

# Data Quality Monitoring Tool - Functional Documentation

## 1.0 Overview

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Menu

Business Context and Application Overview

**Business Context:**

The Data Quality Dashboard is implemented on Qlik Sense, designed to serve multiple organizational domains, including Human Resources (HR), Marketing and Sales, Structured and Shared Services, Finance, Supply Chain, and Procurement.

**Key Processes:**

The dashboard supports critical data quality management processes across the involved domains. It includes:

- Data Quality Monitoring:** Enables users to continuously track data quality metrics, ensuring the integrity, accuracy, consistency, timeliness, conformity, uniqueness and completeness of data.
- Failed Data View:** Provides users with a centralized view of failed data records, allowing them to identify and review data quality issues that needs cleansing.

Application User Profile

Users Profiles with access to the Data Quality Dashboard to monitor data quality metrics and view failed data records can:

**Data Stewards** leads the DQ process by participating in the DQ rule creation as well as the DQ issue identification and resolution

- Defines** the DQ rules from gathered requirements and the profiled data in a functional way and complete the rules attributes. If the rule is simple he can also implement it.
- Continuously track** data quality metrics across various DQ dimensions such as integrity, accuracy, consistency, timeliness, conformity, uniqueness, and completeness.
- Access** a centralized view of failed data records to identify data quality issues.
- Review** the failed data to proceed with the cleansing process.
- Refine or log** new issues eventually and prioritize them based on the impact/severity.
- Lead the DQ issue resolution** and align with stakeholders on solving strategy. Prepare the fixing plan and follow the cleansing /remediation process.
- Monitor** the DQ metrics and assess impact.

**Rule Owner** is responsible for DQ under his scope by ensures the conformity of the DQ rules and the root cause of the DQ issues.

- Review The DQ Rule:** Approve or reject the proposed DQ rule already reviewed by business.
- Validate the issue Root Cause** found by the steward as responsible of ensuring the data quality meets the identified targets under his scope

For more information refer to the data governance model [here](#).

Application Type

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Product Type | <div><input checked="" type="checkbox"/> Dashboard</div> <div><input type="checkbox"/> Report</div> <div><input type="checkbox"/> Advanced analytics</div> <div><input type="checkbox"/> AI</div> <div><input type="checkbox"/> Others &lt;specify which one&gt;</div>                                                                                                                                                                                                                |
| Technologies      | <div><input type="checkbox"/> BW</div> <div><input type="checkbox"/> Tableau</div> <div><input checked="" type="checkbox"/> QlikSense</div> <div><input type="checkbox"/> Talend</div> <div><input type="checkbox"/> Dataiku</div> <div><input type="checkbox"/> Others &lt;specify which one&gt;</div>                                                                                                                                                                               |
| Data Sources      | <div><i>Note: list of all applications and various environment</i></div> <div><input checked="" type="checkbox"/> SAP PF1 (Production environment)</div> <div><input checked="" type="checkbox"/> SAP WP1</div> <div><input type="checkbox"/> SAP PI1</div> <div><input checked="" type="checkbox"/> BW (versions)</div> <div><input type="checkbox"/> iCare CRM</div> <div><input type="checkbox"/> CORE CRM</div> <div><input checked="" type="checkbox"/> SAP SuccessFactors</div> |

**Target Users:**

*Domains data stewards, data owners, data governance teams, and other stakeholders.*

*For more information refer to the data governance model [here](#).*

## 2.0 Data Quality Process

*The Data Quality process and its key activities involved can be found [here](#).*

### 2.1 Data Quality Dashboard Objective/Opportunities

The primary objective of the Data Quality Dashboard is to empower data stewards and other stakeholders within each domain to maintain high standards of data quality. By implementing automated data quality rules and offering a centralized dashboard for monitoring and reviewing failed data, the dashboard provides data stewards with an opportunity to ensure that data across all domains is accurate, up-to-date, and consistent. This, in turn, supports informed decision-making and operational efficiency across the organization.

