

Functional Documentation

1.0 Overview

Business Context and Application Overview

The Corporate Sustainability Reporting Directive (CSRD) is an EU regulation requiring companies to disclose detailed information about their environmental, social, and governance (ESG) impacts. It expands reporting obligations to include all large companies and listed SMEs, as well as non-EU companies with significant EU revenues.

The purpose is to provide stakeholders (investors, customers, regulators) with clear, reliable, and comparable sustainability data and to integrate sustainability into business decision-making.

Under the CSRD, companies must report in line with the European Sustainability Reporting Standards (ESRS). These standards aim to improve transparency and consistency in sustainability reporting, supporting the EU's climate and social goals.

Application User Profile

The key User profiles that exist for the application:

- Data Producer
- Data Approver

Assignment for each KPI's Data Producer and Data Approver is found in [Gap Assessment Sheet](#)

Target Users:

Different departments such as:

- Human Resources
- Finance
- Sustainability

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	dd.mm.yyyy	Fagr Nasser	Initial draft

Application Type

Data Product Type

- ☒ Dashboard
- ☒ Report
- ☐ Advanced analytics
- ☐ AI
- ☐ Others <specify which one>

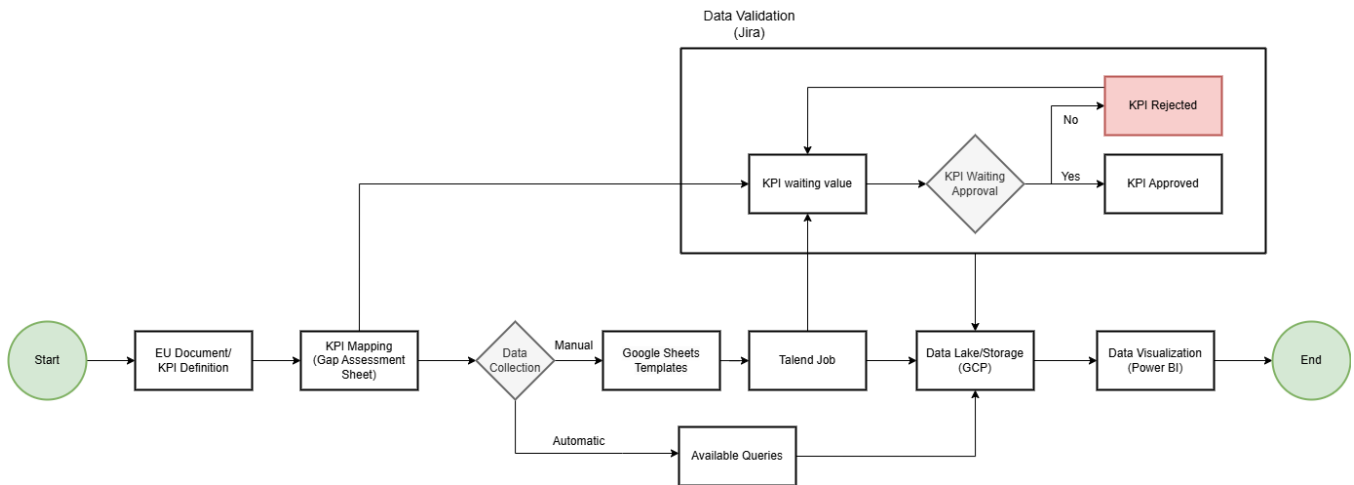
Technologies

- ☒ BW
- ☒ Power BI
- ☒ Jira
- ☐ QlikSense
- ☒ Talend
- ☒ GCP (BigQuery)
- ☐ Dataiku
- ☐ Others <specify which one>

Data Sources

- ☐ SAP PF1 (Production environment)
- ☐ SAP WP1
- ☐ SAP PI1
- ☒ Data Ingestion Template (Google Sheets)
- ☐ BW (versions)
- ☐ iCare CRM
- ☐ CORE CRM

2.0 Business Process



2.1 KPIs source

Refer to the file: [Gap Assessment Sheet](#)

For further details, access the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council regarding sustainability reporting standards. [\(link?\)](#)

3.0 ESRS Reports Overview

Data Collection Templates (Manual)

