

# Technical Documentation - TIERS report

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## Access Management

### Roles & Access

List of application role + menu role and explanation if we have several applications role with specials rules.

| Role Code      | Role Description                                    | Explanation                                                                                                                                                                                                         |
|----------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZR_RCS_CA_M072 | TR - Transportation costs New                       | role menu                                                                                                                                                                                                           |
| ZBI_RCS_TR_A08 | New Transport Costs Analysis<br>- End User Role     | role menu for TIERS, gives access to all cubes under infoarea IA_SD_TR*<br><br>Authorization Object ZBI_TR2 / Authorization on Company Code<br><br>This role has to be used with the role menu transportation costs |
| ZP2_RCS_TR_A08 | Transportation Costs Analysis TIERS - End User Role | Linked to authorization role ZP2_TR2                                                                                                                                                                                |

**NB:** The role menu ZR\_RCS\_ALL\_MENU "Role composite with all role Menu and perimeters" gives access to all role menu. When asking for a new role menu, do not forget it is added to that one.

**NB:** ZBI\_RCS\_TR\_A02 & ZR\_RCS\_TR\_A02 are obsolete

| Charact./Dimensions           | Description                           | Intervals | Node                                                                                  |
|-------------------------------|---------------------------------------|-----------|---------------------------------------------------------------------------------------|
| <u>OCO AREA</u>               | Controlling area                      | ×         |                                                                                       |
| <u>OEHS AUTH</u>              | Authorization Group                   | ×         |                                                                                       |
| <u>OEHS SPEC OEHS AUTH</u>    | Authorization Group                   | ×         |                                                                                       |
| <u>OPERS AREA</u>             | Personnel Area                        | ×         |                                                                                       |
| <u>OPLANT</u>                 | Plant                                 | ×         |                                                                                       |
| <u>OPROFIT CTR OPLANT</u>     | Plant                                 | ×         |                                                                                       |
| <u>OPROFIT CTR CPFCCTR1 2</u> | BFC Global Business Unit              | ×         |                                                                                       |
| <u>OPROFIT CTR C PFCTR1</u>   | 1 - RCS Global Business Unit          | ×         |                                                                                       |
| <u>OTCAACTVT</u>              | Activity in Analysis Authorizations   | [ ]       |                                                                                       |
| <u>OTCAIPROV</u>              | Authorizations for InfoProvider       |           |  |
| <u>OTCAKYFNM</u>              | Key Figure in Analysis Authorizations | ×         |                                                                                       |
| <u>OTCAVALID</u>              | Validity of an Authorization          | ×         |                                                                                       |
| <u>OTCTAUTHH</u>              | Authorization for hierarchy           | ×         |                                                                                       |
| <u>C BFCA 4</u>               | BFC GBU (FC GBU)                      | ×         |                                                                                       |
| <u>C BU PS</u>                | Business Unit (for Project System)    | ×         |                                                                                       |
| <u>C CCRESP</u>               | Person Responsible                    | ×         |                                                                                       |
| <u>C CNTRY O</u>              | Country of Origin                     | ×         |                                                                                       |
| <u>C COMPCDE C COMPPRS</u>    | PRS Company code                      | ×         |                                                                                       |
| <u>C COSTCTR</u>              | Cost Center                           | ×         |                                                                                       |
| <u>C COSTCTR C FUNCT 2</u>    | 2 Function                            | ×         |                                                                                       |
| <u>C FAMIL</u>                | Family of WBS element                 | ×         |                                                                                       |
| <u>C FAMINPR</u>              | Family of investment project          | ×         |                                                                                       |
| <u>C FUNCT 2</u>              | 2 Function                            | ×         |                                                                                       |
| <u>C FUNCT 3</u>              | 3 Sub-function Grouping               | ×         |                                                                                       |
| <u>C MATPLNT C PFCTR1</u>     | 1 - RCS Global Business Unit          | ×         |                                                                                       |
| <u>C MA PR C BFCA 4</u>       | BFC GBU (FC GBU)                      | ×         |                                                                                       |

|                     |                                   |   |  |
|---------------------|-----------------------------------|---|--|
| C MA PR C FAMINPR   | Family of investment project      | × |  |
| C MA PR C PLANT     | Plant                             | × |  |
| C PFCTR1            | ERP Global Business Unit          | × |  |
| C PFCTR2            | ERP Group of activities           | × |  |
| C PLANT             | Plant                             | × |  |
| C REG               | Regulatory List                   | × |  |
| C RESP CC C FUNCT 3 | Resp CC - 3 Sub-function Grouping | × |  |
| C SUBACT2 CPFCTR1 2 | BFC Global Business Unit          | × |  |
| C VALSTR            | Value Stream                      | × |  |
| C WBS EL2 C FAMIL   | Family of WBS element             | × |  |
| C WBS EL2 C PLANT   | Plant                             | × |  |
| C WBS EL2 C ZSECT   | Global Business Unit              | × |  |
| C WBS ELE OPLANT    | Plant                             | × |  |
| C WBS ELE C FAMIL   | Family of WBS element             | × |  |
| C WBS ELE C ZSECT   | Global Business Unit              | × |  |
| C ZSECT             | Global Business Unit              | × |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------|
| ZBI_RCS_TR_A08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ○○○ | Transportation Costs Analysis TIERS - End User Role |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○○○ Manually Cross-application Authorization Objects</li> <li>○○○ Manually Basis: Administration</li> <li>○○○ Manually Basis - Central Functions</li> <li>○○○ Manually Business Information Warehouse</li> </ul> </li> </ul>                                                                                                                                                                                                                                         |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○○○ Manually Data Warehousing Workbench - Objects</li> <li>○○○ Manually Analysis Office: Authority Object</li> <li>○○○ Manually BI Analysis Authorizations in Role</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                            |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○○○ Manually BI Analysis Authorizations in Role</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>* BW Analysis Authorizations: Na ZBI_TR2</li> </ul> </li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                  |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○○○ Manually Business Explorer - Components</li> <li>○○○ Manually Business Explorer - Components: Enhancements to the Owner</li> <li>○○○ Manually Business Explorer - Folder View On/Off</li> <li>○○○ Manually Data Warehousing Workbench - Hierarchy</li> <li>○○○ Manually Data Warehousing Workbench - InfoCube</li> <li>○○○ Manually Data Warehousing Workbench - InfoSet</li> <li>○○○ Manually Data Warehousing Workbench - MultiProvider</li> </ul> </li> </ul> |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>○○○ Manually Administrator Workbench - MultiProvider</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                          |     |                                                     |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>* Activity Display</li> <li>* InfoArea AREA_S_TR, AREA_S_TR_ODS*, IA_SD_TR*</li> <li>* MultiProvider *</li> <li>* MultiProvider Subobject All values</li> </ul> </li> </ul> </li> </ul>                                                                                                                                                                                                                                      |     |                                                     |

## Authorization Objects

List of authorization objects mandatory for the application.

| Authorization object | Explanation                                                                     |
|----------------------|---------------------------------------------------------------------------------|
| C_COMPCDE            | ZTOUTCAP01 => All Companies "Solvay"                                            |
| C_SHCSTI2__C_COMPCDE | ZR_*_CA_P01<br><br>ZR_ZFR3_CA_P01 => Analysis company Rhodia Opérations ( ZFR3) |
| CPFCTR1_2            | GBU, role: ZR_*_CA_P05                                                          |
| C_COMPCDE__C_AUTHMA  | Authorization scope role: ZR_*_CA_P00                                           |

See also file maintained by Authorization team :

- BW Catalog of Roles: [Authorization catalog](#)
- BW Authorization: [BW Authorizations](#)

# DataFlow

## Overview

## Technical Rules on Workbench

### Rules & Explanations

Main documentation:

#### Preparation

Kickoff

Project Quality Plan

Design Validation

#### Design

Functional Specification

Map of Datasources

Profiles Management

Queries Definition

Technical documentation

#### Deployment

E Learning

### Rule to take the GBU code

Read the field C\_SUBACT2 (profit center) from master data C\_MATPNT3 using plant and material as key.

```

SELECT logsys
      /bic/c_plant
      /bic/c_matpnt3
      /bic/c_pfctr1
      /bic/c_subact2
      co_area
INTO TABLE itb_matpnt2
FROM /bic/pc_matpnt3
FOR ALL ENTRIES IN itb_dpsdtr02
WHERE /bic/c_plant = itb_dpsdtr02-c_plant
      AND /bic/c_matpnt3 = itb_dpsdtr02-c_matpnt2
      AND logsys = itb_dpsdtr02-logsys
      AND objvers = 'A'.

READ TABLE itb_matpnt2 INTO itb_matpnt2_w
WITH TABLE KEY logsys = <result_fields>-logsys
              c_plant = <result_fields>-/bic/c_plant
              c_matpnt2 = itb_dpsdtr02_w-c_matpnt2.
IF sy-subrc = 0.
  <result_fields>-/bic/c_pfctr1 = itb_matpnt2_w-c_pfctr1.
  <result_fields>-/bic/c_subact2 = itb_matpnt2_w-c_subact2.
  <result_fields>-co_area = itb_matpnt2_w-co_area.

```

## Rule to determine the partner code

```

IF itb_dpsdtr02_w-c_vendid IS NOT INITIAL.
  <result_fields>-/bic/c_pnty3py = 'VEND'.
  <result_fields>-/bic/c_3rparty = itb_dpsdtr02_w-c_vendid.
  SHIFT <result_fields>-/bic/c_3rparty LEFT DELETING LEADING '0' .
ENDIF.
IF itb_dpsdtr02_w-c_shiptid IS NOT INITIAL.
  <result_fields>-/bic/c_pnty3py = 'CUST'.
  <result_fields>-/bic/c_3rparty = itb_dpsdtr02_w-c_shiptid.
  SHIFT <result_fields>-/bic/c_3rparty LEFT DELETING LEADING '0' .
ENDIF.

```

## Rule to determine the departure and destination code

```

IF itb_dpsdtr02_w-c_dpnode2 IS NOT INITIAL.

  <result_fields>-/bic/c_pntydp = 'NODE'.
  <result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpnode2.
ENDIF.
IF itb_dpsdtr02_w-c_dpshpn2 IS NOT INITIAL.
  <result_fields>-/bic/c_pntydp = 'SHIPP'.
  w_shppnt = itb_dpsdtr02_w-c_dpshpn2.
  <result_fields>-/bic/c_pntdp2 = w_shppnt.
ENDIF.
IF itb_dpsdtr02_w-c_dpplnt2 IS NOT INITIAL.
  <result_fields>-/bic/c_pntydp = 'PLANT'.
  <result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpplnt2.
ENDIF.
IF itb_dpsdtr02_w-c_dpvend2 IS NOT INITIAL.
  <result_fields>-/bic/c_pntydp = 'VEND'.
  <result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpvend2.
  SHIFT <result_fields>-/bic/c_pntdp2 LEFT DELETING LEADING '0'.
ENDIF.
IF itb_dpsdtr02_w-c_dpcust2 IS NOT INITIAL.
  <result_fields>-/bic/c_pntydp = 'CUST'.
  <result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpcust2.
  SHIFT <result_fields>-/bic/c_pntdp2 LEFT DELETING LEADING '0'.
ENDIF.

```

## Rule to determine the reference month

```

IF itb_dpsdtr01_w-dtcomplact IS NOT INITIAL. " (shipment completion date)
  <result_fields>-rstt_rmnth = itb_dpsdtr01_w-dtcomplact(6).
ELSE.
  IF itb_dpsdtr01_w-dtcompl_pl IS NOT INITIAL.
    <result_fields>-rstt_rmnth = itb_dpsdtr01_w-dtcompl_pl(6). " (shipment planned completion date)
  ELSE.
    <result_fields>-rstt_rmnth = itb_dpsdtr01_w-erdat(6). " (shipment creation date)
  ENDIF.
ENDIF.

```

## Unit conversions

The Unit conversion is done in the Bex queries (Quantity Conversion Type), after user chooses the unit conversion on reports

Transactionnal data are stored in sales unit

- if base unit / po unit is managed in dimension MASS, conversion within table T006 works well
- if base unit / po unit is not managed in dimension MASS, conversions for KG/LB/TO have to be managed on ERP side (MM03 / Alternative Conversion).

There are many "special" units on Solvay ERP, ie: 1KG, 1TN, VKG, KRE,

Important :

Quantities are not converted when loading data, and are not store into cubes (The conversion is done when running the report)

So, if a conversion is missing for a material ask the material referent to

1- manage the conversion on ERP Side by managed the material master (MM03) / unit of measure tab

2- the day after, when the DSO UOMCMAT2 is filled, the conversion is applied in the reports. It applies to whole data without any reloading.

The conversion type created by TIERS queries is QCT\_MATNR4 (see below the setup for it).

**Quantity Conversion Type Display**

Object Directory Entry

Conversion Type: QCT\_MATNR4

Long Description: Qty Conversion Unit (based on C\_MATNR2)

Short Description: Qty Conversion Unit

Hdr data | **Conversion Factors** | Unit of Meas.

☒ Dynamic determination of conversion factor

Using Reference InfoObject, If Available, Otherwise Using Centr. UOMs (T006)

Reference InfoObject: C\_MATNR2

InfoSet:

**Target Unit of Measure**

☐ Selection of Unit of Measure during Conv.

☐ Fixed Unit of Measure

☒ Target Quantity from Variable  VBASE\_UOM\_05

[BW Quantity Conversion](#)

[BW Updated Qty Unit by Material](#)

## Currency conversion

The reports are all based on amounts in **Local Currency** Those amounts come directly from RCS/PF1. If user selects a currency in the prompt the query will convert, otherwise it will return the values in local currency.

The X rate considered is the Daily Month Average (M) rate (table managed by finance team, source ECB - European Central Bank) based on Document creation date.

- See private documentation on [BW Currency Conversion](#)

The **current available rates** applied to **ALL data** (even past data) independently of the date.

We applied conversion type **Curr Conv based on M shpcst creation** - CTK\_MTIERS (see setup below) :

|                 |                                      |
|-----------------|--------------------------------------|
| Conversion Type | CTK_MTIERS                           |
| Description     | Curr Conv based on M shpcst creation |

|            |               |          |           |
|------------|---------------|----------|-----------|
| Properties | Exchange Rate | Currency | Time Ref. |
|------------|---------------|----------|-----------|

☒ ER Determ. Using FI Modules

☒ Exchange Rate Type M □ Standard translation at average rate

☐ Ex. Rate Type from Var.  □

|                 |                                      |
|-----------------|--------------------------------------|
| Conversion Type | CTK_MTIERS                           |
| Description     | Curr Conv based on M shpcst creation |

|            |               |          |           |
|------------|---------------|----------|-----------|
| Properties | Exchange Rate | Currency | Time Ref. |
|------------|---------------|----------|-----------|

☐ Fixed Time Ref.

☒ Current Date

☐ Key Date  □

☐ Time Reference from Variable  □

☐ Use Query Key Date

☒ Variable Time Reference To Exact Day ▼

☒ Standard InfoObject 0CALDAY Calendar Day

[BW Currency Conversion](#)

## Determination of manual price change of shipment cost

The manual price change (C\_MPROK1) is from the Shipment cost sub-items as below:  
VFSI - MPROK in PF1 and WP1

Item: 4208806254 1 4111741588XT30QUZHOU,ZHEJ NINGBOMEI

Item category: XT30 RoadTrpCosts Sel.Cy Service agent: 4007197 SHANGHAI JIYUAN LOGISTICS CO. LTD.

Price Setting Tax Conditions Settlement Service Procurement Reference Admin.

