Accelerate Sales Insights Package

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This package helps you get started with the analytical capabilities of Pricefx. It allows you to set up all necessary data structures to be able to start quickly analyzing sales data – with minimum effort and limited requirements for the initial data set.

Please keep in mind that Sales Insights Package and Customer Insights Package share a common library – therefore if both are in use at a partition, they both need to be deployed in their most recent versions.

Overview (Sales Insights)

The Sales Insight Accelerator is one of many pre-built solutions from Pricefx that when implemented will provide a customer with a quicker path to the analysis of their pricing data.

Pricefx Key Accelerators

You can also watch a video introducing Sales Insights Accelerator and its benefits.

In this section:

Business Overview (Sales Insights)

Premise

You are involved with the review of analytics associated with pricing applications as part of a team from either Pricing, Financial, Sales, or IT support within your organization.

Desired Outcome

You need to find the next opportunity for your profit growth with the set of dashboards analyzing the product and customer profitability and related margin leakages. Additionally, you can identify margin outliers with ease and be navigated into revenue and margin breakdown/causalities.

Context and Background

After loading the product, customer, and transactional history into Pricefx and creating a Datamart, you are ready to begin to analyze these transactions for insights into your operations. There should be a standard set of dashboards that focus on providing insights into revenue and margins.

Problem

You need to recognize trends so that you can adjust your strategies to adjust to opportunities and challenges in the market. You need to deploy proven analytics that provide data accuracy and data quality to allow enterprises to make accurate business decisions.

Solution Capabilities

Once this accelerator has been implemented and linked to your Datamart, then analytical dashboards will be available and each comes with its own specific functional capabilities:

- Analyze the relationship between revenue and margin % from a multitude of perspectives
- Identify best and worst-performing outliers for products and customers
- Provide waterfall analytics
- Discover reasons for revenue or margin differences between two selected periods
- Visualization of KPIs using geographic locations
- Perform waterfall comparisons over time for customers or products

Accelerator Solution (Sales Insights)

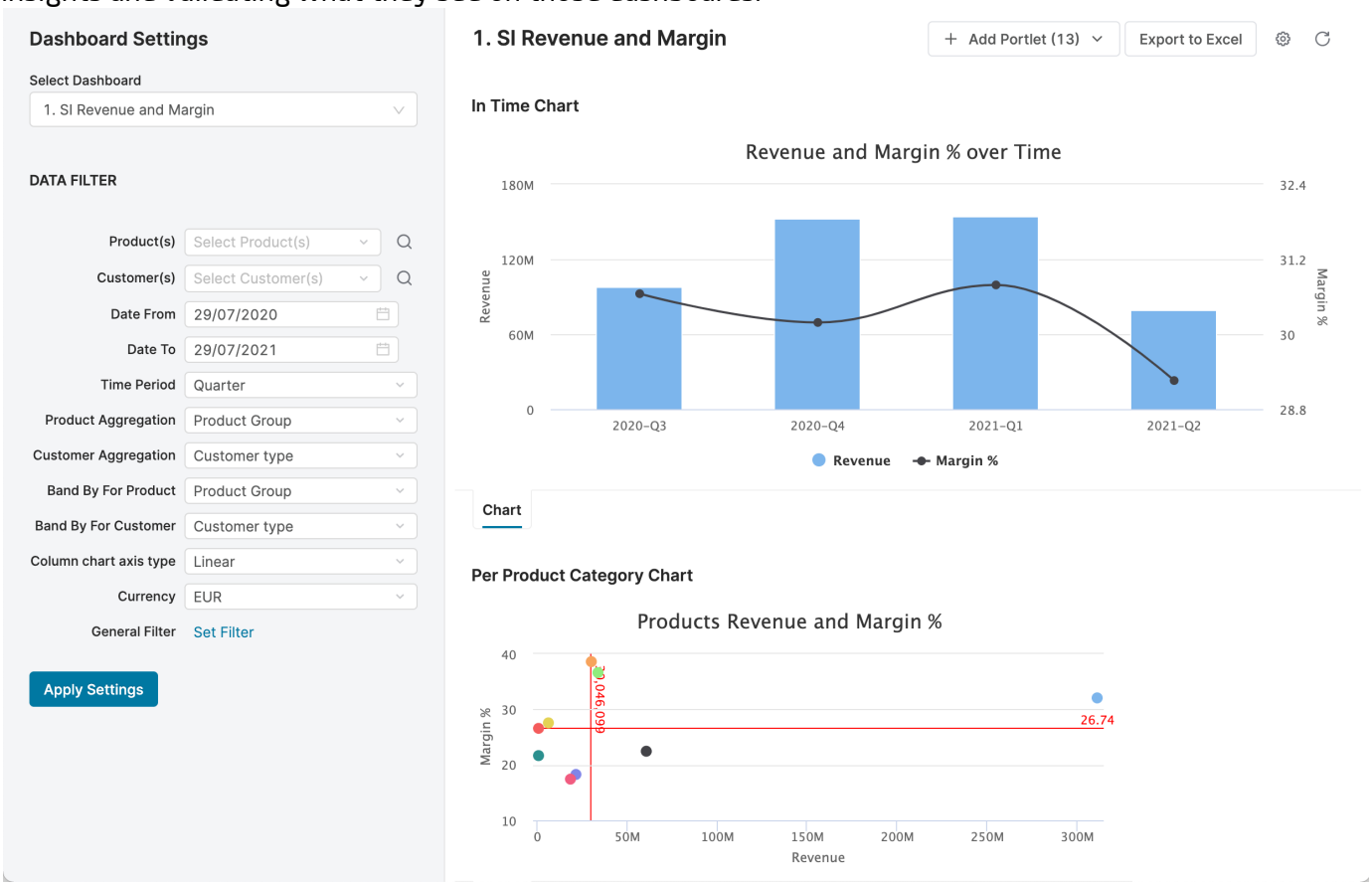
Accelerate Sales Insights Package comes with several dashboards (or pre-defined analyses) and additional standard analysis templates which every company can benefit from.

This package includes:

- Revenue and profitability over time and by geography
- Highest and lowest performing products and customers
- Price waterfall analysis and comparisons per time, product and customer
- Revenue and margin breakdowns

These analyses can help you recognize trends so that you can adjust strategies to reflect opportunities or challenges in the market. Of course, companies will want to go further, so that is where the additional ad-hoc analytics capabilities come into play.

The out-of-the-box standard analysis templates enable pricing analysts and pricing managers to drill deeper into their company's data (across products, customers, and transactions), uncovering hidden insights and validating what they see on those dashboards.



The difference between the Sales Insights and Sales Insights Dashboards accelerators is:

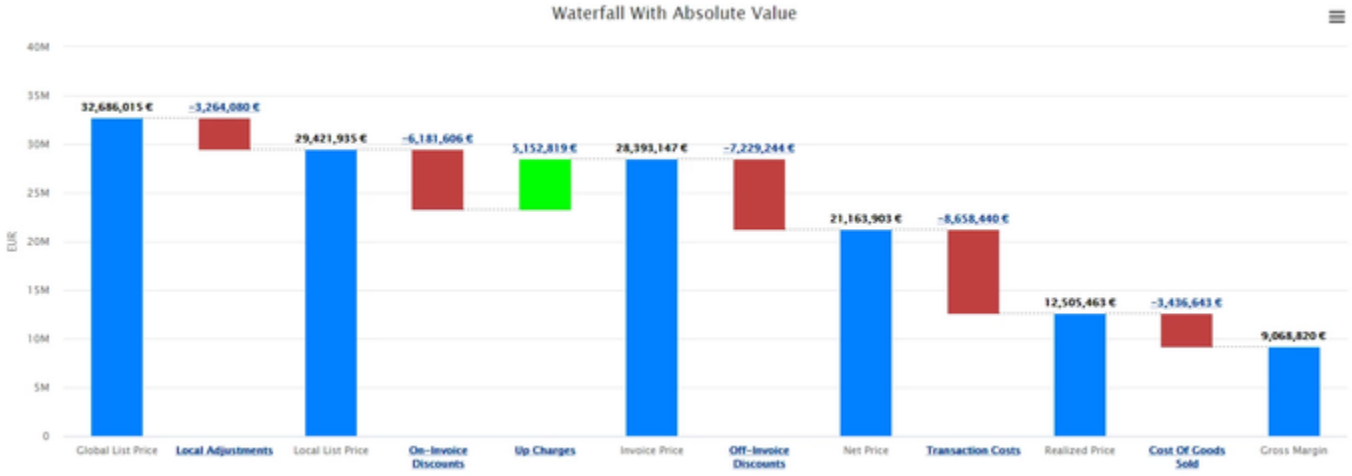
- **Sales Insights Dashboards** - Contains only the Dashboards, and you must already have data tables available on your partition.
- **Sales Insights** - Installation will prompt you to supply the data in CSV format, so the installation process will also create the tables for you.

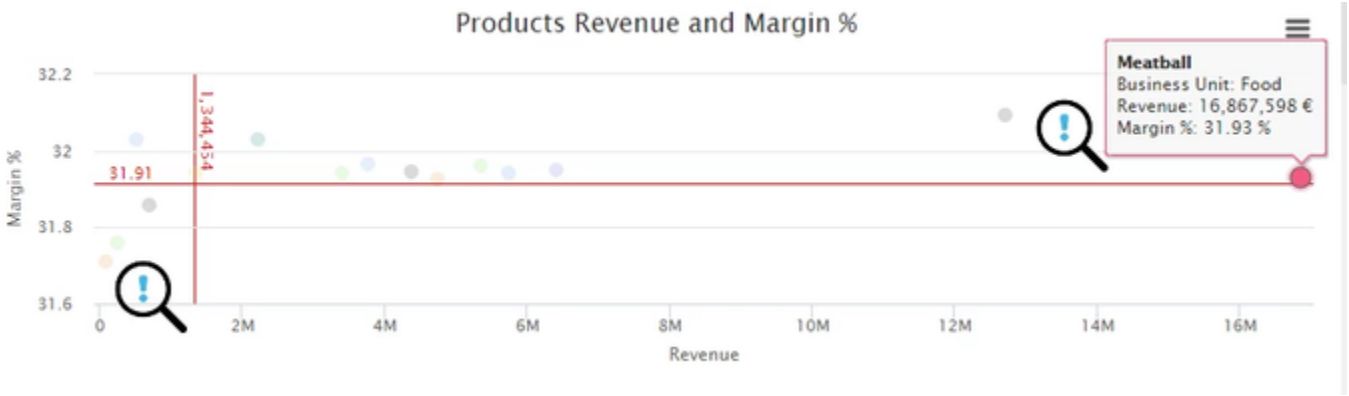
Key Dashboards Included

You can find opportunities for your profit growth with the set of dashboards analyzing the product and customer profitability and related margin leakages. They allow you to identify margin outliers with ease and navigate you into revenue and margin breakdown / causalities.

- **Revenue and margin** - Analyzes the relationship between revenue and margin % from various perspectives.
- **Outliers** - Analyzes the best and worst performing products and customers.

- **Waterfall** – Provides waterfall analysis with grouped adjustments and their details.
- **Waterfall comparison** – Compares waterfall analysis per time, product or customer.
- **Revenue breakdown** – Uncover reasons for the difference in revenue between the two selected periods.
- **Margin breakdown** – Uncover reasons for the difference in margin between the two selected periods.
- **Regional revenue and margin** – Shows KPIs visualized in a world or continental maps.





Value Measurement (Sales Insights)

Different metric values are measured in conjunction with the Sales Insights Accelerator. This accelerator uses customer transactional history information (spanning one or more years) and these are the predominant values to measure:

- **Invoice Price** reflects the actual price that the end-customer retailer pays to the manufacturer or distributor for a product.
- **Margin** reflects the differences between the price of a good or service and the amount of money required to produce it.
- **Quantity** is the number of items of a specific product that are included on an invoice to a customer.
- **Cost** is the total amount a business paid as a cost directly related to the sale of products. It may include products purchased for resale, raw materials, packaging, and direct labor.

Each of these different values will be measured across one or more dimensions:

- Product SKU
- Product segmentation hierarchy
- Customer ID
- Customer segmentation hierarchy
- Region
- Country
- Dates (Year, Quarter and Month)

KPI and Metrics (Sales Insights)

KPI stands for key performance indicator, a quantifiable measure of performance over time for a specific objective. KPIs provide targets for teams to shoot for, milestones to gauge progress, and insights that help people across the organization make better decisions.

KPI vs. Metrics

While key performance indicators and metrics are related, they are not the same. Here is a quick explanation:

- **KPIs** are the key targets you should be tracking to make the biggest impact on your strategic business outcomes. These KPIs will support your strategy and help your teams focus on what is important. For example, a key performance indicator could be targeted at new consumers by month.
- **Metrics**, on the other hand, measure the success of everyday business activities that support your identified KPIs. While they may have an impact on your outcomes, they are not the most critical measurements. Examples could include monthly site visits or number of modules installed.

Sales Insights KPI

The main KPI for Sales Insights is **Gross Margin** and the measurement of it can be found in the following tools:

- Revenue and Margin dashboard
- Margin Breakdown dashboard
- Causality dashboard
- Waterfall and Waterfall Comparisons

Capabilities Summary (Sales Insights)

Charts

Revenue & Margin by Time

Analyze revenue and margin % achieved during a given period, with the possibility to change the time dimension for aggregation.
Understand the revenue and margin trends for the business and decide on corrective actions.

Revenue & Margin by Customer or Product

Analyze revenue and margin % achieved by a Customer/Product with visualization of the lowest 10%.
Understand the lowest performing products and decide on corrective actions.

Revenue & Margin Contribution by Customer or Product

Analyze contribution of Customers/Products to the total revenue and margin split into 10 buckets (from 10% to 100%), with the option to drill down to see the top 10 contributing Customers/Products in each bucket.
Understand the lowest performing products and decide on corrective actions if needed.

Revenue Pareto by Customer or Product

See the Pareto analysis for Customers/Products contribution to revenue, split into 10 buckets showing the number of Customers/Products in each bucket and cumulative contribution to the total revenue.
Understand which product line contributes the most/least toward the revenue and derive corrective actions.

Best & Worst Performers by Customer or Product

See the best/worst Customers/Products (5, 10, 25, 50, 100) for the selected KPI (revenue, revenue contribution %, margin, margin %, margin contribution %).
Understand the least performing product/product line by KPI and derive corrective actions.

Key Performance Indicators by Customer or Product

See the Customers/Products performance based on the selected KPI (revenue, revenue contribution %, margin, margin %, margin contribution %), split into three groups (low, medium, high) with the possibility to drill down for each group and see the top 10 (high and medium) or worst (low) 10 Customers/Products.
Analyze low performing customers/products and derive corrective actions.

Price Waterfall & Comparison Waterfall

See a standardized Price waterfall chart and waterfall comparison charts by time/Customers/Products.
Understand the customer/product profitability and take corrective action.

Revenue & Margin Causality

Analyze revenue/margin causality for two time periods with a breakdown into several categories (Lost Business, New Business, Price Effect, Volume Effect, other effects) and the possibility to display analysis in percentage.
Understand revenue/margin drives, and adjust strategy to improve performance in each bucket.

Revenue & Margin Causality

See revenue and margin distribution in the world map on the Continent/Country/State level.
Analyze the relationship between different regions, countries or states based on a KPI distribution.

Audience

- Pricing Analyst

User Stories (Sales Insights)

Sales Insights Accelerator covers the following user stories:

Story Name	As a...	I want to...	So I can...	Acceptance Criteria	Dimensions & Measures	User Story ID	Category
Datamart Setup	IT/Data /Price Analyst	Set up a transactional Data Source, Product & Customer master and standard Datamart.	Perform analysis using Pricefx Analytics module.	1. Product Data Source available 2. Transactional Data Source available 3. Customer Data Source available (optional) 4. Standard pricing Datamart available	Pre-defined data format	SI.US. 001	Analytics, Data Manager
Revenue & Margin by Time	Pricing Analyst	Analyze revenue and margin % achieved during a given period, with the possibility to change the time dimension for aggregation.	Understand the revenue and margin trends for the business and decide on corrective actions.	1. Two measures time chart, with Revenue as a bar on left Y axis and Margin % as line on right Y axis 2. Possibility to filter data by Product or Customer attributes	Revenue, Margin, Transaction (Pricing) Data	SI.US. 002	Analytics, Revenue and Margin dashboard
Revenue & Margin by Customer or Product	Pricing Analyst	Analyze revenue and margin % achieved by a Customer/Product with visualization of the lowest 10%.	Understand the lowest performing products and decide on corrective actions.	Scatter plot with Revenue on X axis and margin % on Y axis. Reference percentile lines (percentile to be defined).	Revenue, Margin, Customer ID or Product ID	SI.US. 003	Analytics, Revenue and Margin dashboard
Revenue & Margin Contribution by Customer or Product	Pricing Analyst	Analyze contribution of Customers /Products to the total revenue and margin split into 10 buckets (from 10% to 100%), with the option to drill down to see the top 10 contributing Customers/Products in each bucket.	Understand the lowest performing products and decide on corrective actions if needed.	Charts display Revenue and Margin split into 10 buckets to visualize the number of products/customers needed to cover each bucket (cumulative contribution). Each data point displays the number of product/customer in the bucket, the total revenue /margin of the product /customer in the bucket and the revenue/margin representing the bucket.	Revenue, Margin, Product ID	SI.US. 004	Analytics, Revenue and Margin dashboard

Revenue Pareto by Customer or Product	Pricing Analyst	See the Pareto analysis for Customers /Products contribution to revenue, split into 10 buckets showing the number of Customers /Products in each bucket and cumulative contribution to the total revenue.	Understand which product line contributes the most /least toward the revenue and derive corrective actions.	Charts display Revenue and Margin % split into some bins to visualize the number of products/customers needed to cover each bin (cumulative contribution).	Revenue, Margin, Product ID	SI.US. 005	Analytics, Revenue and Margin dashboard
Best & Worst Performers by Customer or Product	Pricing Analyst	See the best /worst Customers /Products (5, 10, 25, 50, 100) for the selected KPI (revenue, revenue contribution %, margin, margin %, margin contribution %).	Understand the least performing product /product line by KPI and derive corrective actions.	Table chart shows best/worst products using the (Revenue, Revenue Contribution %, Margin, Margin % and Margin Contribution %)	Revenue, Margin, Product ID	SI.US. 006	Analytics, Outliers dashboard
Key Performance Indicators by Customer or Product	Pricing Analyst	See the Customers /Products performance based on the selected KPI (revenue, revenue contribution %, margin, margin %, margin contribution %), split into three groups (low, medium, high) with the possibility to drill down for each group and see the top 10 (high and medium) or worst (low) 10 Customers /Products.	Analyze low performing customers /products and derive corrective actions.	Table charts will show: performance by customer; and performance by product. Pie charts will display a breakdown of products into high, medium and low performers based on the KPI selected.	Revenue, Margin, Product ID	SI.US. 007	Analytics, Outliers dashboard
Price Waterfall & Comparison Waterfall	Pricing Analyst	See a standardized price waterfall chart and waterfall comparison charts by time/Customers /Products.	Understand the customer /product profitability and take corrective action.	Shows the waterfall analysis with grouped adjustments.		SI.US. 008	Analytics, Waterfall

Revenue & Margin Causality	Pricing Analyst	Analyze revenue /margin causality for two time periods with a breakdown into several categories (Lost Business, New Business, Price Effect, Volume Effect, other effects) and the possibility to display analysis in percentage. See: Pricefx standard Revenue Causality Pricefx standard Margin Causality	Understand revenue /margin drives, and adjust strategy to improve performance in each bucket.	Revenue Breakdown waterfall chart: • Show total revenue dollars by selecting Quarter over Quarter or Month over month as the outer bars of the chart • Show breakdown of revenue by grouping the data into: • "Lost Business" vs. "New Business" • Change to revenue due to "Price Effect" • Change to revenue due to "Volume Effect" • Change to revenue due to "Portfolio Mix Effect" • Change to revenue due to "Other Effect" Margin Breakdown waterfall chart: • Show total margin dollars by selecting Quarter over Quarter or Month over month as the outer bars of the chart • Show breakdown of margin by grouping the data into: • Change to margin due to "Volume" • Change to margin due to "Price" • Change to margin due to "Mix" • Change to margin due to "New products" • Change to margin due to "Lost products" • Change to margin due to "Cost" • Change to margin due to "Intersection" • Possibility to filter the waterfall chart by product or product line	Revenue, Margin, Customer ID, Product ID, Quantity	SI.US. 009	Analytics, Revenue & Margin Causality
Revenue & Margin Causality	Pricing Analyst	See revenue and margin distribution in the world map on the Continent /Country/State level.	Analyze the relationship between different regions, countries or states based on a KPI distribution.	The selected KPI (revenue or margin) is displayed in the world map per geographical unit defined by user configuration (Region, Country), each geohraphical unit has an appropriate color shade depending on the KPI. The values are aggregated on the customer, product, date from/to level with the configurable currency conversion allowed. Beside the selected KPI, information on other KPIs for each region is displayed (by hint) as well.	Revenue, Margin, Customer ID, Product ID, Quantity, Region, Country	SI.US. 010	Analytics, Regional Revenue and Margin dashboard

Business User Reference (Sales Insights)

The following sections describe each dashboard – how to set up its data and filters and how to analyze the results. Other details (fields calculation, data requirements and used Company Parameters) are also provided.

Revenue and Margin Dashboard

Revenue and Margin Dashboard helps you visualize and analyze the relationship between Revenue and Margin % from different perspectives of time, product and customer. You can customize the date range and set of products/customers for analysis.

In this section:

Revenue and Margin Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Product(s)** – Allows to choose one of product attributes to be used for the analysis.,
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** – Allows to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Date From/To** – Filters data for the analysis according to the given time range.
  - By default Date From is set to one year back.
  - By default Date To is set to today's date.
- **Time Period** – Allows you to define data aggregation for the "Revenue and Margin % in Time" analysis. The available values are: Week, Month, Quarter (default), Year.
- **Product Aggregation** – Allows to define a custom grouping dimension to reduce the granularity of the product data. The product dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.

- **Customer Aggregation** - Allows to define a custom grouping dimension to reduce the granularity of the customer data. The customer dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration)
- **Band By for Products** - Allows to define additional grouping of data points in the analysis by a different dimension related to the products.
- **Band By for Customer** - Allows to define additional grouping of data points in the analysis by a different dimension related to the customers.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration)
- **Column chart axis type** - Allows to define type of Y axis used on the chart. The available values are: Linear (default), Logarithmic.
- **Currency** - Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from system the "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** - Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.

Revenue and Margin Dashboard - Analyze Results

The dashboard provides the following summaries:

- Revenue and Margin Percentage in Time
- Revenue and Margin Percentage per Product
- Revenue and Margin Percentage per Customer
- Revenue and Margin Contribution per Product/Customer
- Revenue Pareto per Product/Customer

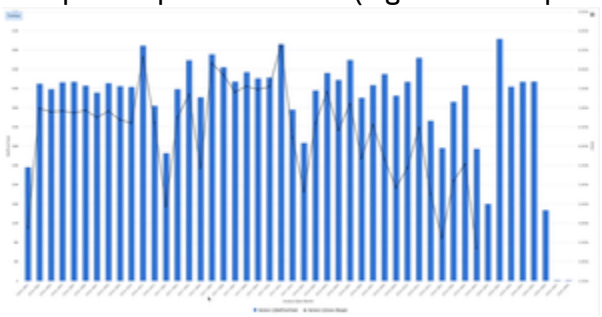
Revenue and Margin Percentage in Time

Helps you analyze the relationship between Revenue and Margin % in the time aggregated per the defined time dimension.

- X axis displays the time period aggregation as defined by the Time Period input.
- Left hand side Y axis shows the Revenue scale.
- Right hand side Y axis shows the Margin % scale.

What to look out for:

- Generally, if the revenue is low at a certain period, at least we want to keep the margin high.
- Pay attention to those periods where both margin and revenue are low and make sure it does not stay this way.
- This chart helps you discover whether there is any seasonal pattern in your data. You can use this as an input for price decisions (e.g. lower the price in less busy periods). See an example:



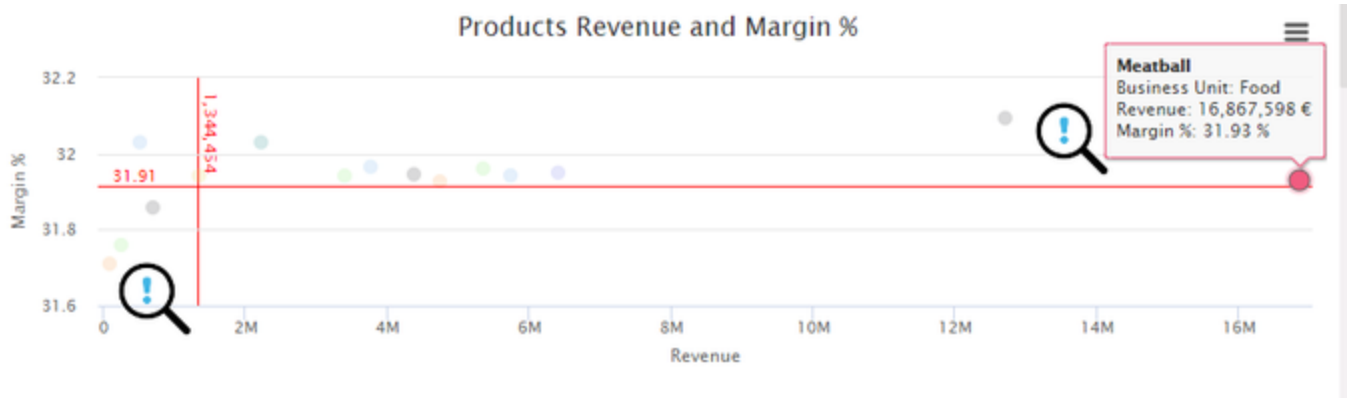
Revenue and Margin Percentage per Product

Helps you analyze the relationship between Revenue and Margin % on the product level using the selected aggregation and visualize the correlation per the chosen product attribute.

- X axis displays the sum of Revenue per chosen product aggregation.
- Y axis displays the sum of Margin % per chosen product aggregation.
- The first line is horizontal and at a defined percent value of the lowest margin (typically 10%), the second line is vertical and at a defined percent value of the lowest revenue. This divides the chart in four sections.

How aggregation and coloring work:

1. Aggregation manages what data points you can see. If you choose “Product Group”, you should see a point for every product group in the data.
2. Band By manages how to color the data. So colors will be assigned based on this input. If you choose “Product Id”, each product Id datapoint will have its own color.
3. If Band By has a smaller granularity than Aggregation, it will override Aggregation.
   Example: If you request to color by productId but aggregate by productGroup, aggregation will not happen, because then Band By would not know how to color it. The chart will look the same way as if you selected productId as aggregation.



What to look out for:

- **Bottom left section** - Shows products with low margin % & low revenue. For these products consider raising their price, so that they move up to the top (their margin increases) or work on increasing the volume of sold products (and thus move right towards a bigger revenue). The optimal move here is to go with the product to the top right sections (i.e. increase both margin and revenue).
- **"Risky business" in top right section** - This may mean that a customer buys large quantities for a high price. There is a risk of losing such a customer if they find out that others get the same product for a lower price. The optimal scenario is to have the dots grouped around some average price value.

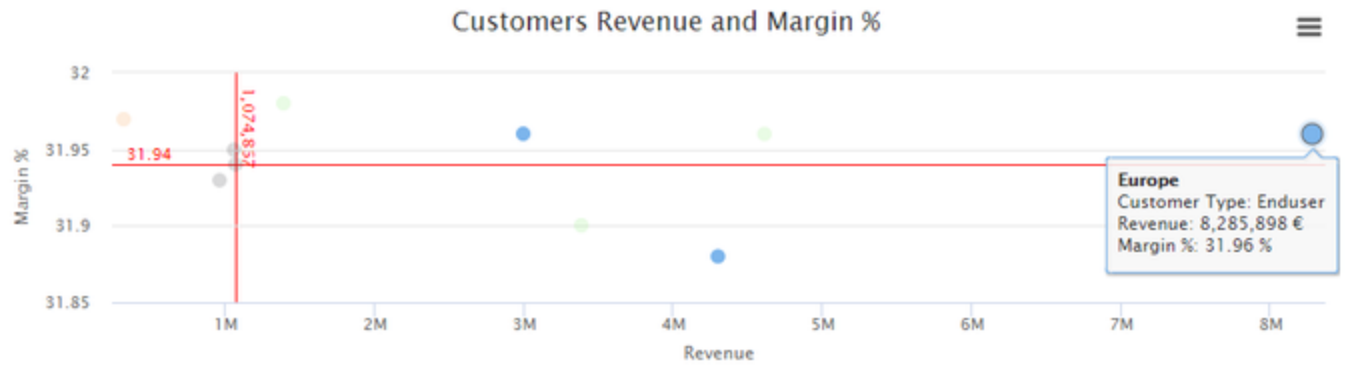
⚠ Due to performance reasons this chart is limited to display only top 50 products. These product values are used to calculate the plot lines.

Revenue and Margin Percentage per Customer

ℹ Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

Helps you analyze the relationship between Revenue and Margin % on the customer level using the selected aggregation. The data points in the analysis can be colored by the customer dimensions set by 'Band By For Customer' which helps you visualize the relationship per the chosen customer attribute.

- X axis displays the sum of Revenue per chosen customer aggregation.
- Y axis displays the sum of Margin % per chosen customer aggregation.
- The first line is horizontal and at defined % of the lowest margin, the second line is vertical and at defined % of the lowest revenue. This divides the chart in four squares: the bottom left square shows low margin %, low revenue customers. It can be worthwhile to look into raising prices for these customers.



What to look out for:

- The chart shown above illustrates that it may happen that large customers generating large revenue may not reach the optimal margin, yet it pays off to keep these customers.
- On the other hand, small customers get the products for higher prices and generate larger margin.

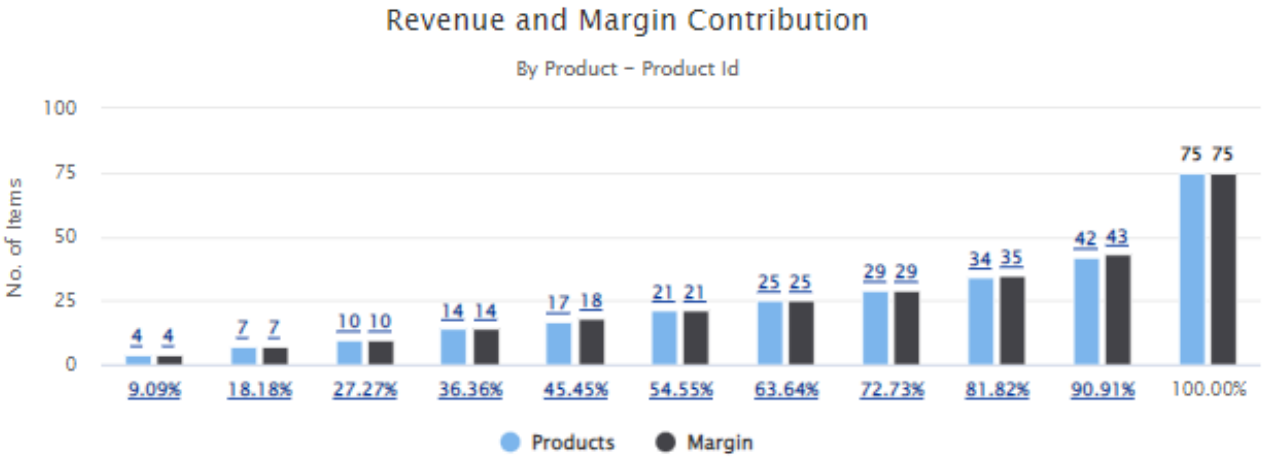
⚠ Due to performance reasons this chart is limited to display only top 50 customers. These product values are used to calculate the plot lines.

Revenue and Margin Contribution per Product/Customer

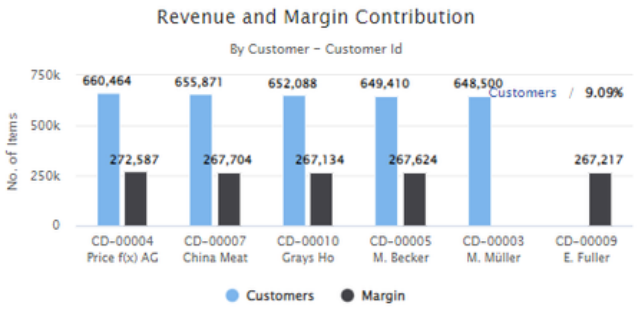
These two charts display Revenue and Margin split into defined buckets to visualize the number of product/customer aggregation levels needed to cover each bucket (cumulative contribution).

ℹ Customer Revenue and Margin Contribution are displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

Each data point displays the number of items in the bucket, the total revenue/margin of the items in the bucket and the revenue/margin representing the bucket.



There is also a possibility to preview each of the bucket contents by clicking on the percentage labels. It displays which particular customers/products contribute to the bucket.



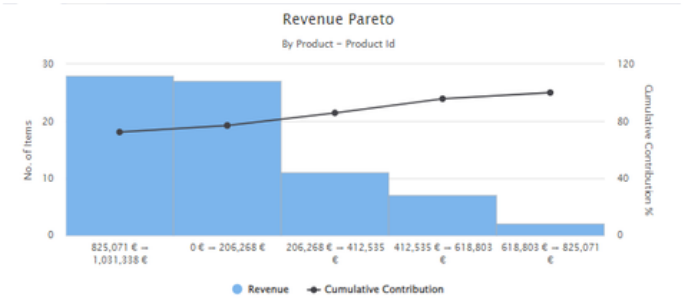
What to look out for:

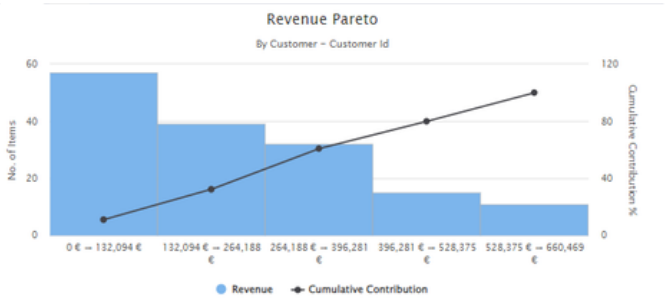
- It is good to have the buckets filled in evenly; i.e. not to rely on just one product/customer contributing most.

Revenue Pareto per Product/Customer

These two charts display Revenue and Margin % split into some bins to visualize the number of product /customer aggregation levels needed to cover each bin (cumulative contribution).

> Customer Revenue and Margin Pareto are displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).



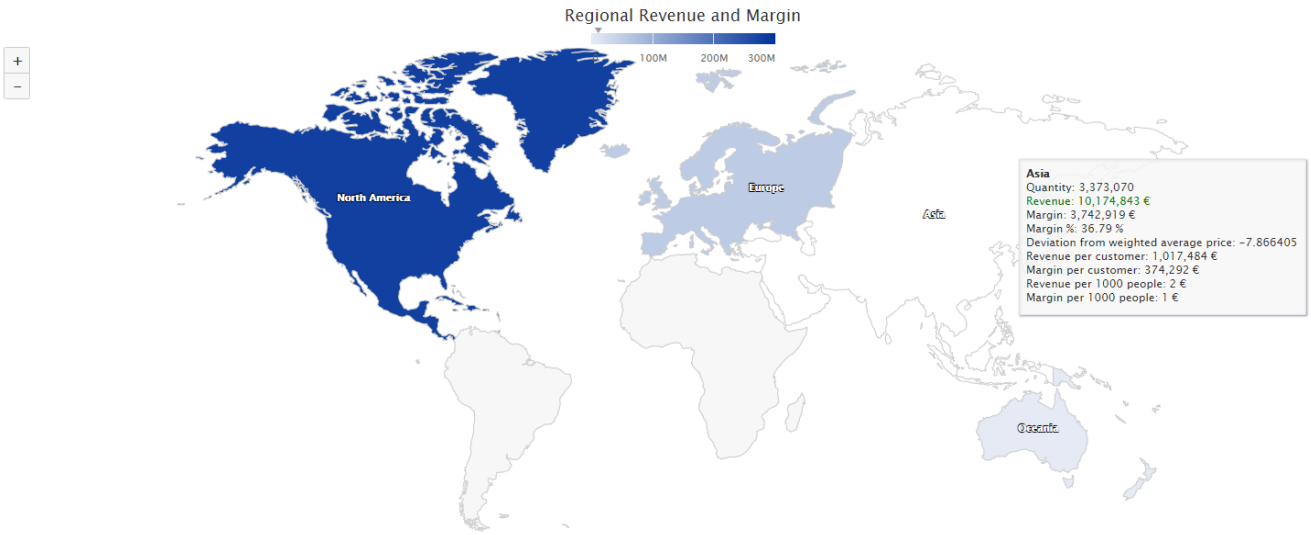


Regional Revenue and Margin Dashboard

The Regional Revenue and Margin Dashboard presents KPIs distribution on the world map. It helps you analyze relationships between different continents, countries or regions based on a KPI distribution.

