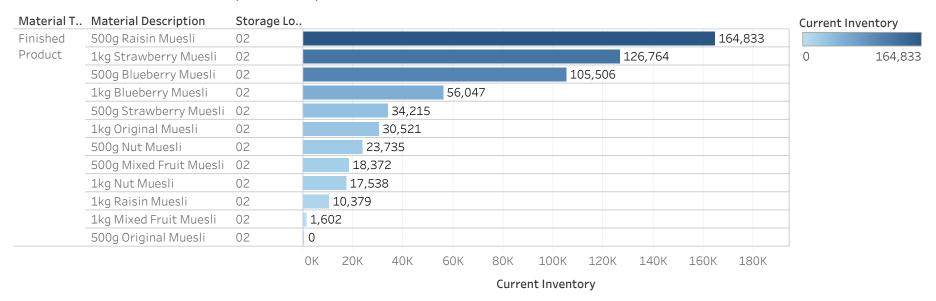
### Inventory of Materials

Finished Product 500g Raisin Muesli 02 164,833	Finished Product 500g Blueberry Muesli 02 105,506		d Product leberry	Current 0	Inventory 164,8
Finished Product 1kg Strawberry Muesli 02 126,764	Finished Product 500g Strawberry Muesli 02 34,215	Finished Pro 500g Nut M 02 23,735	Finished Product 500g Mixed Fruit Muesli 02 18,372		
	Finished Product 1kg Original Muesli 02 30,521	Finished Pro 1kg Nut Mu 02 17,538	Finished Product 1kg Raisin		

164,833

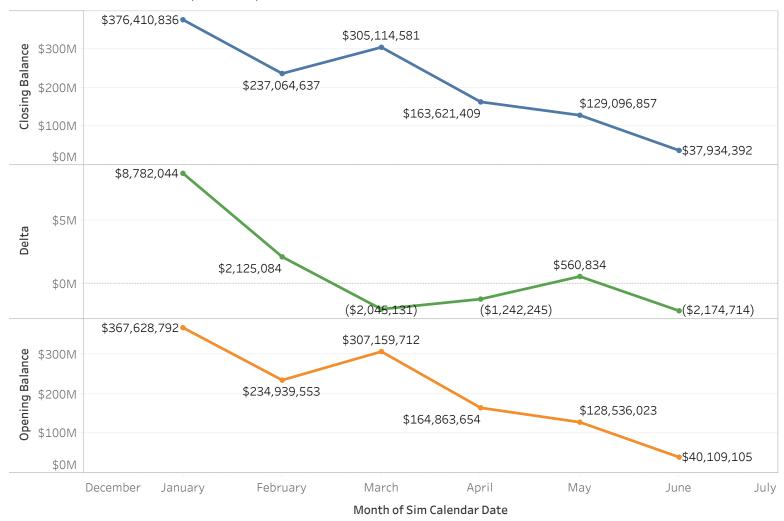
Material Type, Material Description, Storage Location and sum of Current Inventory (InventoryKPI). Color shows sum of Current Inventory (InventoryKPI). Size shows sum of Current Inventory (InventoryKPI). The marks are labeled by Material Type, Material Description, Storage Location and sum of Current Inventory (InventoryKPI). The data is filtered on Material Size, which keeps 1kg and 500g. The view is filtered on sum of Current Inventory (InventoryKPI), which keeps non-Null values only.

### Inventory of Materials (location)



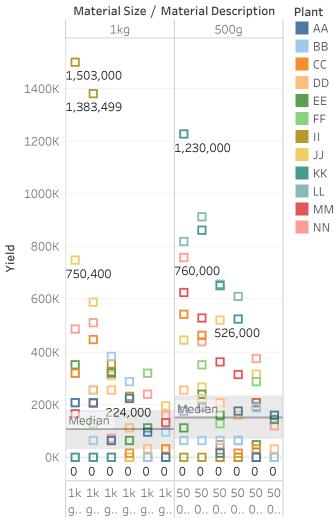
Sum of Current Inventory (InventoryKPI) for each Storage Location broken down by Material Type and Material Description. Color shows sum of Current Inventory (InventoryKPI). The data is filtered on Material Size, which keeps 1kg and 500g. The view is filtered on Material Description and sum of Current Inventory (InventoryKPI). The Material Description filter keeps 22 of 22 members. The sum of Current Inventory (InventoryKPI) filter keeps non-Null values only.

### Inventory Balance (period)



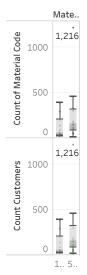
The trends of sum of Inventory Closing Balance, sum of Inventory Delta and sum of Inventory Opening Balance for Sim Calendar Date Month. The view is filtered on Sim Calendar Date Month, which includes dates on or before June.

### Material Yield per Size



Sum of Yield for each Material Description broken down by Material Size. Color shows details about Plant. The view is filtered on Material Description and Material Size. The Material Description filter keeps 12 of 12 members. The Material Size filter keeps 1kg and 500g.

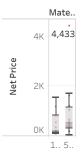
### Material Counts



Count of Material Code, sum of Count Customers and sum of Net Price for each Material Size. Details are shown for Region. The data is filtered on Material Description, Material Description (Production) and Material Size (Production). The Material Description filter excludes 1kg Blueberry Muesli. The Material Description (Production) filter keeps 12 of 12 members. The Material Size (Production) filter keeps 1kg and 500g. The view is filtered on Region, which keeps 16 of 16

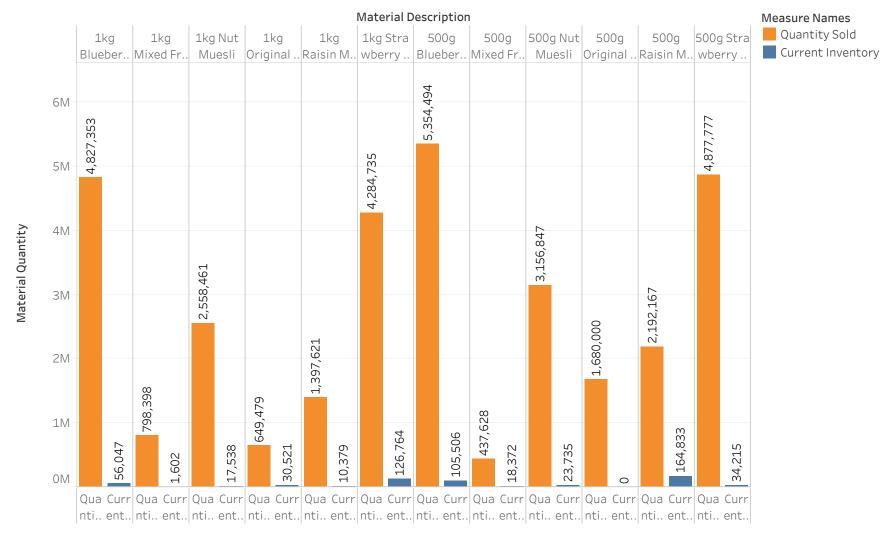
members.

### Material Counts



Count of Material Code, sum of Count Customers and sum of Net Price for each Material Size. Details are shown for Region. The data is filtered on Material Description, Material Description (Production) and Material Size (Production). The Material Description filter excludes 1kg Blueberry Muesli. The Material Description (Production) filter keeps 12 of 12 members. The Material Size (Production) filter keeps 1kg and 500g. The view is filtered on Region, which keeps 16 of 16 members.

### Qty Sold vs Inventory



Current Inventory and Quantity Sold for each Material Description. Color shows details about Current Inventory and Quantity Sold.

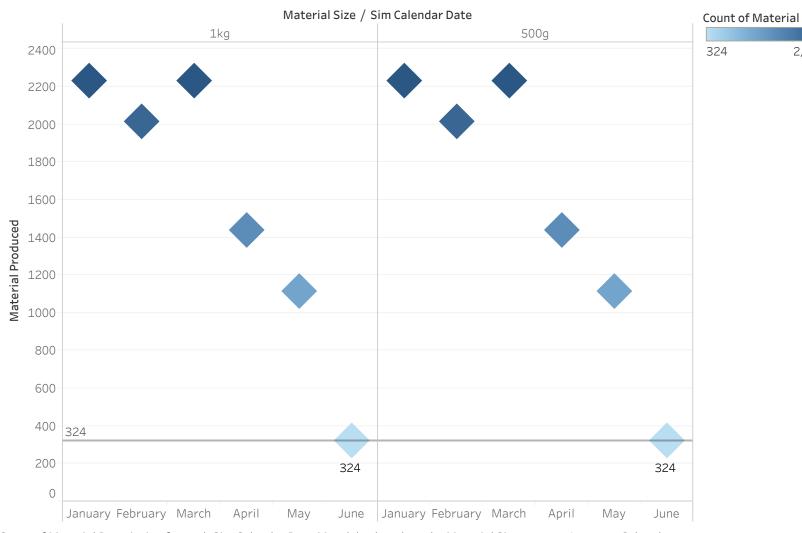
# Inventory Opening/Delta/Closing

Material Type	Storage Locati	Material Size	Material Description	Inventory Opening Balance	Inventory Delta	Inventory Closing Balance
Finished 02 1kg Product	1kg	1kg Blueberry Muesli	\$10,995,570.00	\$56,047.00	\$11,051,617.00	
	1kg Mixed Fruit Muesli	\$1,520,784.00	\$1,602.00	\$1,522,386.00		
		1kg Nut Muesli	\$6,500,097.00	\$17,538.00	\$6,517,635.00	
			1kg Original Muesli	\$4,445,502.00	\$30,521.00	\$4,476,023.00
			1kg Raisin Muesli	\$6,591,561.00	\$10,379.00	\$6,601,940.00
		1kg Strawberry Muesli	\$10,385,305.00	\$126,764.00	\$10,512,069.00	
500g	500g Blueberry Muesli	\$15,341,155.00	\$105,506.00	\$15,446,661.00		
	500g Mixed Fruit Muesli	\$2,440,578.00	\$18,372.00	\$2,458,950.00		
			500g Nut Muesli	\$15,485,638.00	\$23,735.00	\$15,509,373.00
	500g Original Muesli	\$6,280,434.00	\$0.00	\$6,280,434.00		
	500g Raisin Muesli	\$11,770,924.00	\$164,833.00	\$11,935,757.00		
		500g Strawberry Muesli	\$13,158,125.00	\$34,215.00	\$13,192,340.00	
Grand Tot	tal			\$104,915,673.00	\$589,512.00	\$105,505,185.00

Inventory Opening Balance, Inventory Delta and Inventory Closing Balance broken down by Material Type (Inventory), Storage Location (Inventory), Material Size (Inventory) and Material Description. Color shows Inventory Opening Balance.

### Inventory Opening Balance \$1,520,784.00 15M

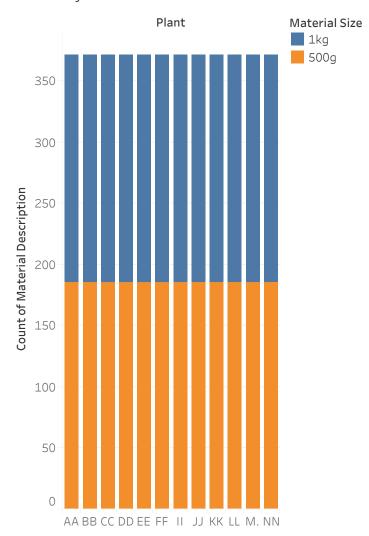
### Total Monthly Production - June



2,232

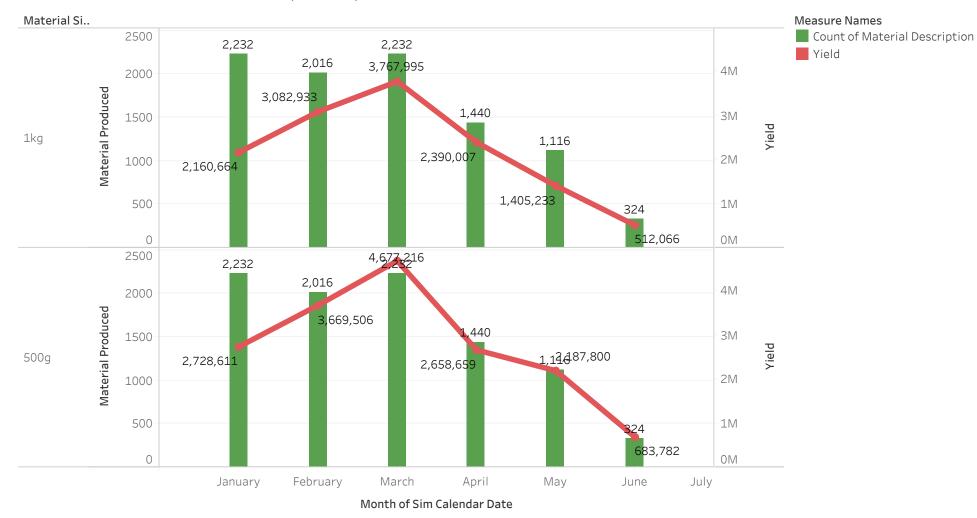
Count of Material Description for each Sim Calendar Date Month broken down by Material Size on page January. Color shows count of Material Description.

# Plant Monthly Production - January



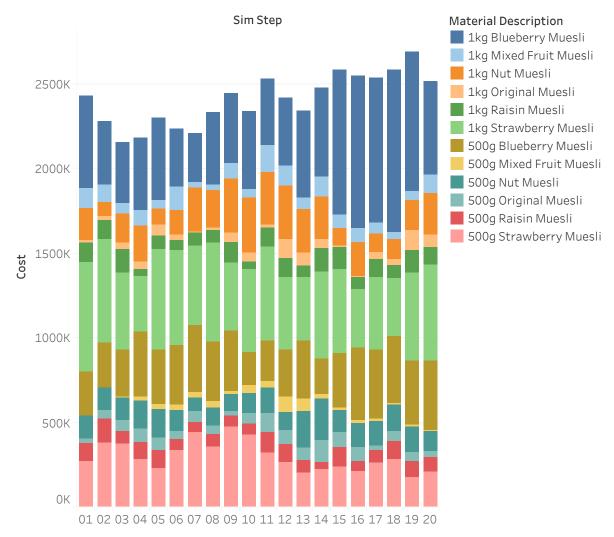
Count of Material Description for each Plant. Color shows details about Material Size.

### Material Yield vs Production (month)



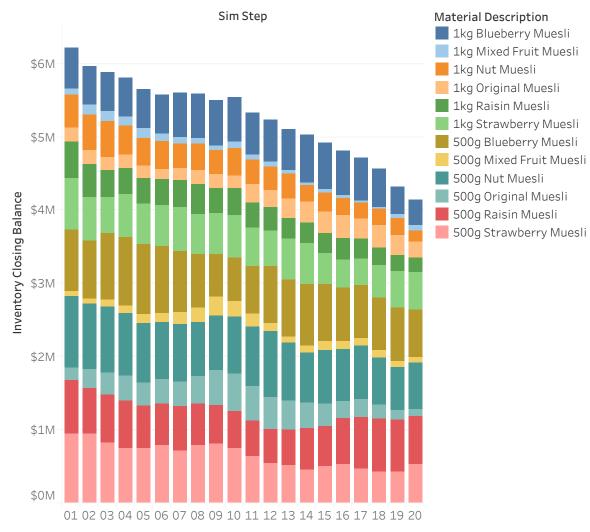
The trends of count of Material Description and Yield for Sim Calendar Date Month broken down by Material Size. Color shows details about count of Material Description and Yield. Details are shown for Sim Calendar Date Month. The view is filtered on Sim Calendar Date Month, which ranges from January to June and keeps Null values.

# Material Cost by Step



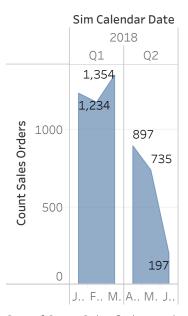
Sum of Cost (Sales) for each Sim Step. Color shows details about Material Description. The view is filtered on Material Description and sum of Cost (Sales). The Material Description filter keeps 12 of 12 members. The sum of Cost (Sales) filter keeps non-Null values only.

### Inventory Closing Balance by Step



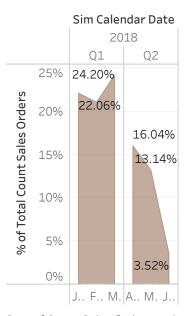
Sum of Inventory Closing Balance for each Sim Step. Color shows details about Material Description. The data is filtered on Material Description (Production), which keeps 12 of 12 members.

# Monthly Sales Order Summary



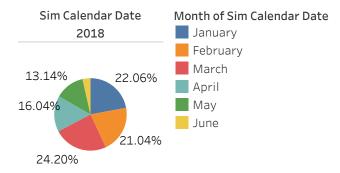
Sum of Count Sales Orders and % of Total Count Sales Orders for each Sim Calendar Date Month broken down by Sim Calendar Date Year and Sim Calendar Date Quarter. The data is filtered on Material Description and Sim Calendar Date Month. The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter ranges from January to June and keeps Null values.

