



# Accelerate Customer Insights Package

Version 1.6.0

October 2022

# Accelerate Customer Insights Package (CIP)

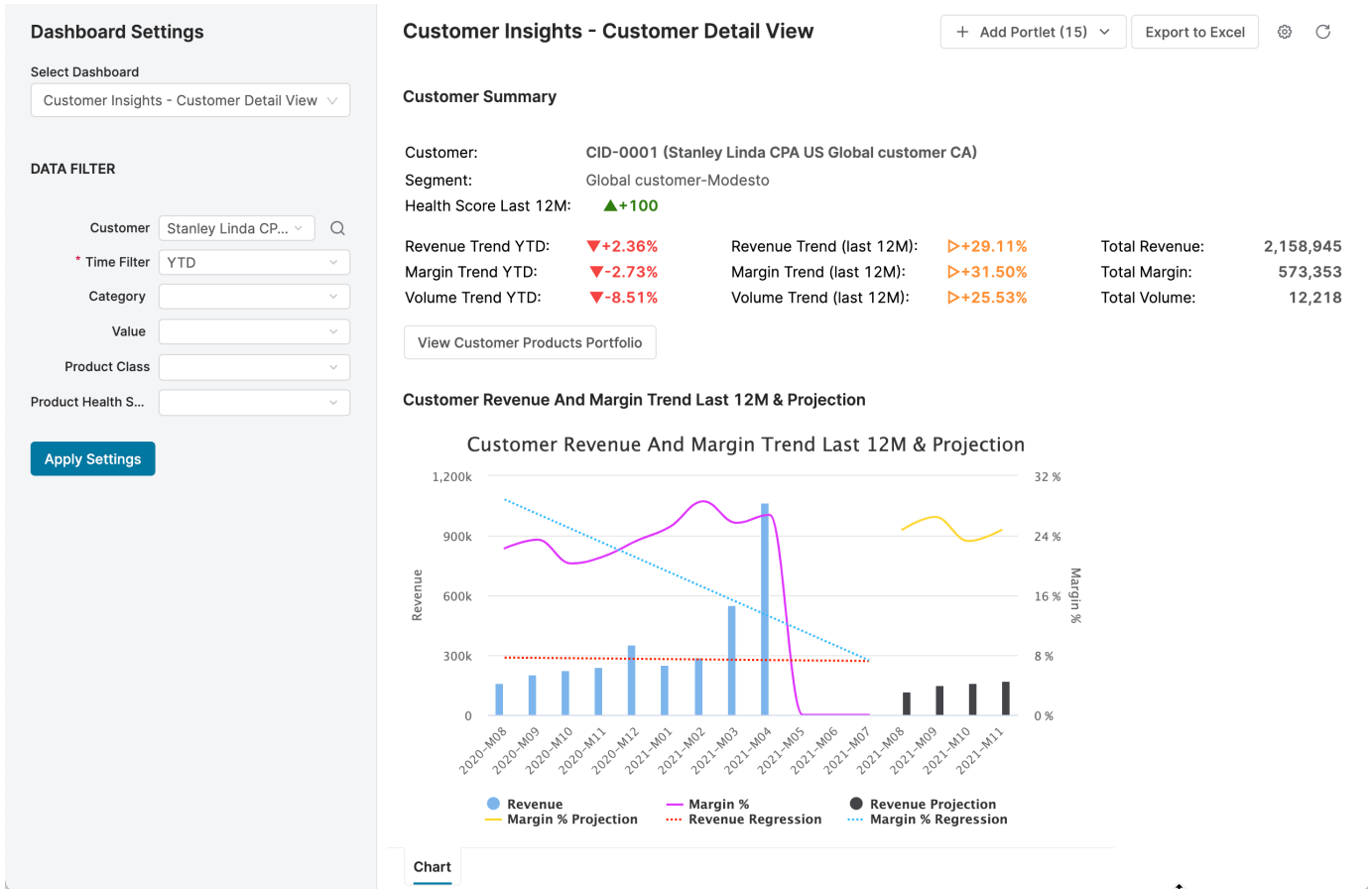
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## Product Info (CIP)

Accelerate Customer Insights Package allows management teams to prevent margin leakages through set of actionable analytics for sales and pricing enabling identification of customers at risk (with low health score) and reasons behind. It includes advanced analysis of performance of all customers, individual customers / customer groups as well product performance for a customer.

KPIs provided by the analysis:

- Customer and Product health scores
- Revenue, Margin and Volume trends
- Pricing and Sales opportunities



## Dashboards Description (CIP)

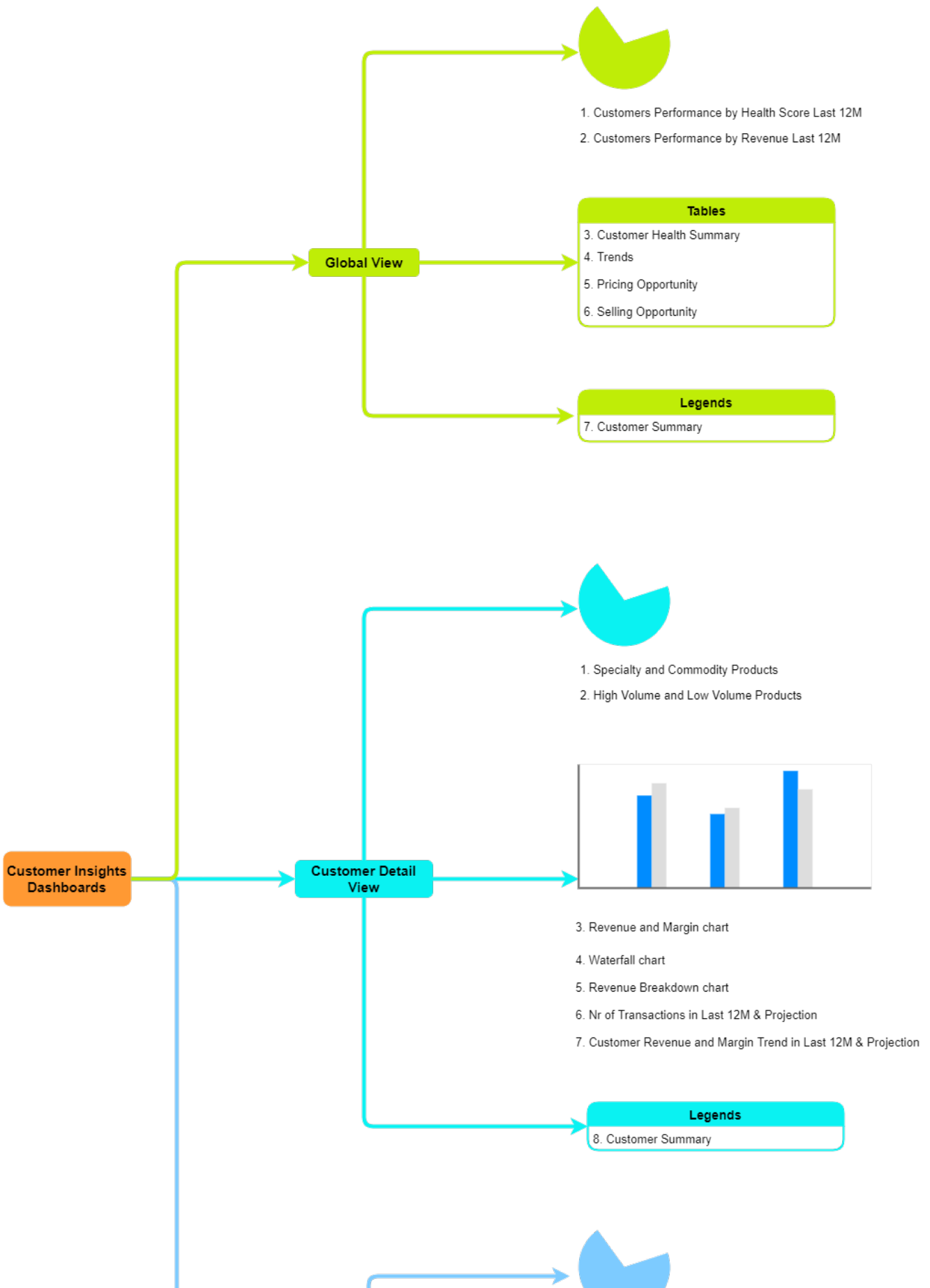
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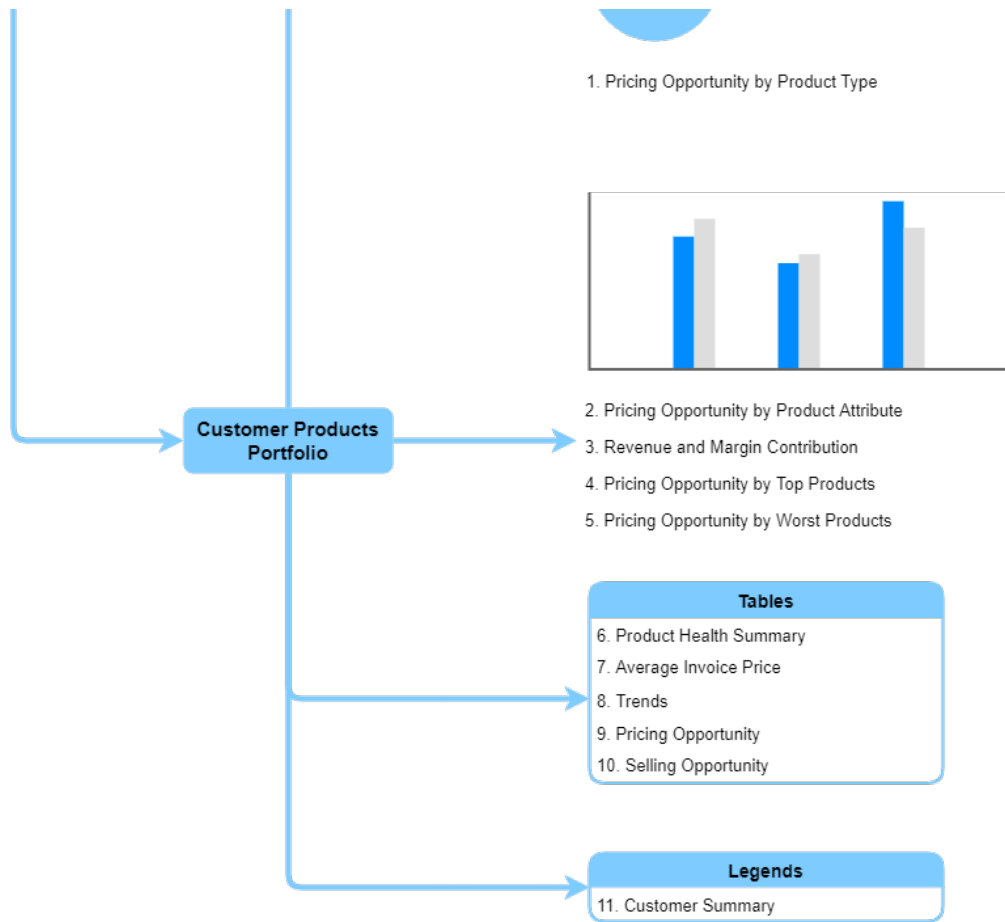
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## 1. Overview

Customer Insights Dashboards consist of three separate dashboards which provide an overview of the trading performance of a customer group. They also support analysis of an individual customer's performance.

For detailed formula explanation see [Glossary](#).





## 2. User Inputs

### 2.1 Global View

Name	Values
Customer(s)	
Time Filter	MTD, QTD, YTD, L12M, L6M, L3M
Customer Rank	All, Top, Worst
Customer Rank Bucket	5,10, 50, 100
KPI	Revenue, Margin %, Volume, Health Score
Customer Class	A, B, C, D (Multiselect is enabled)
Customer Health Score	Excellent, Normal, Low, Problematic (Multiselect is enabled)

## 2.2 Customer Detail View

Name	Values
Customer	
Time Filter	MTD, QTD, YTD, L12M, L6M, L3M
Category (+ Value)	E.g.: Product ID, Product Group
Product Class	Very High, High, Normal, Low (Multiselect is enabled)
Product Health Score	Excellent, Normal, Low, Problematic (Multiselect is enabled)
Product Base	Core, LongTailed, All

## 2.3 Customer Products Portfolio

Name	Values
Customer	
Product Attribute	Relevant product related dimensions, by default it is Product Group.
Time Filter	MTD, YTD, L12M, L6M, L3M
Customer Rank	All, Top, Worst
Customer Rank Bucket	5, 10, 50, 100
Product Class	Very High, High, Normal, Low (Multiselect is enabled)
Product Health Score	Excellent, Normal, Low, Problematic (Multiselect is enabled)

## 2.4 Look

Global View	Custo
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DATA FILTER	DATA FILTER
Customer(s) <input type="text" value="Select Customer(s)"/> <input type="button" value="Q"/>	Customer * <input type="text" value="Select Customer"/>
Time Filter * <input type="text" value="YTD"/>	Time Filter * <input type="text" value="YTD"/>
Customer Rank * <input type="text" value="All"/>	Category <input type="text"/>
Customer Rank Bucket * <input type="text" value="5"/>	Value <input type="text"/>
KPI * <input type="text" value="Health Score"/>	Product Class <input type="text"/>
Customer Class <input type="text"/>	Product Health Score <input type="text"/>
Customer Health Score <input type="text"/>	Product Base <input type="text"/>
Customer Base <input type="text"/>	

## 2.5 Time Filter

- For time filters with Last period (L3M, L6M, L12M, ...):  
 [Start date] = First Month Beginning Date  
 [End date] = Previous Month End Date  
 E.g.: Today is 2021-08-06 => L3M : From 2021-05-01 to 2021-07-31

- For time filters with up To Date (YTD, QTD, MTD, ...)
  - [Start date] = Period Beginning Date
  - [End date] = Current date
  - E.g.: Today is 2021-08-06 => QTD : From 2021-07-01 to 2021-08-06

## 2.6 Filter Rules

Does not apply

Dashboards	Portlets		User Inputs						
			Customer (s)	Time Filter	Customer Rank + Customer Rank Bucket	KPI	Customer Class	Customer Health Score	Customer Base
Global View	Pie Chart	1. Customers Performance by Health Score Last 12M	X	X			X	X	X
		2. Customers Performance by Revenue Last 12M	X	X			X	X	X
	Table	3. Customer Health Summary	X	X	X	X	X	X	X
		4. Trends	X	X	X (*)	X	X	X	X
		5. Pricing Opportunity	X	X	X (Ranked by Revenue Below Target descending)		X	X	X
		6. Selling Opportunity	X	X	X (Ranked by Opportunity descending)		X	X	X
		7. Inactive Customers							
	Legend	8. Customer Summary	X	X			X	X	X

Dashboards		Portlets	User Inputs				
			Customer	Time Filter	Category + Value	Product Class	Product Health Score

Customer Details View	Pie Chart	1. Specialty and Commodity Products	X	X	X	X	X	X
		2. High Volume and Low Volume Products	X	X	X	X	X	X
	Bar Chart	3. Revenue and Margin chart	X	X	X	X	X	X
		4. Waterfall chart	X	X	X	X	X	X
		5. Revenue Breakdown chart	X	X	X	X	X	X
		6. Number of Transactions in Last 12M & Projection	X		X	X	X	X
		7. Customer Revenue and Margin Trend in Last 12M & Projection	X		X	X	X	X
	Legend	8. Customer Summary	X	X	X	X	X	X

Dashboards	Portlets	User Inputs							
		Customer	Time Filter	Product Attribute	Customer Rank + Customer Rank Bucket	Product Class	Product Health Score	Product Base	
Customer Products Portfolio	Pie Chart	1. Pricing Opportunity by Product Type	X	X			X	X	X
	Bar Chart	2. Pricing Opportunity by Product Attribute	X	X	X		X	X	X
		3. Revenue and Margin Contribution	X	X			X	X	X
		4. Pricing Opportunity	X			X	X	X	X

		y by Top Products						
		5. Pricing Opportunity by Worst Products	X	X		X	X	X
Table		6. Product Health Summary	X	X		X (by Health Score)	X	X
		7. Average Invoice Price	X	X (*)		X (by Overall)	X	X
		8. Trends	X	X (*)		X (by Health Score)	X	X
		9. Pricing Opportunity	X	X	X	X	X	X
		10. Selling Opportunity	X	X	X	X	X	X
Legend		11. Customer Summary	X	X			X	X

(\*): Only sorts out Customers/Products that have traded in the period, does not affect calculation results.