The dashboard provides four levels of a view based on the available Datamart data and configuration:

- World
- Continent
- Country
- Region



In this section:

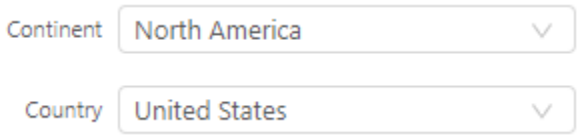
Regional Revenue and Margin Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Product(s)** - Allows you to choose one of the product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** - Allows you to choose one of the customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Date From/To** - Filters data for the analysis according to the given time range.
  - By default Date From is set to one year back.
  - By default Date To is set to today's date.
- **KPI** - Allows you to choose from the following KPIs for the analysis:
  - Quantity
  - Revenue (selected by default)
  - Margin
  - Margin %
  - Deviation from Weighted Average Price (WAP)
  - Revenue per Customer - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Margin per Customer - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Revenue per 1000 people (see the note on population)
  - Margin per 1000 people (see the note on population)
- **Region Configurator** - Allows you to choose which hierarchy level to display on the map.
  - Depending on what is selected, the map behaves differently:
    - If you select to display world The map will show Level 1: World (continents of the world shown).
    - If you choose Continent and do not choose Country. The map will show Level 2: Continent (countries of this continent shown).

- If you choose Continent, Country and do not choose Region. The map will show Level 3: Country (regions of this country shown).
  See the Supported Maps page for more details.
- If you choose Continent, Country, Region. The map will show Level 4: Region (sectors of this region shown).
  There is no sector support for now.

- The world level is displayed by checking the **Display World map** checkbox.
- If the world level is unchecked, the selection boxes come up and allow users to select other defined hierarchy levels.



- **Currency** – Allows you to choose a currency to be used in the dashboard. The exchange rate for the selected currency is fetched from the system"ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set a generic transaction data filter. For example: display only data from Europe, or Asia.

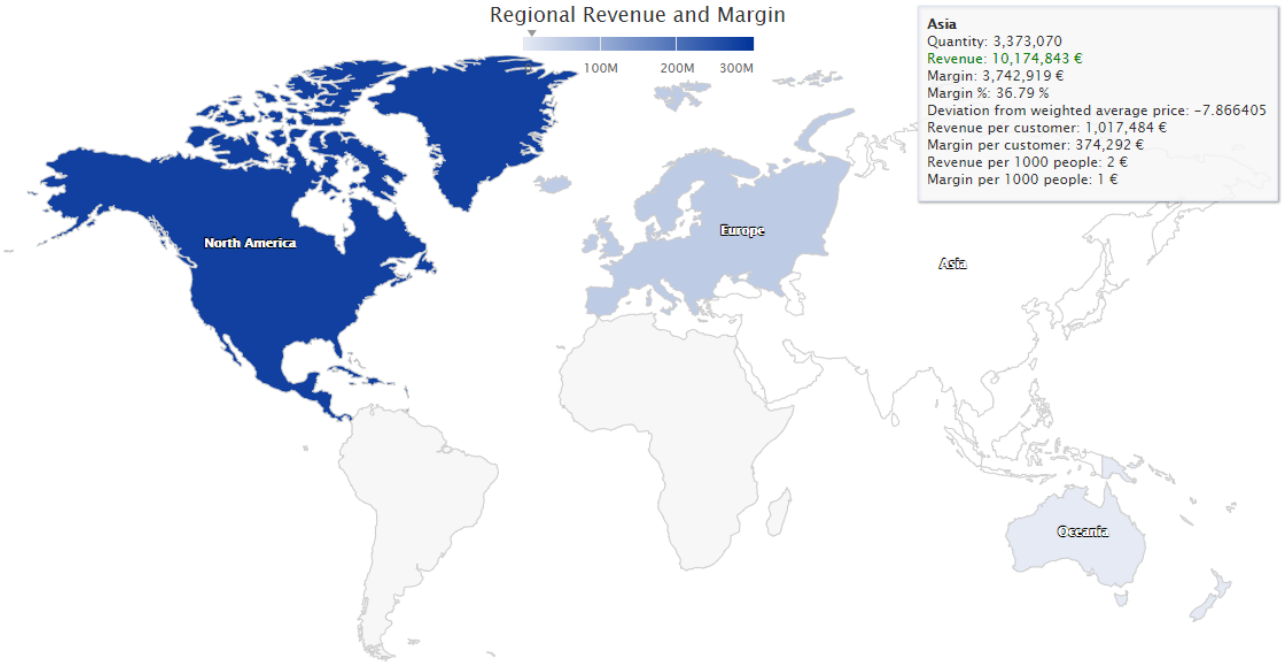
Regional Revenue and Margin Dashboard - Analyze Results

The following map models are available:

- World Map
- Continent Map
- Country Map

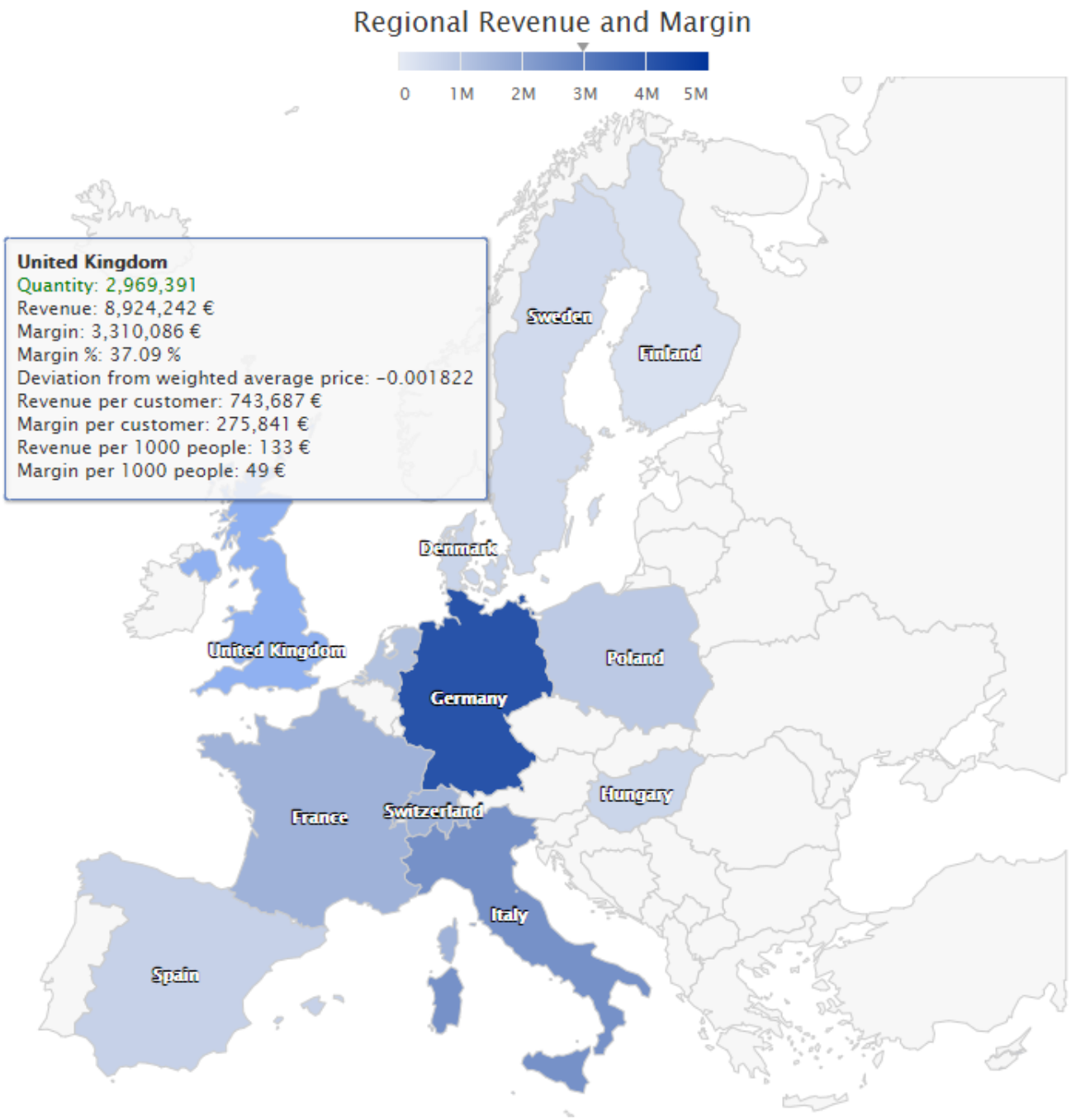
World Map

Helps you analyze the selected KPI (in this case Revenue) distribution between different continents. Beside the selected KPI, it also shows information on other KPIs for each continent.



Continent Map

Helps you analyze the revenue distribution between different countries of a selected continent. Beside the selected KPI, it also shows information on other KPIs for each country.



Country Map

Helps you analyze the revenue distribution between different regions of a selected country. Beside the selected KPI, it also shows information on other KPIs for each region.

Note on Population

To calculate Revenue or Margin per 1000 people, we need to work with the continent/country/region /sector population, so we have a Company Parameter table to store it. If you need to update the population, you can update it in the Company Parameter table named "SIP_Population".

Outliers Dashboard

Outliers Dashboard helps you analyse the best and worst performing products and customers based on different KPIs and a selected filter.

Best & Worst Products Performance

Name	Number	Revenue (€)	Margin (€)	Margin %	Margin Contribution %	Revenue Contribution %	Volume
Summary		28,393,147.26	9,068,819.82	31.94 %			9,333,893
▲ Meatball LM	MB-0008	621,970.02	199,005.65	32.00 %	6.86 %	2.19 %	203,318
▲ Meatball MS BxP	MB-0013	617,118.74	197,754.64	32.04 %	6.80 %	2.17 %	204,336
▲ Meatball PS	MB-0004	612,378.83	195,854.44	31.98 %	6.75 %	2.16 %	200,616
▲ Meatball MS 80Bx20P	MB-0022	611,853.50	195,996.38	32.03 %	6.75 %	2.15 %	200,253
▲ Meatball MI 80Bx20P	MB-0024	611,005.35	194,908.19	31.90 %	6.74 %	2.15 %	199,566
▼ Still Water	BV-0006	97,417.30	31,160.67	31.99 %	1.07 %	0.34 %	32,223
▼ Meatball MM Beef+Cheese+Bacon	MB-0027	97,045.25	30,867.34	31.81 %	1.07 %	0.34 %	31,923
▼ ToughTray 2000	NC-P-0002	46,904.23	14,749.25	31.45 %	0.52 %	0.17 %	15,147
▼ NyChem 075	NC-0075	42,608.89	13,598.66	31.92 %	0.47 %	0.15 %	13,894
▼ ToughTray	NC-P-0001	38,796.97	12,424.32	32.02 %	0.43 %	0.14 %	12,923

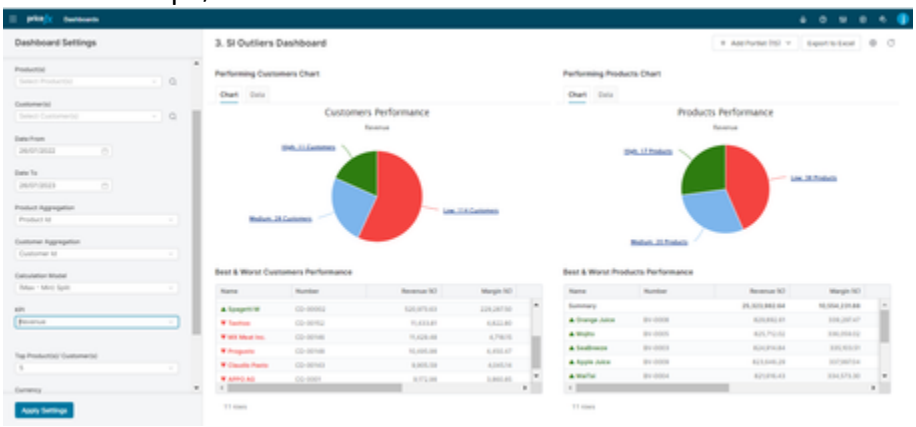
In this section:

Outliers Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Product(s)** – Allows you to choose one of the product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
  - ⚠ This input is not taken into account for the summary data.
- **Customer(s)** – Allows you to choose one of the customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
  - ⚠ This input is not taken into account for the summary data.
- **Date From/To** – Filters data for the analysis according to the given time range.
  - By default, Date From is set to one year back.
  - By default, Date To is set to today's date.
- **Product Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the product data. The product dimensions available in this input are defined in Advanced Configuration. The fields must come from the Product Master table.
- **Customer Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the customer data. The customer dimensions available in this input are defined in Advanced Configuration. The fields must come from the Customer Master table.

    - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
- **Calculation Model** – Allows you to select the calculation model for Outliers.
    - Currently available models are:
        - (Max - Min) Split (default)
        - Split Equally
        - Contribution
- **KPI** – Stands for Key Performance Indicator, a measure which is used to determine the Best/Worst performers. You can choose from the following values (may vary depending on the model selected):
    - Revenue
    - Revenue Contribution %
    - Margin
    - Margin %
    - Margin Contribution %
- **Top Product(s)/Customer(s)** – Allows you to choose from a predefined list of values how many products /customers should be displayed in Best & Worst performance tables.
  In case there is not enough products to display, the results are trimmed and "Best" is favored (in case of only 5 products the division will be 3/2). The default value is 5.
- **Currency** – Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from the system "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.



Outliers Dashboard - Analyze Results

The dashboard provides the following summaries:

- Best & Worst Products/Customers Performance
- Products/Customers Performance Chart

Best & Worst Products/Customers Performance

> Customer Performance Table is displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

There are separate tables for products and customers showing different KPIs of the best and worst performing products or customers based on the selected filters.

Best & Worst Products Performance

Name	Number	Revenue (€)	Margin (€)	Margin %	Margin Contribution %	Revenue Contribution %	Volume
Summary		28,393,147.26	9,068,819.82	31.94 %			9,333,893
▲ Meatball LM	MB-0008	621,970.02	199,005.65	32.00 %	6.86 %	2.19 %	203,318
▲ Meatball MS BxP	MB-0013	617,118.74	197,754.64	32.04 %	6.80 %	2.17 %	204,336
▲ Meatball PS	MB-0004	612,378.83	195,854.44	31.98 %	6.75 %	2.16 %	200,616
▲ Meatball MS 80Bx20P	MB-0022	611,853.50	195,996.38	32.03 %	6.75 %	2.15 %	200,253
▲ Meatball MI 80Bx20P	MB-0024	611,005.35	194,908.19	31.90 %	6.74 %	2.15 %	199,566
▼ Still Water	BV-0006	97,417.30	31,160.67	31.99 %	1.07 %	0.34 %	32,223
▼ Meatball MM Beef+Cheese+Bacon	MB-0027	97,045.25	30,867.34	31.81 %	1.07 %	0.34 %	31,923
▼ ToughTray 2000	NC-P-0002	46,904.23	14,749.25	31.45 %	0.52 %	0.17 %	15,147
▼ NyChem 075	NC-0075	42,608.89	13,598.66	31.92 %	0.47 %	0.15 %	13,894
▼ ToughTray	NC-P-0001	38,796.97	12,424.32	32.02 %	0.43 %	0.14 %	12,923

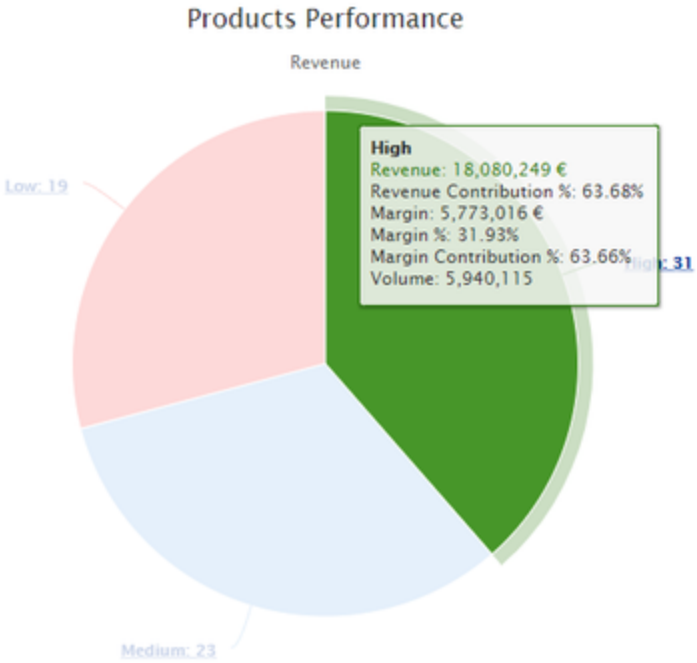
Best & Worst Customers Performance

Name	Number	Revenue (€)	Margin (€)	Margin %	Margin Contribution %	Revenue Contribution %
Summary		28,393,147.26	9,068,819.82	31.94 %		
▲ Soupo AG	CD-00006	561,833.55	179,390.84	31.93 %	6.20 %	1.98 %
▲ M. Müller	CD-00003	552,873.86	177,294.29	32.07 %	6.10 %	1.95 %
▲ Soupo DE	CD-00012	545,722.27	174,626.57	32.00 %	6.02 %	1.92 %
▲ M. Becker	CD-00005	544,791.23	173,504.50	31.85 %	6.01 %	1.92 %
▲ E. Fuller	CD-00009	542,027.54	173,390.60	31.99 %	5.98 %	1.91 %
▼ Martin Johann	CD-00131	27,649.42	8,813.92	31.88 %	0.30 %	0.10 %
▼ MX Meat Inc.	CD-00146	26,530.59	8,391.35	31.63 %	0.29 %	0.09 %
▼ South Chickem	CD-00132	26,393.18	8,834.00	33.47 %	0.29 %	0.09 %
▼ Stomach	CD-00129	25,502.82	8,279.86	32.47 %	0.28 %	0.09 %
▼ Very Good Meat	CD-00139	24,395.29	7,891.56	32.35 %	0.27 %	0.09 %

Products/Customers Performance Chart

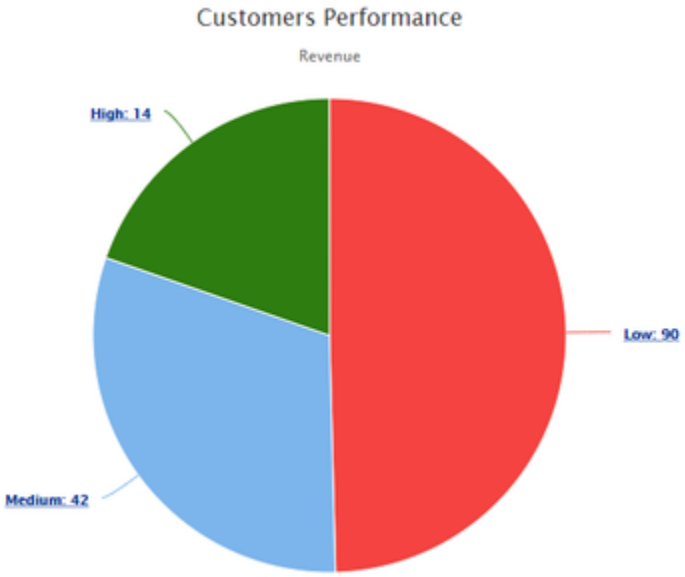
Customer Chart is displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

The pie chart displays the count of products/customers in each group (High, Medium, Low, Negative), the selected KPI value is highlighted.

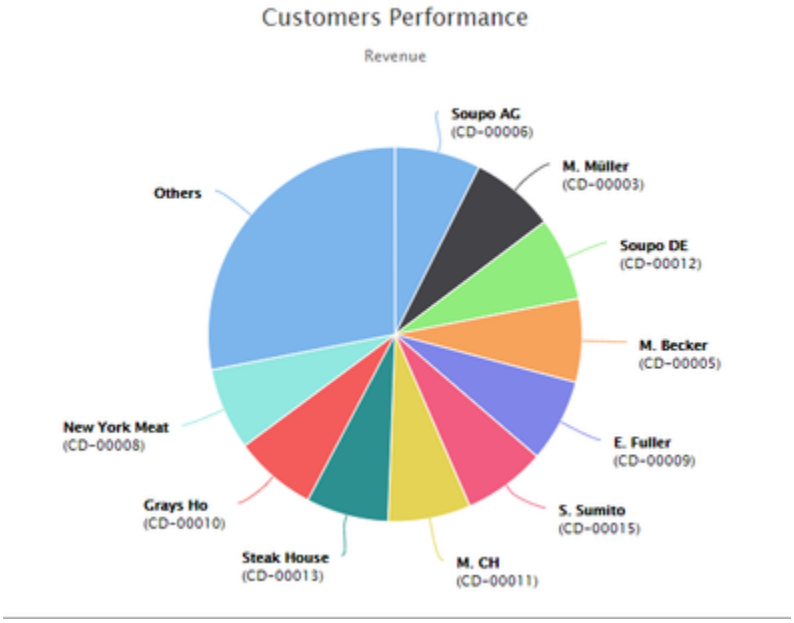


What to look out for:

- If you ever get here products with a negative margin, these are definitely candidates for review. Often, these can be gifts, warranties or other justifiable items but in other cases it may highlight a potential issue.
- Customers with negative performance are even more questionable (unless they represent internal units or similar cases).
- Also, this chart allows you to review your strategy when it comes to a target customer size – whether to focus on large, medium or small customer; especially if you can support it with data on the total cost of ownership of each customer.

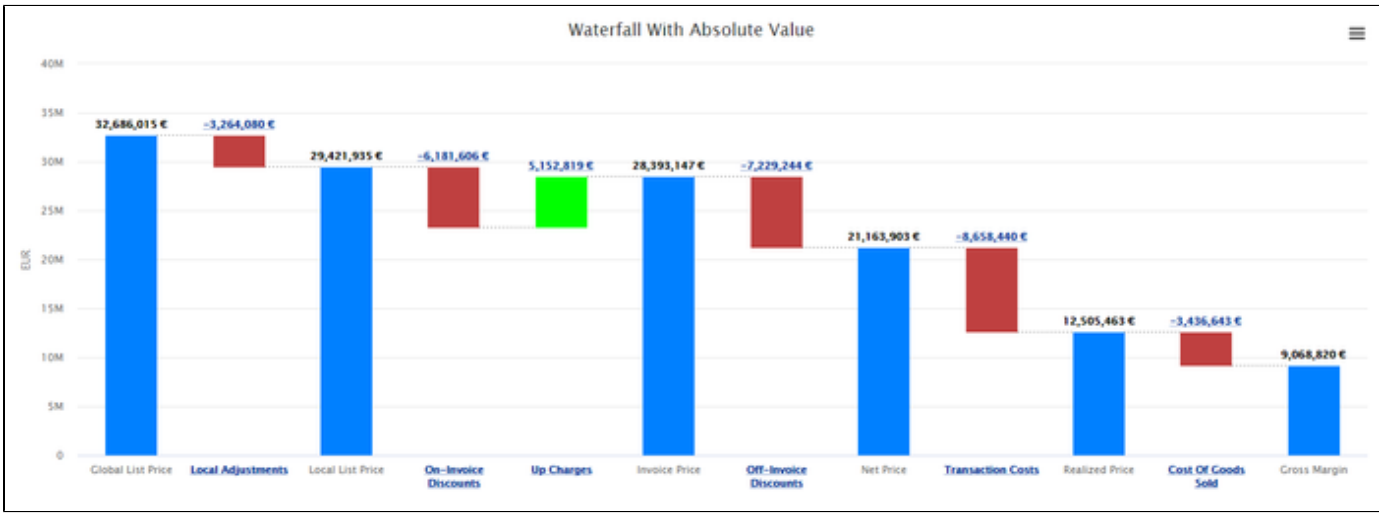


There is also an option to drill down into each category (by clicking the category in the chart or legend) and display additional details. For the High and Medium categories the detailed chart will display 10 best performing items and for Low and Negative 10 worst. The rest will be grouped into the "Others" group.



Waterfall Dashboard

Waterfall Dashboard presents the standardized price waterfall analysis. The chart helps you understand how an initial value is affected by a series of intermediate positive or negative values. The columns are color-coded for distinguishing between positive and negative values.



In this section:

- Waterfall Dashboard - Analyze Results
- Waterfall Dashboard - Set Up Data and Filters

Waterfall Dashboard - Analyze Results

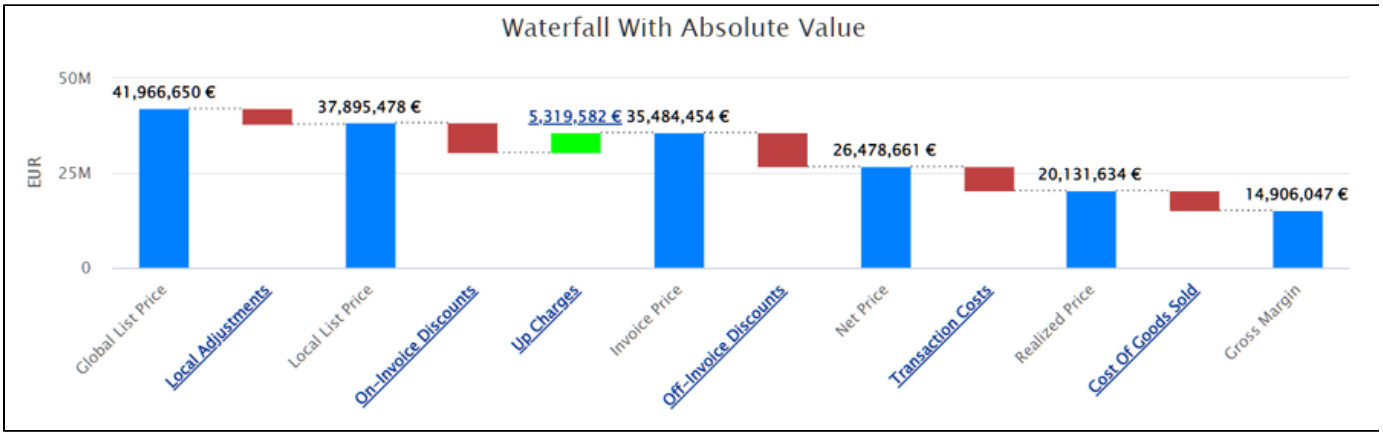
The dashboard provides the following models:

- Absolute
  - Default View
  - Drill-down for On-Invoice Discounts
- Percentage
- Absolute Detail
- By Absolute Unit

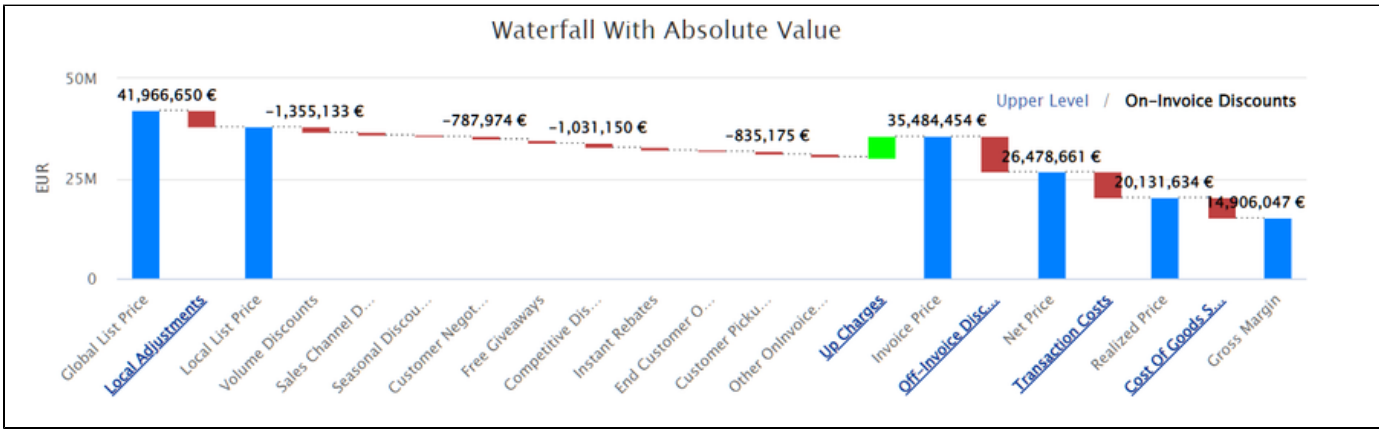
Visibility of the waterfall elements depends on availability of data in the transactional data and Company Parameter tables setup.

Absolute

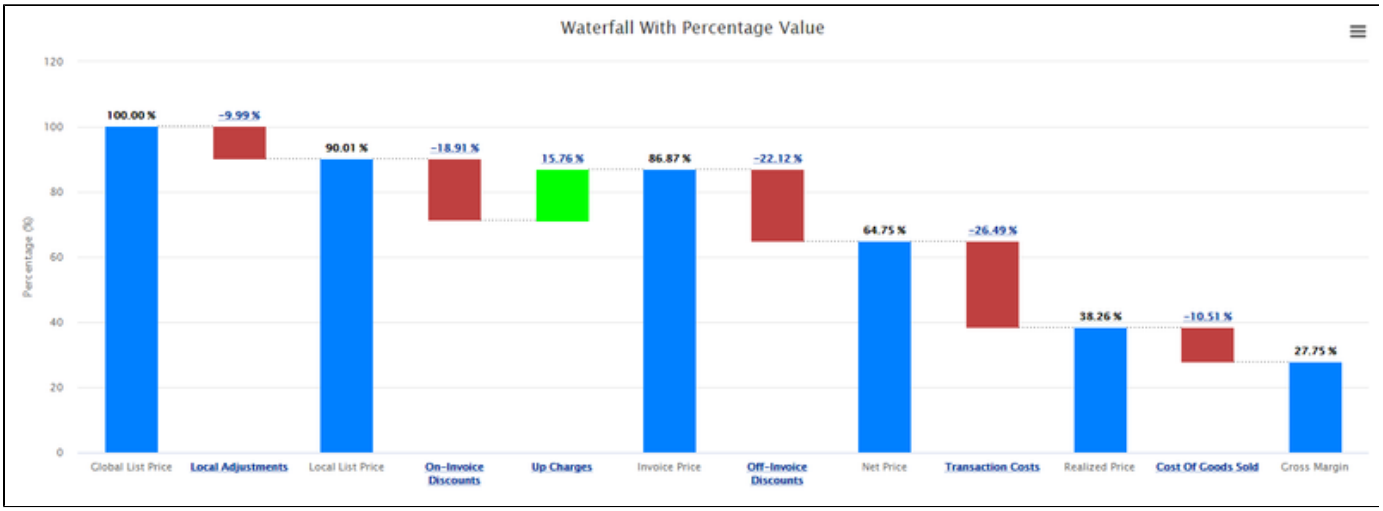
Default View



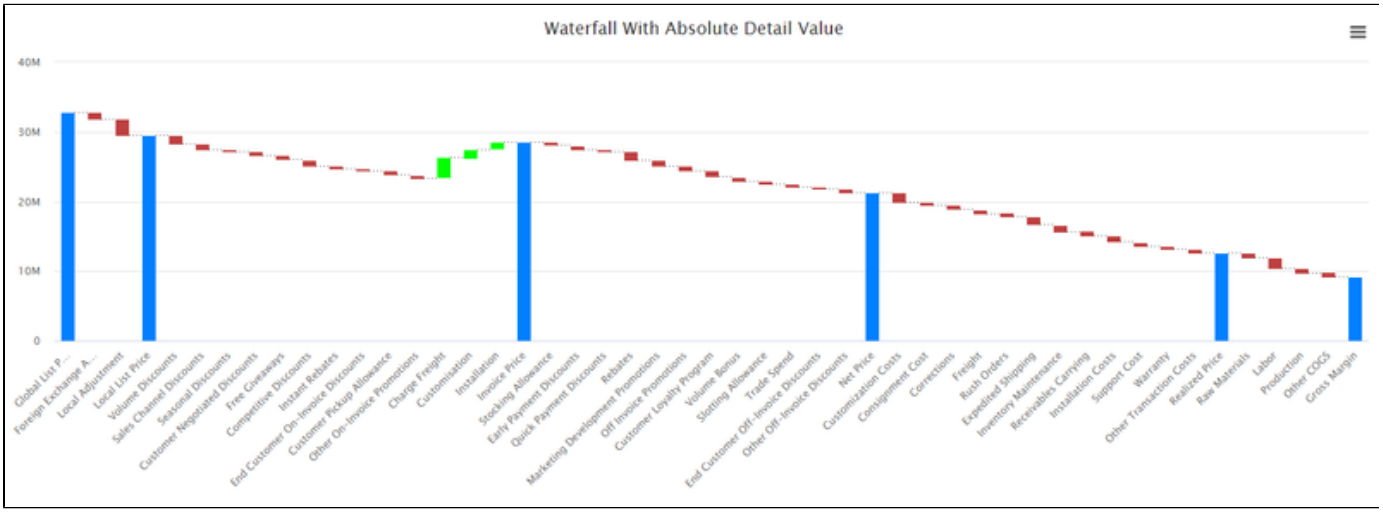
Drill-down for On-Invoice Discounts



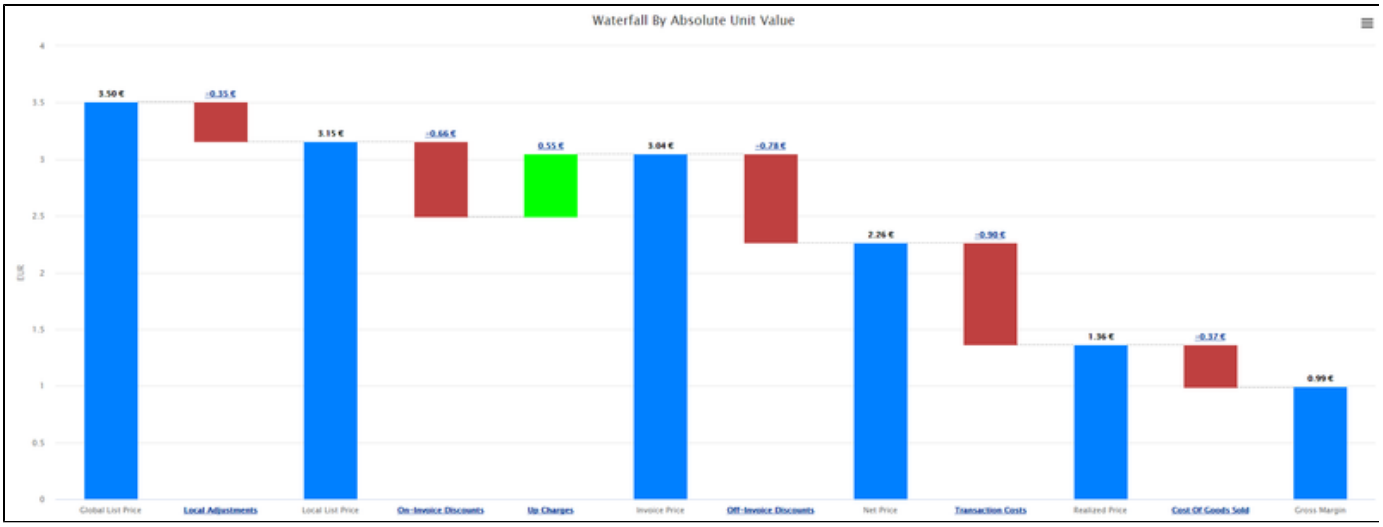
Percentage



Absolute Detail



By Absolute Unit



Waterfall Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Product(s)** - Allows you to choose one of product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** - Allows you to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Date From/To** - Filters data for the analysis according to the given time range.
  - By default Date From is set to one year back.
  - By default Date To is set to today's date.
- **Waterfall Model** - Allows you to choose the display model used in the waterfall. Currently there are 4 models available:
  - **Absolute** (selected by default) - Displays raw data with a thousands separator and currency symbol. Includes a drill-down defined in the Advanced Configuration "waterfall-configuration".
  - **Absolute Detail** - Displays the same data as Absolute but without the drill-down functionality.
  - **By Absolute Unit** - Displays data by unit value. Includes a drill-down defined in the Advanced Configuration "waterfall-configuration".
  - **Percentage** - Displays data converted to percentages. The percentage base is defined by the user in the Advanced Configuration "waterfall-configuration".
- **Currency** - Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from system the "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** - Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.

Waterfall Comparison Dashboard

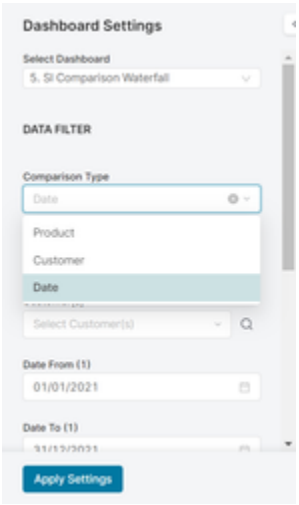
The Waterfall Comparison dashboard allows you to compare waterfalls of different time periods, products, and customers. The dashboard is built on top of a standardized Waterfall Dashboard and follows the same definition.