# Monthly Sales Order Summary



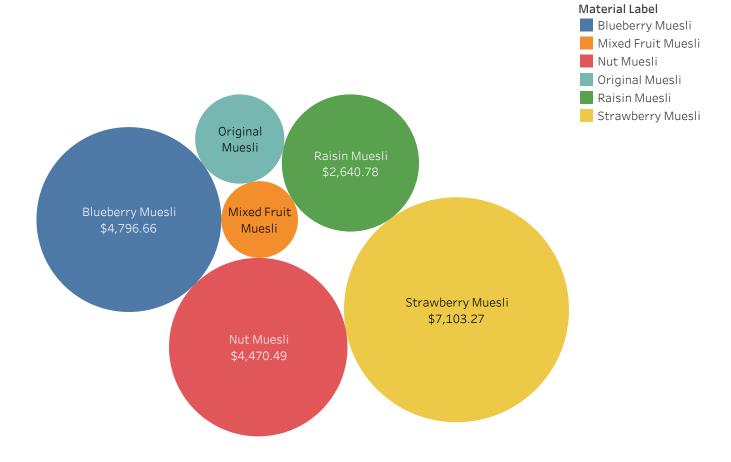
Sum of Count Sales Orders and % of Total Count Sales Orders for each Sim Calendar Date Month broken down by Sim Calendar Date Year and Sim Calendar Date Quarter. The data is filtered on Material Description and Sim Calendar Date Month. The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter ranges from January to June and keeps Null values.

# Sales Order Summary



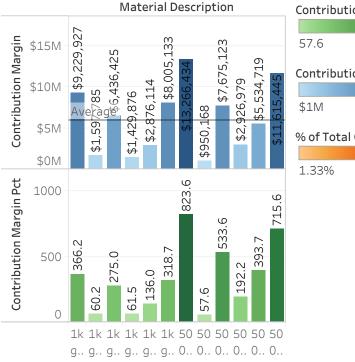
Sim Calendar Date Month (color) broken down by Sim Calendar Date Year. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli.

### Item Net Price

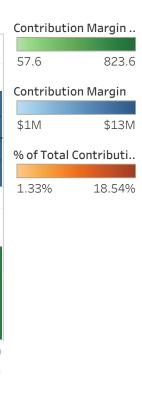


Material Label and sum of Net Price. Color shows details about Material Label. Size shows sum of Net Price. The marks are labeled by Material Label and sum of Net Price. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli.

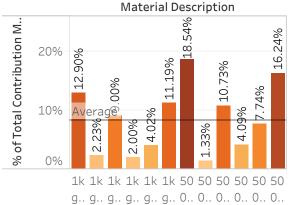
### Margin Contribution per Item



Sum of Contribution Margin, sum of Contribution Margin Pct and % of Total Contribution Margin for each Material Description. For pane Sum of Contribution Margin: Color shows sum of Contribution Margin. For pane % of Total Contribution Margin: Color shows % of Total Contribution Margin. For pane Sum of Contribution Margin Pct: Color shows sum of Contribution Margin Pct. The data is filtered on Sim Calendar Date Month, which keeps multiple members. The view is filtered on Material Description, which keeps 12 of 12 members.



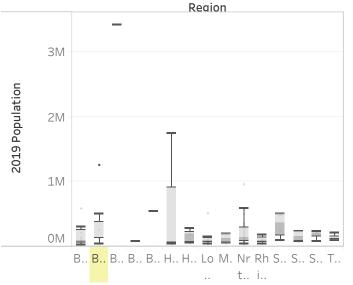
### Margin Contribution per Item





Sum of Contribution Margin, sum of Contribution Margin Pct and % of Total Contribution Margin for each Material Description. For pane Sum of Contribution Margin: Color shows sum of Contribution Margin. For pane % of Total Contribution Margin: Color shows % of Total Contribution Margin. For pane Sum of Contribution Margin Pct: Color shows sum of Contribution Margin Pct. The data is filtered on Sim Calendar Date Month, which keeps multiple members. The view is filtered on Material Description, which keeps 12 of 12 members.

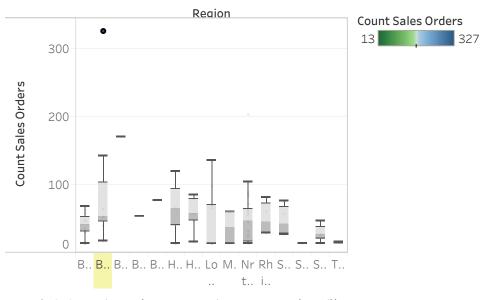
### Regional Sales Orders



Sum of 2019 Population (GermanPopulationByCities (Excel)) and sum of Count Sales Orders for each Region. Color shows sum of Count Sales Orders. Details are shown for CityName (GermanPopulationByCities (Excel)). The data is filtered on Material Description, Sim Calendar Date Month and Distribution Channel (Market). The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter ranges from January to June and keeps Null values. The Distribution Channel (Market) filter keeps 10, 12 and 14. The view is filtered on Region, sum of 2019 Population (GermanPopulationByCities (Excel)) and CityName (GermanPopulationByCities (Excel)). The Region filter keeps 16 of 16 members. The sum of 2019 Population (GermanPopulationByCities (Excel)) filter keeps non-Null values only. The CityName (GermanPopulationByCities (Excel)) filter keeps 399 of 399 members.

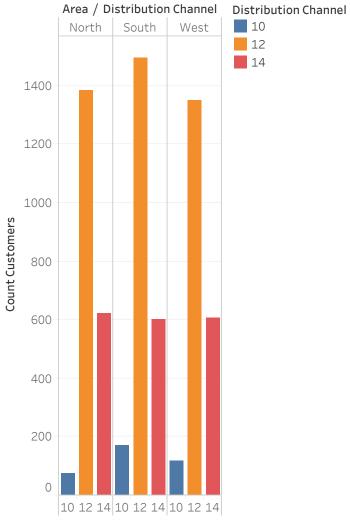
# Count Sales Orders 13 327

### Regional Sales Orders



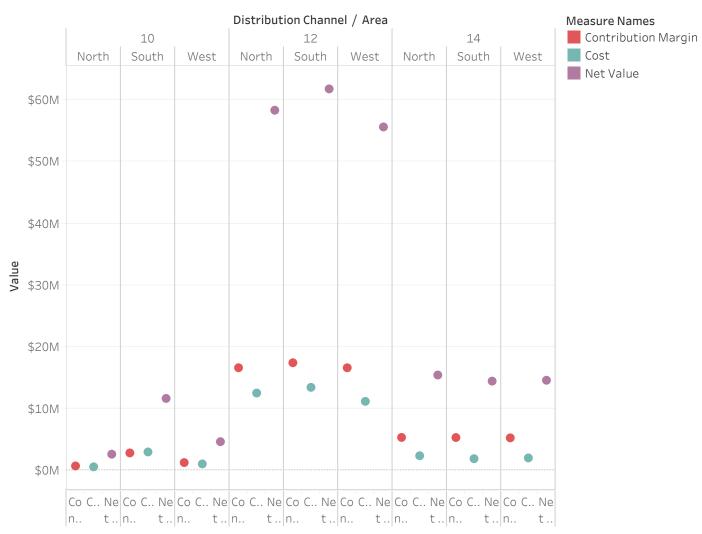
Sum of 2019 Population (GermanPopulationByCities (Excel)) and sum of Count Sales Orders for each Region. Color shows sum of Count Sales Orders. Details are shown for CityName (GermanPopulationByCities (Excel)). The data is filtered on Material Description, Sim Calendar Date Month and Distribution Channel (Market). The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter ranges from January to June and keeps Null values. The Distribution Channel (Market) filter keeps 10, 12 and 14. The view is filtered on Region, sum of 2019 Population (GermanPopulationByCities (Excel)) and CityName (GermanPopulationByCities (Excel)). The Region filter keeps 16 of 16 members. The sum of 2019 Population (GermanPopulationByCities (Excel)) filter keeps non-Null values only. The CityName (GermanPopulationByCities (Excel)) filter keeps 399 of 399 members.

### Area Customer Count



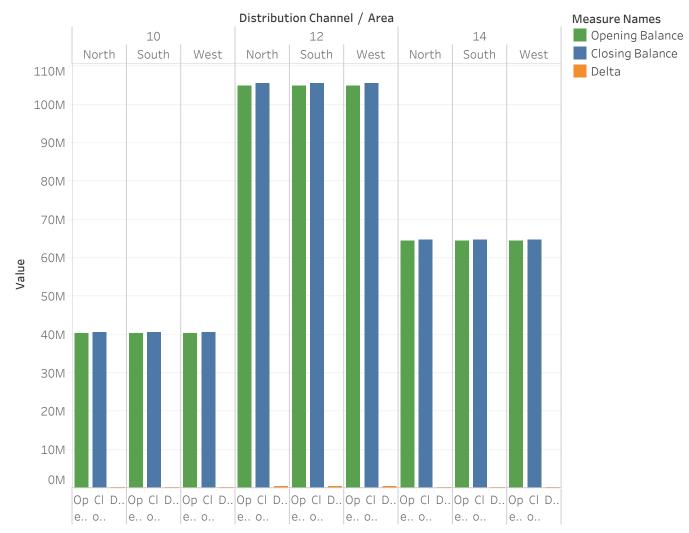
Sum of Count Customers (Sales) for each Distribution Channel (Sales) broken down by Area (Sales). Color shows details about Distribution Channel. The data is filtered on Sales Organization, which keeps 13 of 13 members. The view is filtered on Distribution Channel, which keeps 10, 12 and 14.

### Area Margin



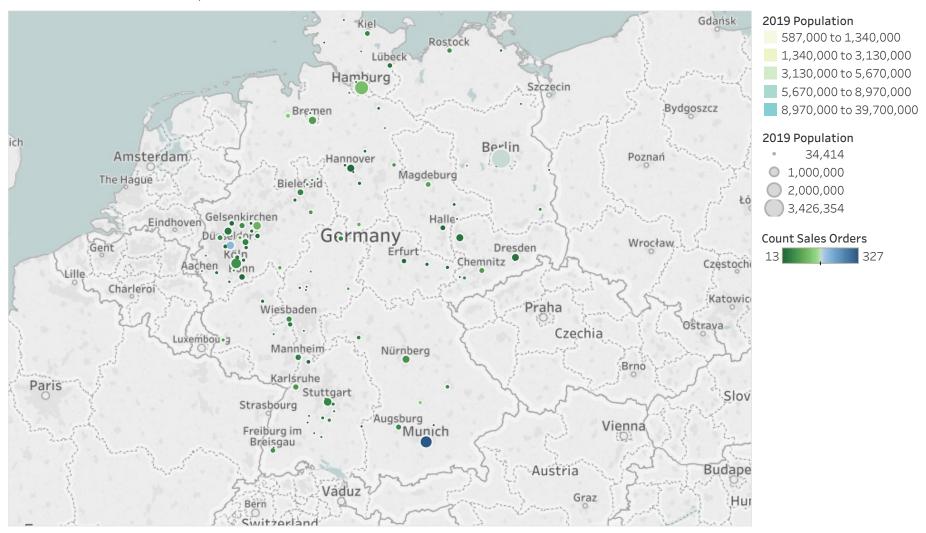
Contribution Margin, Cost and Net Value for each Area (Sales) broken down by Distribution Channel (Sales). Color shows details about Contribution Margin, Cost and Net Value. The data is filtered on Sales Organization, which keeps 13 of 13 members. The view is filtered on Distribution Channel (Sales) and Area (Sales). The Distribution Channel (Sales) filter keeps 10, 12 and 14. The Area (Sales) filter keeps North, South and West.

### Area Inventory Balance



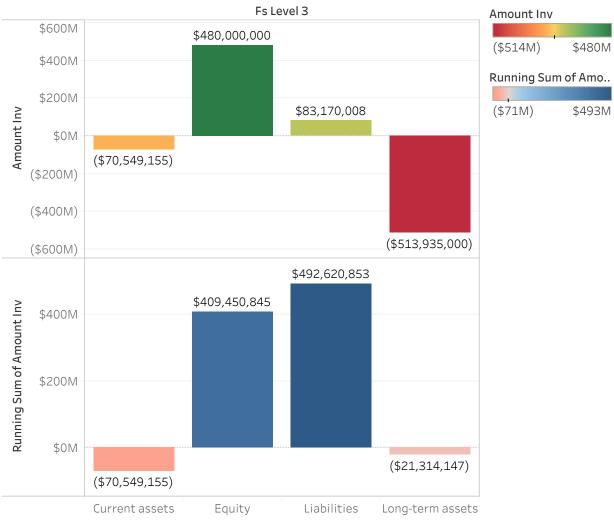
Opening Balance, Closing Balance and Delta for each Area (Sales) broken down by Distribution Channel (Sales). Color shows details about Opening Balance, Closing Balance and Delta. The data is filtered on Sales Organization, which keeps 13 of 13 members. The view is filtered on Area (Sales) and Distribution Channel (Sales). The Area (Sales) filter keeps North, South and West. The Distribution Channel (Sales) filter keeps 10, 12 and 14.

### Map of Sales Orders/Customers



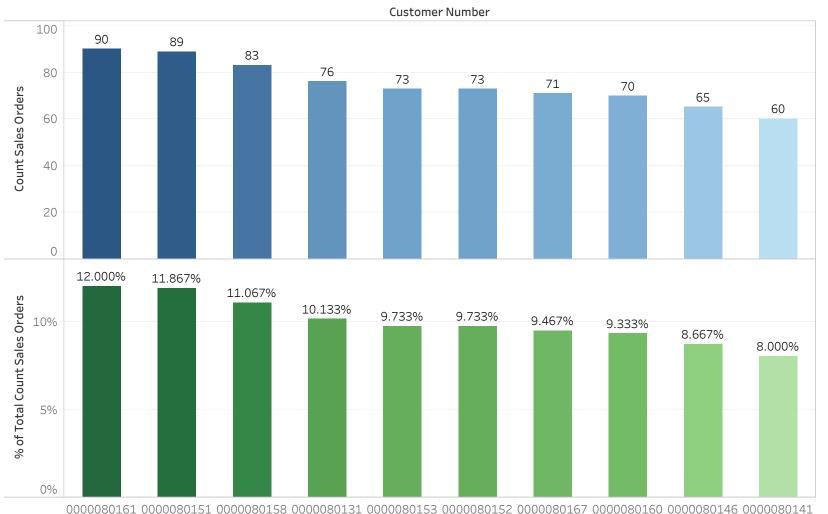
Map based on Longitude (generated) and Latitude (generated). Color shows sum of Count Sales Orders. Size shows sum of 2019 Population (GermanPopulationByCities (Excel)). Details are shown for Country and City. Map coloring shows 2018 Population by State. The data is filtered on Material Description, Sim Calendar Date Month and Distribution Channel (Market). The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter ranges from January to June and keeps Null values. The Distribution Channel (Market) filter keeps 10, 12 and 14. The view is filtered on Longitude (generated), which keeps non-Null values only.

### Running Amount (inverted)



Sum of Amount Inv (FinancialsPostings) and Running Sum of Amount Inv (FinancialsPostings) for each Fs Level 3 (FinancialsPostings). For pane Sum of Amount Inv (FinancialsPostings): Color shows sum of Amount Inv (FinancialsPostings). For pane Running Sum of Amount Inv (FinancialsPostings): Color shows Running Sum of Amount Inv (FinancialsPostings). The data is filtered on sum of Amount Bs (FinancialsPostings) and Sim Calendar Date (Sales) Month. The sum of Amount Bs (FinancialsPostings) filter keeps non-Null values only. The Sim Calendar Date (Sales) Month filter keeps all values. The view is filtered on Fs Level 3 (FinancialsPostings), which keeps 9 of 9 members.

### Customer Sales Orders (Top 10)



Count Sales Orders

% of Total Count Sale..