### Customer/Product Rank Bucket

Counted items shown in the top or bottom of the list are based on the Rank Bucket input. If the whole list has 12 customers and Customer Rank Bucket =10, then the top part of the list shows 10 customers and the bottom part shows 2 customers.

#### Dashboard Settings

Select Dashboard  
Customer Insights - Global View

DATA FILTER

Customer(s) "Customer Type" e...

\* Time Filter YTD

\* Customer Rank Buc... **10**

\* KPI Health Score

Customer Class

Customer Health Score

**Apply Settings**

#### Customer Insights - Global View

+ Add Portlet (13) Export to Excel

##### Customer Health Summary

Customer Name	Customer Id	Health Score Last 12M	Total Revenue	Total Margin
▲ Appetito Mz	CD-00001	▲ +100	189,261	81,902
▲ BioMérieux	CD-00038	▲ +100	357,829	235,685
▲ CD GmbH	CD-00042	▲ +100	354,843	238,231
▲ Döhner Bar	CD-00053	▲ +100	113,439	45,399
▲ Fischer Fleisch	CD-00061	▲ +100	31,490	19,899
▲ Spagetti M	CD-00002	▲ +80	464,840	288,911
▲ Pastapusta	CD-00017	▲ +80	453,717	283,343
▲ Appetito KA	CD-00021	▲ +80	457,707	285,649
▲ Frutto inc	CD-00026	▲ +80	440,629	272,324
▲ Nobel Hobel AG	CD-00027	▲ +80	447,616	277,977
▼ Hydra SAS	CD-00077	▶ +68	31,090	19,765
▼ Lindo Healthball	CD-00085	▶ +55	28,234	18,349

12 rows

### 3. Classifications

#### Customer Classification

Based on cumulative contribution to the total revenue in the last 12 months.

According to the cumulative revenue contribution, the customer is assigned into a category (the thresholds are configurable).

Class	Cumulative volume contribution / threshold
A	<= 20%
B	<= 50%
C	<= 95%
D	rest

#### Product Classification

Based on cumulative contribution to the total volume in the last 12 months.

According to the cumulative volume contribution, the product is assigned into a category (the thresholds are configurable).

Class	Cumulative volume contribution / threshold
Very High Volume	<= 10%
High Volume	<= 20%
Normal Volume	<= 75%
Low Volume	rest

#### Commodity vs. Specialty Product

Based on an average margin achieved by the product during the last 12 months (the thresholds are configurable).

For detailed formula explanation see [Glossary](#).

Class	Threshold
Commodity	<=40%
Specialty	> 40%

#### Customer Health Score, Product Health Score

Customers or products are assigned into different classes based on Health Score calculated as a summary of Revenue Health Score and Margin Health Score (with weights set for particular inputs).

The Revenue Health Score and Margin Health Score are set according to the Revenue and Margin monthly change (trend) in the last 12 months (the maximum value is 100, the minimum value is 0) and to this classification:

Revenue or Margin Trend Last 12M	Revenue or Margin Health Score
>25%	100
15% - 25%	75
5% - 15%	60
-5% - 5%	50
-5% - -15%	40
-15% - -25%	25
< -25%	0

Health Score = Revenue Score \* Revenue Weight + Margin Score \* Margin Weight

The weight value is configurable and can be set between 0 and 1 for each (the default value is 0.5 for each); the summary of these two has to be equal to 1 (e.g. Revenue Weight = 0,5, Margin Weight = 0,5 => 0,5 + 0,5 = 1).

If a customer or product is decreasing in revenue and margin, the Health Score value goes down.

### Health Score Classes

Class	Health Score / threshold
Excellent	> 75
Normal	> 50
Low	> 25
Problematic	rest

### Customer Segmentation

To group customers by common characteristics, the Customer Segment is defined in configuration (Price Parameters) - a list of fields the segment consists of, e.g. customer size, region, country etc.

According to values aggregated on the Customer Segment level, certain KPIs for particular customers are calculated, e.g. cross sell.

### Customer Base, Product Base

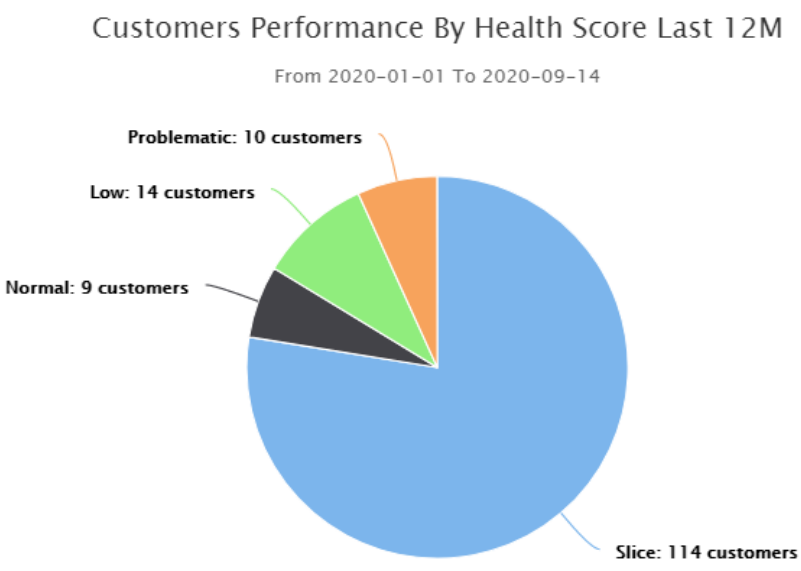
Based on cumulative revenue contribution and the threshold defined, Customers and Products are classified as either Core or Long Tailed.

For detailed formula explanation see [Glossary](#).

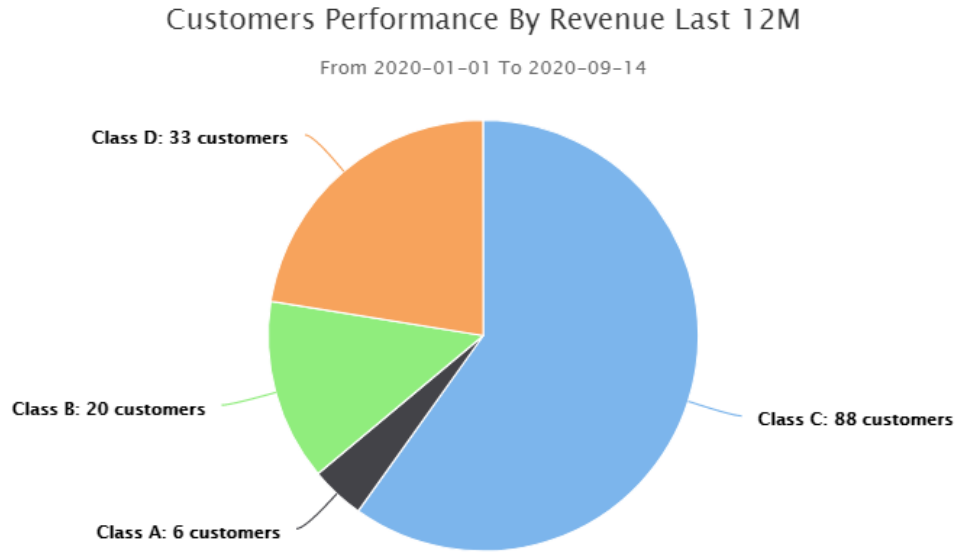
Customer Base / Product Base	Threshold

Core	<=80%
Long Tailed	> 80%

#### 4. Analysis

Dashboards	Portlets	Description	Source										
Global View	1. Customers Performance	<p>Shows relative sizes of customer classification based on Health Score in the last 12 months.</p> <p><b>Customers Performance By Health Score Last 12M</b></p>  <table border="1" data-bbox="454 777 1250 1344"> <caption>Customers Performance By Health Score Last 12M</caption> <thead> <tr> <th>Classification</th> <th>Number of Customers</th> </tr> </thead> <tbody> <tr> <td>Slice</td> <td>114</td> </tr> <tr> <td>Low</td> <td>14</td> </tr> <tr> <td>Normal</td> <td>9</td> </tr> <tr> <td>Problematic</td> <td>10</td> </tr> </tbody> </table>	Classification	Number of Customers	Slice	114	Low	14	Normal	9	Problematic	10	Simulation
	Classification	Number of Customers											
Slice	114												
Low	14												
Normal	9												
Problematic	10												
2. Customers	<p>Shows relative sizes of customer classification based on Revenue in the last 12 months.</p>	Simulation											

Customers Performance By Revenue Last 12M



3. Shows Customer's Health calculated based on the difference between two periods.  
Ex: Current YTD and Previous YTD.  
It shows correlation between Health Score and revenue, gross margin, volume.

Customer Health Summary

Customer Name	Customer ID	Health Score	Total Revenue	Total Margin	Total Volume	Margin %	No. of Transactions per Day
Walter Stein	CD-00142	▲ +100	16,392	6,909	5,667	34.30%	3
Appetto Ma	CD-00091	▲ +98	476,409	246,126	162,965	52.70%	107
Zombischwin ...	CD-00147	▲ +98	16,617	6,799	5,672	53.04%	3
WIND Park	CD-00144	○ +98	19,584	6,676	5,175	53.04%	3
Clouds Park	CD-00143	○ +92	11,845	6,290	4,400	53.10%	3
Bushhouse	CD-00038	▼ 0	161,061	62,043	34,000	38.50%	3
Berona	CD-00037	▼ 0	160,912	62,754	33,361	38.99%	3
Diakon Droger	CD-00054	▼ 0	160,798	61,830	33,030	38.28%	3
Amal	CD-00056	▼ 0	160,539	61,654	34,086	38.28%	3
Coval Ball	CD-00046	▼ 0	160,198	62,343	33,613	39.00%	3

4. Trends

Simulation

Simulation

Trends					
Customer Name	Customer Id	Revenue Trend Last 12M	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend
▲ Wacker Stein	CD-00142	▼ -22.89%	▼ -4.12%	▼ -20.76%	▲ +
▲ Appetito Mz	CD-00001	▲ +172.10%	▲ +171.61%	▲ +165.92%	▲ +
▲ Zumtoschwein KG	CD-00147	▼ -23.23%	▼ -5.14%	▼ -20.29%	▲ +
▲ WIGO Fish	CD-00144	▼ -23.77%	▼ -6.90%	▼ -23.33%	▲ +
▲ Claudio Pasto	CD-00143	▼ -32.24%	▼ -21.19%	▼ -29.58%	▲ +
▼ BioMérieux	CD-00038	▲ +97.11%	▲ +72.30%	▲ +99.20%	▼ -
▼ Beruxo	CD-00037	▲ +76.15%	▶ +55.79%	▲ +74.42%	▼ -
▼ Dörken Gruppe	CD-00054	▲ +113.64%	▲ +78.84%	▲ +107.72%	▼ -
▼ Junui	CD-00056	▲ +81.41%	▶ +57.83%	▲ +81.18%	▼ -
▼ Covid Ball	CD-00046	▲ +82.80%	▶ +58.59%	▲ +77.48%	▼ -

5. Pricing Opportunity

Shows a list of customers who can be targeted to sell more products and more sales volume. The top of the list represents the highest opportunity, these customers are under the average point in the customers set. The bottom of the list represents the lowest opportunity. (hidden)

Pricing Opportunity				
Customer Name	Customer Id	Revenue Below Target	% Revenue Below Target	% Product Buying
New York Meat	CD-00008	27,754	4.90%	100.00%
Price f(x) AG	CD-00004	22,643	5.59%	100.00%
E. Fuller	CD-00009	22,295	4.00%	100.00%
Grays Ho	CD-00010	22,197	5.34%	100.00%
M. Müller	CD-00003	21,185	3.60%	100.00%

- Revenue below target (Evaluate purchased products)
  - + If the value > 0, customers have reached the revenue under the average point among the customers set, it indicates the value that customer should obtain to reach the average base.
  - + If the value = 0, customers have reached the revenue above the average point among the customers set, they are good customers.
- % Product Buying - Shows how many products (in %) the customer purchased in the given period.
  - + If the value = 100%, the customer purchased full products set presented in the given period. It correlates with Cross Sell Opportunity = 0.
  - + If the value < 100%, the customer did not purchase the full products set presented in the given period. It means this customer must have Cross Sell Opportunity > 0.

