

Sample Content for Financing and Investment Sustainability
Management
SAP Profitability and Performance Management
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Sample Content for Financing and Investment Sustainability Management

Processes and Functions supporting Sample Business Scenarios



Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade, and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER .

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1 Introduction and Basics

1.1 About this Guide

This guide provides information about the sample content for Financing and Investment Sustainability Management, which can be installed on top of SAP Profitability and Performance Management. This sample content describes a project accelerator, ideas, and best practices for modeling an end-to-end financing and investment sustainability as well as an economic, environmental, and social performance evaluation model that is feasible for actuals, planning, forecasting and simulations. It also contains references to further documentation that you should read before performing these tasks.

The structure of this document is organized around the following topic:

Business Example

This part of the guide covers the main features of the sample content. It describes the information model and calculation model.

Target Audience:

- Business experts
- Solution consultants
- Presales teams

Considerations

It is essential to be accustomed with the content of the corresponding guides and documents related to this topic before beginning with this example. For more information about the available guides and documents, as well as integration with other systems, roles, configuration information, users and authorization concept, see section [Related Documentation](#).

1.2 Constraints

This guide does not provide information about the installation of the sample content. For more information about this, see section [Related Documentation](#).

1.3 Related Documentation

The following table lists related documents.

Topic	Guide/Tool/Title	Links
<ul style="list-style-type: none"> • Installation and planning of your system landscape • Activities to keep the system running • Information about how to ensure the required security for your SAP landscape 	Administration Guide	Administration Guide
<ul style="list-style-type: none"> • SAP Note for Sample content for Financing and Investment Sustainability Management 	Sample Content for Financing and Investment Sustainability Management	https://launchpad.support.sap.com/#/notes/2954060 SAP Note 2954060
<ul style="list-style-type: none"> • Operation of SAP NetWeaver 	Technical Operations Manual	https://help.sap.com/viewer/p/SAP_NETWEAVER_750
<ul style="list-style-type: none"> • Application Help 	Detailed Application help for SAP Profitability and Performance Management	SAP Profitability and Performance Management
<ul style="list-style-type: none"> • SAP HANA Administration Guide 	Administration guide for SAP HANA; supported SDA databases	https://help.sap.com/viewer/product/SAP_HANA_PLATFORM/
<ul style="list-style-type: none"> • SAP Notes 		https://launchpad.support.sap.com/
<ul style="list-style-type: none"> • World Resource Institute 	A Recommended Methodology for Estimating and Reporting the Potential Greenhouse Gas Emissions from Fossil Fuel Reserves	https://www.wri.org/research/recommended-methodology-estimating-and-reporting-potential-greenhouse-gas-emissions-fossil

1.4 Glossary

BI	Business Intelligence
BW	Business Warehouse
ESG	Environment, Social and Governance
GHG	Green House Gas

2 Business Example

The market is at the dawn of the next big technology change where everything is connected, and software is embedded in people’s lives. This technology change is bringing new opportunities and new threats. Cycle time for innovation is 5–10 times faster, and enterprises can no longer compete unless complexity is reduced. Business efficiency is ahead of the market and product and service profitability are constantly tracked and optimized.

That is why digital performance management will be the game-changer for companies who want to be successful in the digital economy. A digital performance management solution for the business needs of the 21st century to measure and manage enterprise efficiency and drive product and service profitability in real time seems to be essential today

Built on SAP HANA, SAP Profitability and Performance Management is a next generation digital performance management solution that provides breakthrough real-time business data aggregation capabilities for SAP and non-SAP systems, a high-performance finance and risk calculation engine and comprehensive simulation and scenario management.

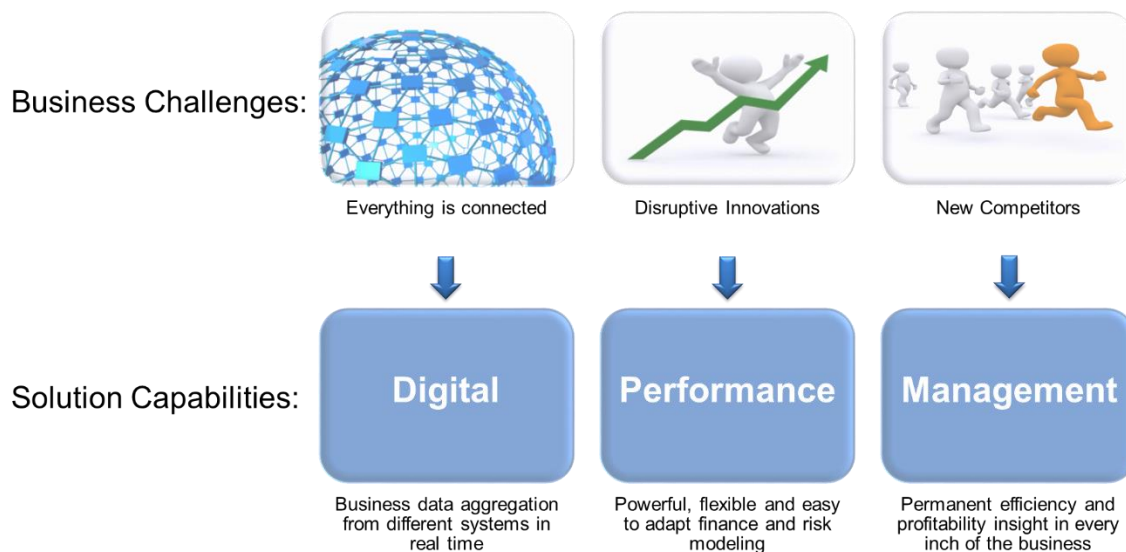


Figure 1: Digital Imperative

2.1 Scope and Business Definition

The scope of this sample content covers the calculation and management of the economic, environmental, and social impacts of a portfolio and its assets, which are based on granular financial and non-financial information of the financial instruments and business partners. It comprises specific aspects of data integration, data input, processing (including allocations of effect attributes and calculations on credit and ESG scores) and reporting.

This sample content is integrated with SAP – Financial Asset Management module. EU Taxonomy alignment assessment and Task Force on Climate-related Financial Disclosure recommendations (TCFD) are also incorporated in this sample content to better assist on providing transparency in an effort to promote sustainable financial system. Business users can make well-informed investments with respect to financial returns, ESG impacts and to customize the benchmark and strategy as they wish.

The following screenshot shows the function hierarchy of the sample content and the process template.