End calculation: 28.02.2024 03:02:19 Calculated: C Fully calculated

Pricing date: 01.02.2024 Pric. procedure: ZT3031

Exch. Rate Type:

Net value: 5.638,20 CNY

Delivery Delivery Item HU Group Single HUS Shipment Costs Item

| Sub-items | Subitm      | PackMaterials | Number of HUs | Net value | Tax amount | Net price | Pric... | Manual price | C... | HUG... | HUG... | HUG... | HU |
|-----------|-------------|---------------|---------------|-----------|------------|-----------|---------|--------------|------|--------|--------|--------|----|
|           | 3FM-ITC0020 |               | 1,000         | 5.638,20  | 507,44     | 5.638,20  |         | A            |      |        | AID    |        |    |

## Dependencies with other applications

- It shares extractors (2LIS\_08TRTK, 2LIS\_08TRTLP, 2LIS\_08TRFKZ) with the legacy TR application for WP1 and PF1.
- It was created some master data in order to have the attributes shared with several applications: shipment doc, delivery doc and shipment cost item doc.
- Data is consumed by Qlikview dashboard. The loadings in QV are daily. It runs a fixed scheduled, the loadings must be finished when the next start.
- There is an integration with SPRINT (purchase schedule lines) to store there the service purchases (freight)
- There are links between TIERS and Value Stream and Industrial dashboard (both for Rhodia legacy)
- There is an integration with SPRINT to store the profit center (C\_SUBACT2) for purchase services

### Rhodia PO schedule lines (DB\_PUSL1)

| InfoSource: Transport Cost to PO Schedule (Rhodia) (IFS_DPSDTR03_DB_PUSL1) |     |            |     |                     | PO : Schedule Line (Rhodia) (DB_PUSL1) Rule Group: Standard Group |     |             |     |                              |
|----------------------------------------------------------------------------|-----|------------|-----|---------------------|-------------------------------------------------------------------|-----|-------------|-----|------------------------------|
| Pos                                                                        | Key | InfoObject | Ico | Descript.           | Pos                                                               | Key | InfoObject  | Ico | Descript.                    |
| 1                                                                          | 🔑   | 0LOGSYS    | 🏠   | Source System       | 1                                                                 | 🔑   | 0LOGSYS     | 🏠   | Source System                |
| 2                                                                          | 🔑   | 0DOC_NUM   | 🏠   | BW: Document Number | 2                                                                 | 🔑   | 0DOC_NUM    | 🏠   | BW: Document Number          |
| 3                                                                          | 🔑   | C_PO_ITM   | 🏠   | Purchase Order Item | 3                                                                 | 🔑   | 0DOC_ITEM   | 🏠   | BW: Document Line Number     |
| 4                                                                          | 🔑   | C_MATNR2   | 🏠   | Material            | 4                                                                 | 🔑   | 0SCHD_LINE  | 🏠   | Schedule line number         |
| 5                                                                          | 🔑   | C_PLANT    | 🏠   | Plant               | 5                                                                 | 🔑   | 0PSTNG_DATE | 🏠   | Posting date in the document |
|                                                                            |     |            |     |                     | 6                                                                 | 🔑   | 0FISCVARNT  | 🕒   | Fiscal year variant          |
|                                                                            |     |            |     |                     | 8                                                                 | ⌘   | 0STORNO     | 🏠   | Reversal indicator           |

### Solvay PO schedule lines (DB\_PUSL2)

| InfoSource: Transport Cost to PO Schedule (Solvay) (IFS_DPSDTR23_DB_PUSL2) |     |            |      |                     | PO : Schedule Line (Solvay) (DB_PUSL2) Rule Group: Standard Group |                 |     |     |             |      |                               |
|----------------------------------------------------------------------------|-----|------------|------|---------------------|-------------------------------------------------------------------|-----------------|-----|-----|-------------|------|-------------------------------|
| Pos                                                                        | Key | InfoObject | Icon | Descript.           | Rule                                                              | Rule Name       | Pos | Key | InfoObject  | Icon | Descript.                     |
| 1                                                                          |     | 0LOGSYS    |      | Source System       |                                                                   | 0LOGSYS         | 1   |     | 0LOGSYS     |      | Source System                 |
| 2                                                                          |     | 0DOC_NUM   |      | BW: Document Number |                                                                   | 0DOC_NUM        | 2   |     | 0DOC_NUM    |      | BW: Document Number           |
| 3                                                                          |     | C_PO_ITM   |      | Purchase Order Item |                                                                   | 0DOC_ITEM       | 3   |     | 0DOC_ITEM   |      | BW: Document Line Number      |
| 4                                                                          |     | C_MATNR2   |      | Material            |                                                                   | See End Routine | 4   |     | 0SCHD_LINE  |      | Schedule line number          |
| 5                                                                          |     | C_PLANT    |      | Plant               |                                                                   | See End Routine | 5   |     | 0PSTNG_DATE |      | Posting date in the document  |
|                                                                            |     |            |      |                     |                                                                   | See End Routine | 6   |     | 0FISCVARNT  |      | Fiscal year variant           |
|                                                                            |     |            |      |                     |                                                                   | 0STORNO         | 8   |     | 0STORNO     |      | Reversal indicator            |
|                                                                            |     |            |      |                     |                                                                   | 0PO_STATUS      | 9   |     | 0PO_STATUS  |      | Status of purchasing document |

- There is an integration with Value Stream to store there the cost of transports



## Rhodia CUB\_VS (value stream)

| TR Bus: Shipment Costs (Rhodia) (DBSDTR03) |     |             |     |                               | Infocube Value Stream (CUB_VS) Rule Group: Standard Group |             |      |     |             |     |                                  |
|--------------------------------------------|-----|-------------|-----|-------------------------------|-----------------------------------------------------------|-------------|------|-----|-------------|-----|----------------------------------|
| Posi                                       | Key | InfoObject  | Ico | Descript.                     | Rule                                                      | Rule Name   | Posi | Key | InfoObject  | Ico | Descript.                        |
| 1                                          | 🔑   | 0LOGSYS     | 🏠   | Source System                 | 🕒                                                         | 0CALMONTH   | 1    | 🔑   | 0CALMONTH   | 🕒   | Calendar Year/Month              |
| 2                                          | 🔑   | C_SHCSTN2   | 🏠   | Shipment cost number (Core)   | 🕒                                                         | 0CALQUART1  | 2    | 🔑   | 0CALQUART1  | 🕒   | Quarter                          |
| 3                                          | 🔑   | C_SHCSTI2   | 🏠   | Shipment Cost item (core)     | 🕒                                                         | 0CALYEAR    | 3    | 🔑   | 0CALYEAR    | 🕒   | Calendar Year                    |
| 4                                          | 🔑   | C_SHIPNU2   | 🏠   | Shipment Number (Core)        | 🕒                                                         | 0CALMONTH2  | 4    | 🔑   | 0CALMONTH2  | 🕒   | Calendar month                   |
| 5                                          | 🔑   | C_DELNUM2   | 🏠   | Delivery number               | 🕒                                                         | 0FISCPER    | 5    | 🔑   | 0FISCPER    | 🕒   | Fiscal year / period             |
| 6                                          | 🔑   | C_DELITM2   | 🏠   | Delivery Item (Core)          | 🕒                                                         | 0FISCPER3   | 6    | 🔑   | 0FISCPER3   | 🕒   | Posting period                   |
| 7                                          |     | 0CALDAY     | 🕒   | Calendar Day                  | 🏠                                                         | K4          | 7    | 🔑   | 0FISCVARNT  | 🕒   | Fiscal year variant              |
| 8                                          |     | C_TSRFO     | 🏠   | Shipment Stage sequence       | 🕒                                                         | 0FISCYEAR   | 8    | 🔑   | 0FISCYEAR   | 🕒   | Fiscal year                      |
| 9                                          |     | C_VHILM2    | 🏠   | Packaging materials           | 🕒                                                         | 0CALQUARTER | 9    | 🔑   | 0CALQUARTER | 🕒   | Calendar Year/Quarter            |
| 10                                         |     | 0RECORDMODE | 🏠   | BW Delta Process: Update Mode | 🏠                                                         | C_MATPNT2   | 10   | 🔑   | C_VALSTR    | 🏠   | Value Stream                     |
| 11                                         |     | C_FWDAGID   | 🏠   | Forward Agent (Core)          | 🏠                                                         | C_CELTHF1   | 11   | 🔑   | C_CELTHF1   | 🏠   | Fixed cost Group 1               |
| 12                                         |     | C_COMPCODE  | 🏠   | Company code                  | 🏠                                                         | C_OEECAT    | 12   | 🔑   | C_OEECAT    | 🏠   | Notification Cause               |
| 13                                         |     | 0CO_AREA    | 🏠   | Controlling area              | 🏠                                                         | 10          | 13   | 🔑   | 0VTYPE      | 🏠   | Value Type for Reporting         |
| 14                                         |     | C_SUBACT2   | 🏠   | Sub-Activity 2                | 🏠                                                         | C_CELTHF2   | 14   | 🔑   | C_CELTHF2   | 🏠   | Fixed cost Group 2               |
| 15                                         |     | C_PFCCTR1   | 🏠   | ERP Global Business Unit      | 🏠                                                         | Version     | 15   | 🔑   | 0VERSION    | 🏠   | Version                          |
| 16                                         |     | C_MATNR2    | 🏠   | Material                      | 🏠                                                         | C_RAWMAT    | 16   | 🔑   | C_RAWMAT    | 🏠   | Raw Material                     |
| 17                                         |     | C_PLANT     | 🏠   | Plant                         | 🏠                                                         | C_UTILITY   | 17   | 🔑   | C_UTILITY   | 🏠   | Utilities                        |
| 18                                         |     | 0LEGIND     | 🏠   | Leg indicator                 | 🏠                                                         | C_VHILM     | 18   | 🔑   | C_VHILM     | 🏠   | Packaging materials              |
| 19                                         |     | C_MATPNT2   | 🏠   | Material Plant                | 🏠                                                         | C_MATUTL    | 19   | 🔑   | C_MATUTL    | 🏠   | Raw Material/Packaging/Utilities |

- There is an integration with Industrial dashboard to store there the cost of transports

## Rhodia CUB\_DIPL (industrial dashboard)

| TR Bus: Shipment Costs (Rhodia) (DBSDTR03) |     |             |     |                                        | Infocube Industrial Dashboard by Plant (CUB_DIPL) Rule Group: Standard Group |             |      |     |             |     |                                  |
|--------------------------------------------|-----|-------------|-----|----------------------------------------|------------------------------------------------------------------------------|-------------|------|-----|-------------|-----|----------------------------------|
| Posi                                       | Key | InfoObject  | Ico | Descript.                              | Rule                                                                         | Rule Name   | Posi | Key | InfoObject  | Ico | Descript.                        |
| 1                                          | 🔑   | 0LOGSYS     | 🏠   | Source System                          | 🕒                                                                            | 0CALMONTH   | 1    | 🔑   | 0CALMONTH   | 🕒   | Calendar Year/Month              |
| 2                                          | 🔑   | C_SHCSTN2   | 🏠   | Shipment cost number (Core)            | 🕒                                                                            | 0CALQUART1  | 2    | 🔑   | 0CALQUART1  | 🕒   | Quarter                          |
| 3                                          | 🔑   | C_SHCSTI2   | 🏠   | Shipment Cost item (core)              | 🕒                                                                            | 0CALYEAR    | 3    | 🔑   | 0CALYEAR    | 🕒   | Calendar Year                    |
| 4                                          | 🔑   | C_SHIPNU2   | 🏠   | Shipment Number (Core)                 | 🕒                                                                            | 0CALMONTH2  | 4    | 🔑   | 0CALMONTH2  | 🕒   | Calendar month                   |
| 5                                          | 🔑   | C_DELNUM2   | 🏠   | Delivery number                        | 🕒                                                                            | 0FISCPER    | 5    | 🔑   | 0FISCPER    | 🕒   | Fiscal year / period             |
| 6                                          | 🔑   | C_DELITM2   | 🏠   | Delivery Item (Core)                   | 🕒                                                                            | 0FISCPER3   | 6    | 🔑   | 0FISCPER3   | 🕒   | Posting period                   |
| 7                                          |     | 0CALDAY     | 🕒   | Calendar Day                           | 🏠                                                                            | K4          | 7    | 🔑   | 0FISCVARNT  | 🕒   | Fiscal year variant              |
| 8                                          |     | C_TSRFO     | 🏠   | Shipment Stage sequence                | 🕒                                                                            | 0FISCYEAR   | 8    | 🔑   | 0FISCYEAR   | 🕒   | Fiscal year                      |
| 9                                          |     | C_VHILM2    | 🏠   | Packaging materials                    | 🕒                                                                            | 0CALQUARTER | 9    | 🔑   | 0CALQUARTER | 🕒   | Calendar Year/Quarter            |
| 10                                         |     | 0RECORDMODE | 🏠   | BW Delta Process: Update Mode          | 🏠                                                                            | C_CELTHF1   | 10   | 🔑   | C_CELTHF1   | 🏠   | Fixed cost Group 1               |
| 11                                         |     | C_FWDAGID   | 🏠   | Forward Agent (Core)                   | 🏠                                                                            | C_OEECAT    | 11   | 🔑   | C_OEECAT    | 🏠   | Notification Cause               |
| 12                                         |     | C_COMPCODE  | 🏠   | Company code                           | 🏠                                                                            | 10          | 12   | 🔑   | 0VTYPE      | 🏠   | Value Type for Reporting         |
| 13                                         |     | 0CO_AREA    | 🏠   | Controlling area                       | 🏠                                                                            | C_CELTHF2   | 13   | 🔑   | C_CELTHF2   | 🏠   | Fixed cost Group 2               |
| 14                                         |     | C_SUBACT2   | 🏠   | Sub-Activity 2                         | 🏠                                                                            | 0           | 14   | 🔑   | 0VERSION    | 🏠   | Version                          |
| 15                                         |     | C_PFCSTR1   | 🏠   | ERP Global Business Unit               | 🏠                                                                            | C_RAWMAT    | 15   | 🔑   | C_RAWMAT    | 🏠   | Raw Material                     |
| 16                                         |     | C_MATNR2    | 🏠   | Material                               | 🏠                                                                            | C_UTILITY   | 16   | 🔑   | C_UTILITY   | 🏠   | Utilities                        |
| 17                                         |     | C_PLANT     | 🏠   | Plant                                  | 🏠                                                                            | C_VHILM     | 17   | 🔑   | C_VHILM     | 🏠   | Packaging materials              |
| 18                                         |     | 0LEGIND     | 🏠   | Leg indicator                          | 🏠                                                                            | C_MATUTL    | 18   | 🔑   | C_MATUTL    | 🏠   | Raw Material/Packaging/Utilities |
| 19                                         |     | C_MATPNT2   | 🏠   | Material Plant                         | 🏠                                                                            | C_TPCOMP    | 19   | 🔑   | C_TPCOMP    | 🏠   | Component type                   |
| 20                                         |     | C_PNTY3PY   | 🏠   | 3rd Party Type                         | 🏠                                                                            | C_SUBCMAT   | 20   | 🔑   | C_SUBCMAT   | 🏠   | Material Sub-Contracting         |
| 21                                         |     | C_3RPARTY   | 🏠   | 3rd Party (Cust / Vend)                | ✖                                                                            | K_OTIFS     | 21   |     | K_OTIFS     | 🏠   | OTIF - Supplier                  |
| 22                                         |     | C_PNTYDP3   | 🏠   | Ship Departure Connection Type         | ✖                                                                            | K_OTIFC     | 22   |     | K_OTIFC     | 🏠   | OTIF - Customer                  |
| 23                                         |     | C_PNTDP3    | 🏠   | Ship Departure Connection Point (core) | ✖                                                                            | KFIXCSTS    | 23   |     | KFIXCSTS    | 🏠   | Fixed Costs                      |
| 24                                         |     | C_PNTYDS3   | 🏠   | Ship Destination Connection Type       | ✖                                                                            | KVARCSTS    | 24   |     | KVARCSTS    | 🏠   | Variable Costs - Total amount    |