6. Selling

Shows the total value which can be gained for products that the customer already bought and not bought in the given period.

- Cross Sell (Evaluate non-purchased products)

Simulation

Simulation

Opportunity

- + The value that the customer should spend by purchasing a product which they did not buy in the past, but other customers bought it.
- + If the value = 0, the customer bought full products set presented in the given period.
  - Up Sell (Evaluate purchased products)
- + The value that the customer should spend more by purchasing a product which they already bought in the past.
- + If the value = 0, the customer purchased products that all are above average point in the customers set.
  - Opportunity: This is the total additional value that can be obtained for the customer, evaluate for both purchased and non purchased products.

Selling Opportunity				
Customer Name	Customer Id	Cross Sell	Up Sell	Opportunity
Lindo Healthball	CD-00085	20,811	373,249	394,060
Zumtoschwein KG	CD-00147	101,990	199,422	301,412
Schweizer Group	CD-00117	83,194	147,951	231,145
Texas Meat	CD-00133	76,681	130,842	207,523
Stomach	CD-00129	74,389	129,193	203,582

7. Customer Summary

- Displays some typical figures regarding a chosen customer or a group of customers.
- Customer displays a list of [Customer ID,(Customer Name)] following a filter group. When no customer is selected, it is left empty.
- Health Score Last 12M is re-calculated by the Trend L12M of the group.
- Pricing Opportunity =  $\sum$  Revenue below target
- Selling Opportunity =  $\sum$  Up Sell +  $\sum$  Cross Sell
- L12M trends are calculated on the monthly basis.
- Note: Data queried from **Datamart**

SELECT DASHBOARD

Customer Insights Global View

DATA FILTER

Customer(s) Customer Type: Industry

\* Time Filter L12M

\* Top/Worst Custome... 5

\* KPI Health Score

Customer Class

Customer Health Score

Customer Summary

Customers: CD-00003 (M. Müller), CD-00004 (Price f(x) AG), CD-00012 (Soupo DE), CD-00014 (Kraftmeat), CD-00018 (Soupo CH), CD-00019 (Francomeat), CD-00020 (US Steak), CD-00022 (Saftmeat), CD-00024 (Xing-Wop), ...

Health Score Last 12M: >+55

Revenue Trend YTD: ▼-100.00%	Total Revenue: 140,297,611	Pricing Opportunity: 10,896,565
Margin Trend YTD: ▼-100.00%	Total Margin: 7,039,809	Selling Opportunity: 7,970,628
Volume Trend YTD: ▼-100.00%	Total Volume: 5,655,068	Opportunity: 18,867,193

Datamart

8. Inactive Customer

This portlet shows a list of "inactive" Customers so that user can identify Customers which are marked as active and for which there are no transactions in the chosen **time period**.  
[Config Inactive-Customer-classification](#)

Customer

Inactive Customers

Customer Name	Customer Id	Last Active Month	Months Inactive
Progusto	CD-00148	No data	No data
APPO AG	CG-0001	No data	No data
Zumtoshwein KG	CD-00147	2020-M03	21
WIGO Fish	CD-00144	2020-M06	18
Würter Wurst	CD-00145	2020-M06	18
MX Meat Inc.	CD-00146	2020-M06	18
Claudio Pasto	CD-00143	2020-M06	18

17 rows

- Applied filters: Customer(s), Time filter
- Not applied filters: Customer Rank, Customer Rank Bucket, KPI, Customer Class, Customer Health Score
- Months Inactive = Current Month - Last Active Month

The screenshot shows a dashboard titled '1. Customer Insights - Global View'. On the left is a 'DATA FILTER' sidebar with various filters like 'Customer(s)', 'Time Filter', 'Customer Rank', etc. The main area displays a table of 'Inactive Customers' with columns for Customer Name, Customer ID, Last Active Month, and Months Inactive. A green box highlights a portion of the table, and a red box highlights a filter setting in the sidebar.

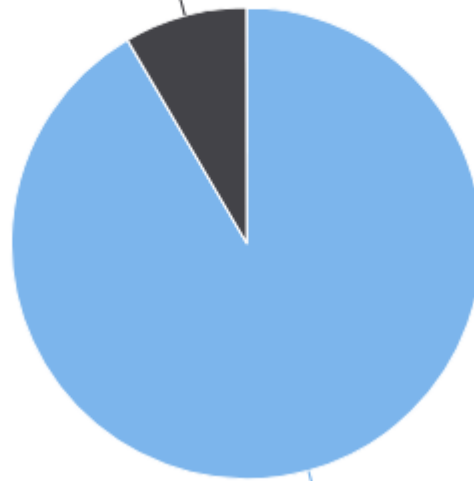
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Shows relative sizes of product classification based on the margin %.  
Specialty Products: Higher than the defined margin %  
Commodity Products: Lower than the defined margin %

Speciality vs Commodity Products

From 2020-01-01 To 2020-07-06

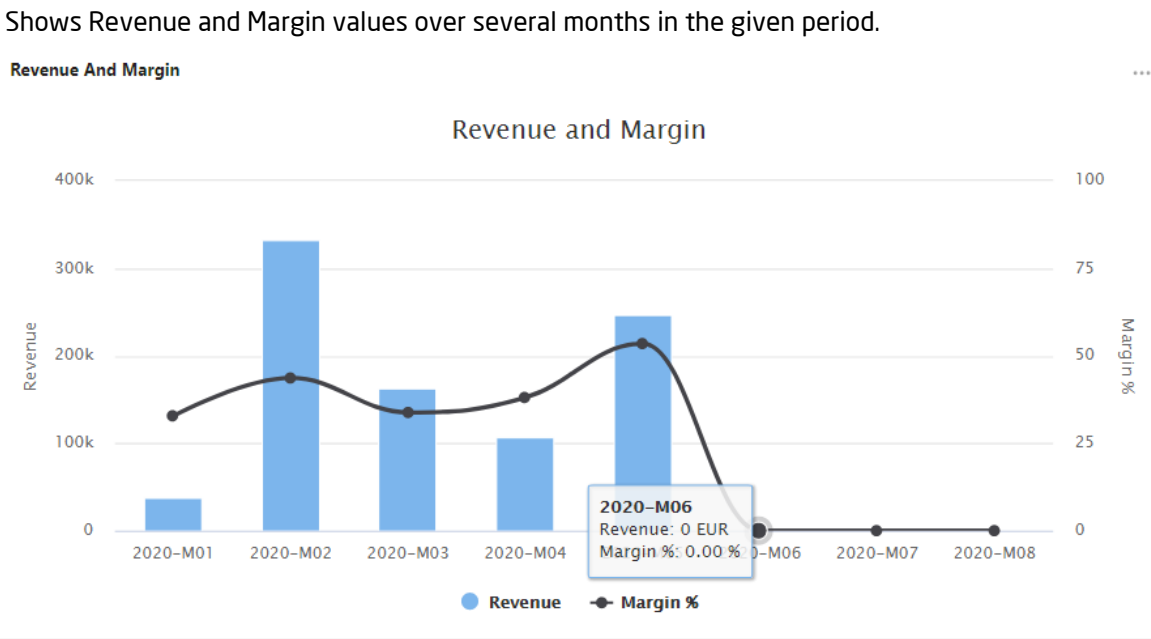
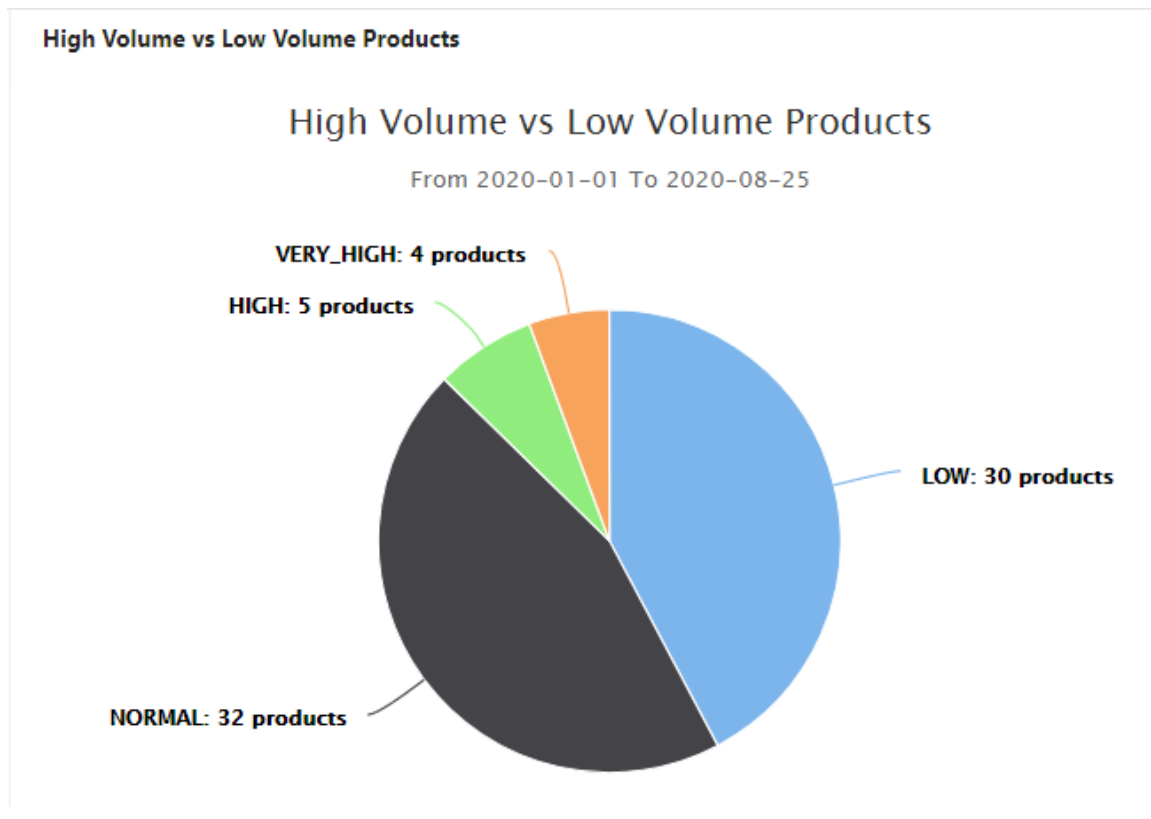
COMMODITY: 6 products



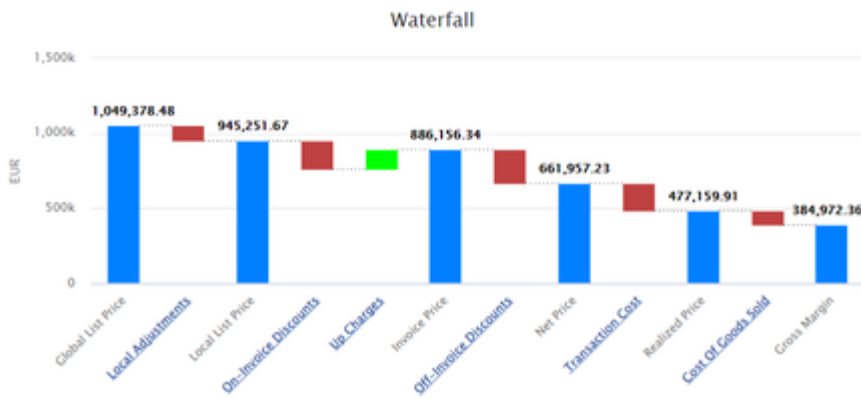
SPECIALITY: 65 products

2. Hi

Shows relative sizes of product classification based on volume.



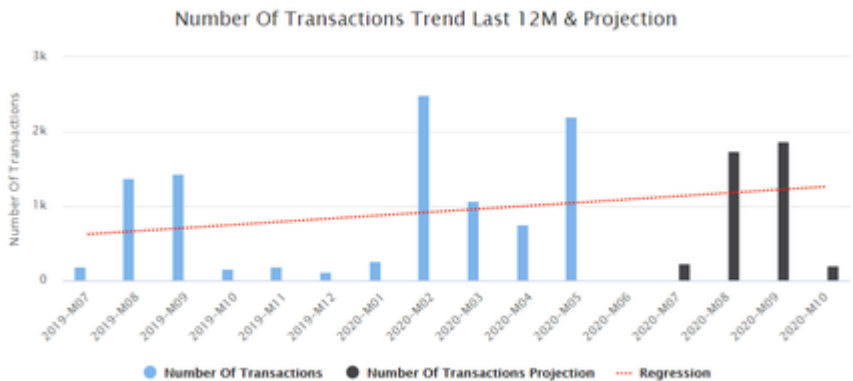
Shows a running total profit as values are added or subtracted.  
 For more details see [Waterfall Dashboard](#).  
 The Waterfall Dashboards will now return No Data in case any of the required fields returns null data. There will be a proper warning and error handling support from core to be able to communicate with the user with something more elegant than throwing exceptions all around ( PFUN-10330 - Getting issue details...  )



5. Shows 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. For more details see [Revenue Breakdown Dashboard - Fields Definition](#).

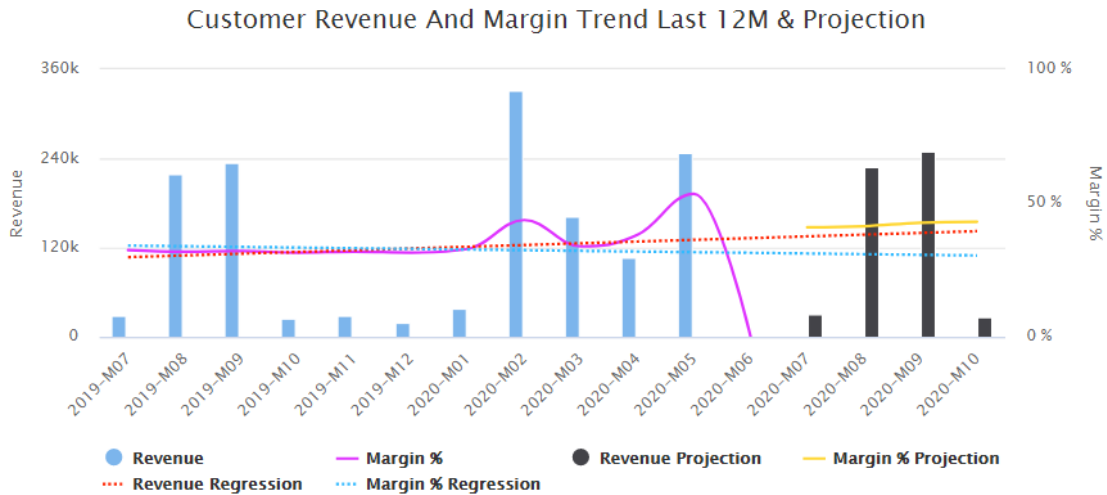


6. Bar & line chart shows the number of transactions for the last 12 months and estimation for the next 3 months. The current month is considered as a future month (as it has not ended yet).



