3_4_updstream_estimated

Details ont secondary data sources (full and bom to Reporting 3.1): PA-2180 | Corporate Reporting 3.1 detailed specification

- CO2 Contribution calculations: FACT_CALC_scope_3_1_3_4_upstream_estimated [OLD]

>>>> replaced by last part in PA-2551 | Update Scopes 3.1 and 3.4 to comply with TFS guidelines

- Quality KPI : Raw material emission factor coverage: PA-353 RM_Mapped_pc
- Quality KPI (BOM_balance):
  For Novecare: PA-1808 | Compute BOM Balance WP1
  For Specialty Polymers: PA-1812 | Compute BOM Balance PF1
  Add bom balance KPI in PCF and Biogenic validation flat files: PA-1940 | Add Bom_Balance KPI in PCF and Biogenic validation flat files

Scope 3.1 Corporate Reporting

- Conversion rates for quantities from AUOMCMAT200: PA-2231 | Create DIM_conversion_uom table
- Conversion rates for quantities from MARM: PA-2230 | Create DIM_conversion_marm table
- **NEW** Quantities conversion in FACT_purchasing for Scope 3.1 reporting: PA-2249 | Convert quantities from unit to KG in FACT_purchasing
- **NEW** Global specification for corporate reporting 3.1: PA-2180 | Corporate Reporting 3.1 detailed specification
- SQL queries for DPL view (MVP): Queries for V_DIM_RM_reporting_3_1
- View and export from Tableau: PA-2165 | Tableau • Create an export for RM 3.1 Reporting

Scope 3.4 upstream Transport

- Integrate scope 3.4 upstream transport in scope 3.1 data flow PCF Scope Corrections

Scope 1, 2 and 3.3 Energy

- CO2 Contribution calculations:FACT_CALC_scope_1_2_3_3_wp1_estimated modified by following one:

Energy type, activity code and vector mapping WP1

- Apply Energy quantity corrections on BOM PCF Scope Corrections
- **SPP Allocation for pf2 source system**

V.2 Allocate PF1 energy CO2 contribution to Intermediate Products**Excluded Cost Objects Flat file: Energy SPP // Excluded Cost Objects flat file**

Scope 3.4 internal transportation

- CO2 Contribution calculations: PA-172 Scope 3.4 intermediates on standard routes
- Quality KPIs: PA 418 - KPI Missing route FP and Missing Intermediate at FP Level
- SPP calculations FACT_CALC_transportation_scope_3_4_interm_estimated_spp [New] FACT_CALC_transportation_scope_3_4_interm_estimated_spp

Scope 3.5 Wastes & Scope 1 other GHGs

- CO2 Contribution calculations: FACT_CALC_scope_3_5_1ghg_wp1_estimated
- Site net production Qty IMEP_site_net_output
- Wastes Emission Factors at site level PCF Scope Corrections
- **SPP Waste**: [New] FACT_CALC_scope_3_5_1ghg_pf1_estimated_spp

Biogenic

Syensqo_PCF_InputFile_biogenic_masterdata_OG_PROD_

Syensqo_PCF_InputFile_biogenic_masterdata_PA_PROD_

Syensqo_PCF_InputFile_biogenic_masterdata_CM_PROD_

PCF_InputFile_manual_biogenic_PROD_

PCF_InputFile_manual_pcf_PROD_

3.4.3 Validation Process PROD

Syensqo_PCF_InputFile_validation_pcf_PROD_

Syensqo_PCF_InputFile_validation_biogenic_PROD_

- Biogenic masterdata flat file extraction updates: PA-2590 | Update Biogenic Masterdata flat file extraction
- PA-298 Biogenic Carbon Content
- Flat file from R&I Novecare for PA-298 Biogenic Carbon Content Biogenic data of Raw Materials: Biogenic_content - PCF check tab Priority List - top products
- PCF Biogenic Talend generation file
- Quality KPI (TCC_rm_mapped):
  For Novecare: PA-1826 | Compute raw materials mapping on TCC for Novecare WP1
  For Speciality Polymers: PA-1834 | Compute raw materials mapping on TCC for SpP PF1
- Ingest manual biogenic: PA-1835 | Ingest manual calculated biogenic KPIs

NEW // Remove commercial product aggregations from the final tables: PA-2634 | Remove Commercial Product aggregation from Biogenic tables

Fact_Pcf

- PCF calculation : Fact_pcf FACT_pcf AGGREGATION SPECIFICATION_WP1 & PF1
- Prod com aggregation : Prod com PCF and Biogenic /!\ NOT ANYMORE PROD COM AGGREGATION
- PDS / DQR PA 467 - PDS and DQR
- Product type SIMPLE / COMPLEX / local / multiple output Table : Product_Type_Simple
- Table : Product_Type_Simple _SPP
- Ingest manual PCF: PA-1926 | Ingest manual calculated PCF KPIs

Small enhancements:

- Align meta_run_id and updated date in final result table: PA-1779 | Align meta_run_id and updated_date in FACT_pcf table current history
- Set commercial products aggregations to *null*: PA-1781 | Set to NULL the commercial product aggregated KPIs

Data Quality

- SCD type1 & type2 deletion status

DPL specifications

- DPL tables specifications