# Functional Documentation - PAPM: CBS invoicing and Segmented P&L

## 1.0 Overview

PAPM/CBS Menu

### Business Context and Application Overview

The Profitability and Performance Management (PaPM) is a native SAP HANA solution that maintains and executes complex calculations, rules and simulations for automatizing and improving all manual calculations. Before the CBS model was done in excel and this application was built to improve efficiency, reduce cash leakage and reduce non-compliance risk to reconsider the services invoicing process.

The data can be analyzed for real-time data insights, and the traceability of the data allows easy identification of outliers or potential errors in data. PaPM outputs are built as queries where the data is compiled and edited.
It calculates the amounts to be charged and invoiced by each service provider entity to each entity that obtains benefit from the services that it provides.

The Segmented P&L solution was introduce after to improve the process which was very complex and in excel and in this way the users can more accurately and regularly proactively update unit prices to target arm's length outcomes. This will reduce the value of year-end adjustments, reducing double taxation and customs overpayments.

### Application User Profile

Fill the form

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

In SAP system select the "WBP - BW Business Warehouse". As there is no dedicated item for PaPM in 'Business Role' fields, so please pick 'BW_Transaction' then input 'PaPM Applications' in next field details.

For this scope we have different roles:

- If request for a new PaPM user (who need to execute PaPM process);
- If request for a query user of ECO (who just need to run the BW queries);
- If request for a query user of SCO (who just need to run the BW queries).

Please see all the details to request for your purpose the correct role in the manual Segmented P&L in PAPM starting in slide 87.

**Target Users:**

Transfer Price team.

| VERSION | DATE | MODIFIED BY | DESCRIPTION |
|---|---|---|---|
| 0.01 | 02.11.2023 | Inês Vilares | Initial draft |
| | | | |
| | | | |

### Application Type

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

# 2.0 Business Process

## CBS Invoicing

**Introduction on how CBS Project started**

In the Solvay Group, certain functions are performed by central service providers (and not within BU's) for the benefit of companies in the Solvay Group as it is more economical and efficient for these to be performed centrally by specialists than separately by each group entity. Examples include Human Resources, Payroll, Invoicing, Credit Control, SBS IS .., these services are provided by organizations known as "Function Service Providers" which collectively form part of "Corporate & Business Services" (CBS).

Similar services were performed centrally in both Solvay and Rhodia before Solvay acquired Rhodia. Following the acquisition there has been in a continuing process of internal merger and restructuring. This created a need for a new harmonized system of cost recording, reporting and invoicing of centrally provided services; this was referred to as the "CBS Project" and consisted of three sub-projects:

- P&L Structure;
- BW Cost Tracking; and
- Charging and invoicing of Centrally Provided Services.

The CBS project was launched with three main objectives:

- Harmonize practices of Solvay and Rhodia legacies, with an extension to Cytec following its acquisition by Solvay in 2015;
- Simplify and enhance visibility of global service charge for BU's; and
- Ensure compliance with accounting, legal and tax requirements

For each objective, there were corresponding main guiding principles.

The CBS model has been managed in Excel until 2019. As Solvay seeks to improve efficiency, reduce cash leakage and reduce non-compliance risk, in 2020 EY was engaged to automate the CBS model using SAP's Profitability and Performance Management (PaPM) application, to reconsider the services invoicing process, with a priority given to transpose and automate the existing process supported by the PaPM application.

PaPM maintains and executes complex calculations, rules and simulations automatizing and improving all manual calculations. The data can be analyzed for real-time data insights, and the traceability of the data allows easy identification of outliers or potential errors in data. PaPM outputs are built as queries where the data is compiled and edited.

It calculates the amounts to be charged and invoiced by each service provider entity to each entity that obtains benefit from the services that it provides.

In PaPM, the whole process can be breakdown as the steps:

- Calculate cost at origin.
- Calculate Service Costs.
- Allocate Charges.
- Update Overhead Rates.
- Prepare Invoice Data.
- Create Invoicing Output.
- Review Margin.

Please see in the section Process Detail to see more information about this process.

**Segmented P&L**

Previously the process for the Segmented P&L in Solvay was done mostly manually in MS Excel on a quarterly or annual basis. This work was done with complex files managed in Excel which were very time consuming and to slow to delivery the Segmented P&Ls, which caused slow provision of data for audits, TP Documentation (compliance statutory requirements) and planning.