Project  
7. Customer Revenue and Margin Trend Last 12M & Projection

Bar & line chart shows Revenue and Margin for the last 12 months and estimation for the next 3 months. The current month is considered as a future month (as it has not ended yet).



Datamart

8. Customer Summary

- Displays some typical figures regarding the chosen customer.
- All values are aggregated on the Customer(s) and Category levels.
- If a Category value is not selected, it will be hidden in the portlet.
- On click "View Customer Products Portfolio" to open new tab "Customer Products Portfolio" dashboard.
- L12M trends are calculated on monthly basis.
- **Note:** Data queried from Datamart

Datamart

SELECT DASHBOARD  
Customer Insights Customer Detail View

DATA FILTER

Customer: CD-00002

\* Time Filter: LGM

Category:

Value:

Product Class:

Product Health Score:

**Customer Summary**

Customer: CD-00002 (Spagetti M)  
 Segment: Europe-Italy  
 Health Score Last 12M: ▲+100

Revenue Trend YTD: ▼0.00%	Revenue Trend (last 12M): ▲+74.21%	Total Revenue: 183,234
Margin Trend YTD: ▼0.00%	Margin Trend (last 12M): ▲+114.69%	Total Margin: 81,712
Volume Trend YTD: ▼0.00%	Volume Trend (last 12M): ▲+75.54%	Total Volume: 63,459

View Customer Products Portfolio

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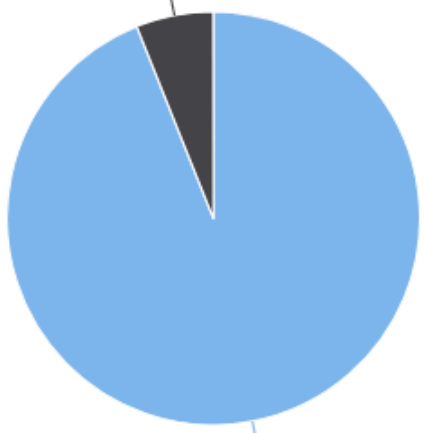
1. Shows relative sizes of product classification based on the margin %.  
 Specialty Products: Higher than the defined margin %  
 Commodity Products: Lower than the defined margin %

**Pricing Opportunity By Product Type Chart**

**Pricing Opportunity By Product Type**

From 2020-01-01 To 2020-08-25

COMMODITY: 1,145 EUR



SPECIALITY: 17,777 EUR

2. Sum Revenue below target by the input value in the product attribute filter.  
 The chart label reflects the input value in the product attribute filter.

Customer Insights Customer Products Portfolio

DATA FILTER

Customer: CD-00001

\* Product Attribute: Product Group

\* Time Filter: LGM

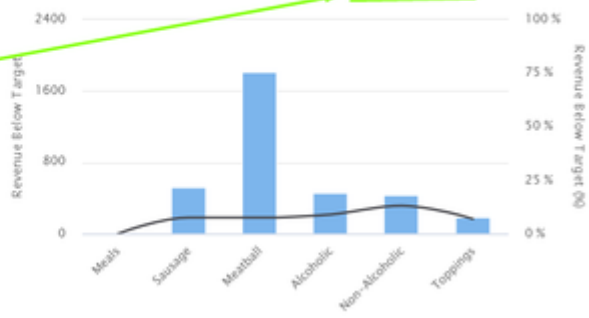
\* Top/Worst Products: 5

Product Class:

Product Health Score:

**Pricing Opportunity By Product Attribute Chart**

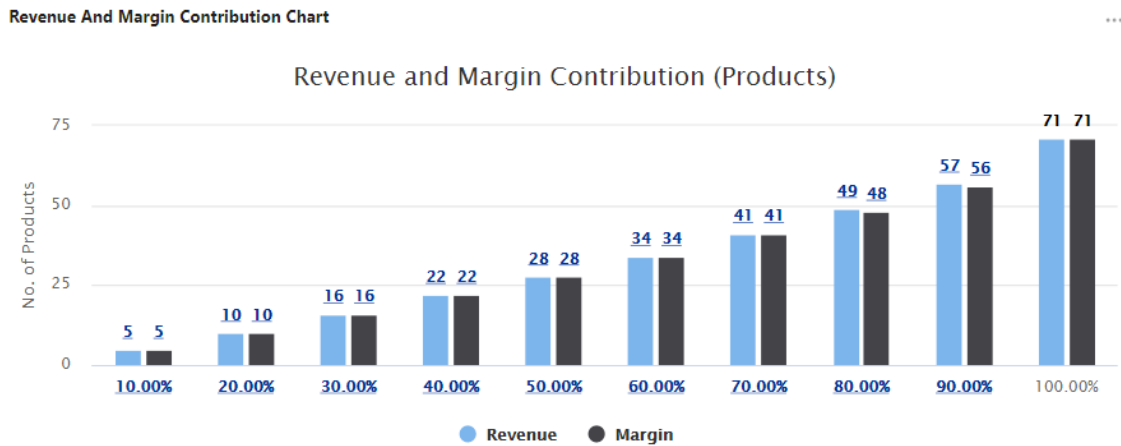
**Pricing Opportunity By Product Group**



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Shows Revenue and Margin split into ten buckets to visualize the number of products needed to cover each bucket (cumulative contribution).

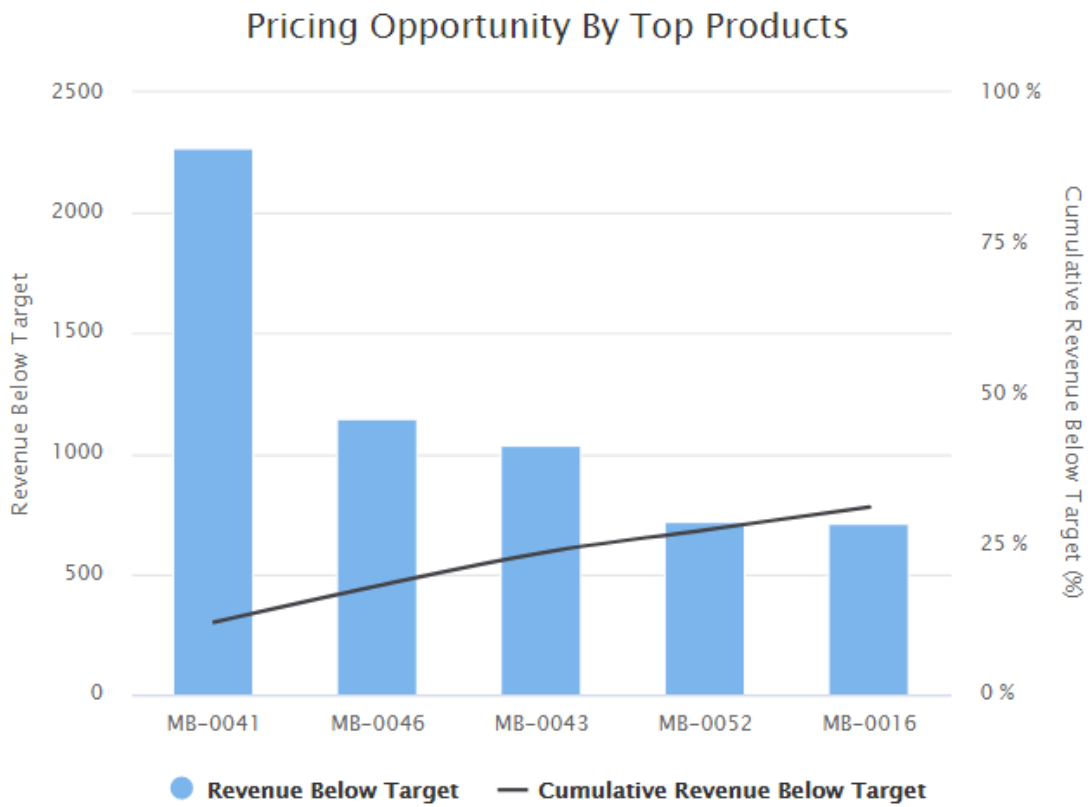


Shows products (bars) by Revenue below target descending and cumulative Revenue below target (line). They are grouped by product ID.

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Pricing Opportunity By Top Products Chart

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Show Revenue and margin for top/worst Products

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Product Health Summary

Product Name	Product Id	Total Revenue	Total Margin	Total Volume	Margin %	Health Score
▲ NyChem 90	NC-0090	2,880	934	982	32.42%	▲ +100
▲ NyChem 100	NC-0100	2,690	853	905	31.70%	▲ +100
▲ Mustard hot	MB-0047	10,691	4,998	3,631	46.75%	▷ +50
▲ Sausage BS	MB-0028	15,657	6,920	5,206	44.20%	▷ +50
▲ Meatball BS...	MB-0048	9,660	4,243	3,330	43.93%	▷ +50
▼ Sparkling ...	BV-0007	12,238	5,792	4,277	47.33%	▼ 0
▼ Tomato mild	MB-0042	9,905	4,470	3,272	45.13%	▼ 0
▼ Multivitami...	BV-0010	10,397	4,872	3,560	46.86%	▼ 0
▼ MaiTai	BV-0004	12,380	5,782	4,470	46.70%	▼ 0
▼ Orange Juice	BV-0008	11,880	5,685	4,018	47.85%	▼ 0

7. Average Invoice Price

Shows Average Unit Price per Product ID and Customer Classification by Revenue.  
 - Customer Revenue Class A/B/C/D: Average invoice price per Product and Customer classification.  
 - Overall: Average invoice price per Product and all customers  
 - Customer: Average invoice price per Product and customer.  
 Average invoice price calculated based on data in the last 12 months. Time filter has no effect in this table.

Average Invoice Price Table

Product Name	Product Id	Customer Revenue Class A	Customer Revenue Class B	Customer Revenue Class C	Customer Revenue Class D	Overall	Customer
▲ Bundle	MB-0060	3.07	3.08	3.07		3.10	3.11
▲ Config...	MB-0052	3.03	2.99	3.08		3.08	2.89
▲ Meal S	Meal-CO...	3.07	3.02	3.04		3.07	3.03
▲ Meatb...	MB-0022	2.99	3.02	3.06	3.12	3.06	3.10
▲ Meal M	Meal-CO...	3.06	3.05	3.05		3.06	2.89
▼ Still W...	BV-0006	2.98	2.91	2.94	2.93	2.94	2.99
▼ Multivi...	BV-0010	2.98	2.89	2.99	2.84	2.93	2.87
▼ Sparkli...	BV-0007	2.97	3.00	2.94	2.88	2.93	2.91
▼ Mojito	BV-0005	2.91	2.90	2.94	2.94	2.93	3.08
▼ Meatb...	MB-0001	2.83	2.94	2.93	2.89	2.92	2.74

8. Trends

Show trend values for top/worst Products (ranked by Health Score)

Trends

Product Name	Product Id	Revenue Trend...	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend YTD	Margin Trend YTD	Volume Trend YTD
▲ NyChe...	NC-0090	▲ +143.20%	▲ +123.12%	▲ +166.30%	▲ +206.67%	▲ +244.05%	▲ +193.13%
▲ NyChe...	NC-0100	▼ -12.49%	▼ -13.12%	▼ -12.45%	▲ +250.72%	▲ +294.62%	▲ +295.20%
▲ Mustar...	MB-0047	▲ +333.67%	▲ +504.89%	▲ +360.53%	▲ +167.49%	▲ +291.13%	▲ +139.67%
▲ Sausage...	MB-0028	▷ +48.85%	▲ +73.69%	▷ +54.04%	▲ +122.82%	▲ +203.32%	▲ +124.30%
▲ Meatbal...	MB-0048	▲ +127.86%	▲ +234.04%	▲ +93.28%	▲ +166.09%	▲ +243.36%	▲ +184.86%
▼ Sparklin...	BV-0007	▼ -6.16%	▼ +16.32%	▼ +8.2%	▼ -36.39%	▼ -22.36%	▼ -32.22%
▼ Tomato ...	MB-0042	▲ +140.16%	▲ +237.45%	▲ +151.49%	▲ +138.16%	▲ +219.63%	▲ +117.41%
▼ Multivit...	BV-0010	▲ +316.13%	▲ +534.13%	▲ +259.88%	▼ -46.74%	▼ -33.91%	▼ -45.10%
▼ MaiTai	BV-0004	▼ +5.26%	▼ +21.75%	▼ +5.27%	▼ -41.19%	▼ -27.95%	▼ -35.97%
▼ Orange ...	BV-0008	▲ +104.46%	▲ +124.51%	▲ +77.62%	▼ -41.93%	▼ -27.44%	▼ -43.30%

Simulation

Simulation

9 Pricing Opportunity

Shows Revenue below target value and % Revenue below target. They are grouped by the input value in the product attribute filter.

Customer Insights Customer Products Portfolio

DATA FILTER

Customer: CD-00001

\* Product Attribute: Product Group

\* Time Filter: L6M

\* Top/Worst Products: 5

Product Class

Product Health Score

**Pricing Opportunity**

Product Group	Revenue Below Target	% Revenue Below Target
Meatball	1,809.64	7.56%
Sausage	524.96	7.58%
Alcoholic	461.26	9.02%
Non-Alco...	434.52	13.14%
Toppings	183.01	6.89%

5 rows

Simulation

1.0 Selling Opportunity

Shows the total value which can be gained for products that the customer already bought and not bought in the given period. They are grouped by the input value in the product attribute filter.

Customer Insights Customer Products Portfolio

DATA FILTER

Customer: CD-00001

\* Product Attribute: Product Group

\* Time Filter: L6M

\* Top/Worst Products: 5

Product Class

Product Health Score

**Selling Opportunity**

Product Group	Cross Sell	Revenue Increase	Opportunity
Meals	2,574.38	0.00	2,574.38
Sausage	374.96	0.00	374.96
Meatball	0.00	0.00	0.00
Alcoholic	0.00	0.00	0.00
Non-Alcoholic	0.00	0.00	0.00

Simulation

1.1 Customer Summary

Displays some typical figures regarding the chosen customer, showing segment that the customer belongs to.