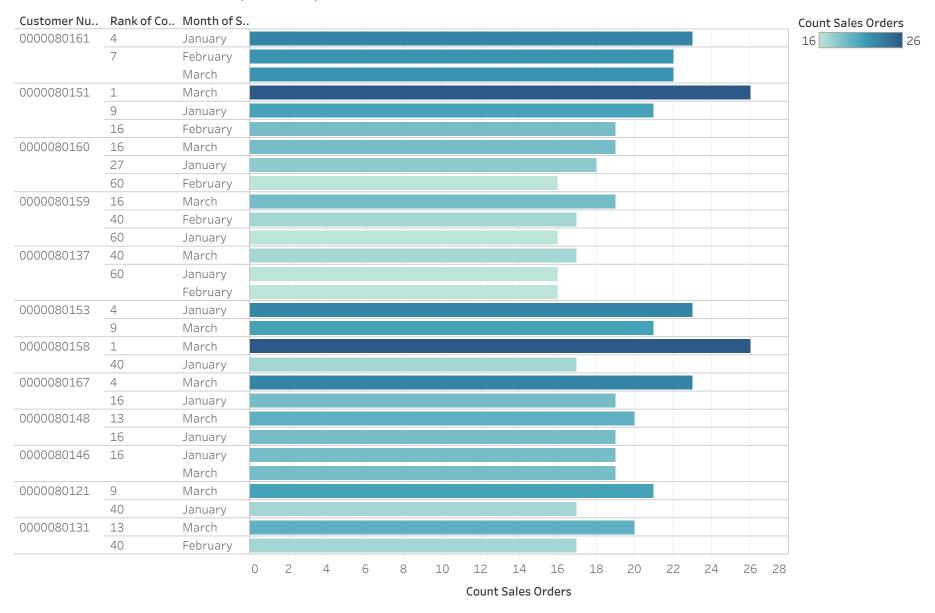
12.000%

8.000%

Sum of Count Sales Orders and % of Total Count Sales Orders for each Customer Number. For pane Sum of Count Sales Orders: Color shows sum of

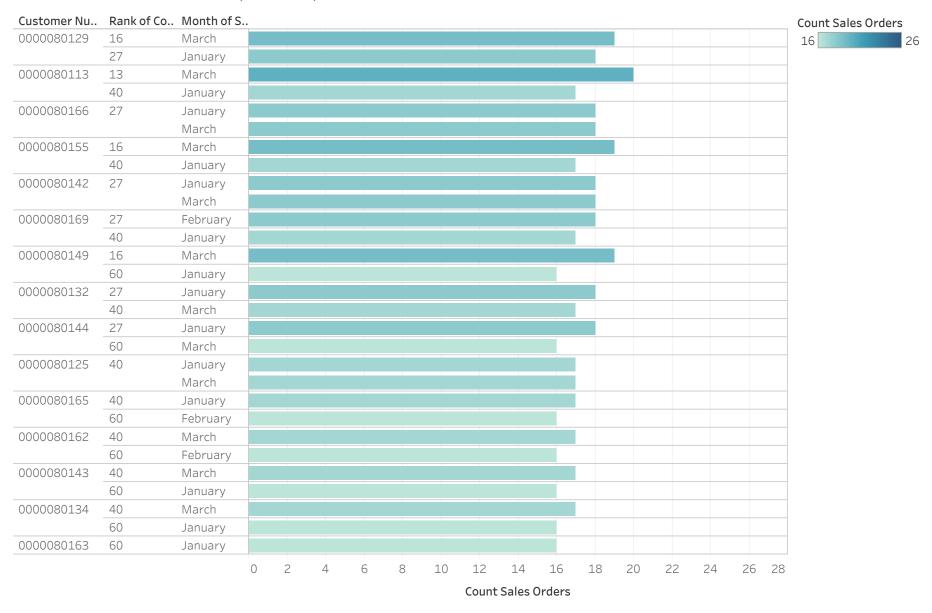
Sum of Count Sales Orders and % of Total Count Sales Orders for each Customer Number. For pane Sum of Count Sales Orders: Color shows sum of Count Sales Orders. For pane % of Total Count Sales Orders: Color shows % of Total Count Sales Orders. The data is filtered on Material Description and Sim Calendar Date Month. The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date Month filter keeps multiple members. The view is filtered on Customer Number, which keeps 10 of 215 members.

### Customer Sales Orders (Ranked)



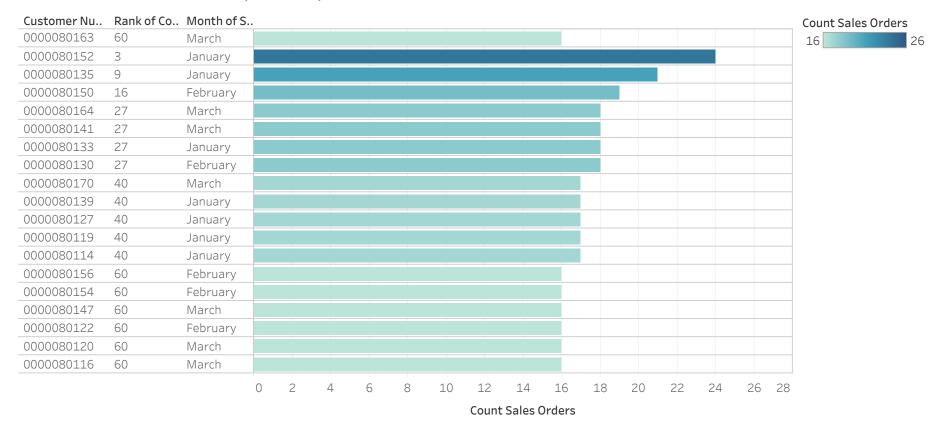
Sum of Count Sales Orders for each Rank of Count Sales Orders broken down by Customer Number and Sim Calendar Date Month. Color shows sum of Count Sales Orders. The data is filtered on Rank of Count Sales Orders and Material Description. The Rank of Count Sales Orders filter includes values less than or equal to 63. The Material Description filter excludes 1kg Blueberry Muesli. The view is filtered on Sim Calendar Date Month, which keeps multiple members.

### Customer Sales Orders (Ranked)



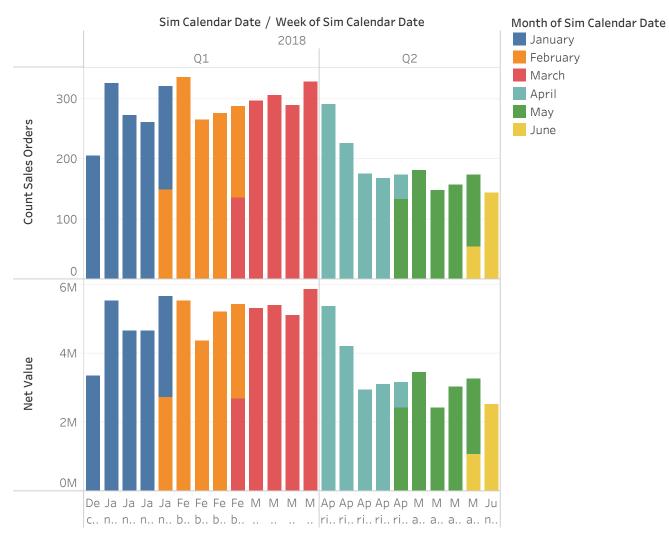
Sum of Count Sales Orders for each Rank of Count Sales Orders broken down by Customer Number and Sim Calendar Date Month. Color shows sum of Count Sales Orders. The data is filtered on Rank of Count Sales Orders and Material Description. The Rank of Count Sales Orders filter includes values less than or equal to 63. The Material Description filter excludes 1kg Blueberry Muesli. The view is filtered on Sim Calendar Date Month, which keeps multiple members.

### Customer Sales Orders (Ranked)



Sum of Count Sales Orders for each Rank of Count Sales Orders broken down by Customer Number and Sim Calendar Date Month. Color shows sum of Count Sales Orders. The data is filtered on Rank of Count Sales Orders and Material Description. The Rank of Count Sales Orders filter includes values less than or equal to 63. The Material Description filter excludes 1kg Blueberry Muesli. The view is filtered on Sim Calendar Date Month, which keeps multiple members.

### Sum of Net Values



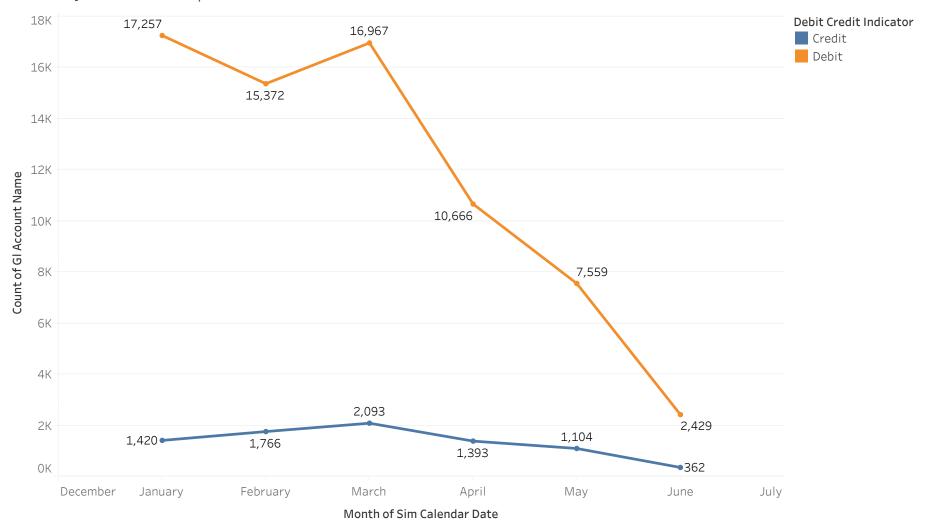
Sum of Count Sales Orders and sum of Net Value for each Sim Calendar Date Week broken down by Sim Calendar Date Year and Sim Calendar Date Quarter. Color shows details about Sim Calendar Date Month. The data is filtered on Material Description and Sim Calendar Date (Production) Quarter. The Material Description filter excludes 1kg Blueberry Muesli. The Sim Calendar Date (Production) Quarter filter keeps Q1 and Q2.

### Running Sum of Net Values

#### Sim Calendar Date 2018 Q1 Q2 February May April January March June \$100M \$99,556,671.2 \$90,741,032.4 \$90,741,032.4 \$88,315,935.4 Running Sum of Net Value \$75,668,781.6 \$80M \$66,086,743.2 \$78,624,624.9 \$55,124,304.5 \$60M \$38,956,825.0 \$49,716,492.8 \$40M \$33,735,994.3 \$18,190,284.5 \$20M \$23,847,981.1 13,541,909.2 \$0M Running Sum of Count Sales Orders 5,278 4,975 5,594 4,280<sup>4,454</sup> 4,621 5,3975,451 5,122 4,662 4,794 3.765 4K 4,055 3,148 3,437 2,258 2,411 2,842 1,718 2K 1,063 1,234 1,983 1,383 530 803 OK 205 Feb 4 Jan 21, 18 Feb 18 Mar 4 Mar 18 Apr8 Apr 22 May 6 May 20 May 27 Jun 3 Week of Sim Calendar D.. Week of Sim Calendar D..

The trends of Running Sum of Net Value and Running Sum of Count Sales Orders for Sim Calendar Date Week broken down by Sim Calendar Date Year, Sim Calendar Date Quarter and Sim Calendar Date Month. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli.

### Monthly Count Debit/Credit



The trend of count of GI Account Name for Sim Calendar Date (FinancialsBalances) Month. Color shows details about Debit Credit Indicator. The view is filtered on Sim Calendar Date (FinancialsBalances) Month, which includes dates on or before June.

### GI Account (Inverted)

			S	im Calendar Date		
Fs Level 2	GI Account	January	February	March	April	May
Assets	Null					
	Accumulat	\$90,000	\$75,000	\$105,000	\$60,000	\$45,000
	Bank Cash	(\$34,686,164)	(\$10,004,112)	(\$1,516,571)	(\$6,332,641)	(\$2,452,828)
	Buildings	(\$36,000,000)	\$0	\$0	\$0	\$0
	Customers	(\$12,187,846)	\$505,234	(\$1,559,144)	(\$265,008)	\$572,950
	Finished g	(\$998,961)	(\$223,431)	\$67,217	\$257,379	\$149,931
	Land	(\$12,000,000)	\$0	\$0	\$0	\$0
	Machinery	(\$483,000,000)	\$0	\$0	\$0	(\$1,000,000)
	Raw mater	(\$4,463,074)	(\$1,773,491)	\$861,780	\$1,661,436	(\$482,735)
Cost of Go	Null					
Inventory	Null					
Liabilities	Null					
and	Accounts p	\$4,413,310	\$6,025,393	(\$2,785,632)	(\$1,150,568)	\$127,963
Owners' E	GR/IR Clea	\$0	\$0	\$0	\$0	\$0
Operating.	. Null					
Revenues	Null					
Sales, Gen	Null					
<b>Grand Tota</b>		(\$578,832,735)	(\$5,395,407)	(\$4,827,349)	(\$5,769,402)	(\$3,039,720)

Amount Inv	
-483M	\$6,025,393

Sum of Amount Inv (FinancialsPostings) broken down by Sim Calendar Date Month vs. Fs Level 2 and Gl Account Name (FinancialsPostings). Color shows sum of Amount Inv (FinancialsPostings). The marks are labeled by sum of Amount Inv (FinancialsPostings). The view is filtered on Gl Account Name (FinancialsPostings) and Sim Calendar Date Month. The Gl Account Name (FinancialsPostings) filter keeps 10 of 61 members. The Sim Calendar Date Month filter keeps 6 of 6 members.

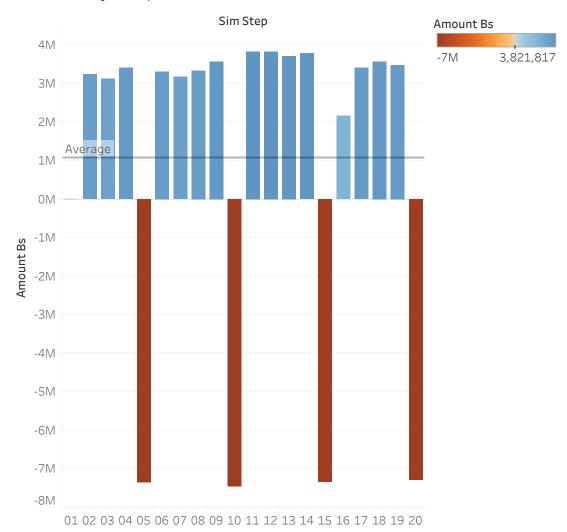
# GI Account (Inverted)

		Sim Calendar Date
Fs Level 2	GI Account	June
Assets	Null	
	Accumulat	\$15,000
	Bank Cash	\$1,595,100
	Buildings	\$0
	Customers	(\$634,445)
	Finished g	(\$97,815)
	Land	\$0
	Machinery	\$0
	Raw mater	\$1,458,085
Cost of Go	Null	
Inventory	Null	
Liabilities	Null	
and	Accounts p	(\$10,555)
Owners' E	GR/IR Clea	\$0
Operating	Null	
Revenues	Null	
Sales, Gen	Null	
<b>Grand Total</b>		\$2,325,370

Amount Inv	
-483M	\$6,025,393

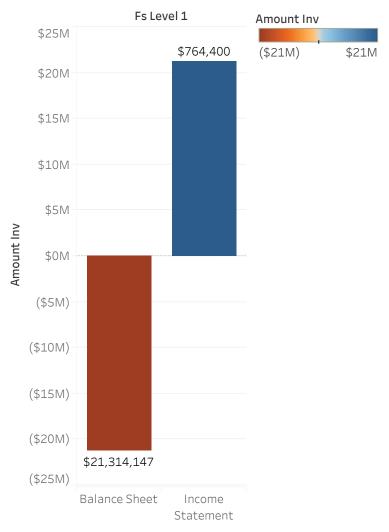
Sum of Amount Inv (FinancialsPostings) broken down by Sim Calendar Date Month vs. Fs Level 2 and GI Account Name (FinancialsPostings). Color shows sum of Amount Inv (FinancialsPostings). The marks are labeled by sum of Amount Inv (FinancialsPostings). The view is filtered on GI Account Name (FinancialsPostings) and Sim Calendar Date Month. The GI Account Name (FinancialsPostings) filter keeps 10 of 61 members. The Sim Calendar Date Month filter keeps 6 of 6 members.

# Balance by Step



Sum of Amount Bs for each Sim Step. Color shows sum of Amount Bs.

# FS Level 1 (Inverted)

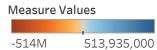


Sum of Amount Inv for each Fs Level 1. Color shows sum of Amount Inv. The marks are labeled by Amount Bs and Sim Period.