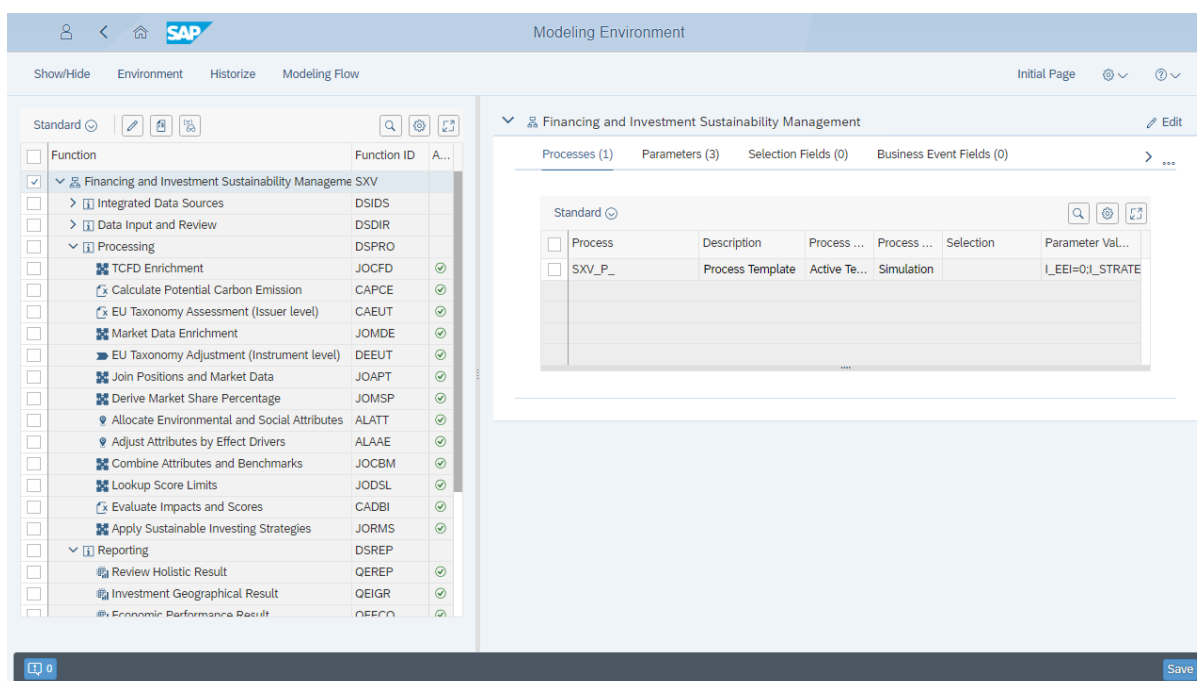


Figure 2: Sample Content Information and Calculation Model

You can also find the information contained in the following chapters in the respective [Documentation](#) tabs for the model.

3 Financing and Investment Sustainability Management in Detail

Financing and Investment Sustainability is becoming increasingly important as the financial sector is considered to have a crucial role to play in advancing sustainability and accelerating transition to climate neutrality. Financing and Investment Sustainability Management incorporates ESG factors into traditional investment strategies and assists on making responsible investment decisions not only for profits but also for ensuring sustainable growth and future for the next generations. This sample content Financing and Investment Sustainability Management (Environment ID= SXV, Version=5) covers an example of ESG and credit investing method which calculates ESG and credit scores of companies and instruments, and reweights the portfolios based on scores and benchmark criteria. It assists steering capital towards sustainable and low-carbon business activities through: calculating various indicators such as portfolio green investment ratio, EU taxonomy-aligned turnover, CapEx and OpEx percentage as well as by providing reports with climate-related financial information aligned with the TCFD framework and visualization of climate-related impacts on portfolio under different climate scenarios. It incorporates a predefined process template with manual data input and automatic calculation activities to run the model in production.

This sample content comes with the SAP Profitability and Performance Management software installation and can be run out of the box.

It consists of one Calculation Unit function that is structured hierarchically with description functions physically below it in the system:

- *Integrate Data Sources*
Defines the information models that user inputs manually or imports from external data sources.
- *Data Input and Review*
Provides specific input options for the following:
 - *Review Financial Positions*
 - *Review Financial Instruments*
 - *Review Business Partners*
 - *Update Economic Activity Data*
 - *Update Industry Code Mapping Table*
 - *Update TCFD Data*
 - *Update Climate Scenario Analysis Data*
 - *Update Market Benchmarks*
 - *Update Effect Drivers*
 - *Update Credit and ESG Scorecards*
 - *Update Sustainable Investing Strategies*

- *Processing*

Here you can find the predefined calculation model for this sample content as following:

- *TCFD Enrichment*
- *Calculate Potential Carbon Emission*
- *EU Taxonomy Assessment (Issuer Level)*
- *Market Data Enrichment*
- *EU Taxonomy Adjustment (Instrument Level)*
- *Join Positions and Market Data*
- *Derive Market Share Percentage*
- *Allocate Environmental and Social Attributes*
- *Adjust Attributes by Effect Drivers*
- *Combine Attributes and Benchmarks*
- *Lookup Score Limits*
- *Evaluate Impacts and Scores*
- *Apply Sustainable Investing Strategies*

- *Reporting*

This provides self-service reporting with predefined layouts for overall holistic results, economic, environmental, and social effects, and further reports.

The *Financing and Investment Sustainability Management* calculation unit defines the process template **SXV_P_ - Process Template** of process type *Simulation* with the following activities:

- **Review Input Data:**

- *Review Financial Positions*
- *Review Financial Instruments*
- *Review Business Partners*

- **Update Assumptions and Parameters:**

- *Update Economic Activity Data*
- *Update Industry Code Mapping Table*
- *Update TCFD Data*
- *Update Climate Scenario Analysis Data*
- *Update Market Benchmarks*
- *Update Effect Drivers*
- *Update Credit and ESG Scorecards*
- *Update Sustainable Investing Strategies*

- **Execution**

- **Reporting and Analysis:**

- *Review Holistic Result*
- *Investment Geographical Result*
- *Economic Performance Result*
- *Environmental Performance Result*
- *Social Performance Result*
- *EU Taxonomy Assessment (Issuer level)*
- *EU Taxonomy Assessment (Instrument level)*

- *EU Taxonomy Alignment What-if Simulation*
- *Climate-related Financial Disclosure*
- *Climate Scenario Analysis*

Note

All execution activities are configured without dependency, so that they can be executed in parallel for demo purposes. In implementation projects dependent activities can be defined instead if needed.

For execution activities no performer and reviewer teams are assigned, that means every execution user can run the activities. In implementation projects teams need to be assigned to restrict the authorizations to relevant users.

For the used environment fields, no characteristic based authorization is defined, that means every execution user can read all data and possibly apply data changes. In implementation projects authorizations can be defined on characteristic value level by IT Administrators in line with the general SAP authorization and security management, so that for example in the “Review Financial Positions” report the position data for “Sustainable Investing Portfolio” is only readable to selected users.

3.1 Integrate Data Sources

In this section, the necessary data sources are defined. This sample content works with own data and cannot presume any custom specific system landscape, application, or interface.

The integration of data sources therefore uses functions of type Model Table to make test data available in an implementation project to connect to the real and concrete customer data sources and targets.

The complete information model is kept lean to ease the adaption in an implementation project.

Note

This sample content does not work with specific customer data and cannot presume any customer-specific system landscape, application, or interface.

3.1.1 Financial Position Data

This Model Table function is used to provide financial position data. The function defines the following fields:

- *Scenario*: This field represents the scenario of business assumption.
- *Valuation Area*: This field represents the different accounting regulations for valuation of financial instrument.
- *Valuation Class*: This field is used to classify transactions by asset type.
- *Company Code*: This field represents the central organizational unit of external accounting within the SAP System.
- *Portfolio*: This field provides information about asset portfolio.

- *Instrument*: This field provides information about financial instruments in portfolio.
- *Rate/Price Date*: This field represents the date on which the value of asset is evaluated.
- *Units*: This field represents the quantity of instrument held in the portfolio.
- *Market Value in Position Currency*: This field represents the market value of instrument held in the portfolio.
- *Position Currency*: This field is used as a unit to describe the currency for each instrument's holding market value. All issued currencies have been converted to Euro.