Dashboard Settings

Select Dashboard: 3. Customer Insights - Customer Prod...

DATA FILTER

Customer: Appetito Mz (C...)

\* Product Attribute: Product Group

\* Time Filter: YTD

\* Product Rank: All

\* Product Rank ...: 5

Product Class

Product Health S...

Product Base

**3. Customer Insights - Customer Products Portfolio**

+ Add Portlet (13) Export to Excel

**Customer Summary**

Customer: CD-00001 (Appetito Mz)

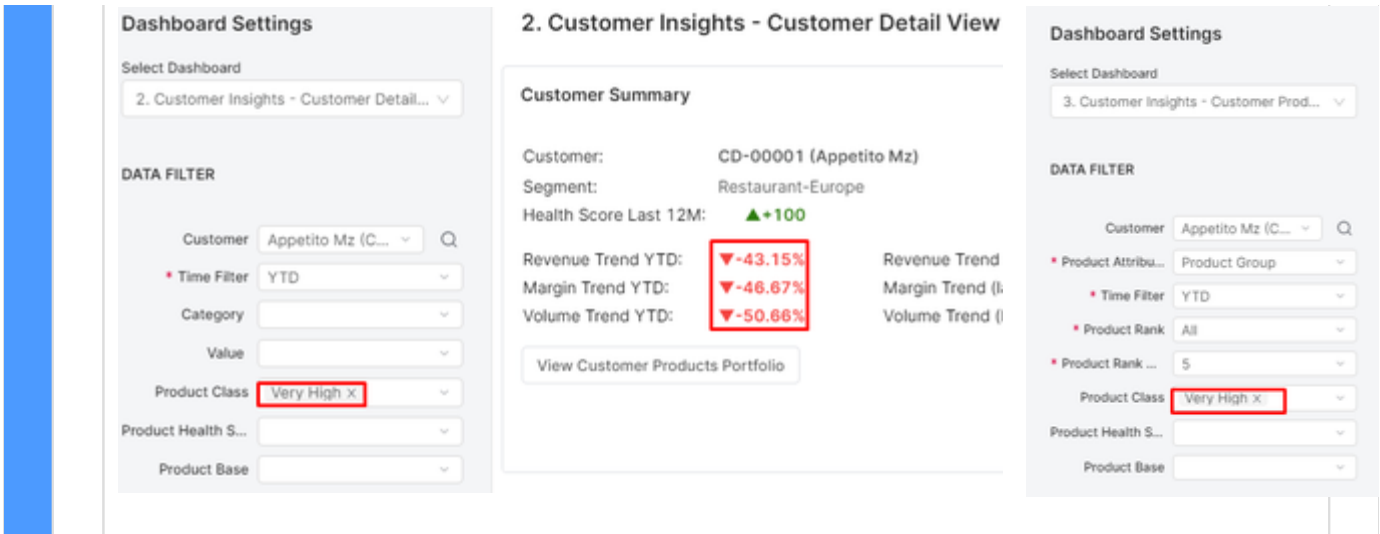
Segment: Restaurant-Europe

Health Score Last 12M: ▲+100

Revenue Trend YTD:	▼-54.18%	Total Revenue:	232,656	Pricing Opportunity:	68,813
Margin Trend YTD:	▼-61.21%	Total Margin:	102,795	Selling Opportunity:	26,063
Volume Trend YTD:	▼-54.88%	Total Volume:	79,229	Opportunity:	94,876

Simulation

- L12M trends are calculated on monthly basis.
- **Note** in this portlet:
  - Data queried from **Simulation**: Trend YTD value here is the "customer YTD [revenue/margin /quantity] trend " calculated in Simulation.
  - In Customer Detail View dashboard, data queried from **Datamart**: Trend YTD value will be recalculated dynamically if the product filter is selected.
- Meanwhile in Customer Products Portfolio dashboard: The trend YTD value will not change regardless of any product filter due to the complex calculation in this dashboard. This might be improved in the future, like in the Customer Detail View dashboard.



## 4.1 Trends Calculation

In many portlets there are Last 12M trends of particular KPIs (for example Revenue Trend Last 12M) presented either as such or as a part of a formula to calculate other KPIs.

The trends calculation granularity (time units between which the KPI change is considered) differs per various dashboards:

- Global View: monthly
- Detail View: monthly
- Product Portfolio: quarterly

In the Customer Summary portlets these are calculated always on the monthly level.

The formulas as such are described in <https://pricefx.atlassian.net/wiki/spaces/ACCDEV/pages/1903658910/Glossary#Customer-Insights>.

## 5. Analysis Example

Will be added later.

## 6. References

Original design: [Customer Insights](#)

Calculations and formulas: <https://pricefx.atlassian.net/wiki/spaces/ACCDEV/pages/1903658910/Glossary#Customer-Insights>

Deployment: [Deployment \(CIP\)](#)

How to configure: [Configuration \(CIP\)](#)

# Technical Overview (CIP)

## CIP Architecture

There are some main Groovy logics in this architecture:

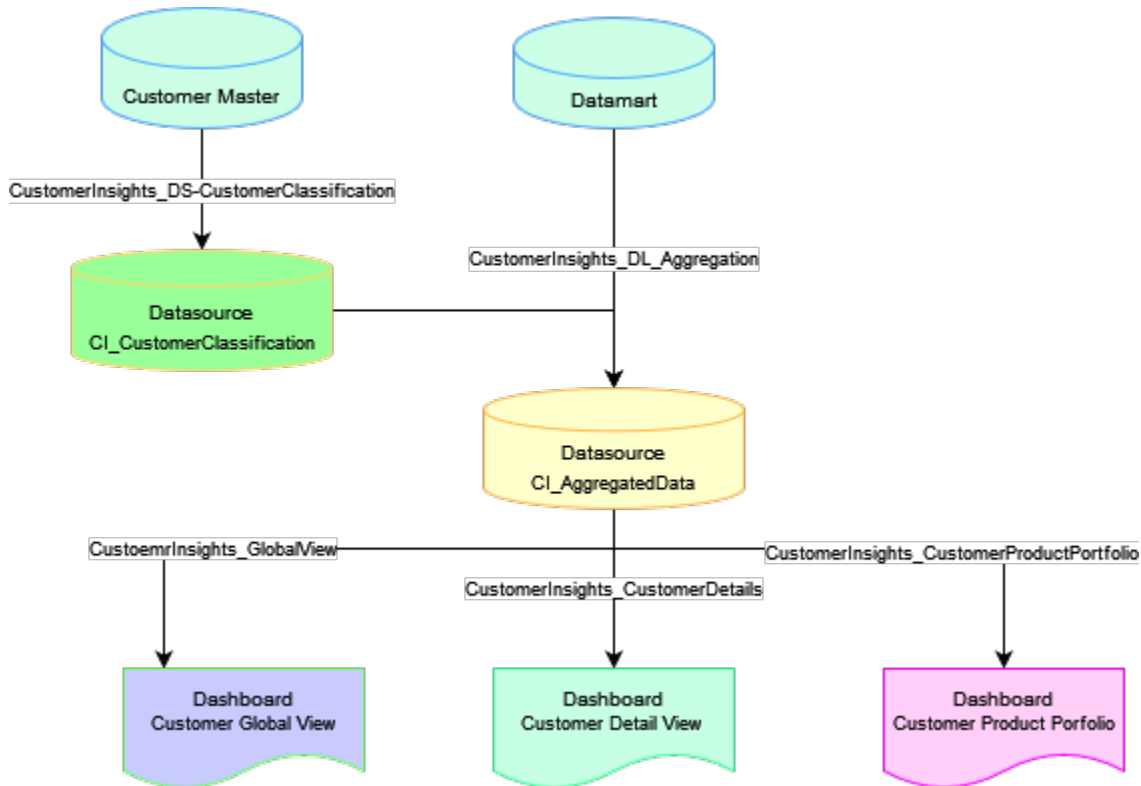
<b>CustomerInsights (Groovy library)</b>	The main library is used in the Customer Insights Dashboard logic. It provides functions to query and process data.
CustomerUtils	Provides functions related to Customer such as: getAllCustomerIdsWithOtherAttributes, groupByCustomerAttributes
ProductUtils	Provides functions related to Products such as: getProductAttributes, getSourceFieldsFromProductDataSource
DateUtils	Provides functions related to dates.
Configuration	Reads configured data from a price parameter and advanced configuration options.
CustomerGlobalDashboardUtils	Provides logics to process data to be shown in CustomerInsights_GlobalView dashboards.
CustomerDetailDashboardUtils	Provides logics to process data to be shown in CustomerInsights_CustomerDetails dashboards.
CustomerProductPortfolioDashboardUtils	Provides logics to process data to be shown in CustomerInsights_CustomerProductsPortfoliodashboards.
CalculationCommonUtils	Provides some common/calculation functions.
QueryUtils	Provides functions to query data from the Datamart / Data Source.
Constant	Defines constants used in the Customer Insights Dashboard.
DataTable	Provides functions to build the row format of the result matrix to be displayed in the dashboard.
InputUtils	Provides functions to build input controls such as: Time Filter, Category /Value...
Classification	Provides logics to pre-process data such as: calculate Customer Health Score, Trends... Used in dataload logic (CustomerInsights_DL_Aggregation).
ClassificationQueryHelper	Provides functions to build a Query object to summarize data from Datamart / Data Source to use in Classification.
CalculationQueryHelper	

		Provides functions to build a Query object to summarize data from Datamart / Data Source to use in Calculation.
	SummaryPortletUtils	Provides functions to create a summary data table (Summary portlet) in dashboards.
	CustomerSegmentUtils	Provides functions to query and build segment data from sources.
	CommonDashboardParameter	Defines common parameters used in the package.
	GlobalViewDashboardParameter	Defines parameters used in the Global View dashboard, they are inherited from Common Dashboard Parameter.
	DetailViewDashboardParameter	Defines parameters used in the Detail View dashboard, they are inherited from Common Dashboard Parameter.
	PortfolioDashboardParameter	Defines parameters used in the Portfolio dashboard, they are inherited from Common Dashboard Parameter.
	DataLoadParameter	Defines parameters used in the Data Load logic (CustomerInsights_DL_Aggregation), they are inherited from Common Dashboard Parameter.
	InactiveCustomerUtils	Provides functions to process inactive customers.
	CommonChartUtils	Provides functions to process charts in dashboards.
	DataLoadUtils	Provides functions to process Data Loads such as: find dataload...
<b>SharedLib</b>		Groovy library to provide common functions.
<b>HighchartsLibrary</b>		Groovy library to provide functions to build highcharts shown on the dashboard.  Use version 1.1.2 and higher.  <a href="#">Accelerate Dashboards Library</a>
<b>SIP_Dashboards_Commons</b>		Groovy library of SIP, it re-uses some methods to build a waterfall chart in a dashboard.
<b>CustomerInsights_DimensionFilter_Configurator</b>		Configurator logic to build the Category/Value input in dashboards.

	<div style="border: 1px solid #ccc; padding: 10px;"> <p style="text-align: right;"><b>Dashboard Options</b> <span style="float: right;">«</span></p> <hr/> <p>SELECT DASHBOARD</p> <div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 10px;">Customer Insights Global View <span style="float: right;">▼</span></div> <p>DATA FILTER</p> <p>Customer(s) <input style="width: 150px;" type="text" value="Specify a customer grou..."/> <span style="float: right;">Q</span></p> <p>Time Filter <input style="width: 100px;" type="text" value="YTD"/> <span style="float: right;">▼</span></p> <p>Top/Worst Cust... <input style="width: 100px;" type="text" value="5"/> <span style="float: right;">▼</span></p> <p>KPI <input style="width: 100px;" type="text" value="Revenue"/> <span style="float: right;">▼</span></p> <div style="border: 2px solid red; padding: 5px; margin-top: 5px;"> <p>Category <input style="width: 100px;" type="text" value="Product Group"/> <span style="float: right;">▼</span></p> <p>Value <input style="width: 100px;" type="text" value="Meatball"/> <span style="float: right;">▼</span></p> </div> </div>
<b>CustomerInsights_GlobalView</b>	Customer Global View dashboard logic.
<b>CustomerInsights_CustomerDetails</b>	Customer Detail View dashboard logic.
<b>CustomerInsights_CustomerProductPortfolio</b>	Customer Product Portfolio dashboard logic.
<b>CustomerInsights_DL_Aggregation</b>	Fills data into Data Source CI_AggregatedData
<b>CustomerInsights_CF_Sequence</b>	CF logic.
<b>CustomerInsights_DS_CustomerClassification</b>	Fills data into Data Source CI_CustomerClassification.

**Note:** Almost all dashboard logics use SQL to have a better performance in case there are large data sets.

## DataFlow



In Customer Insights Accelerator, we use Data Load to aggregate data from a Datamart by customer, product and pricing month and we store it in Data Source AggregatedData. It helps improve the dashboard performance because:

- The system queries data in a smaller data set.
- Some data need to be pre-processed before showing on dashboards as trend values, product and customer classification etc.

**Note:** There are some charts and portlets whose data are queried from Datamart directly, not from AggregatedData Data Source, such as:

- Customer Global View Dashboard: Customer Summary portlet
- Customer Detail View: Customer Summary Portlet, Waterfall chart

## Deployment (CIP)

Customer Insights Dashboard (CID) is an extension of Sales Insights Package (SIP) - CID re-uses some SIP components.