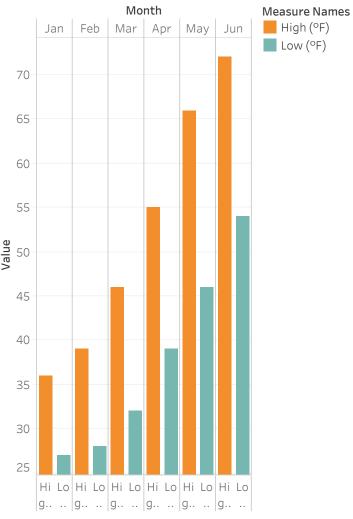
# Amount Bs & Is (Level 3)

Fs Level 1	Fs Level 2	Fs Level 3	Amount Bs	Amount Inv	Amount Is
Balance Sheet	Assets	Current assets	\$70,549,155	(\$70,549,155)	
		Long-term assets	\$513,935,000	(\$513,935,000)	
	Liabilities and Owners' Equity	Equity	(\$480,000,000)	\$480,000,000	
		Liabilities	(\$83,170,008)	\$83,170,008	
Income Statement	Cost of Goods Sold	Null		(\$48,152,289)	(\$48,152,289)
	Inventory Change	Null		(\$1,505,775)	(\$1,505,775)
	Operating Expenses	Null		(\$28,802,700)	(\$28,802,700)
	Revenues	Null		\$119,696,416	\$119,696,416
	Sales, General,	Interest expenses		(\$2,003,151)	(\$2,003,151)
	Administrative Expenses	Marketing expenses		(\$2,588,353)	(\$2,588,353)
		Production improvement expenses		(\$5,250,000)	(\$5,250,000)
		SG&A		(\$10,080,000)	(\$10,080,000)
Grand Total	Grand Total			\$0	\$21,314,147

Amount Bs, Amount Inv and Amount Is (color) broken down by Fs Level 1, Fs Level 2 and Fs Level 3.

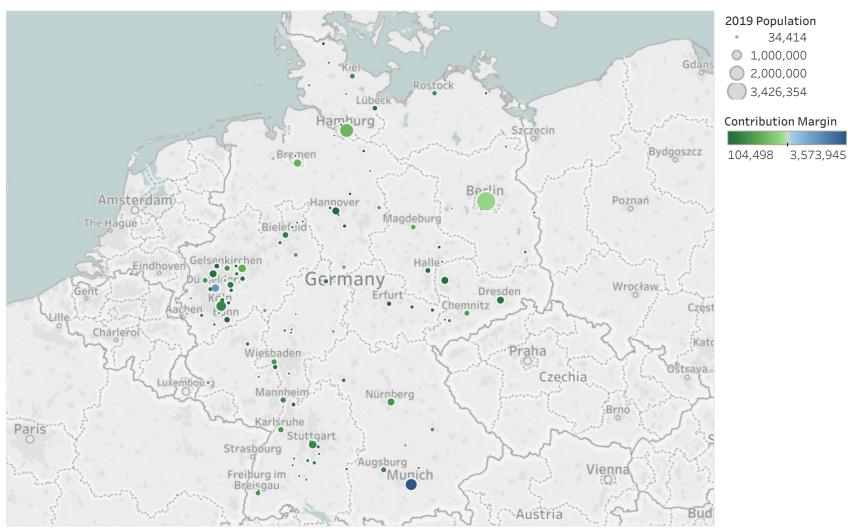


#### Berlin Weather



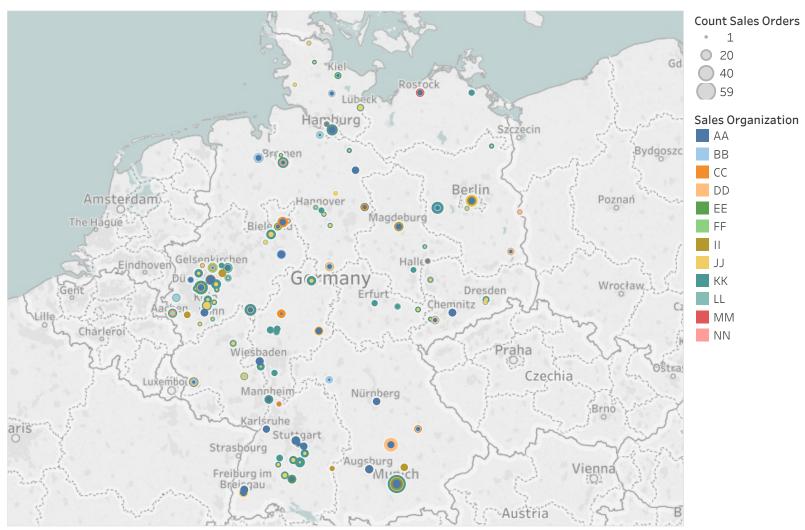
High (°F) and Low (°F) for each Month (Sheet1 (BerlinWeather(6mo))). Color shows details about High (°F) and Low (°F). The view is filtered on sum of High (°F) (Sheet1 (BerlinWeather(6mo))) and sum of Low (°F) (Sheet1 (BerlinWeather(6mo))). The sum of High (°F) (Sheet1 (BerlinWeather(6mo))) filter keeps non-Null values only. The sum of Low (°F) (Sheet1 (BerlinWeather(6mo))) filter keeps non-Null values only.

#### Map of Population vs Margin



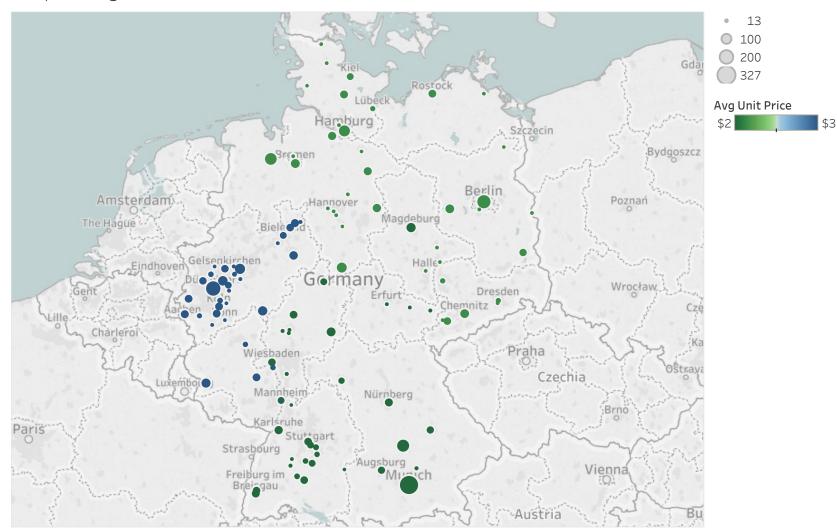
Map based on Longitude (generated) and Latitude (generated). Color shows sum of Contribution Margin. Size shows sum of 2019 Population (GermanPopulationByCities (Excel)). Details are shown for Country (CityCoords (outside source)), City and Country. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli. The view is filtered on Longitude (generated) and sum of 2019 Population (GermanPopulationByCities (Excel)). The Longitude (generated) filter keeps non-Null values only. The sum of 2019 Population (GermanPopulationByCities (Excel)) filter keeps all values.

## Map of Sales Organizations



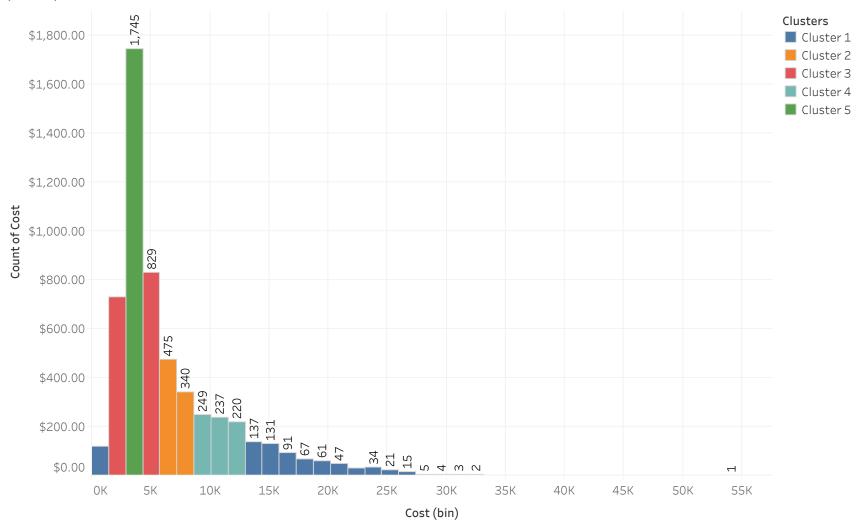
Map based on Longitude (generated) and Latitude (generated). Color shows details about Sales Organization (Market). Size shows sum of Count Sales Orders. Details are shown for Country (CityCoords (outside source)), City and Country. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli. The view is filtered on Longitude (generated), which keeps non-Null values only.

## Map of Avg Unit Price vs Customer Count



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Avg Unit Price (Market). Size shows sum of Count Customers. Details are shown for Country (CityCoords (outside source)), City and Country. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli. The view is filtered on Longitude (generated) and sum of Count Customers. The Longitude (generated) filter keeps non-Null values only. The sum of Count Customers filter ranges from 13 to 327.

# (DNU) Sheet 4



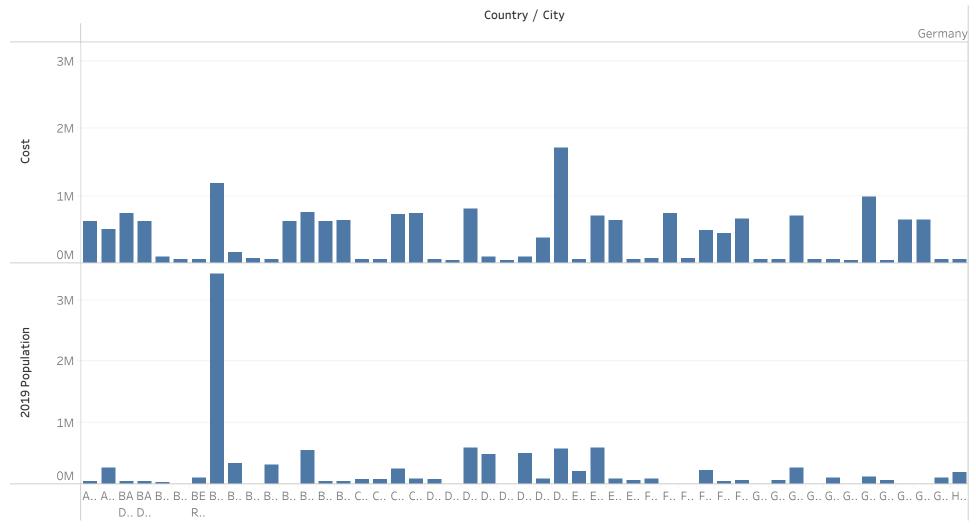
The trend of count of Cost for Cost (bin). Color shows details about Clusters. The data is filtered on Material Description, which excludes 1kg Blueberry Muesli.

# (DNU) Sheet 35

Material	Material		Count Sales	
Type	Size	Material Description	Orders	Quantity
Finished 1kg		1kg Mixed Fruit Muesli	125	798,398
Product		1kg Nut Muesli	457	2,558,461
		1kg Original Muesli	102	649,479
		1kg Raisin Muesli	231	1,397,621
		1kg Strawberry Muesli	721	4,284,735
500g		500g Blueberry Muesli	1,243	5,354,494
		500g Mixed Fruit Muesli	89	437,628
		500g Nut Muesli	736	3,156,847
		500g Original Muesli	278	1,680,000
		500g Raisin Muesli	519	2,192,167
		500g Strawberry Muesli	1,093	4,877,777

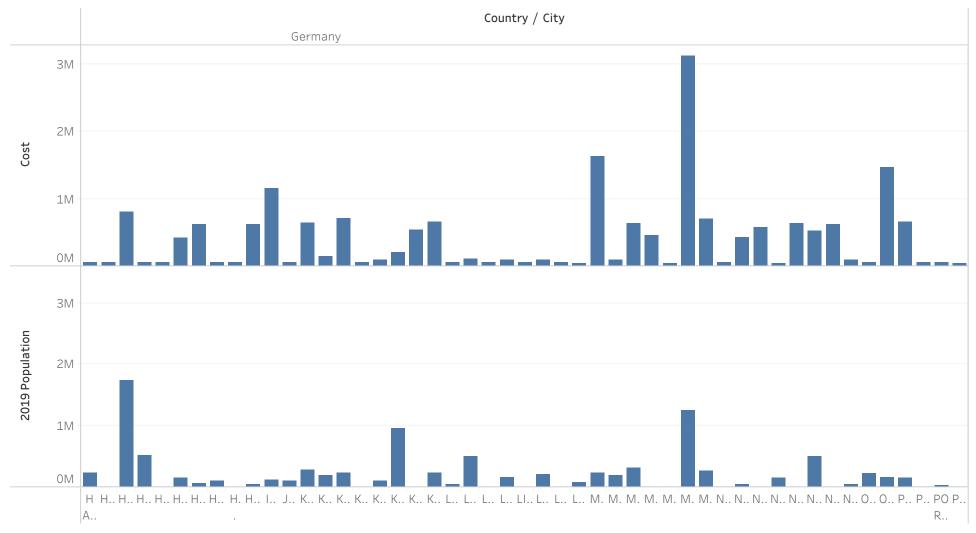
Count Sales Orders and Quantity broken down by Material Type, Material Size and Material Description. The view is filtered on Material Description, which excludes 1kg Blueberry Muesli.

## ERROR FOUND



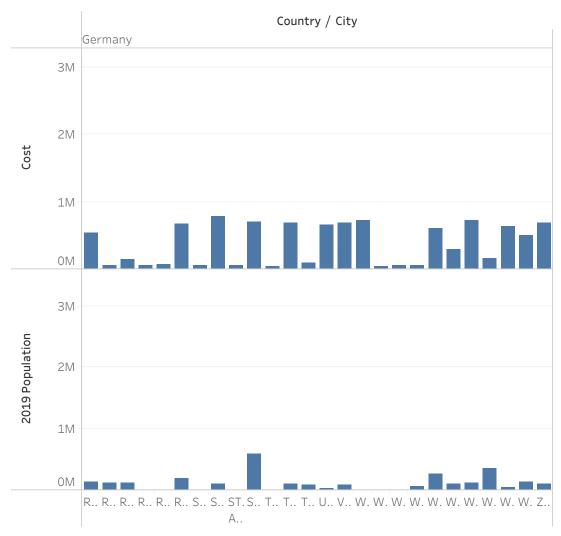
Sum of Cost and sum of 2019 Population (GermanPopulationByCities (Excel)) for each City broken down by Country.

## ERROR FOUND



 $Sum \ of \ Cost \ and \ sum \ of \ 2019 \ Population \ (German Population By Cities \ (Excel)) \ for \ each \ City \ broken \ down \ by \ Country.$ 

## ERROR FOUND



 $Sum of Cost and sum of 2019 \ Population \ (German Population By Cities \ (Excel)) \ for each \ City \ broken \ down \ by \ Country.$ 





Material Size			
1			
1	1kg		
1	500g		

Current Inventory				
0		164,833		

Both charts can be filtered by material size.

Applying the filters updates both charts simultaneously.

# INVENTORY OF MATERIALS by Location

This chart shows the total count per item material in inventory. Both sizes are displayed as well as storage location. All items appear to be located in storage location 02 and are Finished Products (versus Raw Materials).

# INVENTORY OF MATERIALS (chart)

The right chart shows that inventory has the highest count of 500g Raisin Muusli on-hand. This is good if the company expects to sell this product quickly. Otherwise, this product will remain on the shelf.

## Inventory of Materials (location)

Material T	Material Description	Storage Lo	
Finished	500g Raisin Muesli	02	164,833
Product	1kg Strawberry Muesli	02	126,764
	500g Blueberry Muesli	02	105,506
	1kg Blueberry Muesli	02	56,047
	500g Strawberry Muesli	02	34,215
	1kg Original Muesli	02	30,521
	500g Nut Muesli	02	23,735
	500g Mixed Fruit Muesli	02	18,372
	1kg Nut Muesli	02	17,538
	1kg Raisin Muesli	02	10,379
	4   * # i   F	^^	
			0K 50K 100K 150K 200K
			Current Inventory

# Inventory of Materials

Finished Product 500g Raisin Muesli 02 164,833	Finished Product 500g Blueberry Muesli 02 105,506	Finished Product 500g Strawberry Muesli 02	Finished Product 1kg Original Muesli 02
Finished Product		Finished Product	Finished Product
1kg Strawberry Muesli 02	Finished Product  1kg Blueberry Muesli	500g Nut	1kg Nut
126,764	02 56,047	Finished Product	



Material	Description
wateriai	Description

✓ 1kg Blueberry Muesli

✓ 1kg Mixed Fruit Muesli

✓ 1kg Nut Muesli

1kg Original Muesli

✓ 1kg ✓ 500g

These charts focus on material yield and counts.
These can be filtered by material description and size.

# MATERIAL YIELD per Size

The first chart shows the yield per product, sorted by material size. The highest yield for both sizes is the Blueberry Muesli and the lowest is the Original.

The chart shows a median bar over both sizes - the median yield for the 500G is more than the median for the 1kg, with the 1kg yields more spread out.