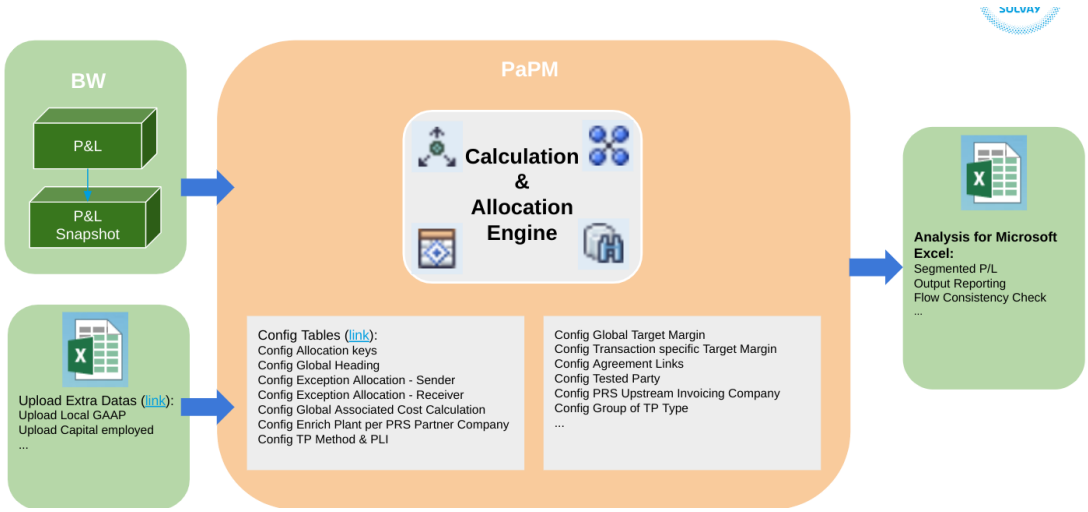
The Group incurs costs related to year-end adjustments: double taxation (corporate income tax) and customs overpayments. By producing the new solution for the Segmented P&Ls this will improve:

- Checks on a more regular basis, the users we can more accurately and regularly proactively update unit prices to target arm's length outcomes. This will reduce the value of year-end adjustments, reducing double taxation and customs overpayments.
- A better Group-wide compliance with national & supranational regulations and lower tax audit risks by more consistently achieving arm's length results for controlled transactions.
- Faster and more consistent data for tax audits. This faster and more consistent data can also be leveraged for tax & TP planning. In addition, the solution will free up time from the manual data processing tasks currently involved in preparing the Excel Segmented P&Ls, to be refocused on higher value analysis such as updating prices and other TP compliance tasks such as TP documentation, notifications and interco agreements.

This new solution was implemented in PAPM application. Main objectives with this integration in the PAPM application:

- Add more transaction types in the transfer price table - aligning the table used for price setting with the transfer pricing classifications used in the Segmented P&Ls and TP Documentation.
- Automate the calculation and allocation in PAPM, minimize manual workload, to migrate the Segmented P&L from Excel to PAPM.
- Implement new Segmented P&L solution in PAPM for all Solvay Entities in WP1 and PF1.

**Framework**




To see more information about the process and how to work with this please check see the link for the Segmented P&L in PAPM and to see more details for the blueprint solution please see in the link 11490 Segmented P&L in PaPM BBP_PaPM Solution.

# 3.0 Application Feature Overview

This application it's used on the user side in the SAP system using some transactions to perform the full process and get the final values into BW and in a final excel. So, in this way, the user can check the final data using also the workbooks directly in excel using AfO (Analysis for Office).

In the SAP system the user can access to the following transactions:

| Scope | SAP Transaction | Name | Definition |
|---|---|---|---|
| | /UI2/FLP | SAP Fiori Launchpad | This transaction will show to the user the PAPM application and all the steps to execute the process. |
| | ZBW_PAPM | Load Driver data for PaPM | This is information manually uploaded and the user can add data for Amount and Head Count. |

| | | | |
|---|---|---|---|
| CBS Invoicing | ZBW_PAPM_VER | Snapshot creation for PaPM data | This will create different BW versions to have a snapshot of the data for that time. This will allow to the users to see/have a tracking of the information and values on that time even if something change in the future. |
| | ZBW_CBS | Load non ERP data for Function Costs | This was used for the companies from Cytec. |
| Segmented P&L | ZSEGPL | Segmented P&L - Main | This transaction allow the users to do the manual snapshot and add information regarding the conditions for the TP types. |