**⚠** For the correct functionality, both SIP 1.6 and CID 1.6 (or later versions) have to be present at the partition.

In this section:

- [A. Run Deployment from PlatformManager](#)

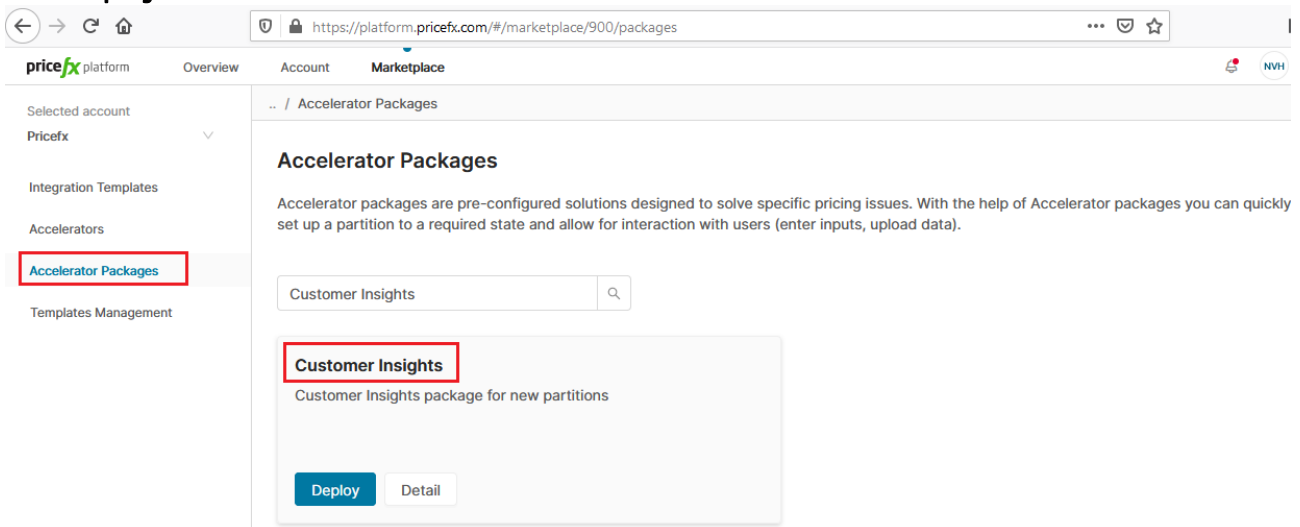
- [B. Update Price Parameters and Advanced Configuration Options](#)
- [C. Deploy & Run Calculation Flows \(Manual Step\)](#)

As the current version of PlatformManager does not support all of the steps needed to deploy the Customer Insights Dashboard, the step [Deploy & Run Calculation Flows \(Manual Step\)](#) needs to be performed manually.

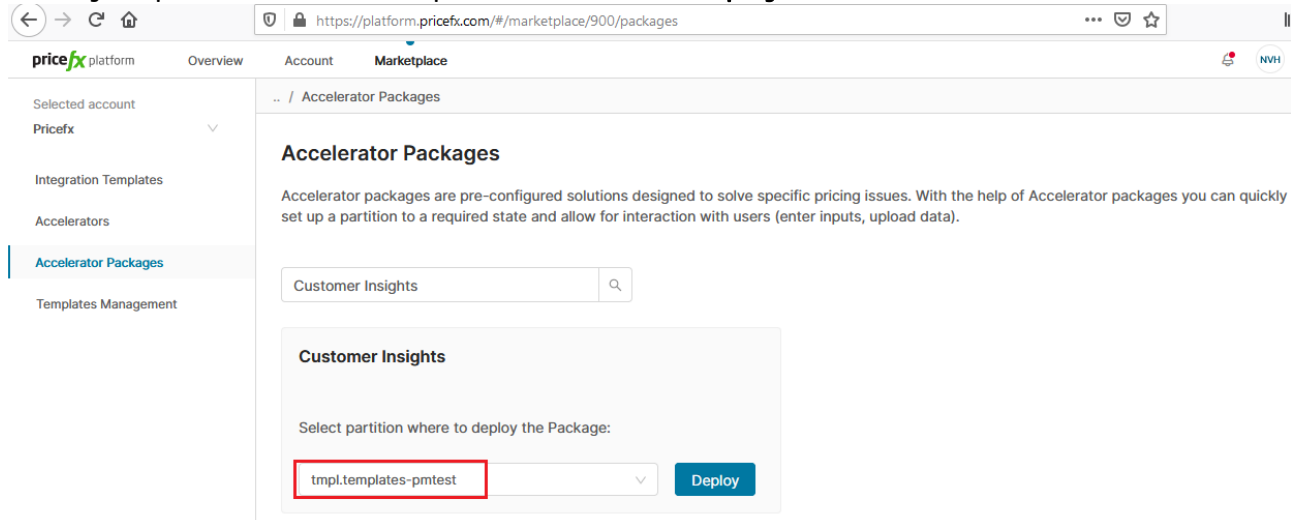
Before running deployment to a partition where Customer Insights Package had been installed before, it is recommended to delete the previously created Simulation (PriceAnalyzer > Simulation: CustomerInsights) and Price Parameters (Price Parameters > CustomerInsights: all). This step can be skipped if it is obvious that no changes were done to these objects (Price Parameters structure) since the previous version (see the [Customer Insights Dashboard Release Notes](#)).

## A. Run Deployment from PlatformManager

1. Access PlatformManager at <https://platform.pricefx.com/> and log in with your account or using 0365.
2. Go to **Marketplace > Accelerator Packages**.
3. Find **Customer Insights Package**.
4. Click **Deploy**.



5. Select your partition from the dropdown list and click **Deploy**.



## 6. Set up Datamart mapping. Customer Insights

### Datamart Mapping

Customer Insights Package (CIP) is an extension of Sales Insights Package (SIP) - re-uses some of its components. For the correct functionality either the latest version of both SIP and CIP or at least versions mentioned in [Customer Insights Dashboard Deployment](#) guide (or later ones) have to be present at the partition.

Source Type \*

Datamart

Datamart Name

Standard\_Sales\_Data

Datamart CustomerId Field Name \*

Customer Id

Datamart Customer Name Field Name \*

Customer Id

Datamart ProductId Field Name \*

Product Id

Datamart Product Name Field Name \*

Product Name

Datamart Pricing Date Field Name \*

Pricing Date

Datamart Invoice Price Field Name \*

Invoice Price

Datamart Margin Field Name \*

Gross Margin

Datamart Quantity Field Name \*

Quantity

Datamart Unique Id Field Name \*

Unique Id

**Continue** Cancel

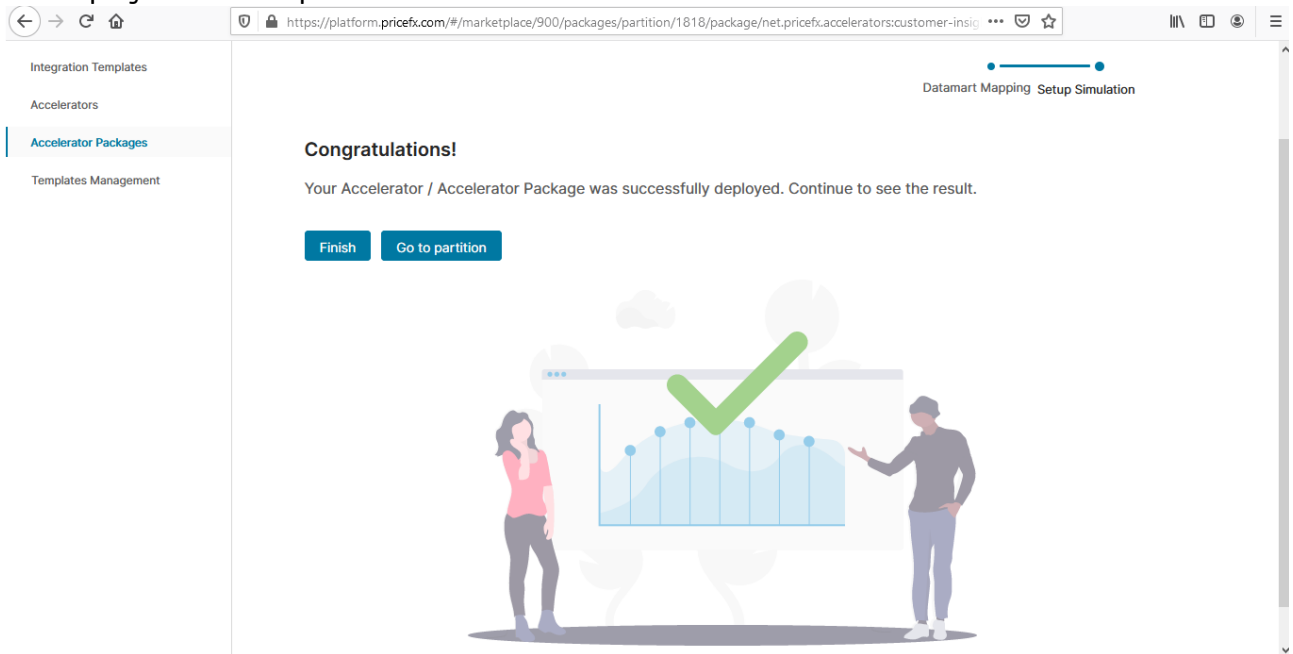
Select the Datamart name and field names (from the Datamart) for mapping and click **Continue**.  
Wait for the system to finish the import.

Importing...

Deploying the predefined static logic

15%

The deployment is complete.



### B. Update Price Parameters and Advanced Configuration Options

1. The *PFXTemplate\_CustomerInsights\_Customer\_Segment* PP needs to be consistent with the partition data for the fields set as Active. This PP defines the fields used for a customer segmentation.
2. If the partition has some special setting (different from the Accelerator default setting), check and update the settings in other Price Parameters.

For more details see: [Configuration \(CIP\)](#).

### C. Deploy & Run Calculation Flows (Manual Step)

To keep the Simulation data synchronized with Datamart, a scheduled job needs to be set to run the Data Source CI\_CustomerClassification and Simulation.

This can be done in Calculation Flows by taking these steps:

1. Go to **Administration > Configuration > Calculation Flows**.

2. Find a calculation flow with the name "CustomerInsights\_Sequencer".

The screenshot shows the 'pricefx Administration / Configuration / System Configuration / Calculation Flows' page. On the left, the 'Calculation Flows' menu item is highlighted. The main area is divided into two panels: 'Flows' and 'Flow Items'. In the 'Flows' panel, the 'CustomerInsights\_Sequencer' flow is selected. In the 'Flow Items' panel, a table shows the details for the selected flow:

Name	Periodic	Next Run Date	Time Unit	Number of Time Units	Logic Name
Sequencer	✓	26/08/2021 8:41	Day	1	Customer

3. Select the "CustomerInsights\_Sequencer" and update Time Unit and Number of Time Units.

The screenshot shows the same 'pricefx Administration / Configuration / System Configuration / Calculation Flows' page. The 'CustomerInsights\_Sequencer' flow is still selected. In the 'Flow Items' panel, the 'Time Unit' and 'Number of Time Units' columns in the table are highlighted with a red box, indicating they are being edited. The table data is as follows:

Name	Periodic	Next Run Date	Time Unit	Number of Time Units	Logic Name
Sequencer	✓	26/08/2021 8:41	Day	1	Customer

4. Click the **Deploy** button to deploy the calculation flow.

pricefx Administration / Configuration / System Configuration / Calculation Flows

**Calculation Flows**

**Flows** + Add

Name	Draft
CustomerInsights_Sequencer	Select Value

**Flow Items** + Add

Name	Periodic	Next Run Date	Time Unit	Number of Time Units	Logic Name
Sequencer	✓	26/08/2021 8:41	Day	1	Customer

1 row

1 row

Delete Deploy

5. When finished, the system will show more lines for the flows.

pricefx Administration / Configuration / System Configuration / Calculation Flows

**Calculation Flows**

**Flows** + Add

Name	Draft
CustomerInsights_Sequencer	Select Value
CustomerInsights_Sequencer	✓
CustomerInsights_Sequencer	✕

**Flow Items** + Add

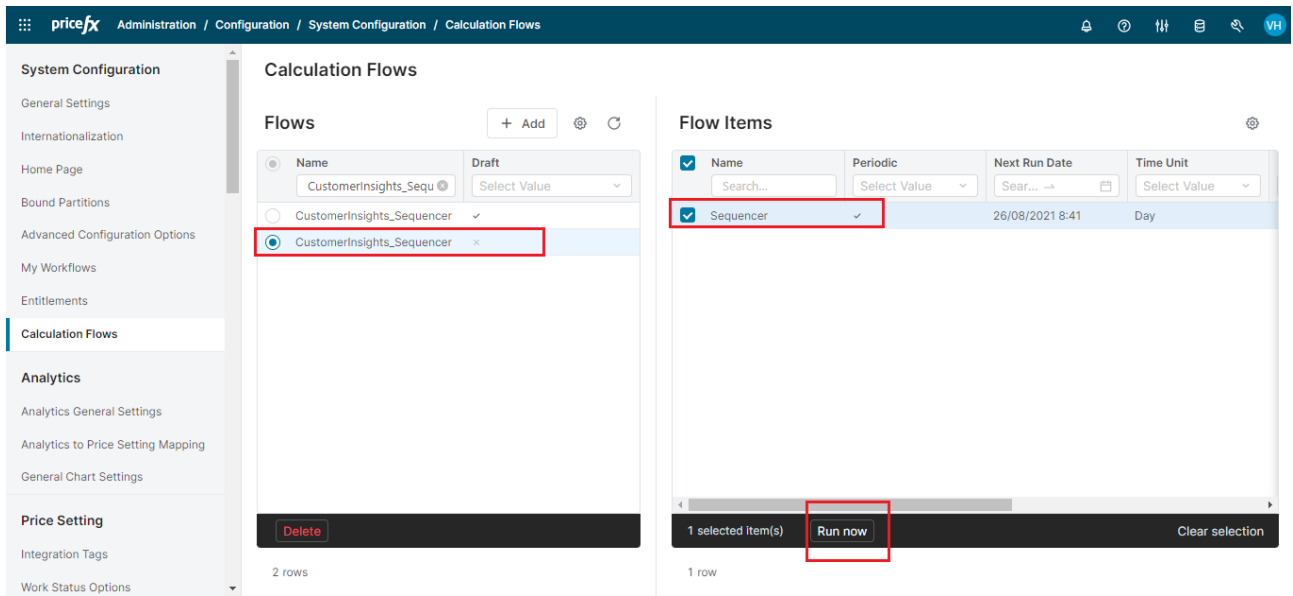
Name	Periodic	Next Run Date	Time Unit
Sequencer	✓	26/08/2021 8:41	Day

2 rows

1 row

Delete

6. If you want to run the calculation flow immediately, select the row in the right window and then click **Run now**.



## Configuration (CIP)

- [System Objects](#)
- [User Roles](#)
- [I. Company Parameters](#)
  - [1. PFXTemplate\\_CustomerInsights\\_Configuration](#)
  - [2. CIP\\_CustomerSegment](#)
  - [3. CurrencySymbols](#)
- [II. Advanced Configuration Options](#)
- [III. Waterfall Chart Configuration](#)

## System Objects

List of all the system objects related to Customer Insights (excluding logics):

Type	Name	Note
Data Source (DS)	CI_AggregatedData	Stores the pre-calculated data.
Data Source (DS)	CI_CustomerClassification	Stores information on customer segments and active/inactive attribute for Customers.
Data Load (type = Calculation+)	CI_AggregatedData	Runs a logic to fill data into Data Source CI_AggregatedData.
Data Load (type = Calculation)	CI_CustomerClassification	Runs a logic to fill data into Data Source CI_CustomerClassification.
Advanced Configuration	customer-insights-accelerator	Datamart configuration.