## 3.0 Application Feature Overview

*Information about the existent features in the application.*

N/A

## 4.0 Business Objects

*For any questions about business objects contact Data Governance or the Enterprise Information Architect.*

## 5.0 Functional Specification

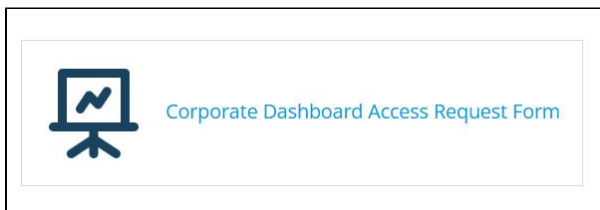
### 5.1 Dashboard

The scope, reload frequency, screens, filters and KPIs are documented in the [Wiki Page for DQ QlikSense Documentation](#).

### 5.2 Dashboard access

**To request access to the application:**

1. submit a Corporate Dashboard Access Request Form



2. Then Select DT- Data Quality Monitoring Dashboard as the dashboard Name

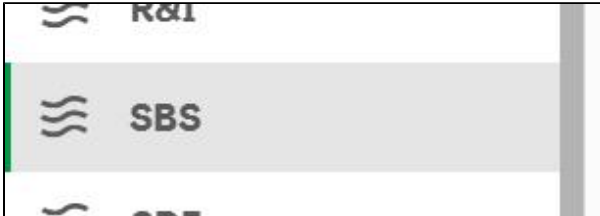
Dashboard Name (required)

DT - Data Quality Monitoring dashboard

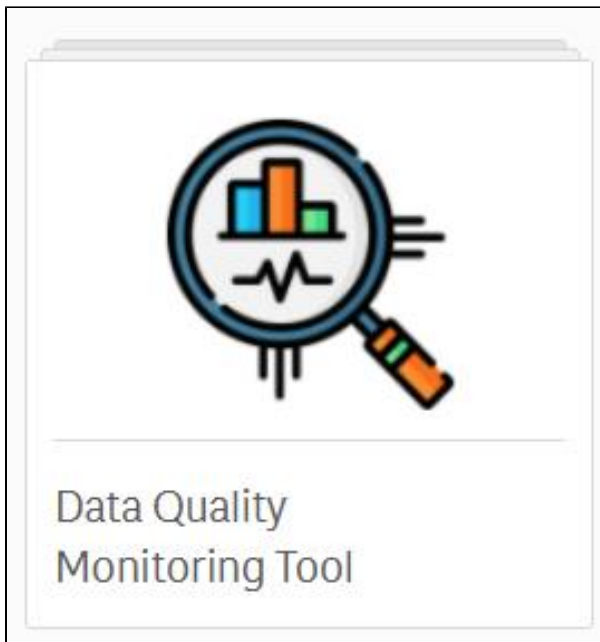
3. Submit request

#### To access the application:

- Once access is granted, go to <https://qliksense.solvay.com/hub>, then select SBS from the streams menu on the left side.



- Select Data Quality Monitoring Tool



## 5.3 Rules Definitions & Data Input

### Overview:

The Key Performance Indicators (KPIs) within the Data Quality Dashboard are defined based on data quality rules specified by data stewards from each domain. The rules define the criteria for evaluating the quality of data and are used to calculate the KPIs displayed in the dashboard. These rules are categorized under various data quality dimensions to systematically monitor and enhance data quality, and help in identifying data quality issues, thereby providing actionable insights to maintain high data quality standards.

The following rules are currently present in the dashboard.

#### 1. Marketing & sales

| Rule ID | DQ dimension | Business Name | Functional description | Source Systems | Tables |
|---------|--------------|---------------|------------------------|----------------|--------|
|---------|--------------|---------------|------------------------|----------------|--------|

|       |            |                    |                                                               |                    |      |
|-------|------------|--------------------|---------------------------------------------------------------|--------------------|------|
| MRK-3 | Uniqueness | Duplicate customer | Customers with the same name, address, VAT and Account Group. | SAP PF1<br>SAP WP1 | KNA1 |
|-------|------------|--------------------|---------------------------------------------------------------|--------------------|------|