To see the information in AfO for the BW data please check below the following workbooks:

PAPM: CBS Invoicing:

| Reports | Definition | Prompts | BW Workbook Query | Query Technical Name |
|---|---|---|---|---|
| **CBS WORKBOOK V1 WBP - PAPM data** | This workbook is not used anymore for the PAPM Calculation.<br><br>It was the initial output from the PAPM application with the data stored in BW. We only have this workbook available because contains historical data and for audit purpose. | Optional:<br>• Version. | CBS_WORKBOOK_V1_WBP_20200626 | |
| **CBS WORKBOOK V2 WBP - PaPM** | This workbook contain all the final calculations performed by the PAPM application where the users can check the values for the service invoicing. | Mandatory:<br>• PRS Company Code;<br>• Version.<br><br>Optional:<br>• YVERSION_FSPER_SO;<br>• 3 Sub-funct Grouping. | CBS_WORKBOOK_V1_WBP_20210419 | |
| **CBS WORKBOOK V3 - PaPM - SCO** | This workbook is the same as "CBS WORKBOOK V2 WBP - PaPM" but it was created only for SCo (Po2 scope). | Mandatory:<br>• PRS Company Code;<br>• Version.<br><br>Optional:<br>• YVERSION_FSPER_SO;<br>• 3 Sub-funct Grouping. | CBS_WORKBOOK_V1_WBP_SCO | |

PAPM: Segmented P&L:

| Reports | Definition | Prompts | BW Workbook Query | Query Technical Name |
|---|---|---|---|---|
| **Segmented PL WBP Query - Published Config. Tables** | When Segmented PL result is published, a couple of config tables are copied / published to permanent ADSO for storage as well. This file covers those tables only.<br><br>This file is for ECO scope. | Mandatory:<br>• Segm PL Version. | SEGMENTED_PL_WBP_PUBLISH_CONFG | |
| **Segmented PL WBP Query - Published Config. Tables - SCO** | When Segmented PL result is published, a couple of config tables are copied / published to permanent ADSO for storage as well. This file covers those tables only.<br><br>This file is for ECO scope. | Mandatory:<br>• Segm PL Version. | SEGMENTED_PL_WBP_PUBLH_CNF_SCO | |
| **Segmented PL WBP Query - Published File** | After TP team validate the result via Working File, the Segmented PL is copied / published to permanent ADSO for storage.<br><br>This file is for ECO scope. | **QE Process Version Published:**<br><br>Mandatory:<br>• Segm PL Version. | SEGMENTED_PL_WBP_PUBLISH_FILE | |

Optional:

- PRS Company;

**QE of Validate Original BW P/L Extraction, Published:**

- Mandatory:
  - Segm PL Version.

  Optional:
  - PRS Company;
  - PRS Origin Company w.;
  - PRS Partner Company.

**QE of P/L Aft Preliminary Processing, Published:**

Mandatory:

- Segm PL Version.

Optional:

- PRS Company;
- PRS Origin Company w.;
- PRS Upstream Invoici;
- PRS Partner Company.

**QE of Unassigned Items - Theoretical cost Allocation Publis:**

Mandatory:

- Segm PL Version.

Optional:

- PRS Company;

**QE of Published segmented P/L, Pick Allocation Results:**

Mandatory:

- Segm PL Version.

Optional:

- PRS Company;

**QE of Merge All Unassigned Items, Published:**

Mandatory:

- Segm PL Version.

Optional:

- PRS Company;

**QE of Published Segmented P/L, Global PL Layout:**

Mandatory:

- Segm PL Version.

Optional:

- PRS Company;
- PRS Origin Company w.;
- PRS Upstream Invoici;
- PRS Partner Company.

**QE of Output Reporting, Published:**

Mandatory:

- Segm PL Version.