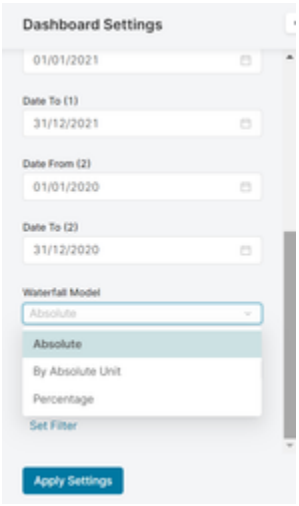
In this section:

- Waterfall Comparison Dashboard - Analyze Results
- Waterfall Comparison Dashboard - Set Up Data and Filters

Waterfall Comparison Dashboard - Analyze Results

For all three comparisons which are Product, Customer, and Date, there are the Waterfall Model types Absolute, Percentage, and By Absolute Unit. With enabled drill-down for adjustments.

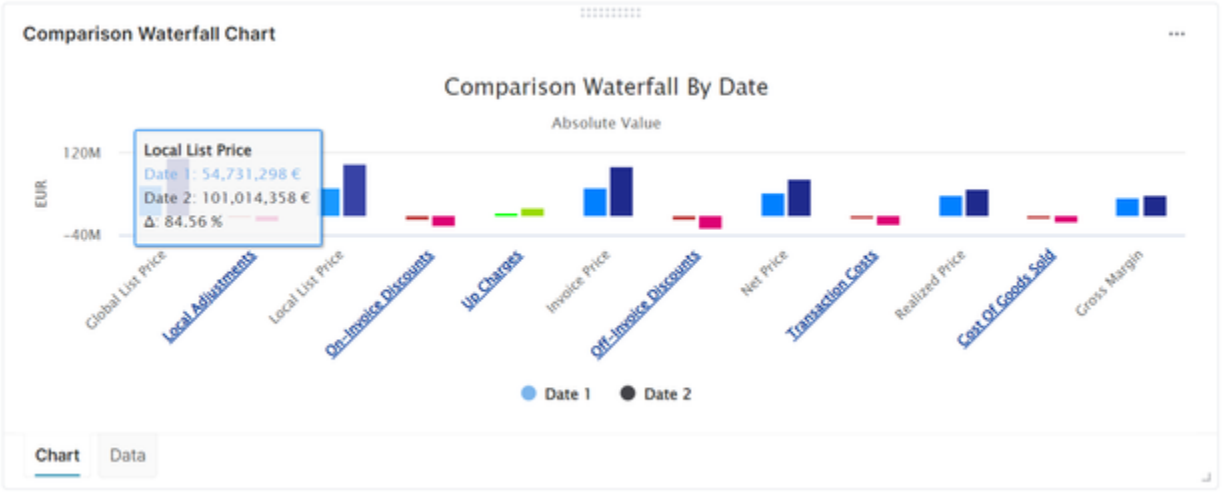




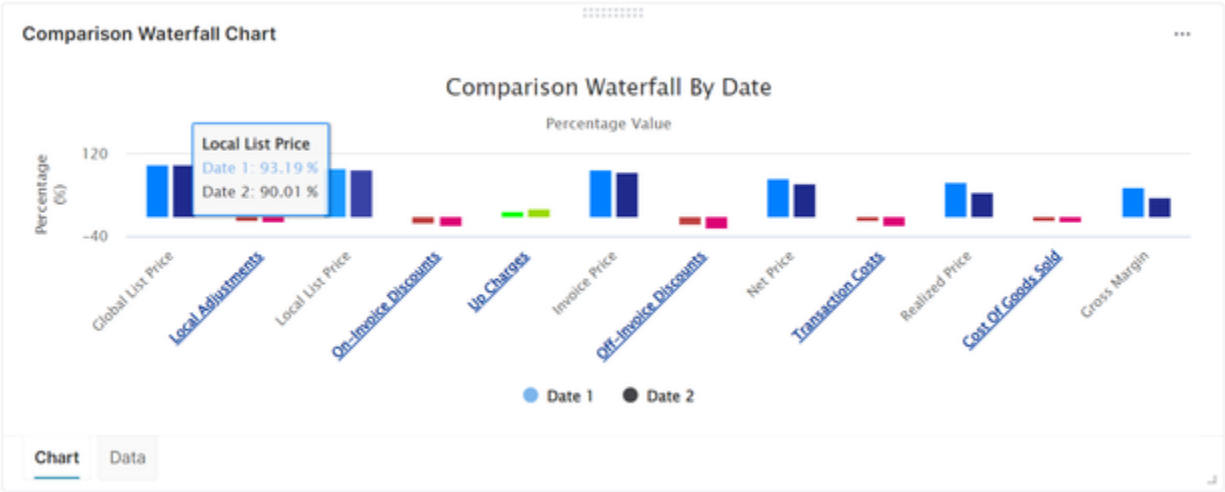
- Comparison Waterfall per Time Period
- Comparison Waterfall per Product(s)
- Comparison Waterfall per Customer(s)

Comparison Waterfall per Time Period

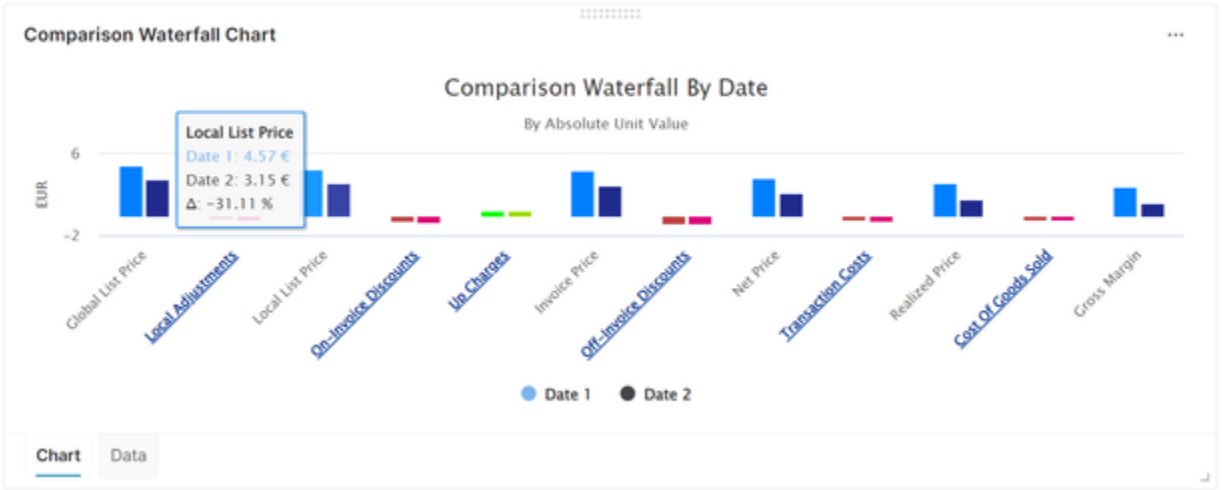
When the Waterfall Model is Absolute:



When the Waterfall Model is Percentage:

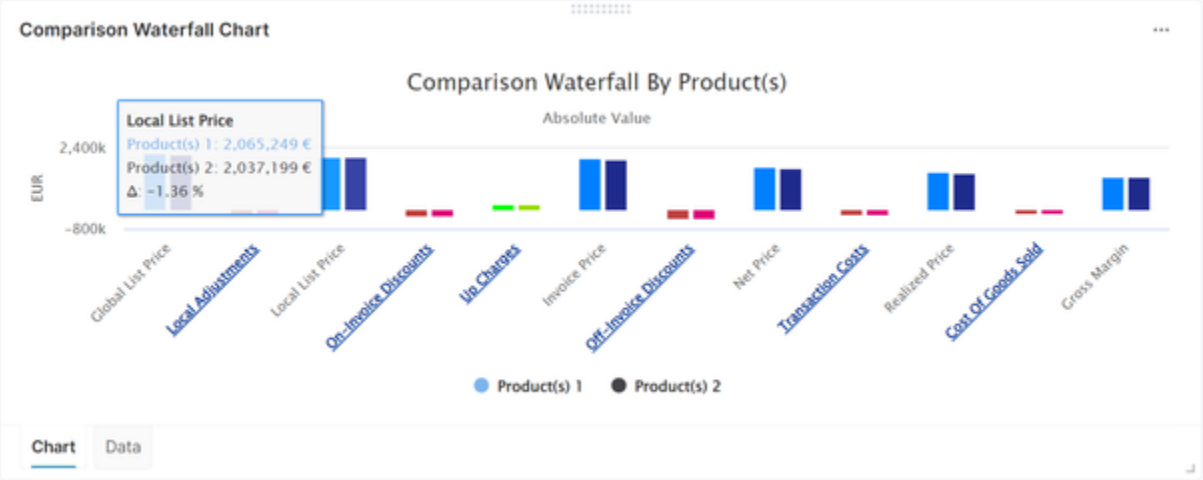


When the Waterfall Model is By Absolute Unit:

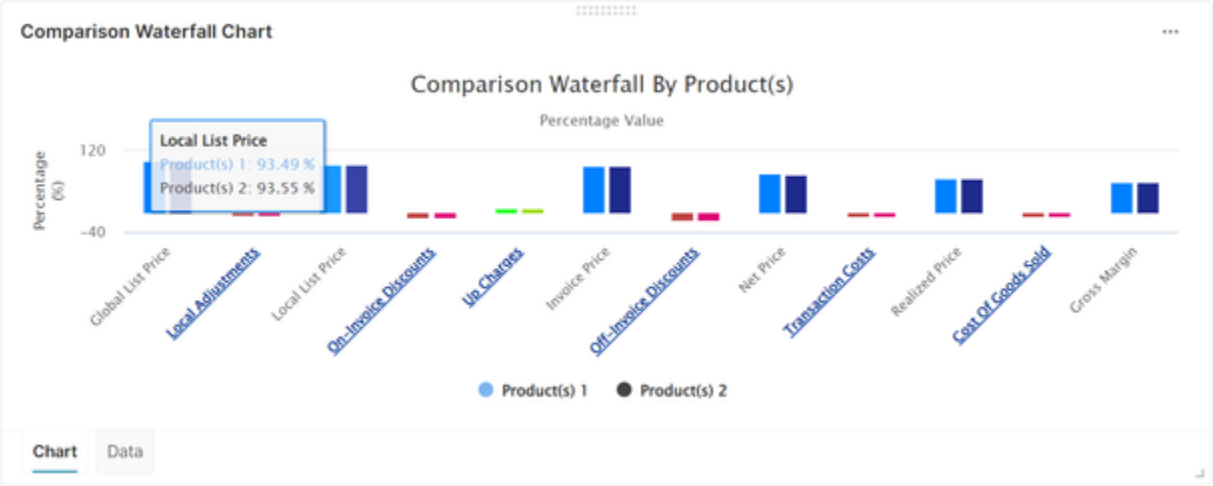


Comparison Waterfall per Product(s)

When the Waterfall Model is Absolute:



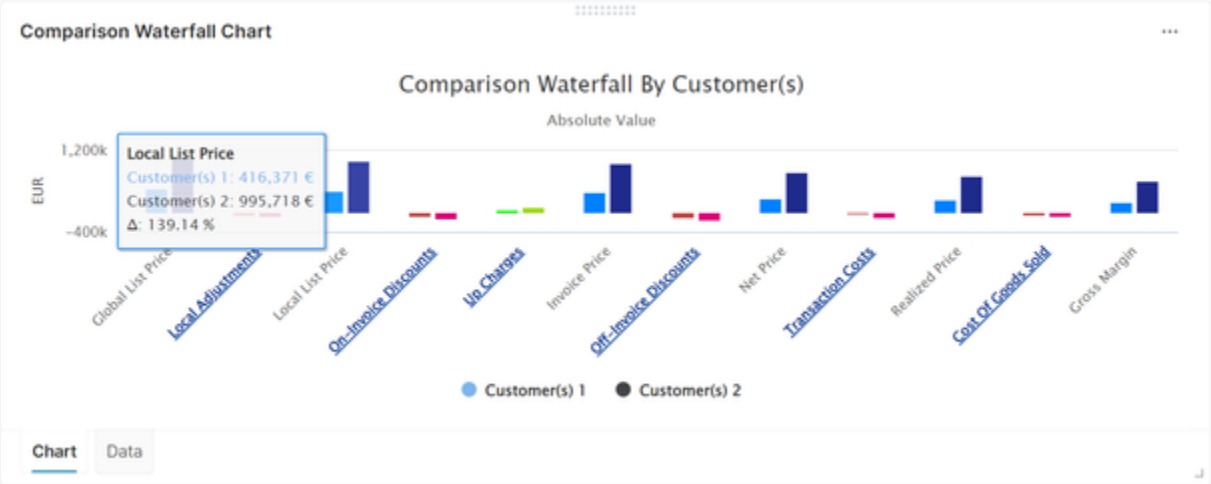
When the Waterfall Model is Percentage:



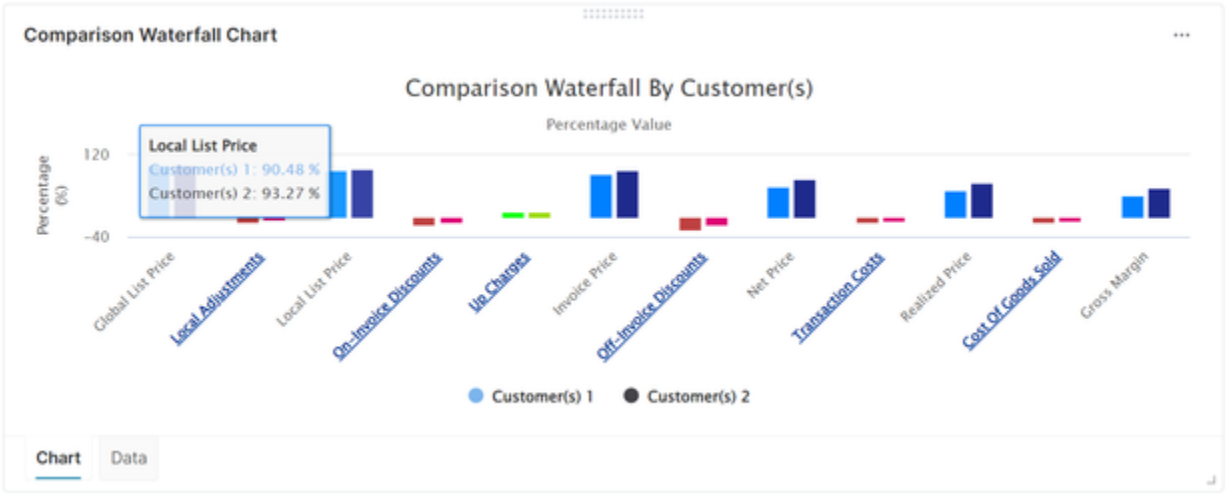
When the Waterfall Model is By Absolute Unit:

Comparison Waterfall per Customer(s)

When the Waterfall Model is Absolute:



When the Waterfall Model is Percentage:



When the Waterfall Model is By Absolute Unit:

Waterfall Comparison Dashboard - Set Up Data and Filters

When setting up data for Waterfall Comparison Dashboard, there are some common user inputs and some which are specific for each type of the comparison.

Specific User Inputs

The user inputs are slightly different for each type of the comparison: per Date, Product or Customer.

Comparison Waterfall per Date

- **Comparison Type** – Date
- **Product(s)** – Allows you to choose one of the product attributes to be used for the analysis.
- **Customer(s)** – Allows you to choose one of the customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
- **Date From/To (Period 1)** – Defines a date range for data used in the analysis – the first range.
  - By default Date From (1) is set to the first day of January one year back.
  - By default Date To (1) is set to the last day of December one year back.
- **Date From/To (Period 2)** – Defines a date range for data used in the analysis – the second range for comparison.
  - By default Date From (2) is set to the first day of January two years back.
  - By default Date To (2) is set to the last day of December two years back.

Comparison Waterfall per Product

- **Comparison Type** – Product
- **Product(s) 1** – Allows you to choose one of the product attributes to be used for the analysis.
- **Product(s) 2** – Allows you to choose one of the product attributes to be used for the analysis for comparison.
- **Customer(s)** – Allows you to choose one of the customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
- **Date From/To** – Filters data for the analysis according to the given time range.
  - By default Date From is set to the first day of January one year back.
  - By default Date To is set to the last day of December one year back.

Comparison Waterfall per Customer

- **Comparison Type** – Customer.
  - Available for selection only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
- **Product(s)** – Allows you to choose one of the product attributes to be used for the analysis.
- **Customer(s) 1** – Allows you to choose one of the customer attributes to be used for the analysis.
- **Customer(s) 2** – Allows you to choose one of the customer attributes to be used for the analysis for comparison.

- **Date From/To** - Filters data for the analysis according to the given time range.
  - By default Date From is set to the first day of January one year back.
  - By default Date To is set to the last day of December one year back.

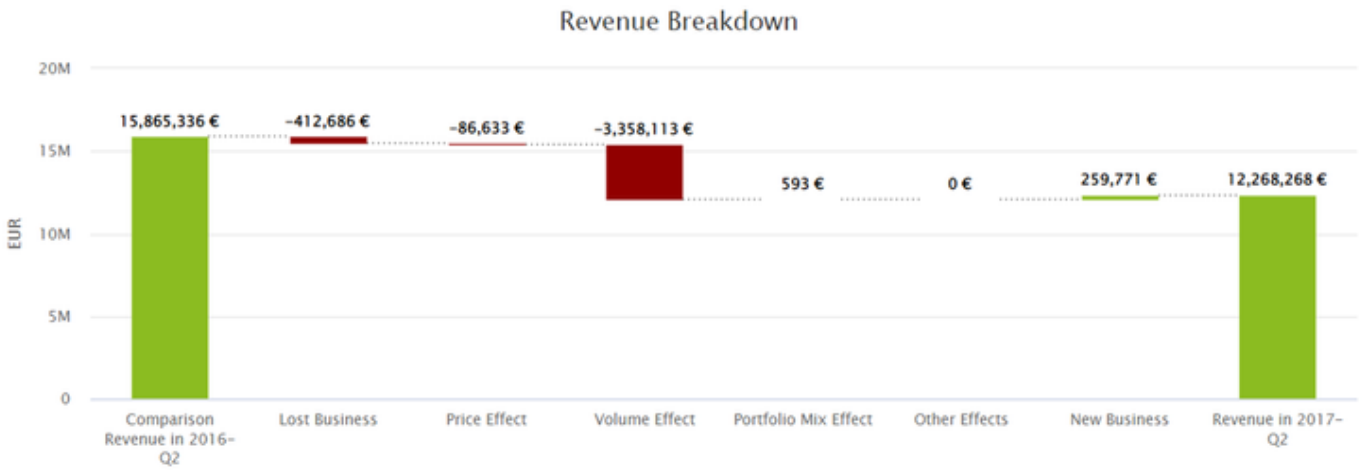
Common User Inputs

There are also common inputs that do not change based on the selected Comparison Type:

- **Waterfall Model** - Allows you to choose the display model used in the waterfall.
  - Currently there are 3 models available:
    - **Absolute** (selected by default) - Displays raw data with a thousands separator and currency symbol. Includes a drill-down defined in the Advanced Configuration "waterfall-configuration".
    - **By Absolute Unit** - Displays data by unit value. Includes a drill-down defined in the Advanced Configuration "waterfall-configuration".
    - **Percentage** - Displays data converted to percentages. The percentage base is defined by the user in the Advanced Configuration "waterfall-configuration".
- **Currency** - Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from system the "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** - Allows you to set a generic transaction data filter. For example: display only data from Europe or Asia.

Revenue Breakdown Dashboard

Revenue Breakdown Dashboard shows you what the difference in revenue between two periods can be attributed to. It allows you to compare two years or quarters and optionally filter for only certain products and/or customers.

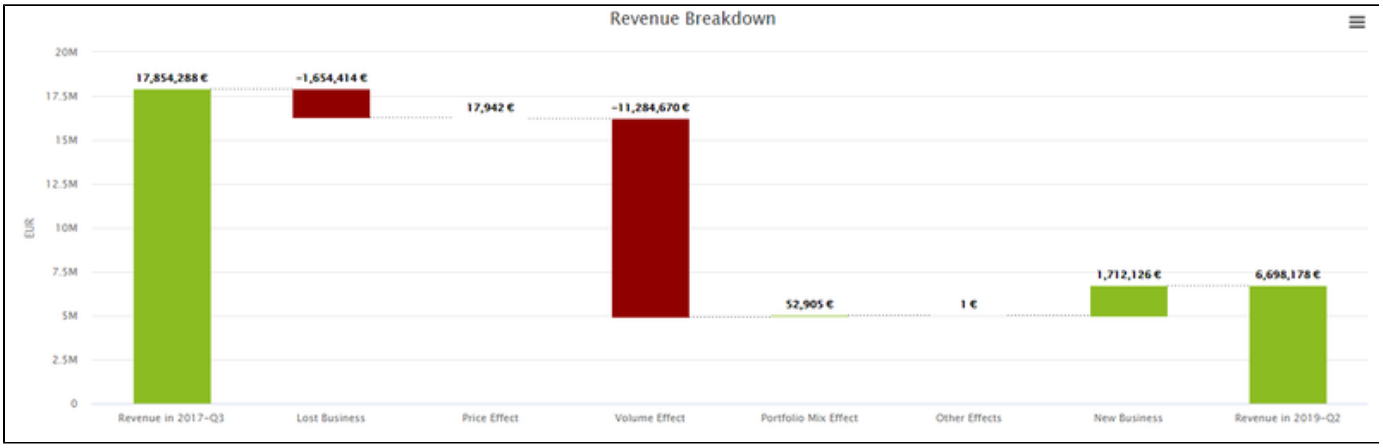


In this section:

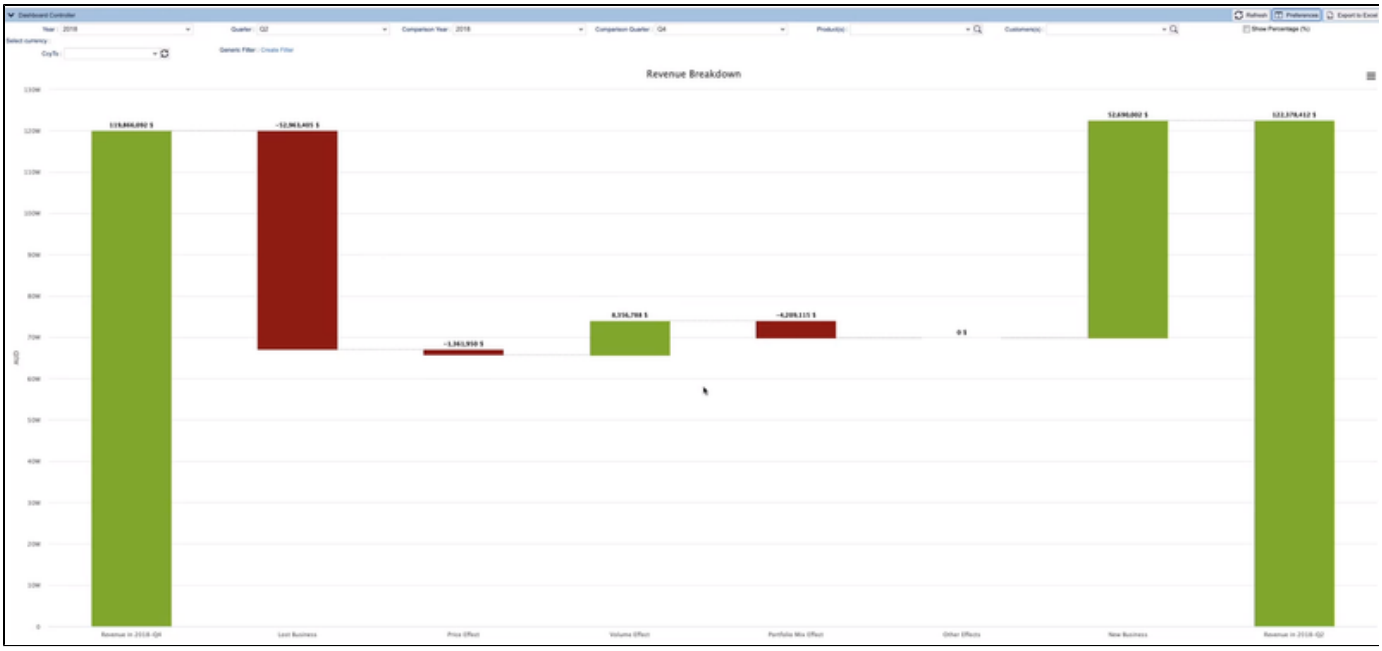
- Revenue Breakdown Dashboard - Analyze Results
- Revenue Breakdown Dashboard - Set Up Data and Filters

Revenue Breakdown Dashboard - Analyze Results

This chart shows revenue in two periods and tries to associate the difference to categories such as volume, price, new/lost business. For better guidance, loss is shown in red, gain in green. For example, the second column Lost Business shows what amount in revenue was lost due to customers not buying particular products in the first period. But what is clearly the main reason for a smaller revenue in the second period is the significant decrease in volume sold.



Another example illustrates nicely what is typically expected: when the price is decreased (lost revenue shown in 3rd column), the volume goes up (4th column).



Revenue Breakdown Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Period Type** – Allows you to select the period type for both comparison periods.
  - Available time units: Week, Quarter, Month, YTD, Custom
  - According to the selection, relevant inputs are displayed to allow for the particular time units values definition.
  - Defaults to MAX(pricingDate) and if not found, fallbacks to the current year.
- **Year** – Allows you to select the year for the first comparison period. Data for this input are fetched from the "pricingDate" field from SIP_AdvancedConfiguration.
  Note: The "pricingDate" field must be marked as "Pricing Date" in Transaction Datamart to allow for the system year field generation.
  - Defaults to MAX(pricingDate) and if not found, fallbacks to the current year.
- ***<Selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
- **Comparison Year** – Allows you to select the year for the second comparison period.
  - Defaults to MIN(pricingDate) and if not found, fallbacks to the previous year.
- **Comparison *<selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
- **Product(s)** – Allows you to choose one of product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** – Allows you to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Product Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the product data. The product dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
- **Customer Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the customer data. The customer dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.

- Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

- **Show Percentage (%)** – Allows you to select whether the values should be displayed as percentage.
- **Currency** – Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from the system "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.

Margin Breakdown Dashboard

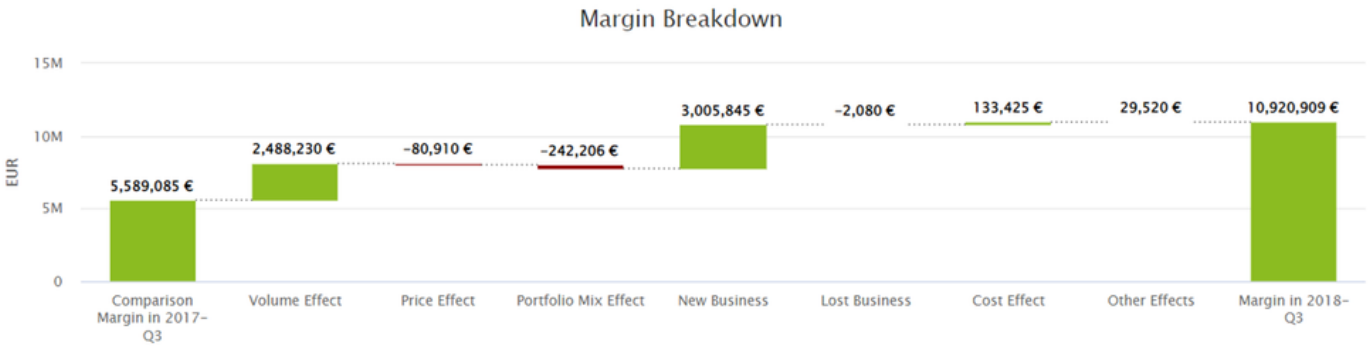
The Margin Breakdown dashboard shows you what the difference in margin between two periods can be attributed to. It allows you to compare two years or quarters and optionally filter for only certain products and/or customers. It includes different calculation options ("models").

In this section:

- Margin Breakdown Dashboard - Analyze Results
- Margin Breakdown Dashboard - Set Up Data and Filters

Margin Breakdown Dashboard - Analyze Results

Margin Breakdown Models refer to the way the chart columns are calculated – which driver they emphasize. See the details in Margin Breakdown Dashboard - Fields Definition. For better guidance, loss is shown in red, gain in green.



Margin Breakdown Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Period Type** – Allows you to select the period type for both comparison periods.
  - Available time units: Week, Quarter, Month, YTD, Custom
  - According to the selection, relevant inputs are displayed to allow for the particular time units values definition.
- **Year** – Allows you to select the year for the first comparison period. Data for this input are fetched from the "pricingDate" field from SIP_AdvancedConfiguration.
  - Note: The "pricingDate" field must be marked as a "Pricing Date" in Transaction DM to allow for the system year field generation.
- ***<Selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
  - Defaults to the current (latest available) time unit.
- **Comparison Year** – Allows you to select the year for the second comparison period.
- **Comparison *<selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
- **Product(s)** – Allows you to choose one of product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** – Allows you to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Product Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the product data. The product dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
- **Customer Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the customer data. The customer dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).

- **Show Percentage (%)** – Allows you to select whether the values should be displayed as percentage.
- **Currency** – Allows you to choose the currency to use in the dashboard. The exchange rate for the selected currency is fetched from system "ccy" DS, the currency symbol is fetched from "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.

Causality Dashboard

The Causality Dashboard allows you to identify the change in contribution of Product/Customer groups to Total Revenue or Margin between two periods, so you can easily identify problematic parts of the business.

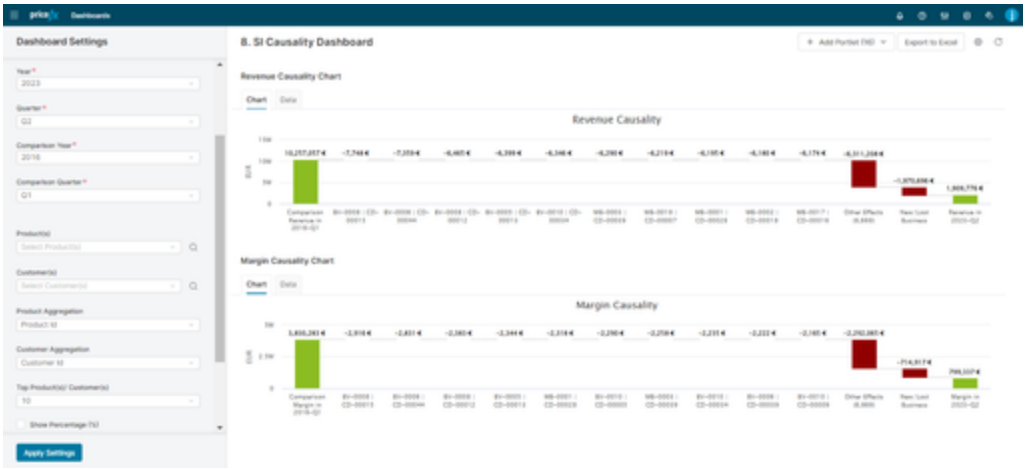
In this section:

- Causality Dashboard - Set Up Data and Filters
- Causality Dashboard - Analyze Results

Causality Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

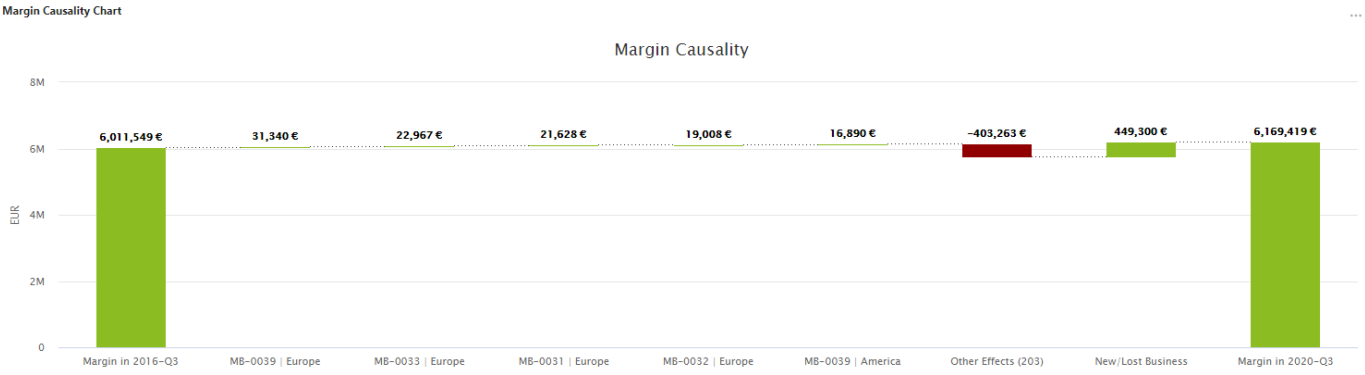
- **Period Type** – Allows you to select the period type for both comparison periods.
  - Available time units: Week, Quarter, Month, YTD, Custom
  - According to the selection, relevant inputs are displayed to allow for the particular time units values definition.
- **Year** – Allows you to select the year for the first comparison period. Data for this input are fetched from the "pricingDate" field from SIP_AdvancedConfiguration.
  - Note: The "pricingDate" field must be marked as "Pricing Date" in Transaction Datamart to allow for the system year field generation.
  - Defaults to MAX(pricingDate) and if not found, fallbacks to the current year.
- ***<Selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
  - Defaults to the current (latest available) time unit.
- **Comparison Year** – Allows you to select the year for the second comparison period.
  - Defaults to MIN(pricingDate) and if not found, fallbacks to the previous year.
- **Comparison *<selected time unit>*** – Displays a time unit selected in **Period Type**. It allows you to select a time period for comparison.
- **Product(s)** – Allows you to choose one of product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Customer(s)** – Allows you to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Product Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the product data. The product dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
- **Customer Aggregation** – Allows you to define a custom grouping dimension to reduce the granularity of the customer data. The customer dimensions available in this input are defined in Advanced Configuration. Fields must come from the Datamart used for the package.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
- **Top Product(s)/Customer(s)** – Allows you to choose from a predefined list of values how many product /customer groups should be displayed in between the periods.
- **Show Percentage (%)** – Allows you to select whether the values should be displayed as percentage.
  - Defaults to false.
- **Currency** – Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from the system "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.



Causality Dashboard - Analyze Results

The Margin/Revenue Causality chart displays top X product/customer groups contribution to the total margin when comparing two periods.

When both Product and Customer aggregations are set, the dashboard displays the aggregated entries in the form: {Product Aggregation} | {Customer Aggregation}



If any aggregation dimension (in this case Customer) is set to None, the aggregation is skipped.

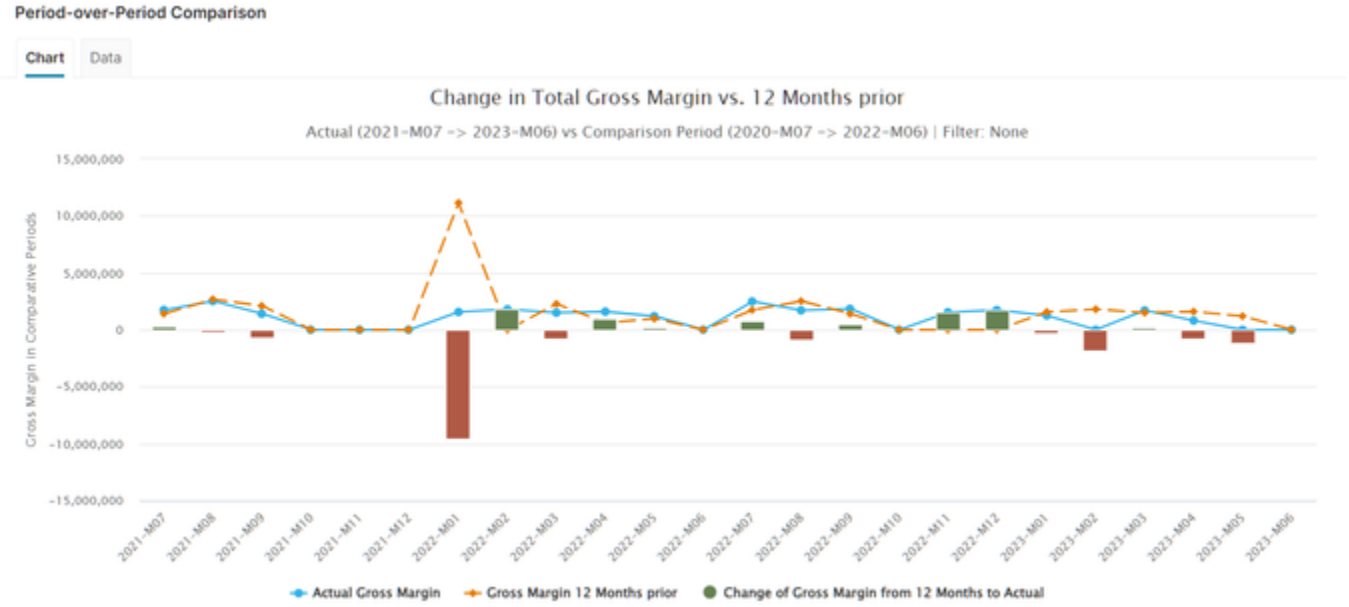
The entries displayed are taken from common business, so the product/customer groups are present in both periods.