## Info areas

|                                                      |                      |
|------------------------------------------------------|----------------------|
| ▼ Sales & Distribution & Transportation              | IA_SD                |
| ▼ Transportation                                     | IA_SD_TR             |
| ▶ 1 - Transportation - Master Data Layer             | IA_SD_TR_MD          |
| ▶ 2 - Transportation - Propagation Layer             | IA_SD_TR_PROPAGATION |
| ▶ 3 - Transportation - Business Transformation Layer | IA_SD_TR_BUSINESS    |
| ▶ 4 - Transportation - Reporting Layer               | IA_SD_TR_REPORTING   |
| ▶ 5 - Transportation - Virtual Layer                 | IA_SD_TR_VIRTUAL     |
| ▶ Sales & Distribution                               | IA_SD_SD             |

## Master Data

|                                            |             |
|--------------------------------------------|-------------|
| ▼ 1 - Transportation - Master Data Layer   | IA_SD_TR_MD |
| ▶ 3RD Party (Customer / Vendor)            | C_3RPARTY   |
| ▶ Condition Type (Core)                    | C_CNDTYP2   |
| ▶ Connection Point ID (Core)               | C_POINT2    |
| ▶ Delivery Item (Core)                     | C_DELITM2   |
| ▶ Departure Connection Point (core)        | C_PNTDP2    |
| ▶ Departure Node Points (Core)             | C_DPNODE2   |
| ▶ Departure Shipping point (core)          | C_DPSPHN2   |
| ▶ Departure zone                           | C_DPZONE    |
| ▶ Destination Connection Point (core)      | C_PNTDS2    |
| ▶ Destination Node Points (Core)           | C_DSNODE2   |
| ▶ Destination Shipping point (core)        | C_DSSHPN2   |
| ▶ Destination zone                         | C_DSZONE    |
| ▶ Event Type (Core)                        | C_EVTTYP    |
| ▶ Main Shipping Type                       | C_SHPTP_2   |
| ▶ Pre Shipping Type                        | C_SHPTP_4   |
| ▶ Route (core)                             | C_ROUTE     |
| ▶ Ship Departure Connection Point (core)   | C_PNTDP3    |
| ▶ Ship Destination Connection Point (core) | C_PNTDS3    |
| ▶ Shipment Cost item (core)                | C_SHCSTI2   |
| ▶ Shipment Number (Core)                   | C_SHIPNU2   |
| ▶ Shipment Type (Core)                     | C_SHPMTP2   |
| ▶ Shipping conditions (core)               | C_SHIPCD2   |
| ▶ Shipping point (core)                    | C_SHPPNT    |
| ▶ Sub Shipping Type                        | C_SHPTP_3   |
| ▶ Transportation Connection Points (Core)  | C_NODPNT2   |
| ▶ Transportation Zone                      | OTRZONE     |
| ▶ Transportation planning point (core)     | C_TRPPNT2   |

## Propagation Layer

| 2 - Transportation - Propagation Layer              | IA_SD_TR_PROP. |
|-----------------------------------------------------|----------------|
| TR Prop: Shipment Conditions (Rhodia)               | DPSDTR04       |
| TR Prop: Shipment Conditions (Solvay)               | DPSDTR24       |
| TR Prop: Shipment Costs (Rhodia)                    | DPSDTR03       |
| TR Prop: Shipment Costs (Solvay)                    | DPSDTR23       |
| TR Prop: Shipment Event Details (Rhodia)            | DPSDTR07       |
| TR Prop: Shipment Event Details (Solvay)            | DPSDTR27       |
| TR Prop: Shipment Events (Rhodia)                   | DPSDTR06       |
| TR Prop: Shipment Events (Solvay)                   | DPSDTR26       |
| TR Prop: Shipment Invoices & Purchases (Rhodia)     | DPSDTR05       |
| TR Prop: Shipment Invoices & Purchases (Solvay)     | DPSDTR25       |
| TR Prop: Shipments & Deliveries (Rhodia)            | DPSDTR02       |
| TR Prop: Shipments & Deliveries (Solvay)            | DPSDTR22       |
| TR Prop: Shipments & Deliveries Status 1-4 (Rhodia) | DPSDTR08       |
| TR Prop: Shipments & Deliveries Status 1-4 (Solvay) | DPSDTR28       |
| TR Prop: Shipments header (Rhodia)                  | DPSDTR01       |
| TR Prop: Shipments header (Solvay)                  | DPSDTR21       |

## Business Layer

| 3 - Transportation - Business Transformation Layer | IA_SD_TR_BUSI |
|----------------------------------------------------|---------------|
| TR Bus: Shipment Conditions (Rhodia)               | DBSDTR04      |
| TR Bus: Shipment Conditions (Solvay)               | DBSDTR24      |
| TR Bus: Shipment Costs (Rhodia)                    | DBSDTR03      |
| TR Bus: Shipment Costs (Solvay)                    | DBSDTR23      |
| TR Bus: Shipment Event Details (Rhodia)            | DBSDTR07      |
| TR Bus: Shipment Event Details (Solvay)            | DBSDTR27      |
| TR Bus: Shipment Events (Rhodia)                   | DBSDTR06      |
| TR Bus: Shipment Events (Solvay)                   | DBSDTR26      |
| TR Bus: Shipment Invoices & Purchases (Rhodia)     | DBSDTR05      |
| TR Bus: Shipment Invoices & Purchases (Solvay)     | DBSDTR25      |
| TR Bus: Shipments & deliveries (Rhodia)            | DBSDTR02      |
| TR Bus: Shipments & deliveries (Solvay)            | DBSDTR22      |
| TR Bus: Shipments header (Rhodia)                  | DBSDTR01      |
| TR Bus: Shipments header (Solvay)                  | DBSDTR21      |

## Reporting Layer

| 4 - Transportation - Reporting Layer           | IA_SD_TR_RE |
|------------------------------------------------|-------------|
| TR Rep: Shipment & Deliveries (Rhodia)         | CRSDTR02    |
| TR Rep: Shipment & Deliveries (Solvay)         | CRSDTR22    |
| TR Rep: Shipment Conditions (Rhodia)           | CRSDTR04    |
| TR Rep: Shipment Conditions (Solvay)           | CRSDTR24    |
| TR Rep: Shipment Costs (Rhodia)                | CRSDTR03    |
| TR Rep: Shipment Costs (Solvay)                | CRSDTR23    |
| TR Rep: Shipment Events & Reasons (Rhodia)     | CRSDTR06    |
| TR Rep: Shipment Events & Reasons (Solvay)     | CRSDTR26    |
| TR Rep: Shipment Header (Rhodia)               | CRSDTR01    |
| TR Rep: Shipment Header (Solvay)               | CRSDTR21    |
| TR Rep: Shipment Invoices & Purchases (Rhodia) | CRSDTR05    |
| TR Rep: Shipment Invoices & Purchases (Solvay) | CRSDTR25    |

## Virtual Layer

|                                                               |               |
|---------------------------------------------------------------|---------------|
| ▼ 5 - Transportation - Virtual Layer                          | IA_SD_TR_VIRT |
| ▶ TR Vir: Shipm & Deliver & Cost & Condit & Invoice (Sol&Rho) | MVSDTR01      |
| ▶ TR Vir: Shipment Events (Solvay & Rhodia)                   | MVSDTR02      |

## Multi provider

1 - MVSDTR01 - Shipm & Delivery & Cost & Cond & PO/Inv (Sol&Rho)

MultiProvider

MVSDTR01

Description

TR Vir: Shipm & Delivery & Cost & Cond & PO/Inv (Sol&Rho)

DataStores

InfoCubes

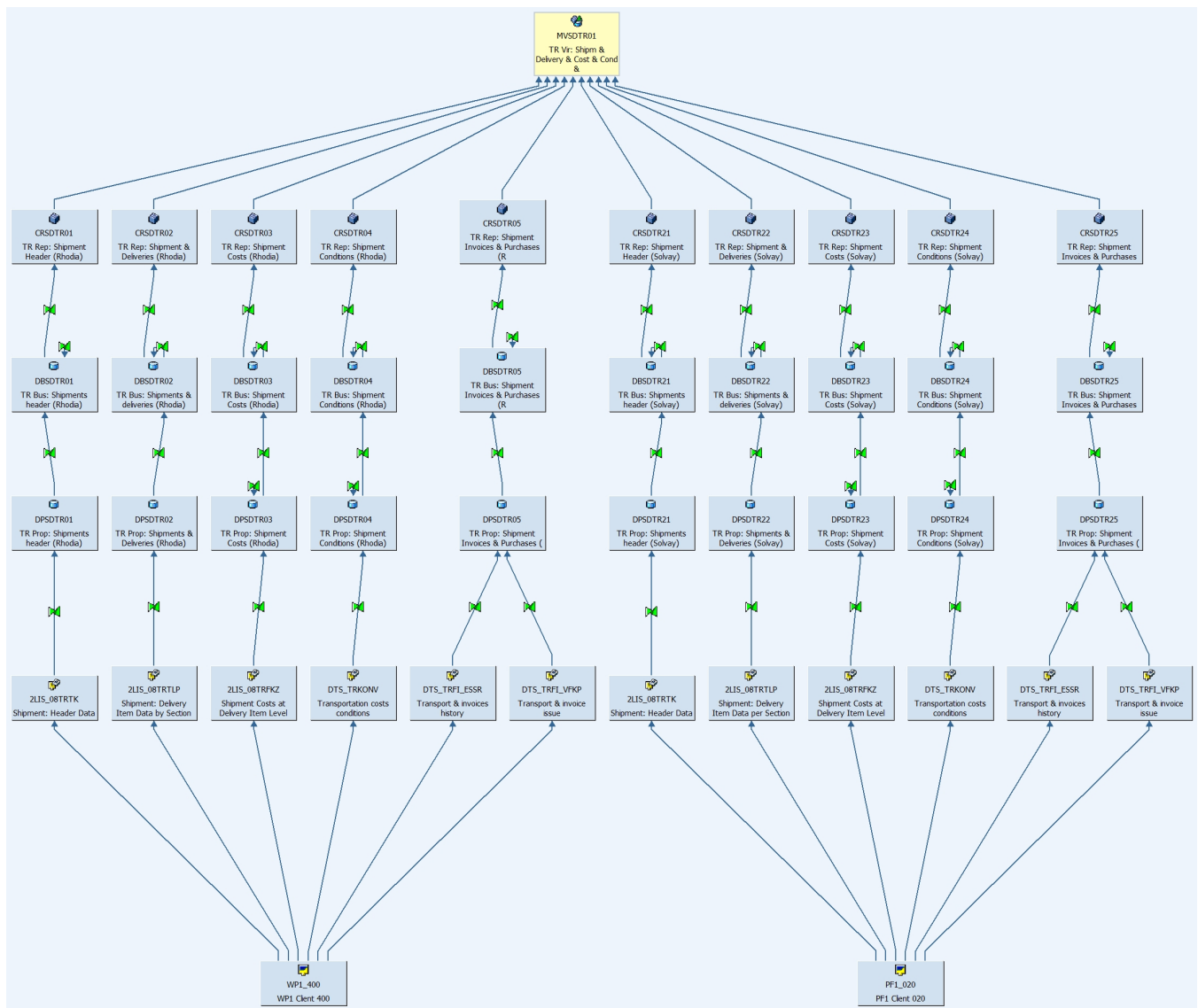
Sem.Part.Prov.

HybridProvider

InfoObjects

| I...                                | InfoCube | Long Description                               |
|-------------------------------------|----------|------------------------------------------------|
| <input checked="" type="checkbox"/> | CRSDTR01 | TR Rep: Shipment Header (Rhodia)               |
| <input checked="" type="checkbox"/> | CRSDTR02 | TR Rep: Shipment & Deliveries (Rhodia)         |
| <input checked="" type="checkbox"/> | CRSDTR03 | TR Rep: Shipment Costs (Rhodia)                |
| <input checked="" type="checkbox"/> | CRSDTR04 | TR Rep: Shipment Conditions (Rhodia)           |
| <input checked="" type="checkbox"/> | CRSDTR05 | TR Rep: Shipment Invoices & Purchases (Rhodia) |
| <input checked="" type="checkbox"/> | CRSDTR21 | TR Rep: Shipment Header (Solvay)               |
| <input checked="" type="checkbox"/> | CRSDTR22 | TR Rep: Shipment & Deliveries (Solvay)         |
| <input checked="" type="checkbox"/> | CRSDTR23 | TR Rep: Shipment Costs (Solvay)                |
| <input checked="" type="checkbox"/> | CRSDTR24 | TR Rep: Shipment Conditions (Solvay)           |
| <input checked="" type="checkbox"/> | CRSDTR25 | TR Rep: Shipment Invoices & Purchases (Solvay) |