3.1.2 Financial Instrument Data

This Model Table function is used to provide financial instrument data. The function defines the following fields:

- *Instrument*: This field provides information about financial instruments in portfolio.
- *International Securities Identification Number*: This field provides information about the International Securities Identification Number of financial instruments in portfolio.
- *Product Category*: This field provides information about the classification of asset.
- *Product Type*: This field provides information about the type of asset.
- *Use of proceeds*: This field provides information about the business that the issuer will spend money on.
- *Green Certificate*: This field indicates whether the financial instrument is attached with a certificate that ensures earmarking for green purposes.
- *Taxonomy-eligibility Check (based on purpose)*: This field contains information on whether the financial instrument is eligible for EU Taxonomy assessment based on the use of proceeds.
- *Issuer Identity Key*: This field represents the entity that issues the instrument.
- *Issue Start Date*: This field represents the date on which the instrument is issued.
- *End of Term*: This field represents the date on which the final payment is due on a financial instrument.
- *Nominal Value*: This field provides information about the par value of each instrument.
- *Issue price independent of currency*: This field represents the price for each unit of the instrument.
- *Issue Currency*: This field is used as a unit to describe the issued currency for each instrument.
- *Issue rate in percent*: This field provides information about the interest rate for each instrument.
- *Rating*: This field provides information about the credit rating for each instrument.

- *Credit Rating Institute*: This field represents the credit rating agency that assigned rating to each instrument.
- *Date Condition Effective from*: This field provides information about the starting date for each rating to become effective.
- *Exchange*: This field represents the places where instruments are traded.
- *Position Currency*: This field is used as a unit to describe the currency for each instrument. All issued currencies have been converted to Euro.

3.1.3 Business Partner Data

This Model Table function is used to provide business partner data. The function defines the following fields:

- *Fiscal Year*: This field represents the year for accounting purposes.
- *Issuer Identity Key*: This field represents the entity that issues the instrument.
- *Country/Region*: This field provides information about the country/region of issuers.
- *NACE Industry*: This field provides information about the NACE industry sector of issuers.
- *Sector*: This field provides information about the industry sector of issuers.
- *Issuer Rating*: This field provides information about the credit rating for each issuer.
- *Credit Rating Institute*: This field represents the credit rating agency that assigned credit rating to each issuer.
- *Valid-from Date for Rating*: This field provides information about the starting date for each credit rating to become effective.
- *ESG Rating*: This field provides information about the ESG rating for each issuer.
- *ESG Rating Institute*: This field represents the ESG rating agency that assigned ESG rating to each issuer.
- *Valid-from Date for ESG Rating*: This field provides information about the starting date for each ESG rating to become effective.
- *Performance Indicator*: This field represents the area of effects, e.g., environmental, social, or economic.
- *Performance Sub-indicator*: This field represents the type of ESG effects.
- *Attribute*: This field represents the value of ESG effects.
- *Attribute Unit*: This field represents the unit of attributes.

3.1.4 Economic Activity Data

This Model Table function is used to provide EU taxonomy-related data. The function defines the following fields:

- *Fiscal Year*: This field represents the year for accounting purposes.
- *Issuer Identity Key*: This field represents the entity that issues the instrument.
- *Country / Region*: This field provides information about the country / region of issuers.
- *NACE Industry*: This field provides information about the NACE industry sector of issuers.
- *NACE Code*: This field provides information about the NACE industry codes of economic activities.
- *Economic Activity*: This field provides information about the activities conducted by issuer.
- *% of Turnover per activity*: This field represents the percentage of turnover created by each economic activity.
- *% of CapEx invested in fulfilling Taxonomy criteria*: This field represents the percentage of capital expenditure spent on each economic activity that fulfills Taxonomy criteria.
- *% of OpEx invested in fulfilling Taxonomy criteria*: This field represents the percentage of operational expenditure spent on each economic activity that fulfills Taxonomy criteria.
- *EU Taxonomy Eligibility Flag based on NACE Code*: This field represents the result of the step 1 EU Taxonomy screening test, i.e., whether an economic activity is covered by the EU Taxonomy. If an economic activity is covered by the EU Taxonomy, then in this field it holds the value "Y", otherwise "N".
- *Environmental Objective*: This field represents the information of environmental objective for each economic activity.
- *Substantial contribution Indicator*: This field represents the overall alignment result of the step 2 EU Taxonomy screening test, i.e., the substantial contribution criteria; if the Substantial Contribution Alignment is 0, then in this field it holds the value "N", otherwise "Y".
- *Category of the activity*: This field provides the information of the category of each economic activity, i.e., enabling, or transitional.
- *Substantial Contribution Alignment*: This field represents the percentage of the alignment results from the step 2 EU Taxonomy screening test, i.e., substantial contribution criteria for each economic activity in step 2 EU Taxonomy screening test.
- *Type of Contribution - Climate Change Mitigation*: This field represents the result of the step 2 EU Taxonomy screening test, i.e., the substantial contribution criteria to climate change mitigation and / or adaptation objectives. If an economic activity makes substantial contribution to climate change mitigation, then in this field it holds the value "SC", otherwise if this activity does no significant harm to the other five objectives, then the value is "DNSH".

- **Type of Contribution - Climate Change Adaptation:** This field represents the result of the step 2 EU Taxonomy screening test, i.e., the substantial contribution criteria to climate change mitigation and / or adaptation objectives. If an economic activity makes substantial contribution to climate change adaptation, then in this field it holds the value "SC", otherwise if this activity does no significant harm to the other five objectives, then the value is "DNSH".
- **Type of Contribution - Circular Economy:** This field represents the result of the step 3 EU Taxonomy screening test, i.e., DNSH criteria, regarding the objective "circular economy". If an economic activity does no significant harm to the other five objectives, then in this field it holds the value "DNSH", if this objective is not applicable for this economic activity, then it holds the value "NA", otherwise "NQ".
- **Type of Contribution - Water:** This field represents the result of the step 3 EU Taxonomy screening test, i.e., DNSH criteria, regarding the objective "water". If an economic activity does no significant harm to the other five objectives, then in this field it holds the value "DNSH", if this objective is not applicable for this economic activity, then it holds the value "NA", otherwise "NQ".
- **Type of Contribution - Pollution:** This field represents the result of the step 3 EU Taxonomy screening test, i.e., DNSH criteria, regarding the objective "pollution". If an economic activity does no significant harm to the other five objectives, then in this field it holds the value "DNSH", if this objective is not applicable for this economic activity, then it holds the value "NA", otherwise "NQ".
- **Type of Contribution - Ecosystems:** This field represents the result of the step 3 EU Taxonomy screening test, i.e., DNSH criteria, regarding the objective "ecosystems". If an economic activity does no significant harm to the other five objectives, then in this field it holds the value "DNSH", if this objective is not applicable for this economic activity, then it holds the value "NA", otherwise "NQ".
- **Do No Significant Harm Indicator:** This field represents the overall result of the step 3 EU Taxonomy screening test, i.e., DNSH criteria, if the economic activity fulfills these criteria, it holds the value "Y", otherwise "N".
- **Minimum Safeguard:** This field represents the result of the step 4 EU Taxonomy screening test, i.e., if there are any negative impacts on minimum safeguard. If an economic activity complies with the "minimum safeguard" which is mainly in terms of labor right, then in this field it holds the value "Y", otherwise "N".

3.1.5 Industry Code Mapping Table

This Model Table function is used to provide the mapping information between NACE codes and Reuters / Bloomberg Industry codes. The function defines the following fields:

- **NACE Code:** This field provides information about the NACE industry codes of economic activities.