ESRS Code	Description	Link	Latest update in production (DD/MM/YYYY)
E1	Climate Change	CSRD E1 Climate Change	07 Mar 2025
E2	Pollution	CSRD E2 Pollution	07 Mar 2025
E3	Water and Marine Resources	CSRD E3 Water and Marine Resources	07 Mar 2025
E4	Biodiversity and Ecosystems	CSRD E4 Biodiversity and Ecosystems	07 Mar 2025
E5	Resource Use and Circular Economy	CSRD E5 Resource Use and Circular Economy	07 Mar 2025
G1	Business Conduct	CSRD G1 Business Conduct	07 Mar 2025
S1	Own Workforce	CSRD S1 Own Workforce	07 Mar 2025

4.0 Data Architecture

4.1 Data Capturing

Talend for Batch Processing:

- Data collection is initiated through Talend batch processes, which extract raw data from both automated and manual sources.
 - Automated Sources** : Systems such as SAP BW, SAP ERP, SAP SuccessFactors EC, SAP BFC, WAVE, NAVEX, and PURE;
 - Manual Sources**: Includes **Google Sheets** and **other manual templates**.

4.2 Data Ocean

The Data Ocean in Google Cloud Platform (GCP) serves as the central hub for storing, processing, and normalizing data to support CSRD metric and KPI calculations. It is structured as follows:

- Storage:**
 - Raw data is collected and stored securely.
 - Normalized data is prepared for downstream processes.

- Google Cloud Platform (GCP):

The Data Ocean utilizes GCP services such as Cloud Storage and BigQuery to process and store data efficiently across environments:

- Dev - [link](#)
- Test - [link](#)
- Prod - [link](#)

2. **Curation:**

- Data Quality (DQ) Measures: Implemented to standardize data quality processes.
- Data Validation: Ensures accuracy and reliability of input data.
- Data Consolidation: Combines various data sources into a cohesive format.

3. **Provisioning:**

- CSRD Metric, KPI, and Target Data Models are generated to support reporting and analysis.

4.3 Validation Process

KPIs are reviewed and validated through Jira workflows, allowing for user collaboration and audit logging.

4.3.1- Jira Workflow:

A- Manual creation of ticket:

After KPI is added in Gap Assessment Sheet is created with all the details, Jira ticket is creates to represent each KPI per granularity, using details from Gap Assessment Sheet

Add parent

CSRDDC-184

[E3-4] - [E3_37] - Total water consumption in m3

+ Add

Apps

Field Tab

KPI details

KPI Value

Units

m3

KPI ID

E3_37

ESRS

E3

DR

E3-4

Reference

28 a

KPI Name

Total water consumption in m3

AR

None

KPI Description

Total water consumption in m3

Source

Manual

KPI Value last published date

Status

None

Campaign

2024

Instructions

None

Data Producer

N

Data Approver

B

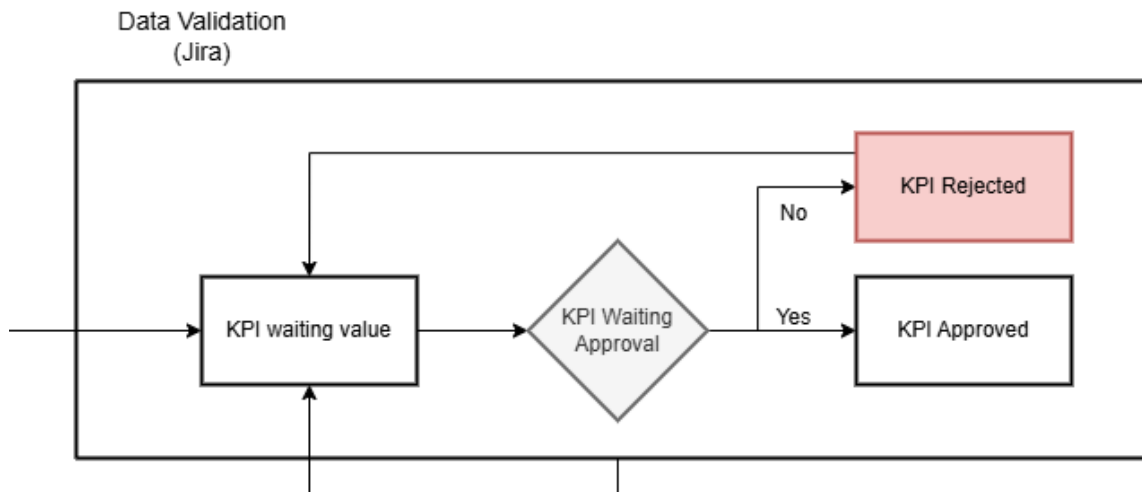
Data Domain

Sustainability

- Ticket Naming Format:
 - [DR] - [KPI ID] - KPI Description
- Tickets Details:
 - All Values are from Gap Assessment Sheet
- Assignees:

- Data Producer
- Data Approver

B- Jira Phases:



- **Waiting Value:**
 - When KPI is manually created it's put in Waiting Value.
- **Waiting Approval:**
 - When manual templates are filled and values are ready to be evaluated, we run Talend Job which extracts data from sheeting inserting them into both Jira tickets and GCP.
- **Rejected:**
 - If Data Approver finds different or incorrect values, they move it to Rejected to be re-assigned to Data Producer who then moves it to Waiting Value to repeat the process until it's approved by the Data Producer.
- **Approved:**
 - KPI is matching and approved by Data Approver.

Important Notes:

- Jira automatic workflow is created to change assignee based on the column it's in; when in:
 - Waiting Value: Data Producer
 - Waiting Approval: Data Approver
 - Rejected: Data Producer
 - Accepted: Data Approver
- Values **MUST** be numeric values; no currencies, percentage symbol, texts should not be added in the KPI Value section (unless the KPI's reporting value is text)
- If a KPI has been Approved but needs to be re-evaluated, it must be moved to Rejected column to repeat the approval process.

4.3.2- Power BI:

Dashboard is used as a validation step between the values in manual templates and values in Jira tickets, ensuring that there are no discrepancies and that edits are made on both ends correctly.

(image of dashboard)

4.4 Data Consumption

The validated data from the Data Ocean is used for multiple reporting and analytical purposes:

1. **CSRD Report Pack :**
Official CSRD reports are generated and shared with auditors.
2. **Performance Tracker :**
Tracks KPI performance against planned targets.
3. **Audit Analysis :**
Provides insights into data lineage and compliance requirements.

Data visualization is achieved through Power BI report, which offer comprehensive insights into the reporting process and KPI granularity, that can be accessed via the following link: [LIINNKKK](#)

4.5 Data Management and Operation

1. **Data Management Features :**
 - a. Data cataloging for better accessibility.

- b. Workflow orchestration to manage data processes efficiently.
 - c. Continuous data audits for compliance and traceability.
2. **Operational Features :**
- a. Monitoring and workload management ensure system reliability.
 - b. Data security protocols are implemented to safeguard sensitive information.
 - c. Backup and CI/CD processes support system robustness and scalability.

These processes are not isolated to a single stage but are integrated across all steps, from **data capturing to data consumption**. They ensure that data quality, consistency, and compliance are maintained at every stage of the CSRD flow.

5.0 Data Visualization

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.

Deep dive into power bi

Someone with access

6.0 Non-functional Descriptions

6.1 Usability

The solution prioritizes usability to ensure that users can easily navigate and interact with the CSRD reporting system, making it intuitive to learn and use effectively. Key functionalities, such as filtering ESG data, exporting reports, and accessing compliance dashboards, are designed for simplicity and ease of recall. The system is integrated with Google Cloud Platform (GCP) to ensure centralized data storage and seamless access for reporting and analysis.

6.2 Regulatory Compliance

The CSRD reporting solution complies with EU regulatory standards, including CSRD, ESRS, and GDPR, to ensure the secure handling of sustainability data. Access is strictly granted to authorized users only, maintaining data confidentiality and integrity while meeting compliance requirements.

6.3 Security

User authentication, user authorization, and access privileges ensure the security of data, processes, and company information. Only authorized users can view or edit data in Google Sheets (Templates), Jira, Dashboard, Google Cloud Platform (GCP) where access control is independently managed for each platform.

6.4 Performance

The CSRD reporting solution is designed for high performance, ensuring swift response times during user interactions. Background processes, such as data ingestion, validation, and report generation, are optimized to run seamlessly with minimal impact on the user experience. The system infrastructure is configured to handle the current and growing user base efficiently, providing fast and reliable access to sustainability data even during peak usage.

6.5 Reliability

Reliability is essential for consistent operation, and the system is designed to function without interruptions under standard conditions. In cases of refresh delays or failures we can have some alerts but normally is managed by ticket.

6.6 Scalability

The solution is built to be scalable, able to accommodate growth in users, KPIs, templates and data volume.

6.7 Compatibility

Compatibility with other systems is ensured through seamless integration with external data sources and applications.

6.8 Availability - EDITTTTT

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).

6.9 Refresh of the Data

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