## Data Flow



## Dimensions

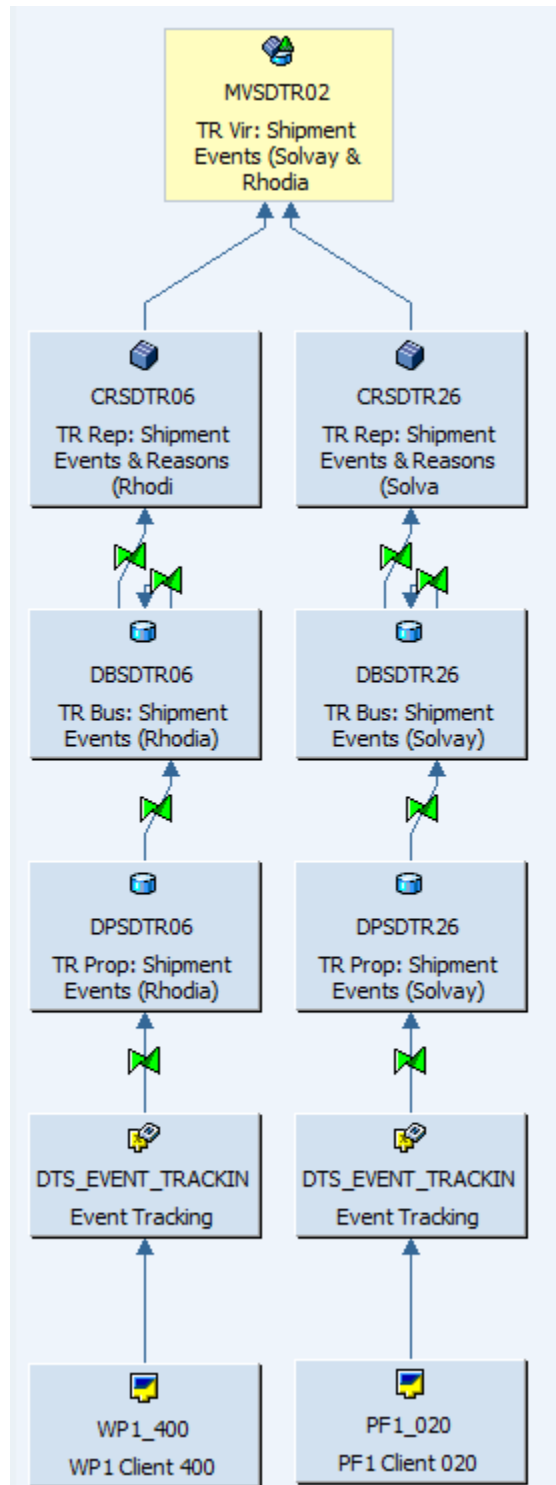
|                                                                                                                          |             |      |    |
|--------------------------------------------------------------------------------------------------------------------------|-------------|------|----|
| ▼  Organization                         | MVSDTR011   |      |    |
| •  Source System                        | 0LOGSYS     | CHAR | 10 |
| •  Plant                                | C_PLANT     | CHAR | 04 |
| •  Company code                         | C_COMPDE    | CHAR | 04 |
| •  ERP GBU                              | C_PFCTR1    | CHAR | 20 |
| •  Controlling area                     | 0CO_AREA    | CHAR | 04 |
| •  Sub-Activity 2                       | C_SUBACT2   | CHAR | 10 |
| ▼  Material                             | MVSDTR012   |      |    |
| •  Material                             | C_MATNR2    | CHAR | 18 |
| •  Material Plant                       | C_MATPNT2   | CHAR | 18 |
| ▼  Departure                            | MVSDTR013   |      |    |
| •  Ship Departure Type                  | C_PNTYDP3   | CHAR | 06 |
| •  Ship Departure Point                 | C_PNTDP3    | CHAR | 10 |
| •  Stage Departure Type                 | C_PNTYDP    | CHAR | 06 |
| •  Stage Departure Point                | C_PNTDP2    | CHAR | 10 |
| ▼  Partner                              | MVSDTR014   |      |    |
| •  Forward Agent                        | C_FWDAGID   | CHAR | 10 |
| •  3rd Party Type                       | C_PNTY3PY   | CHAR | 06 |
| •  3rd Party (Cust / Vend)              | C_3RPARTY   | CHAR | 10 |
| ▼  Destination                          | MVSDTR015   |      |    |
| •  Ship Destination Type                | C_PNTYDS3   | CHAR | 06 |
| •  Ship Destination Point               | C_PNTDS3    | CHAR | 10 |
| •  Stage Destination Type               | C_PNTYDS    | CHAR | 06 |
| •  Stage Destination Point             | C_PNTDS2    | CHAR | 10 |
| ▼  Shipment                           | MVSDTR016   |      |    |
| •  Shipment Number                    | C_SHIPNU2   | CHAR | 10 |
| ▼  Delivery                           | MVSDTR017   |      |    |
| •  Delivery Number                    | C_DELNUM2   | CHAR | 10 |
| •  Delivery Item                      | C_DELITM2   | CHAR | 16 |
| ▼  Shipment Cost                      | MVSDTR018   |      |    |
| •  Shipment cost number               | C_SHCSTN2   | CHAR | 10 |
| •  Shipment Cost item                 | C_SHCSTI2   | CHAR | 16 |
| ▼  Conditions                         | MVSDTR019   |      |    |
| •  Application                        | C_CONDAPP   | CHAR | 02 |
| •  Condition Type                     | C_CNDTYP2   | CHAR | 04 |
| ▼  Purchase/Invoice                   | MVSDTR01A   |      |    |
| •  Invoice Number - Material Document | C_BELNR     | CHAR | 10 |
| •  Purchase Order                     | 0DOC_NUM    | CHAR | 10 |
| •  Purchase Order Item                | C_PO_ITM    | NUMC | 06 |
| •  PO Posting date                    | 0PSTNG_D... | DATS | 08 |
| ▼  Leg                                | MVSDTR01B   |      |    |
| •  Leg indicator                      | 0LEGIND     | CHAR | 01 |
| •  Stage sequence                     | C_TSRFO     | NUMC | 04 |
| •  Stage Shipping Type                | C_SHPTP_2   | CHAR | 02 |
| ▼  Dates                              | MVSDTR01C   |      |    |
| •  Reference Month                    | 0RSTT_RM... | NUMC | 06 |

Key figures



|                                                |             |      |    |          |
|------------------------------------------------|-------------|------|----|----------|
| ▼ Distance                                     | DISTANCE    |      |    |          |
| • Distance                                     | 0DISTANCE   | QUAN | 09 | Quant... |
| ▼ Volume                                       | VOLUME      |      |    |          |
| • Capacity volume shipment                     | 0CAPA_VOL   | QUAN | 09 | Quant... |
| • Volume per stage                             | 0VOLUME...  | QUAN | 09 | Quant... |
| ▼ Costs                                        | COST        |      |    |          |
| • Net value of shipment costs                  | 0FCNETVA... | CURR | 09 | Amount   |
| • Net value of transport condition cost        | K_CONDCOS   | CURR | 09 | Amount   |
| • Cost charged                                 | K_COUFAC    | CURR | 09 | Amount   |
| • Provision                                    | K_PROV      | CURR | 09 | Amount   |
| • Service Entry Sheet Net Value                | K_SESVAL    | CURR | 09 | Amount   |
| • Actual Costs                                 | K_ACT_CST   | CURR | 09 | Amount   |
| • Maximum Price                                | K_TNDMAXP   | CURR | 09 | Amount   |
| ▼ Time                                         | TIME        |      |    |          |
| • On site duration (in min)                    | K_CHKCOMP   | DEC  | 09 | Numb...  |
| • Queue time at plant (in min)                 | K_CHKLOAD   | DEC  | 09 | Numb...  |
| • Transit time (in min)                        | K_ENDCOMP   | DEC  | 09 | Numb...  |
| • Loading duration (in min)                    | K_LOADDUR   | DEC  | 09 | Numb...  |
| • Booking leadtime (in min)                    | K_PLTCOMP   | DEC  | 09 | Numb...  |
| • Planned transportation time in days (status) | 0DURSHPL    | DEC  | 09 | Numb...  |
| • Actual transportation time in days (status)  | 0DURSHPL... | DEC  | 09 | Numb...  |
| • Delay in shipment completion (in min)        | 0DEL_COM... | DEC  | 09 | Numb...  |
| • Delay shipment end (in min)                  | 0DEL_SHP... | DEC  | 09 | Numb...  |
| • Slot adherence (in min)                      | K_SADH      | DEC  | 09 | Numb...  |
| ▼ Counters                                     | COUNTERS    |      |    |          |
| • Number of shipments with stages              | 0NUMSHPL... | DEC  | 09 | Numb...  |
| • Number of stages                             | 0NUMSTA...  | DEC  | 09 | Numb...  |
| • Number of Containers (TR)                    | K_NUMCON    | DEC  | 09 | Numb...  |
| • Number of Shipments                          | K_COUNTER   | DEC  | 09 | Numb...  |
| • Number of stages for a delivery              | 0NUMSTA...  | DEC  | 09 | Numb...  |
| • Number of handling units                     | K_HUNUM     | DEC  | 09 | Numb...  |
| • Relevant for Booking leadtime duration       | K_RBOOKNG   | DEC  | 09 | Numb...  |
| • Relevant for HOTD                            | K_RHOTO     | DEC  | 09 | Numb...  |
| • Relevant for HOTS                            | K_RHOTS     | DEC  | 09 | Numb...  |
| • Relevant for Loading duration                | K_RLOAD     | DEC  | 09 | Numb...  |
| • Relevant for On Site duration                | K_RONSITE   | DEC  | 09 | Numb...  |
| • Relevant for Queue at plant duration         | K_RQUEUE    | DEC  | 09 | Numb...  |
| • Relevant for SADH                            | K_RSADH     | DEC  | 09 | Numb...  |
| • Relevant for Transit time duration           | K_RTRSIT    | DEC  | 09 | Numb...  |
| ▼ Weight                                       | WEIGHT      |      |    |          |
| • Total of Gross weight of shipments           | 0SUM_GRS... | QUAN | 09 | Quant... |
| • Gross weight of deliveries                   | 0DEL_GR...  | QUAN | 09 | Quant... |
| • Net weight of deliveries                     | 0DEL_NT...  | QUAN | 09 | Quant... |
| • Conv Gross weight of deliveries in VKG       | K_GRWTVKG   | QUAN | 09 | Quant... |
| • Conv Gross weight of deliveries in VTN       | K_GRWTV...  | QUAN | 09 | Quant... |
| • Conv Net weight of deliveries in VKG         | K_NTWTV...  | QUAN | 09 | Quant... |
| • Conv Net weight of deliveries in VTN         | K_NTWTV...  | QUAN | 09 | Quant... |
| • Allowed Total Weight                         | K_ALLOW...  | QUAN | 09 | Quant... |
| • Capacity weight shipment                     | 0CAPA_WT    | QUAN | 09 | Quant... |
| • Del.Item Gross Wt. (item unit)               | K_DLITUGW   | QUAN | 09 | Quant... |

## Data Flow



## Dimensions



|                                                                                                              |             |      |    |  |
|--------------------------------------------------------------------------------------------------------------|-------------|------|----|--|
| ▼  Shipment                 | MVSDTR021   |      |    |  |
| •  Shipment Number (Core)   | C_SHIPNU2   | CHAR | 10 |  |
| ▼  Event                    | MVSDTR022   |      |    |  |
| •  Event Type               | C_EVTTYP    | CHAR | 20 |  |
| •  Event Count              | C_EVTCNT    | NUMC | 10 |  |
| ▼  Event Reasons            | MVSDTR023   |      |    |  |
| •  Event Connection Point   | C_KNOTE     | CHAR | 10 |  |
| •  Event Reason f.deviation | C_VSTGA     | CHAR | 04 |  |
| ▼  Event Dates              | MVSDTR024   |      |    |  |
| •  Event Plan Start Date    | C_EVTPLST   | DATS | 08 |  |
| •  Event Plan End Date      | C_EVTPLEN   | DATS | 08 |  |
| •  Event Actual Start Date  | C_EVTACST   | DATS | 08 |  |
| •  Event Actual End Date    | C_EVTACEN   | DATS | 08 |  |
| •  Event End Time           | C_EVENDTI   | TIMS | 06 |  |
| •  Event Plan End Time      | C_EVPENDT   | TIMS | 06 |  |
| •  Event Plan Start Time    | C_EVPSTTI   | TIMS | 06 |  |
| •  Event Start Time         | C_EVSTTI    | TIMS | 06 |  |
| ▼  Organization             | MVSDTR025   |      |    |  |
| •  Source System            | 0LOGSYS     | CHAR | 10 |  |
| •  Company code             | C_COMPCODE  | CHAR | 04 |  |
| •  ERP Global Business Unit | C_PFCTR1    | CHAR | 20 |  |
| •  Plant                    | C_PLANT     | CHAR | 04 |  |
| •  Sub-Activity 2           | C_SUBACT2   | CHAR | 10 |  |
| •  Controlling area        | OCO_AREA    | CHAR | 04 |  |
| ▼  Departure              | MVSDTR026   |      |    |  |
| •  Ship Departure         | C_PNTDP3    | CHAR | 10 |  |
| •  Ship Departure Type    | C_PNTYDP3   | CHAR | 06 |  |
| ▼  Destination            | MVSDTR027   |      |    |  |
| •  Ship Destination       | C_PNTDS3    | CHAR | 10 |  |
| •  Ship Destination Type  | C_PNTYDS3   | CHAR | 06 |  |
| ▼  Dates                  | MVSDTR028   |      |    |  |
| •  Reference Month        | 0RSTT_RMNTH | NUMC | 06 |  |
| ▼  Partner                | MVSDTR029   |      |    |  |
| •  Forward Agent (Core)   | C_FWDAGID   | CHAR | 10 |  |

#### Key figures

|                                                                                                              |             |     |            |  |
|--------------------------------------------------------------------------------------------------------------|-------------|-----|------------|--|
| 📁 Key Figures                                                                                                |             |     |            |  |
| •  Counter level 1        | K_COUNT1    | DEC | 09 Numb... |  |
| •  Actual Shpmt Duration  | 0EVT_ACTDUR | DEC | 09 Numb... |  |
| •  Planned Shpmt Duration | 0EVT_PLNDUR | DEC | 09 Numb... |  |

#### Main KPI calculations

Queue time at plant (in min) = Actual loading start date - Actual check-in date

- $K\_CHKLOAD = (((dtloadbact - dtchkinact) * 24 * 60) + ((c\_ualbg - c\_uareg) / 60)))$

On site duration (in min) = Actual completion date - Actual check-in date

- $K\_CHKCOMP = (((dtcomplact - dtchkinact) * 24 * 60) + ((c\_uzabf - c\_uareg) / 60)))$

Booking leadtime (in min) = Actual loading start date - Actual check-in date

- $K\_PLTCOMP = (((dtloadbact - dtchkinact) * 24 * 60) + ((c\_ualbg - c\_uareg) / 60)))$

Transit time (in min) = Actual shipment end date - Actual completion date

- $K\_ENDCOMP = (dtshp\_eact - dtcomplact) * 24 * 60$

Loading duration (in min) = Actual loading end date - Actual loading start date

- $K\_LOADDUR = (((dtloadeact - dtloadbact) * 24 * 60) + ((c\_ualen - c\_ualbg) / 60)))$

Delay shipment end in min = Actual shipment end date - Planned shipment end date

- $0DEL\_SHPM\_E = (dtshp\_eact - dtshp\_e\_pl) * 24 * 60$

Delay in shipment completion (in min) = Actual completion date - Planned completion date

- $0DEL\_COMPL = (dtcomplact - dtcompl\_pl) * 24 * 60$

Slot adherence = Planned checkin – Actual checkin

- $K\_SADH = (((dtchkin\_pl - dtchkinact) * 24 * 60 + ((c\_upreg - c\_uareg) / 60)))$

## Main functionalities

- [E Learning - user guide](#)
- [Leaflet Impression](#)
- [Q&A Synthesis](#)
- [WeLearn Course Description](#)

## Main datasources based on SAP tables

- 2lis\_08TRTK – Shipment Header
- 2lis\_08TRTLP – Shipment & Deliveries
- 2lis\_08TRFKZ – Shipment Costs
- DTS\_TRKONV – Shipment Conditions
- DTS\_TRFI\_ESSR – Invoices & Purchases History
- DTS\_TRFI\_VFKP – Invoices & Purchases Issues

## Main dimensions for the data

- C\_POINT2 – Connection Point (it can be a customer, vendor, plant, node point or shipping point)
- C\_3RPARTY – 3rd Party (Cust / Vend) - it can be a vendor or a customer
- C\_ROUTE – Route
- C\_SHIPNU2 – Shipment Number
- C\_SHCSTI2 – Shipment Cost item
- C\_DELITM2 – Delivery Item
- C\_CNDTYP2 – Condition Type
- C\_SHPTP\_2 – Shipping Type
- C\_SHPMTP2 – Shipment Type
- C\_SHCITY – Item category shipment costs
- C\_VTADD01 – Ship. Shipping Line
- C\_SHPCD2 – Shipping conditions
- 0TRZONE – Transportation Zone
- C\_TRPPNT2 – Transportation planning point
- C\_VSTGA – Event Reason f.deviation
- C\_EVTTYP – Event Type