Any product/customer groups that are not in the common business are grouped up in the New/Lost Business column.

Any product/customer groups that are not in top X are displayed as the Other effects column with the number of entries in that group in brackets.

Period Over Period Dashboard

The Period Over Period Dashboard shows the difference in a selected measure between two periods. This helps you assess the most recent status of any financial or volume measure and compare its performance to the same time period in the past.



In this section:

- Period Over Period Dashboard - Set Up Data and Filters
- Period Over Period Dashboard - Analyze Results

Period Over Period Dashboard - Set Up Data and Filters

For this dashboard you can set the following inputs:

- **Customer(s)** – Allows you to choose one of customer attributes to be used for the analysis.
  - Displayed only when Customer data is used in the package (customerId must be mapped in the SIP_AdvancedConfiguration).
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Product(s)** – Allows you to choose one of product attributes to be used for the analysis.
  - Note: Keep in mind that only columns present in the Transaction Datamart can be used for filtering.
- **Measure Type** – Allows you to define the measure type for further measure selection.
  - Available values:
    - **Single Column** – Allows you to select a Datamart field containing a metric. If selected, this input becomes available: **Measure Column** where you select a measure (from the Datamart) which is used for the comparison.
    - **Ratio** – The output measure is calculated by a formula using two input values (measures) defined in further selection. If selected, in the new input **Ratio Type** you can select from:
      - Gross Margin %
      - List-to-Invoice Realization %
      - Incentive %
      - Price Realization %
      - Price Leakage %

        - Average Price Per Unit
        - Average Profit Per Unit
        - Custom
        - (1st formula input), labeled according to the Ratio Type selection, typically the numerator.
        - (2nd formula input), labeled according to the Ratio Type selection, typically the denominator.
- **Scale Change Bars as %** – Affects whether the Change series in the chart is displayed as an absolute value or as a relative one (Actual *Measure Column* as % of Comparison Period).
- **Display Z Axis** – Affects whether the Change series in the chart are equipped with a separate Z axis using its own scale or whether it uses a common Y axis shared with the Actual *Measure Column* and Comparison Period series.
- **Interval Size** – Defines the time granularity of the displayed output.
    - Available values: Day, Week, QuadWeek, Month, Quarter, Year.
    - When Interval Size changes, values of Number Of Intervals and Offset of Comparison Period input are automatically converted to respect the scope of the original Interval Size.
- **Number of Intervals** – Allows you to set the length of the period (e.g. 12 months, 4 quarters).
- **Offset of Comparison Period in *[Intervals]*** – Defines how many intervals (i.e. days, weeks, months, etc.) the Comparison Period should go backwards from the end of the Actual Period (i.e. measured from the Final Interval).
- **Final Interval** – Defines the end of the Actual (most recent) period (e.g. a specific month, quarter or year). Available values are:
    - **Latest Whole Interval**
    - **X Whole Intervals Ago** – If selected, this additional input is displayed: **Final Interval: X Whole Intervals Ago** where you define before how many whole previous intervals the Actual Period should end (e.g. it should end 3 months ago).
    - **Manual Entry** – If selected, this additional input is displayed: **Final Interval: Manual Entry** where you set the final interval manually by the exact name of the period relevant to the interval size. E.g. "2022-W10", "2021-Q1", "2020-QW3",... The format is:
        - Interval Size = Day YYYY-DXXX (e.g. 2020-D123)
        - Interval Size = Week YYYY-WXX (e.g. 2020-W30)
        - Interval Size = QuadWeek YYYY-QWXX (e.g. 2020-QW3)
        - Interval Size = Month YYYY-MXX (e.g. 2020-M12)
        - Interval Size = Quarter YYYY-QX (e.g. 2020-Q3)
        - Interval Size = Year YXXXX (e.g. Y2020)
- **Include Impact Period** – Allows you to highlight a specific portion of your chart and get detailed information displayed for it under the chart. For details see how to read the results.
    - **Final Impact *[Interval]*** – Defines the end of the Impact Period.
        - If the Interval Size is Day, the default value is the current day.
        - For all other Interval Sizes (Week, QuadWeek, Month, Quarter, Year), the default value is the end of that period.
    - **Length of Impact Period** – Sets the duration in time units selected in **Interval Size**.
- **Currency** – Allows you to choose the currency used in the dashboard. The exchange rate for the selected currency is fetched from the system "ccy" Data Source, the currency symbol is fetched from the "CurrencySymbols" Company Parameter.
- **Generic Filter** – Allows you to set up a generic transaction data filter. For example: display only data from Europe, or Asia.

Period Over Period Dashboard - Analyze Results

This chart shows the difference in a selected measure between two periods. This provides you with data to assess the most recent status of any financial or volume measure and compare its performance to the same time period in the past.

The selected measure is compared using the Actual Period and Prior Period lines (both of the same length); difference between these two is shown using red/green change bars. For further analysis, you can also use Impact Period which provides more details on a selected part of your chart.

The granularity of the periods (days, weeks, months, etc.) is defined in **Interval Size**.

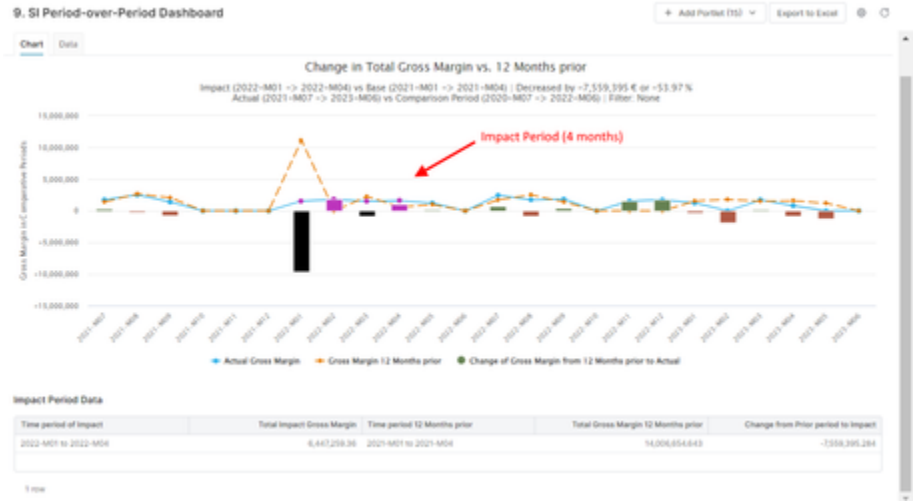


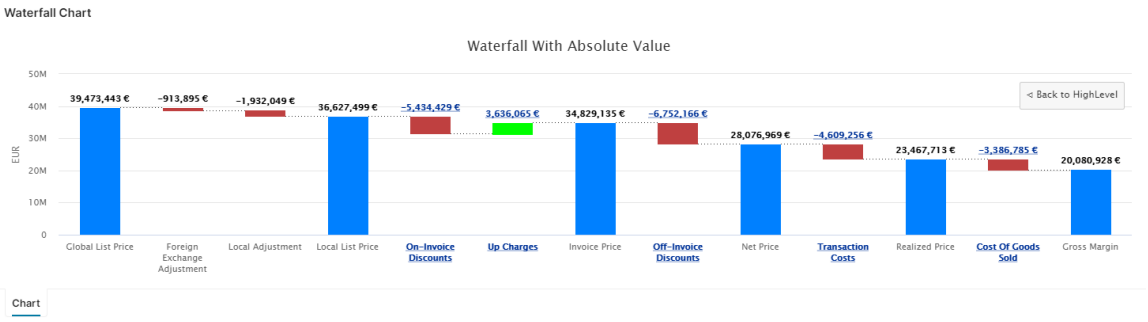
Chart series:

- **Actual Period** (blue solid line) - Typically the most recent period. Its duration is defined using the inputs **Final Interval** and **Number Of Intervals**, as described here.
- **Comparison Period** (orange dashed line) - A period in the past which you want to compare with the Actual Period.
- **Change bars** - Difference between Actual Period and Comparison Period. The bars show the progress of the selected measure:
  - Green if the change for the respective period is positive.
  - Red if the change is negative.
- **Impact Period** - Represents a portion of the Actual Period for which you get detailed data. Using Impact Period is helpful for further analysis of a specified part of the chart without having to leave this screen. Once the Impact Period is defined, you get:

- Additional chart subtitle with a calculated impact value.
- Summary table with Impact Period data under the chart.
- Different colors of the change bars for the whole Impact Period:
  - Purple if the change for the respective period is positive (instead of green).
  - Black if the change is negative (instead of red).

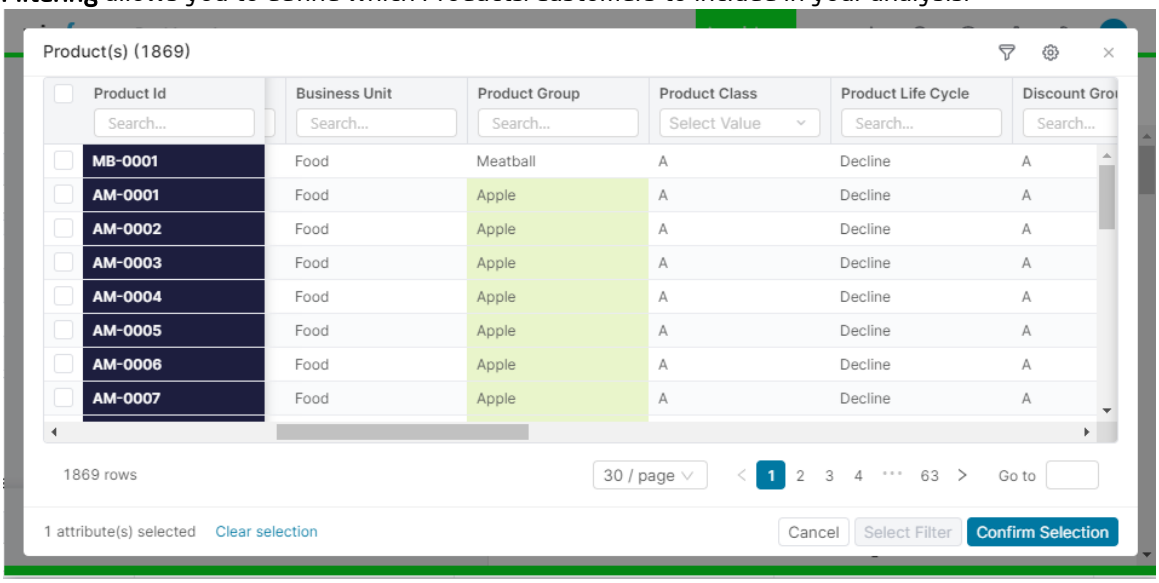
Admin User Reference (Sales Insights)

Mandatory Data (Sales Insights)

Type	Data	Fields	Use Case
Transaction Data	Sales Data (Transactions Datamart) • Pricing Date (Date) – Can be mapped "PricingDate", "valid	Unique Id (String) Product Id (String) Customer Id (String) – mandatory if Customer Master is deployed	You can add additional fields for your waterfall definition – any field that follows your pricing journey starting from the list price and ending at the pocket price.  You can have different price points as well as adjustments. Typically you have items such as (**bold** = price points, adjustments in between): • **List Price** • Local Adjustments • **Local List Price** • On-Invoice Discounts • **Invoice Price** • Off-Invoice Discounts • **Net Price** • Transaction Cost • Cost • **Gross Margin** Other optional data (mandatory for specific dashboards): • Period Over Period dashboard: • List Price • Net Price • Regional Revenue and Margin dashboard: • Continent • Country

- City / Region

from, "BillingDate" or any other field that in the customer's context represents the date that you want to see that transaction recognized. This date is used for filtering /grouping operations.
- Invoice Price (Money /Number)
- Gross Margin (Money /Number)
- Quantity (Qua

	ntity /Number) Optional: • Currency (you need filled *Ccy* Data mart when using currency) • UoM • Additional waterfall fields	
Master Data	Product • Product ID • Product Name • Up to 30 custom attributes	The Product / Customer Master data is used in two scenarios: Filtering and Dimensions. **Filtering** allows you to define which Products/Customers to include in your analysis.  Typically you may want to include the following fields: **Product**: • Product Hierarchy • Product Group • Brand • Product performance markers: • Product Class • Competitive/Captive
	Customer • Customer ID • Customer Name • Up to 30 custom attributes	

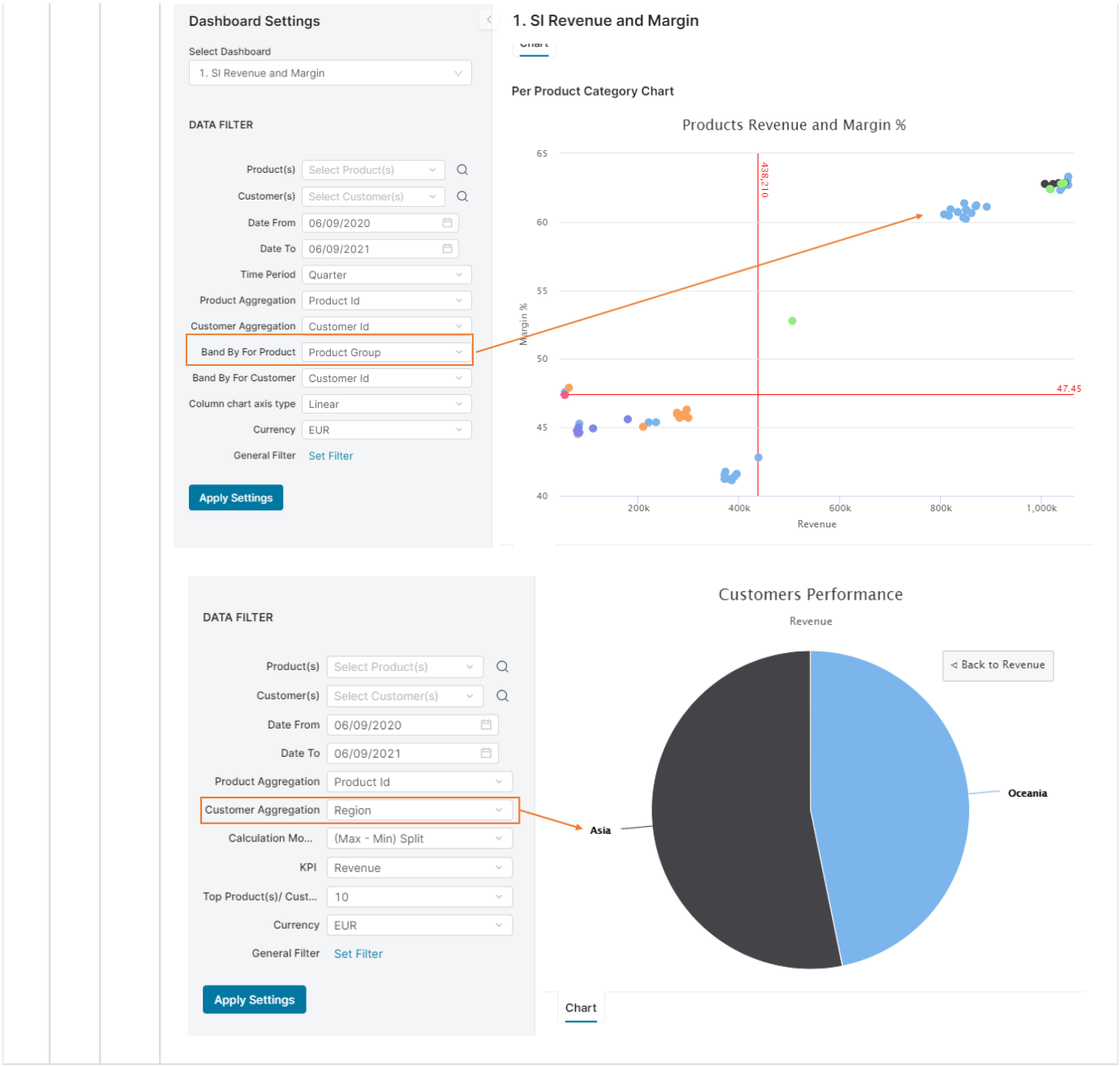
- Product Lifecycle
- Basic/Premium Products

Customer:

- Regional Data / Org Data
- Country
- Region
- Sales Office
- Sales Org
- Customer performance markers:
- Loyalty
- Size/Classification

Dimensions. In this use case you define Product/Customer aggregation to view your portfolios from different angles.

You can find this aggregation in chart types such as Pie charts (in definition of the “pieces”) or Scatter charts (Band by option).



Whatever mapping you choose initially, you can later change in Advanced Configuration Options in SIP_AdvancedConfiguration. Sales Insights Package does not pre-aggregate any data, so the change has an instant effect on the dashboards.

Installation (Sales Insights)

This tutorial will guide you through the installation of the Sales Insights Accelerator.

Prerequisites

- Common prerequisites for all accelerators
- Specific prerequisites

- License on the partition must cover the Analytics and Dashboards modules
- Transaction data in the Datamart structure with **required fields**. For details see Mandatory Data (Sales Insights).
- Optional Transaction data (mandatory for specific dashboards, such as Period Over Period or Regional Revenue and Margin). For details see Mandatory Data (Sales Insights).
- For additional waterfall fields see Waterfall Dashboard - Advanced Configuration.

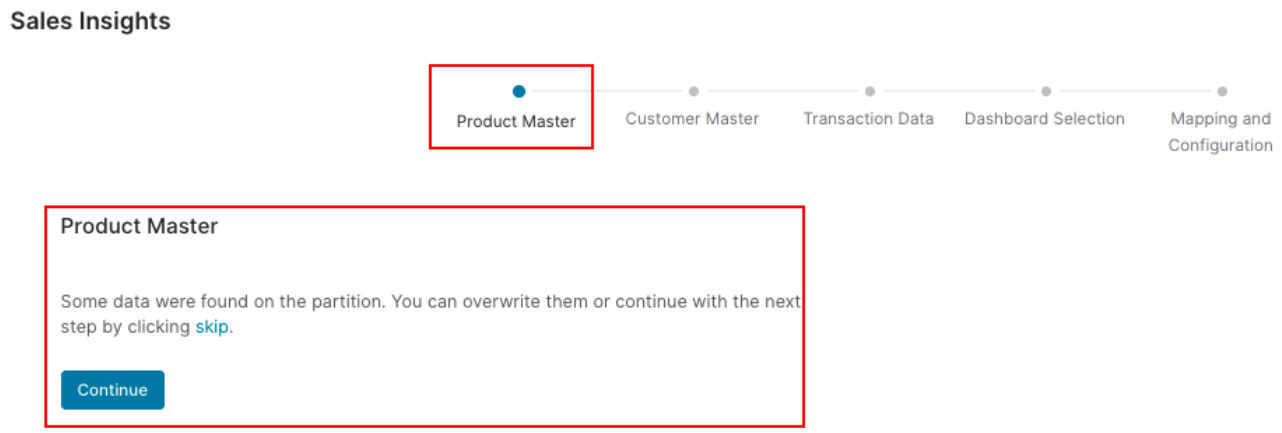
Installation Steps

Select Partition for Deployment

1. Go to PlatformManager at https://platform.pricefx.com/ and log in.
2. Go to **Marketplace** and find the *Sales Insights* package.
   Note: There are three types of packages:
   - Sales Insights – full package
   - Sales Insights Dashboards – dashboards package, it skips data upload steps, there is no data mapping
   - Sales Insights Upgrade – upgrade package of any Sales Insights package
3. Click the package tile, select the partition where you want to deploy the accelerator package and confirm the deployment dialog to start.
   For detailed description of all deployment options, see PlatformManager documentation.

Go Through Deployment Steps

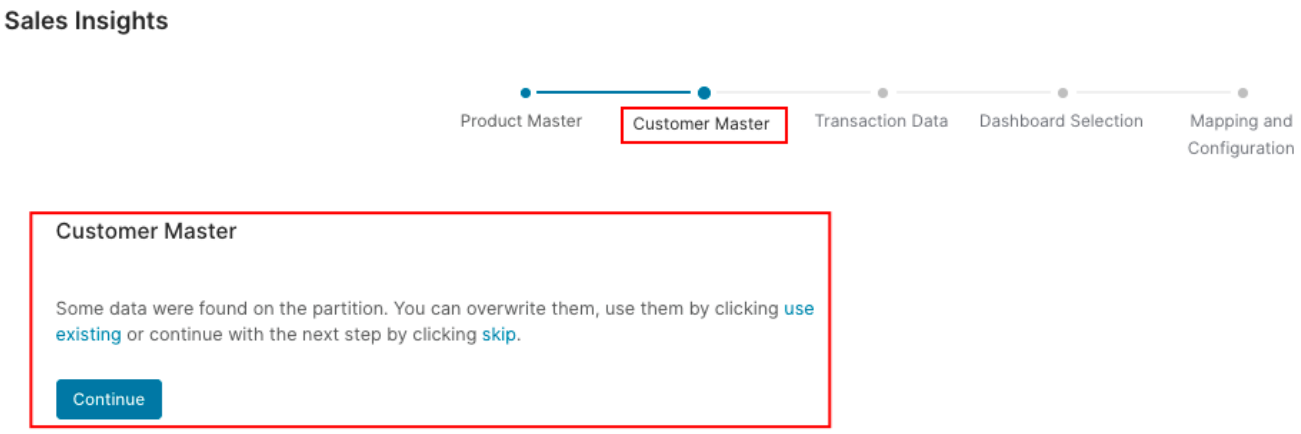
1. Product Master Step



You have these options:

- **Continue** – Click this button if you want to upload your product data.
- **Skip** – Click this link if you want to use the existing product data on the partition.

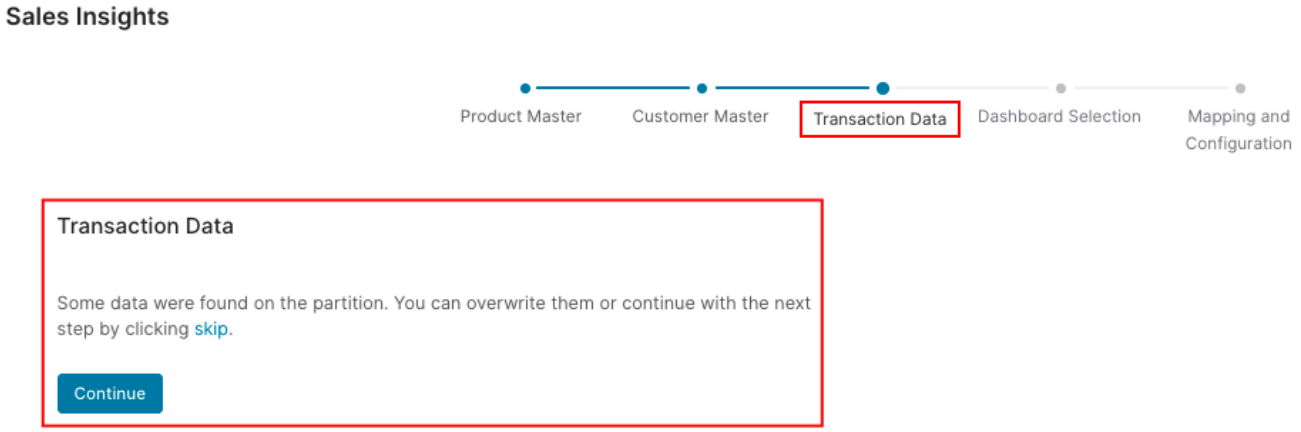
2. Customer Master Step



You have these options:

- **Use Existing** - Click this link if you want to use the existing customer data on the partition.
- **Skip** - Click this link if you do not want to use the customer data. Then there is only the Product(s) input used and displayed after the deployment, there is no Customer(s) input filter.
- **Continue** - Click this button if you want to upload your customer data.

3. Transaction Data Step

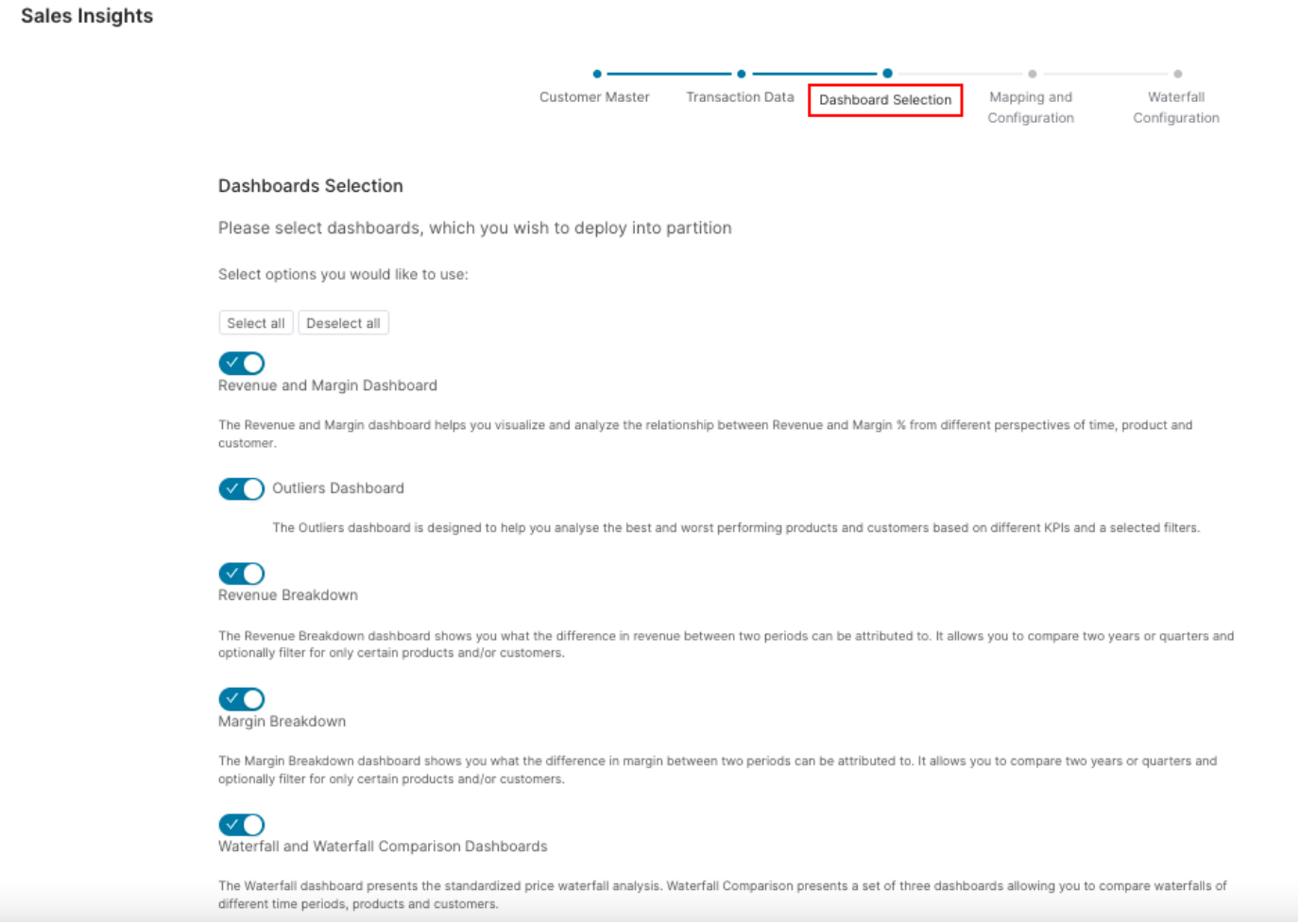


You have these options:

- **Continue** - Click this button if you want to upload your transaction data.
- **Skip** - Click this link if you want to use the existing transaction data on the partition.

4. Dashboard Selection Step

Select which dashboards you want to deploy into the partition.

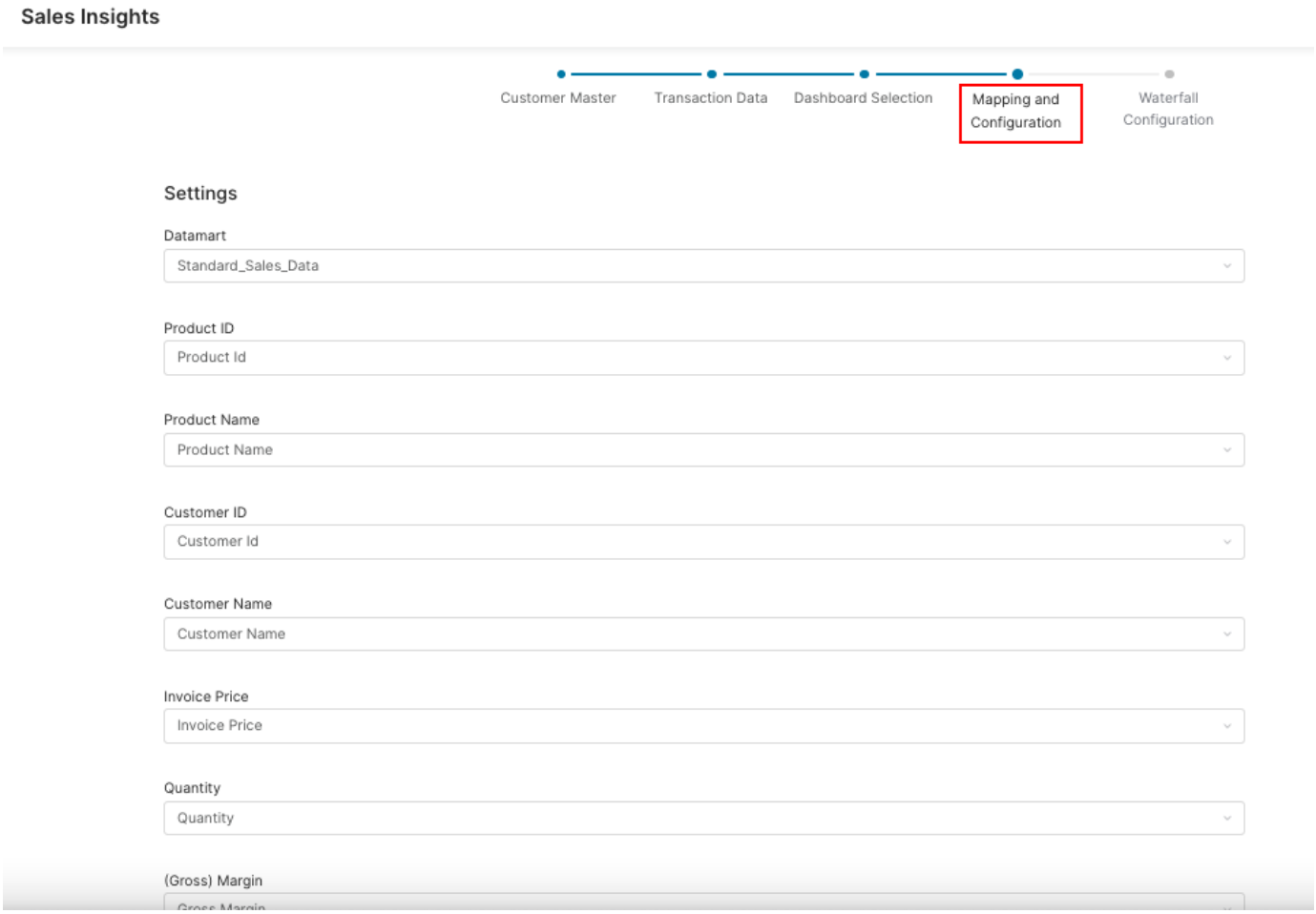


5. Mapping and Configuration Step

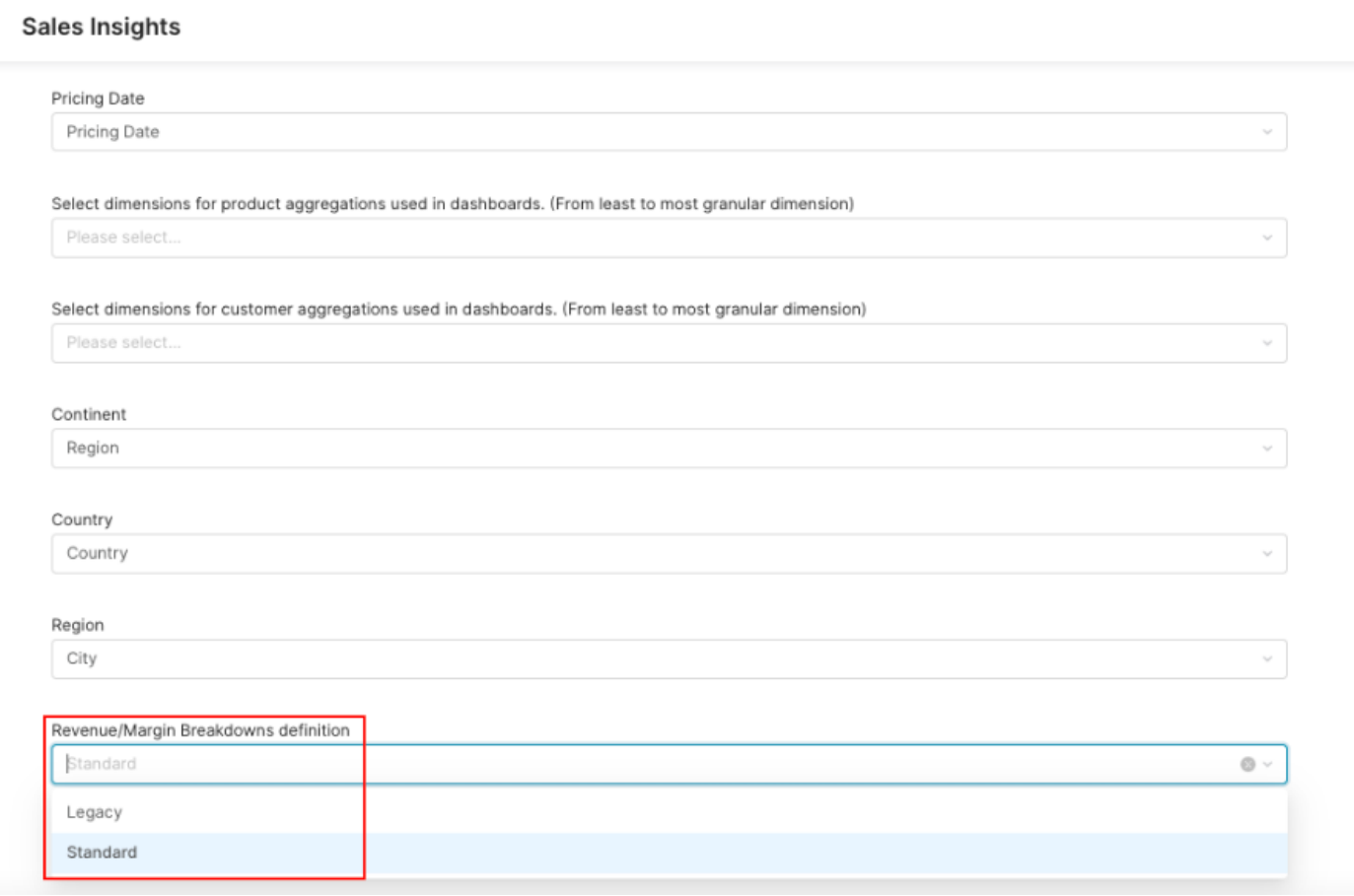
The Sales Insights Dashboard requires certain data fields available in the Datamart. In this step you will select which fields of your Datamart contain certain specific pieces of data, e.g. product ID, customer ID, invoice price, etc. required by the dashboards.

Some of the data values are required, some of them are optional, and some are used only in specific dashboards.

In case you skipped the Customer Master step, please **do not map the Customer ID and Customer Name field** in this step. You also should have the Region, Country, City field in your Datamart if you want to use the Regional Revenue and Margin dashboard.



Revenue/Margin Breakdowns Definition



The Revenue/Margin Breakdowns definition field has been introduced in version 1.7.0. It identifies the formulas which are used to calculate the effect in breakdowns.

There are two options in the dropdown:

- **Legacy** - The previous formulas might be used for older versions or existing customers who still want to use it. The formula definitions can be found in the archived documentation of the previous versions (version 1.6.1 - chapter Revenue Breakdown Dashboard > Fields Definition, Margin Breakdown Dashboard > Fields Definition).
- **Standard** (default) - The current and enhanced formulas used by default.
  For more details see:
  - Revenue Breakdown Dashboard - Fields Definition
  - Margin Breakdown Dashboard - Fields Definition

The settings are stored in **Configuration** > **System Configuration** > **Advanced Configuration Options**, under the option ***SIP_AdvancedConfiguration*** with the name "breakdownMode" and can be updated manually after the deployment.

