Functional Documentation - P&L

1.0 Overview

P&L Menu

Application User Profile

The P&L (Profit and Loss) application it's part of the Finance domain using data from SAP systems, non-ERP system and BFC (Business Financial Consolidation) information based on data from COPA (Controlling - Profitability Analysis) a component from SAP CO (Controlling) module.

P&L application provides reports fully aligned with BFC structure (BFC Headings) down to REBIT/REBITDA able to analyze P&L starting from the BFC view (Company/Activity) and ability to drill down to Customer Material level.

A profit and loss statement is a financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time, usually a fiscal quarter or year.

These records provide information about a company's ability – or lack thereof – to generate profit by increasing revenue, reducing costs, or both.

Application User Profile

For this Application the access is provided based on the BW menu "PL - Profit and Loss" and it's done via Service one.

Fill the form
https://solvay-dwp.onbmc.com/dwp/app/#/itemprofile/622

In SAP system select the "WBP - BW Business Warehouse"

In WBP - BW Business Warehouse : Select the Business Role select the "PL - Profit and Loss"

Target Users:

GBU controllers, Site controllers and Marketing and Sales.

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	24.07.2023	Inês Vilares	Initial draft

Application Type

Data Product Type	☐ Dashboard ☑ Report ☐ Advanced analytics ☐ AI ☐ Others <specify which one>
Technologies	☑ BW ☐ Tableau ☐ Qliksense ☐ Talend ☐ Dataiku ☐ Others <specify which one>
Data Sources *Note: list of all applications and various environment*	☑ SAP PF1 (Production environment) ☑ SAP WP1 ☐ SAP PI1 ☐ BW (versions) ☐ iCare CRM ☐ CORE CRM ☑ BFC flat files ☑ Non-ERP data ☐ Others <specify the name of the source>

2.0 Business Process

Business Process

The P&L information is generate by the **SAP CO module**. It is a module in the SAP ERP (Enterprise Resource Planning) system that focuses on financial controlling and management accounting functions within an organization. SAP CO is designed to provide tools and capabilities to effectively manage and control costs, perform internal and external accounting, and support decision-making processes related to financial aspects of the business. SAP CO is tightly integrated with other SAP modules, such as SAP FI (Financial Accounting) and SAP MM (Materials Management), providing a cohesive and comprehensive solution for managing financial data, controlling costs, and supporting financial decision-making throughout the organization.

The P&L business process, is initiated with the financial data stored and managed in the SAP CO module. However, the data in the SAP CO module might not be organized in a way that aligns directly with the requirements of the official report tool. In Solvay the official report tool is **BFC** which is designed to consolidate financial data from various sources, including SAP systems like SAP CO, and transform it into a compliant format for generating official reports required by the company.

The process involves extracting financial data from the SAP systems through an interface, which translates the data into the format compatible with the BFC tool. Once the data is in the proper format, it can be imported into the BFC tool, which then performs the consolidation and generates the official reports according to the company's specific guidelines. This integration between SAP CO and the BFC tool ensures that the financial data is accurately consolidated and reported in a standardized manner, meeting regulatory and internal reporting standards. It also streamlines the reporting process and improves data accuracy by centralizing financial information from various SAP systems into a single platform for financial consolidation and reporting.

Also, Solvay uses the **SAP BW (Business Warehouse)** tool to enhance and extract reports with data coming from the transactional systems (mainly WP1 & PF1) that enable the compay to have the adjustments/enhacement for some fields/calculations to allow the users to realize their analysis on a more efficient way and to perform checkings/controls on the P&L data in alignment with BFC struture. In SAP BW, you can integrate, transform, and consolidate relevant business information from productive SAP applications and external data sources.

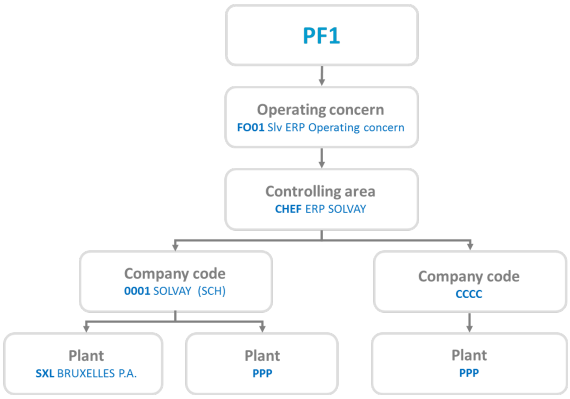
SAP BW levereged the P&L in the following ways:

- P&L report aligned with BFC structure (BFC Headings) down to REBIT / REBITDA;(Non core Group activites_ CM)
- Data available at BFC View (Company / Activity) and ability to drill down to Customer / Material level;
- Unique P&L for all entities using Solvay Core Systems (PF1+WP1);
- Dynamic restatement of periods based on automatic rules;
- Consolidation figures as in BFC, allowing P&L at GBU level aligned with group definitions;
- Currency conversion as in BFC;
- CICC data taken directly from BFC;
- Interface to upload data from other ERP than WP1/PF1;
- Elimination Profit in Inventory (R15430) available in the reporting;
- Query for monthly data and YTD data follow up;
- Reconciliation query BFC vs BW for P&L;

CO Structure in Solvay:

PF1 Structure

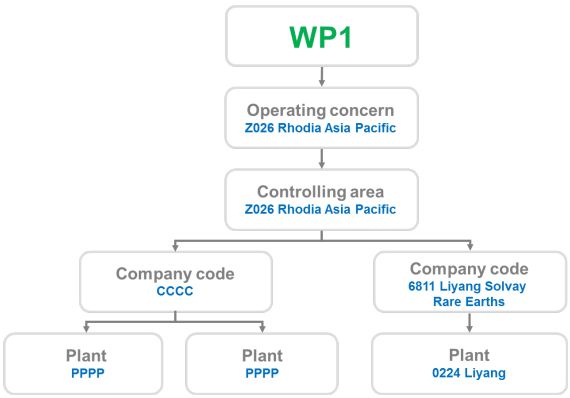
	Code	Description
Operating concern	**FO01**	Slv ERP Operating concer
Controlling area	**CHEF**	ERP SOLVAY



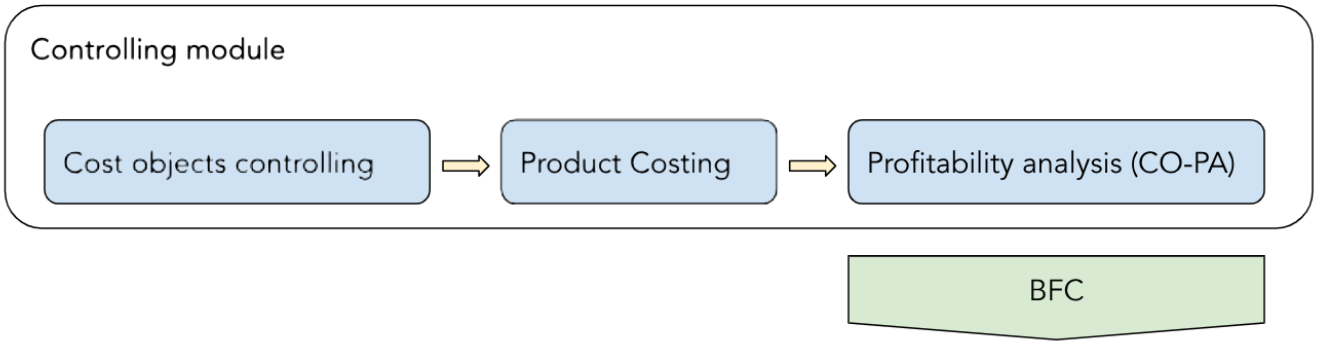
WP1 Structure

	Code	Description
Operating concern	Z001	Solvay Engin. Plasti.Polan
	Z006	Rhodia Europe
	Z013	Rhodia Europe
	Z025	Rhodia Latin America

	Z026	Rhodia Asia Pacific
	Z028	Solvay North America
Controlling area	= Operating concern	



Overview of the business process in P&L



In the process the data is in the SAP CO module where we have the different phases until the information has the struture aligned with BFC to become in the end the final data to be reported.

Cost objects controlling:

A cost object can be used to analyze target costs, actual costs, and variances in situations where costs are not collected at the level of orders or materials. For example:

- Fixed costs and activity costs planning;
- Actual costs postings from cost centers, orders, projects;

Product Costing:

The flow of the product costing is composed of a series of standard transactions which are interconnected. This requires the processing in a certain sequence. The procedure starts in the cost center accounting referring to so-called production cost centers. Defined activity types are assigned to these cost centers. For the daily movements the activity prices are valuated at standard cost. In the closing of the product costing they will be revaluated at actual prices. The differences are credited on the production cost centers and debited on the production cost collectors, managed in the cost object hierarchy.

The procedure continues with the distribution of postings of actual costs on the cost object level to the assigned cost collectors.

All categories of variances between target costs and actual costs, like price and quantity variances in raw and packaging materials, same for consumed activities are calculated within the cost object hierarchy and posted on cost collectors. As the cost collectors are a certain kind of order, they must be settled at the end of the period.

Intermediate checks take place in order to look at the ‘zero’ balance of the cost accounting objects involved.

To see more detil information about the process please check in the wiki page for "Costing - Knowledge Base".

Profitability Analysis (CO-PA):

CO-PA provides P&L information by market segment or strategic business unit, such as enterprise, company code, plant, and other dimensions defined in the system. In the context of the PF1 and WP1 systems, CO-PA is used to produce the P&L statements and FC interfaces (costing based version).To ensure the correct mapping and alignment with FC requirements, a list of value fields is maintained in CO-PA. These value fields represent different components of costs and revenues, which are essential for generating accurate and detailed P&L statements and facilitating the interface with the FC system.

The data from the cost objects that have already been processed through product costing in SAP will provide the necessary information in CO-PA. This data will be aligned with the structure required by the BFC (Financial Consolidation) system to present financial reports.