- *Industry Classification System*: This field provides information about the industry classification system for industry codes.
- *Industry Code*: This field provides information about the industry code for issuers.
- *Mapping Factor*: This field represents the mapping between NACE codes and other industry codes, thus telling what proportions of a Reuters/Bloomberg industry code can be assigned to a certain NACE code. In total, for each Reuters/Bloomberg industry code, the mapping factor should add up to 1, meaning that the NACE code can be matched to 100% to different NACE code.

3.1.6 TCFD Data

This Model Table function is used to provide data for Task Force on Climate-related Financial Disclosures. The function defines the following fields:

- *Fiscal Year*: This field represents the year for accounting purposes.
- *Issuer Identity Key*: This field represents the entity that issues the instrument.
- *Country/Region*: This field provides information about the country/region of issuer.
- *NACE Industry*: This field provides information about the NACE sector of issuer.
- *Business Activity*: This field provides information about the activities conducted by issuer.
- *Attribute*: This field represents the percentage of capital expenditure spent on each business activity.
- *Attribute Unit*: This field represents the unit of attributes.
- *Low Carbon Transition Degree*: This field represents the level of exposure to low carbon transition risk. Economic activities that have low level transition degree rely heavily on high carbon energy. Economic activities that have high level transition degree utilize low carbon energy and can potentially benefit from the low carbon transition process.
- *Fossil Fuel Exposure*: This field refers to the amount of fossil fuel held by an issuer which has power generation or other fossil fuel related activities.
- *Fossil Fuel Unit*: This field represents the unit of fossil fuel.
- *Climate Solution Exposure*: This field shows whether the business activities provide solutions to climate change through, e.g., clean technology, energy efficiency project and alternative energy production.
- *Climate Hazard Exposure*: This field contains the Global Climate Risk Index (CRI) which is adopted as a rough proxy to quantify impacts of extreme weather events – both in terms of the fatalities as well as the economic losses that occurred in a country/region. Countries/regions having lower CRI scores are affected more severely by extreme weather event.

- **Emission Reduction Target:** This field contains the information on whether the issuers set target to reduce carbon emission. Potential target types are Science Based Targets (SBTs) and internal carbon emission target.
- **Climate Regulation by Region:** This field represents the climate policy risk faced by issuers. Issuers in countries/regions that have strong climate regulation will be exposed to higher policy risk.
- **Future Market Demand:** This field represents the market risk faced by issuers. High-carbon products and services will be exposed to declined market demand in the long run.
- **Technology Risk Exposure:** This field contains information about issuers' level of uncertainty on technology development and deployment. Companies with high uncertainty and long technology development period will lose competitive advantage in transition to low-carbon economy.
- **Board Oversight:** This field contains information on whether the board and/or board committees of the issuers consider climate-related issues when guiding strategy and making plans and policies.

3.1.7 Climate Scenario Analysis Data

This Model Table function is used to provide data for visualization of Climate Scenario analysis. The function defines the following fields:

- **Instrument:** This field provides information about financial instruments in portfolio.
- **Product Category:** This field provides information about the classification of asset.
- **Product Type:** This field provides information about the type of asset.
- **Issuer Identity Key:** This field represents the entity that issues the instrument.
- **Country / Region:** This field provides information about the country / region of issuers.
- **NACE Industry:** This field provides information about the NACE sector of issuers.
- **Climate Scenario:** This field represents a set of possible future climate situations that are constructed for investigating the potential impacts of climate change on portfolio asset value.
 - Sudden disorderly transition: Estimated temperature is below 2° C by the end of 2030.
 - Long-term orderly transition: Estimated temperature is well below 2° C by the end of 2050.
 - Disorderly transition that happens too late to meet climate goal: Estimated temperature reaches 3° C by the end of 2050.
 - Business as usual: Estimated temperature reaches 4 °C by the end of 2100.
- **Climate Change Sensitivity – Policy:** This field provides information about the magnitude of the financial instrument's reaction to future climate-related policy changes (e.g. carbon price).

- *Climate Change Sensitivity – Technology*: This field provides information about the magnitude of the financial instrument's reaction to future climate-related technology changes (e.g., shift to renewable or low-carbon technology).
- *Climate Change Sensitivity – Physical Damage*: This field provides information about the magnitude of the financial instrument's reaction to future physical damage.
- *Estimated Physical Risk Shock (%)*: Physical risks resulting from climate change (e.g., changes in water availability and quality, severe weather events) can directly or indirectly affect the value of the underlying asset, which will then lead to changes in the valuation of financial instruments associated to that asset. This field provides information about the estimation on asset value change due to physical shock.
- *Estimated Transition Risk Shock (%)*: Transition risks resulting from climate change (e.g., climate regulation change and shifts on market preference) can directly or indirectly affect the value of the underlying asset, which will then lead to changes in the valuation of financial instruments associated to that asset. This field provides information about the estimation on asset value change due to transition shock.
- *Climate Value at Risk (90%)*: Value-at-Risk (VaR) measures the size of the loss that a portfolio will not exceed within a given time and at a particular probability. Climate VaR is a forward-looking measure that quantifies the amount of climate-related loss by comparing the present value of assets in a world with climate change and without climate change. This field represents Climate VaR of each financial instrument at 90% confidence level.
- *Climate Value at Risk (95%)*: Value-at-Risk (VaR) measures the size of the loss that a portfolio will not exceed within a given time and at a particular probability. Climate VaR is a forward-looking measure that quantifies the amount of climate-related loss by comparing the present value of assets in a world with climate change and without climate change. This field represents Climate VaR of each financial instrument at 95% confidence level.
- *Climate Value at Risk (99%)*: Value-at-Risk (VaR) measures the size of the loss that a portfolio will not exceed within a given time and at a particular probability. Climate VaR is a forward-looking measure that quantifies the amount of climate-related loss by comparing the present value of assets in a world with climate change and without climate change. This field represents Climate VaR of each financial instrument at 99% confidence level.
- *Physical Risk CVaR (90%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to physical risks at 90% confidence level.
- *Physical Risk CVaR (95%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to physical risks at 95% confidence level.
- *Physical Risk CVaR (99%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to physical risks at 99% confidence level.

- *Transition Risk CVaR (90%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to transition risks at 90% confidence level.
- *Transition Risk CVaR (95%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to transition risks at 95% confidence level.
- *Transition Risk CVaR (99%)*: The aggregated Climate VaR can be broken down into physical risk CVaR and transition risk CVaR. This field provides information about the potential impact on instrument's value due to transition risks at 99% confidence level.

3.1.8 Market Benchmarks

This Model Table function is used to provide market benchmarks on ESG factors. The function defines the following fields:

- *Benchmark Name*: This field provides information about the name of evaluation benchmark.
- *Investment Category*: This field provides information about the classification of benchmark.
- *Benchmark Type*: This field provides information about the type of benchmark, e.g., primary benchmark is the most essential benchmark.
- *Performance Indicator*: This field represents the area of the effect, e.g., environmental, social, or economic.
- *Performance Sub-indicator*: This field represents the type of ESG effects, e.g., carbon emission, water pollution.
- *Benchmark*: This field represents the benchmark value for each type of ESG effect.
- *Benchmark Unit*: This field represents the unit of benchmark value.

3.1.9 Effect Drivers

This Model Table function is used to provide effect drivers. Effect drivers are in essence an adjustment to the input ESG data of invested companies. The drivers can be determined by portfolio managers based on their knowledge on business partners. The function defines the following fields:

- *Instrument*: This field provides information about financial instruments in portfolio.
- *Issuer Identity Key*: This field represents the entity that issues the instrument.
- *Fiscal Year*: This field represents the year for accounting purposes.
- *Effect*: This field represents the type of effect. It corresponds to the Performance Sub-indicator such as carbon emission or water pollution.