## 2. Structures & Shared

| Rule ID | DQ dimension | Business Name                                        | Functional description                                                                                                                                 | Source Systems     | Tables                          |
|---------|--------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------|
| SSR-1   | Consistency  | No active plants linked to obsolete companies        | # of active plants linked to obsolete companies / total number of active plants                                                                        | SAP PF1<br>SAP WP1 | T001W<br>T001K                  |
| SSR-2   | Consistency  | No active material codes connected to obsolete plant | # of active materials in obsolete plants / total number of active materials                                                                            | SAP PF1<br>SAP WP1 | MARC<br>T001W<br>T001K          |
| SSR-9   | Consistency  | No active materials linked to obsolete sales org     | # of obsolete sales organizations linked to active material(s)/ Total number of sales organizations linked to active materials in material sales views | SAP PF1<br>SAP WP1 | T001W<br>T001K<br>MVKE<br>TVKOT |

## 3. Finance

| Rule ID | DQ dimension | Business Name                                                     | Functional description                                                                                                                                                                       | Source Systems | Tables                     |
|---------|--------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|
| FIN-1   | Consistency  | Active CCs to L4 in the ZCBS hierarchy                            | The rule checks if all "Active" Cost Centers are in "Level 4" in ZCBS hierarchy EXCEPT the Cost Centers that are in EDISCXX, they are in Level 4 but they should be blocked and be Inactive. | SAP BW         | BW_QRY_C_COS<br>TCTCTR_001 |
| FIN-3   | Consistency  | Accuracy of assigning "Inactive" Cost centers to the EDISCXX node | The rule checks if all Cost centers in EDISCXX node are inactive                                                                                                                             | SAP BW         | BW_QRY_C_CO<br>STCTCTR_001 |
| FIN-4   | Consistency  | All cost centers are assigned to an active GBU Cluster            | The rule checks if all Cost centers are in active GBU Cluster                                                                                                                                | SAP BW         | BW_QRY_C_CO<br>STCTCTR_001 |
| FIN-5   | Conformity   | SRM7 responsible codification                                     | The rule checks if the position responsible field of the cost center has 8 digits and the first 3 digits (left to right) need to start with "500"                                            | SAP BW         | BW_QRY_C_CO<br>STCTCTR_001 |
| FIN-6   | Consistency  | All cost centers are assigned to a BSA                            | The rule checks if the BSA group is assigned to the cost center                                                                                                                              | SAP BW         | BW_QRY_C_CO<br>STCTCTR_001 |
| FIN-7   | Consistency  | Cost Centers with Profit Centers                                  | The rule checks if all the cost centers have a profit center associated                                                                                                                      | SAP BW         | BW_QRY_C_CO<br>STCTCTR_001 |

## 4. Human Resources

| Rule ID | DQ dimension | Business Name           | Functional description                                                                                                                    | Source Systems | Tables                         |
|---------|--------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|
| HRS-1   | Conformity   | Legal Entity is active  | The status of the object "Legal entity" to which an active employee is allocated is active.                                               | SuccessFactors | EmpJob<br>FO.<br>Company       |
| HRS-2   | Conformity   | Business Unit is active | The status of the object "Business Unit" to which an active (Employee Status is Active or Active leave ) employee is allocated is active. | SuccessFactors | EmpJob<br>FO.<br>Business Unit |