By using the value field concept and custom tables ZWFAT110 for WP1 and ZZF_BFC_COPA_VF for PF1, the CO-PA data is mapped and transformed to match the structure and requirements of the BFC structure. This ensures that the financial reports generated by the BFC system will be accurate and reflecting the profitability analysis performed in CO-PA while taking into account the specific needs of financial consolidation and reporting.

In summary, the integration between CO-PA and the BFC system allows for a seamless flow of data, providing valuable insights into profitability and facilitating the preparation of comprehensive and accurate financial reports for the organization.

Reports:

PF1 and WP1: CO-PA P&L reports: KE30

WP1: CO-PA line items: KE24

PF1: CO-PA line items: KE23N

3.0 Application Feature Overview

Below we have all the workbooks available:

Reports	Definition	Prompts (some fields can be for multiple selections or a single value)	BW Workbook Query	Query Technical Name
P&L Query	In a single report, the P&L of all legal entities of the GBU are displayed. The user can analyze the different KPI's (e.g. Net Sales, Contribution Margin, EBITDA, etc) and check the costs and sales for the company or companies depending on the selection of the user. It's possible to analyze the data for one month or more.	Mandatory fields: • Conso. View; • Calendar year /month; • Exchange Rate. Optional: • Auth. Scope on Company Code; • BFC GBU; • BFC Group of Activities; • PRS Comp. Mgt zone; • PRS Company Code; • Company Code; • Plant; • Target Currency (Default value "C"); • Qty conv. unit.	BW_WBK_PL_0001	BW_QRY_MVCOPA01_0001

P&L Monthly Query	In a single report, the P&L of all legal entities of the GBU are displayed. The user can analyze the different KPI's (e.g. Net Sales, Contribution Margin, EBITDA, etc) and check the costs and sales for the company or companies depending on the selection of the user. In this report the user will see the data not for a specific month but for all months for the year selected in the prompts. Also the user can check the data by Quarter. If no currency is selected, no conversion is applied and data is extracted in local currency. For month 06/2018: Conversion will be the average exchange rate from 1 to 07 2018 – Average exchange rate from 1 to 6 2018);	Mandatory fields: • Conso. View; • Calendar year /month; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • Currency conversion Year; • BFC GBU; • BFC Group of Activities; • PRS Comp. Mgt zone; • PRS Company Code; • Company Code; • Plant; • Target Currency ; • Qty conv. unit.	BW_WBK_PL_0002	BW_QRY_MVCOPA01_0002
P&L Monthly Query (Month Selected)	Same layout and fields as the "P&L Monthly Query" but the user only can select one month for the analysis.	Mandatory fields: • Conso. View; • Calendar year /month; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • Currency conversion Year; • BFC GBU; • BFC Group of Activities; • PRS Comp. Mgt zone; • PRS Company Code; • Company Code; • Plant; • Target Currency; • Qty conv. unit.	BW_WBK_PL_0009	BW_QRY_MVCOPA01_0008
P&L Reconciliation Query	P&L report presenting information about the costs and revenues, different KPI's for the comparison between the YTD Actual BW values and BFC Pack amounts. FC Pack column is for values when we use Conso = 0 and FC Conso will show values when we select Conso = 1.	Mandatory fields: • Conso. View; • BFC Version (by default FC01); • Exchange Rate (Default value "C"). Optional: • Calendar year /month • Auth. Scope on Company Code; • PRS Comp. Mgt zone; • PRS Company Code; • Plant; • BFC GBU; • BFC Group of Activities; • Target Currency ; • Qty conv. unit.	BW_WBK_PL_0003	BW_QRY_MVCOPA01_0003

P&L Query - Period Comparison	The report show the P&L information based in period 1 and period 2 to perform a comparison for actual data for the selected periods. The periods can be just one month or a range of months.	Mandatory fields: • Calendar Year /Month Period 1; • Calendar Year /Month Period 2; • Conso. View; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • BFC GBU; • BFC Group of Activities; • PRS Comp. Mgt zone; • PRS Company Code; • Company Code; • Plant; • Qty conv. unit; • Target Currency .	BW_WBK_PL_0011	BW_QRY_MVCOPA01_0006
P&L Fixed Costs analysis	This represent only the measures related with fixed costs with the respective heading in BFC to see the values by default per GBU for one or more companies.	Mandatory fields: • Calendar Year /Month; • Conso. View; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • BFC GBU; • BFC Group of Activities; • PRS Comp. Mgt zone; • PRS Company Code; • Company Code; • Plant; • Target Currency; • Qty conv. unit.	BW_WBK_PL_0008	BW_QRY_MVCOPA01_0001
P&L Integrated Margin - CM/GM Query by Sales Orders	This is related with P&L by Sales Order scope which will be approached in in Process Definition section.	Mandatory fields: • Conso. View; • Calendar Year /Month; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • BFC GBU; • BFC Group of Activities; • BFC Gestion Area; • PRS Company Code; • Company Code; • Plant; • Target Currency; • Qty conv. unit.	BW_WBK_PL_0020	BW_QRY_CPCOPA03_0001

P&L Integrated Margin - Monthly CM/GM Query by Sales Orders	This is related with P&L by Sales Order scope which will be approached in in Process Definition section.	Mandatory fields: • Conso. View; • Calendar Year; • Exchange Rate (Default value "C"). Optional: • Auth. Scope on Company Code; • Currency Conversion Year; • BFC GBU; • BFC Group of Activities; • BFC Gestion Area; • PRS Company Code; • Company Code; • Plant; • Target Currency; • Qty conv. unit.	BW_WBK_PL_0021	BW_QRY_CPCOPA03_0002

4.0 Functional Specification

4.1 General Data/Calculations

For these reports, it's important to understand some general concepts which are transversal to all the reports which allows the users to work with the reports in the same way as the SAP system and BFC tool.

Consolidation View	The query takes the integration rate of the company and the partner from the master data of company code. • If Conso method = 50 (Equity) , 20 (Not Conso.) or 60 (Not Equity), Rate = 0%; • If Conso method = 10 (Fully Conso), Rate = 100%; • If Conso method = 30 (Prop), Rate = Integration percentage The formula to retrieve the consolidated sales is in line with BFC: **Consolidated Sales** = Amount * Max [0, Integration Rate of CY (tingsoc) - Integration Rate of Partner (tingpart)] **Internal Sales** = Amount * Min [Integration Rate of CY (tingsoc), Integration Rate of Partner (tingpart)] The integration rate of the partner is managed on the TRADING PARTNER. For specific cases some external customer must be considered as internal for certain company code (joint venture for example) . For cases the Partner integration rate is taken at the crossing Sold To/Company code. In this way, the user has **4 options**: • Option 0 - Legal view: No intercompany eliminations are taking into account; • Option 1 - Consolidated view (for Solvay group): Takes into account the intercompany eliminations (using company code master data); • Option 2 - same logic as option 1 but the data is the consolidated view for Eco Companies • Option 3 - same logic as option 1 but the data is the consolidated view for Sco Companies
GBU Assignment	The concept for GBU doesn't exist in SAP but it's a requirement to have in BW since in BFC we have this definition. This GBU assignment is different for WP1 and PF1 and it will be explain in detail in the Process Definition section.
Exchange Rate	P&L Exchange will be explain in detail in the Process Definition section. See below some links usefull for the exchange rates: • Values can be checked In the finance team site. Under Exchange Rate. "Moyen / Average": https://aodocs.altirnao.com/?locale=en_US&aodocs-domain=solvay.com#Menu_listDoc/LibraryId_QLsALxhAuXNKLSz74H/ViewId_QLsANWb3lkRIe5nnjN/Filter_%257B%2522QLsALAy014DXTQRuXH%2522:%25220B0Km5zvG_rngN2p2YTBvSjEtSjQ%2522%257D • Or in the Solia CICC Online, Financial And Credit Tools: http://solia.solvay.com/irj/portal/CICCOnline_FinancialAndCreditTools • Definition for each Exchange Rate: https://wiki.solvay.com/display/ISAPPSUP/Exchange+rates
PRS Concept	The PRS is one dedicated SAP environment (based on PF1) whose aim is to unify some structural information as Master Data information for customers, vendors, company codes, etc. For this, depending on each master data we are referring to, we have specific tables created to maintain the data and have the configuration from source systems to BFC definition and alignment.
Value Fields concept	CO-PA is an hypercube (like a pivot table in excel) where figures are posted to value fields. Value fields are mapped to BFC accounts in the interface tables.
Annual Closing	Each end of year, the main BW master data (about the structure) which are not time-dependent need to be frozen = no more loading from ECC or flat file on these main master data. To avoid the impact of the new evolution scheduled for next year on the yearly closing a freeze is applied to block the loading to allow the yearly closing period with the same scope done for the year and not with inputs for next year, for some master data, the loading are freeze in the middle of December until end of January. So when there is a new organization, historical data is restated in BW (not in SAP and BFC).

4.2 Process Detail

4.2.1. Report/Process Definition

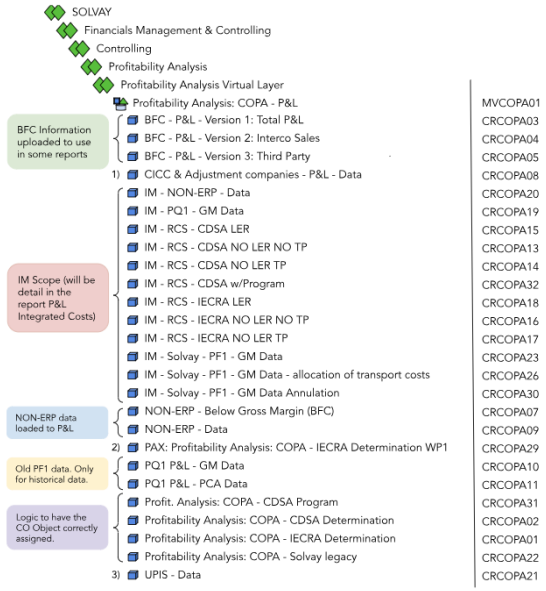
Domain	Finance
Application	BW reports under P&L folder
Provider	MVCOPA01 (main P&L data) and CPCOPA03 (P&L at sales orders)

In here we will find the different parts of the process for P&L data into BW:

- SAP BW High Level View
- P&L - Characteristics
- GBU Assignment
  - WP1 Logic
  - PF1 Logic
- Partner Activity
  - Determination of the partner activity in WP1
  - Determination of the partner activity in PF1
- Non-ERP data in P&L
- Exchange Rates for P&L
- P&L at Sales Order
- Characteristics to determine the country/zone
- Characteristics to determine the production plant
- Service Invoicing solution in PF1

SAP BW High Level View

To see the data from the source systems see below how the information is organized in the BW perspective:



Additional notes:

BFC Information cubes: We have some reports in P&L where we are comparing the BW values and BFC information.

