SQL KONFERENZ 2025

3 Layers of Dashboard Design in 1 hour



Lonneke Opsteegh | StatStories

StatStories

SQL KONFERENZ 2025



- Human movement
  Organizational psych
- PhD in medical sciences

- *And now...*

- Data co
- teach
  consultancy

specialist

design



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CONSISTENCY

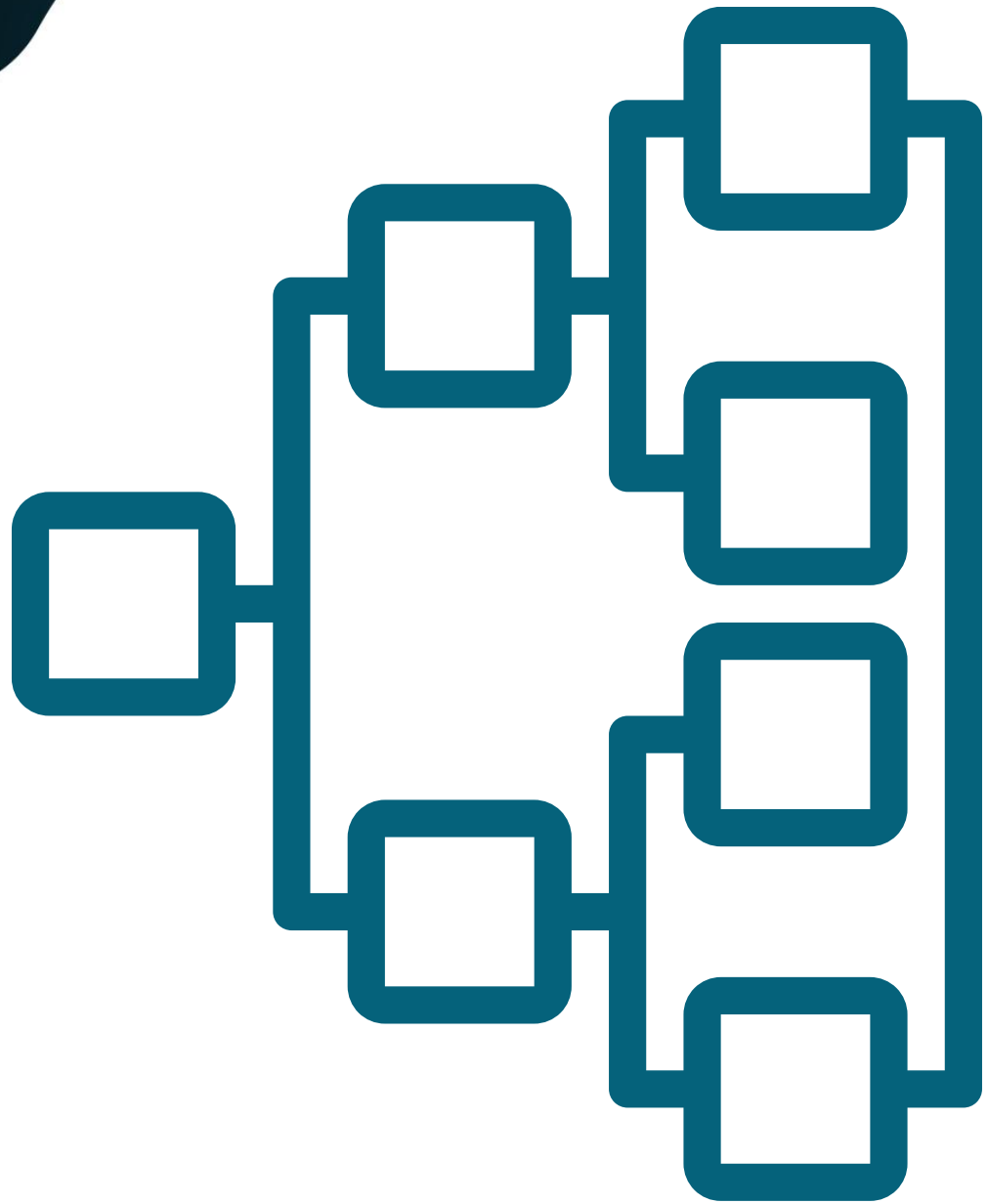
INTRA-DASHBOARD

INTER-DASHBOARD

INTRA-CLIENT

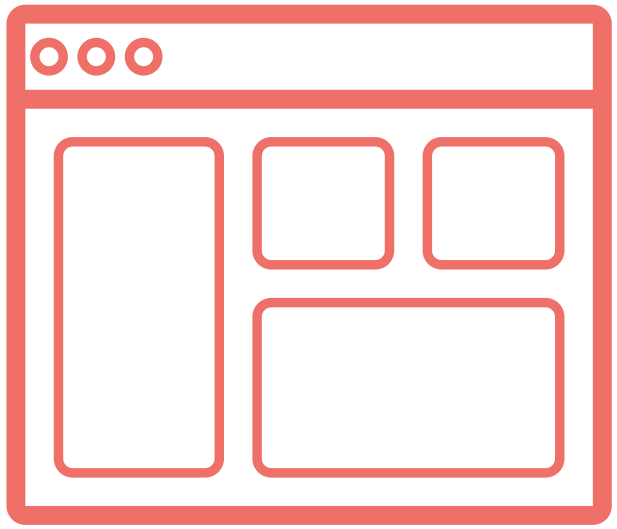
INTER-CLIENT





The overview

The overview

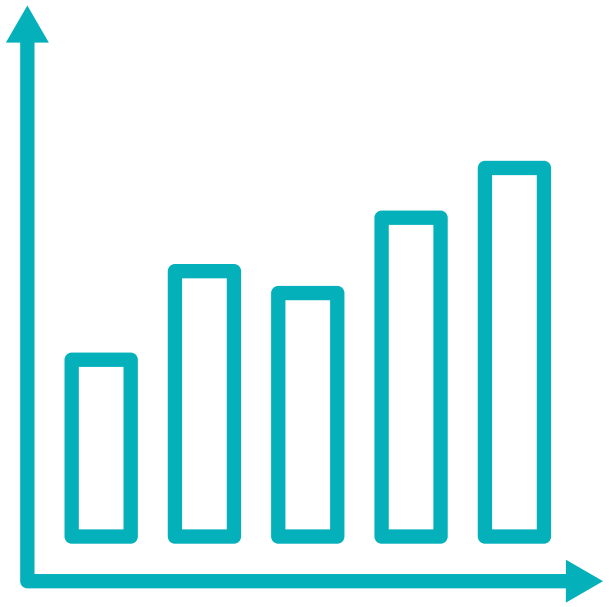


One page

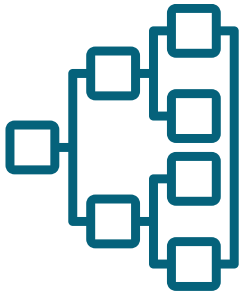
StatStories