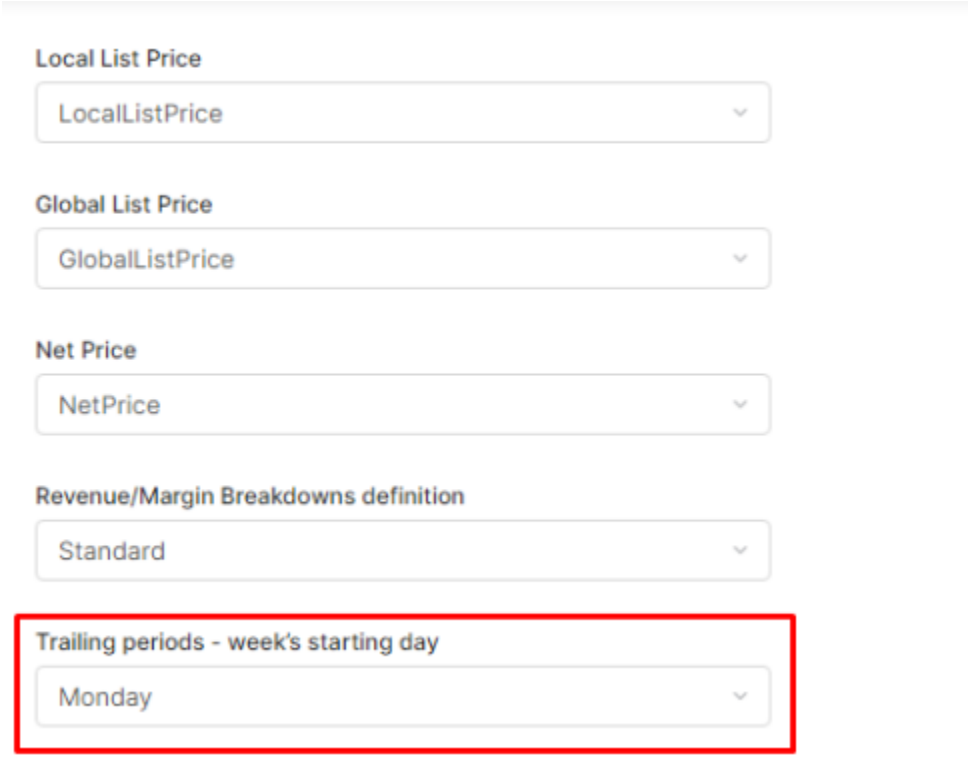
Sample of *SIP_AdvancedConfiguration*:

```
{
    "datamartName": "Standard_Sales_Data",
    "productId": "ProductId",
    "productName": "ProductName",
```

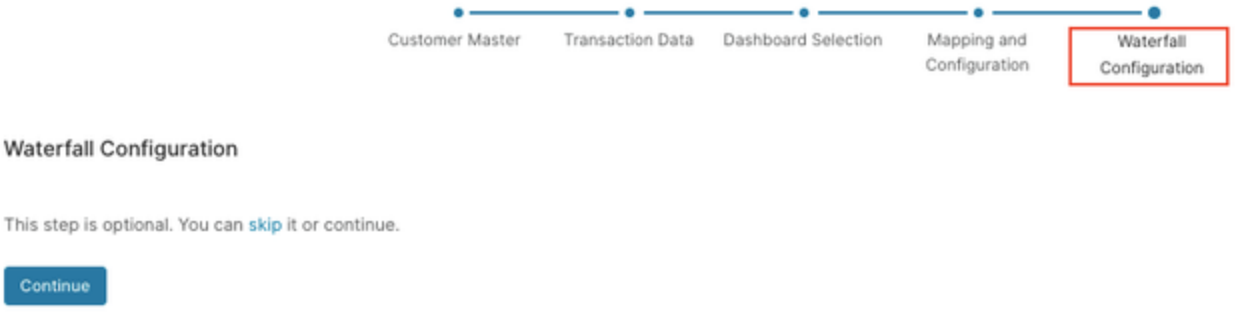
```
    "productGroup": "ProductGroup",
    "customerId": "customerId",
    "customerName": "CustomerName",
    "invoicePrice": "InvoicePrice",
    "quantity": "Quantity",
    "pricingDate": "PricingDate",
    "pricingDateYear": "PricingDateYear",
    "grossMargin": "GrossMargin",
    "continent": "Region",
    "country": "Country",
    "region": "City",
    "sector": "",
    "costs": "OtherCOGS",
    "productDimensions": ["ProductId", "ProductClass", "ProductGroup"],
    "customerDimensions": ["CustomerId", "Country", "Region",
"CustomerClass"],
    "breakdownMode": "Standard"
}
```

Period Over Period Dashboard Definition

The Period Over Period Dashboard uses calendar units (periods) based on a week definition. The starting day of a week can be configured by providing a value for the "Trailing periods - week's starting day" input (default is Sunday).



6. Waterfall Configuration Step (Optional)



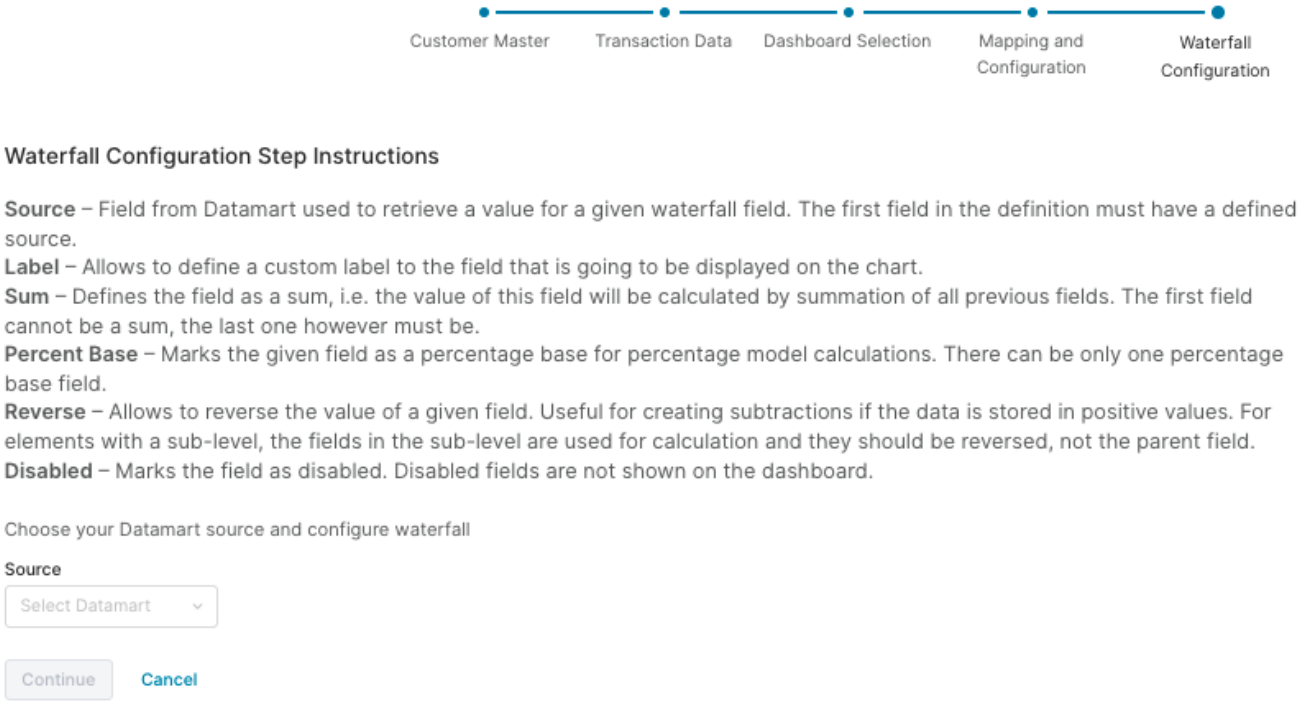
You have these options:

- **Continue** - Click this button if you want to map the waterfall configuration.
- **Skip** - Click this link if you do not want to map the waterfall configuration. In this case, the Waterfall and Comparison Waterfall dashboard will show no data after the deployment.

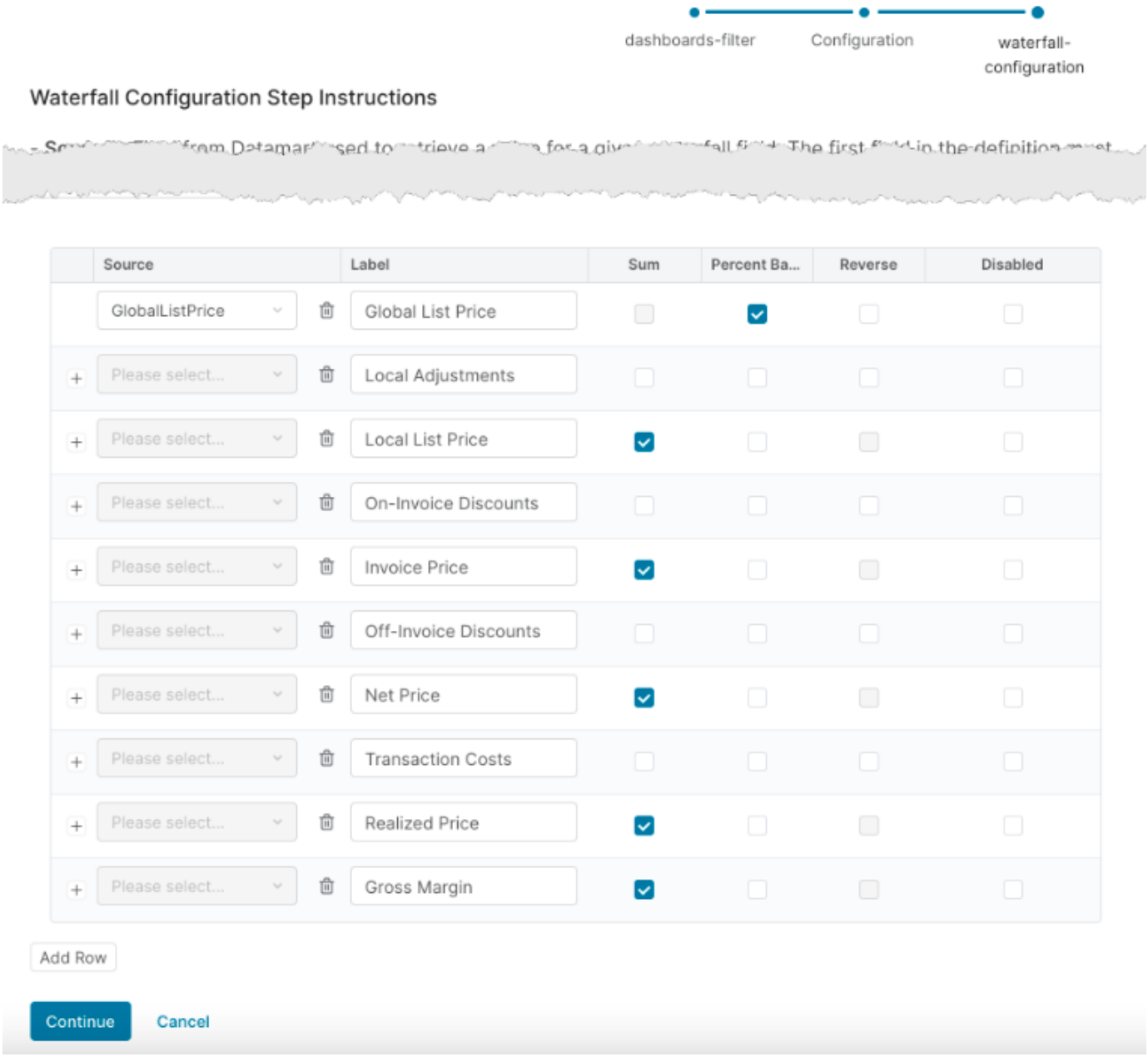
To map the waterfall configuration:

a. Click **Continue** to configure the price waterfall elements to be used in the Waterfall dashboard.

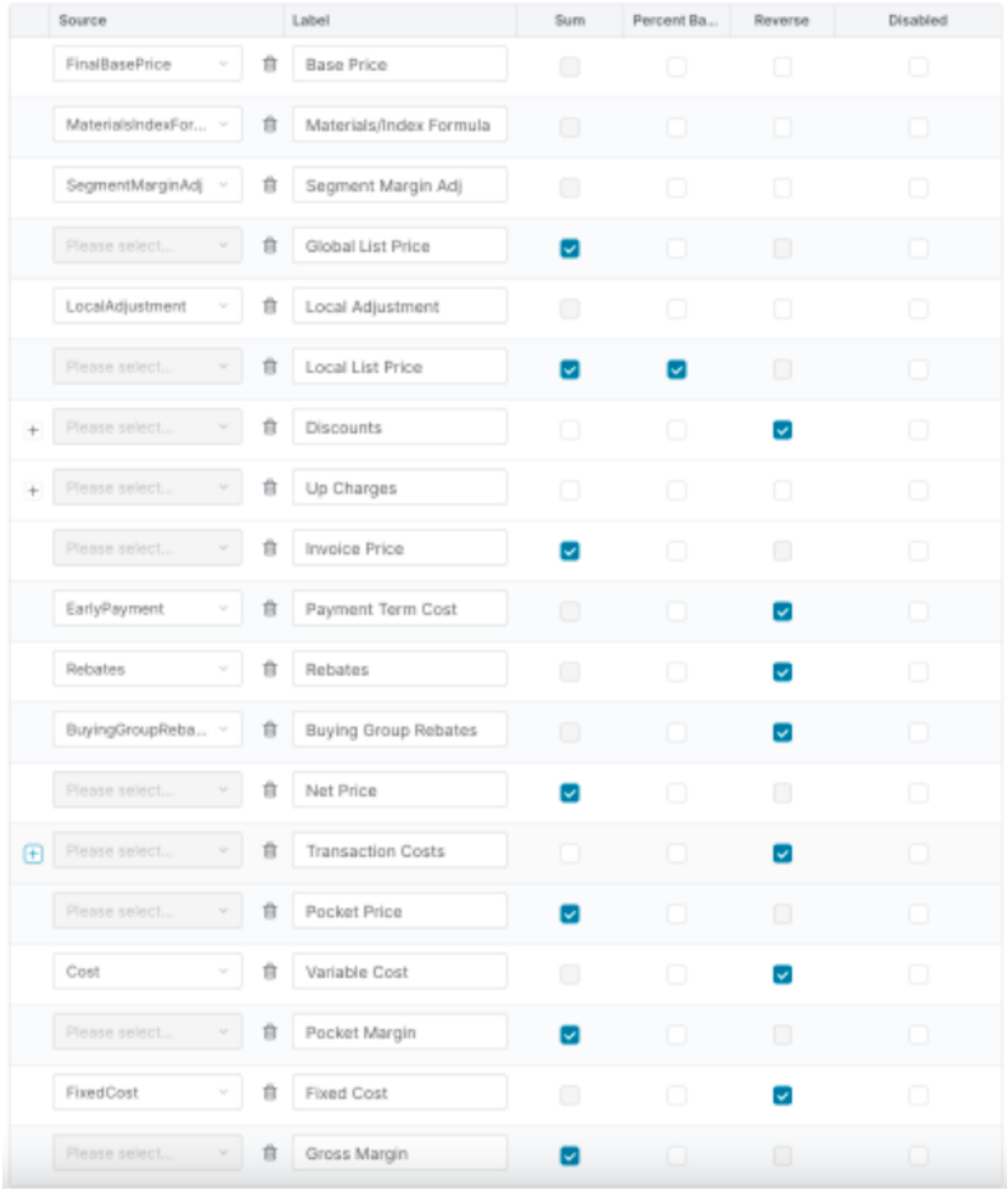
b. Select the Datamart to be used for the Waterfall dashboard.



c. Once you selected the Datamart, the fields will appear. They are automatically pre-populated to guide you. Review the sample waterfall configuration, review your Datamart fields, and then continue with the next step.



d. Set up the waterfall chart elements according to your Datamart fields.



Note:

- The value of the first price point element comes from a Datamart field, whereas the next price points (marked with *Sum*) are only virtual.
- We marked one price point as *Percent Basis*, so if the user would like to see the waterfall chart in percentage scale (instead of money), such a price point will be 100% and all other waterfall elements will be proportional to that price point.
- We marked some adjustments as *Reverse* because their value stored in the Datamart is positive, but they should appear as negative adjustments.
- We placed some adjustments into groups (they have the "plus" sign on the left), so that the user can collapse and expand them.

If you want to update/change the mapping, you can do it manually in **Configuration** > **System Configuration** > **Advanced Configuration Options**, under the option ***waterfall-configuration***.

Sample of *waterfall-configuration*:

```
{
    "waterfall-configuration": {
        "dataMart": "Standard_Sales_Data",
        "fields": [{
                "name": "GlobalListPrice",
                "label": "Global List Price",
                "isSum": false,
                "isPercentBase": true,
                "disabled": false,
                "isSubtract": false
            }, {
                "name": null,
                "label": "Local Adjustments",
                "isSum": false,
                "isPercentBase": false,
                "disabled": false,
                "isSubtract": false,
                "subLevel": [{
                        "name": "ForeignExchangeAdjustment",
                        "label": "Foreign Exchange Adjustment",
                        "disabled": false,
                        "isSubtract": true
                    }, {
                        "name": "LocalAdjustment",
                        "label": "Local Adjustment",
                        "disabled": false,
                        "isSubtract": true
                    }
                ]
            }, {
                "name": null,
                "label": "Local List Price",
                "isSum": true,
                "isPercentBase": false,
                "disabled": false,
                "isSubtract": false
            }, {
                "name": null,
                "label": "On-Invoice Discounts",
```

e. Once all waterfall chart elements are defined, click **Continue**. This process takes around a minute to finish.

Upgrade

It is possible to upgrade only used logics without making any changes to the configuration.

In PlatformManager, navigate to Marketplace, and find the Sales Insights Dashboards package with the tag *Upgrade*.

Once you deploy it, only logics are deployed, the configuration remains without changes.

Technical User Reference (Sales Insights)

Dashboards Configuration (Sales Insights)

Revenue and Margin Dashboard - Details on Configuration

Revenue and Margin Dashboard - Used Company Parameters

Company Parameter: PFXTemplate_DB_RevenueAndMargin

Name	Value	Description
bucketStartPercent	0-1, e.g. 0.2	Defines the starting percentage for the buckets in the Contribution charts.
bucketEndPercent	0-1, e.g. 0.8	Defines the ending percentage for the buckets in the Contribution charts.
numberOfBuckets	any Integer, e.g. 10	Defines the number of buckets in the Contribution charts. The values displayed on each bucket will depend on start/end values.

histogram Bins	any Integer, e. g. 10	Number of bins displayed in the Pareto charts.
scatterPlo tPercent	0-1, e.g. 0.1	Defines the percentage at which the revenue/margin plot lines will be displayed on the Revenue and Margin % charts.

Revenue and Margin Dashboard - Field Calculation

- Revenue = SUM(revenue)
- Margin = SUM(grossMargin)
- Margin % = SUM(grossMargin) / SUM(revenue) * 100

There are some default filters put on various fields to ensure proper calculations. These are:

- Only entries with **not null grossMargin** are considered.
- Only entries with **not null invoicePrice** are considered.

Revenue and Margin Dashboard - Data Requirements

Before deploying this package, it is possible to modify some parameters of this dashboard to adapt to an existing Datamart. The following fields are used for the setup:

Field Name	Description	Required
Datamart	Datamart used in the analysis	Yes
Product Id	Product Id field in the transactional data	Yes
Customer Id	Customer Id field in the transactional data	No
Invoice Price	Field representing revenue in the transactional data	Yes
Gross Margin	Field representing margin in the transactional data	Yes
Pricing Date	Field representing date of the transaction in the transactional data. See	Yes
Product Name	Product name field in the data	No
Customer Name	Customer name field in the data	No

For more details see Mandatory Data (Sales Insights).

Regional Revenue and Margin Dashboard - Details on Configuration

- Regional Revenue and Margin Dashboard - Supported Map Types
- Regional Revenue and Margin Dashboard - Fields Definition
- Regional Revenue and Margin Dashboard - Used Advanced Configuration Fields
- Regional Revenue and Margin Dashboard - Used Company Parameters
- Regional Revenue and Margin Dashboard - Data Requirements and Deployment

Regional Revenue and Margin Dashboard - Supported Map Types

World

- World Continents

Continents

- Europe
- North America
- Asia
- Oceania
- Africa
- South America

Countries

All the countries listed under the Countries heading on the Map Collection page are supported with the exception of countries that have more than one map – in this case only the primary map is supported (e.g., 'Burundi' is supported but 'Burundi, admin2' is not).

For more details see How to Add a Map to Dashboard.

Regional Revenue and Margin Dashboard - Fields Definition

Fields displayed on the dashboard are calculated in the following manner (using the Advanced Configuration field notation):

- Revenue = SUM(revenue)
- Margin = SUM(grossMargin)
- Quantity = SUM(quantity)
- Margin % = SUM(grossMargin) / SUM(revenue) * 100
- Deviation WAP = (item revenue / item quantity) - (total revenue / total quantity)
- Revenue per Customer = (item revenue) / (number of customers in a given area)
- Margin per Customer = (item grossMargin) / (number of customers in a given area)
- Revenue per *X* People = X * (item revenue) / (population in given area)
- Margin per X People = X * (item grossMargin) / (population in given area)

By default X is set to 1000.

The following default filters are put on various fields to ensure proper calculations:

- Only entries with **not null grossMargin** are considered.
- Only entries with **not null invoicePrice** are considered.
- Only entries with **not null quantity** are considered.
- Only entries with **not null continent** are considered (if applicable).
- Only entries with **not null country** are considered (if applicable).
- Only entries with **not null region** are considered (if applicable).

Regional Revenue and Margin Dashboard - Used Advanced Configuration Fields

Regional Revenue and Margin Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId

- customerId (optional)
- continent
- country
- region
- grossMargin
- quantity
- invoicePrice

Regional Revenue and Margin Dashboard - Used Company Parameters

Configuration Company Parameters

SIP_MapHierarchyConfig

This CP allows you to define which hierarchy levels are used in the dashboard. This can be useful when users do not have data for the Country level but they do for Continents.

This CP table also controls which inputs will be available on the dashboard configurator.

The hierarchy of the configuration needs to be kept: World Continent Country Region

So you cannot use Regions if you do not have data for Continents/Countries. Each lower hierarchy level needs to have all the higher levels enabled. This also means that in order to use the World level, you need to have the Continent data in the DM.

SIP_MapHierarchyConfig		
Column name	Label	Is Used
Value	• World • Continent • Country • Region	Yes/No
Description	Describes which hierarchy level is being configured. These values should not be edited.	Enables or disables the given configurator entry.

SIP_MapCodeOverrides

This CP allows to map Datamart data to ISO codes, if it is not already in that form. This can be useful for users who do not store regional information in the ISO code format.

Additionally this CP allows you to set up custom display labels for entries. If the "User Display Label" is not set, the default label will be used. For example, it is possible to override the default label "United States of America" to "USA".

⚠️ Keep in mind that by default the Highmaps defined values of hierarchy level names are used. If any User Display Label is defined, all entries need to have the User Display Label defined.

SIP_MapCodeOverrides				
Column name	Hierarchy Level	ISO Code	User DM Field	User Display Label
Value				

	• Continent • Country • Region	{ISO code of the entry on the selected hierarchy level} For regions use the ISO 3166-2 codes	{DM field representing the entry marked with ISO Code in user data}	{custom user label for the entry to be displayed on the chart}
Description	For example: Country	For example: US or US-NY	For example: USA	For example: USA

SIP_GeoOverrides

This CP allows to move country entries between continents. This can be useful if e.g. users have data for a country in different continent data. For example, users use the EMEA business region which leads to Oman being included in the EU data, but since it is not on the map it cannot be displayed. Users can then set the GeoOverride for Oman to be displayed in the Asia data set.

ℹ The country ISO code needs to be in the set of ISO codes for the given continent in order to be properly displayed on the continent level.

⚠ GeoOverrides work only on the country level: only countries can be moved between continents. Regions cannot be moved.

If a country is moved to a continent it does not belong to, its data will be displayed on a the world level but not on the continent level.

SIP_GeoOverrides			
Column name	ISO Code	Parent ISO Code	Override ISO Code
Value	{ISO code of country to be moved}	{ISO code of the continent entry for the given country}	{ISO code of the continent for the country to be moved to}
Description	For example: OM	For example: EU For the case described above, there would also need to be EMEA EU mapping done in SIP_MapCodeOverrides.	For example: AS

Data Company Parameters

SIP_Population					
Column name	Continent	Country	Region	Sector	Population
Values	{2 letter ISO code of a continent}	{2 letter ISO code of a country}	{ISO code of a region}	{Code of a sector}	{given entry populatio n}
Description			The default value is "*" (= none region specified for a given continent/country combination).	The default value is "*" (= none sector specified for given continent	

			Each region needs its own population specified in order to work properly. For regions use the ISO 3166-2 codes.	/country/region combination) Note: Currently no Region maps are supported as stated at the Supported Maps page, the support will be added on demand. This field is prepared for future use.	

Regional Revenue and Margin Dashboard - Data Requirements and Deployment

Before deploying this package, it is possible to modify some parameters of this dashboard to adapt to an existing Datamart. The following fields are used for the setup:

Field Name	Description	Required	Note
Datamart	Datamart used in the analysis	Yes	
Product Id	Product field in the transactional data	Yes	
Customer Id	Customer field in the transactional data	No	
Invoice Price	Field representing revenue in the transactional data	Yes	
Gross Margin	Field representing margin in the transactional data	Yes	
Pricing Date	Field representing date of the transaction in the transactional data	Yes	
Quantity	Field representing quantity in the transactional data	Yes	
Continent	Field representing continent in the transactional data	Yes	Required to display the world map.
Country	Field representing country in the transactional data	No	Required to display the country map on a given continent.
Region	Field representing region in the transactional data	No	Required to display the region map on a given country.

For more details see Mandatory Data (Sales Insights).

Outliers Dashboard - Details on Configuration

- Outliers Dashboard - Calculation Models
- Outliers Dashboard - Used Advanced Configuration Fields

- Outliers Dashboard - Used Company Parameters

Outliers Dashboard - Calculation Models

The current implementation provides three calculation models. These models differ in how items are distributed to buckets.

Buckets

There are always 4 buckets: High, Medium, Low, Negative. The threshold calculations assign each item to a proper bucket based on the selected KPI value.

The following rules apply for all models when placing an item into one of these 4 buckets. Each item whose running total KPI value is:

- negative – gets assigned to the Negative bucket.
- below the Low threshold – gets assigned to the Low bucket.
- above the High threshold – gets assigned to the High bucket.
- in neither of previous buckets – gets assigned to the Medium bucket.

The manipulation happens automatically: the value is calculated, each item is put into a bucket based on the selected calculation model. The only control the user has over the buckets are the Company Parameters thresholds where to put what. The "value of the bucket" (which is hidden from the user, but is used for display purposes) is calculated as "the average number of all items present plus the number of items assigned to a given bucket". This ensures that the biggest slice will always be the one with the highest number of items inside.

Models

(Max - Min) Split Model

Allowed KPI values:

- Revenue (selected by default)
- Revenue Contribution %
- Margin
- Margin %
- Margin Contribution %

Thresholds are calculated in the following manner:

- High = MAX(KPI) - ((MAX(KPI) - MIN(KPI)) / 3)
- Low = MIN(KPI) + ((MAX(KPI) - MIN(KPI)) / 3)

Split Equally Model

Allowed KPI values:

- Revenue (selected by default)
- Margin

This model uses the running total for bucket assignment. All items are sorted descending depending on the selected KPI. A running total is calculated along with each item assignment.

Thresholds are calculated in the following manner:

- High = SUM(KPI) / 3

- Low = SUM(KPI) / 3 * 2

Contribution Model

Allowed KPI values:

- Revenue Contribution % (selected by default)
- Margin Contribution %

This model also uses the running total for bucket assignment. Again, all items are sorted descending depending on the selected KPI. A running total is calculated along with each item assignment.

Thresholds are fetched from the OutliersContributionModelThresholds Company Parameter.

Default Filters

There are some default filters put on various fields to ensure proper calculations. These are:

- Only entries with **not null grossMargin** are considered.
- Only entries with **not null invoicePrice** are considered.
- Only entries with **not null quantity** are considered.
- Only entries with **SUM(invoicePrice) > 0** are considered.
- Only entries with **SUM(quantity) > 0** are considered.

Outliers Dashboard - Used Advanced Configuration Fields

Outliers Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- productName
- customerId (optional)
- customerName (optional)
- grossMargin
- quantity
- invoicePrice
- productDimensions
- customerDimensions (optional)

Outliers Dashboard - Used Company Parameters

Company Parameter: OutliersContributionModelThresholds

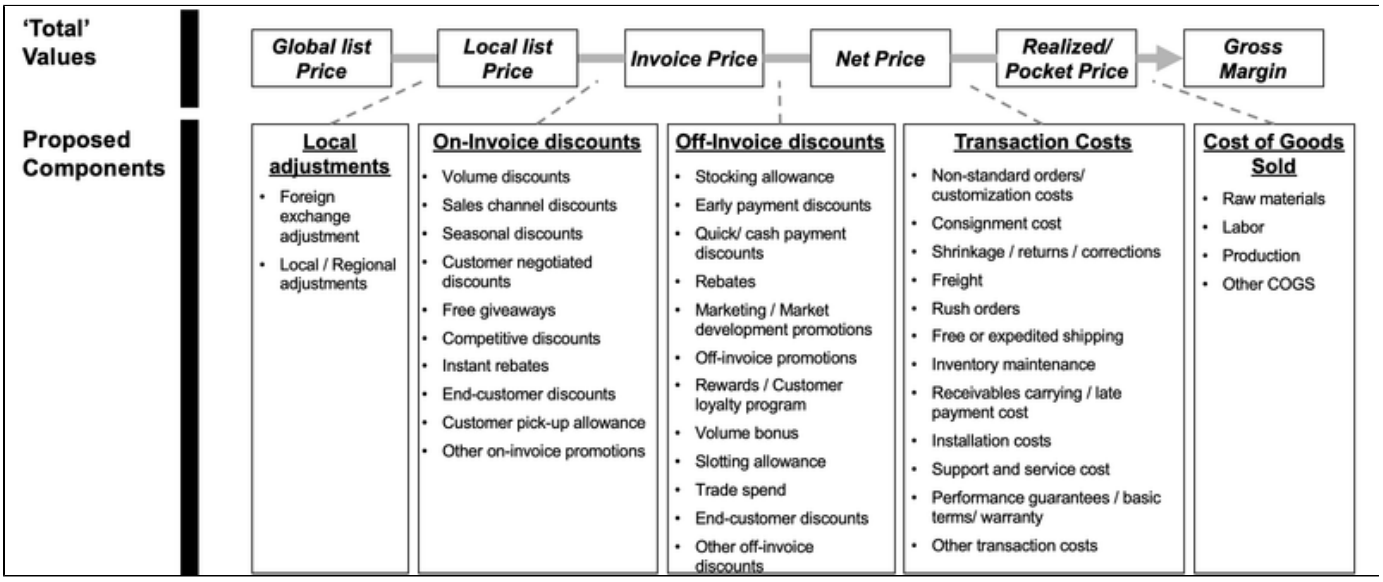
Column name	Name	Value
Values	{High/Low}	{Percentage value}
Description	Determines which threshold bracket for the calculation to define.	E.g. 30, 60

Waterfall Dashboard - Details on Configuration

- Waterfall Dashboard - Fields Definition

- Waterfall Dashboard - Field Calculation
- Waterfall Dashboard - Advanced Configuration
- Waterfall Dashboard Configuration during Deployment

Waterfall Dashboard - Fields Definition



Total Value	Component	Description
Local adjustments	Foreign exchange adjustment	Adjustments due to exchange/currency issues
	Local/Regional adjustments	Adjustments for local costs (e.g. tariffs), regional customer preferences and market competitiveness
Volume discounts	Volume discounts	Discounts for bulk purchases
	Sales channel discounts	Discounts for a specific sales channel
	Seasonal discounts	Discounts for seasonal sales objectives (e.g. reduce inventory)
	Customer negotiated discounts	Customized discounts negotiated with the customer
	Free giveaways	Free services or products given to customer with a purchase and shown on the invoice
	Competitive discounts	Discretionary discounts negotiated before the order is taken based on competitors' prices
	Instant rebates	Rebates given before the invoice price
	End-customer discounts	Discounts for end-customer rather than retailer or distributor (typically large end-customers)

	Customer pick-up allowance	Allowance paid for customers who pick up the goods by themselves
	Other on-invoice promotions	Others
Stocking allowance	**Stocking allowance**	Discounts paid to wholesalers/retailers to make large purchases into inventory (often before seasonal demand increase)
	Early payment discounts	Negotiated discounts or deduction from the invoice if the payment is made early
	Quick/cash payment discounts	Deduction from the invoice price if payment is made quickly
	Rebates	Refunds given for purchasing at certain times, early orders or for selling a product to a specific customer
	Marketing/Market development promotions	Allowance paid to support advertising of manufacturer's brand or to promote sales in a specific market segment or during a promotional time period
	Rewards/Customer loyalty program	Redeem points for gifts or receive one-time promotions for those in loyalty programs; long-term agreements
	Volume bonus	End-of-year bonus paid to customers if the preset purchase volume targets are met
	Slotting allowance	Allowance paid to retailer to secure the set amount of shelf space and product positioning
	Trade spend	Allowance for retailer to discounts from MSRP (manufacturer's suggested retail price)
	End-customer discounts	Discounts for end-customer rather than retailer or distributor, types of pass-through
	Other off invoice discounts	Others
Non-standard orders / customization costs	**Non-standard orders / customization costs**	Costs associated with manufacturing and delivering a non-standard or customized order
	Consignment cost	Cost of funds when the supplier provides consigned inventory to a retailer or wholesaler
	Shrinkage / returns / corrections	Cost of defective or damaged products
	Freight	Cost of transporting goods to customer

	Rush orders	Higher costs associated with filing and transporting orders more quickly
	Free or expedited shipping	Higher costs of transporting goods to a specific customer
	Inventory maintenance	Cost to hold goods in inventory
	Receivables carrying / late payment cost	Cost of funds from the moment the invoice is sent until the payment is received; cost of delayed payments
	Installation costs	Cost of installing products, including transportation and labor costs
	Support and service cost	Cost of maintenance, general customer services, dedicated services, additional support, etc.
	Performance guarantees / basic terms/ warranty	Discounts that seller agrees to give buyers if the seller misses performance targets (e.g. quality levels, delivery times, price protects)
	Other transaction costs	Others
Raw materials	**Raw materials**	Cost of materials used to manufacture the product
	Labor	Wages for employees directly involved in manufacturing the product
	Production	Cost to manufacture the product
	Other COGS	Others

Waterfall Dashboard - Field Calculation

Each field value defined in the Advanced Configuration "waterfall-configuration" retrieved by querying its SUM from the Datamart.

The exceptions are fields marked as isSum - these are calculated based on previous field values.

For additional information about the configuration, see Waterfall Dashboard Configuration during Deployment.

Waterfall Dashboard - Advanced Configuration

waterfall-configuration							
Field name	name	label	isSum	isPercentBase	disabled	isSubtract	subLevel
Values	{name of the field from transactions DM}	{custom label for the field to be	{true/false}	{true/false}	{true/false}	{true/false}	{list of elements that are used for drilldown under this field}

		displayed on the dashboard}					
Description	Defines which transaction DM fields will be displayed in the waterfall dashboard. The names have to match exactly those from the DM.	Allows the user to set up a custom displayed value. For example: DM field Sales_Value_5 can be renamed to InvoicePrice.	Determines whether a given element should display the total sum across the entire series. Defaults to false. ⚠ The first entry is marked as **isSum = "No"**. ⚠ The last entry is marked as **isSum = "Yes"**.	Defines the base for percentage calculations. Only the first field marked with "Yes" will be taken into account. Defaults to false.	Determines whether a given field should no longer be displayed. Defaults to false.	Determines whether the value of the given field should be reversed. Defaults to false. ⚠ The values defined as isSubtract have their value multiplied by -1.	Defines the drilldown structure for a given field. The field definition follows the same structure as the parent element (without the isPercentBase column)

Field with both isSum and isSubtract set as "false" or left empty will display as a gain. Gains are displayed in green in the dashboard, losses in red.

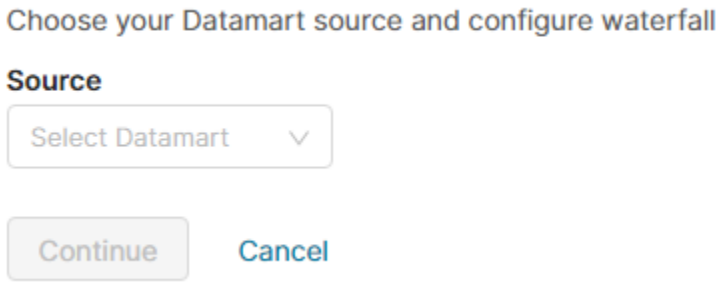
Waterfall Dashboard Configuration during Deployment

When installing the Sales Insight Accelerator from PlatformManager Marketplace, these are the specifics for the Waterfall dashboard.