1) **P&L from CICC** (data from BFC for PI1 scope is uploaded in P&L side)

IM Scope cubes: This will be explained in more detail in the report "P&L Integrated Costs".

NON-ERP cubes: Information related with non SAP system (for example GBR scope).

Old PF1 data cubes: This was used in the past, but it's not used anymore. We only have this for historical data.

CO object cubes: These cubes give us the logic to determine the IECRA and CDSA information to perform some assignments (for example GBU, Group of Activities, among others).

2) We don't use anymore.

3) This cube contains the data for the Unrealized Profit in Inventories (UPIS). This is relevant for the IM scope and for the moment no one is updating this file.

P&L - Characteristics

You can find below the list of all characteristics and some measures available in P&L queries,

Type in y ou r keywords in the field "Text search"

The field "Object Bi4" gives the main correspondance with the object available in Bi4 PPE

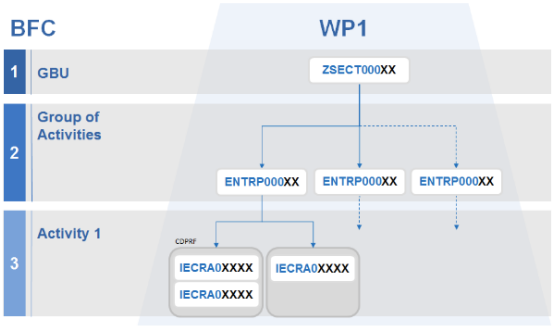
GBU Assignment

See below the logic for WP1 and PF1:

WP1 Logic

An IECRA is the combination of:

- a division: groups of similar products or product lines produced with the same technology.
- and a distribution channel: channel through which saleable materials or services reach the customer.



IECRA are grouped into **CDPRF** (=Profit center carat) - A CDPRF corresponds to the "Activity 1" in BFC

CDPRF are grouped into **ENTRP** (enterprise codes) - The ENTRP corresponds to the "Group of Activities" in BFC

ENTRP are then grouped into **ZSECT** - The ZSECT code corresponds to the GBU in BFC

You can display the structure with WP1 - Report ZWFAR571 - Reporting structure axes

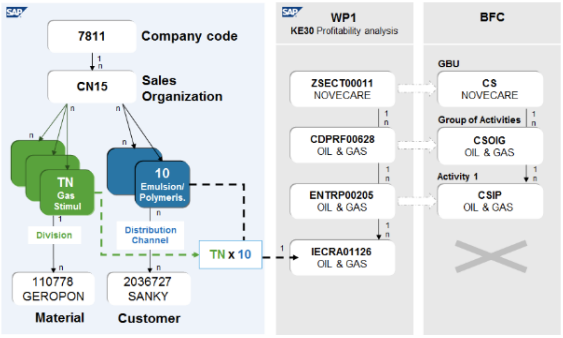
Determination of the IECRA in COPA (KE30 - Profitability report)

Depending on information available in the posting, the determination of the IECRA differs:

For sales & standard costs of goods sold

The IECRA is determined with the combination of:

- The division and a the distribution channel = DV x DC



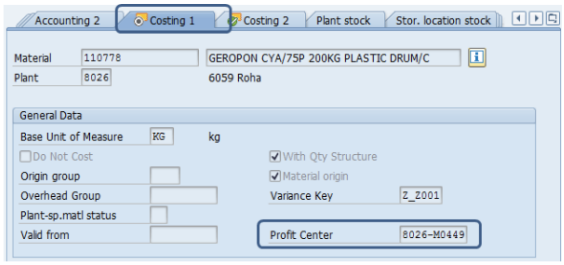
Example:

The division of the material code 110778 Geropon is **TN** (MM03 - Display the Division)

In the sales order to the customer 2025815 CATALITE CO., LTD, the distribution channel is **10** Emulsion/Polymers (VA03 - WP1 : Check the Sales organization)

The combination **TN** x **10** is assigned to the IECRA01126 (WP1 - Report ZWFAR571 - Reporting structure axes)

For purchase price & process orders variances + Revaluation



There is a unique link Profit Center-IECRA

Usually the last 4 digit of the profit center is equal to the last 4 digits of the corresponding IECRA.

Example:

The profit center 8026-M0449 is assigned to a material code 110778 in the plant 8026 (view "Costing 1" in MM03)

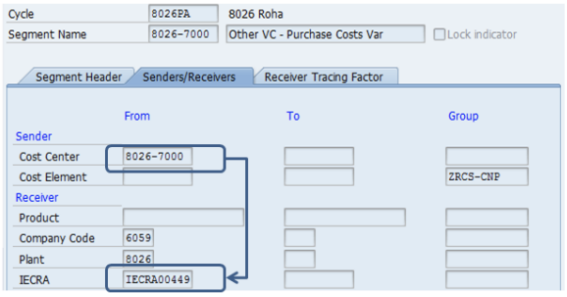
The profit center 8026-M**0449** is linked to the IECRA0**0449** (WP1 - ZWFAI052 - Display profit centers). All variances related to the material code 110779 in the plant 8026 are assigned to the IECRA00449 in COPA.

For cost centers

Costs posted in a cost center are assigned to the P&L through an assessment cycle that is maintained in KEU3 - Dislay actual assessment to CO-PA.

Example:

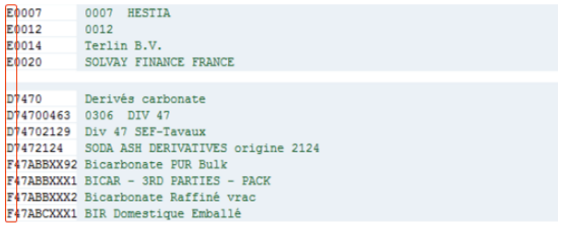
The cost center 8026-7000 is assessed to the IECRA00449 in the Assessment cycle 8026PA (ZWFAR600 - Cycle master data extraction)



PF1 Logic

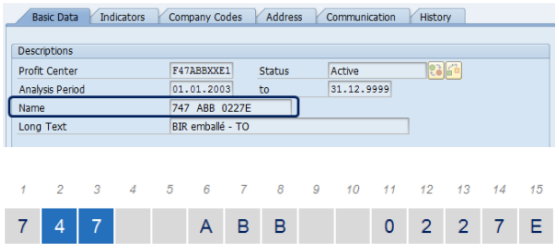
In PF1, the determination of the business structure is done in the P&L (KE30 - Profitability report) using the profit center of the COPA posting.

The following rule is applicable when the codification of the profit center starts with a **D** or a **F** . When the code of the profit center starts with another letter (ex: **S** , **E** or **C**), it can not be allocated to a business.



When the code of the profit center starts with **D** or **F**, the system looks at the Profit center name in english.

It can be displayed with KE53 - Display Profit Center



Example:

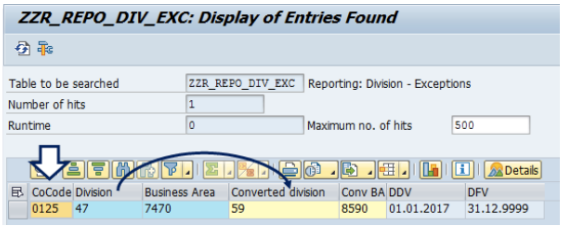
The name of the profit center F47ABBXXE1 is 747 ABB 0227E

The system takes the position 2 & 3 of the Profit center name. It corresponds to the reporting division.

Example:

The reporting division of the profit center F47ABBXXE1 is **47**

In some cases, the "reporting division" is replaced by the "converted division". It is done using the exception table **ZZR_REPO_DIV_EXC** th at is maintained at company code level.

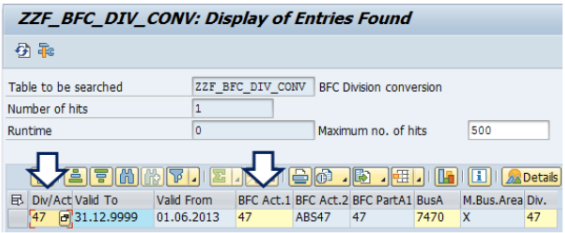


Example:

In the company code 0125, the reporting division **47** is replaced by the converted division **59**

In other companies, the reporting division remains **47**

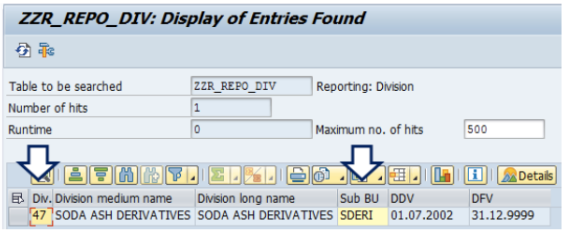
The activity 1 is determined with the table ZZF_BFC_DIV_COVV using the original or converted reporting division.



Example:

The division **47** corresponds to the BFC Activity 1 = **47**

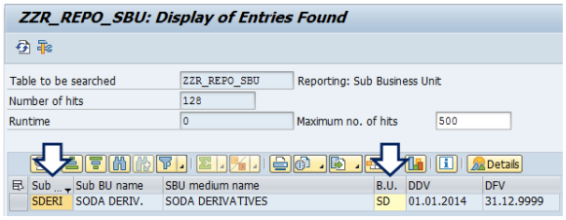
The group of activities is determined with the table ZZR_REPO_DIV using the original or converted reporting division.