Optional:

| | | | | |
|---|---|---|---|---|
| | | • PRS Company;<br>• PRS Origin Company w.;<br>• PRS Tested Party w.;<br>• PRS Upstream Invoici;<br>• PRS Partner Company. | | |
| **Segmented PL WBP Query - Published File - SCO** | After TP team validate the result via Working File, the Segmented PL is copied / published to permanent ADSO for storage.<br><br>This file is for SCO scope. | **QE Process Version Published:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br><br>**QE of Validate Original BW P/L Extraction, Published:**<br><br>• Mandatory:<br>  ◦ Segm PL Version.<br>  Optional:<br>  ◦ PRS Company;<br>  ◦ PRS Origin Company w.;<br>  ◦ PRS Partner Company.<br><br>**QE of P/L Aft Preliminary Processing, Published:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br>• PRS Origin Company w.;<br>• PRS Upstream Invoici;<br>• PRS Partner Company.<br><br>**QE of Unassigned Items - Theoretical cost Allocation Publis:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br><br>**QE of Published segmented P/L, Pick Allocation Results:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br><br>**QE of Merge All Unassigned Items, Published:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br><br>**QE of Published Segmented P/L, Global PL Layout:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional: | SEGMENTED_PL_WBP_PUBLISH_F_SCO | |

| | | | | |
|---|---|---|---|---|
| | | • PRS Company;<br>• PRS Origin Company w.;<br>• PRS Upstream Invoici;<br>• PRS Partner Company.<br><br>**QE of Output Reporting, Published:**<br><br>Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br>• PRS Origin Company w.;<br>• PRS Tested Party w.;<br>• PRS Upstream Invoici;<br>• PRS Partner Company. | | |
| **Segmented PL WBP Query - Working File** | In this report the users can check the result/values after the Transfer Price team trigger the calculation of Segmented P&L in PAPM.<br><br>This scope is for ECO. | Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br>• PRS Origin Company w;<br>• PRS Upstrem Invoici;<br>• PRS Partner Company;<br>• PRS Tested Party w. | SEGMENTED_PL_WBP_WORKING_FILE | |
| **Segmented PL WBP Query - Working File - SCO** | In this report the users can check the result/values after the Transfer Price team trigger the calculation of Segmented P&L in PAPM.<br><br>This scope is for SCO. | Mandatory:<br><br>• Segm PL Version.<br><br>Optional:<br><br>• PRS Company;<br>• PRS Origin Company w;<br>• PRS Upstrem Invoici;<br>• PRS Partner Company;<br>• PRS Tested Party w. | SEGMENTED_PL_WBP_WORKING_F_SCO | |

# 4.0 Functional Specification

## 4.1 General Data/Calculations

## 4.2 Process Detail

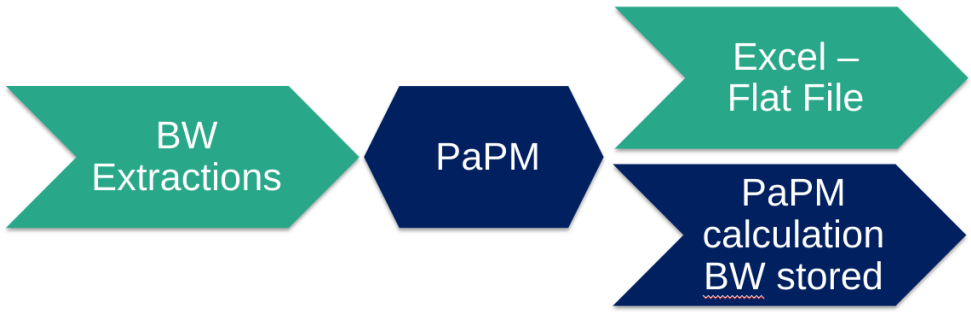
### 4.2.1. Report/Process Definition

| | |
|---|---|
| **Domain** | Finance |
| **Application** | BW reports under PAPM/CBS Invoicing and PaPM - Segmented P&L folders |
| **Provider** | Please check in the technical documentation for the respective scope (PAPM or CBS invoicing) |