- *Effect Value*: This field represents a value of effect, for example an adjustment factor that should be applied to corresponding Performance Sub-indicator's attribute.
- *Unit of Effect Value*: This field represents the unit of effect adjustment factor.

3.1.10 Credit and ESG Scorecards

This Model Table function is used to provide (internal) credit and ESG scorecard data. The scorecard data can either be retrieved from external credit and ESG rating agencies or generated by internal analysis team. The function defines the following fields:

- *Rating Category*: This field provides information about the type of rating, e.g., credit rating or ESG rating
- *Rating Class*: This field represents the classification of rating, e.g., prime, high grade etc.
- *Rating Grade*: This field represents the level of rating, e.g., Aaa, Aa1, etc.
- *Score Upper Limit*: This field represents the maximum numerical value of a rating score range.
- *Score Lower Limit*: This field represents the minimum numerical value of a rating score range.

3.1.11 Sustainable Investing Strategies

This Model Table function is used to provide sustainable and investment strategies data which are supposed to be designed and created by portfolio managers and tailored to fit their needs. The function defines the following fields:

- *Strategy*: This field represents the investment suggestion.
- *Rating*: This field represents the level of credit rating.
- *ESG Rating*: This field represents the level of ESG rating.
- *ESG Score Upper Limit*: This field represents the maximum numerical value of an ESG rating score range.
- *ESG Score Lower Limit*: This field represents the minimum numerical value of an ESG rating score range.
- *Valuation Score Upper Limit*: This field represents the maximum numerical value of a credit rating score range.
- *Validation Score Lower Limit*: This field represents the minimum numerical value of a credit rating score range.
- *Green Flag*: This field represents whether the instrument is a "Green" instrument or not.

3.2 Data Input and Review

In this section, additional query functions for comfortable review and maintenance of data by execution users are defined.

In the review and maintenance process, the following activities are run before the profitability and cost management calculation is executed:

- *Review Financial Positions*, which gives read-only access to financial position data.
- *Review Financial Instruments*, which gives read-only access to financial instrument data.
- *Review Business Partners*, which gives read-only access to business partners data.
- *Update Economic Activity Data*, which gives read and edit access to economic activity data.
- *Update Industry Code Mapping Table*, which gives read and edit access to Industry Code Mapping Table Data.
- *Update TCFD data*, which gives read and edit access to TCFD data.
- *Update Climate Scenario Analysis data*, which gives read and edit access to climate scenario analysis data.
- *Update Market Benchmarks*, which gives read and edit access to market benchmarks data.
- *Update Effect Drivers*, which gives read and edit access to effect drivers data.
- *Update Credit and ESG Scorecards*, which gives read and edit access to credit and ESG scorecards data.
- *Update Sustainable Investing Strategies*, which gives read and edit access to sustainable investing strategies data.

Note

The edit access queries sometimes provide only a subset of the test data for editing to show-case the function.

3.2.1 Review Financial Positions

This Query function is used to provide read data access to *Financial Position* data, which serves as an input for the profitability and cost calculation.

See [Financial Position Data](#) function for details about the fields.

3.2.2 Review Financial Instruments

This Query function is used to provide read data access to *Financial Instruments* data, which serves as an input for the profitability and cost calculation.

See [Financial Instrument Data](#) function for details about the fields.

3.2.3 Review Business Partners

This Query function is used to provide read data access to *Business Partners* data, which serves as an input for the profitability and cost calculation.

See [Business Partner Data](#) function for details about the fields.

3.2.4 Update Economic Activity Data

This Query function is used to provide read and edit data access to *Economic Activity Data*, which serves as an input for the financing and investment sustainability model.

See [Economic Activity Data](#) function for details about the fields.

3.2.5 Update Industry Code Mapping Table

This Query Function is used to provide read and edit data access to *Industry Code Mapping Table*, which serves as an input for the financing and investment sustainability model.

See [Industry Code Mapping Table](#) function for details about the fields.

3.2.6 Update TCFD Data

This Query function is used to provide read and edit data access to *TCFD Data*, which serves as an input for the financing and investment sustainability model.

See [TCFD Data](#) function for details about the fields.

3.2.7 Update Climate Scenario Analysis Data

This Query function is used to provide read and edit data access to *Climate Scenario Analysis Data*, which serves as an input for the financing and investment sustainability model.

See [Climate Scenario Analysis Data](#) function for details about the fields.

3.2.8 Update Market Benchmarks

This Query function is used to provide read and edit data access to *Market Benchmarks* data, which serves as an input for the profitability and cost calculation.

See [Market Benchmarks](#) function for details about the fields.

3.2.9 Update Effect Drivers

This Query function is used to provide read and edit data access to *Effect Drivers* data, which serves as an input for the profitability and cost calculation.

See [Effect Drivers](#) function for details about the fields.

3.2.10 Update Credit and ESG Scorecards

This Query function is used to provide read data access to *Credit and ESG Scorecards* data, which serves as an input for the profitability and cost calculation.

See [Credit and ESG Scorecards](#) function for details about the fields.

3.2.11 Update Sustainable Investing Strategies

This Query function is used to provide read and edit data access to *Sustainable Investing Strategies* data, which serves as an input for the profitability and cost calculation.

See [Sustainable Investing Strategies](#) function for details about the fields.

3.3 Processing

In this section, the core functions of the model to calculate the investment sustainability results are defined.

In the process, this execution happens after the input data is reviewed and updated.

Note

The calculations described above are run and triggered as one process activity ("Execute Simulation"). This is possible due to the high processing speed and does not require the steps listed above to be executed in batch mode.

The calculations described above were not configured to perform data aggregation or field exclusion. This means that no information is destroyed, and all results are available at granular level, providing complete traceability from the source of financial position and instrument data through all joins and calculations to the final result at portfolio level.

3.3.1 TCFD Enrichment

In this section, the main enrichment of TCFD data set is performed. The Join function uses *TCFD Data* as input, categorizes the business activities of each issuer by the level / type of low carbon transition degree (LCTD), climate solution exposure (CSE), emission reduction target (ERT), climate regulation by region (CRR), future market demand (FMD), technology risk exposure (TRE), board's oversight (BOS) and fossil fuel exposure, and calculates the aggregated *Attribute* value. The result from this function is used to prepare for the TCFD report.

3.3.2 Calculate Potential Carbon Emission

This Calculation function uses *TCFD Enrichment* data as input. It estimates the potential emission of carbon that is currently stored in fossil fuels and is expected to be released in the process of combustion when companies conduct energy generation activities. The formula presented below is referenced to World Resource Institute and can be replaced or adjusted easily.

Potential carbon emission = CO₂ emissions from fuel combustion (tonnes CO₂e) + CO₂ emissions from flaring (tonnes CO₂e) + CH₄ emissions from flaring (tonnes CO₂e) = $H_j * OF * EF_j + H_j * OF * DF * EF_j + H_j * (1 - DF) * GWP_{CH_4}$,

where H is the amount of burned fossil fuel of different type i, OF is the oxidation fraction, EF is the emission factor, DF is the destruction factor, GWP_{CH₄} is the global warming potential for CH₄.