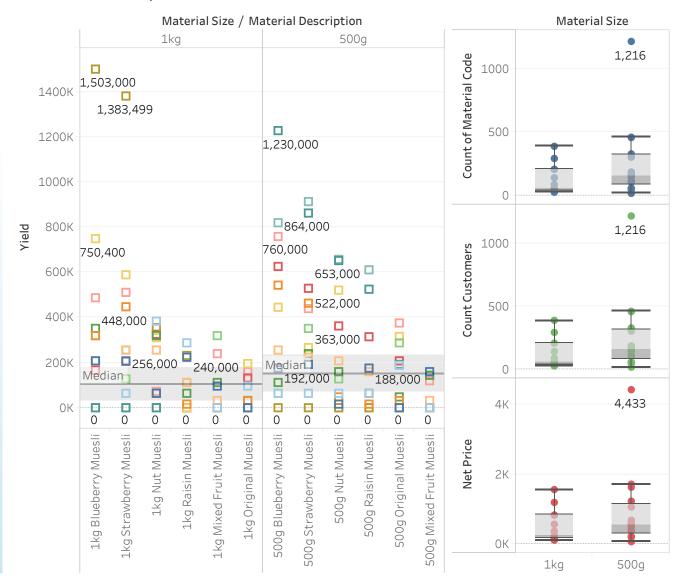
#### **MATERIAL COUNTS**

Why is there material count, customer count, and net price on the smae chart? Notice that the customer count and the material count are the same.

Also, the pattern continues with all 3 categories sharing the same outlier.

#### Material Yield per Size

#### Material Counts





Measure Names			
1	Current Inventory		
	Elapsed Steps		
	Nb Steps Available		
	Number of Records		
-	1		

Sim Month To June

Measure Names		
	Quantity Sold	
	Current Inventory	

Both charts can be filtered by Sim Calendar Date by month.

#### **QTY SOLD vs INVENTORY**

This chart is helpful to determine how much inventory is on hand versus how many were sold. Having a blue bar higher than the orange bar would indicate that too much is on-hand.

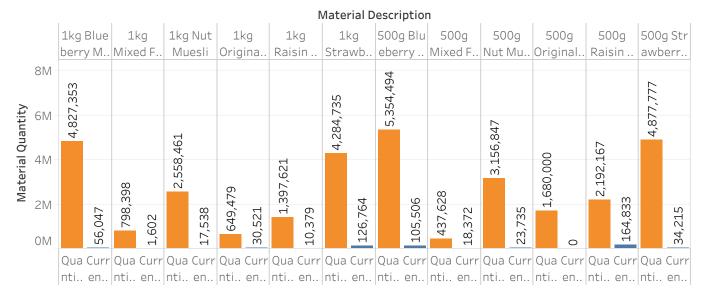
The chart to the right shows a healthy balance to avoid excess to perish in stock. This is also an indicator if more should be kept in inventory based on quantity sold.

Other measures can be applied from the filter box and by Sim Calendar Month.

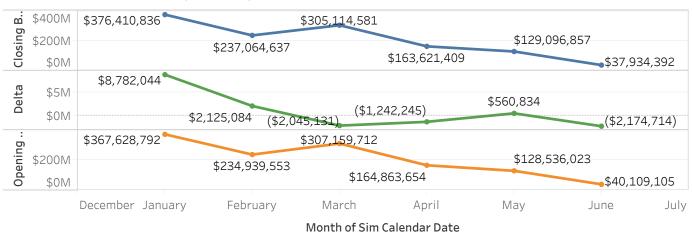
# INVENTORY BALANCE by Period

The right chart shows the change in total inventory by Sim Calendar Date. Green, blue, and red represent Opening, Closing and Inventory Delta, respectively. In March, the delta is lowest while both the opening and closing balances increase.

## Qty Sold vs Inventory



# Inventory Balance (period)







# INVENTORY OPENING/DELTA/CLOSING

Inventory Delta represents the changes to a material item between opening and closing balance. This chart is broken down by material to see where the most changes take place. In the 1kg size group, Blueberry Musli has the highest opening and closing balance, but Strawberry has the highest delta indicating a significant increase in stock quantity.

#### **ITEM NET PRICE**

The below chart shows the net price for each material label. This is the average selling price to the customer and does not include vendor cost. Blueberry has the highest net price and Strawberry is second highest, indicating that they're popular items.

#### Item Net Price



## Inventory Opening/Delta/Closing

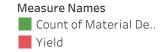
Material Type	Storage Locati	Material Size	Material Description	Inventory Opening Balance	Inventory Delta	Inventory Closing Balance
	02	1kg	1kg Blueberry Muesli	\$10,995,570.00	\$56,047.00	\$11,051,617.00
Product			1kg Mixed Fruit Muesli	\$1,520,784.00	\$1,602.00	\$1,522,386.00
			1kg Nut Muesli	\$6,500,097.00	\$17,538.00	\$6,517,635.00
			1kg Original Muesli	\$4,445,502.00	\$30,521.00	\$4,476,023.00
		1kg Raisin Muesli	\$6,591,561.00	\$10,379.00	\$6,601,940.00	
		1kg Strawberry Muesli	\$10,385,305.00	\$126,764.00	\$10,512,069.00	
	500g	500g Blueberry Muesli	\$15,341,155.00	\$105,506.00	\$15,446,661.00	
			500g Mixed Fruit Muesli	\$2,440,578.00	\$18,372.00	\$2,458,950.00
			500g Nut Muesli	\$15,485,638.00	\$23,735.00	\$15,509,373.00
			500g Original Muesli	\$6,280,434.00	\$0.00	\$6,280,434.00
			500g Raisin Muesli	\$11,770,924.00	\$164,833.00	\$11,935,757.00
			500g Strawberry Muesli	\$13,158,125.00	\$34,215.00	\$13,192,340.00
Grand Tot	tal			\$104,915,673.00	\$589,512.00	\$105,505,185.00

Inventory Opening Balance

\$1,520,784.00 \$15,485,638.00







# PRODUCTION (by Month)

Comparing the production quantity by the material yield indicates if enough product is being produced monthly to meet and exceed the yield. Production did not meet the yield amount for 500g size materials in March.

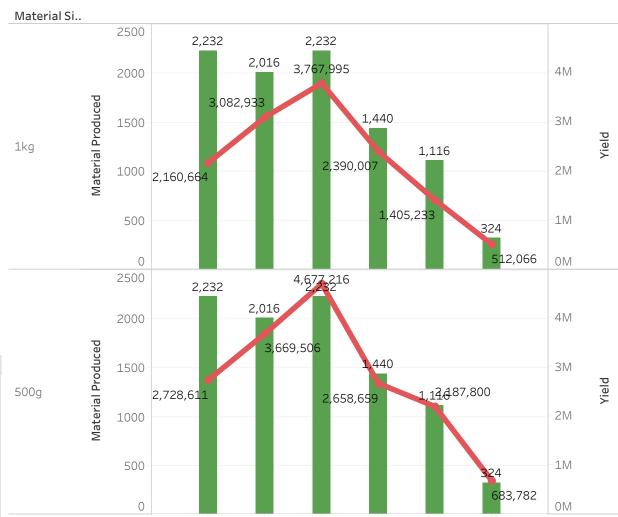
#### **TOTAL MONTHLY PRODUCTION**

Below shows the just the total quantity of production sorted by size. It's easy to see with this chart bat the same quantities were produced for each size per month.

# Total Monthly Production - June



## Material Yield vs Production (month)



March

April

Month of Sim Calendar Date

Mav

July

June

January February



#### **Material Description**

- ✓ 1kg Blueberry Muesli✓ 1kg Mixed Fruit Muesli
- ✓ 1kg Nut Muesli
- ✓ 1kg Original Muesli





These colorful charts can be filtered by material to get a better look per Sim Step.

# Material Cost by Step

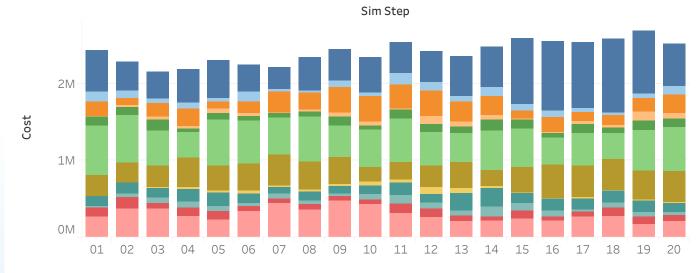
# INVENTORY COST by Step

The top chart shows the cost of each material label by Sim Step. The cost increases with some of the products, such as Blueberry, although level overall. With a decrease in production in toward the end of the sim period, and the closing balance in the second graph steadily decreasing, this pattern makes sense, but individual material labels shows less of an overall pattern.

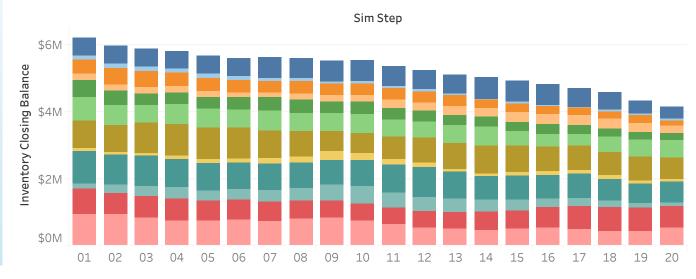


The bottom chart shows a steady decline in the closing balance as the Sim Period approaches its end.

Production is decreasing so the the closing balance is also likely to decrease as focus is on keeping minimum on hand.



## Inventory Closing Balance by Step





Material	Description
IVIA CCI IAI	Description

✓ 1kg Blueberry Muesli ✓ 1kg Mixed Fruit Muesli

✓ 1kg Nut Muesli ✓ 1kg Original Muesli

√lonth o	f Sim	Calendar	
----------	-------	----------	--

✓ January ✓ February

✓ March
✓ April

Material Size

✓ Null ✓ 1kg ✓ 500q

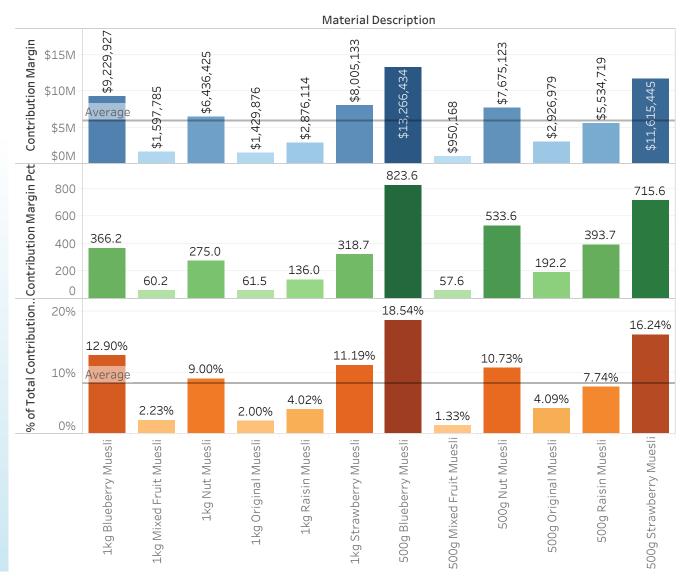
This chart can be filtered by material description size, and Sim Calendar Month.

# MARGIN CONTRIBUTION by Item

The contribution margin refers to the revenue after production costs. The top graph shows the calculated margin in dollars for each material. The second graph shows the margin percent of each material item, and the orange graph shows the percent or total margin contribution.

This graph shows that
Blueberry Museli, although
number one in all three charts,
makes up only 18.54% of the
total margin. Although
significant, it's important to
maintain focus on all products,
some of which aren't close
behind or when combined,
could exceed the margin of the
leader.

#### Margin Contribution per Item







# Month of Sim Ca.. January to June and Null values

#### Month of Sim Ca.. Distribution Channel 2019 Population

✓ 10 ✓ 12

14

#### **REGIONAL SALES ORDERS**

This chart shows the total number of sales orders by Region. Knowing where the sales orders are in relation to population can help determine locations where more production is needed.

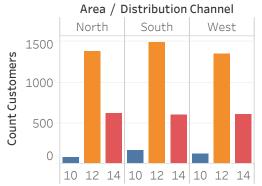
#### **AREA CUSTOMER COUNT**

The chart below shows the total number of customers per area: north, south, or west. The chart shows the south is leading in customer count.

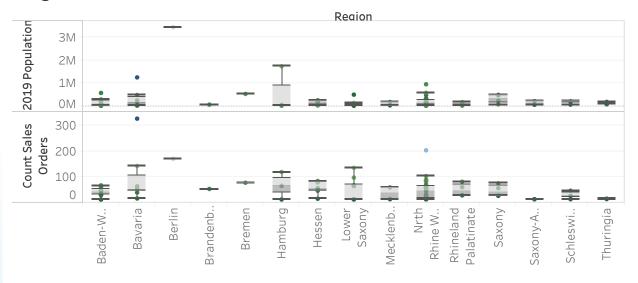
# MAP OF SALES ORDERS/CUSTOMERS

The map shows city locations, sales orders, and population by city. Berlin has the highest population, but not the highest sales. Why?

#### Area Customer Count



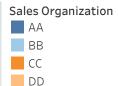
## Regional Sales Orders



#### Map of Sales Orders/Customers









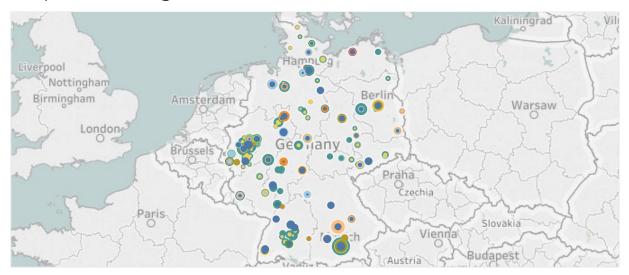
#### **MAP OF SALES ORGANIZATIONS**

The top map shows the different net sales organizations in the market in addition to number of sales orders. There are multiple sales organizations stacked in larger areas where more sales are present. A large cluster is present in the west making up the majority of the western area's orders.

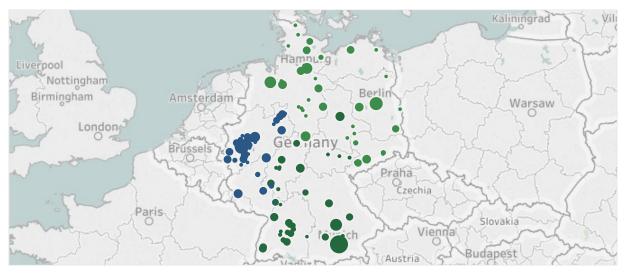
#### MAP OF AVG UNIT PRICE vs CUSTOMER COUNT

The bottom map illustrates the average unit price compared to the customer count. The larger circles indicate higher quantity of customers, such as in the Munich and Berlin, but the blue cluster in the west indicates a higher average price per unit in that area.

## Map of Sales Organizations



## Map of Avg Unit Price vs Customer Count





Measure Names	Distribution Channel		
Contribution Margin	Null		
Cost	<b>1</b> 0		
Net Value	<b>√</b> 12		
_	<b>✓</b> 14		

#### **AREA MARGIN**

This chart takes a closer look at area contribution, cost, and margin per distribution channel. The chart shows distribution channel 10 in the south has a higher net value than north or west. This makes sense since south area has more sales.

#### **AREA INVENTORY BALANCE**

Regardless of the distribution channel or area, inventory delta remains low, possibly selling until sold out. The opening and closing balances have a similar pattern to the top chart, although all areas in 10 are similar. Since south has a higher net value, south 10 could possibly produce more and still keep their delta low.

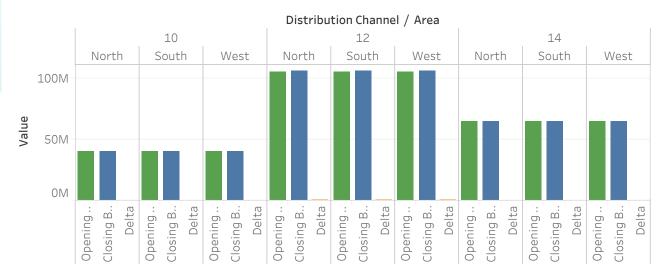
#### Sales Organization

Juics 0							
ΑА							
ВВ							
CC							
DD							
EE							
FF							
П							
JJ							
KK							

## Area Margin



## Area Inventory Balance







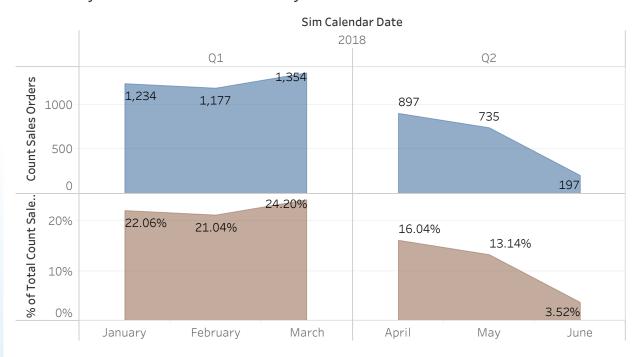
#### **MONTHLY SALES ORDER SUMMARY**

The chart on the right shows the number of sales orders and percent of total number of sales per Sim Calendar Month. Q1 has significantly more sales than Q2, and it looks like Q1 makes up 67.3% of the total sales

#### **SALES ORDER SUMMARY**

The pie chart shows the total percentage of sales for each month in 2018. The first quarter makes up the majority of the sales.