Example:

The division **47** corresponds to the BFC Group of activities = **SDERI**

The GBU is determined using the group of activities with the table ZZR_REPO_SBU



Example:

The group of activities **SDERI** belongs to the GBU **SD** Soda Ash & Derivatives.

Partner Activity

Identify the business to which the amounts are allocated in the Solvay partner company in cross-company flows. See below the different logic for WP1 and PF1.

Determination of the partner activity in WP1

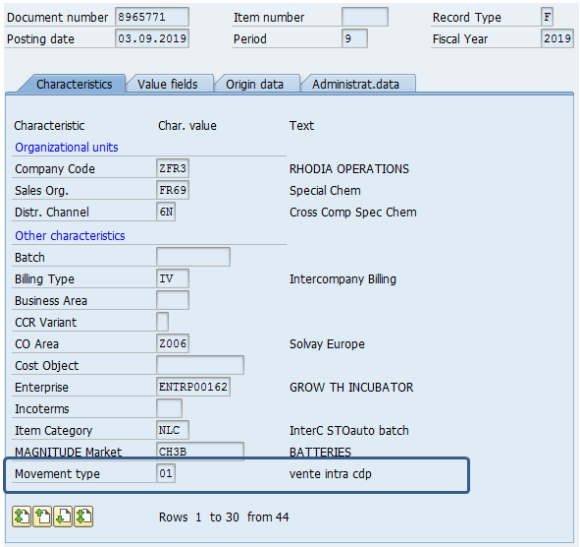
In WP1, a partner activity 1 / group of activities / GBU is done when the movement type in COPA (KE30 - Profitability report) is equal to:

- 01 - vente intra cdp
- 10 - vente inter entrepr.
- 13 - Vte OMC zone EUROPE
- 15 - vente inter cdp

If there is no movement type, no partner activity 1 is determined.

Depending on the movement type, the program will look at different tables until it find the right correspondance as detailed below.

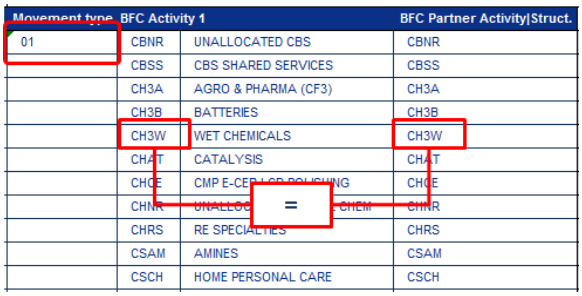
If there is a missing entry in a table, contact SBS support.



01 - vente intra cdp

The partner activity 1 is the same as the activity 1

In case there is no activity 1, the partner activity 1 = ZZ01



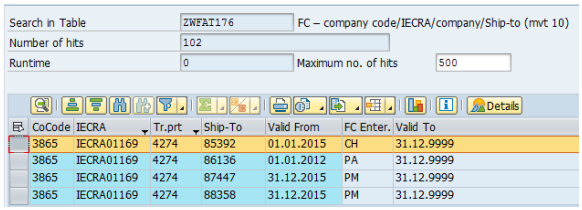
10 - vente inter entrepr.

1. Table ZWFAT176

BW starts by looking at the table ZWFAT176 - FC – company code /IECRA/company/Ship-to (mvt 10)

If it finds the combination Company Code x IECRA x Trading partner x Ship-To Party then the partner activity = GBU = 00

Ex: the combination 3865 x IECRA01169 x 4274 x 85392 = BFC Partner Activity CH + 00 = CH00



Search in Table: ZWFAT176 — FC – company code/IECRA/company/Ship-to (mvt 10)
Number of hits: 102
Runtime: 0 — Maximum no. of hits: 500

CoCode	IECRA	Tr.prt	Ship-To	Valid From	FC Enter.	Valid To
3865	IECRA01169	4274	85392	01.01.2015	CH	31.12.9999
3865	IECRA01169	4274	86136	01.01.2012	PA	31.12.9999
3865	IECRA01169	4274	87447	31.12.2015	PM	31.12.9999
3865	IECRA01169	4274	88358	31.12.2015	PM	31.12.9999

Movement type	mpany co	Sub-activity	Trading Partner	Ship-to party	BFC Partner Activity
10	3865	IECRA01169	4274	85392	CH00

2. Table ZWFAT118

If no combination can be found in the table ZWFAT176 then the system looks at the table ZWFAT118 FC – company code/enterprise/company /PRCOM (mvt 10)

If it finds the combination Company Code x Enterprise x Trading partner x Commercial product then the partner activity = GBU = 00

CoCode	Enterprise	Tr.prt	Commercial Product	Valid From	FC Enter.	Valid To
6068	ENTRP00020	5609	000000000090020178	01.01.2000	CS	31.12.9999
6068	ENTRP00020	75233	000000000090016381	01.01.2000	CS	31.12.9999
6068	ENTRP00064	60680	000000000090004562	01.01.2000	CS	31.12.9999
6068	ENTRP00108	4274	000000000090001183	01.01.2000	AP	31.12.9999
6068	ENTRP00108	4274	000000000090001187	01.01.2000	AP	31.12.9999
6068	ENTRP00109	4274	000000000090001184	01.01.2000	AP	31.12.9999

3. Table ZWFAT119

If no combination can be found in the table ZWFAT118 then the system looks at the table ZWFAT119 FC – company code/enterprise/company (mvt 10)

If it finds the combination Company Code x Enterprise x Trading partner then the partner activity = GBU = 00

Ex: the combination 3865 x ENTRP00046 x 4274 = BFC Partner Activity CH + 00 = CH00

CoCode	Enterprise	Tr.prt	Valid From	FC Enter.	Valid To	Last update
3865	ENTRP00046	244	01.01.2015	SD	31.12.9999	26.05.2015
3865	ENTRP00046	292	01.01.2013	VI	31.12.9999	24.04.2013
3865	ENTRP00046	1422	01.01.2015	SP	31.12.9999	26.05.2015
3865	ENTRP00046	1428	01.01.2015	VI	31.12.9999	26.05.2015
3865	ENTRP00046	3471	01.01.2015	SD	31.12.9999	07.12.2015
3865	ENTRP00046	4060	01.01.2015	CH	31.12.9999	27.05.2015
3865	ENTRP00046	4274	01.01.2015	CH	31.12.9999	28.05.2015

Company code	ERP Group of activities_W	Trading Partner	BFC Partner Activity
3865	ENTRP00046	4274	CH00

4. Table ZWFAT113

If no combination can be found in the table ZWFAT119 then the system looks at the table ZWFAT113 FC - ENTERPRISES

If it finds the combination Company Code x Enterprise then the partner activity = GBU = 00

CoCd	Enterprise	Valid From	FC BU	FC Enter.	FC Mar...	Valid To	Last update
3865	ENTRP00002	01.01.2011	SISSY	SI	SINR	31.12.9999	06.01.2011
3865	ENTRP00069	01.01.2013	CBCBS	CB	CBSS	31.12.9999	19.12.2012
3865	ENTRP00153	01.01.2016	GYANG	GY	GYNR	31.12.9999	31.03.2016
3865	ENTRP00155	01.01.2011	GYCTH	GY	GYBI	31.12.9999	05.01.2011
3865	ENTRP00159	01.01.2011	TOTOW	TO	TOTO	31.12.9999	06.01.2011
3865	ENTRP00164	01.01.2011	GYNAL	GY	GYNR	31.12.9999	05.01.2011
3865	ENTRP00167	01.01.2013	CBCBS	CB	CBSS	31.12.9999	05.02.2013
3865	ENTRP00200	01.01.2018	CSAGR	CS	CSOA	31.12.9999	12.01.2018

If no combination can be found in the table ZWFAT113, then the partner activity 1 = ZZ10

13 - Vte OMC zone EUROPE

The partner activity 1 = MZ00

15 - vente inter cdp

1. Table ZWFAT116

BW starts by looking at the table ZWFAT116 - MAGNITUDE - company code/partner IECRA/comp/PRCOM (mvt 15)

If it finds the combination Company Code x IECRA x Trading partner x C ommercial product then the partner activity = MGN Market

CoCode	IECRA	Tr.prt	Commercial Product	Valid From	MGN Market	Valid To
6068	IECRA00066	60624	000000000090039365	01.01.2000	CSPE	31.12.2011
6068	IECRA00070	60624	000000000090002413	01.01.2000	CSMT	31.12.2011
6068	IECRA00070	60624	000000000090002416	01.01.2000	CSMT	31.12.2011
6068	IECRA00070	60624	000000000090002419	01.01.2000	CSMT	31.12.2011
6068	IECRA00078	60624	000000000090002485	01.01.2000	CSAG	31.12.2011
6068	IECRA00096	60624	000000000090017518	01.01.2000	CSCI	31.12.2011
6068	IECRA00339	60624	000000000090016381	01.01.2000	CSPP	31.12.2011
6068	IECRA00339	60624	000000000090016404	01.01.2000	CSPP	31.12.2011
6068	IECRA00339	60624	000000000090016412	01.01.2000	CSPP	31.12.2011
6068	IECRA00339	60624	000000000090016415	01.01.2000	CSPP	31.12.2011

2. Table ZWFAT117

If no combination can be found in the table ZWFAT116 then the system looks at the table ZWFAT117 FC - company code/partner IECRA /company (mvt 15)

If it finds the combination Company Code x IECRA x Trading partner then the partner activity = FC Market

CoCode	IECRA	Tr.prt	Valid From	FC Mark...	Valid To	Last update
6350	IECRA00424	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00593	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00594	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00595	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00596	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00597	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00598	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00600	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
6350	IECRA00711	5609	01.09.2018	PMGS	31.12.9999	02.07.2018
ZFR3	IECRA00412	5609	01.01.2000	POIR	31.12.2010	26.01.2011

3. Table ZWFAT113

If no combination can be found in the table ZWFAT117 then the system looks at the table ZWFAT113 FC - ENTERPRISES