## Reporting

| Query                       | Name                                                         |
|-----------------------------|--------------------------------------------------------------|
| BW_QRY_MVSDTR01_0010        | BW - Shipment costs detailed analysis TIERS (Core Query)     |
| BW_QRY_MVSDTR01_0011        | BW - Accrual Costs vs Invoice analysis TIERS (Core Query)    |
| BW_QRY_MVSDTR01_0012        | BW - Shipment status and events TIERS (Core query)           |
| BW_QRY_MVSDTR01_0013        | BW - CO <sup>2</sup> Emissions TIERS (core query)            |
| BW_QRY_MVSDTR01_0014        | BW - Shipment costs analysis by delivery ( for DYNASYS)      |
| BW_QRY_MVSDTR01_0020        | BW - Forward Reject Services Analysis (Core query)           |
| BW_QRY_MVSDTR01_0021        | BW-Overview of DG Shipment status and events-TIERS           |
| BW_QRY_MVSDTR01_9000        | BW - TR - ZV23 Vehicle Control at Production Plant           |
| BW_QRY_MVSDTR01_9998        | BW - Shipment costs detailed analysis Vendors TIERS          |
| BW_QRY_MVSDTR01_9999        | BW - Shipment costs detailed analysis TIERS                  |
| BW_QRY_MVSDTR01_BCST_0001   | BW -Shipment costs detailed analysis TIERS Broadcast Query   |
| BW_QRY_MVSDTR01_BCST_0002   | BW- Shipment Status and Events Broadcast query               |
| BW_QRY_MVSDTR02_0001        | BW - Shipment Events TIERS (Core Query)                      |
| QVEPSC_BW_QRY_MVSDTR01_0001 | BW - Shipment Costs Analysis for E&P TIERS - Qlikview (      |
| QVNVSC_BW_QRY_MVSDTR01_0001 | BW - Shipment Costs Analysis for Novecare TIERS - Qlikview ( |
| QVPISC_BW_QRY_MVSDTR01_0001 | BW - Shipment Costs Analysis for P&I TIERS - Qlikview (Core) |
| QVSBS_BW_QRY_MVSDTR01_0001  | BW - SBS OTC Shipment Costs TIERS (QV SBS KPI)               |
| QVSCE_BW_QRY_MVSDTR01_0010  | BW - Economics part of activity SCE (Core Query)             |
| QVSCE_BW_QRY_MVSDTR01_0011  | BW - Acc. Costs vs Invoice Analysis TIERS (Core Qry for QV)  |
| QVSCE_BW_QRY_MVSDTR01_0012  | BW - Activity Haulier Evaluation SCE (core query)            |
| QVSCE_BW_QRY_MVSDTR01_0013  | BW - CO <sup>2</sup> Footprint SCE (QV Query)                |

| Name                 | Description                           |
|----------------------|---------------------------------------|
| BW_CKF_MVSDTR01_0001 | No of Containers                      |
| BW_CKF_MVSDTR01_0002 | Distance (SUM ship)                   |
| BW_CKF_MVSDTR01_0003 | Gross W. dels. (SUM del item)         |
| BW_CKF_MVSDTR01_0004 | Net W, dels. (SUM del item)           |
| BW_CKF_MVSDTR01_0005 | Gross W, dels. (SUM delivery)         |
| BW_CKF_MVSDTR01_0006 | Net W, dels. (SUM delivery)           |
| BW_CKF_MVSDTR01_0007 | Gross W, dels. (SUM ship)             |
| BW_CKF_MVSDTR01_0008 | Net W, dels. (SUM ship)               |
| BW_CKF_MVSDTR01_0010 | No of handling units (MAX delitem)    |
| BW_CKF_MVSDTR01_0011 | No of handling units                  |
| BW_CKF_MVSDTR01_0014 | Detailed Shpt. condition value        |
| BW_CKF_MVSDTR01_0015 | Invoiced Value                        |
| BW_CKF_MVSDTR01_0016 | Accrual, Net value shipment           |
| BW_CKF_MVSDTR01_0017 | # Ship Relevant for SADH below 30 min |
| BW_CKF_MVSDTR01_0018 | # Ship Relevant for SADH              |
| BW_CKF_MVSDTR01_0020 | Distance (SUM stage)                  |
| BW_CKF_MVSDTR01_0021 | No of Shipments                       |

|                             |                                     |
|-----------------------------|-------------------------------------|
| BW_CKF_MVSDTR01_0023        | No of handling units (MAX stage)    |
| BW_CKF_MVSDTR01_0024        | No of Stages (by detail)            |
| BW_CKF_MVSDTR01_0025        | No of Stages (by Stage)             |
| BW_CKF_MVSDTR01_0026        | No of Stages                        |
| BW_CKF_MVSDTR01_0027        | No of Delivery Items                |
| BW_CKF_MVSDTR01_0028        | No of Deliveries                    |
| BW_CKF_MVSDTR01_0032        | CO <sup>2</sup> Emission Factor     |
| BW_CKF_MVSDTR01_0040        | #Ship Relevant for Loading duration |
| BW_CKF_MVSDTR01_0041        | #Ship Relevant for Queue time       |
| BW_CKF_MVSDTR01_0042        | #Ship Relevant for On Site duration |
| BW_CKF_MVSDTR01_0045        | Number of HOTS                      |
| BW_CKF_MVSDTR01_0046        | #Ship Relevant for booking leadtime |
| BW_CKF_MVSDTR01_0052        | Net W. dels in VKG (SUM del item)   |
| BW_CKF_MVSDTR01_0053        | Net W. dels in VKG (SUM delivery)   |
| BW_CKF_MVSDTR01_0054        | Net W. dels in VKG (SUM ship)       |
| BW_CKF_MVSDTR01_0055        | Net W. dels in VTN (SUM del item)   |
| BW_CKF_MVSDTR01_0056        | Net W. dels in VTN (SUM delivery)   |
| BW_CKF_MVSDTR01_0057        | Net W. dels in VTN (SUM ship)       |
| BW_CKF_MVSDTR01_0070        | Gross W. dels. (MAX stage)          |
| BW_CKF_MVSDTR01_0071        | Net W. dels. (MAX stage)            |
| BW_CKF_MVSDTR01_0072        | Net W. dels in VKG (MAX stage)      |
| BW_CKF_MVSDTR01_0073        | Net W. dels in VTN (MAX stage)      |
| BW_CKF_MVSDTR01_0081        | Distance (max delivery)             |
| BW_CKF_MVSDTR01_0082        | Distance (max delitem)              |
| BW_CKF_MVSDTR01_0090        | Loading Duration (Days)             |
| BW_CKF_MVSDTR01_0091        | Transit time (Days)                 |
| BW_CKF_MVSDTR01_0092        | Booking leadtime (Days)             |
| BW_CKF_MVSDTR01_0093        | HOTD delay (in days)                |
| BW_CKF_MVSDTR01_0094        | HOTS delay (in days)                |
| BW_CKF_MVSDTR01_0095        | On site duration (Days)             |
| BW_CKF_MVSDTR01_0096        | Queue time at plant (Days)          |
| BW_CKF_MVSDTR01_0097        | Planned Transp Time (Days)          |
| BW_CKF_MVSDTR01_0098        | SADH in min (by ship)               |
|                             |                                     |
| <u>BW_RKF_MVSDTR01_0001</u> | Number of Legs                      |
| BW_RKF_MVSDTR01_0002        | Extra-costs accrual CP              |

## Main queries

### 1 - Shipment cost details analysis

- Technical Name: BW\_QRY\_MVSDTR01\_0010
- Propose a detailed analysis of shipment cost accruals, detailed by materials. Make shipment costs accruals understandable.
- Allows benchmarking between materials, between customers.
- Gives some possibilities of drill down to get details on a macro figure.
- Public: sites log managers / GBU log process teams, base for Qlikview reportings

## Configuration

| Filter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Free Characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Characteristic Restrictions</b> <ul style="list-style-type: none"> <li>Company code</li> <li>BFC Global Business Unit</li> <li>BFC Group of activities</li> <li>Purchasing Site</li> <li>Ship Actual for Shipment Completion (Year/Month)</li> <li>Ship Dep Country</li> <li>Ship Dest Country</li> <li>Forward Agent</li> <li>Purchase Order</li> <li>ShpCst Item category</li> <li>Plant</li> <li>Ship Dep Geo Zone</li> <li>Ship Shipment Type</li> <li>Ship Transportation planning point</li> <li>Ship Actual date for shipment completion</li> <li>Ship Planned date for shipment completion</li> <li>Shipment Number</li> <li>Ship Shipping condition</li> <li>Source System</li> <li>InfoProvider</li> </ul> |  | <ul style="list-style-type: none"> <li>BFC Global Business Unit</li> <li>BFC Group of activities</li> <li>Company code</li> <li>Condition Type</li> <li>Del Shipping conditions</li> <li>Invoice Number - Material Document</li> <li>Leg indicator</li> <li>Plant</li> <li>Purchase Order</li> <li>Reference Month</li> <li>Ship Actual date for shipment completion</li> <li>Ship Actual for Shipment Completion (Year/Month)</li> <li>Ship Actual for Shipment Completion (Year/Quarter)</li> <li>Ship Actual for Shipment Completion (Year)</li> <li>Ship Actual date for Start of Shipment</li> <li>Ship Departure Point</li> <li>Ship Departure Type</li> <li>Ship Dep Country</li> <li>Ship Dep Geo Zone</li> <li>Ship Destination Point</li> <li>Ship Destination Type</li> <li>Ship Dest Country</li> </ul> |  |

| Columns                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Rows                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Key Figures</b> <ul style="list-style-type: none"> <li>Accrual, Net value shipment</li> <li>Accrual, Net value shipment (CP)</li> <li>Invoiced Value</li> <li>Invoiced Value (CP)</li> <li>Gross W. dels.</li> <li>Net W. dels.</li> <li>Gross W. dels. (PU)</li> <li>Net W. dels. (PU)</li> <li>Cost per Unit (Net)</li> <li>Cost per Unit (Gross)</li> <li>Distance by/ delivery</li> <li>Cost per Distance (KM)</li> <li>Detailed Shpt. condition value</li> <li>Detailed Shpt. condition value (CP)</li> <li>No of Containers</li> <li>No of handling units</li> <li>Invoice - Accrual gap (CP)</li> <li>Provisioning accuracy (CP)</li> <li>Total of Gross weigh</li> <li>Total gross weights (PU)</li> <li>Net W. dels (VKG)</li> <li>Net W. dels (VTN)</li> </ul> | <ul style="list-style-type: none"> <li>Source System</li> <li>Purchasing Site</li> <li>Forward Agent</li> </ul> |

## First Result

|               |                 |                   |                | Accrual, Net<br>value shipment (CP) | Gross W, dels. (PU) | Net W, dels. (PU) | Cost per Unit (Net)    | Cost per Unit (Gross)  | Extra-costs<br>accrual (CP) | Standard costs<br>accrual (CP) |
|---------------|-----------------|-------------------|----------------|-------------------------------------|---------------------|-------------------|------------------------|------------------------|-----------------------------|--------------------------------|
| Source System | Purchasing Site | Ship Dest Country |                | EUR                                 | TO                  | TO                |                        |                        | EUR                         | EUR                            |
| PF1_020       | ALEXANDRIA      | EG                | EGYPT          | 974,70                              | 837,0               | 836,8             | 1,16 EUR / TO          | 1,16 EUR / TO          |                             | 974,70                         |
|               |                 | <b>Result</b>     |                | <b>974,70</b>                       | <b>837,0</b>        | <b>836,8</b>      | <b>1,16 EUR / TO</b>   | <b>1,16 EUR / TO</b>   |                             | <b>974,70</b>                  |
|               | ALORTON(M), IL  | US                | USA            | 102.343,22                          | 712,5               | 709,4             | 144,26 EUR / TO        | 143,64 EUR / TO        |                             | 102.343,22                     |
|               |                 | <b>Result</b>     |                | <b>102.343,22</b>                   | <b>712,5</b>        | <b>709,4</b>      | <b>144,26 EUR / TO</b> | <b>143,64 EUR / TO</b> |                             | <b>102.343,22</b>              |
|               | ALPHARETTA, GA  | CN                | CHINA          | 167,09                              | 0,2                 | 0,2               | 954,78 EUR / TO        | 900,74 EUR / TO        |                             | 167,09                         |
|               |                 | JP                | JAPAN          |                                     | 0,1                 | 0,1               |                        |                        |                             |                                |
|               |                 | KR                | SOUTH KOREA    |                                     | 0,0                 | 0,0               |                        |                        |                             |                                |
|               |                 | US                | USA            | 82,97                               | 0,2                 | 0,2               | 384,11 EUR / TO        | 351,32 EUR / TO        |                             | 82,97                          |
|               |                 | <b>Result</b>     |                | <b>250,05</b>                       | <b>0,6</b>          | <b>0,5</b>        | <b>477,02 EUR / TO</b> | <b>448,54 EUR / TO</b> |                             | <b>250,05</b>                  |
|               | AR STO/ADM SITE | AR                | ARGENTINA      | 151.541,36                          | 5.598,9             | 5.579,7           | 27,16 EUR / TO         | 27,07 EUR / TO         |                             | 151.541,36                     |
|               |                 | <b>Result</b>     |                | <b>151.541,36</b>                   | <b>5.598,9</b>      | <b>5.579,7</b>    | <b>27,16 EUR / TO</b>  | <b>27,07 EUR / TO</b>  |                             | <b>151.541,36</b>              |
|               | AUGUSTA, GA     | JP                | JAPAN          |                                     | 0,1                 | 0,1               |                        |                        |                             |                                |
|               |                 | US                | USA            | 23.841,25                           | 173,0               | 164,0             | 145,42 EUR / TO        | 137,83 EUR / TO        |                             | 23.841,25                      |
|               |                 | <b>Result</b>     |                | <b>23.841,25</b>                    | <b>173,0</b>        | <b>164,0</b>      | <b>145,37 EUR / TO</b> | <b>137,79 EUR / TO</b> |                             | <b>23.841,25</b>               |
|               | BAD HOENN. GUET | AT                | AUSTRIA        | 910,40                              | 49,1                | 48,0              | 18,97 EUR / TO         | 18,53 EUR / TO         |                             | 910,40                         |
|               |                 | BE                | BELGIUM        | 24.787,27                           | 967,9               | 946,3             | 26,19 EUR / TO         | 25,61 EUR / TO         |                             | 24.787,27                      |
|               |                 | CZ                | CZECH REPUBLIC | 3.046,43                            | 120,2               | 117,6             | 25,91 EUR / TO         | 25,34 EUR / TO         |                             | 3.046,43                       |
|               |                 | DE                | GERMANY        | 9.716,91                            | 700,1               | 689,5             | 14,09 EUR / TO         | 13,88 EUR / TO         |                             | 9.716,91                       |

## 2 - Shipment cost vs invoice analysis

- Technical Name: BW\_QRY\_MVSDTR01\_0011
- Propose advanced cost analysis functionalities including invoice / accrual comparison and other ratios that can't be available at material level.
- Detect / evaluate unbilled payables.
- Audit tarif calculation
- Public: finance / controlling, sites & GBU logistics managers, data log and support teams

### Configuration

Filter

Characteristic Restrictions

Company code

BFC Global Business Unit

BFC Group of activities

Purchasing Site

Ship Actual for Shipment Completion (Year/Month)

Ship Dep Country

Ship Dest Country

Forward Agent

Purchase Order

ShpCst Item category

Plant

Ship Dep Geo Zone

Ship Shipment Type

Ship Transportation planning point

Ship Actual date for shipment completion

Ship Planned date for shipment completion

Shipment Number

Ship Shipping condition

Source System

InfoProvider

Free Characteristics

BFC Global Business Unit

BFC Group of activities

Company code

Condition Type

Del Shipping conditions

Invoice Number - Material Document

Leg indicator

Plant

Purchase Order

Reference Month

Ship Actual date for shipment completion

Ship Actual for Shipment Completion (Year/Month)

Ship Actual for Shipment Completion (Year/Quarter)

Ship Actual for Shipment Completion (Year)

Ship Actual date for Start of Shipment

Ship Departure Point

Ship Departure Type

Ship Dep Country

Ship Dep Geo Zone

Ship Destination Point

Ship Destination Type

Ship Dest Country

Columns

Key Figures

Accrual, Net value shipment

Accrual, Net value shipment (CP)

Invoiced Value

Invoiced Value (CP)

Gross W, dels.

Net W, dels.