- Datamart Selection
- Preloaded Template
- Waterfall Definition Glossary
- Form Controls
- Configuration Deployment

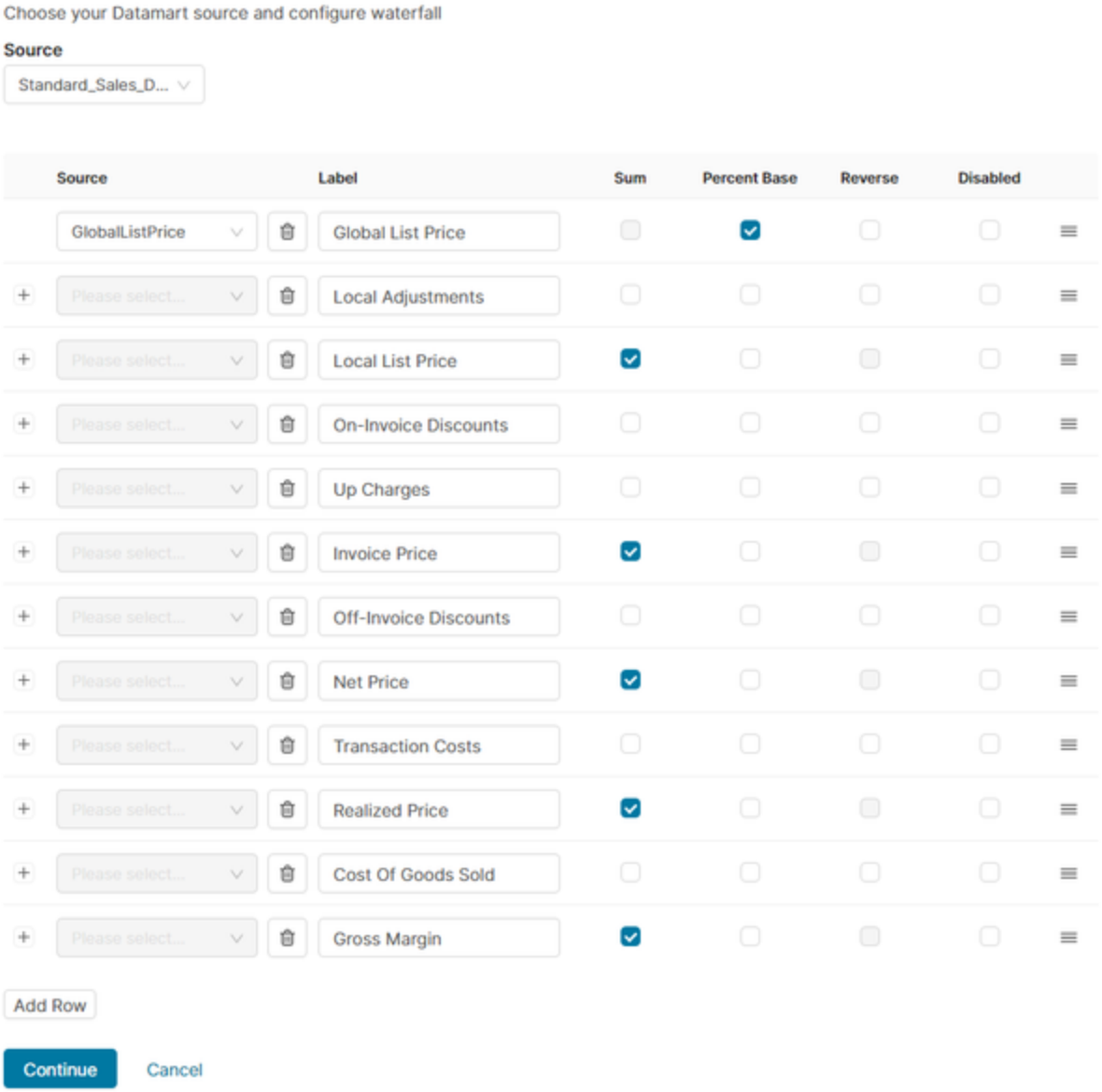
Datamart Selection

The initial step to start the waterfall configuration is selection of the source Datamart from which data will be fetched. Sales Insights Accelerator uses its own Datamart called *Standard_Sales_Data*.



Preloaded Template

If *Standard_Sales_Data* Datamart is selected, you will be presented with a predefined structure that can be used as a guide for further steps.



Any fields that are not defined in the selected Datamart will be automatically removed from the predefined template.

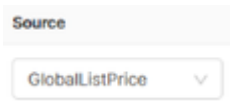
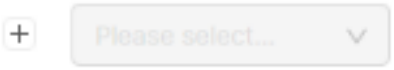
If configuration of the waterfall step is already present on the partition, it will be loaded instead of the the default template.

Waterfall Definition Glossary

- **Source** - Field from Datamart used to retrieve a value for a given waterfall field.
- **Label** - Allows to define a custom label to the field that is going to be displayed on the chart.
- **Sum** - Defines the field as a sum, i.e. the value of this field will be calculated by summation of all previous fields. The first field cannot be a sum, the last one however must be.
- **Percent Base** - Marks the given field as a percentage base for percentage model calculations. There can be only one percentage base field.

- **Reverse** – Allows to reverse the value of a given field. Useful for creating subtractions if the data is stored in positive values.
  ⚠ For elements with a sub-level, the fields in the sub-level are used for calculation and they should be reversed, not the parent field.
- **Disabled** – Marks the field as disabled. Disabled fields are not shown on the dashboard.

Form Controls

Control	Display in UI	Description
Source selection		Used to select Datamart fields.
Remove button		Allows you to remove the waterfall field definition.
Radio buttons		Allow you to select appropriate field parameters. Keep in mind they have conditions (for example only one radio button with Percent Base can be selected).
Move button		Allows you to move fields up and down. You need to click and hold it for 1 or 2 seconds before the move can happen.
Add sub-level		Allows you to add sub-level fields for the drill-down functionality. Keep in mind that fields with sub-levels (parents) cannot have Datamart representations, but the sub-level fields can (children).
Add row		Allows you to add a new waterfall field.

Configuration Deployment

After the setup the configuration will be deployed to the partition in the Advanced Configuration section under the name *waterfall-configuration*.

Waterfall Comparison Dashboard - Details on Configuration

- Waterfall Comparison Dashboard - Used Advanced Configuration Fields

Waterfall Comparison Dashboard - Used Advanced Configuration Fields

Waterfall Comparison uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- customerId (optional)
- quantity

Revenue Breakdown Dashboard - Details on Configuration

- Revenue Breakdown Dashboard - Fields Definition
- Revenue Breakdown Dashboard - Used Advanced Configuration Fields

Revenue Breakdown Dashboard - Fields Definition

In the tables below the following nomenclature is used (field definitions taken from SIP_AdvancedConfiguration):

- **T1** - First period data
- **T2** - Second period data
- **InvoicePrice** - SUM(invoicePrice)
- **Volume** - SUM(quantity)
- **InvoicePricePerUnit** - SUM(invoicePrice) / SUM(quantity)
- **T1Volume** - Total Volume for T1
- **T2Volume** - Total Volume for T2

There are 8 columns displayed in the dashboard:

1. **Revenue in {T1}** - Provides a revenue summary from the first period.
2. **Volume Effect** - Difference in revenue between T1 and T2 is attributed to a difference in volume only (the impact of changes in volume). Total change in volume multiplied by the difference of the inter-period weighted average price and cost. This can be positive or negative.
3. **Price Effect** - Difference in revenue between the T1 and T2 that can be attributed solely to changes in price (the impact of changes in specific prices). The average volume multiplied by the weighted average change in prices where the weighting uses the average volume weighting across the two periods. The result can be negative or positive.
4. **Portfolio Mix Effect** - Difference in revenue between T2 and T1 for transactions for customers that appear in both T1 and T2 but are not yet included in the Price Effect nor Volume Effect categories (i mpact of changes in the product portfolio mix). It is defined by the average volume and the sum of the differences in individual products of their average price across the two periods multiplied by their change in portfolio mix contribution between the two periods.
5. **New Business** - Total revenue from transactions in T2 from customers that did not buy anything in the T1, expressed as a positive number. Always positive.
6. **Lost Business** - Total revenue from transactions in T1 from customers that did not buy anything in the T2, expressed as a negative number. Always negative.
7. **Other Effects** - Other effects that may influence the revenue that are none of the above.
8. **Revenue in {T2}** - Provides a summary of revenue from the second period.

Effects are calculated in the following way:

Effect	Calculation
Volume	SUM(T2.Volume - T1.Volume) * SUM((T2.Mix * T2.InvoicePricePerUnit + T1.Mix * T1. InvoicePricePerUnit) / 2)
Price	

	SUM((T2.Volume + T1.Volume) / 2) * SUM((T2.Mix + T1.Mix) / 2 * (T2.InvoicePerUnit - T1.InvoicePerUnit)
Portfolio Mix	SUM((T2.Volume + T1.Volume) / 2) * SUM((T2.Mix - T1.Mix) * (T2.InvoicePerUnit + T1.InvoicePricePerUnit) / 2)
Other	T2.InvoicePrice - (T1.InvoicePrice + lostBusinessEffect + priceEffect + volumeEffect + mixEffect + newBusinessEffect)

Mix definition:

- the ratio of volume for the particular product in the scope of all products volume within the period = volume per product / volume per all products
- T1.Mix = T1.Volume/T1Volume
- T2.Mix = T2.Volume/T2Volume

Default filters

There are some default filters put on various fields to ensure proper calculations. These are:

- Only entries with **not null invoicePrice** are considered.
- Only entries with **not null quantity** are considered.
- Only entry sets with **SUM(quantity) > 0** are considered (aggregation "having" filter is applied).
- Only entry sets with **SUM(invoicePrice) > 0** are considered (aggregation "having" filter is applied).

Revenue Breakdown Dashboard - Used Advanced Configuration Fields

Revenue Breakdown Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- customerId (optional)
- quantity
- invoicePrice
- productDimensions
- customerDimensions (optional)
- breakdownMode

Margin Breakdown Dashboard - Details on Configuration

- Margin Breakdown Dashboard - Fields Definition
- Margin Breakdown Dashboard - Used Advanced Configuration Fields

Margin Breakdown Dashboard - Fields Definition

In the tables below the following terminology is used (field definitions taken from SIP_AdvancedConfiguration):

- **T1** - First period data
- **T2** - Second period data
- **Margin** - SUM(grossMargin)
- **Volume** - SUM(quantity)
- **InvoicePricePerUnit** - SUM(invoicePrice) / SUM(quantity)
- **MarginPerUnit** - SUM(grossMargin) / SUM(quantity)
- **CostPerUnit** - SUM(InvoicePrice - GrossMargin) / SUM(quantity)
  "Cost" for the purpose of this dashboard is defined as the gap between Revenues and Gross Margin; it would be cumbersome to declare another column or parameter summing up all "waterfall cost components".
- **T1Volume** - Total Volume for T1
- **T2Volume** - Total Volume for T2

There are 9 columns displayed in the dashboard:

1. **Margin in { T1 }** - Provides a margin summary from the first period.
2. **Volume Effect** - Difference in margin between T1 and T2 is attributed to a difference in volume only (the impact of changes in volume). Total change in volume multiplied by the difference of the inter-period weighted average margin. This can be positive or negative.
3. **Price Effect** - Difference in margin between the T2 and T1 that can be attributed solely to changes in price (the impact of changes in specific prices). The average volume multiplied by the weighted average change in prices where the weighting uses the average quantity weighting across the two periods. The result can be negative or positive.
4. **Portfolio Mix Effect** - Difference in margin between T2 and T1 for transactions for customers that appear in both T1 and T2 but are not yet included in the Price Effect nor Volume Effect categories (impact of changes in the product portfolio mix). It is defined by the average volume and the sum of the differences in individual products of their average price and cost across the two periods multiplied by their change in portfolio mix contribution between the two periods.
5. **New Business** - Total margin from transactions in T2 from customers that did not buy anything in the T1, expressed as a positive number. Always positive.
6. **Lost Business** - Total margin from transactions in T1 from customers that did not buy anything in the T2, expressed as a negative number. Always negative.
7. **Cost Effect** - Difference in margin between T1 and T2 is attributed to a difference in cost only (the impact of changes in specific costs). The average volume multiplied by weighted average change in costs where the weighting uses the average quantity weighting across the two periods.
8. **Other Effects** - This value should always be zero. If it is not, the relationship "Invoice - Cost = Gross Margin" is not fulfilled. Hence this component does not need a bar to be represented.
9. **Margin in { T2 }** - Provides a margin summary from the second period.

Effects are calculated in the following way:

Effects	Calculation
Volume	SUM(T2.Volume - T1.Volume) * SUM((T2.Mix * T2.MarginPerUnit + T1.Mix * T1.MarginPerUnit) / 2)
Price	SUM(T2.Volume + T1.Volume) / 2) * SUM((T2.Mix + T1.Mix) / 2 * (T2.InvoicePerUnit - T1.InvoicePerUnit)

Portfolio Mix	SUM((T2.Volume + T1.Volume) / 2) * SUM((T2.Mix - T1.Mix) * (T2.MarginPerUnit + T1.MarginPerUnit) / 2)
Cost	SUM(T2.Volume + T1.Volume) / 2) * SUM((T2.Mix + T1.Mix) / 2 * (T2.CostPerUnit - T1.CostPerUnit)))

Mix definition:

- Quantity ratio for the particular product in the scope of all products quantity within the period = quantity per product / quantity per all products
- T1.Mix = T1.Volume/T1Volume
- T2.Mix = T2.Volume/T2Volume

Default Filters

There are some default filters put on various fields to ensure proper calculations. These are:

- Only entries with **not null grossMargin** are considered.
- Only entries with **not null invoicePrice** are considered.
- Only entries with **not null quantity** are considered.
- Only entry sets with **SUM(quantity) > 0** are considered (aggregation "having" filter is applied).

Margin Breakdown Dashboard - Used Advanced Configuration Fields

Margin Breakdown Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- customerId (optional)
- grossMargin
- quantity
- invoicePrice
- costs
- productDimensions
- customerDimensions (optional)
- breakdownMode

Causality Dashboard - Details on Configuration

- Causality Dashboard - Fields Definition
- Causality Dashboard - Used Advanced Configuration Fields

Causality Dashboard - Fields Definition

In the tables below the following abbreviations are used (field definitions taken from SIP_AdvancedConfiguration):

- **T1** - First period data

- **T2** - Second period data

There are several columns displayed on the dashboard:

1. **Revenue/Margin in {T1}** - Provides a revenue/margin summary from the first period.
2. **User selected product aggregation | User selected customer aggregation** - Total revenue/margin of a given product/customer group.
3. **Other effects (number of entries)** - Total revenue/margin contribution of all the other groups that are not displayed in the top X groups.
4. **New/Lost Business** - Total contribution of entries that are not in the common business for given periods.
5. **Revenue/Margin in {T2}** - Provides a revenue/margin summary from the second period.

The fields are calculated in the following way:

- Revenue/Margin in {T1}/{T2} = SUM(invoicePrice)/SUM(grossMargin)
- Product/Customer group entries = SELECT {productIdField}, {customerIdField}, SUM(T2.{measure} - T1.{measure}) AS 'Delta' FROM T2 INNER JOIN T1 ON {joinFields} {groupBy} ORDER BY SUM(T2.{measure} - T1.{measure}) {orderStyle}
- New/Lost Business = T2 - T1 - {top elements measure summed up} - {common business}
  - Common business = All entries - Top entries summed up

There are some default filters put on various fields to ensure proper calculations. These are:

- Only entries with **not null grossMargin** are considered.
- Only entries with **not null invoicePrice** are considered.
- Only entries with **SUM(invoicePrice) > 0** are considered.
- Only entries with **SUM(grossMargin) > 0** are considered.

Causality Dashboard - Used Advanced Configuration Fields

Causality Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- customerId (optional)
- invoicePrice
- grossMargin
- productDimensions
- customerDimensions (optional)

Period Over Period Dashboard - Details on Configuration

- Period Over Period Dashboard - Fields Definition
- Period Over Period Dashboard - Used Advanced Configuration Fields
- Period Over Period Dashboard - Increase Query Performance by Using Configurable Fields

Period Over Period Dashboard - Fields Definition

Ratio Types and formulas used (by default) to calculate the output measure:

- Gross Margin % = Gross Margin / Invoice Price
- Price Leakage % = (Local List Price - Net Price) / Local List Price
- Price Realization % = Invoice Price / Global List Price
- Incentive % = Net Sales Column / Local List Price Column

- Average Price Per Unit = Invoice Price / Quantity
- Average Profit Per Unit = Gross Margin / Quantity
- Custom = input values are provided manually as numerator and denominator in the formula

Actual Period

- Start: (Final Interval) – ((Number Of Intervals) * Interval Size)
- End: calendar unit defined by Final Interval

Comparison Period

- Start: (Final Interval – Offset of Comparison Period) – ((Number Of Intervals) * Interval Size)
- End: calendar unit defined by (Final Interval – Offset of Comparison Period)

Period Over Period Dashboard - Used Advanced Configuration Fields

Period Over Period Dashboard uses the following fields from SIP_AdvancedConfiguration:

- datamartName
- pricingDate
- productId
- customerId
- grossMargin
- quantity
- invoicePrice
- firstDayOfWeek – Defines the day which is considered a starting day of a week (typically Sunday or Monday).
- localListPrice
- globalListPrice
- netPrice
- pricingDateDay (optional)
- pricingDateWeek (optional)
- pricingDateMonth (optional)
- pricingDateQuadWeek (optional)
- pricingDateQuarter (optional)
- pricingDateYear (optional)

Period Over Period Dashboard - Increase Query Performance by Using Configurable Fields

When the query data Interval Size must be recalculated (CONCAT) for each result row (e.g. With Interval Size = Day, extracted the date 13/11/2023 into 2023-D312), there can be performance issues due to large data.

To avoid this issue, there are new fields that can be configured **optionally** during deployment via PlatformManager, such as:

- pricingDateDay
- pricingDateWeek
- pricingDateMonth
- pricingDateQuadWeek
- pricingDateQuarter
- pricingDateYear

These fields can be optionally mapped to the Datamart fields of the same names through the configuration *SIP_AdvancedConfiguration*.

As this configuration step is optional, it may happen that the fields do not exist in the Datamart or have not been mapped in *SIP_AdvancedConfiguration*. In such case, the old way (extracting pricingDate into the corresponding Interval Size for each result row) will be used.

Architecture Components (Sales Insights)

The Sales Insights Accelerator includes Sales Insights Dashboards, so all of their components are included here as well. For deails see the architecture of Sales Insights Dashboards accelerator.

Advanced Configuration Properties

- **SIP_AdvancedConfiguration** - Configured by user during installation process.
- **WaterfallConfiguration** - Configured by user during installation process.

Company Parameters

- PFXTemplate_DB_RevenueAndMargin
- OutliersContributionModelThresholds
- SIP_Population (data uploaded automatically during installation)
- SIP_MapHierarchyConfig
- SIP_MapCodeOverrides
- SIP_GeoOverrides

For details see Revenue and Margin Dashboard - Used Company Parameters, Regional Revenue and Margin Dashboard - Used Company Parameters and Outliers Dashboard - Used Company Parameters.

Product/Customer Master Configuration

During installation the administrator supplies the data and mapping to be uploaded.

Data Source

- **Product/Customer** - During installation:
    1. Fields definitions will be synced with the newly created fields of the master table Products /Customers.
    2. All string columns will be set as Dimension.
    3. Data will be loaded from the master table Products/Customers.
- **TXStandardData** - Created during the installation process.
- **ccy** - Created during the installation process.
- **uom** - Created during the installation process.
- **cal** - Created during the installation process.

Datamart

- **Standard_Sales_Data** - Created during the installation process.

Dependencies

This accelerator depends on the following accelerators which will be deployed during the installation too:

- Shared Library
- Dashboards Library

Dashboards Architecture Components (Sales Insights)

Advanced Configuration Options

- **SIP_AdvancedConfiguration** – JSON with configuration settings in key-value format. Those settings are configured during the installation.
- **SIP_Commons_AdvancedConfiguration** – JSON with configuration settings in key-value format.
- **WaterfallConfiguration** – JSON with configuration of the waterfall.

Dashboards Components

Revenue and Margin

- Logic *Dashboard_RevenueAndMargin*
- Dashboard *Revenue_Margin*
- Company Parameter *PFXTemplate_DB_RevenueAndMargin*, incl. data

Revenue Breakdown

- Logic *Revenue_Breakdown*
- Dashboard *Revenue_Breakdown*

Margin Breakdown

- Logic *Dashboard_Margin_Breakdown*
- Dashboard *Margin_Breakdown*

Waterfall and Waterfall Comparison

- Logics
  - *Dashboard_Waterfall*
  - *Dashboard_ComparisonWaterfall*
  - *Configurator_ComparisonWaterfall*
- Dashboards
  - *Waterfall*
  - *ComparisonWaterfall*

Regional Revenue and Margin

- Logics
  - *Dashboard_RevenueAndMarginDistribution_Country*
  - *Configurator_RegionAndCountry*
- Dashboard *RevenueAndMarginDistribution_DetailMap*
- Company Parameter
  - *SIP_MapHierarchyConfig*, incl data
  - *SIP_MapCodeOverrides*, incl. data
  - *SIP_GeoOverrides*

Product/Customer Causality

- Logic *Dashboard_Causality*
- Dashboard *Causality_Dashboard*

Outliers

- Logics
  - *Outliers_Dashboard*
  - *Configurator_Outliers*
- Dashboard *Outliers_Dashboard*
- Company Parameter *OutliersContributionModelThresholds*, incl. data

Company Parameters

- *SIP_Population*, incl. data
- *CurrencySymbols*, incl. data
- *SIP_DefaultFilterValues*

Configuration Wizard

- Wizard *SIPDefaultFilterManagementWizard*
- Logic *SIP_DefaultFilterConfiguratorInput*
- *SIP_DefaultFilterConfiguratorExecutor*

Logics Common for All Dashboards

- Library *SIP_Dashboards_Commons*

Preferences

Preferences contain configuration of layout for all dashboards.

Dependencies

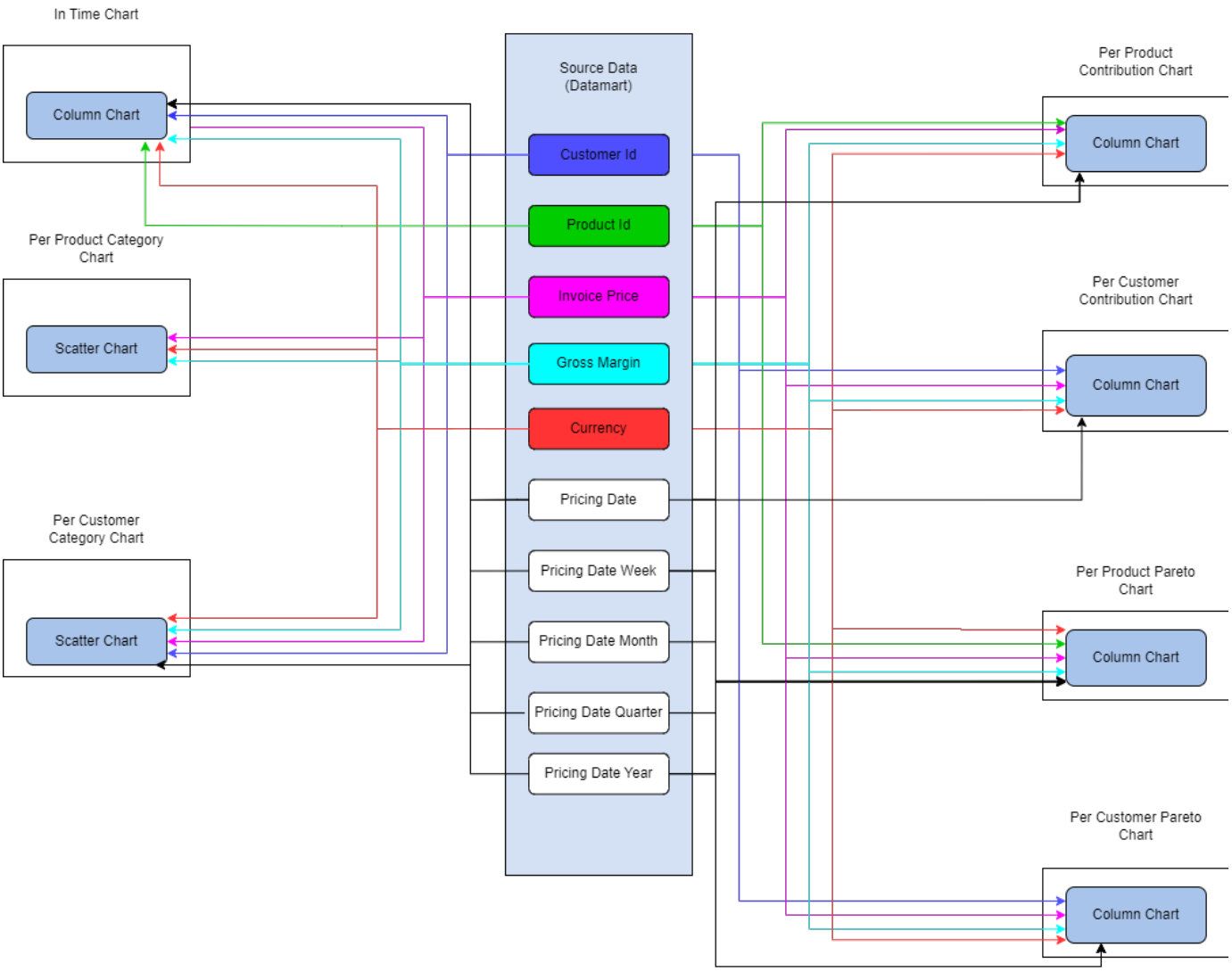
This accelerator depends on the following accelerators which will be deployed during the installation too:

- Shared Library
- Dashboards Library

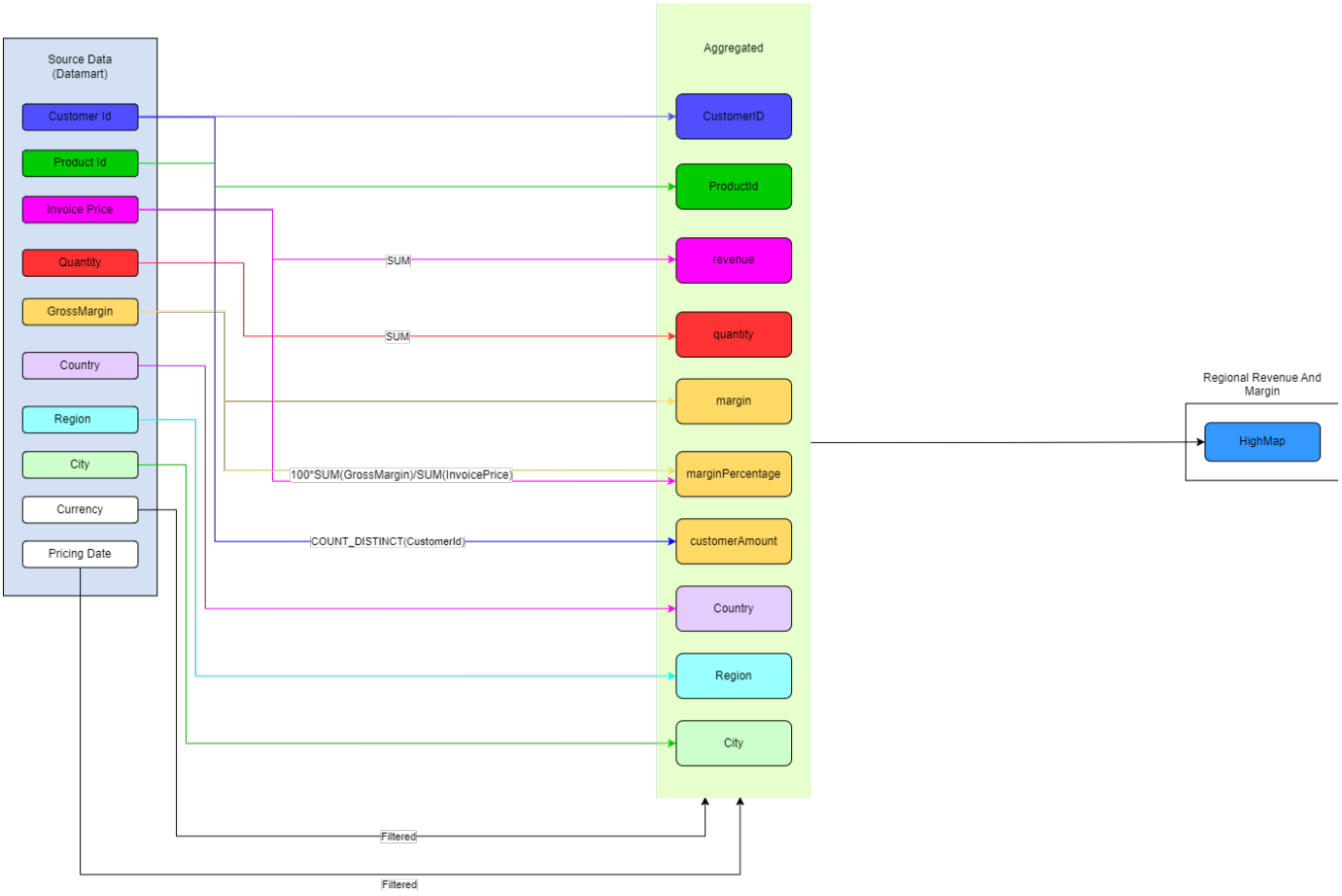
Data Flow (Sales Insights)

This section describes the data flow for the following Sale Insights Accelerator dashboards:

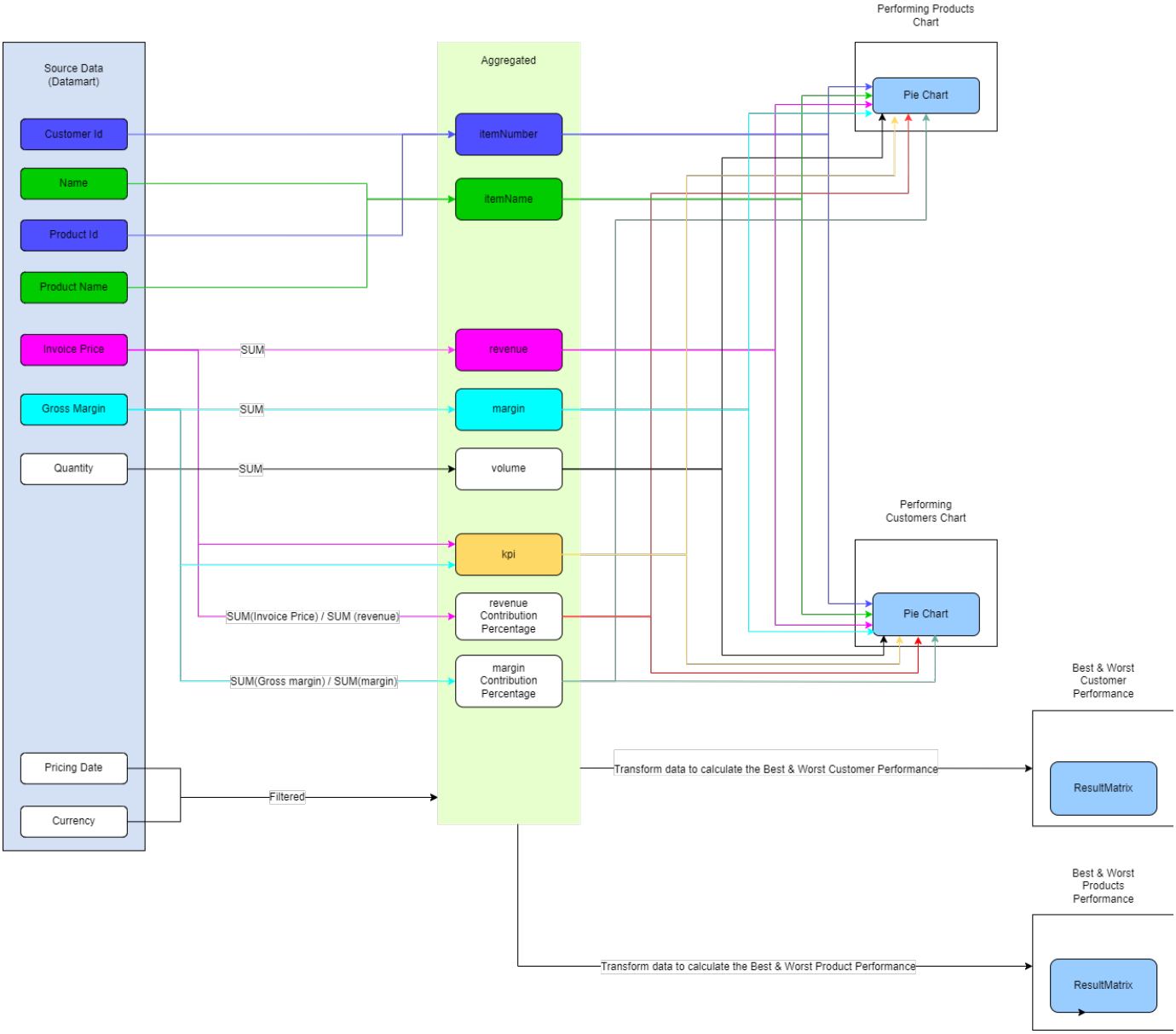
1. SI Revenue and Margin



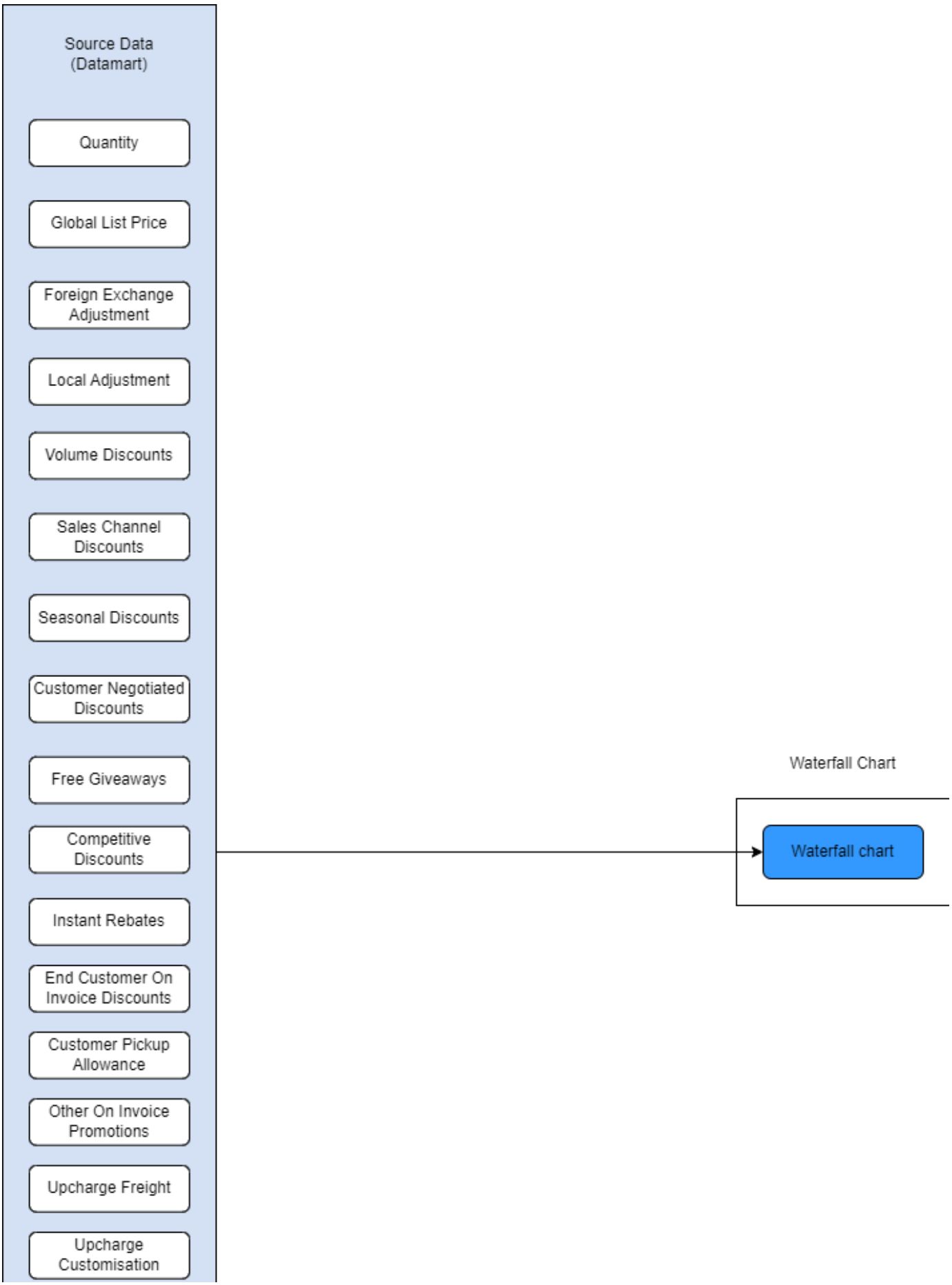
2. SI Regional Revenue and Margin



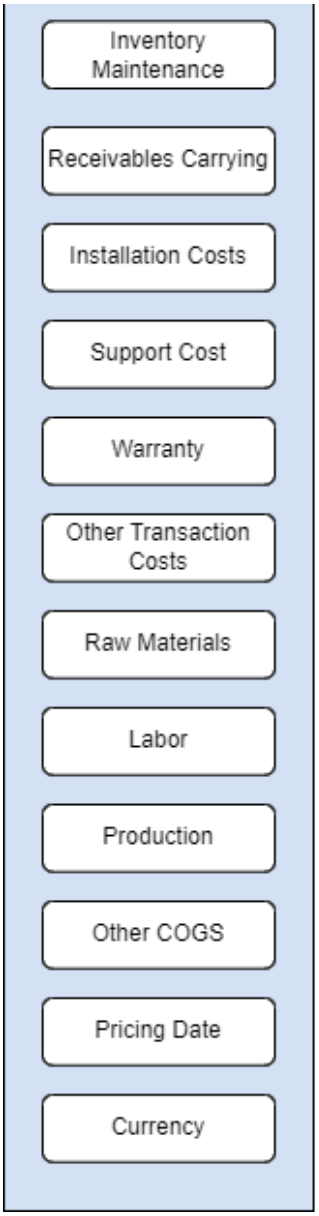
3. SI Outlier Dashboard



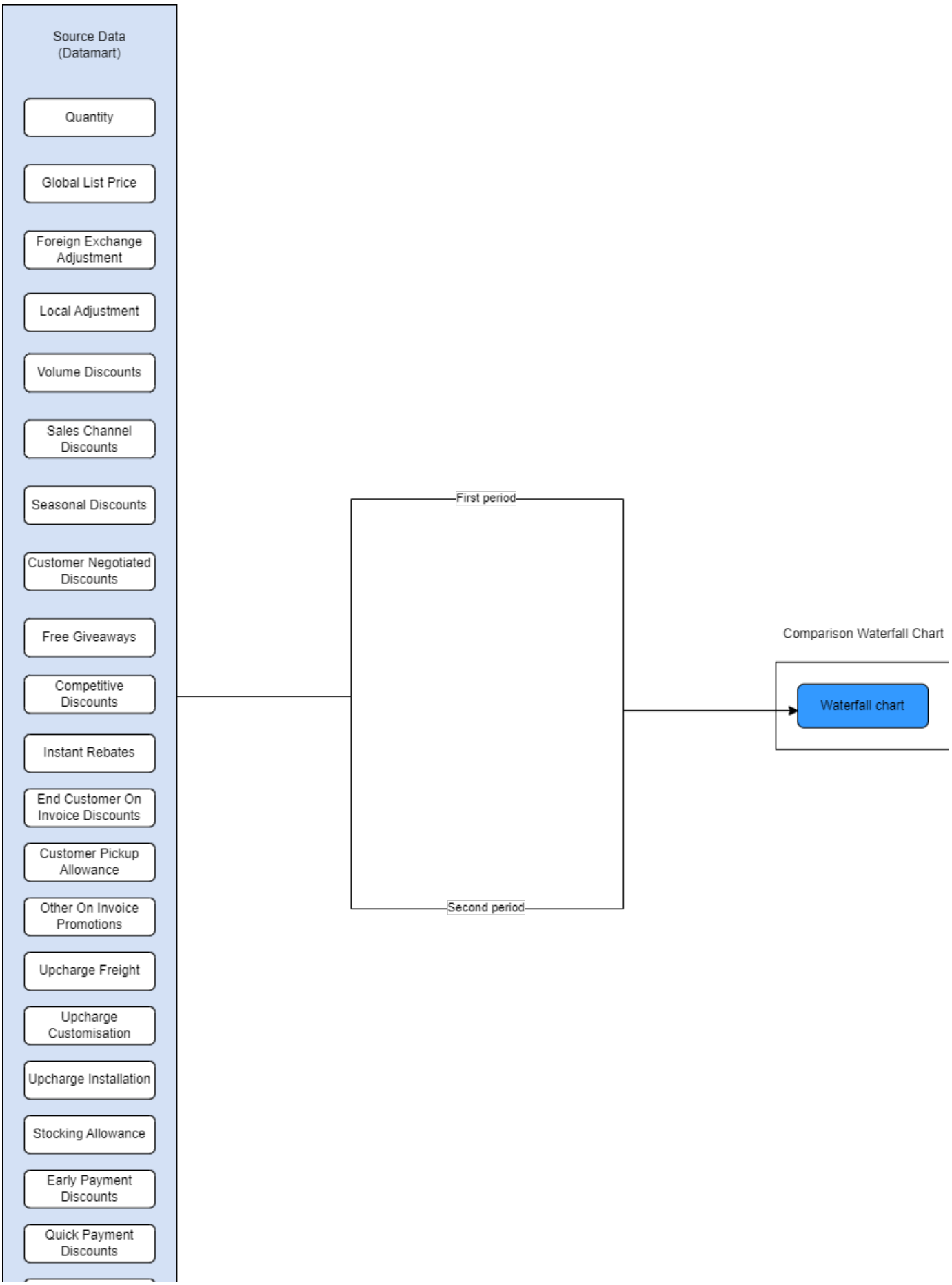
4. SI Waterfall

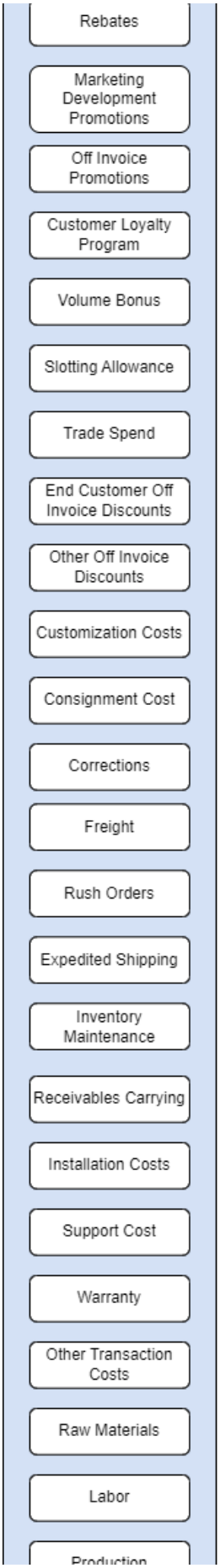

Source Data
(Datamart)
Quantity
Global List Price
Foreign Exchange Adjustment
Local Adjustment
Volume Discounts
Sales Channel Discounts
Seasonal Discounts
Customer Negotiated Discounts
Free Giveaways
Competitive Discounts
Instant Rebates
End Customer On Invoice Discounts
Customer Pickup Allowance
Other On Invoice Promotions
Upcharge Freight
Upcharge Customisation
Waterfall Chart
Waterfall chart

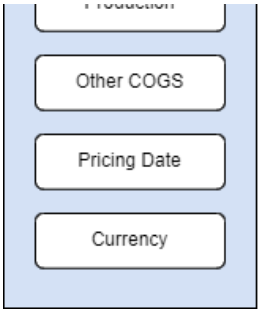

Upcharge Installation
Stocking Allowance
Early Payment Discounts
Quick Payment Discounts
Rebates
Marketing Development Promotions
Off Invoice Promotions
Customer Loyalty Program
Volume Bonus
Slotting Allowance
Trade Spend
End Customer Off Invoice Discounts
Other Off Invoice Discounts
Customization Costs
Consignment Cost
Corrections
Freight
Rush Orders
Expedited Shipping



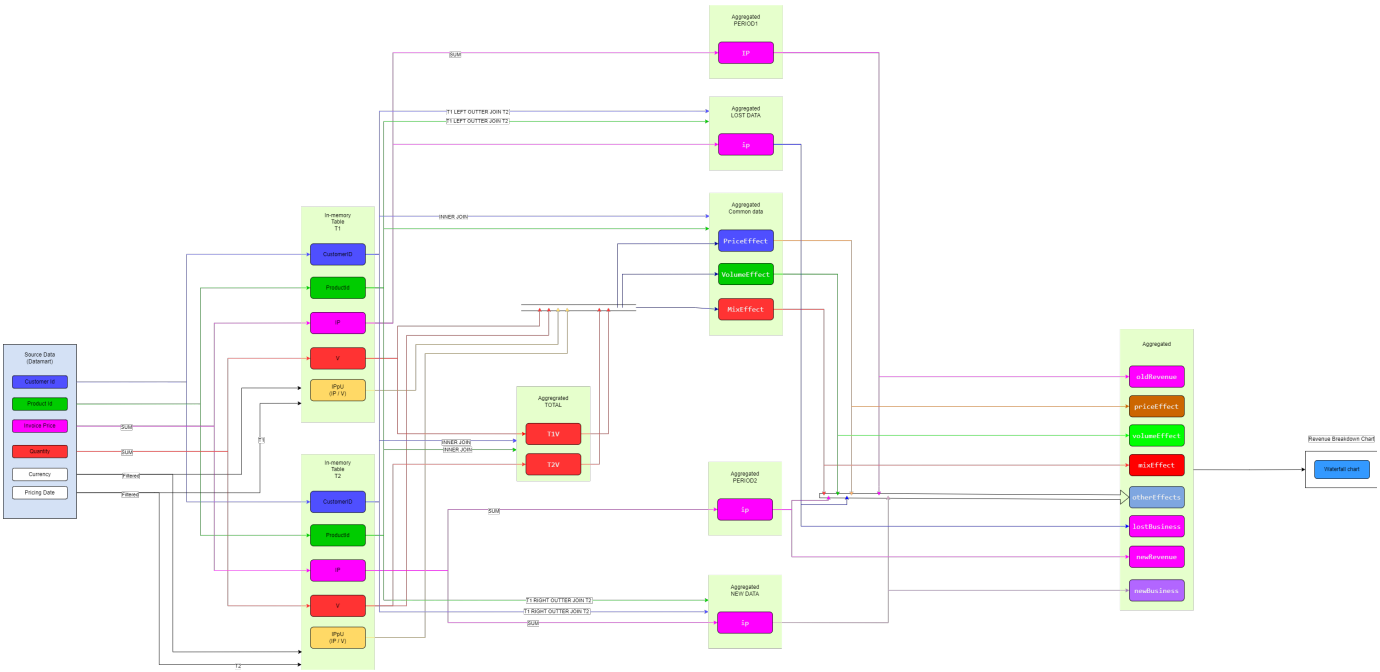
5. SI Comparison Waterfall


Source Data
(Datamart)
Quantity
Global List Price
Foreign Exchange Adjustment
Local Adjustment
Volume Discounts
Sales Channel Discounts
Seasonal Discounts
Customer Negotiated Discounts
Free Giveaways
Competitive Discounts
Instant Rebates
End Customer On Invoice Discounts
Customer Pickup Allowance
Other On Invoice Promotions
Upcharge Freight
Upcharge Customisation
Upcharge Installation
Stocking Allowance
Early Payment Discounts
Quick Payment Discounts
First period
Second period
Comparison Waterfall Chart
Waterfall chart

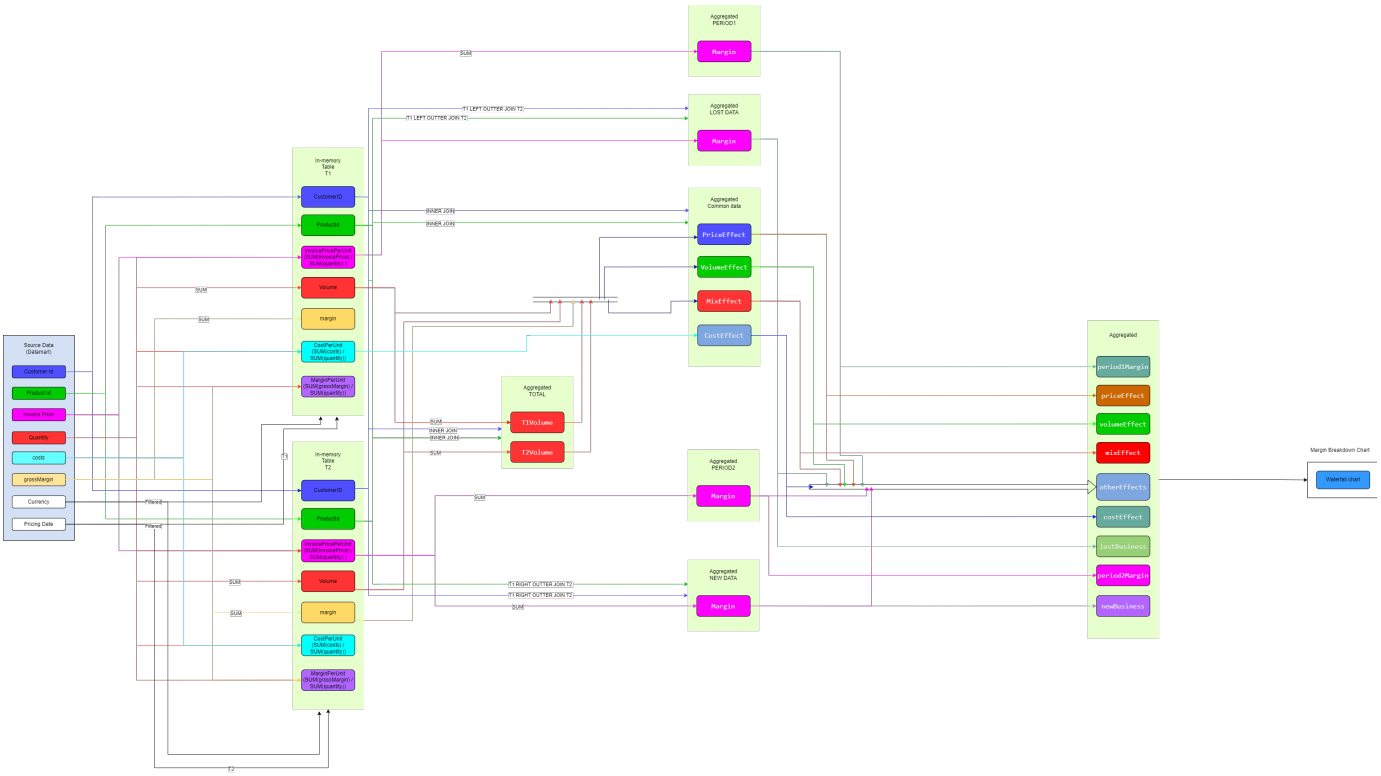

Rebates
Marketing Development Promotions
Off Invoice Promotions
Customer Loyalty Program
Volume Bonus
Slotting Allowance
Trade Spend
End Customer Off Invoice Discounts
Other Off Invoice Discounts
Customization Costs
Consignment Cost
Corrections
Freight
Rush Orders
Expedited Shipping
Inventory Maintenance
Receivables Carrying
Installation Costs
Support Cost
Warranty
Other Transaction Costs
Raw Materials
Labor
Production



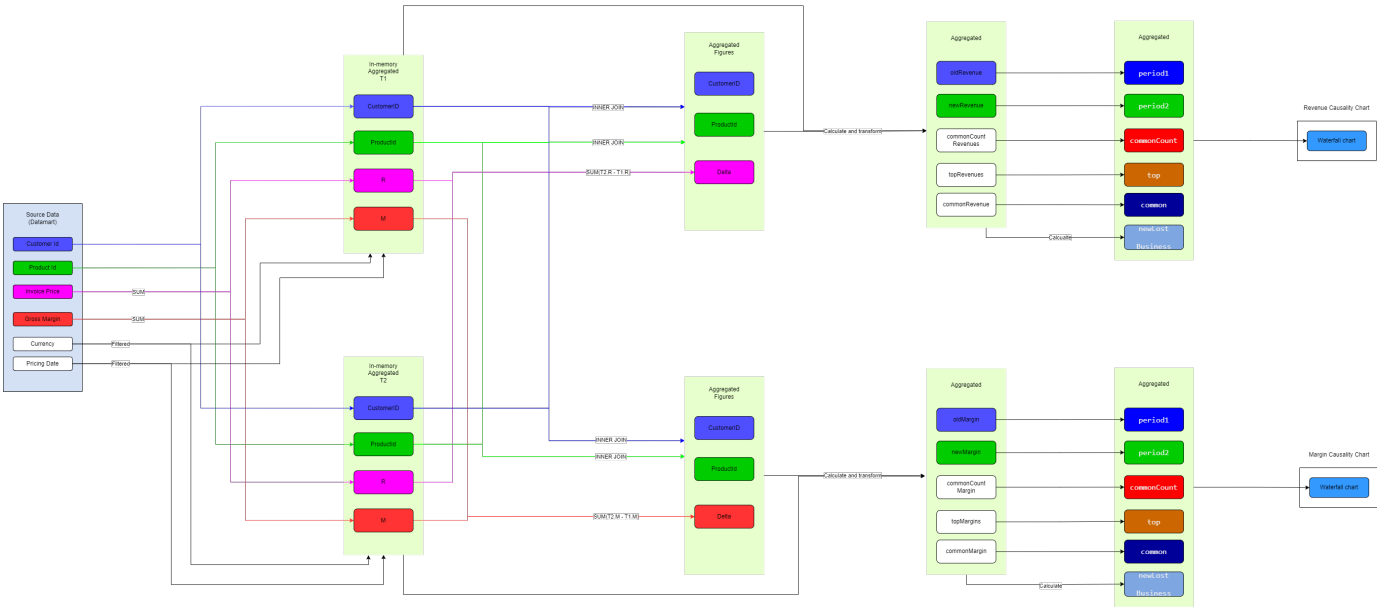
6. SI Revenue Breakdown



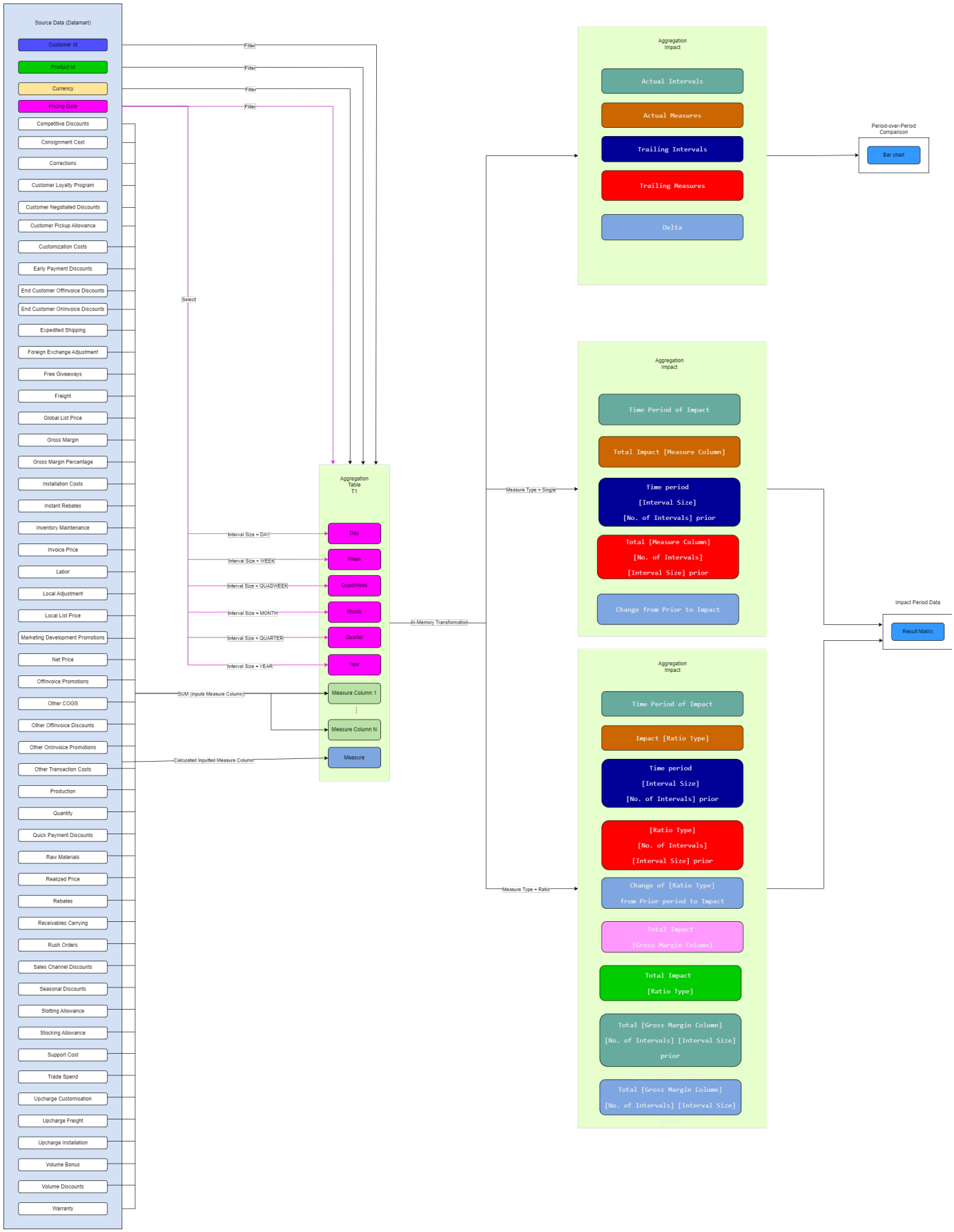
7. SI Margin Breakdown



8. SI Causality Dashboard



9. SI Period-over-Period Dashboard


Source Data (Datamart)
Customer Id
Product Id
Currency
Pricing Date
Competitive Discounts
Consignment Cost
Corrections
Customer Loyalty Program
Customer Negotiated Discounts
Customer Pickup Allowance
Customization Costs
Early Payment Discounts
End Customer OffInvoice Discounts
End Customer OnInvoice Discounts
Expedited Shipping
Foreign Exchange Adjustment
Free Giveaways
Freight
Global List Price
Gross Margin
Gross Margin Percentage
Installation Costs
Instant Rebates
Inventory Maintenance
Invoice Price
Labor
Local Adjustment
Local List Price
Marketing Development Promotions
Net Price
OffInvoice Promotions
Other COGS
Other OffInvoice Discounts
Other OnInvoice Promotions
Other Transaction Costs
Production
Quantity
Quick Payment Discounts
Raw Materials
Realized Price
Rebates
Receivables Carrying
Rush Orders
Sales Channel Discounts
Seasonal Discounts
Slotting Allowance
Stocking Allowance
Support Cost
Trade Spend
Upcharge Customisation
Upcharge Freight
Upcharge Installation
Volume Bonus
Volume Discounts
Warranty
Filter
Filter
Filter
Filter
Select
Aggregation Table T1
Interval Size = DAY
Interval Size = WEEK
Interval Size = QUADWEEK
Interval Size = MONTH
Interval Size = QUARTER
Interval Size = YEAR
Day
Week
QuadWeek
Month
Quarter
Year
SUM (Inputs Measure Column)
Measure Column 1
Measure Column N
Calculated Inputted Measure Column
Measure
In-Memory Transformation
Measure Type = Single
Measure Type = Ratio
Aggregation Impact
Actual Intervals
Actual Measures
Trailing Intervals
Trailing Measures
Delta
Period-over-Period Comparison
Bar chart
Aggregation Impact
Time Period of Impact
Total Impact [Measure Column]
Time period [Interval Size] [No. of Intervals] prior
Total [Measure Column] [No. of Intervals] [Interval Size] prior
Change from Prior to Impact
Aggregation Impact
Time Period of Impact
Impact [Ratio Type]
Time period [Interval Size] [No. of Intervals] prior
[Ratio Type] [No. of Intervals] [Interval Size] prior
Change of [Ratio Type] from Prior period to Impact
Total Impact [Gross Margin Column]
Total Impact [Ratio Type]
Total [Gross Margin Column] [No. of Intervals] [Interval Size] prior
Total [Gross Margin Column] [No. of Intervals] [Interval Size]
Impact Period Data
Result Matrix

Glossary (Sales Insights)

To learn how values in each dashboard are calculated, see:

- Revenue and Margin Dashboard - Field Calculation
- Regional Revenue and Margin Dashboard - Fields Definition
- Outliers Dashboard - Calculation Models
- Waterfall Dashboard - Fields Definition
- Revenue Breakdown Dashboard - Fields Definition
- Margin Breakdown Dashboard - Fields Definition
- Causality Dashboard - Fields Definition
- Period Over Period Dashboard - Fields Definition

Revenue Breakdown Dashboard

Note: Numbers in brackets refer to a formula used to calculate Other Effects.

Term	Description
Comparison revenue in [Quarter-Year] (1)	Total invoice price of comparison period (T1)
Lost Business (2)	Total invoice price of products traded in T1 but not traded in T2 T2 : current period
T1.Mix T2.Mix	T1.Mix = Volume per product in T1 / volume per all products in T1 T2.Mix = Volume per product in T2 / volume per all products in T2
Price Effect (3)	Finds products which traded in both T1 and T2 For each product, gets (Unit Price T2- Unit Price T1) * Quantity T2 Price Effect = ∑((T2.Volume + T1.Volume) / 2) * SUM((T2.Mix + T1.Mix) / 2 * (T2.InvoicePerUnit - T1.InvoicePerUnit) [(Unit Price T2- Unit Price T1) * Quantity T2]
Volume Effect (4)	Finds products which traded in both T1 and T2 Volume Effect = (∑ Quantity T2 - ∑ Quantity T1) * ∑ Invoice Price T1 / ∑ Quantity T1
Portfolio Mix Effect (5)	Finds products which traded in both T1 and T2 For each product, gets **[**Unit Price T1 * ((Quantity T2 / ∑ Quantity T2) - (Quantity T1 / ∑ Quantity T1))**] (X)** Price Effect = ∑ all rows (**X**) * ∑ Quantity T2
Other Effects	= (7) - [(1)+(2)+(3)+(4)+(5)+(6)]
New Business Effect (6)	= ∑ Invoice price of products traded in T2 but not traded in T1
Current Revenue (7)	Total invoice price of year

Release Notes (Sales Insights)

Sales Insights Package 1.11.0

This document summarizes major improvements and fixes introduced in the Accelerate Sales Insights Package release version.

Version	1.11.0
Release Date	Dec 21, 2023

Table of contents:

New Features and Improvements

Description	ID
Detailed data flow diagrams for Sales Insights have been added. They allow users to easily track what data is used in each portlet in each dashboard.	PFPCS-6699
Portlets in the Period over Period Dashboard use now Highcharts Library.	PFPCS-6966
In Period over Period dashboard, when Measure Type is Ratio, the suffix "%" was added to values in the Impact Period Data table.	PFPCS-7203
In Period Over Period dashboard, query performance was improved by using configurable week/month/quarter/year fields directly from the Datamart.	PFPCS-7329
	PFPCS-7366

Upgrade Package for Sales Insights was added. It allows you to upgrade only used logics without making any changes to the configuration.	
Dashboard configurator logic elements timeouts have been increased to 300s.	PFPCS-7697

Fixed Issues

Bug Description	ID
In Waterfall Comparison dashboard, when there are no data for series, you get an error.	PFPCS-7261
In Revenue and Margin dashboard in Contribution charts, there is a wrong column label on drilldown with Product/Customer Aggregation.	PFPCS-7324
In Revenue and Margin dashboard > Per Category Chart, when Per Product / Customer Category Charts use both Product/Customer Aggregation and Band By For Product/Customer, they produce multiple points with "N/A" label even though in the tooltip you can see that the aggregation level is available for them.	PFPCS-7325
In Comparison Waterfall, when one of the series is empty and Waterfall Model is Percentage, you get an error "Cannot invoke method div() on null object".	PFPCS-7584

Sales Insights Package 1.10.0

This document summarizes major improvements and fixes introduced in the Accelerate Sales Insights Package release version.

Version	1.10.0
Release Date	Jul 31, 2023

Table of contents:

New Features and Improvements

Description	ID
Several labels in the Period Over Period Dashboard have been changed: "Delta" changed to "Scale Change" "Actual Performance" changed to "Actual [Measure Column]" "Trailing" changed to "Prior" "Trailing Offset" changed to "Offset of Comparison Period"	PFPCS-6680
In Period Over Period Dashboard, there is now a check for Ratios and if they are of monetary type (Gross Margin %, Price Leakage %, Price Realization %, Incentive %), the options Scale Change Bars as % and Display Z Axis are hidden.	PFPCS-6682

To unify Period Over Period Dashboard with other dashboards, the Currency input field has been added. It allows users to select the currency in which all the data should be displayed.	PFPCS-6684
In Period Over Period Dashboard inputs, the field Measure Aggregation (allowing you to select either AVG or SUM) has been removed. SUM is now used as default.	PFPCS-6686
In Period Over Period Dashboard, you can get detailed data for a specified part of the chart displayed in a data table under the chart. This portion of the chart is marked as Impact Period.	PFPCS-6687
All dashboard logic elements have now timeout override set to 300 s. (All library elements remained unchanged and still use 900 s.)	PFPCS-6805

Fixed Issues

Bug Description	ID
In Revenue and Margin Dashboard, null pointer exception is shown if there are no data for the Pareto Chart.	PFPCS-6798
In Regional Revenue and Margin Dashboard, there is an incorrect label shown for Region in the Data tab.	PFPCS-6947
In Revenue/Margin Breakdown Dashboards and in Causality Dashboard, there is an error thrown when having no data in Datamart.	PFPCS-6989
In Period Over Period Dashboard, the Change series label displays Measure by its attribute name (and not by its label).	PFPCS-7134
In Period Over Period Dashboard, when Measure Type is set to Ratio, in the tooltip there is missing % symbol in the change value.	PFPCS-7147
In Period Over Period Dashboard, the currency symbol is always displayed regardless of the specific inputs in Measure.	PFPCS-7158
In Revenue and Margin Dashboard, division by null or zero values is not handled properly.	PFPCS-7159
In two cases Period Over Period Dashboard does not handle filters like other Sales Insights dashboards: 1. there are no transactions available and 2. General Filter is in conflict with Product/Customer filters.	PFPCS-7179
In Period Over Period Dashboard, the first column displays Actual value incorrectly.	PFPCS-7209

Sales Insights Package 1.9.0

- Bugs
- Improvements
- Tasks
- Stories

Bugs

PFPCS-5545: Error in Revenue Breakdown dashboard column

PFPCS-5555: Data tab: Number formatting issue

PFPCS-5975: CustomerName field cannot be found after deployment

PFPCS-6257: Error when a group of Customers or Products is entered

PFPCS-6455: Outliers dashboard: Error when opening dashboard

PFPCS-6494: SI Revenue and Margin: Contribution charts do not show revenue column in drill down mode

PFPCS-6504: SI Revenue and Margin: missing number format

PFPCS-6521: Comparison Waterfall dashboard: Injecting drilldown data causes logic to fail when drilldowns are not configured

PFPCS-6163: Dashboard does not load when setting is applied

Improvements

PFPCS-5698: Chart series names enhanced

Tasks

PFPCS-5637: Add data label suffix to Outlier pie charts

PFPCS-6137: Adjust Trailing dashboard filter

Stories

PFPCS-6326: Sales Insights Margin Breakdown: order of Margin vs. Revenue breakdown waterfall elements changed

Sales Insights Package 1.8.0

Stories

PFPCS-5851 Period Over Period Dashboard

Tasks

PFPCS-6233 Exclude CSS definition from the step type's specified fields

Sub-tasks

PFPCS-6256 Period Over Period Dashboard - set default chart size

PFPCS-6248 Inputs adjustments 2

PFPCS-6223 Ratio formula inputs displayed in Data tab

PFPCS-6222 Number of intervals always converted respecting the original scope and interval size

PFPCS-6220 Introduce a checkbox to switch between 1 axis or 2 axes

PFPCS-6219 Add the "Incentive %" Ratio Type

PFPCS-6218 Labels changes

PFPCS-6215 Deployment step: default week's starting day must be Sunday

PFPCS-6200 Hide Highcharts credits in portlet

PFPCS-6192 Period Over Period dashboard properties

PFPCS-6176 Enable the original version of Trailing Period Comparison dashboard in QA

PFPCS-6169 Align the series order in hint and legend

PFPCS-6162 Chart title

PFPCS-6155 Final Interval: Manual Entry input - info icon

PFPCS-6152 Trailing dashboard: Final Interval Manual Entry: should load value format compliant with Interval Size value

PFPCS-6140 Pluralize the interval size in labels

PFPCS-6139 Filters default values

PFPCS-6133 Deployment steps extension

PFPCS-6125 Labels adjustments

PFPCS-6124 Documentation adjustments

PFPCS-6123 Configuration of a period's starting day

PFPCS-5945 Inputs adjustments

PFPCS-5944 Inputs adjustments for the package (SI) consistency

PFPCS-5939 Performance improvements

PFPCS-5934 Refactor the Trailing Period Comparison Dashboard

PFPCS-5925 Trailing Period Comparison: Technical Analysis

PFPCS-5849 Trailing periods definition

PFPCS-5848 Ratio-based metrics

Bugs

PFPCS-6264 PoP: Missing corner condition for deltas

PFPCS-6263 Label hasn't been changed in data lab

PFPCS-6252 Remove redundant label "column" when ratio type = Incentive %

PFPCS-6230 Number of Intervals: Should check invalid values

PFPCS-6210 Incorrect counting QuadWeek

PFPCS-6208 Trailing dashboard: does not aggregate with interval size = year

PFPCS-6188 Change label: General Filter

PFPCS-6187 Ratio-based metrics: not reload formula input values when changing Ratio type

PFPCS-6179 Ratio-based metrics value: should show label instead of name

PFPCS-6166 Redundant columns in the Data tab

PFPCS-6165 Trailing dashboard: Chart label is incorrect

PFPCS-6161 Error when open dashboard

PFPCS-6160 Trailing dashboard: chart: column title is incorrect

PFPCS-6150 Trailing dashboard : Final Interval Manual Entry: Error after input value

PFPCS-6148 Trailing dashboard: legends order is incorrect

PFPCS-6131 Trailing chart timeout

PFPCS-6126 Update Interval size and Trailing size when changing Interval type

PFPCS-6097 Error when the year input is blank

Sales Insights Package 1.7.1

Bugs

PFPCS-5981 Revenue and Margin dashboard - TurboThreshold definition in wrong place

PFPCS-5974 Optional Customer fields and Breakdown Mode setup not included in Dashboards Only package

PFPCS-5973 Dashboards Only package - WaterfallConfiguration should not be deployed

Sales Insights Package 1.7.0

- Bugs
- Improvements
- New Features
- Stories
- Tasks

Bugs

PFPCS-5665 Error when opening dashboards

PFPCS-5662 Comparison Waterfall: Incorrect tooltip

PFPCS-5659 SI deployment: Customer Id and Customer Name are still visible while user skips Customer in the previous step

PFPCS-5655 Comparison Waterfall: Incorrect delta when values are too small

PFPCS-5653 Comparison Waterfall: Delta is shown if Waterfall Model is Percentage

PFPCS-5650 Comparison Waterfall: Incorrect delta when Waterfall Model is By Absolute Unit

PFPCS-5649 Causality Dashboard: incorrect last bar position

PFPCS-5648 Margin Breakdown: incorrect last bar position

PFPCS-5647 Revenue Breakdown: incorrect last bar position

PFPCS-5643 Comparison Waterfall: the delta is displayed on "one period" view

PFPCS-5640 Comparison Waterfall: Improper value is displayed for delta

PFPCS-5639 Comparison Waterfall: Legend name in drill down is displayed improperly

PFPCS-5638 Comparison Waterfall: error thrown when the first period is null data

PFPCS-5635 Comparison Waterfall: Missing subtract 1 from variation formula

PFPCS-5631 Outliers: Values are not displayed correctly in Data tab

PFPCS-5630 Causality: Duplicate revenue/margin value in T1 if we have the same time period inputs

PFPCS-5627 Causality: Missing New/Lost Business column

PFPCS-5622 Breakdowns and Causality: The format DD/MM/YYYY is not same with time inputs

PFPCS-5621 Breakdown and Causality: Missing last column value in Data tab

PFPCS-5620 Breakdown and Causality dashboard: Hide PeriodConfigurator in Add Portlet

PFPCS-5619 Missing Comparison label for Week input when Period Type is Week

PFPCS-5609 Revenue/Margin Breakdowns, Causality Dashboards: Handle the null values for time-definition filters

PFPCS-5559 MixpanelTracking [via MixpanelTrackingUtils] : ERROR(@9): Cannot invoke method track() on null object

PFPCS-5547 Breakdown and Causality: null is being displayed in the chart

PFPCS-5540 Remove PP SIP_DefaultFilterValues

PFPCS-5539 Currency conversion works improperly in SI dashboards

PFPCS-5538 Margin Breakdown: Remove Standard from chart title

PFPCS-5537 Duplicate GBP in Currency input

PFPCS-5524 Error thrown when opening SIP Default Filter Wizard

PFPCS-5459 Deselecting Outliers Dashboard doesn't filter out all necessary logics

Improvements

PFPCS-5383 Remove the Default Filters functionality duplicity

PFPCS-5182 Revenue/Margin Breakdown - unify the waterfall elements names

PFPCS-5167 Month-to-Month comparison in Revenue/Margin Breakdown and Causality charts

PFPCS-5156 Cover all the countries in the Highcharts map

PFPCS-4502 Introduce stepLabel for deployment steps

New Features

PFPCS-4350 Ability to download data behind charts

Stories

PFPCS-5548 Revenue and Margin Breakdown, Causality: additional time definition options

PFPCS-5445 Two approaches for Revenue and Margin Breakdowns definitions

PFPCS-5444 Margin Breakdown - new formulas

PFPCS-5181 Revenue Breakdown - new formulas

PFPCS-5119 Adding variation in Comparison waterfall

PFPCS-4417 Mixpanel tracking for SIP- dashboard was opened

Tasks

PFPCS-5607 Hide warnings for all the portlets

PFPCS-5446 Margin Breakdown: only one Calculation Type available

PFPCS-5440 Revenue and Margin dashboard - increase the timeout

PFPCS-4152 Cleanup PFXTemplate_DB_RevenueAndMargin PP definition

PFPCS-3668 Exclude deployment of WaterfallConfiguration AC

PFPCS-3249 Move ChartConfiguration element to ConstConfig in Revenue and Margin dashboard

Upgrade Instructions 1.6.2 -> 1.7.0

New Revenue/Margin Breakdowns Definition

With the 1.7.0 version, the Revenue/Margin Breakdown effects calculation formulas have been changed to address the business point of view more adequately. The previous formulas are referred to as "Legacy", while the new ones are referred to as "Standard" (default) in the configuration.