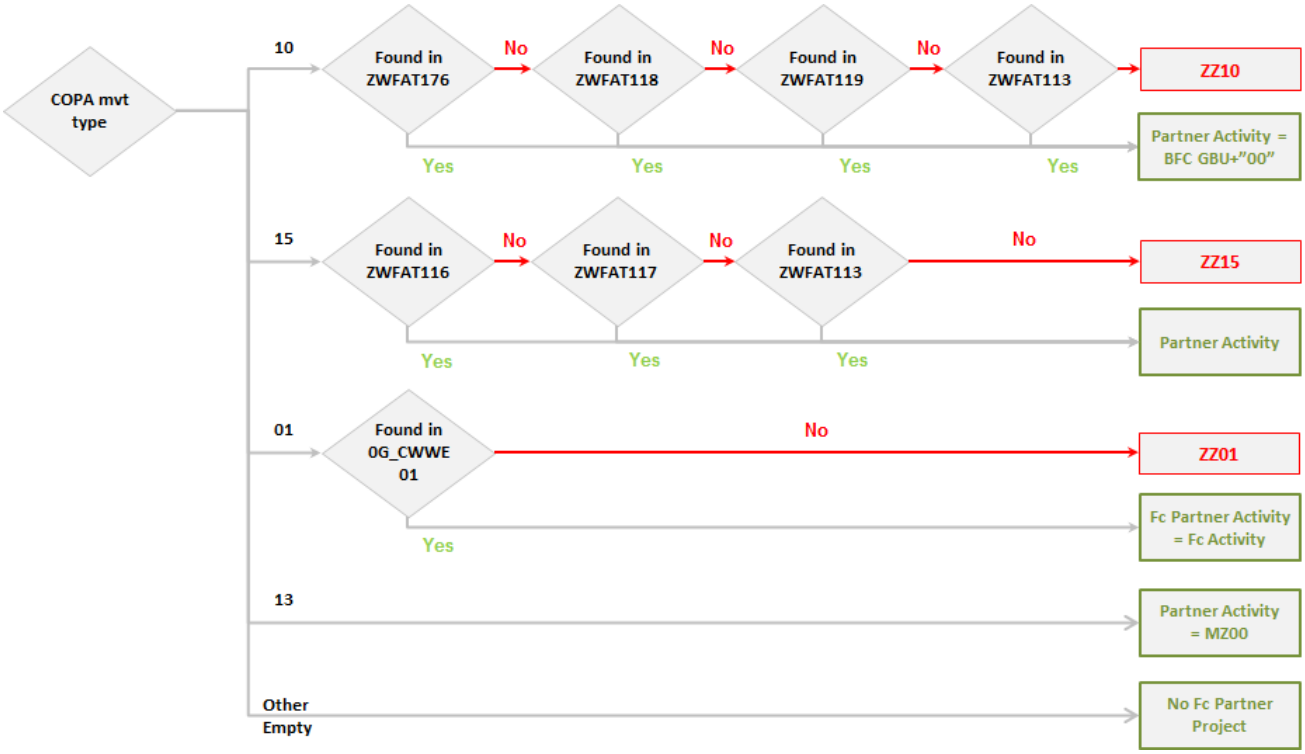
If it finds the combination Company Code x Enterprise then the partner activity = FC Market

CoCode	Enterprise	Valid From	FC BU	FC Enter.	FC Mark...	Valid To	Last update
ZFR3	ENTRP00232	01.01.2019	PVPIN	PV	PVPM	31.12.9999	29.12.2018
ZFR3	ENTRP00233	01.01.2019	PVNAL	PV	PVNR	31.12.9999	29.12.2018
ZFR3	ENTRP00234	01.01.2019	PVNO2	PV	PVGY	31.12.9999	29.12.2018

Movement type	Company code	ERP Group of activities_W	BFC Partner Activity
15	ZFR3	ENTRP00232	PVPM

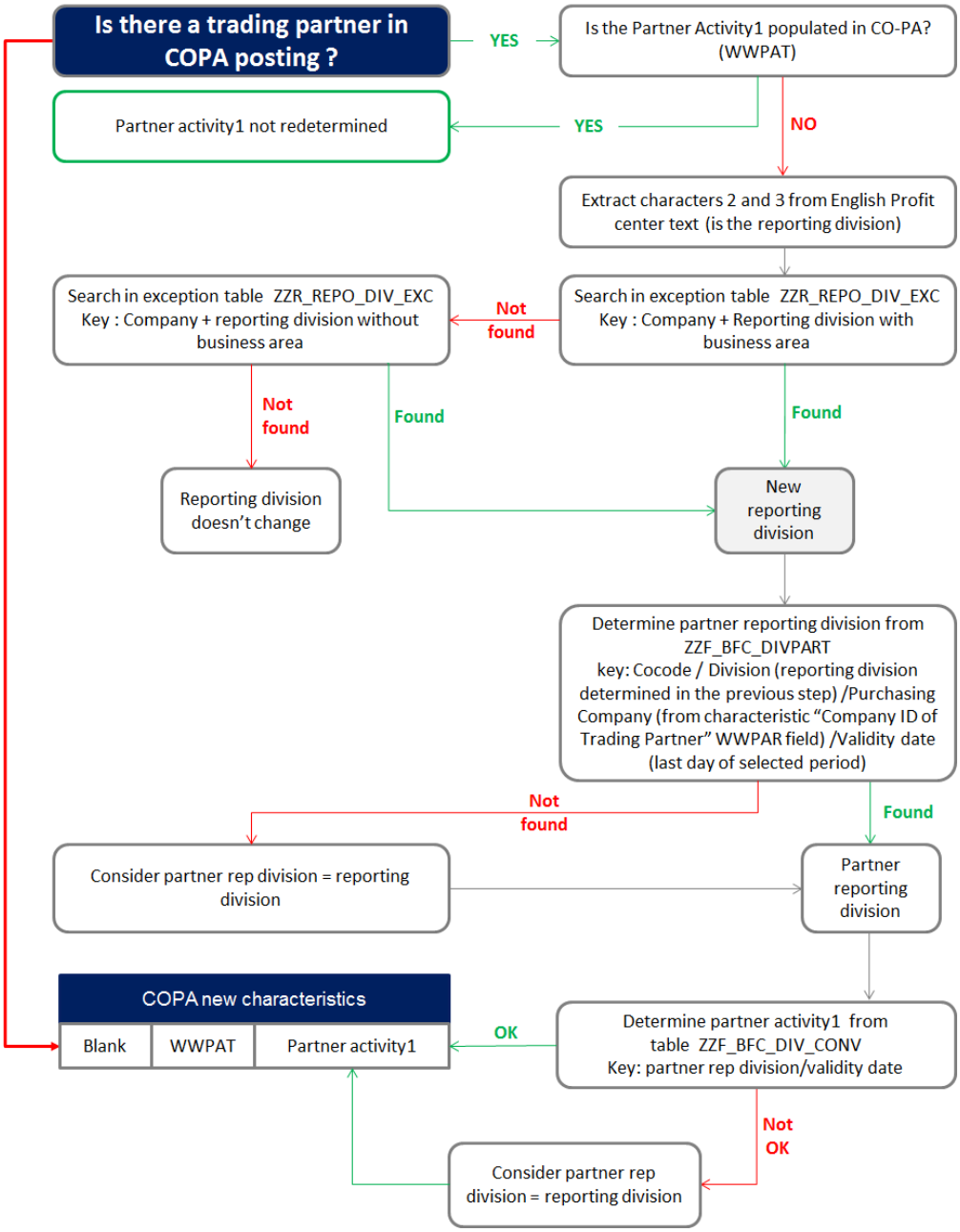
If no combination can be found in the table ZWFAT113, then the partner activity 1 = ZZ15

Overview - determination of the partner activity in WP1



Determination of the partner activity in PF1

Overview - determination of the partner activity in PF1



Non-ERP data in P&L

Procedure to upload manually data from systems not interfaced with WBP.

On the business side they need to fill 3 dedicated templates to upload the data into WBP:

- For customers master data: NON ERP - Model Customers master data
- For material master data: NON ERP - Model Materials master data
- For P&L data: NON ERP - Model structure of the P&L

For this, they need to also have in consideration the following information:

Currency:

The data currency comes from the PRS company code of the file. The currency of the sales ind document currency is the only one that can be managed in the excel flat file.

Amounts are integer keyfigure:

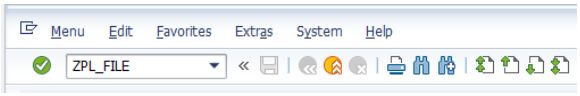
All amounts must be integer. No decimal (loading will be rejected).

Summation and overwriting:

All amounts with the same key will be:

- added if they are in the same file
- overwritten if they are in a different file

Transaction ZPL_FILE



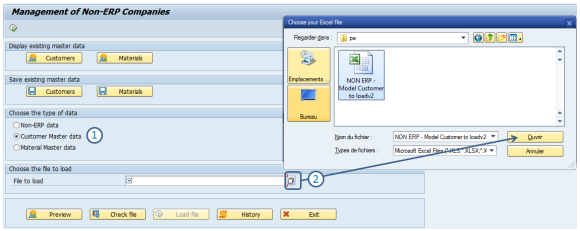
Once everthing is ready, open WBP and enter the transaction **ZPL_FILE** in the search bar and enter

General information

blocked URL

1. Display customers & materials already uploaded by clicking Customers and Materials
2. Download in excel Customers & materials already uploaded by clicking Customers and Materials
3. Selection of data to be uploaded: Non-ERP data, Customer Master data or Material Master data
4. Selection of the file to be loaded
5. Preview the file that was loaded

Upload the file



1. Select the file to be uploaded. For instance "Customer master data"
2. Choose the file "Customer master data" that was prepared

File Format

Flat file are Excel file. The transaction open Excel application in background.