#### Monthly Sales Order Summary



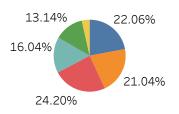
## Sales Order Summary

Sim Calendar Date 2018





June







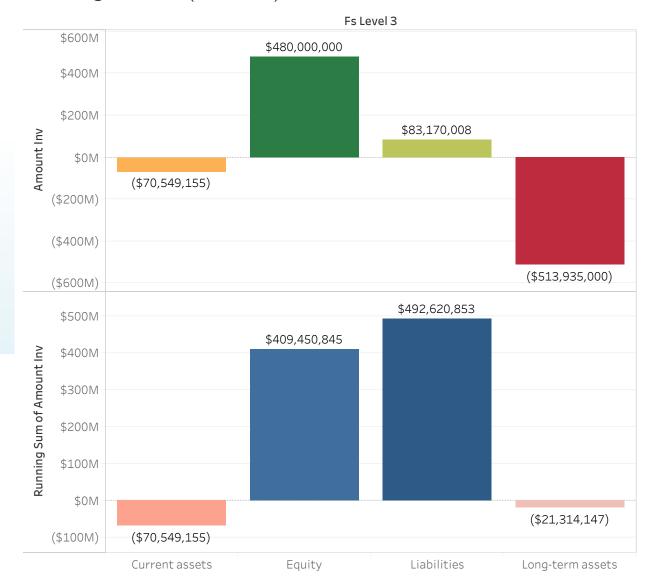
#### **RUNNING AMOUNT**

The botton chart shows the amount of credits and debits (inverted) along with the running sum of invoice. The running sum shows that liabilities is the highest positive amount and current assests is more negative than long-term assets.

#### Fs Level 3

- ✓ Null
- ✓ Current assets
- **✓** Equity
- ✓ Interest expenses
- ✓ Liabilities
- ✓ Long-term assets
- ✓ Marketing expenses
- ✓ Production improvement expenses
- ✓ SG&A

# Running Amount (inverted)





Мо	onth of Sim Calendar Date
1	January
1	February
1	March
1	April
	1

Rank of Count Sales Orders
To 63

These charts show sales by customer number. Filtering the Sim Calendar Month affects both charts.

# CUSTOMER SALES ORDERS (Top 10)

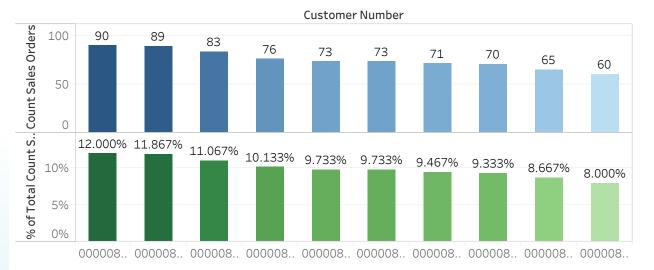
The top chart shows the top ten customers with the highest number of sales orders. The number one customer makes up 12% of all sales. The number of slaes orders is a steady slope with no outliers.

# **CUSTOMER SALES ORDERS** (Ranked)

This complicated chart shows the rank of all customers. Customer number 0000080151 had the highest number of sales orders in March than any other customer in any other month. If March is removed, the number one position changes to customer number 000080152 for January.

To see the ranking of your choice, such as top 25 or top 10, slide the ruler to the left to apply the filters to narrow or expand the range.

## Customer Sales Orders (Top 10)



## Customer Sales Orders (Ranked)

Customer Nu	Rank of Co	Month of S.						
0000080161	4	January						
	7	February						
		March						
0000080151	1	March						
	9	January						
	16	February						
0000080160	16	March						
	27	January						
	60	February						
0000080159	16	March						
	40	F-L						
			0	5	10	15	20	25
					Count	Sales Order	S	



# RUNNING SUM OF NET VALUES

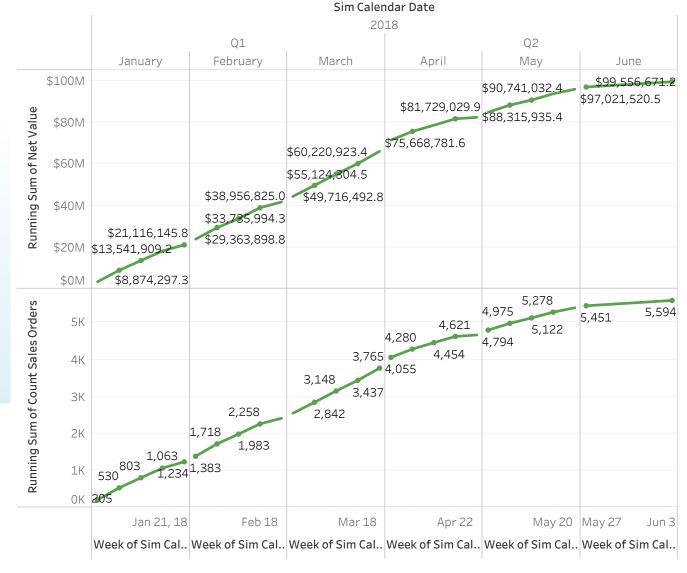
This chart shows the running sum of net values and the running sum of count sales orders, illustrating how the numbers are accumulated in a period. Both show a plateau at the end of June, which matches earlier data showing Q2 as slower than Q1.

Rather than slide ruler, a filter box is used to compare different months side-by-side.

#### Month of Sim Calendar Date

- ✓ January
- February
- ✓ March
- ✓ April
- ✓ May
- June

#### Running Sum of Net Values





# Month of Sim Calendar Date January February March April

#### **SUM OF NET VALUES**

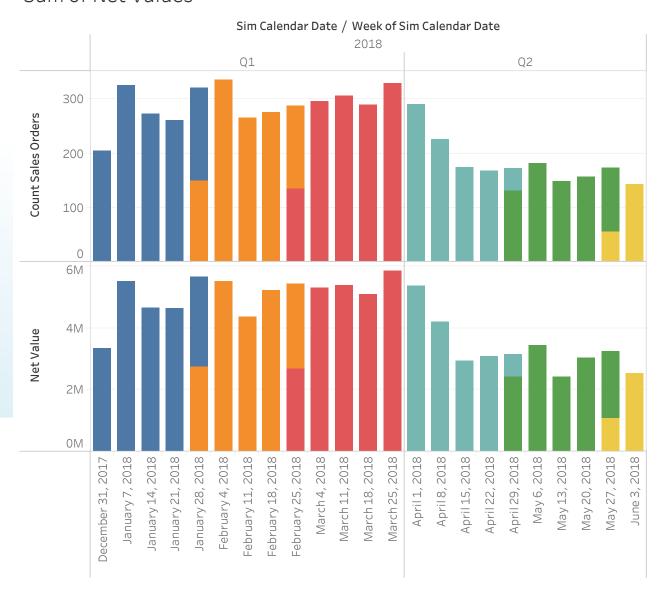
This chart shows another view of the sales order counts and net value by Sim Calendar Month.

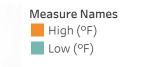
Rather than a running total, this chart shows the total for each week and month. Again, a drop in net value and number of sales orders in Q2 versus Q1, with the first drastic drop occurring in week 2 of April.

#### Month of Sim Calendar Date

- January
- **✓** February
- ✓ March
- ✓ April
- ✓ May
- ✓ June

#### Sum of Net Values





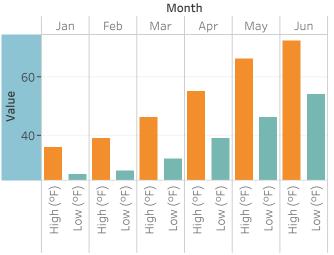


The 1st quarter shows more sales than the 2nd. February has a dip in sales. The south shows more sales than Berlin who has the largest population. These outside sources may help explain.

A look at the topography in Germany shows the Bavarian Alps located in the south, indicating national parks. Muesli is popular with hikers, which makes sense that the south would be number one in sales. Also, the west has clusters in cities, explaining the area sales.

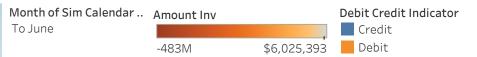
There no weather dips in February. February could be slower since it has fewer days. Muesli is often served warm and may be consumed more in colder months.

#### Berlin Weather









Both of these charts focus on GI Accounts and can be filtered by month.

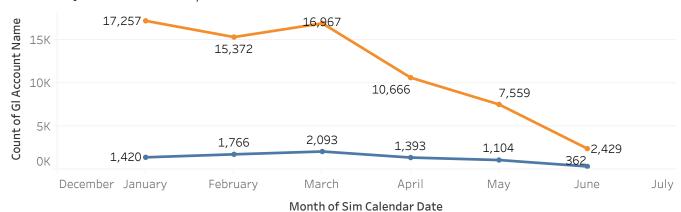
# MONTHLY COUNT DEBIT/CREDIT

This cart shows the quantity of GI used for production and is broken down by month. Debit and Credit are split up for comparison. As Q1 turns to Q2 and business slows, the count of GI decreases drastically. Debit is the chosen form of payment with Credit remaining level until it also drops in June.

# GI ACCOUNT (Inverted)

The bottom chart shows the GI amount per FS2 Account and GI Account name per month. A significant portion of materials used for production occur during the first month. In June, the Bank Cash Account is back up to positive.

## Monthly Count Debit/Credit



# GI Account (Inverted)

		Sim Calendar Date					
Fs Level 2	GI Account	January	February	March	April	May	
Assets	Null						
	Accumulat	\$90,000	\$75,000	\$105,000	\$60,000	\$45,	
	Bank Cash	(\$34,686,164)	(\$10,004,112)	(\$1,516,571)	(\$6,332,641)	(\$2,452,	
	Buildings	(\$36,000,000)	\$0	\$0	\$0		
	Customers	(\$12,187,846)	\$505,234	(\$1,559,144)	(\$265,008)	\$572	
	Finished g	(\$998,961)	(\$223,431)	\$67,217	\$257,379	\$149	
	Land	(\$12,000,000)	\$0	\$0	\$0		
	Machinery	(\$483,000,000)	\$0	\$0	\$0	(\$1,000,	
	Raw mater	(\$4,463,074)	(\$1,773,491)	\$861,780	\$1,661,436	(\$482,	
Cost of Go	Null						
Inventory	Null						
Liabilities	Null						
and	Accounts p	\$4,413,310	\$6,025,393	(\$2,785,632)	(\$1,150,568)	\$127	
Owners' E	GR/IR Clea	\$0	\$0	\$0	\$0		



#### **BALANCE BY STEP**

The top chart shows the Balance Amount per Sim Step. The pattern in this chart shows a consistent debit amount every five steps. This could be recurrent supply orders or payroll.

# FS LEVEL 1 (Inverted)

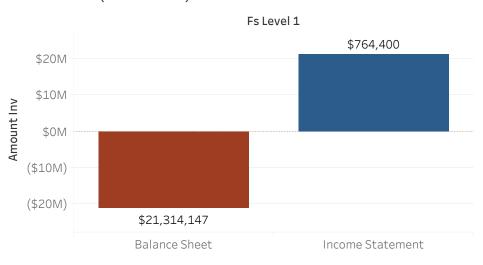
The bottom chart shows the balance sheet total and the income statement total. The balance sheet includes assets, equity, and liabilities. The income statement includes the debits and credits over a period of time.

## Balance by Step



#### **v** 01 **v** 02 **v** 03 **√** 04 **7** 05 06 **v** 07 08 09 10 **7**11 **√** 12 **y** 13 **y** 14 **1**5 **v** 16 **v** 17

# FS Level 1 (Inverted)





Measure Values				Month of Sim Calendar Date		
			1	Null		
-513	3,935,000	513,935,000	•	January		
	, ,		1	February		
			•	March		
			•	April		
				11/21/		

This chart can be filtered using the filter box. The measure names filter below can incude all measure names, if desired. Only the Bs, Inv, and Is are selected by default.

# AMOUNT Bs & Is (Level 3)

This chart shows FS levels 1, 2, and 3 and the Amount Bs, Amount Inverted, and the Amount Is. Notice that the amounts in column B only retrieve items from the Balance sheet while column I only retrieves items form the Income sheet. The Amount Inverted retrieves both sets of items, inverting the amounts from the balance sheet.

#### Measure Names

	Amount
	Amount Abs
1	Amount Bs
1	Amount Inv
1	Amount Is
	Number of Records
	Sim Elapsed Steps
	Sim Period

# Amount Bs & Is (Level 3)

Fs Level 1	Fs Level 2	Fs Level 3	Amount Bs	Amount Inv	Amount Is
Balance Sheet	Assets	Current assets	\$70,549,155	(\$70,549,155)	
		Long-term assets	\$513,935,000	(\$513,935,000)	
	Liabilities and Owners' Equity	Equity	(\$480,000,000)	\$480,000,000	
	ommero Equity	Liabilities	(\$83,170,008)	\$83,170,008	
Income Statement	Cost of Goods Sold	Null		(\$48,152,289)	(\$48,152,289)
Statement	Inventory Change	Null		(\$1,505,775)	(\$1,505,775)
	Operating Expenses	Null		(\$28,802,700)	(\$28,802,700)
	Revenues	Null		\$119,696,416	\$119,696,416
	Sales, General,	Interest expenses		(\$2,003,151)	(\$2,003,151)
	Administrative Expenses	Marketing expenses		(\$2,588,353)	(\$2,588,353)
		Production improvement expenses		(\$5,250,000)	(\$5,250,000)
		SG&A		(\$10,080,000)	(\$10,080,000)
Grand Total			\$21,314,147	\$0	\$21,314,147



#### **CONCLUSION**

Blueberry Muesli is the highest selling product and has the highest yield, but Raisin Muesli has the highest inventory count. Raisin also has 0 delta, meaning no movement of the product. Opportunity to reduce the selling price of Raisin to move the product to prevent expiring on the shelf.

Strawberry has the highest net price and is the number two favorite. Price may be a factor in why it's not number one, or possibly increase the price of Blueberry since buyers are willing to pay more per Strawberry's prices.

Production was shy in March for 500g sizes and did not match product yield.

Although the highest sales is in the south, the highest cluster of cities is in the western area, and they're also willing to pay more. First Quarter has significantly higher sales than the Second Quarter. The net value is directly proportional to the number of sales.

No single customer dominates sales; the company is not dependent on one customer and has sales from over 300 customers. With the exception of Berlin, city population is generally correlated with number of sales. Most expenses occur in the first month and tapers off. This is expected since Q1 was the busiest.

The companies liabilities exceed their assets. It may be correlated with the recurring debit from their balance every 5 sim steps.

Welcome

Inventory stores finished product in ..

Inventory delta is low for Raisin Mues..

Material yield is also highest for Blueber..

Blueberry and Strawberry are als..

Overall inventory on hand is low compar...

Production drops drastica...



Welcome

Inventory stores finished product in ..

Inventory delta is low for Raisin Mues..

Material yield is also highest for Blueber..

Blueberry and Strawberry are als..

Material Size

✓ ✓ 1kg ✓ 500g Overall inventory on hand is low compar..

**Current Inventory** 

Production drops drastica.

164,833



\*\*\* Both charts can be filtered by material size.

Applying the filters updates both charts simultaneously.

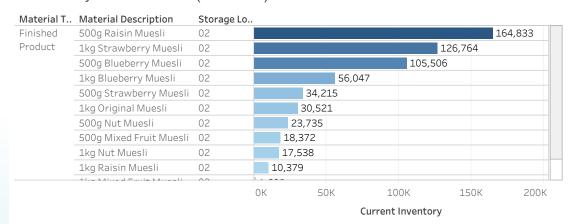
# INVENTORY OF MATERIALS by Location

This chart shows the total count per item material in inventory. Both sizes are displayed as well as storage location. All items appear to be located in storage location 02 and are Finished Products (versus Raw Materials).

# INVENTORY OF MATERIALS (chart)

The right chart shows that inventory has the highest count of 500g Raisin Muusli on-hand. This is good if the company expects to sell this product quickly. Otherwise, this product will remain on the shelf.

