

Functional Documentation Template

1.0 Overview

Business Context and Application Overview

Provide an overview of the app (e.g Domain, key processes, purpose of the app, etc)

Application User Profile

Describe the key User profiles that exist for the application.

General role/Viewer role:

Approver role:

Target Users:

As examples: Controllers / Accountants

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	dd.mm.yyyy	<Insert name>	Initial draft

Application Type

Data Product Type

☐ Dashboard

☐ Report

☐ Advanced analytics

☐ AI

☐ Others <specify which one>

Technologies

☐ BW

☐ Tableau

☐ QlikSense

☐ Talend

☐ Dataiku

☐ Others <specify which one>

Data Sources

Note: list of all applications and various environment

☐ SAP PF1 (Production environment)

☐ SAP WP1

☐ SAP PI1

☐ BW (versions)

☐ iCare CRM

☐ CORE CRM

☐ Others <specify the name of the source>

2.0 Business Process

Capture the business process that the application supports . This can be describe through a process diagram or a business capability model.

2.1 Challenge/Opportunities

Clearly articulate the specific problem or opportunity that the application is addressing within the business by leveraging from data. This should be a concise and well-defined statement that captures the essence of the challenge or opportunity that the application is trying to solve by providing insight from the data.

3.0 Application Feature Overview

Information about the existent features in the application.

Feature	Description	Latest update in production (DD/MM/YYYY)

4.0 Business Objects

This section should contain a table with the business objects used in the reports with links to the business object definition in LeanIX. The purpose is to ensure that all DA&AI Products adhere to a centrally maintained list of business objects and definitions to allow us to achieve our digital ambitions. For any questions about business objects and LeanIX, contact Data Governance or the Enterprise Information Architect.

Data Domain	Business Object (in LeanIX)	Business Object Definition (only use when the object is not yet in LeanIX)
ex: Marketing & Sales	ex: Customer	

5.0 Functional Specification

5.1 Dashboard

[if already existed put the link to the wiki page of the user documentation](#)

5.2 Data Input

1. Data Sources (including the nature of the data and what is it needed for)
 - a. Business data (actuals, facts, customer data, transactions...)
 - b. Reference data (hierarchies, lookup tables...)
2. Transformation Rules (for each of the data source in the previous point)
 - a. Extraction rules and filters
 - b. Exception handling rules (how do we handle when data does not come in the format we need)
 - c. Enrichments (normally joins)
 - d. Aggregation rules

5.3 KPI's Definitions

KPI Name	Definition	Calculation

5.4 Visualization

Graph name	Description	Calculations//Measures/Rules (if applicable)	Scope / Filters	Graph picture

- Additional Information

5.1 Advanced Analytics

[if already existed put the link to the wiki page of the user documentation](#)

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[blocked URL](#)

- If data is sourced from the data ocean, the Multidimensional modeling of the data at conceptual level including fact and dimension tables to be captured or the link to the documentation of the corresponding data mart to be provided.

5.3 Pre-processing

Includes the details of the operations performed on the raw data to the data set that is useable for analytics. Data Cleaning, Data Reduction, Data Transformation, and Data Integration are types of preparation tasks.

5.4 Modelling

Analytics type: Identify and list the key features or functionalities that the application offers. These could include recommendation systems, predictive analytics, natural language processing, image recognition, etc. *descriptive, prescriptive, predictive...*

End to end pipelines: Procedures and calculation steps to make the advanced analytics pipelines

Algorithm: Machine learning algorithms, data mining techniques, mathematical modeling used for each step (high level). It can include the type of model (e.g., regression, classification, neural network), the algorithm used,

Data flow: Input and output of each step

5.5 Results

User flow:

If applicable, use diagrams or flowchart tools to create visual representations of the user flows. Start with a high-level overview of the flow and then drill down into more detailed flows for specific tasks or features.

If applicable, indicate where users provide input to the machine learning model. This could involve uploading data, entering text, making selections, or interacting with visualizations.

If applicable, consider how user feedback or actions can impact the machine learning model or the user flow. For example, if users can provide feedback on model predictions, include this in the flow.