- Click Check file . If the file was well prepared, the message *"Congratulations ! Your file is OK and ready to be loaded in BW."* is displayed.

blocked URL

- If there was an error in the file. the message *" X errors in your file. Please correct it."* is displayed. The list of errors are displayed with the description of the problem to be solved.

blocked URL

- When the file is ready to be loaded, click

. Once it is done a message is displayed to inform that the file was sent to BW and will be available in the reporting at the next data loading.

blocked URL

Data loading time

12am / 1pm / 6pm (french time)

Transaction Customizing

NERP Source system

In order to avoid data overwriting, master data Customer & Material and transactional data must be attached to a system source starting with NERP*

For example NERP001 or NERPCYT

Create a new new NERP source system

blocked URL

If a new NERP source system is necessary :

add the new value in **c_srsyst BW object** (BW table /BIC/TC_SRSYST)

Add 2 entries in **C_GLBFILT** (BW table /BIC/MC_GLBFILT)

blocked URL

One for stream GM and one for ZBW_PL_PC

For ZBW_PL_PC stream ; active (Y) option mean Profit center is mandatory .

blocked URL

Using c_glbfilt parameter (steam = "FULLFF", rule = "NERP"), we control the list of source systems for which a full flat file is required.

blocked URL

Functional specification from 2015: https://drive.google.com/file/d/1dDxWX6MTX697BAjISuvKADDv9T7oYccBRdFQMkrlfRQ/view

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Exchange Rates in P&L

Several conversion methods can be used in BW. The aim of this page is to explain the main methods used in BW:

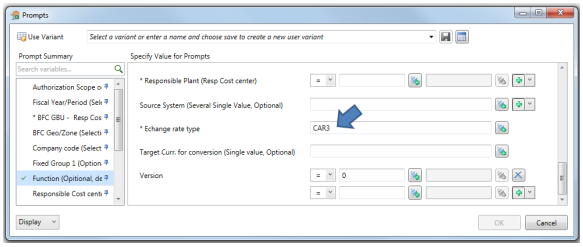
- CAR3 - Monthly Rate
- C - Year-to-date Monthly Average Rate
- BFC Methodology

CAR3 - Monthly Rate

The rate CAR3 can be found in the GAR library . It is available in the sheet "Taux - Rates (Monthly)". It corresponds to average rate of the month.

How to use it in BW ?

In the prompt enter "CAR3" in the field
*Exchange rate type



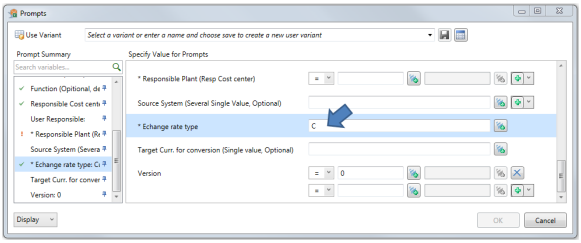
C - Year-to-date Monthly Average Rate

Year-to-date Monthly Average Rate comes from BFC. It is the sum of monthly rates divided by the number of months from the beginning of the year.

The Rate C can be found in the GAR library. It corresponds to the rate "MOYEN / AVERAGE" in the sheet "Taux - Rates"

How to use it in BW ?

In the prompt enter "C" in the field *Exchange rate type



BFC Methodology

The aim is to use the same methodology as the one used in BFC

- It is used in queries/workbooks with "monthly" in their descriptions

Example

2 materials are sold in USD with the following contribution margin in local currency in Q1 2019:

Material	Description	01.2019	02.2019	03.2019
11365	OT MET.DRUM 225L	$ 26 560,00	$ 13 280,00	$ 13 280,00
11366	DISTIL. BULK.	$ 557 522,40	$ 387 991,60	$ 390 042,00

The rate C by month is:

Month	01.2019	02.2019	03.2019
Rate 1 EUR = x USD	1,141686	1,138501	1,135740

In February, the contribution margin (=CTN) of the material 11365 OT MET.DRUM 225L is

= (CTN 01.2019 + CTN 02.2019) x Rate C 02.2019 - CTN 01.2019 x Rate C 01.2019

= ($ 26 560,00 + $ 13 280,00) x 1,138501 - $ 26 560,00 x 1,141686 = **11 729,54 EUR**

BW is doing the calculation item by item.

In February the CTN of material code 11366 DISTIL. BULK. = ($ 557 522,40 + $ 387 991,60) x 1,138501 - $ 557 522,40 x 1,141686 = **342 157,77 EUR**

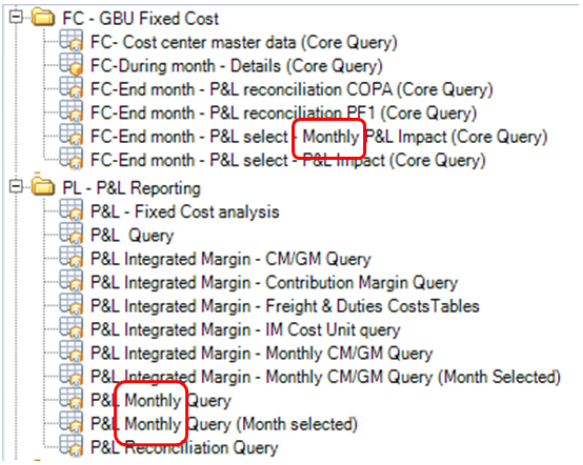
Material	Description	01.2019	02.2019	03.2019
11365	OT MET.DRUM 225L	23 263,83 EUR	11 729,54 EUR	11 777,90 EUR
11366	DISTIL. BULK.	488 332,35 EUR	342 157,77 EUR	345 444,82 EUR

Note

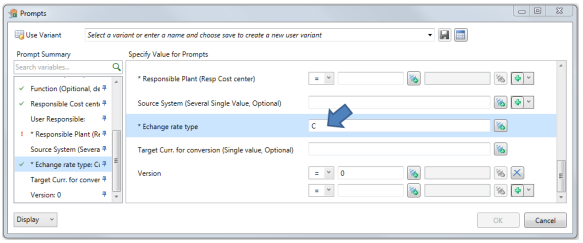
The exchange rate used for the conversion of the material code 11365 is $ 13 280,00 / 11 729,54 EUR = **1,13218** . It is different from the one used for the material 11366 = $ 387 991,60 / 342 157,77 EUR = **1,13395**

How to use it in BW ?

Select a workbook with "Monthly" in is description



Keep the the Exchange rate type filled by default = C

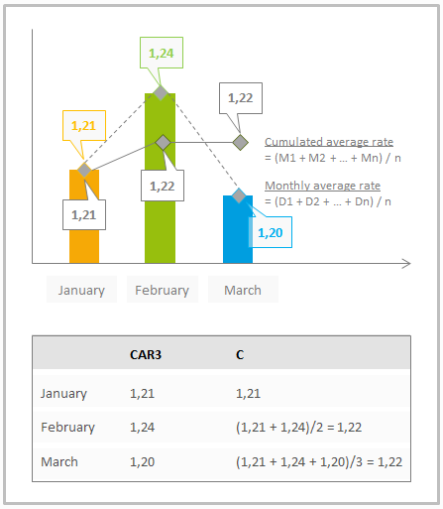


Notes

1- Difference between Rate C & Rate CAR3:

See the following example.

- In January the rate CAR3 is equal to 1,21, in February it is equal to 1,24 and in March it is equal to 1,20.
- In January the rate C is equal to the rate CAR3 but in February it is the sum of the CAR3 of January and February divided by 2 months. In March it is the sum of the rate CAR3 of January, February, March divided by 3 months.



	CAR3	C
January	1,21	1,21
February	1,24	(1,21 + 1,24)/2 = 1,22
March	1,20	(1,21 + 1,24 + 1,20)/3 = 1,22

2- We need to use a specific workbook when we want to work with the BFC methodology because when using a monthly query, BW recalculates all the items of the query with the BFC calculation methodology. It does not apply a single exchange rate but it is a complex calculation that can not be done in a standard query.

3- The recommendation for which rate we should use is:

- If you want to have the same result as BFC, you must use a query with "**monthly**" in its description. However the response time can be deteriorated as BW calculates the conversion rate for all items.
- By default the rate **C** is used in the applications FC - Create a fixed costs report & P&L Reporting (WBP). Month by month it can not be aligned with BFC but it is when you look at the full year. The response time is better than monthly queries.
- You must use the rate **CAR3** if you want to have the same result as CRM Analytics Dashboard.

P&L at Sales Order

This part was included in P&L scope to have in the report with four new fields:

- Sales Order
- Item Order
- Market Cluster
- Team Cluster

This is available in the Workbooks for P&L Integrated Margin - CM/GM Query by Sales Orders and P&L Integrated Margin - Monthly CM/GM Query by Sales Orders since in here we have the information for the P&L structure not only the regular P&L headings but also considering the integrated margin process which is explained in the Functional Documentation - Profit and Loss Integrated Costs.