For the "Legacy" formulas you can refer to the archived documentation of the previous versions: https://pricefx.atlassian.net/wiki/download/attachments/3907062629/Accelerate_Sales_Insights_Package-1.6.1.pdf?api=v2 (*Margin Breakdown Dashboard - Fields Definition* chapter).

To switch between these two types of formula (if needed), follow the configuration guide in the Installation page: https://pricefx.atlassian.net/wiki/spaces/ACCDEV/pages/4057366561/Installation+SIP#%5BhardBreak%5DRevenue%2FMargin-Breakdowns-Definition.

Default Filters

This feature is deprecated from version 1.7.0. It is replaced with the Save Inputs Preference feature provided by Pricefx.

These objects will become unusable and should be removed from the partition after upgrading to SIP version 1.7.0:

- ConfigurationWizard/SIPDefaultFilterManagementWizard
- PricingParameter/SIP_DefaultFilterValues
- CalculationLogic/SIP_DefaultFilterConfiguratorExecutor
- CalculationLogic/SIP_DefaultFilterConfiguratorInput

Sales Insights Package 1.6.2

Bugs

PFPCS-5451 Empty money fields in DM after deploying SIP 1.6 SNAPSHOT

PFPCS-5090 Sales Insights: waterfall per unit not working with element grouping and filter

PFPCS-5060 Waterfall Dashboard - Caught error if model is By Absolute Unit

PFPCS-4586 Update the documentation link

PFPCS-4312 Fix logic to apply html for tooltip

Sales Insights Package 1.6.1

Bugs

PFPCS-4719 Data Load issues when loading Sales Insights Package

Sales Insights Package 1.6.0

- Release Highlights
- Bugs
- Improvements
- New Features
- Stories

Please remember that deployment via PlatformManager overrides all Company Parameter tables, so if there are any customizations they need to be backed up.

Release Highlights

GroovyDoc

The whole package now contains Groovy documentation for every method. This can improve understanding of the package from the code side perspective.

DefaultFilters per User

The Default Filters functionality has been changed to be per-user (instead of per-partition).

Customer Data Is Now Optional

Now the Sales Insights Package can work without customer data. The way the package recognizes whether the customer data is available is by checking the mapping of customerId in the package Advanced Configuration. If it is null or "", it means that the package does not use customer data.

Waterfall Deployment Instructions

Now during the waterfall configuration step during the deployment there will be a section describing each of the configuration columns.

Waterfall Deployment Step Improvements

After deployment the waterfall step fetches the current configuration stored in the waterfall-configuration advanced configuration (instead of the default template).

Additionally, any field with Datamart source that is not available in the Datamart will now be removed from the definition.

Changes to SIP_Population

The SIP_Population CP table now has Sector introduced (currently not in use). The handling of the stored values has also been changed. For continent hierarchy level now an entry of type CONTINENT_NAME|*|*|*|POPULATION is required, similarly for other hierarchy levels.

Bugs

PFPCS-3690 Regional Revenue and Margin - data mapping works incorrectly

Improvements

PFPCS-3984 Improve to get population properly based on hierarchy level

PFPCS-3652 Preference should be checked and rearranged for some SIP dashboards

PFPCS-3279 Make Customer Data optional

PFPCS-2774 Show currency field only when there is more than one reporting currency available

PFPCS-3675 Define instructions to be displayed for the user in the waterfall configuration step

PFPCS-2337 Customer Filter is not applied on B&W Product Performance Table and Product Filter is not applied on B&W Customer Performance Table

New Features

PFPCS-3236 SIP Input Filter Configurator - set default per user

Stories

PFPCS-3857 Add documentation link to SIP package description

PFPCS-1056 GroovyDoc for SIP dashboards

Sales Insights Package 1.5.1

The Sales Insights (Dashboards Only) package now contains the waterfall definition step.

Please keep in mind that currently there are two issues in the waterfall definition step:

- Non-existing fields in DM are not removed from the configuration displayed to end users, except the first one.
- The configuration step does not take the existing partition configuration into account, so it always starts with the default template.

Bug

PFPCS-3647 Adjust waterfall configuration step in PM Deployment script

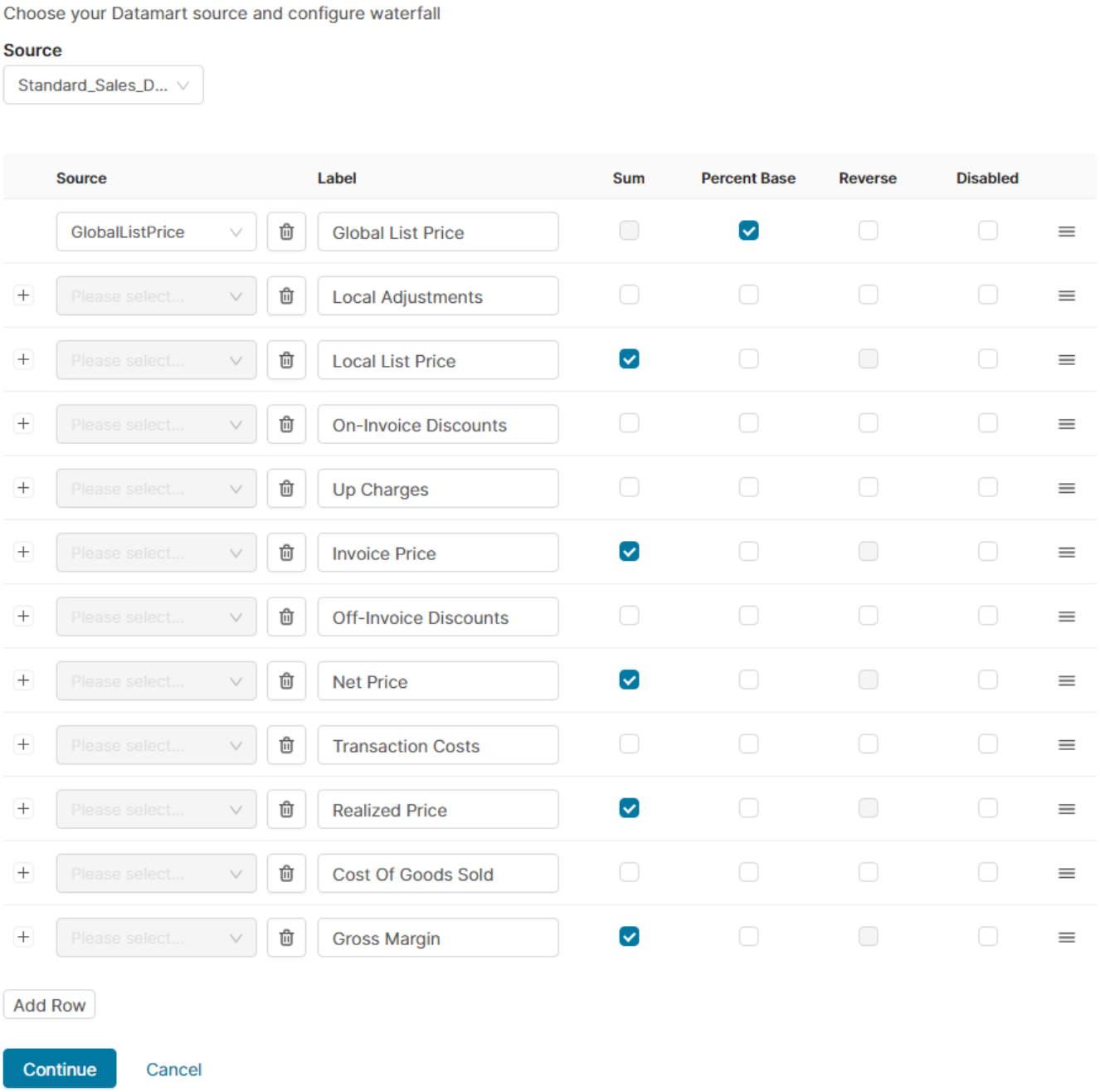
Sales Insights Package 1.5.0

Please remember that deployment via PlatformManager overrides all Company Parameter tables, so if there are any customizations they need to be backed up.

Main Features

Waterfall Configuration via PlatformManager (New)

There is a new additional step during PlatformManager deployment. It introduces a new screen that allows the users to set up their own definition of the waterfall using a user friendly form.



The in-depth description of how this form works can be found here.

⚠ This change makes the Company Parameter tables used for the waterfall configuration in previous versions obsolete.

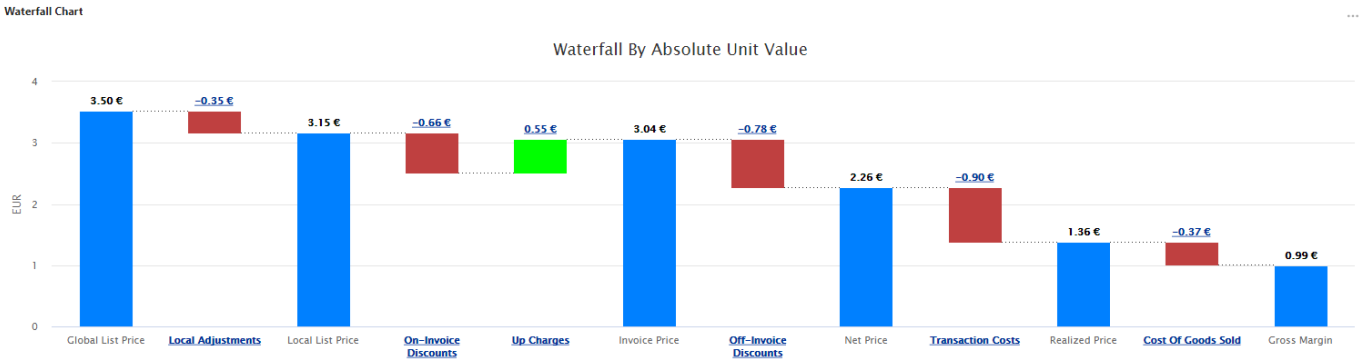
The configuration of the Waterfall dashboards is now stored in the Advanced Configuration section under the name “waterfall-configuration”.

Please keep in mind that currently there are two issues in the waterfall definition step:

- Non-existing fields in DM are not removed from the configuration displayed to end users, except the first one.
- The configuration step does not take the existing partition configuration into account, so it always starts with the default template.

Waterfall by Unit Calculation Model (New)

New calculation model for waterfall has been added. It displays per unit data.



⚠️ This makes the waterfall require the quantity field.

Regional Revenue and Margin Dashboard (Reworked)

The Regional Revenue and Margin Dashboard has been reworked to allow more user friendly configuration and usage. Three additional Company Parameter tables have been introduced:

- SIP_MapHierarchyConfig
- SIP_MapCodeOverrides
- SIP_GeoOverrides

Also, the structure of the SIP_Populations Company Parameter changed. The old Population CP can be removed unless it was modified, in which case it will be need to backed up.

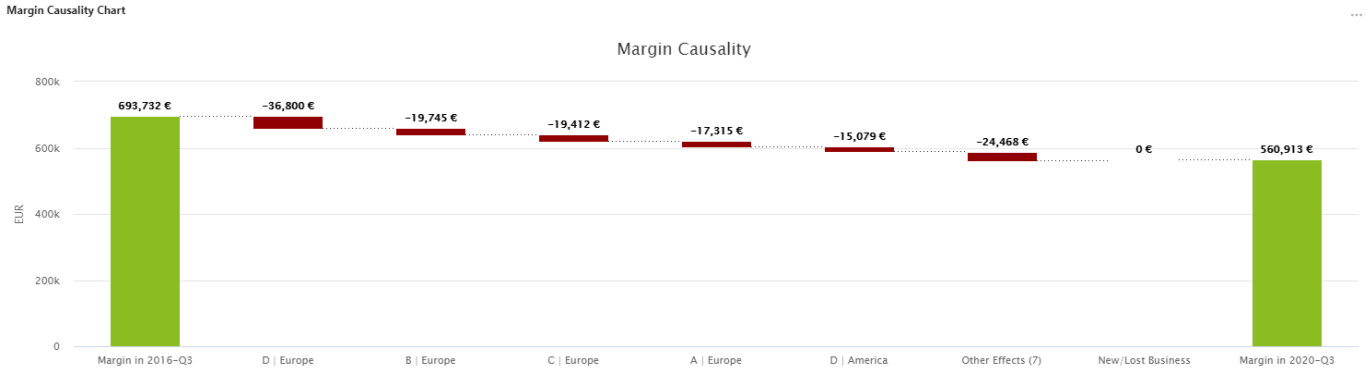
The folder for the CP tables has been created, but the CP tables need to be moved manually to it.

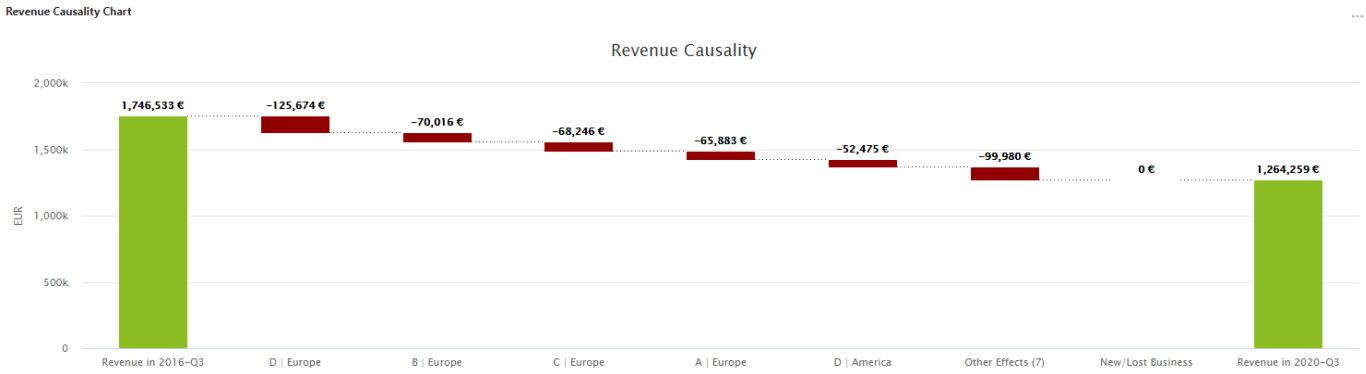
⚠️ The dashboard now uses ISO 3166-1 alpha-2 codes by default as opposed to geographical area names as in previous versions. This may require data changes or use of the newly introduced data mapping feature.

More information about the dashboard and its configuration can be found here.

Product/Customer Causality Dashboard (New)

This new Causality Dashboard allows the user to identify the change in contribution for Product/Customer groups to Total Revenue or Margin between two periods so one can easily identify problematic parts of the business.





The dashboard can display various top groups, starting from 5, 10, 25, and 50.

Bugs

- PFPCS-3425 Revenue and Margin - Per Product/Customer charts - 50 limitation

Improvements

- PFPCS-3426 Waterfall by unit
- PFPCS-2879 SIP Default Filters - Should show existing data when opening configuration wizard

Tasks

- PFPCS-2998 Added drilled down geo overrides

Stories

- PFPCS-2616 Revenue and Margin Regional - Refactoring
- PFPCS-2615 Customers/Products Causality Dashboards
- PFPCS-833 Standardized Waterfall deployment process

Sales Insights Package 1.4.0

Main Features

Product/Customer Aggregation

Additional aggregation levels have been introduced to the Outliers dashboard, Revenue and Margin dashboard, Revenue Breakdown and Margin Breakdown dashboards, which allow for more grouping options.

Bugs

- [PFPCS-2246] - Deployment of SIP package fails if conditionalDataSources is not set
- [PFPCS-2302] - Add missing SIP_DefaultFilters PP
- [PFPCS-2591] - SIP Default Filters - Error occurs when opening configuration wizard
- [PFPCS-2593] - Change null to N/A if having empty value in DM in both table and tooltip
- [PFPCS-2601] - Outliers - Hide Configurator in "Add Porlet"
- [PFPCS-2635] - Revenue/Margin Breakdown_Default date filters not work
- [PFPCS-2636] - Waterfall - Missing chart title
- [PFPCS-2637] - Comparison Waterfall - Appears null instead of (2) in SIP Default Filters wizard
- [PFPCS-2638] - Outliers - Default Calculation Model and KPI does not work when using wizard
- [PFPCS-2681] - Outliers - KPI displays incorrectly if switching to Contribution calculation model
- [PFPCS-2682] - Outliers - N/A is not displayed in chart when selecting Split Equally/ Contribution model
- [PFPCS-2776] - ComparisonPeriod [via ConfiguratorUtils] : ERROR(@0): No signature of method: parsedscript_ConfiguratorUtils_qn1cdslzi7.getCurrentQuarter() is applicable for argument types: () values: []
- [PFPCS-2777] - Comparison Waterfall - Error in DefaultFilerSave: ERROR(@82): Cannot get property 'first' on null object
- [PFPCS-2789] - Comparison Waterfall - Fix typo Customer(s)
- [PFPCS-2791] - SIP dashboards - Fix typo for Customer(s)
- [PFPCS-2864] - Revenue/Margin Breakdown - Missing Product/Customer Aggregation in configuration wizard
- [PFPCS-2865] - Revenue/Margin Breakdown - Show No Data in Year/Comparison Year dropdown
- [PFPCS-2866] - Sort list of dashboard in ascending (A-Z) alphabetical order in wizard
- [PFPCS-2874] - Boolean values in Sales Insights waterfall configuration
- [PFPCS-2877] - Revenue/Margin Breakdown - Change warning to No Data when selecting None
- [PFPCS-2924] - Revenue/Margin Breakdown - Change fallback behavior if user deletes comparison quarter
- [PFPCS-2934] - Revenue/Margin Breakdown - remove date filters from Comparison Year input and improve case if periods are equal

Improvements

- [PFPCS-1383] - Determine if we can avoid text overlap in the following and similar charts:
- [PFPCS-1502] - Change title of Margin Breakdown Dashboard
- [PFPCS-2523] - Revenue and Margin scatter chart - Add "Others" in tooltip if having empty value
- [PFPCS-2594] - Align proportion of slice in drill down chart for top 10 worst in drill down
- [PFPCS-2595] - Outliers - Remove duplicate name in tooltip
- [PFPCS-2633] - Change product/customer dimensions to be selected from main SIP DM
- [PFPCS-2790] - Change name of Revenue and Margin Distribution With Detail Map dashboard
- [PFPCS-1646] - Waterfall comparison - rearrange Dates inputs.

Stories

- [PFPCS-2511] - Outliers - support Product and Customer aggregation
- [PFPCS-2784] - Add product/customer dimension setup in breakdown dashboards

Sales Insights Package 1.3.3

Bug

- [PFPCS-2732] - Cost Driver in Margin Breakdown dashboard is showing incorrect value

Sales Insights Package 1.3.2

Task

- [PFPCS-2581] - Introduce automatic package version updating

Sales Insights Package 1.3.1

Bug

- [PFPCS-2518] - Wrongly defined dynamic fields

Sales Insights Package 1.3.0

Main Features

Default Filters

The default filter feature has been added to all dashboards. This allows the user to set default values which will be displayed on the initial launch of a dashboard. The default filters are set up using the new SIP DefaultFilter configurator wizard.

Users need to create a new PP table called SIP_DefaultFilterValues (due to the current lack of support from pfxpackage to fetch JSON type PP tables).

The table needs to have following setup:

- Name: SIP_DefaultFilterValues
- Valid After: 01/01/2020
- Table Type: JSON
- Value Type: JSON

- Status: Active

After creation the user needs to set up one attribute extension named FilterValue.

Additional Aggregation Levels in Revenue and Margin Dashboard

Revenue and Margin dashboard received additional filters that allow the user to group the data. This improves greatly the dashboard performance on larger data sets.

Outliers Calculation Models

Outliers dashboard now allows to select one of three calculation models: (Max - Min) split, Equal split and Contribution. For more information on the calculation models, please see the dashboard documentation.

Bugs

- [PFPCS-1746] - Contribution chart - Wrong display value of Margin drill down
- [PFPCS-1991] - Revenue and Margin per customer portlet has a huge granularity
- [PFPCS-2148] - Regional Dashboards - sum error on the null value
- [PFPCS-2169] - Change isPercentBasic to isPercentageBase in Comparison Waterfall Highlevel configuration PP
- [PFPCS-2246] - Deployment of SIP package fails if conditionalDataSources is not set
- [PFPCS-2256] - Revenue and Margin Dashboard - Cannot invoke method groupBy() on null object for PerCustomer_Chart
- [PFPCS-2261] - Unhandled error thrown when KPI input field is left empty and refresh is clicked.
- [PFPCS-2262] - Error is thrown when one of the customer is not filled for the Comparison Waterfall Chart in Dashboards
- [PFPCS-2266] - Revenue and Margin Contribution - <Others> is counted incorrectly in drill-down
- [PFPCS-2308] - "Cannot get property 'first' on null object" in WaterfallComparison Configurator
- [PFPCS-2310] - isSum isn't working properly on Waterfall Comparison dashboard
- [PFPCS-2316] - Missing OutlierContributionThresholds PP table on templates-qa
- [PFPCS-2322] - Cannot invoke method keySet() on null object in OutliersConfigurator in SIP Configurator Wizard
- [PFPCS-2339] - Comparison Waterfall - Date filters not work if selecting Product(s)/ Customer(s)
- [PFPCS-2340] - SIP Default Filters - Comparison Waterfall does not show default as setting in configuration wizard
- [PFPCS-2342] - SIP Default filter - Revenue/ Margin Breakdown - Can't set default time filter (quarter, comparison quarter)
- [PFPCS-2350] - SIP Default Filters - Some dashboards - Error occurs after deleting default Product(s) /Customer(s)
- [PFPCS-2356] - SIP Default Filters - Revenue/Margin Breakdown - Error occurs after deleting default Product(s)/Customer(s)
- [PFPCS-2377] - SIP Default Filters - Outliers - Error occurs when deleting default Product(s)/ Customer (s)
- [PFPCS-2379] - Outliers - Same data in Best & Worst Products Performance if only having 16 products
- [PFPCS-2380] - Outliers - Incorrect Customers/Products Performance when selecting Sum calculation model
- [PFPCS-2381] - Outliers - Incorrect Customers/Products Performance when selecting CONTRIBUTION calculation model
- [PFPCS-2387] - Comparison waterfall - error by entering wrong date
- [PFPCS-2413] - Outliers dashboard throws error when there is no bottomData found
- [PFPCS-2417] - Comparison Waterfall - Can't click delete default Customer(s)/Product)s)

- [PFPCS-2421] - Comparison Waterfall - Value is displayed incorrectly when deleting default time ranges
- [PFPCS-2428] - ERROR(@14): Unrecognized field "first" (class net.pricefx.domain.ProductGroup), not marked as ignorable (5 known properties
- [PFPCS-2430] - SIP Default Filters - Can't click delete default for Outliers and Map
  - Introduced new "World" region.
- [PFPCS-2435] - Missing Product/ Customer Aggregation in SIP Default Filters configuration wizard
- [PFPCS-2443] - Revenue and Margin - Charts are displayed incorrectly
- [PFPCS-2449] - Revenue and Margin - Change label and rounding issue
- [PFPCS-2453] - SIP Default Filters - Can't apply default Product/ Customer Aggregation
- [PFPCS-2455] - Comparison waterfall - Filters are not showing correctly on the dashboard
- [PFPCS-2487] - Comparison Waterfall - Not return fall back date when deleting default time ranges

Stories

- [PFPCS-2227] - Add additional aggregation levels to Revenue and Margin Dashboard
- [PFPCS-1918] - Allow to define filters
- [PFPCS-1923] - Outliers Dashboard - additional model
- [PFPCS-2079] - Column Charts - allow to switch Y-axis to logarithmic scale
- [PFPCS-2165] - SIP - Misleading x-axis labels in contribution graphs

Sales Insights Package 1.2.1

Note (pre-Collins 5.x releases of Pricefx): For every deployment, you should go to Pricefx Classic UI Administration Dashboards choose SIP dashboards settings refresh the logic and click Save. The Pricefx UI will then be updated with a new deployment.

Bugs

- [PFPCS-2147] - SIP 1.2.0 - Cannot invoke method format() on null object
- [PFPCS-2149] - Customer Name is not reflected in default SIP definition
- [PFPCS-2151] - Missing CompetitiveDiscount in definition
- [PFPCS-2172] - Customer data should be mandatory when deployed through PlatformManager
- [PFPCS-2173] - Names of groups are misleading

Sales Insights Package 1.2.0

Main Features

Performance Enhancements

The Revenue/Margin Breakdown and Outliers dashboards received a significant performance boost thanks to raw SQL queries.

Performance recommendations:
Do not use the normalization mode "High" in the Datamart setup.
Make sure the main fields (Invoice price, margin or quantity) are stored in the Datamart and not calculated in the query time through Datamart expressions.

Generic Filter

All dashboards now contain an additional Generic Filter entry which allows the user to set up additional filtering unavailable through normal means (e.g. filter out all entries without certain data).

Update Procedure

Package updates can be done from Marketplace in PlatformManager. For the updates use the package Sales Insights Dashboards which does not include creation of all data structures like Product/Customer Master, Datamart, etc. Before the update it is necessary to back up all PP tables for Waterfall definitions.

Note (pre-Collins 5.x releases of Pricefx): For every deployment, you should go to Pricefx Classic UI Administration Dashboards choose SIP dashboards settings refresh the logic and click Save. The Pricefx UI will then be updated with a new deployment.

Bugs

- [PFPCS-1728] - Change category to "Sales Insights" for Comparison Waterfall
  - **Update notes:** There may be a redundant folder "Sales Insight" left that will need to be deleted manually
- [PFPCS-1919] - Revenue and Margin Dashboard - Missing Bars
- [PFPCS-1920] - Sales Insights - Revenue and Margin - zooming on the charts
  - **Update notes:** This bug was fixed in the library, if the newest (v1.2, currently in development) version is not deployed on the partition, the fixed needs to be applied manually, the fix is in the task description
- [PFPCS-1921] - Error when clicking Export to Excel for Revenue and Margin Dashboard
- [PFPCS-1922] - Outliers dashboard, not applied time filter on summary query
- [PFPCS-2031] - Margin Breakdown Averages model does not return any data
- [PFPCS-2033] - Outliers is not working when name of DM field and alias match
- [PFPCS-2035] - Revenue Breakdown - Change ResultChart to Revenue Breakdown Chart in chart name
- [PFPCS-2036] - Revenue Breakdown - Value is not converted based on currency selection
- [PFPCS-2037] - Error occurs when deleting existing currency selection
- [PFPCS-2038] - Margin Breakdown Averages model - Mix is not calculated correctly
- [PFPCS-2039] - Margin Breakdown - Missing the title of the chart
- [PFPCS-2040] - Margin Breakdown - Value is not converted correctly based on currency selection
- [PFPCS-2059] - Outliers - Wrong proportion of slice in drill down chart
- [PFPCS-2060] - Outliers - Both best and worst contain same products
- [PFPCS-2062] - Outliers - Should sort the Worst case in the descending order
- [PFPCS-2071] - Outliers - Remove redundant "Others" in drill down chart
- [PFPCS-2077] - Change the order of Generic Filer in Revenue Breakdown
- [PFPCS-2078] - Comparison Waterfall - Date filters are not working
  - ⚠ **Warning:** Currently due to a limitation: PM-810 - Getting issue details... STATUS the inline configurator does not return a value on the initial dashboard render.
    For now an temporary solution has been applied that returns a default configurator with default date filters in such case. This will be changed once the limitation is resolved.
- [PFPCS-2087] - Revenue breakdown - Error thrown when query element time outs
- [PFPCS-2088] - Outliers dashboard query is not compatible with Green Plum

- [PFPCS-2100] - Outliers - Same data in Best and Worst Products Performance table
- [PFPCS-2101] - Outliers - Change customer/product name to customer Id/ product id in tooltip
- [PFPCS-2104] - Outliers - Missing data in Best & Worst Customers Performance if selecting KPI is Margin %

Stories

- [PFPCS-2052] - Generic Filter for Dashboards
- [PFPCS-1400] - Revenue Breakdown performance and support of larger datasets
- [PFPCS-1401] - Margin Breakdown performance and support of larger dataset
- [PFPCS-1402] - Define waterfall groups for optional fields in deployment script
- [PFPCS-1404] - Add screen to allow user to select what dashboards to upload
- [PFPCS-1640] - Regional Revenue and Margin - Default time ranges
- [PFPCS-1719] - Revenue and Margin & Outliers dashboard- Add default values
- [PFPCS-1845] - Review Visibility of elements in dashboards logics
- [PFPCS-1884] - Date filter performance improvements for Breakdown charts
- [PFPCS-1949] - Add currency symbol in tooltip of Revenue Pareto charts
- [PFPCS-1997] - Outliers Dashboard performance improvements
- [PFPCS-2072] - Outliers - Missing 2 tables with showing "No data" when we don't have data

Sales Insights Package 1.1.0

Included Components

Sales Insights Package 1.1.0 includes the following dashboards:

- Revenue and Margin
- Outliers Dashboard
- Revenue Breakdown
- Margin Breakdown
- Waterfall
- Comparison Waterfall
- Revenue and Margin Distribution With Detail Map

Price Parameters (PP) – all are under the Sales_Insights folder:

- PFXTemplate_DB_RevenueAndMargin
- PFXTemplate_DB_Waterfall_HighLevel
- PFXTemplate_DB_Waterfall_SubLevel
- Population
- CurrencySymbols (allows you to define a currency symbol shown on the SIP dashboards based on selected currency)

Multi-currency Support

There is an option to display charts in a different currency than the base Datamart currency. This option includes only currencies for which we have an exchange rate from the base currency to the user selected currency.

Advanced Configuration Options

- SIP_AdvancedConfiguration
- SIP_Commons_AdvancedConfiguration

Note: For every deployment, you should go to Pricefx Classic UI Administration Dashboards Choose SIP dashboards settings refresh the logic and click save. Then Pricefx UI will be updated with a new deployment.

Bugs

- [PFPCS-1108] - Missing message when customer data does not exist
- [PFPCS-1240] - Revenue breakdown dashboards contains invalid SQL statement
- [PFPCS-1246] - Revenue breakdown errors out
- [PFPCS-1272] - Revenue and Margin_Error when inputting time range don't have in DM
- [PFPCS-1273] - Show "null" in tooltip of some SIP dasboards
- [PFPCS-1325] - Incorrect total drilldown compared to total on high level
- [PFPCS-1387] - Outliers Dashboard_Not show Summary if have input selection
- [PFPCS-1394] - Outliers Dashboard - Empty page without showing "No data" if it doesn't have data in DM
- [PFPCS-1396] - Incorrect of Region and Country in Region Configurator
- [PFPCS-1397] - Fields Country remains pre-filled from previous configurations
- [PFPCS-1407] - Revenue and Margin dashboard_Wrong name in tooltip for Product
- [PFPCS-1434] - Revenue and Margin dash. - Rounding issue when select specific customer, product
- [PFPCS-1442] - Revenue Breakdown_Timed out for LostBusinessEffect
- [PFPCS-1443] - Margin Breakdown_Error when don't have data in DM
- [PFPCS-1458] - Incorrect order of inputs on SIP dashboards
- [PFPCS-1583] - Comparison Waterfall - Wrong order input and cosmetic issues
- [PFPCS-1584] - Comparison Waterfall - Wrong tooltip of drilldown
- [PFPCS-1611] - Margin Breakdown - Mix element is calculated incorrectly
- [PFPCS-1626] - Regional Revenue and Margin - No decimal points if selecting 1 product, customer
- [PFPCS-1641] - Revenue/Margin Breakdown - Missing Percentage % on Axis Y
- [PFPCS-1647] - Investigate how Margin % is calculated in Regional Revenue and Margin
- [PFPCS-1655] - Regional revenue and margin - Deviation value, Revenue/customer, Margin/customer are incorrect

Stories

- [PFPCS-750] - Rebuild Revenue and Margin Dashboard
- [PFPCS-751] - Rebuild Outliers Dashboard
- [PFPCS-752] - Rebuild Waterfall Dashboard
- [PFPCS-753] - Rebuild Waterfall Comparison
  - **Update notes -** Previously three separated dashboards *comparison waterfall products/customers /time period* were merged and replaced by new one *comparison waterfall*. Old ones can be removed.
- [PFPCS-754] - Rebuild Revenue Breakdown Dashboard
- [PFPCS-755] - Rebuild Margin Breakdown Dashboard
- [PFPCS-756] - Rebuild Regional Revenue and Margin Dashboard
- [PFPCS-878] - General dashboards enhancement ideas
- [PFPCS-1054] - Unify Advanced Configuration in SIP dashboards

    - **Update notes -** Unify Datamart configuration for all dashboards. The main configuration is *SIP_AdvancedConfiguration.*
- [PFPCS-1353] - Improve the No. Products/Customers functionality in the Outliers Dashboard
- [PFPCS-1376] - Introduce chart selection in the Waterfall charts

Tasks

- [PFPCS-1055] - Unify Dashboard validity dates
- [PFPCS-1289] - Add Advanced Configuration to the repository for auto-deployment
- [PFPCS-1300] - Breakdown dashboards enhancement proposals.
- [PFPCS-1301] - Remove rounding from queryResults in dashboards.
- [PFPCS-1403] - Retest deployment script of Sales Insights package
- [PFPCS-1430] - ContributionBuckets configuration
- [PFPCS-1433] - Delete redundant folders in PP
- [PFPCS-1437] - Change label in Revenue and Margin dashboard when only 1 customer/product is present
- [PFPCS-1438] - Add dashboard definitions with preferences to the repository
- [PFPCS-1439] - Introduce Sales Insights folder for PP tables
- [PFPCS-1454] - Introduce null filters for margin and revenue in Revenue and Margin dashboard
- [PFPCS-1461] - Investigate "0" shown on axis on a partition for InTime chart
- [PFPCS-1462] - Introduce null filters for margin and revenue in Margin Breakdown dashboard
- [PFPCS-1467] - Revenue breakdown dashboard exceeds the in-memory table limit
- [PFPCS-1472] - Introduce null filters for revenue and quantity in Revenue Breakdown dashboard

Improvements

- [PFPCS-1094] - Correct Currency symbols in labels
- [PFPCS-1095] - Multi-currency support
- [PFPCS-1096] - Unification of Dashboards
- [PFPCS-1356] - Scatter chart should show "Others" instead of "Series 2"
- [PFPCS-1382] - Remove credits from charts
- [PFPCS-1398] - Revenue Breakdown - Default values
    - **Update notes -** Default values for time range were set to last year (day to day).
- [PFPCS-1399] - Margin Breakdown - Default values
    - **Update notes -** Default values for time range were set to last year (day to day).
- [PFPCS-1402] - Define waterfall groups for optional fields in deployment script
- [PFPCS-1469] - Revenue and Margin dash. - Change label of contribution chart
- [PFPCS-1520] - Margin Breakdown - Unify query same as in Revenue Breakdown
- [PFPCS-1560] - Waterfall - Add default values
    - **Update notes -** Default values for time range were set to last year (day to day).
- [PFPCS-1561] - Waterfall_High Level PP table - Set default preference
- [PFPCS-1563] - Comparison Waterfall - Add default time ranges
    - **Update notes -** Adds default time ranges to comparison as last full year vs last full year -1.
- [PFPCS-1625] - Comparison Waterfall - Add option to switch to %