Output:

Capture where the machine learning model provides outputs or results to users. This might involve displaying recommendations, predictions, insights, or visualizations generated by the model.

5.1 Artificial Intelligence

[if already existed put the link to the wiki page of the user documentation](#)

6.0 System view (Architecture)

The purpose of this part is to describe the physical components that supports the functionalities of the product. From that point of view, this part should capture and visualizes the physical components of the data products such as backend, front end, data providers, libraries for ML models, etc.

7.0 Non-functional Descriptions

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

7.1 Usability

Usability is about the ease with which a User can learn to start using the solution and the ease with which they can use the system. In addition to ease of learning and ease of use, usability also includes areas such as ease of recall, error avoidance and handling, accessibility among others e.g., 99% of metadata entry Users who have use the Maintenance Dashboard should be able to change filters, extract etc., when required. Maintenance data will be centrally stored in the Google Cloud platform, which will be available to other applications e.g., and Dashboards if needed.

7.2 Regulatory Compliance

Software systems must comply with legal and regulatory e.g., GDPR requirements, this can change depending on country, organisation industry and / or region. The software systems must be secure from unauthorized access. The Maintenance Dashboard will comply with Solvay's regulations and compliance e.g., access only granted to authorized Users.

7.3 Security

Security refers to essential aspects that assure a solution and its components will be protected against unauthorized access or malware attacks. Important considerations related to security aspects of a system are User authentication, User authorization or User access privileges, data theft, malware attacks, data encryption, and maintaining audit trails, e.g., only Users with administrator access shall be able to create new accounts and assign data access privileges to the new accounts e.g.,

- All data will be encrypted in the dashboard
- Only authorised Users / Administrative Users will be able to access data.
- Maintenance data will be split between either SCO or ECO, and Users will only have authority to one Entity data.

7.4 Performance

Performance defines how fast a software system or a particular section of it responds to certain User actions under a certain workload. In most cases, this metric explains how long a User must wait before the target operation happens e.g., the page renders, a transaction is processed, etc., given the overall number of Users now. Performance requirements may describe background processes invisible to Users, e.g., backup and speed of data transfers.

7.5 Reliability

Reliability is the ability of a solution or its component to perform its required functions without failure under predefined conditions for a specified time / period. Reliability can possibly be specified in terms of average time system runs before failure occurs, percentage of operations completed successfully within a time / period, maximum acceptable failure probability, or number of failures within a period. Reliability aspects are in reference to (but not limited to) evaluation of the system to be considered as reliable, classification of reliability defining failures vs. regular failures, and the impact of failure on business operations. The Maintenance Dashboard will display data from the previous refresh of data.

7.6 Scalability

Scalability refers to the degree to which a solution can evolve to handle increased amounts of work. The increased amount of work could be in terms of the user base, transactions, data, network traffic, or other factors e.g., the system should be able to handle an additional load of a maximum of 5,000 Users every month for the next 6 months without any noticeable performance impacts.

7.7 Compatibility

Interoperability is the degree to which the solution is compatible with other components. It is a measure of how effectively the system interoperates with other software systems and how easily it integrates with external hardware devices.

Interoperability aspects to be discussed during elicitation are in reference to (but not limited to) software systems to be interfaced with along with data / messages to be exchanged and any standard data formats, hardware components to be integrated with, and any standard communication protocols to be followed e.g., Order Management system will push the order file into a secured file transfer protocol server from where it will be loaded into the system through a daily job. To guarantee between Google Cloud platform and SAP BW Queries e.g., BW_QRY_MVPMOR01_0002, Solvay has introduced a new tool called Xtract ([Xtract](#)).

7.8 Availability

Availability is the degree to which the solution is operable and accessible when required. It is a measure of time during which the system is fully operational e.g., available for use and sometimes included as a Service Level Agreement (SLA) considering its criticality to the business, e.g., the system shall be at least 99% available on weekdays between 09:00 to 18:30 Central European Time (CET).

7.9 Refresh of the Data

Frequency, data, and time of the data refresh in the data product.