3.3.3 EU Taxonomy Assessment (Issuer level)

This Calculation function is used to assess the issuers' economic activities data from *Economic Activity Data* table. The Taxonomy-aligned turnover/CapEx/OpEx (%) are calculated by summing up the percentage of turnover/CapEx/OpEx in economic activities that fulfill all the EU Taxonomy requirements, i.e. complete the following steps of the EU Taxonomy screening tests:

Step 1 – Identify companies with activities that could be aligned to one or more environmental objectives

Step 2 – Check if the substantial contribution criteria is met

Step 3 – Check if the “do no significant harm” criteria is met

Step 4 – Check if there are any negative impacts on minimum safeguards.

3.3.4 Market Data Enrichment

This Join function is used to combine data between detailed instrument information from the *Financial Instrument Data* table and issuer's economic activity data from *EU Taxonomy Assessment (Issuer level)* function. The result will then be folded to show only condensed information of the financial instrument.

3.3.5 EU Taxonomy Adjustment (Instrument level)

This Valuation function is used to adjust the data from the *Market Data Enrichment* table based on *Green certification (G_CERTF)* and *Taxonomy-eligibility check based on purpose (EUT_ECHK)*. If an instrument's Taxonomy-eligibility check is "No", then it is considered to be Taxonomy non-eligible directly, i.e., the results of Taxonomy non-eligible turnover/CapEx /OpEx (%) need to be adjusted into 100%. If an instrument has green certificate, then it is considered as Taxonomy aligned, i.e., the results of Taxonomy-aligned turnover/CapEx/OpEx (%) is 100%. Green flag will be assigned to specific instrument if its Taxonomy-aligned turnover (%) exceeds 90%.

3.3.6 Join Positions and Market Data

This Join function is used to combine data between detailed instrument information from the *EU Taxonomy Adjustment (Instrument level)* function and detailed portfolio information from *Financial Position Data* table. The original cost is derived from multiplication of holding units and issue price, and the term in months is calculated as the number of months between report date and the date on which the value of asset is evaluated. As a result, we get comprehensive data for each instrument in the portfolio.

3.3.7 Derive Market Share Percentage

This Join function is used to enhance the data stored and created in *Join Positions and Market Data* function with additional descriptive fields from *Business Partner Data* table. To enrich the results, these two functions are joined via Lookup rule to extract *Attribute* and *Attribute Unit* fields given that *Performance Sub-indicator* is set to be enterprise value. The market share, or the percentage of each security in portfolio to the market value of its issuer is then calculated by dividing holding market value by enterprise value. For attributes with attribute unit of million Euro / million USD, we scale the value by factor 10^6 .

3.3.8 Allocate Environmental and Social Attributes

This Allocation function uses *Business Partner Data* as sender data and allocates the environmental and social attributes to instruments using *Derive Market Share Percentage* as receiver data. *Allocate Environmental and Social Attributes* function is a direct allocation in which market share is used as driver that performs distribution for scalable environmental, social and governance effects separately. Scalable sub-indicators are those which have linear relationship with company's production and enterprise value, e.g., quantity of CO₂ emission, and can be allocated by invested value. For unscalable social and governance effects such as personnel and training expense, since they have no linear relationship with market value, we allocate the same value from the company and the distribution base is set to be 1.

3.3.9 Adjust Attributes by Effect Drivers

This Allocation function uses *Allocate Environmental and Social Attributes* function as sender data and allocates the attributes to instruments using *Effect Drivers* table as receiver data. *Adjust Attributes by Effect Drivers* function is a direct allocation in which effect value is used as variable factor. Attribute is adjusted by multiplying effect value with original attribute value, which means that portfolio managers can increase or decrease the environmental and social factor value of certain financial instrument based on various information sources and internal assessment. This function allows for more flexibility on giving companies incentive to develop themselves in ESG areas.

3.3.10 Combine Attributes and Benchmarks

This Join function combines *Market Benchmarks* data with calculated economic, environmental, and social KPIs. **R0005** and **R0006** rules calculate the return of instrument by dividing the latest holding market value by recorded holding market value. For instance, 3-month cumulative return = market value of latest valuation / market value 3 months ago. Then the result will be assigned to *Attribute (FLTP)* as the economic KPI.

3.3.11 Lookup Score Limits

This Join function is used to enhance the data stored and created in *Combine Attributes and Benchmarks* function with score limit fields from *Credit and ESG Scorecard* table. They are joined via Lookup rule to extract the below mentioned fields which enrich the results of the join.

Fields:

- *ESG Score Upper Limit*: equals to *Score Upper Limit* when Rating Category is ESG

- *ESG Score Lower Limit*: equals to *Score Lower Limit* when Rating Category is ESG
- *Valuation Score Upper Limit*: equals to *Score Upper Limit* when Rating Category is CRE
- *Valuation Score Lower Limit*: equals to *Score Lower Limit* when Rating Category is CRE

3.3.12 Evaluate Impacts and Scores

This Calculation function uses *Lookup Score Limits* as input and calculates several key impacts and scores.

Six rules are applied:

- **R0001 Economic Attributes** rule calculates the time remaining until maturity, which acts as a proxy for maturity risk. The rule also calculates the weights of instruments and issuers in portfolio in terms of market value.
- **R0002 Intensity and Scope** rule calculates environmental and social impacts per one-million-unit currency of investment and indicates the scope for Green House Gas emission. When performance sub-indicator is '005', '006', '007', '008', '009', '010', '011', '029', or '030', no need to calculate intensity because the sub-indicators are either cumulative returns or essentially intensity metrics (cost per full time employee). For other sub-indicators (e.g., 013), intensity = attribute in floating data type / market value in million Euro
- **R0003 Evaluate Asset Score** rule calculates the valuation and ESG scores based on score upper limit, score lower limit, and relative economic performance and ESG impact of investment to the benchmark. When calculating ESG score for each ESG sub-indicator of each instrument, we need to divide sub-indicators into two categories: 023, 025, 027, 029, 030 would be “positive” and the remaining ones would be “negative”. If instrument’s positive sub-indicator (e.g., 023 renewable energy) intensity is higher than benchmark, we incentivize this relative performance by raising the score. On the other hand, if instrument’s negative sub-indicator (e.g., 021 water pollution) intensity is higher than benchmark, we “punish” this relative performance by downgrading the score. In the end, each sub-indicator of one instrument may have different valuation and ESG scores.
- **R0004 Asset Average Scores** rule calculates the average valuation and ESG score for each instrument.
- **R0005 Portfolio Weighted Scores** rule calculates the weighted average scores of portfolios by summing up the product of average instrument score and percentage of instrument in the portfolio.
- **R0006 Portfolio Green Investment Percentage** rule calculates the overall green investment percentage by dividing portfolio total investment on green activities by portfolio total holding market value.

- **R0007 EU Taxonomy Assessments** rule calculates the EU Taxonomy alignment results at the level of the whole portfolio, including proportions of Taxonomy aligned / not aligned / non-eligible activities.
- **R0008 EU Taxonomy Assessment (Substantial contribution)** rule calculates the EU Taxonomy alignment results for substantial contribution at the level of the whole portfolio, including proportions of Taxonomy-alignment for climate change mitigation - transitional / enabling, climate change adaptation - transitional / enabling.