Calculation Flow	CustomerInsights_Sequencer	Keeps the data (DS, DM) synchronized by filling the DS CI_CustomerClassification before the DS CI_AggregatedData is filled.
Company Parameter	PFXTemplate_CustomerInsights_Configuration	General and portlet-based configuration.
Company Parameter	PFXTemplate_CustomerInsights_Customer_Segment	Customer segments configuration.

## User Roles

To use Customer Insights Dashboard, you need to be assigned the following Pricefx user roles:

- Manage Price Lists (in the PriceBuilder section)
- View Company Parameters (in the PriceBuilder section)
- Manage PA Simulations (in Analytics section)

### I. Company Parameters

Customer Insights Dashboard (CID) works based on configuration data which users can adjust to match their business case.

The configuration data are stored in these company parameter tables:

- PFXTemplate\_CustomerInsights\_Configuration
- PFXTemplate\_CustomerInsights\_Customer\_Segment

#### 1. PFXTemplate\_CustomerInsights\_Configuration

Most parameters used in CID are saved in this table, including 5 main columns:

1	<b>Category</b>	Category of the configuration
2	<b>Key Name</b>	Key name of the configuration
3	<b>Value</b>	Defines the value corresponding to the key-set
4	<b>Is Default</b>	If set to Yes, the dashboard will use the value of this item as a default value
5	<b>Order</b>	Order of items in the same Category
6	<b>Key Label</b>	Label will be shown on the chart/input
7	<b>Note</b>	Which logic type is used

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label	Note
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	MTD		1		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	QTD		2		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	YTD	YES	3		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	10		2		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	50		4		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	100		5		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	10		2		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	50		4		Dashboard logic
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	100		5		Dashboard logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	EXCELLENT	75		1	Excellent	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	GOOD	50		2	Good	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	NORMAL	25		3	Normal	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	PROBLEMATIC	0		4	Problematic	Simulation logic

## 1.1 Dashboard Configuration

### a. Time Filter Selector Input

Time Filter :

- MTD
- QTD
- YTD
- L3M
- L6M
- L12M

Data for this selector are defined in Category = "MASTER\_DATA" and Key Name = "TIME\_FILTER".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	MTD		1	MTD
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	QTD		2	QTD
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	YTD	YES	3	YTD
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	L3M		4	L3M
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	L6M		5	L6M
<input type="checkbox"/>	MASTER_DATA	TIME_FILTER	L12M		6	L12M

If you want to change the text shown in the Time Filter selector (e.g. MTD Month To Date), you need to update the value of the column "Key Label" from "MTD" to "Month To Date". If you clear the value of this column, the Time Filter selector will show the value of the "Value" column.

### b. Top/Worst Customers Selector Input

Top/Worst Customers :

- 5
- 10
- 20
- 50
- 100

Data for this selector are defined in Category = "MASTER\_DATA" and Key Name = "TOP\_WORST\_CUSTOMERS".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order <sup>^</sup>
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	5	YES	1
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	10		2
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	20		3
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	50		4
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_CUSTOMERS	100		5

If you want to add more values to this list, you need add a new row with same category and key name.

Example: To add a value "200" to the list and put it at the end of the list, you need to add the following:

<i>Category</i>	MASTER_DATA
<i>Key Name</i>	TOP_WORST_CUSTOMER
<i>Value</i>	<b>200</b>
<i>Is Default</i>	
<i>Order</i>	<b>6</b>
Key Label	
Note	

c. Top/Worst Products Selector Input

Top/Worst Products :  ▼

- 5
- 10
- 20
- 50
- 100

Data for this selector are defined in Category = "MASTER\_DATA" and Key Name = "TOP\_WORST\_PRODUCTS".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order <sup>^</sup>
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	5	YES	1
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	10		2
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	20		3
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	50		4
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	100		5

d. KPI Selector Input

KPI:  ▼

- Revenue
- Margin%
- Volume
- Health Score

Data for this selector are defined in Category = "MASTER\_DATA" and Key Name = "KPI".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label
<input type="checkbox"/>	MASTER_DATA	KPI	Revenue		1	Revenue
<input type="checkbox"/>	MASTER_DATA	KPI	Margin%		2	Margin %
<input type="checkbox"/>	MASTER_DATA	KPI	Volume		3	Volume
<input type="checkbox"/>	MASTER_DATA	KPI	Health Score	YES	4	Health Score

If you want to change the text shown in the KPI selector (e.g. "Margin %" "Margin Percent"), you need to update the value of the column "Key Label" from "Margin %" to "Margin Percent". If you clear the value of this column, the KPI selector will show the value of the "Value" column.

e. Display of Trend Columns in Table

In the tables of the dashboard, Trend columns are displayed with three formats based on the setting:

- Green and up arrow
- Orange and horizontal arrow
- Red and down arrow

Revenue Trend Last 12M	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend YTD	Margin Trend YTD
▼ +28.91%	▼ +28.69%	▼ +27.98%	▼ -50.02%	▼ -52.47%
▷ +38.89%	▷ +37.65%	▷ +42.89%	▼ -67.92%	▼ -68.56%
▲ +97.94%	▲ +98.92%	▲ +99.17%	▼ -78.34%	▼ -78.35%
▷ +31.09%	▷ +31.53%	▷ +31.76%	▼ -71.02%	▼ -71.42%
▲ +90.12%	▲ +90.28%	▲ +88.31%	▼ -89.75%	▼ -90.92%
▷ +49.67%	▷ +50.02%	▷ +50.36%	▼ -82.62%	▼ -82.79%
▲ +94.66%	▲ +94.87%	▲ +95.60%	▼ -91.90%	▼ -92.56%
▲ +85.76%	▲ +86.99%	▲ +83.23%	▼ -92.03%	▼ -92.92%
▷ +32.11%	▷ +31.79%	▷ +32.01%	▼ -63.74%	▼ -64.49%
▼ +26.85%	▼ +24.70%	▼ +27.02%	▼ -77.15%	▼ -78.03%

You can define threshold values to match your business case - just update the value of the key name "TREND\_UPPER" and "TREND\_LOWER":

Green and up arrow	<i>Trend value</i> >= TREND_UPPER
Orange and horizontal arrow	TREND_LOWER < <i>Trend value</i> < TREND_UPPER
Red and down arrow	<i>Trend value</i> <= TREND_LOWER

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/>	CONFIGURATION	TREND_UPPER	0.6		
<input type="checkbox"/>	CONFIGURATION	TREND_LOWER	0.3		

f. Display of Health Score Columns

This column has the same display format as the trends columns but the threshold is different.

The Health Score column is included in two tables: Customer Health Summary Table (Customer Global View Dashboard) and Product Health Summary Table (Customer Product Portfolio View Dashboard):

Customer Name	Customer Id	Health Score	Total Revenue	Total Margin	Total Volume	Margin %
▲ Price f(x) AG	CD-00004	▲ +90.00	866,606.35	378,324.25	293,646	43.66 %
▲ Soupo DE	CD-00012	▲ +80.00	738,321.58	304,753.92	250,492	41.28 %
▲ M. CH	CD-00011	▷ +50.00	719,403.64	295,578.76	243,226	41.09 %
▲ Steak House	CD-00013	▼ .00	475,263.12	160,130.34	157,388	33.69 %
▲ S. Sumito	CD-00015	▼ +25.00	475,205.47	162,427.59	158,491	34.18 %
▲ Appetito Mz	CD-00001	▲ +160.00	461,614.58	248,100.76	160,965	53.75 %
▲ Kraftmeat	CD-00014	▼ +25.00	456,796.04	155,090.03	150,906	33.95 %
▲ Francomeat	CD-00019	▼ .00	324,597.31	115,440.22	108,017	35.56 %

Product Name	Product Id	Health Score	Total Revenue	Total Margin	Total Volume	Margin %	F
▲ Configured Meatball	MB-0052	▼ +12.00	581.603	186.696	199	32.10 %	▲
▲ Meatball BI	MB-0003	▼ .00	151.946	41.479	65	27.30 %	
▲ Meatball PS	MB-0004	▼ .00	194.619	64.813	83	33.30 %	
▲ Meatball PM	MB-0005	▼ .00	547.02	178.147	177	32.57 %	
▲ Meatball PI	MB-0006	▼ .00	368.164	123.487	160	33.54 %	
▼ Sausage BS & Mustard	MB-0059	▼ .00	960.546	346.033	346	36.02 %	
▼ Bundle	MB-0060	▼ .00	521.522	198.547	200	38.07 %	
▼ Meal S	Meal-C090	▼ .00	523.216	179.727	205	34.35 %	
▼ Meatball BM	MB-0002	▼ .00	1,172.606	468.063	492	31.78 %	

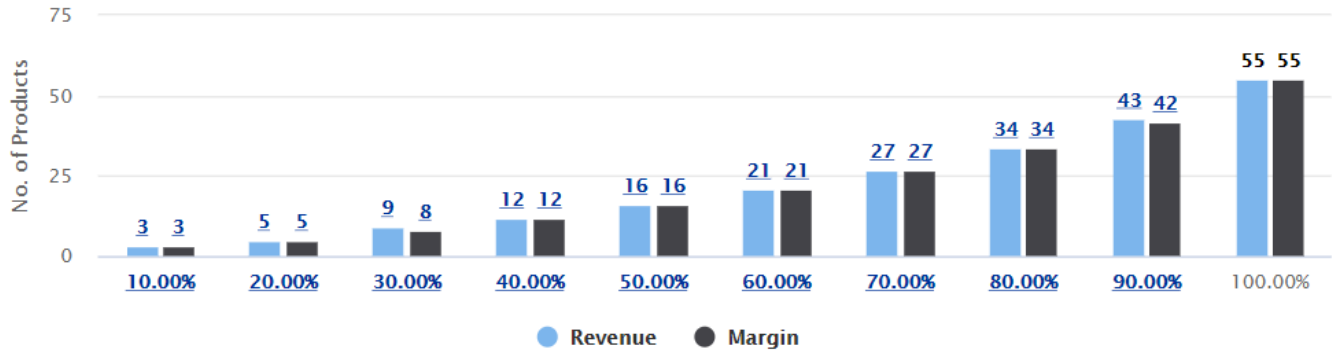
You can define it in Category = "CONFIGURATION", the key names are "CUSTOMER\_HEALTH\_SCORE\_UPPER" and "CUSTOMER\_HEALTH\_SCORE\_LOWER":

Green and up arrow	$Health\ Score \geq CUSTOMER\_HEALTH\_SCORE\_UPPER$
Orange and horizontal arrow	$CUSTOMER\_HEALTH\_SCORE\_LOWER < Health\ Score < CUSTOMER\_HEALTH\_SCORE\_UPPER$
Red and down arrow	$Health\ Score \leq CUSTOMER\_HEALTH\_SCORE\_LOWER$

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/>	CONFIGURATION	CUSTOMER_HEALTH_SCORE_UPPER	70		
<input type="checkbox"/>	CONFIGURATION	CUSTOMER_HEALTH_SCORE_LOWER	40		

g. Revenue and Margin Contribution Chart (Customer Product Portfolio Dashboard)

### Revenue and Margin Contribution (Products)



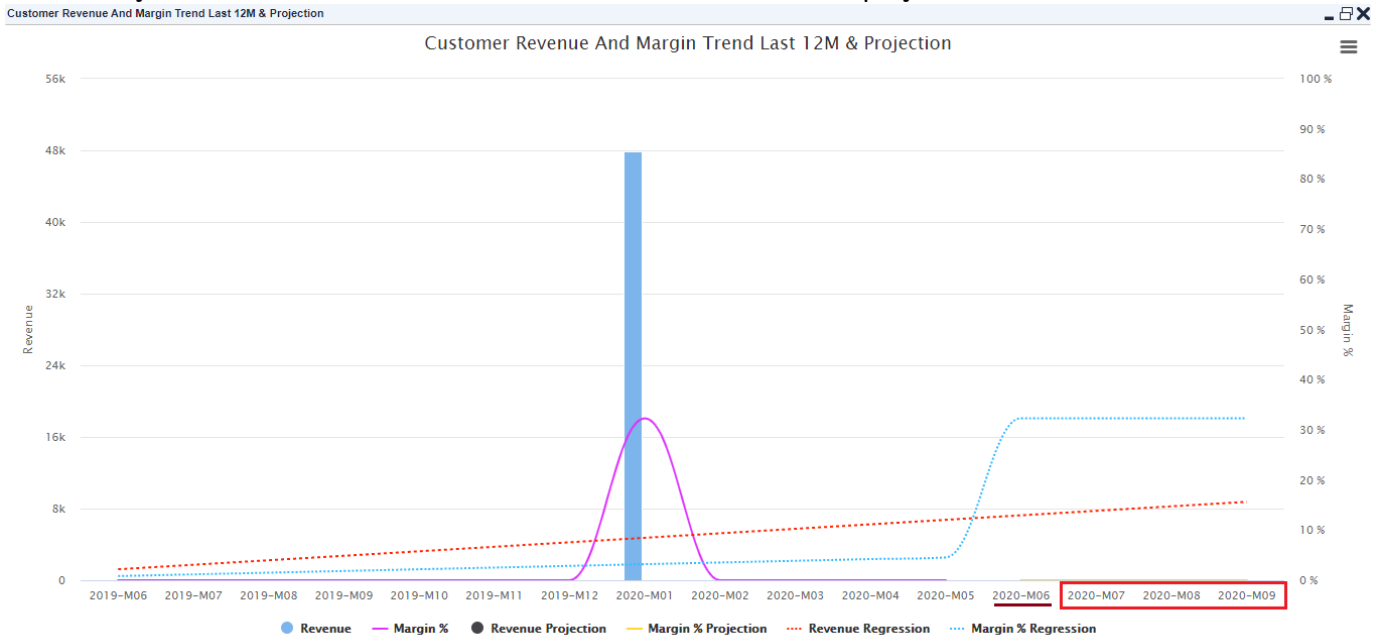
In this chart, you can re-define:

- Number of buckets - via the key name = "NUMBER\_OF\_BUCKETS"
- Percent of the start bucket / percent of the end bucket via the key name = "BUCKET\_START\_PERCENT" and "BUCKET\_END\_PERCENT"

Category	Key Name	Value	IsDefault	Order	Note
REVENUE_AND_MARGIN_CONTRIBUTION	NUMBER_OF_BUCKETS	10			
REVENUE_AND_MARGIN_CONTRIBUTION	BUCKET_START_PERCENT	0			
REVENUE_AND_MARGIN_CONTRIBUTION	BUCKET_END_PERCENT	100			

#### h. Number of Next months (Customer Detail View Dashboard)

In the Customer Detail View dashboard, we have two charts: "Customer Revenue And Margin Trend Last 12M & Projection" and "Number Of Transactions Trend Last 12M & projection".