Gross W, dels. (PU)

Net W, dels. (PU)

Cost per Unit (Net)

Cost per Unit (Gross)

Distance by/ delivery

Cost per Distance (KM)

Detailed Shpt. condition value

Detailed Shpt. condition value (CP)

No of Containers

No of handling units

Invoice - Accrual gap (CP)

Provisioning accuracy (CP)

Total of Gross weigh

Total gross weights (PU)

Net W. dels (VKG)

Net W. dels (VTN)

Rows

Source System

Purchasing Site

Forward Agent

Ship Hazardous Subst

Ship Packaging materials

Ship Planned date for shipment completion

Ship Route

Ship Shipment Type

Ship Shipping condition

Ship Shipping Line

Ship Shipping Type

Ship Transportation Mode

Ship Transportation planning point

Shipment Number

Shipment cost number

Shipment Cost item

ShpCst Item category

ShpCst Posting date

ShpCst Posting (Year/Month)

ShpCst Service Agent

Stage Departure Point

Stage Departure Type

Stage Destination Point

Stage Destination Type

Stage sequence

Stage Shipping Type

First Result



|          |                  |               |                                     | Accrual Net<br>value shipment (CP) | Invoiced Value (CP)  | Gross v/, dels. (PU) | Net v/, dels. (PU) | Cost per Unit (Net)    | Cost per Unit (Gross)  | Invoice - Accrual gap (C) | Provisionning accuracy (CP) |
|----------|------------------|---------------|-------------------------------------|------------------------------------|----------------------|----------------------|--------------------|------------------------|------------------------|---------------------------|-----------------------------|
| Source S | Purchasing Site  | Forward Agent |                                     |                                    |                      | TO                   | TO                 |                        |                        |                           |                             |
| PF1_020  | ALEXANDRIA       | 14700006      | AHMED MOHAMED AHMED BARAKAT         | 534,33 EUR                         | 0,00 EUR             | 54,2                 | 54,0               | 9,89 EUR / TO          | 9,86 EUR / TO          | -534,33 EUR               | 0,00                        |
|          |                  | 14700191      | ALKHALIG ALARABI COMPANY            | 440,37 EUR                         | 0,00 EUR             | 118,4                | 118,4              | 3,72 EUR / TO          | 3,72 EUR / TO          | -440,37 EUR               | 0,00                        |
|          |                  | DUMMY         | DUMMY for FOCUS CUSTOMER COLLECTION |                                    |                      | 664,4                | 664,4              |                        |                        |                           | 100,00                      |
|          |                  | <b>Result</b> |                                     | <b>974,70 EUR</b>                  | <b>0,00 EUR</b>      | <b>837,0</b>         | <b>836,8</b>       | <b>1,16 EUR / TO</b>   | <b>1,16 EUR / TO</b>   | <b>-974,70 EUR</b>        | <b>0,00</b>                 |
|          | ALORTON(MJ)_IL   | 2108734       | QUALITY CARRIERS INC                | 4.819,93 EUR                       | 2.289,06 EUR         | 36,6                 | 36,6               | 131,61 EUR / TO        | 131,61 EUR / TO        | -2.531,87 EUR             | 47,47                       |
|          |                  | 2103063       | CPU                                 |                                    |                      | 22,3                 | 20,1               |                        |                        |                           | 100,00                      |
|          |                  | 2119159       | JADE TANK LINES INC                 | 16.114,17 EUR                      | 11.610,47 EUR        | 34,6                 | 34,6               | 465,12 EUR / TO        | 465,12 EUR / TO        | -4.503,70 EUR             | 72,05                       |
|          |                  | 2119198       | TWIN LAKE TRUCKING LTD              | 2.798,20 EUR                       | 2.798,20 EUR         | 8,9                  | 8,2                | 341,20 EUR / TO        | 314,97 EUR / TO        | 0,00 EUR                  | 100,00                      |
|          |                  | 2122191       | BNSF RAILWAY COMPANY                | 6.508,75 EUR                       | 6.508,75 EUR         | 81,7                 | 81,7               | 79,71 EUR / TO         | 79,71 EUR / TO         | 0,00 EUR                  | 100,00                      |
|          |                  | 2122193       | CTL DISTRIBUTION INC                | 72.102,17 EUR                      | 67.255,19 EUR        | 524,6                | 524,6              | 137,44 EUR / TO        | 137,44 EUR / TO        | -4.846,98 EUR             | 93,28                       |
|          |                  | 2125240       | CRC - CUSTOMER REQUESTED CARRIER    |                                    |                      | 3,8                  | 3,8                |                        |                        |                           | 100,00                      |
|          |                  | <b>Result</b> |                                     | <b>102.343,22 EUR</b>              | <b>90.460,67 EUR</b> | <b>712,5</b>         | <b>709,4</b>       | <b>144,26 EUR / TO</b> | <b>143,64 EUR / TO</b> | <b>-11.882,55 EUR</b>     | <b>88,39</b>                |
|          | ALPHARETTA, GA   | 2101382       | FEDERAL EXPRESS CORPORATION         |                                    |                      | 0,2                  | 0,2                |                        |                        |                           | 100,00                      |
|          |                  | 2121608       | USF HOLLAND INC                     | 82,97 EUR                          | 82,97 EUR            | 0,2                  | 0,2                | 460,93 EUR / TO        | 414,50 EUR / TO        | 0,00 EUR                  | 100,00                      |
|          |                  | 2126462       | KINTETSU WORLD EXPRESS USA          | 167,09 EUR                         | 0,00 EUR             | 0,1                  | 0,1                | 1.336,70 EUR / TO      | 1.261,04 EUR / TO      | -167,09 EUR               | 0,00                        |
|          |                  | <b>Result</b> |                                     | <b>250,05 EUR</b>                  | <b>82,97 EUR</b>     | <b>0,6</b>           | <b>0,5</b>         | <b>477,02 EUR / TO</b> | <b>448,54 EUR / TO</b> | <b>-167,09 EUR</b>        | <b>33,18</b>                |
|          | AR STOI/ADM SITE | #             | PF1_020/Not assigned                |                                    |                      | 1.198,4              | 1.198,4            |                        |                        |                           | 100,00                      |
|          |                  | 20000000442   | EL CHARABON S.A.C.I                 | 35.855,23 EUR                      | 35.855,23 EUR        | 755,5                | 755,5              | 47,46 EUR / TO         | 47,46 EUR / TO         | 0,00 EUR                  | 100,00                      |
|          |                  | 2000001831    | TRANSPORTES JOSE BERALDI S.A.       | 554,19 EUR                         | 554,19 EUR           | 131,7                | 131,7              | 4,21 EUR / TO          | 4,21 EUR / TO          | 0,00 EUR                  | 100,00                      |
|          |                  | 2000002496    | TRANSPORTES DIPE S.A.               | 278,09 EUR                         | 278,09 EUR           | 7,0                  | 6,9                | 40,45 EUR / TO         | 39,54 EUR / TO         | 0,00 EUR                  | 100,00                      |
|          |                  | 2000002463    | ACONCAGUA TRANSPORTES SRL           | 1.300,45 EUR                       | 0,00 EUR             | 105,3                | 105,3              | 12,35 EUR / TO         | 12,35 EUR / TO         | -1.300,45 EUR             | 0,00                        |
|          |                  | 2000002993    | TRANSPOLO BAHIA SA                  | 10.092,92 EUR                      | 10.092,92 EUR        | 403,3                | 395,0              | 25,55 EUR / TO         | 25,03 EUR / TO         | 0,00 EUR                  | 100,00                      |
|          |                  | 2000004438    | LOGISTICA Y SERVICIOS INTEGRALES SA | 19.047,14 EUR                      | 0,00 EUR             | 997,3                | 997,3              | 19,10 EUR / TO         | 19,10 EUR / TO         | -19.047,14 EUR            | 0,00                        |

### 3 - Shipment status and events

- Technical Name: BW\_QRY\_MVSDTR01\_0012
- Propose tracking of events on shipments. without cost considerations.
- Propose a reporting on volumetry : number of files (delivery or shipment) per flow, average value on some indicators...
- Load plan of shipping points
- Public: LOG data and support teams, GBUs sites log managers and sites operations supervisors, Transport managers

### Configuration

Filter

Characteristic Restrictions

Source System

BFC Global Business Unit

BFC Group of activities

Company code

Purchasing Site

Ship Actual for Shipment Completion (Year/Month)

Ship Dep Country

Ship Dest Country

Forward Agent

Del DG Class

Ship Transportation Mode

Plant

Ship Dep Geo Zone

Ship Route

Ship Transportation planning point

Ship Planned date for shipment completion

Ship Actual date for shipment completion

Shipment Number

Ship Shipping condition

Ship Shipment Type

InfoProvider

Leg indicator

Free Characteristics

3rd Party (Cust / Vend)

3rd Party Descrip Location

3rd Party Transp Zone

3rd Party Type

BFC Global Business Unit

BFC Group of activities

Company code

Del DG Class

Del DG UN number

Del Shipping condition

Leg indicator

Plant

Material hierarchy

Ship Actual date for shipment completion

Ship Actual for Shipment Completion (Year/Month)

Ship Actual for Shipment Completion (Year/Quarter)

Ship Actual for Shipment Completion (Year)

Ship Actual date for Start of Shipment

Ship Departure Point

Ship Departure Type

Ship Dep Country

Ship Dep Geo Zone

Ship Dep Postal Code

Ship Dep Transp Zone

Columns

Key Figures

Gross W, dels. (PU)

Distance

No of Stages

No of Legs

No of Deliveries

No of Containers

No of handling units

Nb of Shipments

Queue time at plant (Days)

#Ship Relevant for Queue time

Average Queue Duration (Days)

On site duration (Days)

#Ship Relevant for On Site duration

Average On Site Duration (Days)

Booking lead time (Days)

#Ship Relevant for booking leadtime

Average booking leadtime (Days)

Loading Duration (Days)

#Ship Relevant for Loading duration

Rows

Source System

Purchasing Site

Forward Agent

First Result

| A           | B                 | C             | D                               | E                   | F                | G                    | H               | I                          | J                             | K                             | L                       | M                                   | N                               | O                        |
|-------------|-------------------|---------------|---------------------------------|---------------------|------------------|----------------------|-----------------|----------------------------|-------------------------------|-------------------------------|-------------------------|-------------------------------------|---------------------------------|--------------------------|
|             |                   |               |                                 | Gross V, dels. (PU) | No of Containers | No of handling units | Nb of Shipments | Queue time at plant (Days) | #Ship Relevant for Queue time | Average Queue Duration (Days) | On site duration (Days) | #Ship Relevant for On Site duration | Average On Site Duration (Days) | Booking lead time (Days) |
| Source Site | Purchasing Site   | Forward Agent |                                 | TO                  |                  |                      |                 |                            |                               |                               |                         |                                     |                                 |                          |
| PF1_020     | ALEXANDRIA        | 14700006      | AHMED MOHAMED AHMED BARAK       | 54,2                | 0                | 54                   | 3               | 0,0                        | 3                             | 0,000                         | 0,1                     | 3                                   | 0,046                           | 0,9                      |
|             |                   | 14700091      | ALKHALIG ALARABI COMPANY        | 118,4               | 0                | 74                   | 4               | 0,0                        | 4                             | 0,000                         | 9,5                     | 4                                   | 2,379                           | 10,8                     |
|             |                   | DUMIMY        | DUMIMY for FOCUS CUSTOMER COL   | 664,4               | 0                | 618                  | 14              | 0,0                        | 13                            | 0,000                         | 2,7                     | 13                                  | 0,206                           | 6,1                      |
|             |                   | Result        |                                 | 837,0               | 0                | 746                  | 21              | 0,0                        | 20                            | 0,000                         | 12,3                    | 20                                  | 0,617                           | 17,8                     |
|             | ALORTON(M) IL     | 2108794       | QUALITY CARRIERS INC            | 36,6                | 0                | 0                    | 2               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 6,7                      |
|             |                   | 210363        | CPU                             | 22,3                | 0                | 0                    | 6               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 58,5                     |
|             |                   | 219199        | JADE TANK LINES INC             | 34,6                | 0                | 0                    | 2               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 5,5                      |
|             |                   | 219198        | TWIN LAKE TRUCKING LTD          | 8,9                 | 0                | 0                    | 2               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 7,8                      |
|             |                   | 212191        | BNSF RAILWAY COMPANY            | 81,7                | 0                | 1                    | 1               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | -0,4                     |
|             |                   | 212193        | CTL DISTRIBUTION INC            | 524,6               | 0                | 0                    | 32              | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 180,3                    |
|             |                   | 2125240       | CPC - CUSTOMER REQUESTED CAR    | 3,8                 | 0                | 0                    | 2               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 15,9                     |
|             |                   | Result        |                                 | 712,5               | 0                | 1                    | 47              | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 274,4                    |
|             | ALPHARETTA, GA    | 2101382       | FEDERAL EXPRESS CORPORATION     | 0,2                 | 0                | 0                    | 5               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 5,9                      |
|             |                   | 212608        | USF HOLLAND INC                 | 0,2                 | 0                | 0                    | 1               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 1,2                      |
|             |                   | 2126462       | KINTETSU WORLD EXPRESS USA      | 0,1                 | 0                | 0                    | 1               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | -0,2                     |
|             |                   | Result        |                                 | 0,6                 | 0                | 0                    | 7               | 0,0                        | 0                             | 0,000                         | 0,0                     | 0                                   | 0,000                           | 6,8                      |
|             | AP STOIA(DM) SITE | #             | PF1_020/Not assigned            | 1198,4              | 0                | 0                    | 45              | 1,6                        | 45                            | 0,036                         | 1,7                     | 45                                  | 0,037                           | 325,5                    |
|             |                   | 2000000442    | EL CHARABON S.A.C.I             | 755,5               | 0                | 0                    | 27              | 1,2                        | 27                            | 0,043                         | 1,2                     | 27                                  | 0,043                           | 85,3                     |
|             |                   | 2000001831    | TRANSPORTES JOSE BERALDI S.A.   | 131,7               | 0                | 0                    | 5               | 0,4                        | 5                             | 0,077                         | 0,4                     | 5                                   | 0,077                           | 27,2                     |
|             |                   | 2000002496    | TRANSPORTES DIPE S.A.           | 7,0                 | 0                | 0                    | 1               | 0,0                        | 1                             | 0,046                         | 0,0                     | 1                                   | 0,046                           | 7,2                      |
|             |                   | 2000003463    | ACONCAGUA TRANSPORTES SRL       | 105,3               | 0                | 0                    | 4               | 0,3                        | 4                             | 0,074                         | 0,3                     | 4                                   | 0,075                           | 24,5                     |
|             |                   | 2000003993    | TRANSPOLO BAHIA SA              | 403,3               | 0                | 0                    | 15              | 1,1                        | 15                            | 0,072                         | 1,1                     | 15                                  | 0,073                           | 214                      |
|             |                   | 2000004438    | LOGISTICA Y SERVICIOS INTEGRALE | 997,3               | 0                | 0                    | 39              | 1,7                        | 39                            | 0,042                         | 1,7                     | 39                                  | 0,043                           | 155,6                    |
|             |                   | 2000004487    | TRANSPORTES EL CHOLO S.A.       | 43,8                | 0                | 0                    | 2               | 0,2                        | 2                             | 0,076                         | 0,2                     | 2                                   | 0,077                           | 9,9                      |
|             |                   | 2000006135    | ALIANI Y MERLOI S.R.L.          | 858,5               | 0                | 0                    | 30              | 1,1                        | 30                            | 0,035                         | 1,1                     | 30                                  | 0,036                           | 140,9                    |
|             |                   | 2000010653    | TRANSPORTE DAMIAN SA            | 52,6                | 0                | 0                    | 2               | 0,2                        | 2                             | 0,085                         | 0,2                     | 2                                   | 0,085                           | 3,8                      |

#### 4 - CO<sup>2</sup> Emissions

- Technical Name: BW\_QRY\_MVSDTR01\_0013
- The propose is to show the calculations about quantity of carbonic gas that is released in atmosphere considering all the shipments by zone
- Public: users that manage the environment effects and reports to governments

#### Configuration

Filter

Characteristic Restrictions

- ERP Group of activities
- Company code
- BFC Global Business Unit
- BFC Group of activities
- Source System
- Ship Actual for Shipment Completion (Year/Month)
- Purchasing Site
- Ship Dep Country
- Ship Dest Country
- Ship Transportation Mode
- Plant
- Ship Dep Geo Zone
- Ship Transportation planning point
- Ship Planned date for shipment completion
- Ship Actual date for shipment completion
- Shipment Number
- Ship Shipping condition
- Ship Shipment Type
- Leg indicator
- InfoProvider