3.3.13 Apply Sustainable Investing Strategies

This Join function takes as input *Evaluate Impacts and Scores* and enriches the results via Lookup rule to extract Portfolio credit rating and ESG rating from *Credit and ESG Scorecards*. This Join function then combines *Sustainable Investing Strategies* table with the enriched *Evaluate Impacts and Scores* function under the restriction that score upper (lower) limit is greater than (smaller than or equal to) rating score and rating and green flag is matched. Union function combines *Calculate Potential Carbon Emission* function result and *Climate Scenario Analysis data* with results from previous rules, and calculates weighted sum of business activity attribute value, weighted fossil fuel exposure, weighted potential carbon emission, weighted climate hazard exposure as well as weighted physical risk shock, transition risk shock and Climate Value at Risk. In the output, investment strategy will be presented for each instrument based on its valuation rating and ESG rating.

Five strategies will be put forward:

- *Stable Holding Strategy* keeps the weight of instrument unchanged.
- *Avoid Low Return and Weak ESG* strategy is expected if the instrument has low valuation score as well as low ESG score. Investors are suggested to remove the instrument from their portfolios.
- *Engage High Return and Weak ESG* strategy is expected if the instrument has high valuation score but low ESG score. Investors can actively engage the company to improve sustainable business practices.
- *Invest High Return and Strong ESG* strategy is expected if the instrument has high valuation score as well as high ESG score. Investors are suggested to increase the holding of the instrument.
- *Reduce Low Return and Strong ESG* strategy is expected if the instrument has low valuation score but high ESG score. Investors are suggested to reduce the holding of the instrument.

3.4 Reporting

In this section additional query functions for comfortable review of results by execution users are defined.

The system carries out the review and reporting activities after the financing and investment sustainability final calculation is executed.

- *Review Holistic Result*, which gives read-only access to the overview of instruments.
- *Investment Geographical Result*, which gives instrument analysis per country/region.
- *Economic Performance Result*, which gives the economic performance results of instrument by economic effect and is visualized as Column Chart.
- *Environmental Performance Result*, which gives the environmental performance results of instrument by environmental effect and is visualized as Column Chart.
- *Social Performance Result*, which gives the social performance results of instrument by social effect and is visualized as Column Chart.
- *EU Taxonomy Alignment*, which gives the EU Taxonomy alignment results of portfolio and presents the information on portfolio green investment in comprehensive tabular perspective as Data Grid.
- *EU Taxonomy Alignment What-if Simulation*, which gives the EU Taxonomy alignment results of portfolio and presents the information on portfolio green investment in comprehensive tabular perspective as Data Grid.
- *EU Taxonomy Alignment (Issuer Level)*, which gives the EU Taxonomy assessment results on issuer level in comprehensive tabular perspective as Data Grid.
- *EU Taxonomy Alignment (Instrument level)*, which gives the EU Taxonomy assessment results on financial instrument level in comprehensive tabular perspective as Data Grid.
- *Climate-related Financial Disclosure*, which gives the climate-related information of the portfolio in comprehensive tabular perspective as Data Grid.
- *Climate Scenario Analysis*, which gives the result of portfolio climate scenario analysis for visualization in comprehensive tabular perspective as Data Grid.

Note

Specific chart types have not been defined in this sample content. Reports, therefore, use the default "Column" chart type. However, end users can change this type on the fly and save their chart type as the default layout.

3.4.1 Review Holistic Result

This query gives read-only access to the overview of the portfolio. Columns include key characteristic of instruments, issuer information and areas of economic, environmental, and social impacts.

The following fields are preconfigured in this report:

- *Attribute*
- *Nominal Value*
- *Market Value in Position Currency*
- *Benchmark*
- *Units*

- *Issue rate in percent*
- *% of Net Asset*
- *Maturity (Years)*
- *Valuation Score*
- *ESG Score*
- *Intensity*
- *Market Share*
- *Portfolio Valuation Score*
- *Portfolio ESG Score*
- *Issue price independent of currency*
- *Attribute (FLTP)*
- *Original Cost*
- *Valuation Score Lower Limit*
- *Valuation Score Upper Limit*
- *ESG Score Lower Limit*
- *ESG Score Upper Limit*
- *Portfolio*
- *Product Category*
- *Benchmark Index*
- *Product Type*
- *Attribute Unit*
- *Position Currency*
- *Issue Currency*
- *Instrument*
- *Issuer*
- *End of Term*
- *Performance Indicator*
- *Performance Sub-indicator*
- *Scenario*
- *Scope*
- *NACE Industry*
- *Sector*
- *Country/Region for Name Format Rule*
- *Rate/Price Date*
- *Rating*
- *ESG Rating*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Intensity Unit*
- *Reporting Date*
- *Issue Start Date*

- *Benchmark Unit*
- *Portfolio Credit Rating*
- *Portfolio ESG Rating*
- *Strategy*
- *Term in Months*

3.4.2 Investment Geographical Result

This query gives read-only access to the geographical representatives of the portfolio. Columns include key characteristic of instruments, issuer information and areas of economic, environmental, and social impacts.

The following fields are preconfigured in this report:

- *Attribute*
- *Nominal Value*
- *Market Value in Position Currency*
- *Benchmark*
- *Units*
- *Issue rate in percent*
- *% of Net Asset*
- *Maturity (Years)*
- *Valuation Score*
- *ESG Score*
- *Intensity*
- *Market Share*
- *Portfolio Valuation Score*
- *Portfolio ESG Score*
- *Issue price independent of currency*
- *Attribute (FLTP)*
- *Original Cost*
- *Valuation Score Lower Limit*
- *Valuation Score Upper Limit*
- *ESG Score Lower Limit*
- *ESG Score Upper Limit*
- *Country/Region for Name Format Rule*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Intensity Unit*

- *Reporting Date*
- *Issue Start Date*
- *Benchmark Unit*
- *Portfolio Credit Rating*
- *Portfolio ESG Rating*
- *Strategy*
- *Portfolio*
- *Product Category*
- *Issuer*
- *Performance Indicator*
- *Attribute Unit*
- *Product Type*
- *Scenario*
- *Rating*
- *Position Currency*
- *Issue Currency*
- *End of Term*
- *Scope*
- *ESG Rating*
- *Rate/Price Date*
- *NACE Industry*
- *Sector*
- *Benchmark Index*

3.4.3 Economic Performance Result

This Query function gives the economic performance results of instrument by economic effect. Each column presents characteristics of instrument categorized by term.

The following fields are preconfigured in this report:

- *Attribute*
- *Benchmark*
- *Market Value in Position Currency*
- *Units*
- *Valuation Score*
- *% of Net Asset*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Intensity Unit*
- *Product Category*
- *Product Type*
- *Attribute Unit*
- *Rating*
- *Position Currency*
- *ESG Rating*
- *Reporting Date*
- *Portfolio*
- *Performance Indicator*
- *Country/Region for Name Format Rule*
- *NACE Industry*
- *Sector*
- *Scenario*

3.4.4 Environmental Performance Result

This Query function gives the environmental performance results of instrument by environmental effects such as e.g., water pollution.

The following fields are preconfigured in this report:

- *Attribute*
- *Benchmark*
- *Market Value in Position Currency*
- *Units*
- *Valuation Score*
- *% of Net Asset*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Intensity Unit*
- *Product Category*
- *Product Type*
- *Attribute Unit*
- *Rating*
- *Position Currency*
- *ESG Rating*
- *Reporting Date*
- *Portfolio*

- *Performance Indicator*
- *Country/Region for Name Format Rule*
- *NACE Industry*
- *Sector*
- *Scenario*

3.4.5 Social Performance Result

This Query function gives the social performance results of instrument by social effects such as Value Chain (VC) occupational injuries.