|        |              |                                                                  |                                                                                                                                         |                |                           |
|--------|--------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------|
| HRS-3  | Conformity   | Location Group (site) is active                                  | The status of the object "Location Group" to which an active employee is allocated is active.                                           | SuccessFactors | EmpJob FO. Location Group |
| HRS-4  | Conformity   | Location (PA/PSA) is active                                      | The status of the object "Location" to which an active (Employee Status is Active or Active leave ) employee is allocated is active.    | SuccessFactors | EmpJob FO. Location       |
| HRS-5  | Conformity   | Cost Centre is active                                            | The status of the object "Cost Centre" to which an active (Employee Status is Active or Active leave ) employee is allocated is active. | SuccessFactors | EmpJob FO. CostCenter     |
| HRS-6  | Conformity   | Incumbent's Position is active                                   | The status of the object "Position" to which an active employee is allocated is active.                                                 | SuccessFactors | EmpJob Position           |
| HRS-13 | Completeness | Supervisor is assigned                                           | All active people have a supervisor assigned.                                                                                           | SuccessFactors | EmpJob Position           |
| HRS-14 | Consistency  | Cadres have Pay grade between S15 and S27                        | For cadres there is a consistency between the Employment Type and the Pay grade                                                         | SuccessFactors | EmpJob                    |
| HRS-18 | Consistency  | Cost Center is the same at Position and Job Info.                | Cost Center is the same at Position and Job Info.                                                                                       | SuccessFactors | EmpJob Position           |
| HRS-19 | Consistency  | Business Unit is the same at Position and Job Info.              | Business Unit is the same at Position and Job Info.                                                                                     | SuccessFactors | EmpJob Position           |
| HRS-23 | Accuracy     | External workforce have Position Grade "Not applicable"          | External Employees, Trainees and Apprentices have Position Grade "Not applicable"                                                       | SuccessFactors | EmpJob                    |
| HRS-24 | Accuracy     | External workforce have Pay Grade "Not applicable"               | External Employees, Trainees and Apprentices have Pay Grade "Not applicable"                                                            | SuccessFactors | EmpJob                    |
| HRS-25 | Accuracy     | Sales Cadre have SIP Bonus Plan                                  | Sales Cadre must have SIP Bonus Plan                                                                                                    | SuccessFactors | EmpJob EmpCompensation    |
| HRS-28 | Completeness | Cadres should always have a bonus plan assigned                  | Cadres have a bonus plan assigned                                                                                                       | SuccessFactors | EmpJob EmpCompensation    |
| HRS-29 | Completeness | Cadres have annual indicative salary                             | All Cadre employees must have annual indicative salary in EC                                                                            | SuccessFactors | EmpJob EmpCompensation    |
| HRS-30 | Completeness | Cadres have Annual Salary (9ANS)                                 | All Cadre employees must have Annual Salary (9ANS) recorded in EC                                                                       | SuccessFactors | EmpJob EmpCompensation    |
| HRS-34 | Consistency  | Indicative Salary amount is the same as the Annual Salary (9ans) | For all Cadre employees the Indicative Salary amount must be the same as the Annual Salary (9ans)                                       | SuccessFactors | EmpJob EmpCompensation    |

Detailed information on the rules with their functional, technical specifications and the data inputs are documented in [a centralized Google Sheet](#).

## Data Quality Dimensions:

The following are the data quality dimensions with their definitions under which the KPIs are grouped to assess the quality of data within Solvay.

| Dimension           | Definition                                                                                                                                                                                                       |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accuracy</b>     | Degree to which data correctly reflects the real world                                                                                                                                                           |
| <b>Completeness</b> | Achieved when all the data required for a particular use is present and available to be used                                                                                                                     |
| <b>Conformity</b>   | Achieved when the data is conforming to a pre-defined business rule/syntax (e.g. format, type or range)                                                                                                          |
| <b>Consistency</b>  | Achieved when data values do not conflict with other values within a record or across different data sets and sources                                                                                            |
| <b>Integrity</b>    | Ensures that all the data in a database can be traced and connected to other data/Degree to which a defined relational constraint is implemented between two data set                                            |
| <b>Timeliness</b>   | Indicates whether the data is available when expected and needed and represent reality from the required point of time (Degree to which specified data values are up to date between data change and processing) |

|                   |                                                                                      |
|-------------------|--------------------------------------------------------------------------------------|
| <b>Uniqueness</b> | Measures the number of unique values and highlights if there are any data duplicates |
|-------------------|--------------------------------------------------------------------------------------|

## 6.0 System view (Architecture)

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The system view (Architecture) can be found in [the technical documentations](#).

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## 7.0 Non-functional Descriptions

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Please populate the relevant section and delete those that are not applicable.

### 7.1 Security

The dashboard is secure from unauthorized access, access only granted to authorized Users.

### 7.2 Refresh of the Data

The data is refreshed weekly, every Monday.