The default number of next months is three. You can update this value in Category = "MASTER\_DATA" and key name = "NEXT\_MONTH\_AMOUNT".

<input type="checkbox"/> Category	Key Name	Value	IsDefault	Order	Note
<input type="checkbox"/> MASTER_DATA	NEXT_MONTH_AMOUNT	3			

i. Customer Base, Product Base (Core Customers and Products) Selector Input

Customer Base

▼

- Core
- Long Tailed
- All

Data for this selector are defined in Category = "Configuration" and Key Name = "CUSTOMER\_CORE" or "PRODUCT\_CORE".

The value specifies the cumulative revenue tresholds for the Core vs. Long Tailed definition.

Values range: 0..1 (e.g. 0.8 = 80%).

<input type="checkbox"/> Category <span style="font-size: small;">▲</span>	Key Name	Value
<input type="text" value="Search..."/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="checkbox"/> CONFIGURATION	CUSTOMER_CORE	0.8
<input type="checkbox"/> CONFIGURATION	PRODUCT_CORE	0.8

## 1.2. Pre-Processing (Simulation Logic) Configuration

### a. Customer Health Score

For more details see <https://pricfx.atlassian.net/wiki/spaces/ACCDEV/pages/1903658910/Glossary#Customer-Insights>.

Health Score = Revenue Score \* Revenue Weight + Margin Score \* Margin Weight

**Note:** Revenue Weight + Margin Weight = 1

Revenue Score / Margin Score is based on the defined table (the Trend value is the revenue/margin trend last 12M ):

Trend	Health Score
>25%	100
15% - 25%	75
5% - 15%	60
-5% - 5%	50
-5% - -15%	40
-15% - -25%	25
< -25%	0

You can change the threshold trends value in the PP as shown below:

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/>	SCORE_CLASSIFICATION	100	0.25		1
<input type="checkbox"/>	SCORE_CLASSIFICATION	75	0.15		2
<input type="checkbox"/>	SCORE_CLASSIFICATION	60	0.05		3
<input type="checkbox"/>	SCORE_CLASSIFICATION	50	-0.05		4
<input type="checkbox"/>	SCORE_CLASSIFICATION	40	-0.15		5
<input type="checkbox"/>	SCORE_CLASSIFICATION	25	-0.25		6
<input type="checkbox"/>	SCORE_CLASSIFICATION	0	-10		7

You can change the Revenue Weight and Margin Weight values in the Company Parameter.

- If you set just the value of Revenue Weight, the system will calculate Margin Weight = (1 - Revenue Weight) automatically.
- If you set just the value of Margin Weight, the system will calculate Revenue Weight = (1 - Margin Weight) automatically.
- If you do not set either of these values, the default value is: Revenue Weight = Margin Weight = 0.5.

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/>	CONFIGURATION	REVENUE_WEIGHT	0.5		
<input type="checkbox"/>	CONFIGURATION	MARGIN_WEIGHT	0.5		

#### b. Customer Revenue Classification

The simulation logic uses this setting to identify the customer classification based on the contribution and cumulative revenue contribution of each customer.

You can change the threshold value and label (show on the dashboard) in the PP as shown below:

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label	Note
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_REVENUE	A	20		1	A	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_REVENUE	B	50		2	B	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_REVENUE	C	80		3	C	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_REVENUE	D	100		4	D	Simulation logic

#### c. Customer Health Score Classification

This classification is based on the customer health score - the simulation logic assigns customers to different classes based on Health Score.

You can change the threshold value and label (shown on the dashboard) in the PP as shown below:

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label	Note
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	EXCELLENT	75		1	Excellent	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	GOOD	50		2	Good	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	NORMAL	25		3	Normal	Simulation logic
<input type="checkbox"/>	CUSTOMER_CLASSIFICATION_HEALTH	PROBLEMATIC	0		4	Problematic	Simulation logic

#### d. Product Quantity Classification

The simulation logic uses this setting to identify the product classification based on the contribution and cumulative volume contribution of each product.

You define the threshold value in this PP, for example:

Class	Cumulative volume contribution per product (Threshold)
Very High Volume	<= 10%
High Volume	<= 20%
Normal Volume	<= 75%
Low Volume	rest

You must update the threshold value and label (shown on the dashboard) in the PP as shown below:

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label	Note
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_QUANTITY	VERY_HIGH	10		1	Very High	Simulation logic
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_QUANTITY	HIGH	20		2	High	Simulation logic
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_QUANTITY	NORMAL	75		3	Normal	Simulation logic
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_QUANTITY	LOW	100		4	Low	Simulation logic

#### e. Commodity vs. Specialty Product Classification

The simulation logic uses this setting to identify if a product is Commodity or Specialty Product.

It is defined based on an average margin achieved by the product.

<i>Speciality</i>	>= 30%
<i>Commodity</i>	rest

You can update the threshold value and label (shown on the dashboard) in the PP as shown below:

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label	Note
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_HEALTH	SPECIALITY	30			1 Speciality	Simulation logic
<input type="checkbox"/>	PRODUCT_CLASSIFICATION_HEALTH	COMMODITY	0			2 Commodity	Simulation logic

f. Inactive Customer classification

There is an option to define the name and value of the key which identifies active Customers in Customer Master (e.g., Customer Class = C -> active).

PP definition: category: CUSTOMER\_MASTER\_ACTIVE\_KEY, fields: KEY\_NAME, KEY\_VALUE.

**Company Parameter Values : CIP\_Config [2]**

<input type="checkbox"/>	Category	Key Name	Value	IsDef...	Order	Key Label
<input checked="" type="checkbox"/>	CUSTOMER_MASTER_ACTIVE_KEY	KEY_VALUE	C			
<input type="checkbox"/>	CUSTOMER_MASTER_ACTIVE_KEY	KEY_NAME	attribute3			Customer Class

## 2. CIP\_CustomerSegment

This table is used to define the customer segmentation. Customer segments can be obtained from multi data source types such as: data source, customer master, customer extensions. You can define it in this table.

You can add more customer attributes to the table if they are not present yet.

Set the value of the Is Active column to "YES", if you want to add this attribute into the segmentation processing and exclude the field with isCustomerId = YES. The field set to Is Customer Id = "YES" will **not** join into the segment data, the system uses it as a key to find data.

1	<b>Source Type</b>	Data Source types from which we get data for the customer segments. They include: DMDS (Data Source), C (Customer Master), CX (Customer Extension).
2	<b>Source Name</b>	Data source name
3	<b>Source Field</b>	Source Field in the Data Source.
4	<b>Field Label</b>	Label of the field in the Data Source
5	<b>Is Active</b>	If set to 'YES', the dashboard will add this field in the segmentation
6	<b>Is Customer Id</b>	If this field is customer ID in a Data Source, set the value to 'YES'. It helps the system get the correct "Customer Id" field in the source.  If the Data Source is Customer Master or Customer Extension, you do not need to add the "customer Id" field name.

If the Data Source is datasource, you must add the "customer Id" field name.

**Note:** For the field you want to be a key to find data in DMDS, you need to set IsActive = "YES" and IsCustomerId = YES".

**Example:**

We define that a customer segment will be obtained from the Data Source named 'Customer' with these parameters:

**Case 1:** Segment data query from one source

Customer Type = active

Region = active

3 Customer Types = {Enduser, Industry, Restaurant}

4 Regions = {America, Oceania, Asia, Europe}

=> We will have 3\*4 = 12 Customer segments = {Enduser\_America, Enduser\_Oceania,.....}

**Note:** In case the customer segment is queried from a Data Source, we **must** add the 'customer Id' field name in this source and set the value to 'YES' in the 'Is Customer Id' column.

<input type="checkbox"/>	Source Type	Source Name	Source Field	Field Label	Is Active	Is Customer Id
<input type="checkbox"/>	C	Customer	attribute1	Customer Group		
<input type="checkbox"/>	C	Customer	attribute2	Customer Type		
<input type="checkbox"/>	C	Customer	attribute3	Customer Class		
<input type="checkbox"/>	C	Customer	attribute4	Region		
<input type="checkbox"/>	DMDS	Customer	CustomerId		YES	YES
<input type="checkbox"/>	DMDS	Customer	CustomerType	Customer Type	YES	
<input type="checkbox"/>	DMDS	Customer	Region	Region	YES	

**Case 2:** Segment data query from 2 sources:

Customer Type: get from Customer Master

Region: get from DMDS "Customer"

You need to create a configuration like this:

<input type="checkbox"/>	Source Type	Source Name	Source Field	Field Label	Is Active	Is Customer Id
<input type="checkbox"/>	C	Customer	attribute1	Customer Group		
<input type="checkbox"/>	C	Customer	attribute2	Customer Type	YES	
<input type="checkbox"/>	C	Customer	attribute3	Customer Class		
<input type="checkbox"/>	C	Customer	attribute4	Region		
<input type="checkbox"/>	DMDS	Customer	CustomerId		YES	YES
<input type="checkbox"/>	DMDS	Customer	CustomerType	Customer Type		
<input type="checkbox"/>	DMDS	Customer	Region	Region	YES	

**Important Note:**

- When querying segment data from multiple sources, the system will take time to process (query and combine). You should consider this issue before processing.
- If the segment data is large and complex for combination, you should create a DMDS to build the customer segment data first, then use it in this configuration for Customer Insight.

### 3. CurrencySymbols

This is a Company Parameter of Sales Insights Package and it should be deployed by this package. Customer Insights re-uses it to show the currency symbol in charts. If your currency is missing, you can add it to this table.

<input type="checkbox"/>	Name	Value
<input type="checkbox"/>	AUD	\$
<input type="checkbox"/>	NZD	\$
<input type="checkbox"/>	USD	\$
<input type="checkbox"/>	HKD	\$
<input type="checkbox"/>	EUR	€
<input type="checkbox"/>	JPY	¥
<input type="checkbox"/>	GBP	£
<input type="checkbox"/>	CHF	CHF

## II. Advanced Configuration Options

The Customer Insights Dashboard also uses the Advanced Configuration Option (AP) with the name "customer-insights-accelerator" to store:

- Data source information
- Mapping fields

This is a template for this AP:



### III. Waterfall Chart Configuration

Because Customer Insights is an extension of Sales Insights, the configuration of waterfall chart is re-used from Sales Insights. To update the waterfall configuration, follow [Waterfall Dashboard - Details on Configuration](#).

# Customer Insights Dashboard 1.6

- [Incompatibility with 1.5.0](#)
- [Upgrade Notes](#)
- [Bugs](#)
- [Change Requests](#)
- [Sub-tasks](#)
- [Tasks](#)

## Incompatibility with 1.5.0

Due to changes in [PFPCS-5933](#) the Simulation object created in 1.5.0 will not be supported in this version. The main functionality is kept unchanged.

## Upgrade Notes

Due to [PFPCS-5933](#) there are several changes that need to happen during upgrade from 1.5.0 to 1.6.0. The changes are:

Note: Objects contents are available at <https://gitlab.pricefx.eu/accelerators/customer-insights-accelerator/-/tree/master>.

- Add:
  - Data Source:
    - CI\_AggregatedData
  - Logics:
    - CustomerInsights\_DL\_Aggregation (Data Load logic)
  - Data Load:
    - DMDS.CI\_AggregatedData
- Update:
  - Content of Advanced Configuration named "customer-insights-accelerator"
  - Logics:
    - CustomerInsights (Groovy library)
    - CustomerInsights\_CF\_Sequencer (CF logic)
    - CustomerInsights\_DS\_CustomerClassification (Data Load logic)
    - CustomerInsights\_GlobalView (dashboard logic)
    - CustomerInsights\_CustomerDetails (dashboard logic)
    - CustomerInsights\_CustomerProductPortfolio (dashboard logic)
- Remove:
  - Simulation: CustomerInsights
  - Logic: CustomerInsights\_Aggregation\_Sim

## Bugs

[PFPCS-6308](#) Detail view: Customer summary portlet: displaying incorrectly

[PFPCS-6294](#) Error when select filters of class

[PFPCS-6274](#) Fix performance issue for Customer Product Portfolio dashboard

[PFPCS-6254](#) Wrong field name of Data Source CI\_AggregatedData

## Change Requests

[PFPCS-5933](#) Replace Simulation with another data source

## Sub-tasks

[PFPCS-6313](#) [Detail Dashboard] refactor api.local.xxx using to pass value to elements

[PFPCS-6269](#) [Customer Product Portfolio] Update logics to make dashboard Customer Product Portfolio work with new data source

[PFPCS-6268](#) [Customer Detail] Update logics to make dashboard Customer Detail View work with new data source

[PFPCS-6184](#) Change/Update Calculation Flow to work with new Data Source

[PFPCS-6183](#) [Customer Global] Update logic to make dashboard Customer Global work with new data source

[PFPCS-6182](#) Update package-definition

[PFPCS-6181](#) Update Simulation logic to data load logic

[PFPCS-6138](#) Investigate Solution Change Simulation to Data Source using Data Load logic

[PFPCS-4564](#) [Portfolio Dashboard] refactor api.local.xxx using to pass value to elements

[PFPCS-4563](#) [Global View Dashboard] refactor api.local.xxx using to pass value to elements

## Tasks

[PFPCS-6271](#) Update logic CustomerInsights\_DimensionFilter\_Configurator based on new structure of Configuration

[PFPCS-6265](#) Update DS Customer Classification logic to match with new structure Configuration

[PFPCS-6251](#) Update structure of Configuration

[PFPCS-4560](#) [Dashboard] refactor api.local.xxx using to pass value to elements