The following fields are preconfigured in this report:

- *Attribute*
- *Benchmark*
- *Market Value in Position Currency*
- *Units*
- *Valuation Score*
- *% of Net Asset*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Intensity Unit*
- *Product Category*
- *Product Type*
- *Attribute Unit*
- *Rating*
- *Position Currency*
- *ESG Rating*
- *Reporting Date*
- *Portfolio*
- *Performance Indicator*
- *Country/Region for Name Format Rule*
- *NACE Industry*
- *Sector*
- *Scenario*

3.4.6 EU Taxonomy Alignment

This Query function gives the EU Taxonomy alignment results of portfolio and presents the information on portfolio green investment.

The following fields are preconfigured in this report:

- *Market Value in Position Currency*
- *Green Investment*
- *Number of Green Financial Instruments*
- *Portfolio Green Investment (%)*
- *Proportion of Taxonomy-aligned activities (% Turnover)*
- *Proportion of Taxonomy-aligned activities (% CapEx)*
- *Proportion of Taxonomy-aligned activities (% OpEx)*
- *Proportion of Taxonomy non-aligned activities (% Turnover)*
- *Proportion of Taxonomy non-eligible activities (% Turnover)*
- *Proportion of Taxonomy non-eligible activities (% CapEx)*
- *Proportion of Taxonomy non-eligible activities (% OpEx)*
- *Proportion of Taxonomy-alignment for Mitigation*
- *Proportion of Taxonomy-alignment for Adaptation*
- *Proportion of Taxonomy-alignment for Mitigation - Enabling*
- *Proportion of Taxonomy-alignment for Mitigation-Transitional*
- *Proportion of Taxonomy-alignment for Adaptation - Enabling*
- *Proportion of Taxonomy-alignment for Adaptation - Transition*
- *Issuer Identity Key*
- *Country / Region*
- *NACE Industry*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Scenario*
- *Product Category*
- *Product Type*
- *Rating*
- *ESG Rating*
- *Position Currency*
- *Green Flag*
- *Fiscal Year*
- *Company Code*
- *Reporting Date*
- *Sector*

- *Term in Months*

3.4.7 EU Taxonomy Alignment What-if Simulation

This query function gives the EU Taxonomy alignment results of portfolio and present the information on portfolio green investment.

The following fields are preconfigured in this report:

- *Market Value in Position Currency*
- *Green Investment*
- *Number of Green Financial Instruments*
- *Portfolio Green Investment (%)*
- *Proportion of Taxonomy-aligned activities (% Turnover)*
- *Proportion of Taxonomy-aligned activities (% CapEx)*
- *Proportion of Taxonomy-aligned activities (% OpEx)*
- *Proportion of Taxonomy non-aligned activities (% Turnover)*
- *Proportion of Taxonomy non-eligible activities (% Turnover)*
- *Proportion of Taxonomy non-eligible activities (% CapEx)*
- *Proportion of Taxonomy non-eligible activities (% OpEx)*
- *Issuer Identity Key*
- *Country / Region*
- *NACE Industry*
- *Instrument*
- *Performance Sub-indicator*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Scenario*
- *Product Category*
- *Product Type*
- *Rating*
- *ESG Rating*
- *Position Currency*
- *Green Flag*
- *Fiscal Year*
- *Company Code*
- *Reporting Date*
- *Sector*
- *Term in Months*

3.4.8 EU Taxonomy Alignment (Issuer level)

This query function gives the EU Taxonomy alignment results on issuer level.

The following fields are preconfigured in this report:

- *% of Turnover per activity*
- *% of CapEx invested in Fulfilling Taxonomy Criteria*
- *% of OpEx invested in Fulfilling Taxonomy Criteria*
- *Taxonomy-aligned Turnover (% per activity)*
- *Taxonomy-aligned Turnover (%)*
- *Taxonomy non-eligible Turnover (%)*
- *Taxonomy non-aligned Turnover (%)*
- *Taxonomy-aligned CapEx (%)*
- *Taxonomy non-eligible CapEx (%)*
- *Taxonomy-aligned OpEx (%)*
- *Taxonomy non-eligible OpEx (%)*
- *Taxonomy-alignment for Climate Change Mitigation*
- *Taxonomy-alignment for Climate Change Adaptation*
- *Taxonomy-alignment for Mitigation - Enabling*
- *Taxonomy-alignment for Mitigation - Transitional*
- *Taxonomy-alignment for Adaptation - Enabling*
- *Taxonomy-alignment for Adaptation - Transitional*
- *Number of Economic Activities for each Issuer*
- *Issuer Identity Key*
- *Country / Region*
- *NACE Macro-sector*
- *Business Activity*
- *NACE Code*
- *EU Taxonomy Eligibility Flag (based on NACE Code)*
- *Environmental Objective*
- *Substantial Contribution Indicator*
- *Do No Significant Harm Indicator*
- *Minimum Safeguard Indicator*

3.4.9 EU Taxonomy Alignment (Instrument level)

This query function gives the EU Taxonomy alignment results on financial instrument level.

The following fields are preconfigured in this report:

- *Taxonomy-aligned Turnover (%)*

- *Taxonomy-aligned CapEx (%)*
- *Taxonomy-aligned OpEx (%)*
- *Taxonomy non-aligned Turnover (%)*
- *Taxonomy non-eligible Turnover (%)*
- *Taxonomy non-eligible CapEx (%)*
- *Taxonomy non-eligible OpEx (%)*
- *Issuer Identity Key*
- *Instrument*
- *Product Category*
- *Product Type*
- *Rating*
- *Green Certification*
- *Taxonomy-eligibility Check (based on purpose)*

3.4.10 Climate-related Financial Disclosure

This Query function gives the disclosure results of portfolio in line with Task Force on Climate-related Financial Disclosures recommendation.

The following fields are preconfigured in this report:

- *Portfolio Carbon Intensity (Scope 1+2)*
- *Portfolio Carbon Intensity (Scope 3)*
- *Portfolio Carbon Emission (Scope 1+2)*
- *Portfolio Carbon Emission (Scope 3)*
- *Weighted Scale*
- *Weighted Fossil Fuel Exposure*
- *Weighted Potential CO2 Emission*
- *Climate Hazard Exposure*
- *Issuer Identity Key*
- *Climate Regulation by Region*
- *Country/Region*
- *NACE Industry*
- *Sector*
- *Instrument*
- *Low Carbon Transition Degree*
- *Climate Solution Exposure*
- *Emission Reduction Target*
- *Future Market Demand*
- *Technology Risk Exposure*
- *Board Oversight*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:

- *Fossil Fuel Unit*
- *Scenario*

3.4.11 Climate Scenario Analysis

This query function gives the results for visualization of portfolio climate scenario analysis.

The following fields are preconfigured in this report:

- *% of Instrument*
- *Portfolio Estimated Physical risk shock (%)*
- *Portfolio Estimated transition risk shock (%)*
- *Portfolio CVaR (90%)*
- *Portfolio CVaR (95%)*
- *Portfolio CVaR (99%)*
- *Portfolio Physical Risk CVaR (90%)*
- *Portfolio Physical Risk CVaR (95%)*
- *Portfolio Physical Risk CVaR (99%)*
- *Portfolio Transition Risk CVaR (90%)*
- *Portfolio Transition Risk CVaR (95%)*
- *Portfolio Transition Risk CVaR (99%)*
- *Instrument*
- *Issuer Identity Key*
- *NACE Macro-sector*

Some dimensions are available as free characteristics, which can be added anytime to help with analysis, such as:



- *Climate Scenario*
- *Country/Region*
- *Product Category*
- *Product Type*

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