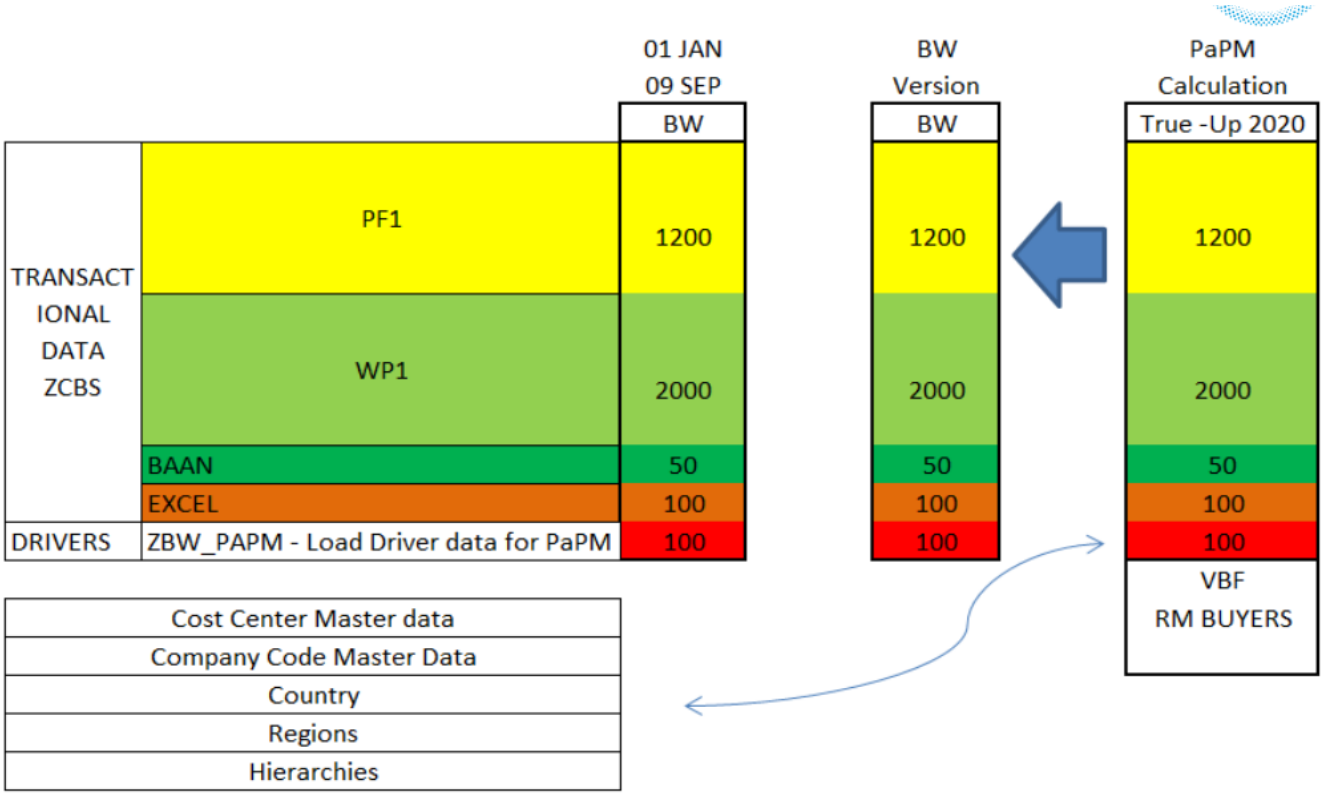
**CBS Invoicing**

**CBS Calculation - Old Process:**

**CBS Calculation - New Process (PAPM):**




This is the high level view of the new process, see below more detail about this process using the PAPM application:




**Note:** The BAAN part don't exist anymore.

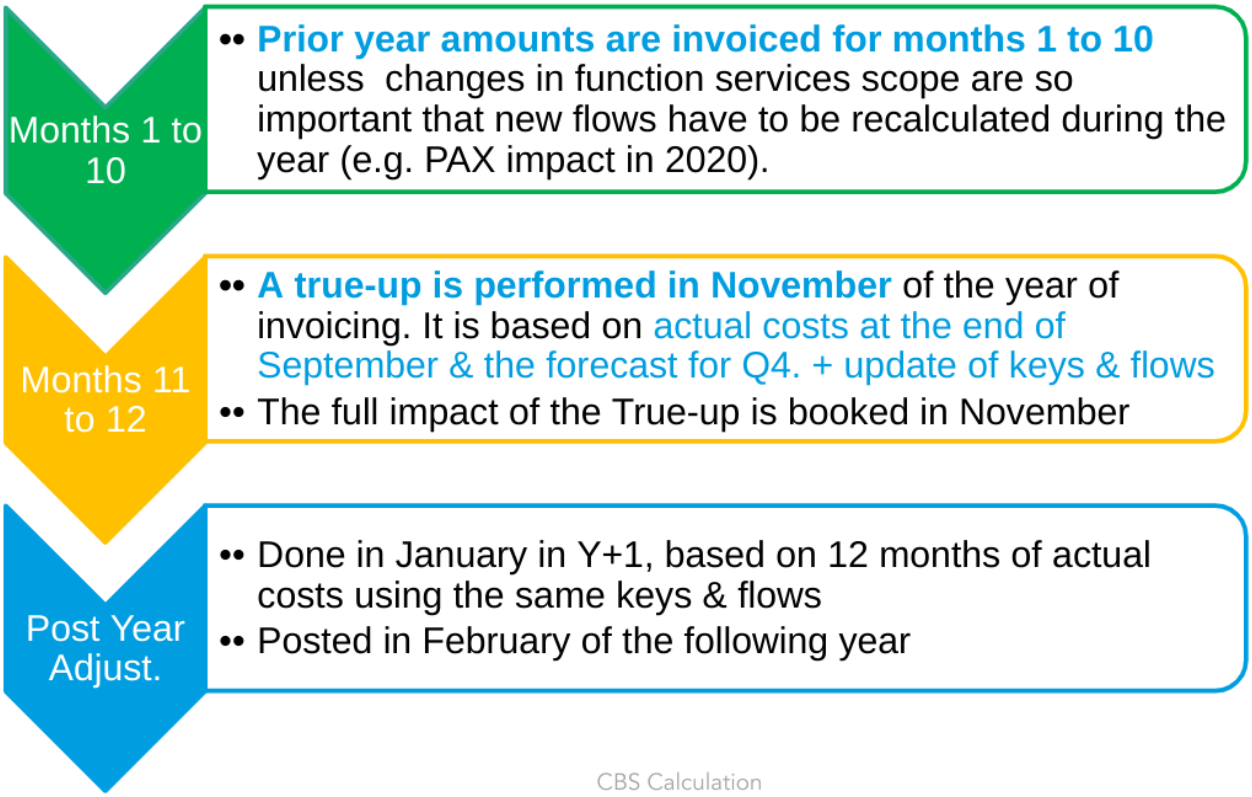
**Data input**

- Transaction data retrieved from BW (Actual Costs).
- Driver amounts loaded directly in BW:
  - Standard Drivers;
  - Specific Drivers.
- BW Version (Snapshot) before starting calculation in PaPM.
- PaPM is based in PRS company code.

**Actual Costs**

- The primary costs (including depreciation) as recorded in ERP on cost centers dedicated to each function.
- Amounts invoiced for services to third-parties are directly deducted in ERP from primary costs.
- The primary costs related to Shareholder activity are deducted.
- After application of the first allocation keys, some costs will remain within the same entity. An Overhead percentage is applied to Direct costs to cover that portion of the costs and the costs of services received.
- Mark-up is added:
  - This is from a study of comparable independent service providers performed by EY.
- Possibility to add manual corrections.

**Timings**




Normally the timing it's 2 time per year but it's possible that the team needs to have an additional execution for the process.

**PAPM Process**

- Each process corresponds to a CBS calculation run in PaPM.
- Process creation/deployment is under responsibility of Execution Management –> SU FAC Transfer Pricing.
- At the start of each Calculation is linked with the Snapshot taken from BW.
- Only after the process is deployed each user can perform the activities.

**Segmented P&L**

Segmented PL is to provide the P/L of each entity with the view per activities (granularity: TP transaction type & Material code / Partner Company / Original company) after all shared cost / expense allocated among the activities.

The Segmented PL will be used to Set & Monitor the unit prices of transactions to a level that will achieve arm's length outcomes (profit margins in tested parties), and also support kinds of reporting like TP Documentation, Benchmarking ranges, Comparability analysis.

In PaPM, the whole process can be breakdown as the steps:

- Raw PL and correction.
- Data enrichment & CBS Integration
- Cost allocation & produce Segmented PL
- Output reporting

Some detail about the process behind before using the PAPM tool is:

1º Take a snapshot to copy the data from P&L to the specific DSO;

2º Redetermine the Transaction Type in BW:

Two tables:

- First has the old and the new TP based in some conditions. The busines should maintain this directly in SAP..
- Second it's just a load for a flat file to control the data selection.

This info will be stored in this calculation view: Solvay.IA_FMCO.IA_FMCO_CO.IA_FMCO_COPA/CV_FMCO_COPA_PL_SNAPSHOT_PAPM (with TP Typ redetermination done in HANA)

Some consultation that we can do for the snapshot info:

SE16 - /BIC/AABCOPA082 Snapshot ADSO PF1

SE16 - /BIC/AABCOPA092 Snapshot ADSO WP1

Check the following presentation to see more information regarding the BW requirement and the technical documentation with more details for this.

---

# 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

Segmented P&L: For P&L information it's scheduled every month on the 4th working day at 10am.