# Inventory of Materials (location)



#### Inventory of Materials

Finished Product 500g Raisin Muesli 02 164,833	Finished Product 500g Blueberry Muesli 02 105,506	Finished Product 500g Strawberry Muesli 02	Finished Product 1kg Original Muesli 02
Finished Product 1kg Strawberry Muesli 02	Finished Product	Finished Product 500g Nut	Finished Product 1kg Nut
126,764	1kg Blueberry Muesli 02 56,047	Finished Product	

Welcome

Inventory stores finished product in ..

Inventory delta is low for Raisin Mues..

Material yield is also highest for Blueber..

Blueberry and Strawberry are als..

Overall inventory on hand is low compar..

Production drops drastica.



Net Price

#### Material Label

Blueberry Mue.. Raisin Muesli
Mixed Fruit M.. Strawberry M..

Nut Muesli

Original Muesli

# INVENTORY OPENING/DELTA/CLOSING

Inventory Delta represents the changes to a material item between opening and closing balance. This chart is broken down by material to see where the most changes take place. In the 1kg size group, Blueberry Musli has the highest opening and closing balance, but Strawberry has the highest delta indicating a significant increase in stock quantity.

#### **ITEM NET PRICE**

The below chart shows the net price for each material label. This is the average selling price to the customer and does not include vendor cost. Blueberry has the highest net price and Strawberry is second highest, indicating that they're popular items.

#### Item Net Price



#### Inventory Opening/Delta/Closing

Material Type	Storage Locati	Material Size	Material Description	Inventory Opening Balance	Inventory Delta	Inventory Closing Balance
Finished Product	02	1kg	1kg Blueberry Muesli	\$10,995,570.00	\$56,047.00	\$11,051,617.00
Product			1kg Mixed Fruit Muesli	\$1,520,784.00	\$1,602.00	\$1,522,386.00
			1kg Nut Muesli	\$6,500,097.00	\$17,538.00	\$6,517,635.00
			1kg Original Muesli	\$4,445,502.00	\$30,521.00	\$4,476,023.00
			1kg Raisin Muesli	\$6,591,561.00	\$10,379.00	\$6,601,940.00
			1kg Strawberry Muesli	\$10,385,305.00	\$126,764.00	\$10,512,069.00
		500g	500g Blueberry Muesli	\$15,341,155.00	\$105,506.00	\$15,446,661.00
			500g Mixed Fruit Muesli	\$2,440,578.00	\$18,372.00	\$2,458,950.00
			500g Nut Muesli	\$15,485,638.00	\$23,735.00	\$15,509,373.00
			500g Original Muesli	\$6,280,434.00	\$0.00	\$6,280,434.00
			500g Raisin Muesli	\$11,770,924.00	\$164,833.00	\$11,935,757.00
			500g Strawberry Muesli	\$13,158,125.00	\$34,215.00	\$13,192,340.00
Grand Tot	tal			\$104,915,673.00	\$589,512.00	\$105,505,185.00

**Inventory Opening Balance** 

\$1,520,784.00

\$15,485,638.00

Welcome

Inventory stores finished product in .. Inventory delta is low for Raisin Mues. Material yield is also highest for Blueber.. Blueberry and Strawberry are als..

**Material Description** 

✓ 1kg Blueberry Muesli

✓ 1kg Mixed Fruit Muesli ✓ 1kg Nut Muesli ✓ 1kg Original Muesli

Overall inventory on hand is low compar...

Production drops drastically in the la..

Material Size

✓ 1kg

**√** 500g



These charts focus on material yield and counts. These can be filtered by material description and size.

#### **MATERIAL YIELD** per Size

The first chart shows the yield per product, sorted by material size. The highest yield for both sizes is the Blueberry Muesli and the lowest is the Original.

The chart shows a median bar over both sizes - the median yield for the 500G is more than the median for the 1kg, with the 1kg yields more spread out.

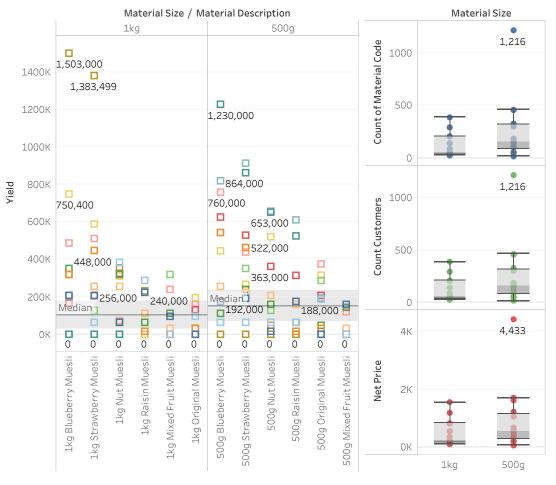
#### **MATERIAL COUNTS**

Why is there material count, customer count, and net price on the smae chart? Notice that the customer count and the material count are the same.

Also, the pattern continues with all 3 categories sharing the same outlier.

#### Material Yield per Size

#### Material Counts



Inventory stores finished product..

Inventory delta is low for Raisin Mues.

Material yield is also highest for Blueber..

Blueberry and Strawberry are als..

Overall inventory on hand is low compar..

Production drops drastically in the la..

While costs slightly increase and the cl..



\*\*This chart can be filtered by material description size, and Sim Calendar Month.

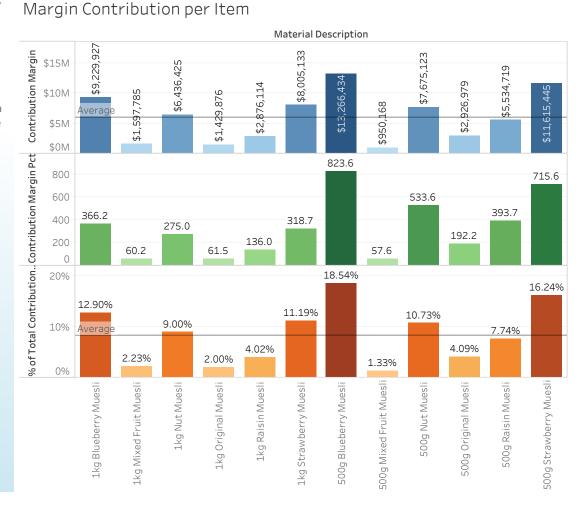
# MARGIN CONTRIBUTION by Item

The contribution margin refers to the revenue after production costs. The top graph shows the calculated margin in dollars for each material. The second graph shows the margin percent of each material item, and the orange graph shows the percent or total margin contribution.

This graph shows that
Blueberry Museli, although
number one in all three charts,
makes up only 18.54% of the
total margin. Although
significant, it's important to
maintain focus on all products,
some of which aren't close
behind or when combined,
could exceed the margin of the
leader.

#### 11.- D-:-:- NA





Inventory delta is low for Raisin M..

Material yield is also highest for Blueber..

Blueberry and Strawberry are als..

Overall inventory on hand is low compar..

Production drops drastically in the la..

Measure Names

✓ Current Inventory

Elapsed Steps

Nb Steps Available Number of Records While costs slightly increase and the cl..

Sim Month

To June

Who's buying? Munich in Bavaria .

Measure Names

Quantity Sold

Current Inventory



Both charts can be filtered by Sim Calendar Date by month.

#### **QTY SOLD vs INVENTORY**

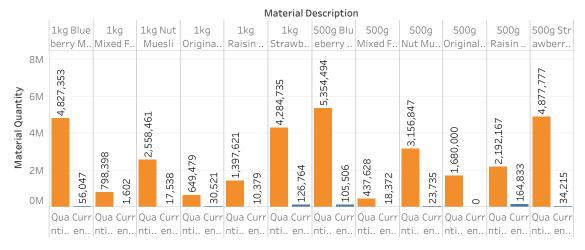
This chart is helpful to determine how much inventory is on hand versus how many were sold. Having a blue bar higher than the orange bar would indicate that too much is on-hand.

The chart to the right shows a healthy balance to avoid excess to perish in stock. This is also an indicator if more should be kept in inventory based on quantity sold. Other measures can be applied from the filter box and by Sim Calendar Month.

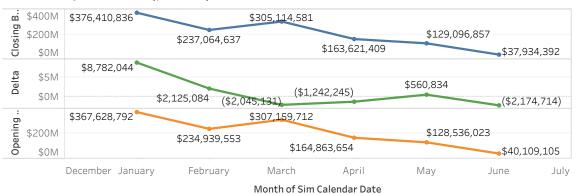
# INVENTORY BALANCE by Period

The right chart shows the change in total inventory by Sim Calendar Date. Green, blue, and red represent Opening, Closing and Inventory Delta, respectively. In March, the delta is lowest while both the opening and closing balances increase.

# Qty Sold vs Inventory



### Inventory Balance (period)



Material yield is also highest for .

Blueberry and Strawberry are als..

Overall inventory on hand is low compar..

Production drops drastically in the la..

While costs slightly increase and the cl..

Who's buying? Munich in Bavaria b.. DC 12 also has the highest value and i..



Count of Material

324

Month of Sim Calendar Date June

2,232 Show history

Measure Names
Count of Material De..
Yield

# PRODUCTION (by Month)

Comparing the production quantity by the material yield indicates if enough product is being produced monthly to meet and exceed the yield. Production did not meet the yield amount for 500g size materials in March.

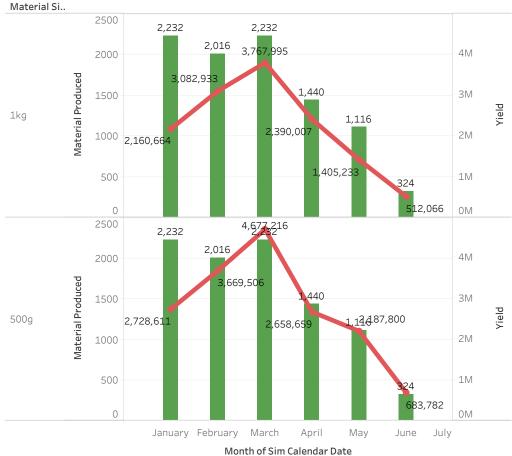
#### **TOTAL MONTHLY PRODUCTION**

Below shows the just the total quantity of production sorted by size. It's easy to see with this chart bat the same quantities were produced for each size per month.

# Total Monthly Production - June



# Material Yield vs Production (month)



Blueberry and Strawberry are.

Overall inventory on hand is low compar.

Production drops drastically in the la.. While costs slightly increase and the cl..

Material Description

✓ 1kg Blueberry Muesli

✓ 1kg Original Muesli

✓ 1kg Mixed Fruit Muesli
✓ 1kg Nut Muesli

Who's buying? Munich in Bavaria b..

Material Description

DC 12 also has the highest value and i...

1kg Blueberry .. 1kg Raisin Mu.. 500g Nut Mue..

1kg Mixed Frui.. 1kg Strawberr.. 500g Original .. 1kg Nut Muesli 500g Blueberr.. 500g Raisin M..

1kg Original M.. 500g Mixed Fr.. 500g Strawbe..

Buyers are paying more per unit in th..



These colorful charts can be filtered by material to get a

# better look per Sim Step.

#### by Step The top chart shows the cost of each material label by Sim Step. The cost increases with some of the products, such as Blueberry, although level overall. With a decrease in production in toward the end of the sim period, and the closing balance in the second graph steadily decreasing, this pattern makes sense, but individual material labels shows less of an overall

**INVENTORY COST** 

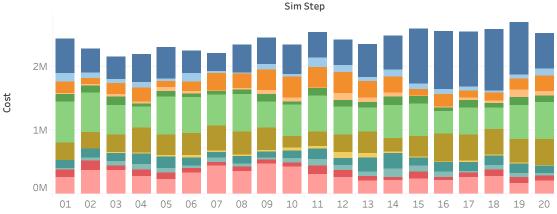
#### **INVENTORY CLOSING BALANCE** by Step

pattern.

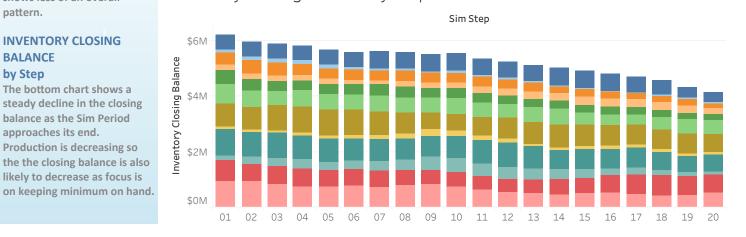
The bottom chart shows a steady decline in the closing balance as the Sim Period approaches its end. Production is decreasing so the the closing balance is also

likely to decrease as focus is

Material Cost by Step



### Inventory Closing Balance by Step



Overall inventory on hand is low c..

Production drops drastically in the la.. While costs slightly increase and the cl.. Who's buying? Munich in Bavaria b..

DC 12 also has the highest value and i... Buyers are paying more per unit in th.. Buyers primarily buy in Q1





January to June and Null values

Month of Sim Ca.. Distribution Channel 2019 Population **1**0

**√** 12 **v** 14

#### **REGIONAL SALES ORDERS**

This chart shows the total number of sales orders by Region. Knowing where the sales orders are in relation to population can help determine locations where more production is needed.

#### **AREA CUSTOMER COUNT**

The chart below shows the total number of customers per area: north, south, or west. The chart shows the south is leading in customer count.

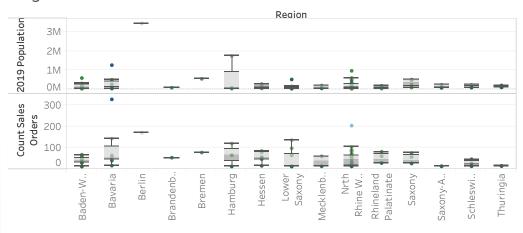
#### **MAP OF SALES ORDERS/CUSTOMERS**

The map shows city locations, sales orders, and population by city. Berlin has the highest population, but not the highest sales. Why?

### Area Customer Count



### Regional Sales Orders



# Map of Sales Orders/Customers



Production drops drastically in th..

While costs slightly increase and the cl..

Who's buying? Munich in Bavaria b... DC 12 also has the highest value and i..

Buyers are paying more per unit in th..

Buyers primarily buy in Q1

Net value also higher in Q1



# Area Null North South West

# Measure Names Contribution Margin Cost Net Value

Null 10 12 14

#### **AREA MARGIN**

This chart takes a closer look at area contribution, cost, and margin per distribution channel. The chart shows distribution channel 10 in the south has a higher net value than north or west. This makes sense since south area has more sales.

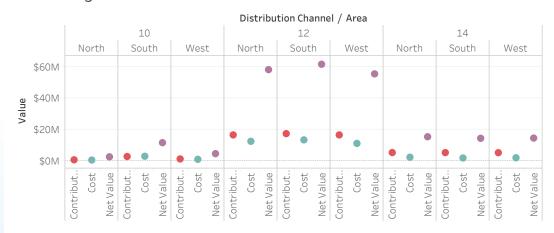
#### **AREA INVENTORY BALANCE**

Regardless of the distribution channel or area, inventory delta remains low, possibly selling until sold out. The opening and closing balances have a similar pattern to the top chart, although all areas in 10 are similar. Since south has a higher net value, south 10 could possibly produce more and still keep their delta low.

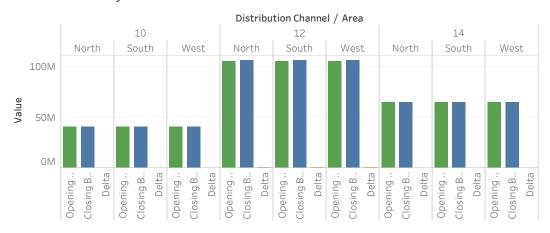
#### Sales Organization

AA
BB
CC
DD
EE
FF
II
JJ
KK

# Area Margin



### Area Inventory Balance



While costs slightly increase..

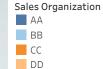
Who's buying? Munich in Bavaria b.. DC 12 also has the highest value and i...

Buyers are paying more per unit in th..

Buyers primarily buy in Q1

Net value also higher in Q1 A running total showing tapering o...







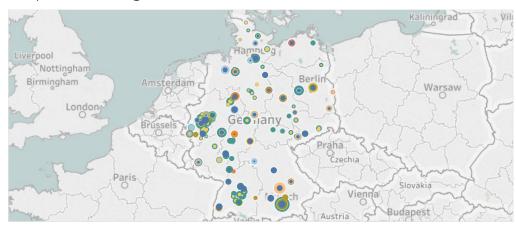
#### **MAP OF SALES ORGANIZATIONS**

The top map shows the different net sales organizations in the market in addition to number of sales orders. There are multiple sales organizations stacked in larger areas where more sales are present. A large cluster is present in the west making up the majority of the western area's orders.