Characteristics to determine the country/zone

Info

There are different characteristics used to determine the country or zone:

- Company code Country [C_COMPCDE__0COUNTRY]
- Geography / Zone [C_COMPCDE__C_ZONE] or BFC Gestion Area [C_COMPCDE__C_MNGAREA]

In some cases the characteristics are not consistent. For instance a company in Mexico can be in North America or Latin America depending on the characteristic used:

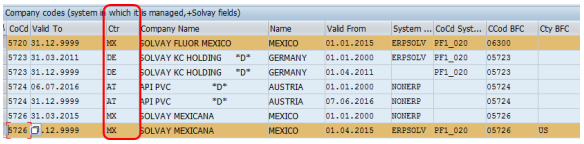
Company code		Company code Country		Geography / Zone		BFC Gestion
PF1_020/5720	SOLVAY FLUOR MEXICO	MX	MEXICO	LA	LATIN AMERICA	Latin Americ
PF1_020/5726	SOLVAY MEXICANA	MX	MEXICO	LA	LATIN AMERICA	North Ameri
WP1_400/7723	CYTEC DE MEXICO SA DE CV	MX	MEXICO	LA	LATIN AMERICA	Latin Americ

The aim of this page is to explain where does each characteristic comes from

Company code Country [C_COMPCDE__0COUNTRY]

The **country** is assigned to a legal entity. I can be displayed in PF1_50 in the table Table ZZF_T001_MGT_V - Company codes in the field "Ctr"

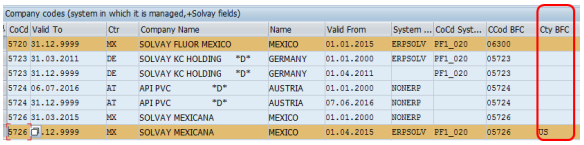
- The company code 5720 & 5726 are both assigned to the country MX = MEXICO in the table ZZF_T001_MGT_V



It corresponds to the characteristic C_COMPCDE__0COUNTRY Company code Country in BW

In some cases there is another country entered in the field "Cty BFC". In this example:

- There is nothing in the field "Cty BFC" for the entity 5720
- But there is the country US in the field "Cty BFC" for the entity 5726

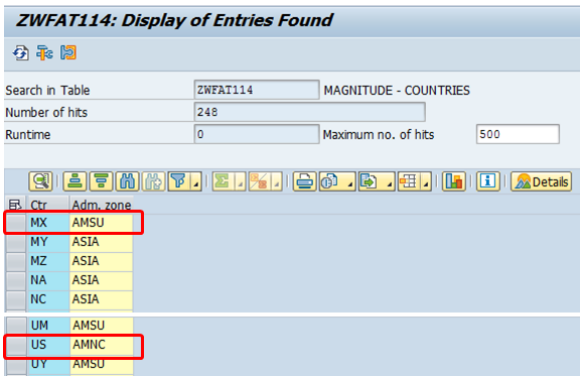


Obviously a company can only be in one country and the company 5726 is in Mexico and not in US. The field "Cty BFC" should not be used as it is but it will be used for the determination of the region "BFC Gestion Area" as explained below.

Geography / Zone [C_COMPCDE__C_ZONE] or BFC Gestion Area [C_COMPCDE__C_MNGAREA]

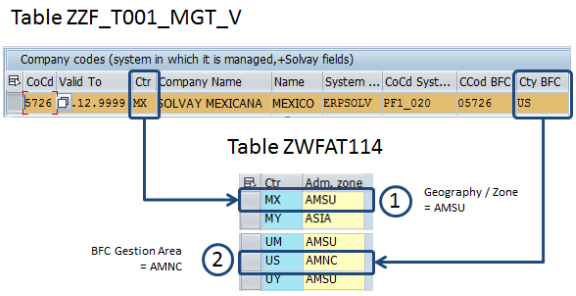
A **country** is assigned to an Administrative Zone with the table ZWFAT114 - MAGNITUDE - COUNTRIES

- The country **MX** - MEXICO is assigned to the Administrative Zone **AMSU** - Latin America
- The country **US** - UNITED-STATES is assigned to the Administrative Zone **AMNC** - North America



The characteristic **Geography / Zone [C_COMPCDE__C_ZONE]** corresponds to the Administrative zone assigned to the country entered in the field "Ctr" in the Table ZZF_T001_MGT_V - Company codes (corresponding field in BFC = Admin Zone)

The characteristic **BFC Gestion Area [C_COMPCDE__C_MNGAREA]** corresponds to the Administrative zone assigned to the country entered in the field "Cty BFC" in the Table ZZF_T001_MGT_V - Company codes when it exists otherwise it is the same as the the characteristic **Geography / Zone [C_COMPCDE__C_ZONE]** (corresponding field in BFC = ZAGESTION)



The country entered in the field "Cty BFC" is a dummy country that is only used to assign a company code to a different "Administrative zone". It is used when a country can belong to two regions (Russia, Mexico, Turkey)

Characteristics to determine the production plant

There 4 characteristics in the application P&L that can be used to determine the production plant

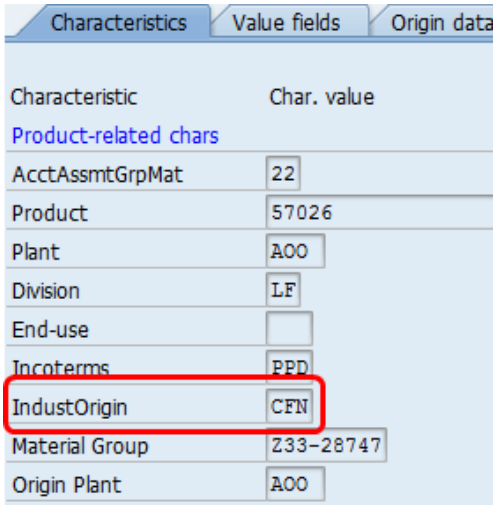
- Batch Origin_P
- Origin Plant
- Production plant in material_W
- Industrial Origin

Batch Origin_P

"Batch Origin_P" comes from the field "IndustOrigin" in the COPA posting. It works only in PF1.

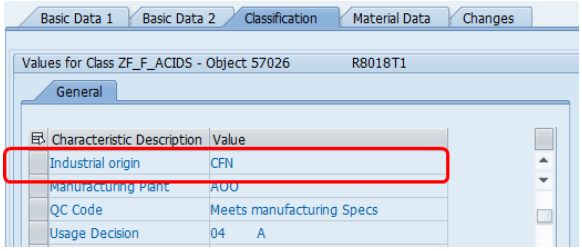
The characteristic Batch Origin_P (C_MATGR1) is only available in **PF1**

- The characteristic Batch Origin_P comes from the posting COPA. It corresponds to the caracteristic **IndustOrigin**



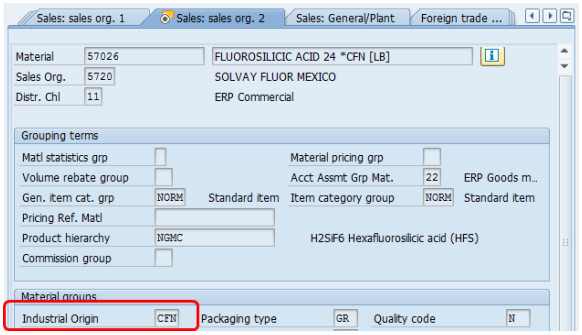
MSC3N - Display Batch

- In COPA, the caracteristic comes from the batch. Field "Industrial Origin" in the tab "Classification"
- The code is made of 3 digits even if the plant code has 4 digits.



- When the field "Industrial origin" is blank in the batch, then the sytem looks at the view "Sales: sales org org. 2" of the Material Master Data to determine the "IndustOrigin"

MM03 - Display Material



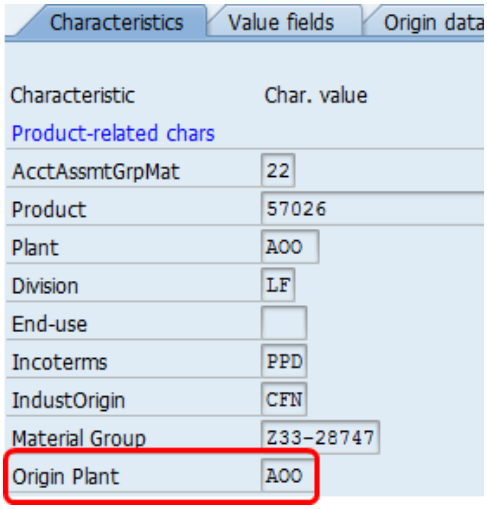
Origin Plant

"Origin Plant" comes from the field "Origin Plant" in the COPA posting. It works in PF1 & WP1.

The characteristic Origin Plant (C_ZZWWE41) is available in **PF1** & **WP1**

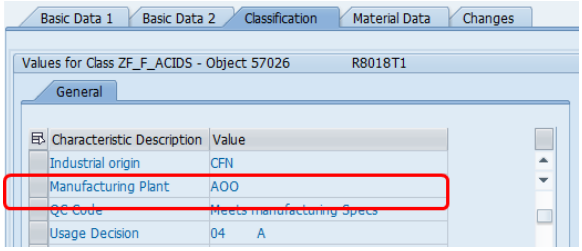
KE24 - Extract CO-PA line items

- The characteristic Origin Plant comes from the posting COPA. It corresponds to the caracteristic **Origin Plant**



- In COPA, the caracteristic comes from the batch. Field "Manufacturing Plant" in the tab "Classification"
- The code is made of 4 digits.

MSC3N - Display Batch



Production plant in material_W

"Production plant in material_W" is a determination of the origin plant made by BW using special procurement codes. It works only with WP1

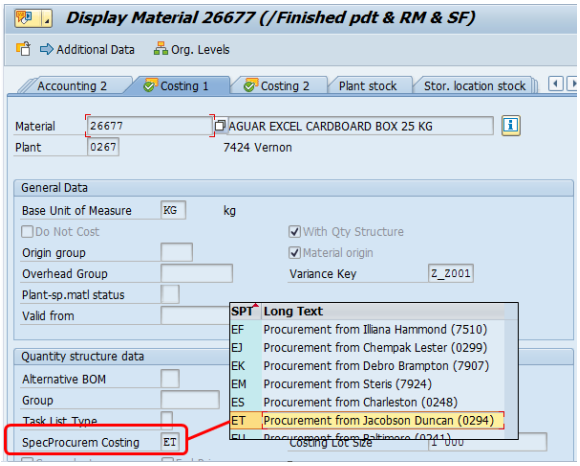
The characteristic Production plant in material_W (C_MATPNT2_C_PRPLANT) is only available in **WP1**

It is determined by BW using the special procurement code of the material/plant in its material master data.

- BW is looking first at the Special Procurement code in the costing 1 view. If it is blank it looks at the code in the view MRP2.

In the example, there is a special procurement code "ET" in the costing view of the material code 26677 in the plant 0267. It means the material is procured from the plant 0294.