Columns

Key Figures

- CO<sub>2</sub> Emission Factor
- Gross W. dels. (Tonnes)
- Distance (KM)
- Gross W. dels. (KG)
- Tonnes of CO<sub>2</sub> (max stage)
- Tonnes of CO<sub>2</sub>

Free Characteristics

- Company code
- Company Zone
- BFC Global Business Unit
- BFC Group of activities
- Delivery Item
- Delivery Number
- ERP Group of activities
- Forward Agent
- Plant
- Purchasing Site
- Ship Actual date for shipment completion
- Ship Actual for Shipment Completion (Year/Month)
- Ship Actual for Shipment Completion (Year/Quarter)
- Ship Actual for Shipment Completion (Year)
- Ship Departure Point
- Ship Departure Type
- Ship Dep Geo Zone
- Ship Dep Transp Zone
- Ship Destination Point
- Ship Destination Type
- Ship Planned date for shipment completion
- Ship Route
- Shipment Number
- Stage sequence
- Stage Shipping Type

Rows

- Source System
- Stage Transportation Mode

First Result

| Source System         | Stage Transportation Mode | Tonnes of CO <sup>2</sup> |
|-----------------------|---------------------------|---------------------------|
| PF1_020               | AIR                       | 88,7                      |
|                       | BARGE                     | 0,3                       |
|                       | INTERMODAL                | 22,5                      |
|                       | MAIL                      | 0,0                       |
|                       | OCEAN                     | 217,2                     |
|                       | RAIL                      | 311,6                     |
|                       | ROAD                      | 792,1                     |
|                       | <b>Result</b>             | <b>1.432,3</b>            |
| WP1_400               | AIR                       | 0,1                       |
|                       | BARGE                     | 376,7                     |
|                       | OCEAN                     | 219,8                     |
|                       | RAIL                      | 56,7                      |
|                       | ROAD                      | 846,9                     |
|                       | <b>Result</b>             | <b>1.500,1</b>            |
| <b>Overall Result</b> |                           | <b>2.932,4</b>            |

## 5 - Shipment Events

- Technical Name : BW\_QRY\_MVSDTR02\_0001
- The propose is to show the events (problems) involving the hauliers that happened during the logistic process
- Public: GBUs sites log managers and sites operations supervisors, transport managers

### Configuration

**Filter**

**Characteristic Restrictions**

- Company code
- Source System
- BFC Global Business Unit
- BFC Group of activities
- Purchasing Site
- Ship Actual Completion Year/Month
- Ship Dep Country
- Ship Dest Country
- Forward Agent
- Event Type
- Event Reason deviation
- Plant
- Transport Mode
- Ship Dep Geo Zone
- Ship Transportation planning point
- Ship Planned completion date
- Ship Actual completion date
- Shipment Number
- Ship Shipping condition
- Ship Shipment Type

**Free Characteristics**

- Company code
- BFC Global Business Unit
- BFC Group of activities
- Event Actual End date
- Event Actual Start date
- Plant
- Ship Actual completion date
- Ship Actual Completion Year
- Ship Actual Completion Year/Quarter
- Ship Actual Completion Year/Month
- Ship Actual shipment start date
- Ship Departure
- Ship Dep Country
- Ship Dep Geo Zone
- Ship Departure Type
- Ship Destination
- Ship Dest Country
- Ship Destination Type
- Ship Planned completion date
- Transport Mode
- Ship Transportation planning point
- Shipment Number

**Columns**

- Key Figures
  - Nb of Events
  - Event duration

**Rows**

- Source System
- Purchasing Site
- Forward Agent
- Event Type
- Event Reason deviation

#### First Result

| A             | B               | C                         | D          | E                      | F           | G            | H              |
|---------------|-----------------|---------------------------|------------|------------------------|-------------|--------------|----------------|
| Source System | Purchasing Site | Forward Agent             | Event Type | Event Reason deviation |             | Nb of Events | Event duration |
| PF1_020       | BAD HOENN. GUET | FINSTERWALDER TRANSPORT & | Delivery   | DA                     | Date & Time | 1            | 0,00           |
|               |                 |                           | Result     |                        |             | 1            | 0,00           |
|               |                 | MARTIN WISMANS BV         | Delivery   | DA                     | Date & Time | 2            | 0,00           |
|               |                 |                           | Result     |                        |             | 2            | 0,00           |
|               |                 | Result                    |            |                        |             | 3            | 0,00           |
|               | BAD WIMPFEN     | LANDO Eurasia GmbH        | Delivery   | DA                     | Date & Time | 1            | 0,00           |
|               |                 |                           |            | Result                 |             | 1            | 0,00           |
|               |                 |                           | Loading    | DA                     | Date & Time | 1            | 0,00           |
|               |                 |                           | Result     |                        |             | 1            | 0,00           |
|               |                 |                           | Result     |                        |             | 2            | 0,00           |
|               |                 | SCHENKER DEUTSCHLAND AG   | Delivery   | SA                     | Safety      | 1            | 0,00           |
|               |                 |                           |            | Result                 |             | 1            | 0,00           |
|               |                 |                           | Loading    | DA                     | Date & Time | 7            | 0,00           |
|               |                 |                           |            | EQ                     | Equipment   | 1            | 0,00           |
|               |                 |                           |            | Result                 |             | 8            | 0,00           |
|               |                 |                           | Result     |                        |             | 9            | 0,00           |

Queries used to load QV applications

 [QVEPSC\_BW\_QRY\_MVSDTR01\_0001] BW - Shipment Costs Analysis for E&P TIERS - Qlikview (
  [QVNVSC\_BW\_QRY\_MVSDTR01\_0001] BW - Shipment Costs Analysis for Novecare TIERS - Qlikview (
  [QVPISC\_BW\_QRY\_MVSDTR01\_0001] BW - Shipment Costs Analysis for P&I TIERS - Qlikview (Core)
  [QVSBS\_BW\_QRY\_MVSDTR01\_0001] BW - SBS OTC Shipment Costs TIERS (QV SBS KPI)
  [QVSCE\_BW\_QRY\_MVSDTR01\_0010] BW - Economics part of activity SCE (Core Query)
  [QVSCE\_BW\_QRY\_MVSDTR01\_0012] BW - Activity Haulier Evaluation SCE (core query)
  [QVSCE\_BW\_QRY\_MVSDTR01\_0013] BW - CO<sup>2</sup> Footprint SCE (QV Query)

## Matrix between queries and info objects

| Query description                                   | Cost detailed analysis          | Accrual vs invoice              | Statuses and events            | Event reporting                | CO2 Footprint                  |
|-----------------------------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Technical name                                      | MVSDTR01_0010                   | MVSDTR01_0011                   | MVSDTR01_0012                  | MVSDTR002_0001                 | MVSDTR01_0013                  |
| General "Core entry keys"                           | COMPANY                         | COMPANY                         | COMPANY                        | COMPANY                        | COMPANY                        |
|                                                     | PROMPT UNIT                     | PROMPT UNIT                     | PROMPT UNIT                    |                                | PROMPT UNIT                    |
|                                                     | PROMPT CURRENCY                 | PROMPT CURRENCY                 |                                |                                |                                |
|                                                     | System origin                   | System origin                   | System origin                  | System origin                  | System origin                  |
|                                                     | BFC GBU                         | BFC GBU                         | BFC GBU                        | BFC GBU                        | BFC GBU                        |
|                                                     | Site (PUSITE) - C-PSITE         | Site (PUSITE)                   | Site (PUSITE)                  | Site (PUSITE)                  | Site (PUSITE)                  |
|                                                     | Actual completion Year / Month  | Actual completion Year / Month  | Actual completion Year / Month | Actual completion Year / Month | Actual completion Year / Month |
|                                                     | Shipment departure country      | Shipment departure country      | Shipment departure country     | Shipment departure country     | Shipment departure country     |
|                                                     | Shipment destination country    | Shipment destination country    | Shipment destination country   | Shipment destination country   | Shipment destination country   |
|                                                     | Forwd. Agent                    | Forwd. Agent                    | Forwd. Agent                   | Forwd. Agent                   |                                |
| Query Specific axes                                 | Product Hierarchy               |                                 |                                |                                |                                |
|                                                     | Material plant                  |                                 |                                |                                |                                |
|                                                     | Bulk / Packed                   | PO number                       | Route                          | Event type                     | Zone                           |
|                                                     | 3RD Party                       | Shpiment cost item category     | DG class                       | Event reason for deviation     |                                |
|                                                     | Shpiment cost item category     |                                 |                                |                                |                                |
|                                                     | Transportation Mode             | Transportation Mode             | Transportation Mode            | Transportation Mode            | Transportation Mode            |
| For those who want to detail                        | Plant                           | Plant                           | Plant                          | Plant                          | Plant                          |
|                                                     | Departure Geo Zone              | Departure Geo Zone              | Departure Geo Zone             | Departure Geo Zone             | Departure Geo Zone             |
|                                                     | Transportation planning point   | Transportation planning point   | Transportation planning point  | Transportation planning point  | Transportation planning point  |
|                                                     | Planed completion date          | Planed completion date          | Planed completion date         | Planed completion date         | Planed completion date         |
|                                                     | Actual completion date          | Actual completion date          | Actual completion date         | Actual completion date         | Actual completion date         |
|                                                     | Shipment number                 | Shipment number                 | Shipment number                | Shipment number                | Shipment number                |
|                                                     | Shipping condition              | Shipping condition              | Shipping condition             | Shipping condition             | Shipping condition             |
|                                                     | Shipment type                   | Shipment type                   | Shipment type                  | Shipment type                  | Shipment type                  |
| "By default" shown Measures (among those available) | Accrual Net value shipment (CP) | Accrual Net value shipment (CP) | Gross weight                   | Nb of event                    | Gross Weight                   |
|                                                     | Gross Weight (PU)               | Invoiced value (CP)             | Nb of shipments                | Event duration                 | Distance                       |
|                                                     | Net Weight (PU)                 | Net weight (PU)                 | Nb of containers               |                                | CO2 Tons                       |



|                                                 |                                            |                                         |                                         |                                         |                      |
|-------------------------------------------------|--------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------|
|                                                 | Cost per Unit (Net)                        | Gross Weight (PU)                       | Nb of deliveries                        |                                         |                      |
|                                                 | Cost per unit (Gross)                      | Cost per unit (Net)                     | Nb of HU                                |                                         |                      |
|                                                 |                                            | Cost per unit (Gross)                   | # ship relevant for loading duration    |                                         |                      |
|                                                 |                                            | Invoice - accrual Gap                   | # ship relevant for On site duration    |                                         |                      |
|                                                 |                                            | Provisionning accuracy                  | # ship relevant for Queue time          |                                         |                      |
|                                                 |                                            |                                         | # ship relevant for Trnsit time         |                                         |                      |
|                                                 |                                            |                                         | Average loading duration                |                                         |                      |
|                                                 | Keep all others as optional                | Keep all others as optional             | Average On site duration                |                                         |                      |
|                                                 |                                            |                                         | Average Queue time                      |                                         |                      |
|                                                 |                                            |                                         | Average Transit duration                |                                         |                      |
|                                                 |                                            |                                         | % OTD                                   |                                         |                      |
|                                                 |                                            |                                         | % OTS                                   |                                         |                      |
|                                                 |                                            |                                         | Average distance                        |                                         |                      |
| "By default" shown Rows (among those available) | Source sytem                               | Source System                           | Source sytem                            | Source System                           | Source system        |
|                                                 | Site (CPLANT PSITE)                        | Site (CPLANT PSITE)                     | Site (CPLANT PSITE)                     | Site (CPLANT PSITE)                     | Site                 |
|                                                 | Shipment destination Country               | Forward agent                           | Forward agent                           | Forward agent                           | Ship Shipping type   |
|                                                 |                                            |                                         |                                         | Event type                              |                      |
|                                                 |                                            |                                         |                                         | Event reason                            |                      |
| All navigational attributes :                   |                                            |                                         |                                         |                                         |                      |
| Organization                                    | Source system                              | Source system                           | Source system                           | Source system                           | Source system        |
|                                                 | BFC GBU                                    | BFC GBU                                 | BFC GBU                                 | BFC GBU                                 | BFC GBU              |
|                                                 | Plant                                      | Plant                                   | Plant                                   | Plant                                   | Plant                |
|                                                 | Site (Plant C-PSite)                       | Site (Plant C-PSite)                    | Site (Plant C-PSite)                    | Site (Plant C-PSite)                    | Site (Plant C-PSite) |
|                                                 | Company code                               | Company code                            | Company code                            | Company code                            | Company code         |
| Shipment                                        | Shipment number                            | Shipment number                         | Shipment number                         | Shipment number                         |                      |
|                                                 | Departure country                          | Departure country                       | Departure country                       | Departure country                       |                      |
|                                                 | Destination country                        | Destination country                     | Destination country                     | Destination country                     |                      |
|                                                 | Forwarding agent                           | Forwarding agent                        | Forwarding agent                        | Forwarding agent                        |                      |
|                                                 | Transportation planning point              | Transportation planning point           | Transportation planning point           | Transportation planning point           |                      |
|                                                 | Actual Completion date                     | Actual Completion date                  | Actual Completion date                  | Actual Completion date                  |                      |
|                                                 | Actual completion date (Month) YYYY/MM     | Actual completion date (Month) YYYY/MM  | Actual completion date (Month) YYYY/MM  | Actual completion date (Month) YYYY/MM  |                      |
|                                                 | Actual completion date (Quarter) YYYY/Q    | Actual completion date (Quarter) YYYY/Q | Actual completion date (Quarter) YYYY/Q | Actual completion date (Quarter) YYYY/Q |                      |
|                                                 | Actual completion date Year (YYYY)         | Actual completion date Year (YYYY)      | Actual completion date Year (YYYY)      | Actual completion date Year (YYYY)      |                      |
|                                                 | Actual date for Start of shipment          | Actual date for Start of shipment       | Actual date for Start of shipment       | Actual date for Start of shipment       |                      |
|                                                 | Planned shipment completion date           | Planned shipment completion date        | Planned shipment completion date        | Planned shipment completion date        |                      |
|                                                 | Planned shipment completion date (YYYY-MM) |                                         |                                         |                                         |                      |
|                                                 | Shipment destination point                 | Shipment destination point              | Shipment destination point              | Shipment destination point              |                      |