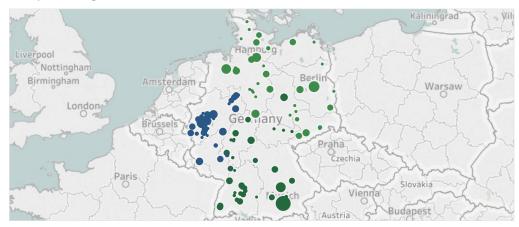
# MAP OF AVG UNIT PRICE vs CUSTOMER COUNT

The bottom map illustrates the average unit price compared to the customer count. The larger circles indicate higher quantity of customers, such as in the Munich and Berlin, but the blue cluster in the west indicates a higher average price per unit in that area.

### Map of Sales Organizations



# Map of Avg Unit Price vs Customer Count



Who's buying? Munich in Bavar. DC 12 also has the highest value and i...

Buyers are paying more per unit in th..

Buyers primarily buy in Q1

Net value also higher in Q1 A running total showing tapering o..

What about the customers themsel..



Month of Sim Calendar Date January to June and Null values

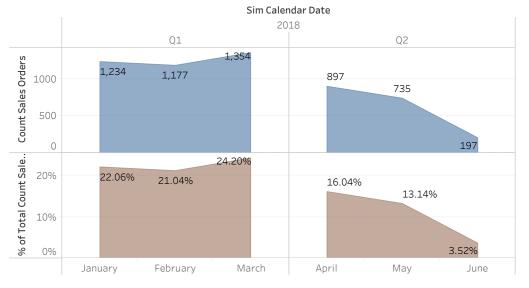
# MONTHLY SALES ORDER SUMMARY

The chart on the right shows the number of sales orders and percent of total number of sales per Sim Calendar Month. Q1 has significantly more sales than Q2, and it looks like Q1 makes up 67.3% of the total sales

#### **SALES ORDER SUMMARY**

The pie chart shows the total percentage of sales for each month in 2018. The first quarter makes up the majority of the sales.

### Monthly Sales Order Summary



### Sales Order Summary

Sim Calendar Date 2018

#### Month of Sim Calendar Date

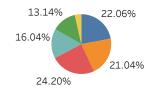


March

April

May

June



DC 12 also has the highest valu..

Buyers are paying more per unit in th.. Buyers primarily buy in Q1

Net value also higher in Q1

A running total showing tapering o..

What about the customers themsel..

Investigate: Muesli is served warm in ..

Month of Sim Calendar Date

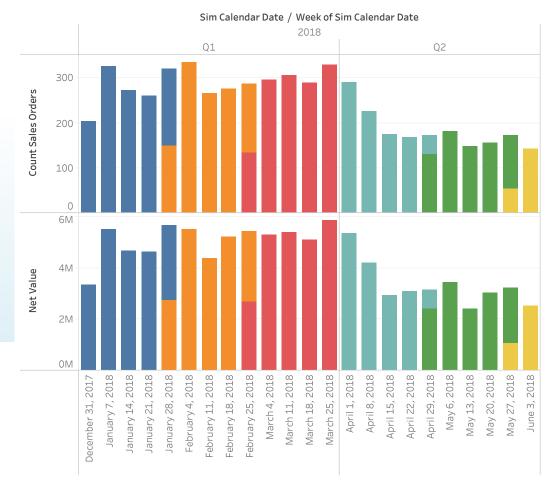
January February March April



#### **SUM OF NET VALUES**

This chart shows another view of the sales order counts and net value by Sim Calendar Month. Rather than a running total, this chart shows the total for each week and month. Again, a drop in net value and number of sales orders in Q2 versus Q1, with the first drastic drop occurring in week 2 of April.

#### Sum of Net Values



#### Month of Sim Calendar Date

- January
  February
  March
  April
  May
  June

Buyers are paying more per.. Buyers primarily buy

Net value also higher in Q1

A running total showing tapering o..

What about the customers themsel.. Investigate: Muesli is served warm in Q. Debit use and total purchases increase.



#### **RUNNING SUM OF NET VALUES**

This chart shows the running sum of net values and the running sum of count sales orders, illustrating how the numbers are accumulated in a period. Both show a plateau at the end of June, which matches earlier data showing Q2 as slower than Q1.

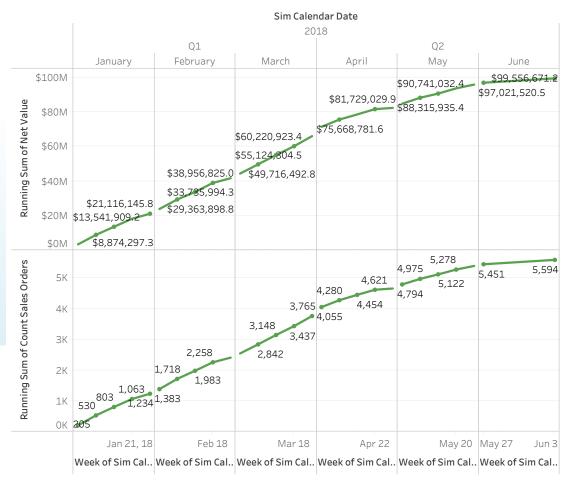
Rather than slide ruler, a filter box is used to compare different months side-by-side.

#### Month of Sim Calendar Date

- ✓ January
- February
  March
  April
  May

- ✓ June

# Running Sum of Net Values



Buyers primarily buy in Q1

Net value also higher in Q1 A running total showing tapering o...

What about the customers themsel..

Investigate: Muesli is served warm in Q...

✓ January

✓ February
✓ March
✓ April

Month of Sim Calendar Date

Debit use and total purchases increase.

Running total shows long term assets hi..

Rank of Count Sales Orders

To 255



\*\* These charts show sales by customer number. Filtering the Sim Calendar Month affects both charts.

# CUSTOMER SALES ORDERS (Top 10)

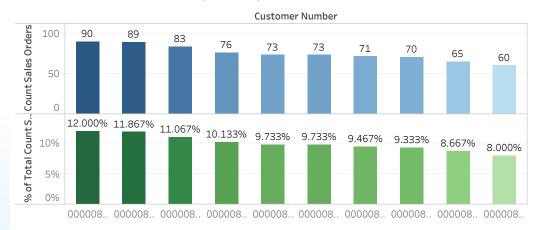
The top chart shows the top ten customers with the highest number of sales orders. The number one customer makes up 12% of all sales. The number of slaes orders is a steady slope with no outliers.

# CUSTOMER SALES ORDERS (Ranked)

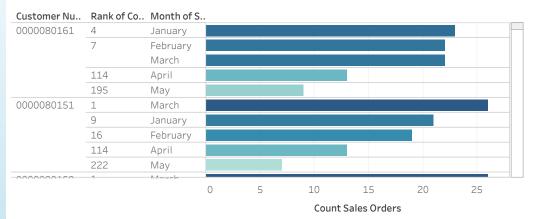
This complicated chart shows the rank of all customers. Customer number 0000080151 had the highest number of sales orders in March than any other customer in any other month. If March is removed, the number one position changes to customer number 000080152 for January.

To see the ranking of your choice, such as top 25 or top 10, slide the ruler to the left to apply the filters to narrow or expand the range.

# Customer Sales Orders (Top 10)



# Customer Sales Orders (Ranked)



Net value also higher in Q1 A running total showing tapering o...

What about the customers themsel.

Investigate: Muesli is served warm in Q.

Debit use and total purchases increase ..

Running total shows long term assets hi..

The Balance shows regular expenses e..

Measure Names

High (°F)
Low (°F)

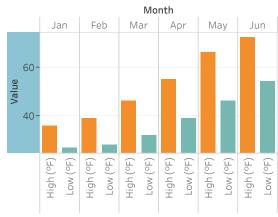


The 1st quarter shows more sales than the 2nd. February has a dip in sales. The south shows more sales than Berlin who has the largest population. These outside sources may help explain.

A look at the topography in Germany shows the Bavarian Alps located in the south, indicating national parks. Muesli is popular with hikers, which makes sense that the south would be number one in sales. Also, the west has clusters in cities, explaining the area sales.

There no weather dips in February. February could be slower since it has fewer days. Muesli is often served warm and may be consumed more in colder months.

### Berlin Weather





A running total showing taperin..

What about the customers themsel. Investigate: Muesli is served warm in Q. Debit use and total purchases increase ..

Running total shows long term assets hi..

The Balance shows regular expenses e.. Balance broken out shows a postive to..



Month of Sim Calendar .. Amount Inv To June



Credit Debit

\*\* Both of these charts focus on GI Accounts and can be filtered by month.

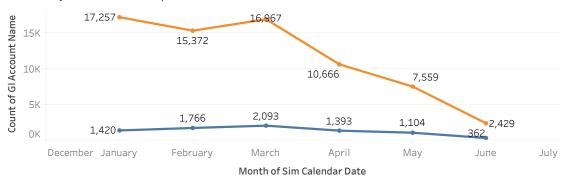
#### **MONTHLY COUNT DEBIT/CREDIT**

This cart shows the quantity of GI used for production and is broken down by month. Debit and Credit are split up for comparison. As Q1 turns to Q2 and business slows, the count of GI decreases drastically. Debit is the chosen form of payment with Credit remaining level until it also drops in June.

#### **GI ACCOUNT** (Inverted)

The bottom chart shows the GI amount per FS2 Account and GI Account name per month. A significant portion of materials used for production occur during the first month. In June, the Bank Cash Account is back up to positive.

# Monthly Count Debit/Credit



### GI Account (Inverted)

		Sim Calendar Date				
Fs Level 2	GI Account	January	February	March	April	May
Assets	Null					
	Accumulat	\$90,000	\$75,000	\$105,000	\$60,000	\$45,
	Bank Cash	(\$34,686,164)	(\$10,004,112)	(\$1,516,571)	(\$6,332,641)	(\$2,452,8
	Buildings	(\$36,000,000)	\$0	\$0	\$0	
	Customers	(\$12,187,846)	\$505,234	(\$1,559,144)	(\$265,008)	\$572
	Finished g	(\$998,961)	(\$223,431)	\$67,217	\$257,379	\$149
	Land	(\$12,000,000)	\$0	\$0	\$0	
	Machinery	(\$483,000,000)	\$0	\$0	\$0	(\$1,000,0
	Raw mater	(\$4,463,074)	(\$1,773,491)	\$861,780	\$1,661,436	(\$482,
Cost of Go	Null					
Inventory	Null					
Liabilities	Null					
and	Accounts p	\$4,413,310	\$6,025,393	(\$2,785,632)	(\$1,150,568)	\$127
Owners' E	GR/IR Clea	\$0	\$0	\$0	\$0	

What about the customers them..

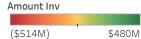
Investigate: Muesli is served warm in Q. Debit use and total purchases increase. Running total shows long term assets hi..

The Balance shows regular expenses e..

Balance broken out shows a postive tot. Conclusion







#### **RUNNING AMOUNT**

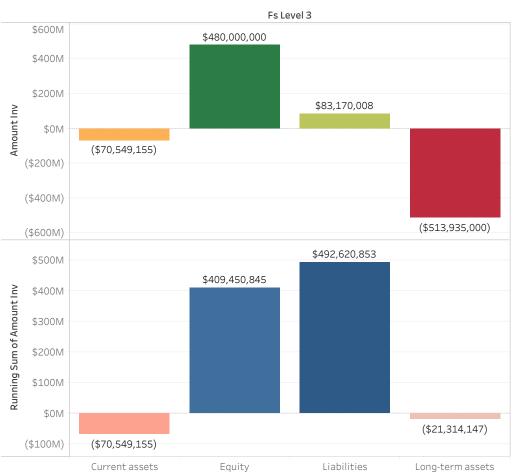
The botton chart shows the amount of credits and debits (inverted) along with the running sum of invoice. The running sum shows that liabilities is the highest positive amount and current assests is more negative than long-term assets.

#### Fs Level 3

- Null
  Current assets
  Equity
- ✓ Interest expenses
- ✓ Liabilities
- Long-term assets

  Marketing expenses
- ✓ Production improvement expenses
  ✓ SG&A

# Running Amount (inverted)



What about the customers the..

Investigate: Muesli is served warm in Q...

Debit use and total purchases increase ...

Running total shows long term assets hi..

The Balance shows regular expenses e..

Balance broken out shows a postive tot..

Conclusion



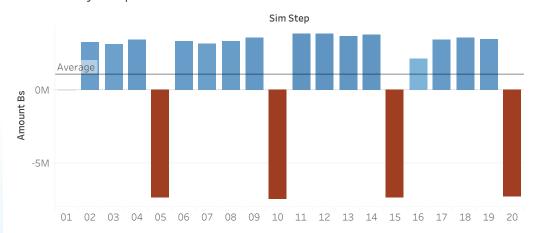
#### **BALANCE BY STEP**

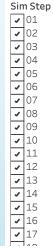
The top chart shows the Balance Amount per Sim Step. The pattern in this chart shows a consistent debit amount every five steps. This could be recurrent supply orders or payroll.

# FS LEVEL 1 (Inverted)

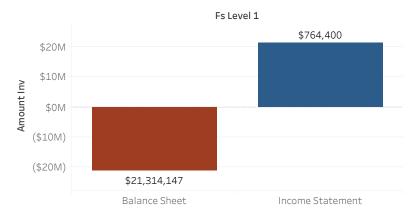
The bottom chart shows the balance sheet total and the income statement total. The balance sheet includes assets, equity, and liabilities. The income statement includes the debits and credits over a period of time.

# Balance by Step





# FS Level 1 (Inverted)



What about the customers the..

Investigate: Muesli is served warm in Q...

Debit use and total purchases increase ...

Running total shows long term assets hi..

The Balance shows regular expenses e..

-513,935,000

Balance broken out shows a postive tot..

Conclusion



This chart can be filtered using the filter box. The measure names filter below can incude all measure names, if desired. Only the Bs, Inv, and Is are selected by default.

# AMOUNT Bs & Is (Level 3)

This chart shows FS levels 1, 2, and 3 and the Amount Bs, Amount Inverted, and the Amount Is. Notice that the amounts in column B only retrieve items from the Balance sheet while column I only retrieves items form the Income sheet. The Amount Inverted retrieves both sets of items, inverting the amounts from the balance sheet.

#### Measure Names

	Amount
	Amount Abs
1	Amount Bs
•	Amount Inv
1	Amount Is
	Number of Records
	Sim Elapsed Steps
	Sim Period

Amount	Rs &	15 (	ا مررما	3

E. L	F-110	F. Lauri 2	A	A	A
Fs Level 1	Fs Level 2	Fs Level 3	Amount Bs	Amount Inv	Amount Is
Balance Sheet	Assets	Current assets	\$70,549,155	(\$70,549,155)	
		Long-term assets	\$513,935,000	(\$513,935,000)	
	Liabilities and Owners' Equity	Equity	(\$480,000,000)	\$480,000,000	
	. ,	Liabilities	(\$83,170,008)	\$83,170,008	
Income Statement	Cost of Goods Sold	Null		(\$48,152,289)	(\$48,152,289)
Statement	Inventory Change	Null		(\$1,505,775)	(\$1,505,775)
	Operating Expenses	Null		(\$28,802,700)	(\$28,802,700)
	Revenues	Null		\$119,696,416	\$119,696,416
	Sales, General,	Interest expenses		(\$2,003,151)	(\$2,003,151)
	Administrative Expenses	Marketing expenses		(\$2,588,353)	(\$2,588,353)
		Production improvement expenses		(\$5,250,000)	(\$5,250,000)
		SG&A		(\$10,080,000)	(\$10,080,000)
Grand Total	I		\$21,314,147	\$0	\$21,314,147

# Measure Values Month of Sim Calendar Date

	~	INUII
513,935,000	1	January
	1	February
	1	March
	1	April
		May

What about the customers the..

Investigate: Muesli is served warm in Q..

Debit use and total purchases increase .. long term assets hi..

Running total shows The Balance shows regular expenses e.. Balance broken out shows a postive tot.. Conclusion



#### CONCLUSION

Blueberry Muesli is the highest selling product and has the highest yield, but Raisin Muesli has the highest inventory count. Raisin also has 0 delta, meaning no movement of the product. Opportunity to reduce the selling price of Raisin to move the product to prevent expiring on the shelf.

Strawberry has the highest net price and is the number two favorite. Price may be a factor in why it's not number one, or possibly increase the price of Blueberry since buyers are willing to pay more per Strawberry's prices.

Production was shy in March for 500g sizes and did not match product yield.

Although the highest sales is in the south, the highest cluster of cities is in the western area, and they're also willing to pay more. First Quarter has significantly higher sales than the Second Quarter. The net value is directly proportional to the number of sales.

No single customer dominates sales; the company is not dependent on one customer and has sales from over 300 customers. With the exception of Berlin, city population is generally correlated with number of sales. Most expenses occur in the first month and tapers off. This is expected since Q1 was the busiest.

The companies liabilities exceed their assets. It may be correlated with the recurring debit from their balance every 5 sim steps.