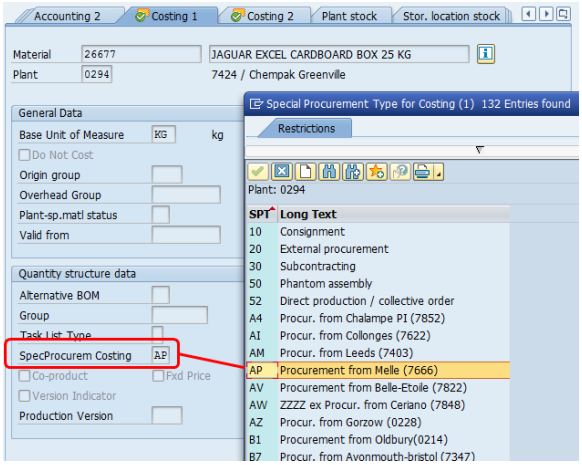
MM03 - Display Special Procurement type



BW looks at the material 26677 in the plant 0294, it has a procurement code "AP" = Procurement from plant 7666

In the plant 7666, the material code 26677 has no procurement code as it is produced by the plant.

Conclusion: when the material code 26677 is sold from the plan 0294 or 0267, the characteristic Production plant in material_W = 7666



Industrial Origin

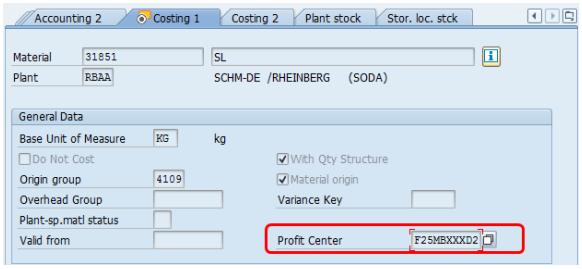
"Industrial Origin" comes from the profit center of the material code in PF1

The characteristic Industrial Origin (0PROFIT_CTR_0MATL_GRP_1) is only available in **PF1**

It comes from the profit center of the material code

Ex: the profit center of the material code 31851 / plant RBAA is F25MBXXXD2

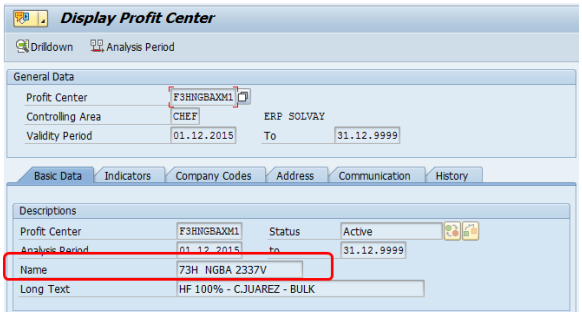
MM03 - Display Material



*The text of the profit center F25MBXXXD2 is **73H NGBA 2337V***

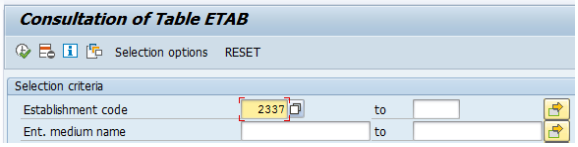
KE53 - Display Profit Center

*According to the Profit Center Reporting name in PF1, the industrial origin code is **2337***

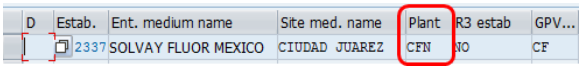


In the table ZPRI, the establishment code 2337 has the corresponding plant CFN

PF2 - ZPRI Display table ETAB



Conclusion the Industrial Origin of the material code 31851 / plant RBAA is CFN



Service Invoicing solution in PF1

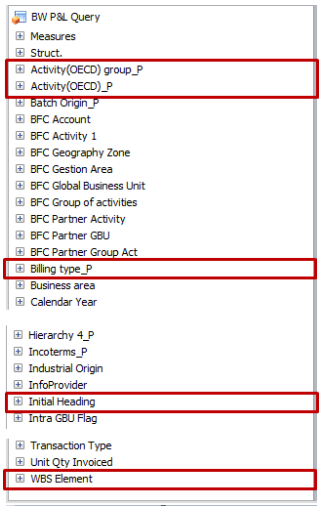
In this scope we will approach:

- Characteristics created in the frame of PF1 Service Invoicing solution
- Usage of PF1 Service Invoicing solution characteristics
  - BFC heading determination
  - WBS elements
  - Billing type

Characteristics created in the frame of PF1 Service Invoicing solution

The following characteristics were added in the P&L BW for entities in PF1:

- Activity (OECD) group_P
- Activity (OECD)_P
- Biling type_P
- Initial Heading
- WBS Element



Usage of PF1 Service Invoicing solution characteristics

BFC Headings

The determination of the BFC heading depends on the COPA value field and the Activity OECD using the mapping table below:

In BW you can see:

- The value field = characteristics **P&L element**
- The Activity OECD added in 2018 = **Activity(OECD)_P**

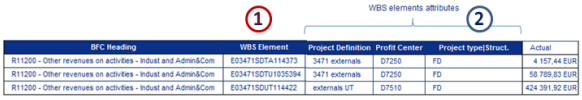
Example:

The value field **VVB30 (1)** can be assigned to different **BFC Heading (2)** depending on the **Activity OECD (3)**

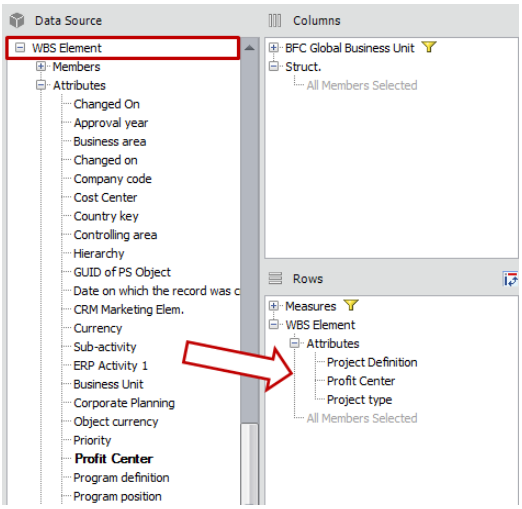
The caracteristic Initial Heading corresponds to the BFC Heading before PF1 Service Invoicing restatements. It was only determined by the value field. In the example **VVB30 (1)** was assigned to a single **BFC Heading R11200 (3)**

WBS elements

In the P&L, you can add the **WBS element (1)** used for the service invoicing. It comes with all its **attributes (2)**



A long list of WBS attributes can be added



How WBS element from service invoicing are populated in P&L solution:

To retrieve WBS element information we populate COPA line items linked to Invoice (transaction type F) .

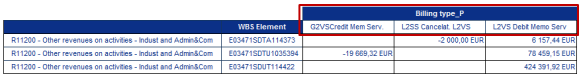
We use Sales Order and Item Number in Sales Order to retrieve WBS information from CROCO technical Table Z1F_CRC_INV.

This process is limited to Service Invoicing billing type (L2VS, L2SS, G2VS, G2SS, L2VD, L2DS and G2VC) and only if WBS element field is empty

If nothing is founded in the CROCO technical Table Z1F_CRC_INV, we set the default value "CROCO-WBS-ERROR"

Billing type

You can add the characteristic Billing type_P to see what type of Billing type was used.



Billing type concerned by Service Invoicing solution in PF1 are :

L2VS, L2SS, G2VS, G2SS , L2VD, L2 DS and G2VC

5.0 Non-functional Descriptions

5.1 Usability

as per standard.

5.2 Regulatory Compliance

as per standard.

5.3 Security

as per standard.

5.4 Performance

as per standard.

5.5 Reliability

as per standard.

5.6 Scalability

as per standard.

5.7 Compatibility

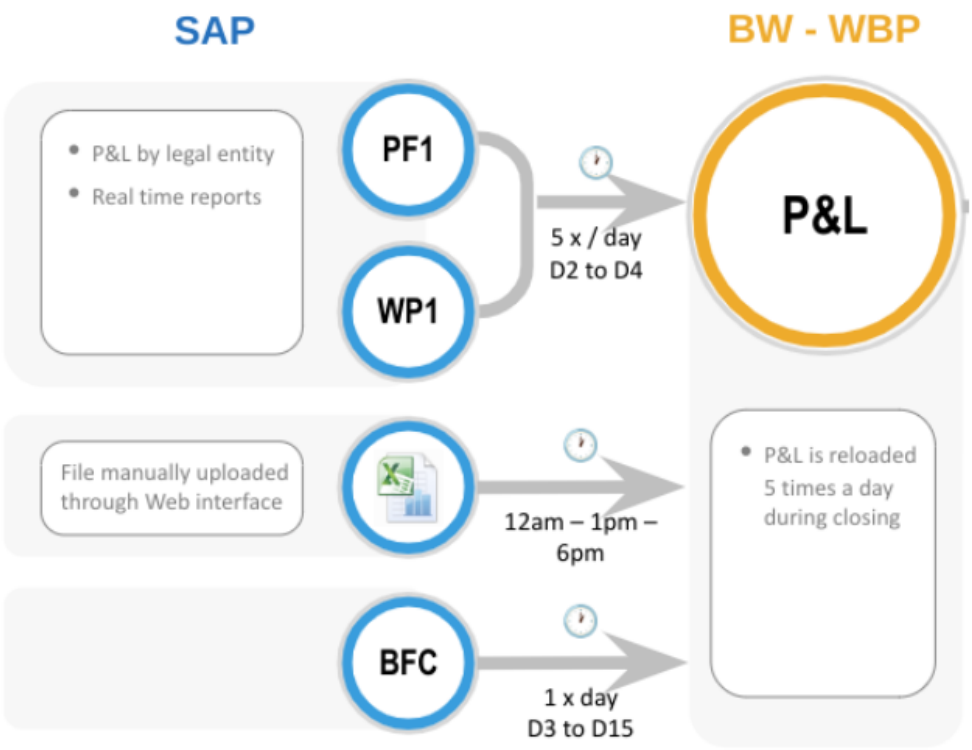
as per standard.

5.8 Availability

as per standard.

5.9 Refresh of the Data

Closing Time:



Outside of Closing: the reload of data is 1x/ day during in the night.