|                     |                                       |                                       |                                       |                                 |                     |
|---------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------|---------------------|
|                     | Shipment destination point type       | Shipment destination point type       | Shipment destination point type       | Shipment destination point type |                     |
|                     | Shipment departure point              | Shipment departure point              | Shipment departure point              | Shipment departure point        |                     |
|                     | Shipment departure point type         | Shipment departure point type         | Shipment departure point type         | Shipment departure point type   |                     |
|                     | Route                                 | Route                                 | Route                                 |                                 |                     |
|                     | Shipment packaging material           | Shipment packaging material           | Shipment packaging material           |                                 |                     |
|                     | Shipment shipping type                | Shipment shipping type                | Shipment shipping type                |                                 |                     |
|                     | Transportation mode                   | Transportation mode                   | Transportation mode                   | Transportation mode             | Transportation mode |
|                     |                                       |                                       | Departure point - TR zone             |                                 |                     |
|                     |                                       |                                       | Departure point - Zip code            |                                 |                     |
|                     |                                       |                                       | Destination point TR zone             |                                 |                     |
|                     |                                       |                                       | Destination point Zip code            |                                 |                     |
|                     |                                       | Shipment Shipping line                | Shipment Shipping line                |                                 |                     |
| Shipment stage      | Ship Stage sequence number            | Ship Stage sequence number            | Ship Stage sequence number            |                                 |                     |
|                     | Ship stage departure point            | Ship stage departure point            | Ship stage departure point            |                                 |                     |
|                     | Ship stage departure point type       | Ship stage departure point type       | Ship stage departure point type       |                                 |                     |
|                     | Ship stage destination point          | Ship stage destination point          | Ship stage destination point          |                                 |                     |
|                     | Shipment stage destination point type | Shipment stage destination point type | Shipment stage destination point type |                                 |                     |
|                     | Leg indicator                         | Leg indicator                         | Leg indicator                         |                                 |                     |
| Delivery            | Delivery                              |                                       |                                       |                                 |                     |
|                     | Delivery Item                         |                                       |                                       |                                 |                     |
|                     | Delivery distribution channel         |                                       |                                       |                                 |                     |
|                     | Material                              |                                       |                                       |                                 |                     |
|                     | Material plant                        |                                       |                                       |                                 |                     |
|                     | DG class                              |                                       | DG class                              |                                 |                     |
|                     | UN number                             |                                       | UN number                             |                                 |                     |
|                     | 3rd Party                             |                                       | 3rd Party                             |                                 |                     |
|                     | 3rd Party type                        |                                       | 3rd Party type                        |                                 |                     |
|                     |                                       |                                       | 3rd party - TRzone                    |                                 |                     |
|                     |                                       |                                       | 3rd party - Location                  |                                 |                     |
|                     |                                       |                                       | 3rd party - Zip code                  |                                 |                     |
|                     | Transportation group (Bulk / Packed)  |                                       | Transportation group (Bulk / Packed)  |                                 |                     |
|                     | Transportation group detail           |                                       | Transportation group detail           |                                 |                     |
|                     | Material hierarchy                    |                                       | Material hierarchy                    |                                 |                     |
| Shipment x delivery | Shipping condition                    | Shipping condition                    | Shipping condition                    |                                 |                     |
| Shipment cost item  | Shipment cost number                  | Shipment cost number                  |                                       |                                 |                     |
|                     | Item number                           | Item number                           |                                       |                                 |                     |
|                     | Service agent                         | Service agent                         |                                       |                                 |                     |

|                |                                              |                                              |  |                               |  |
|----------------|----------------------------------------------|----------------------------------------------|--|-------------------------------|--|
|                | Shipment cost item category                  | Shipment cost item category                  |  |                               |  |
|                | Shipment cost posting date                   | Shipment cost posting date                   |  |                               |  |
|                | Shipment cost posting date - Month (YYYY/MM) | Shipment cost posting date - Month (YYYY/MM) |  |                               |  |
|                |                                              | PO Number                                    |  |                               |  |
|                |                                              | Invoice Number                               |  |                               |  |
| Cost condition | Condition type                               | Condition type                               |  |                               |  |
| Event          |                                              |                                              |  | Event actual start date (day) |  |
|                |                                              |                                              |  | Event actual end date (day)   |  |

For more details about each query please click in following link: [TIERS: Reporting Solution](#)

## Dependencies with other applications

*We should have the information where the application is sending or receiving information (e.g. APD open hub)*

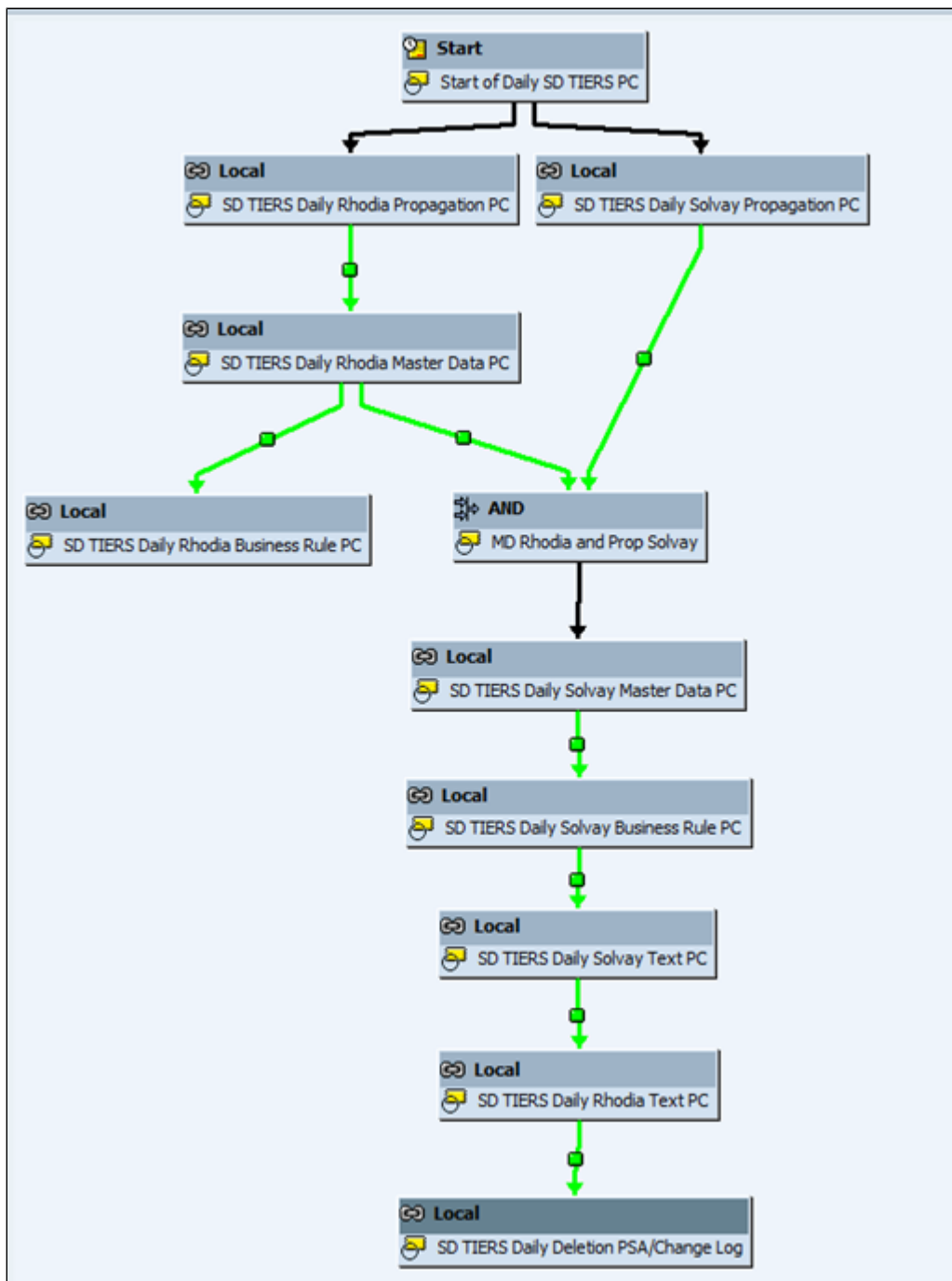
## Data Loading

### Info Providers and objects loaded

#### 1 - Main Process Chain

This process chain is responsible to trigger and synchronize all TIERS processes chains for Solvay and Rhodia. It is scheduled to run every workday inside the Daily process chain (RSP\_DAILY) after general master data PC, around 3AM (French time).

- PC\_SD\_TIERS\_001: SD TIERS Daily Main PC



## 2 - Propagation Layer

This process chain is responsible to run the loads between source system and first layer in BW.

- PC\_SD\_TIERS\_020 à SD TIERS Daily Solvay Propagation PC
- PC\_SD\_TIERS\_010 à SD TIERS Daily Rhodia Propagation PC

## 3 - Business Layer

This process chain is responsible to load the second and third layers from propagation layer.

- PC\_SD\_TIERS\_021 à SD TIERS Daily Solvay Business Rule PC
- PC\_SD\_TIERS\_011 à SD TIERS Daily Rhodia Business Rule PC

## 4 - Master data

This process chain is responsible to load all the master data attributes in BW.

- PC\_SD\_TIERS\_MD\_022 à SD TIERS Daily Solvay Master Data PC
- PC\_SD\_TIERS\_MD\_002 à SD TIERS Daily Rhodia Master Data PC

## 5 - Text & maintenance

This process chain is responsible to load all the master data texts in BW.

- PC\_SD\_TIERS\_MD\_TEXT022 à SD TIERS Daily Solvay Text PC
- PC\_SD\_TIERS\_MD\_TEXT002 à SD TIERS Daily Rhodia Text PC
- PC\_SD\_TIERS\_DELETE à SD TIERS Daily Deletion PSA/Change Log

## Loading frequency

Daily inside the daily process chain

## Average performance & monitoring

Daily process chain is loaded in 2 hours with around 30k lines in DELTA mode for a total of 10M lines in cubes.

See below an extract of 1 month of monitoring

| Status | Steps | Main                     | Chain           | Log-Id                    | SubChains | Steps | Day | Date       | Time     | Runtime  | Runtime [sec] | End Date   | End Time |
|--------|-------|--------------------------|-----------------|---------------------------|-----------|-------|-----|------------|----------|----------|---------------|------------|----------|
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56M48CX0AZ2T2X644E2O6C6KF | 9         | 277   | WE  | 20.07.2016 | 21:18:46 | 02:14:11 | 8.051         | 20.07.2016 | 23:32:57 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56LBZJ5F5TSNUA0C4U5CHIM9R | 9         | 277   | TU  | 19.07.2016 | 21:26:10 | 01:49:23 | 6.563         | 19.07.2016 | 23:15:33 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56L7S17FPHJF93C4ZD4B15ZY7 | 9         | 277   | MO  | 18.07.2016 | 21:28:27 | 01:54:02 | 6.842         | 18.07.2016 | 23:22:30 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56L6UIQ0YFI0AYF8MHEMXBWHR | 9         | 277   | MO  | 18.07.2016 | 02:42:08 | 08:31:20 | 30.680        | 18.07.2016 | 11:13:28 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56J5MXZBWLXM2Z1SJLTWC0H1B | 9         | 277   | TH  | 14.07.2016 | 21:34:21 | 01:55:10 | 6.910         | 14.07.2016 | 23:29:31 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56HT22JQOKHBFV90DPDOMJIGV | 9         | 277   | WE  | 13.07.2016 | 21:31:09 | 01:54:00 | 6.840         | 13.07.2016 | 23:25:09 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56ISRC8JVAASS7J2E6XZM9B27 | 9         | 277   | TU  | 12.07.2016 | 21:33:01 | 01:45:26 | 6.326         | 12.07.2016 | 23:18:28 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56IK9ASM21RSQP554N6GPVE4F | 9         | 277   | MO  | 11.07.2016 | 21:26:54 | 01:47:23 | 6.443         | 11.07.2016 | 23:14:17 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56GV7466386A56C0E133WJM0V | 9         | 277   | SU  | 10.07.2016 | 22:45:11 | 01:56:34 | 6.994         | 11.07.2016 | 00:41:45 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56H0MYQET7U9FW0SDICGYX3JZ | 9         | 277   | TH  | 07.07.2016 | 21:23:27 | 01:57:51 | 7.071         | 07.07.2016 | 23:21:18 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56FVYZADXYGYEQAJMS1UUGQN  | 9         | 277   | WE  | 06.07.2016 | 21:28:26 | 01:50:21 | 6.621         | 06.07.2016 | 23:18:47 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56G4PXJEXHLYWK84X1557BMM7 | 9         | 277   | TU  | 05.07.2016 | 21:37:05 | 07:03:23 | 25.403        | 06.07.2016 | 04:40:28 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56FAHURHE9RMU6Z2N3ZRLCNCV | 9         | 277   | MO  | 04.07.2016 | 21:29:53 | 01:56:06 | 6.966         | 04.07.2016 | 23:25:59 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56EPNYMBN624YI8FE8ETE1O3J | 9         | 277   | SU  | 03.07.2016 | 23:09:37 | 01:50:15 | 6.615         | 04.07.2016 | 00:59:52 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 569OK5J4CL5IFEMJ0M1TTI67  | 9         | 277   | TH  | 30.06.2016 | 21:39:58 | 01:57:02 | 7.022         | 30.06.2016 | 23:37:00 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56C3K2J2MHI9MB2O0CJO6CSOV | 9         | 277   | WE  | 29.06.2016 | 21:29:31 | 02:05:52 | 7.552         | 29.06.2016 | 23:35:22 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56BK1OPZ8VWYOM5FWYQNB6K3J | 9         | 277   | TU  | 28.06.2016 | 21:34:01 | 01:47:33 | 6.453         | 28.06.2016 | 23:21:34 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56C2OFHP6RJSPF1LTNNKQCRWF | 9         | 277   | MO  | 27.06.2016 | 21:18:23 | 02:00:50 | 7.250         | 27.06.2016 | 23:19:13 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56BN9Z0D6LJIRHZC7ML032GCF | 9         | 277   | SU  | 26.06.2016 | 21:20:07 | 03:14:51 | 11.691        | 27.06.2016 | 00:34:58 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56BDJVAZEN21PP74IEHBGQDDR | 9         | 277   | TH  | 23.06.2016 | 21:14:45 | 02:10:30 | 7.830         | 23.06.2016 | 23:25:15 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56ARCPKRYFDVRHALOR56RJ1OF | 9         | 277   | TH  | 23.06.2016 | 03:15:37 | 01:51:22 | 6.682         | 23.06.2016 | 05:06:59 |
|        |       | <input type="checkbox"/> | PC_SD_TIERS_001 | 56AOG7ECCOC2W5ER4V6MQ41FJ | 9         | 277   | TU  | 21.06.2016 | 21:27:22 | 02:07:29 | 7.649         | 21.06.2016 | 23:34:51 |

| Key Figure                           | Estimation                                                                                                                                                                                                                                                    |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ~ Average Process Chain Runtime      | 90 to 120 minutes                                                                                                                                                                                                                                             |
| ~ Average nb of rows loaded per load | Shipment Header: Solvay 6K, Rhodia 2K<br>Shipment&Deliveries: Solvay 40K, Rhodia 10K<br>Shipment Costs: Solvay 9K, Rhodia 4K<br>Shipment&Purchases: Solvay 110K, Rhodia 24K<br>Shipment Conditions: Solvay 32K, Rhodia 152K<br>1.200K records (all providers) |

|                                     |                                                                                                                                                                                                                                               |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ~ Total nb of rows loaded (if full) | Data is stored since 2014<br><br>Propagation Layer - Solvay 20.000K, Rhodia 10.000K<br><br>Business Layer - Solvay 15.000K, Rhodia 8.000K<br><br>Reporting - Solvay 15.000K, Rhodia 8.000K<br><br>Master data - Solvay 11.000K, Rhodia 5.000K |
| ~ Average Runtime for 10k lines     | 30 minutes                                                                                                                                                                                                                                    |

For details about application load monitoring, click in following link: [Application Monitoring](#)

## Record Keeping

User defined that 3 full years stored is enough to be maintained in BW.

There is no automatic process to remove historical data, so any request about historical deletion should be done by user using Freshdesk ticket.

## Data Quality Control

## Operational Documentation

### Procedures

<Describe the recurring procedures needed to operate the application (eg. start/pause/terminate/restart the app processes, data preparation, data ingestion, ETL, data visualization, data export, other manual activities)>

### Scheduling

<Describe the scheduling in place for the application (eg. existing jobs, trigger time/event based, dependencies)>

### Monitoring

<Describe the monitoring checks to confirm the application is performing well (eg. check the overall status, check performance metrics like runtime /data volume/memory/disk/CPU, maintain and react to alerts/notifications)>

### Error Handling

<Describe how to handle errors (eg. error codes, description and respective resolution, alert users)>

### Known Bugs

<List the existing bugs, its criticality, workarounds and resolution plan.>

### Roadmap

<List past & future evolutions for the application (including links to MED/FSD/TSD)>