The overview

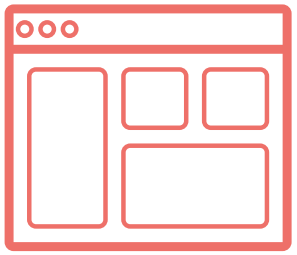
One page



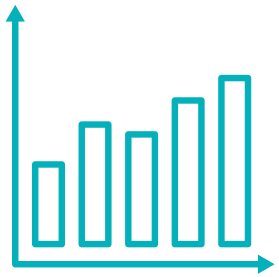
Graphs



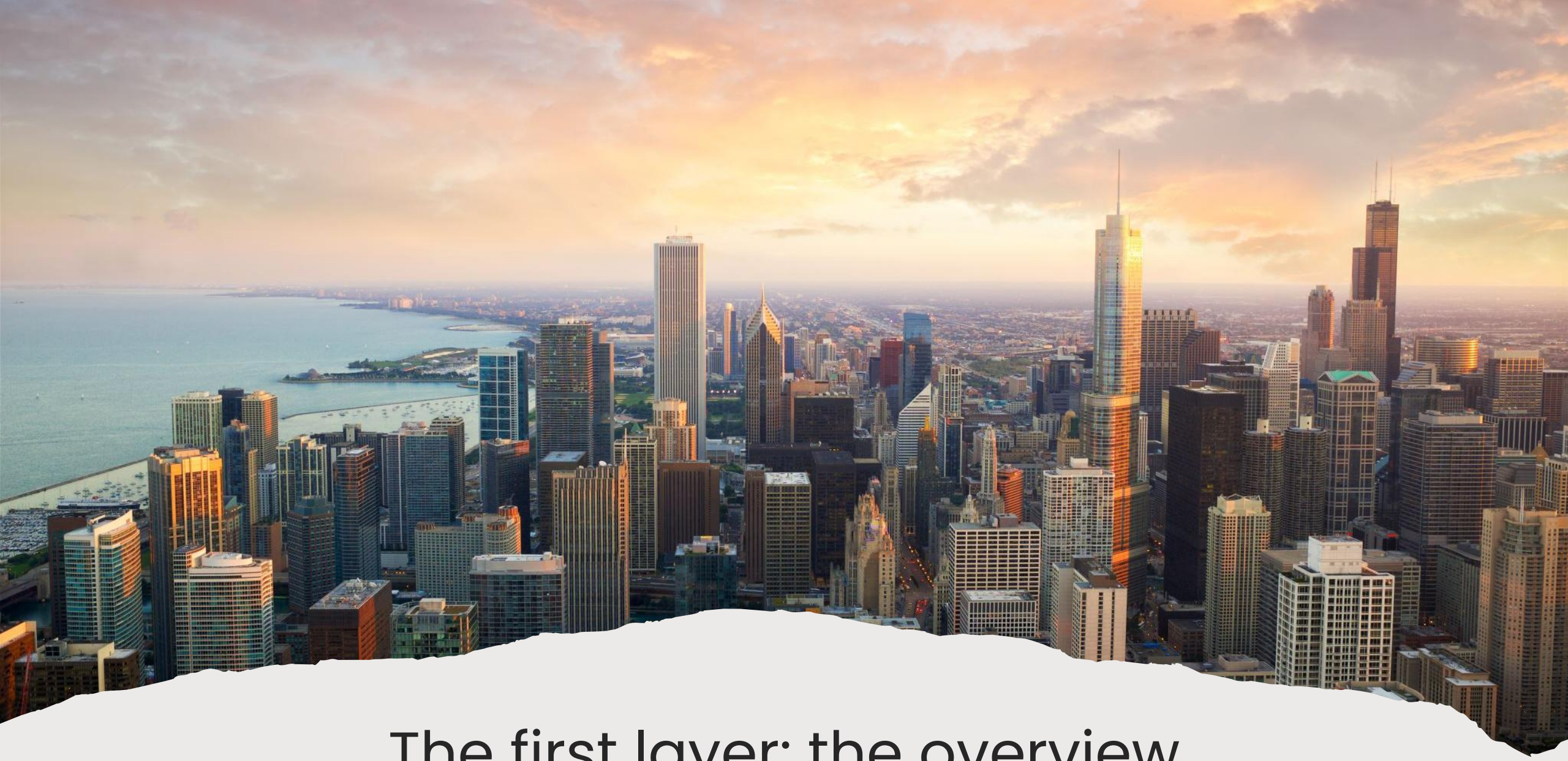
The overview



One page



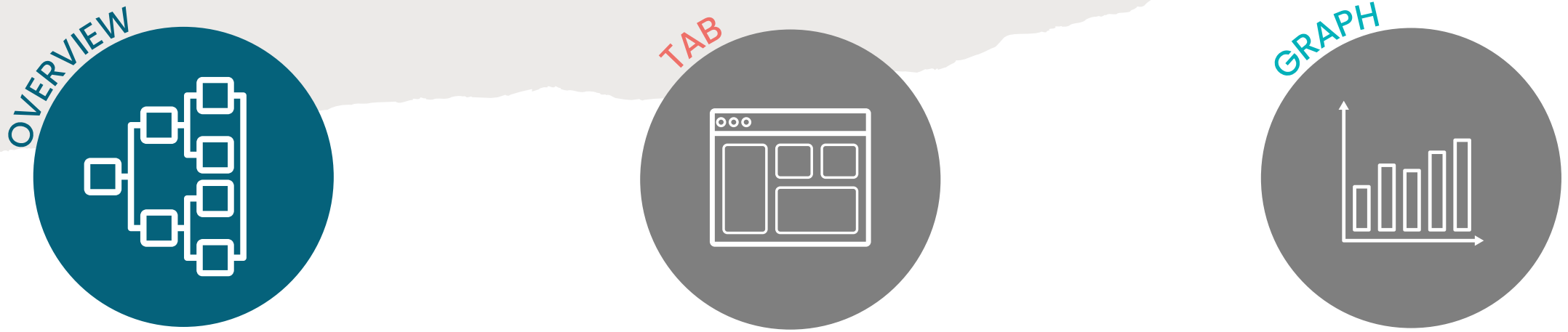
Graphs



The first layer: the overview

3 layers of design

Three layers of design



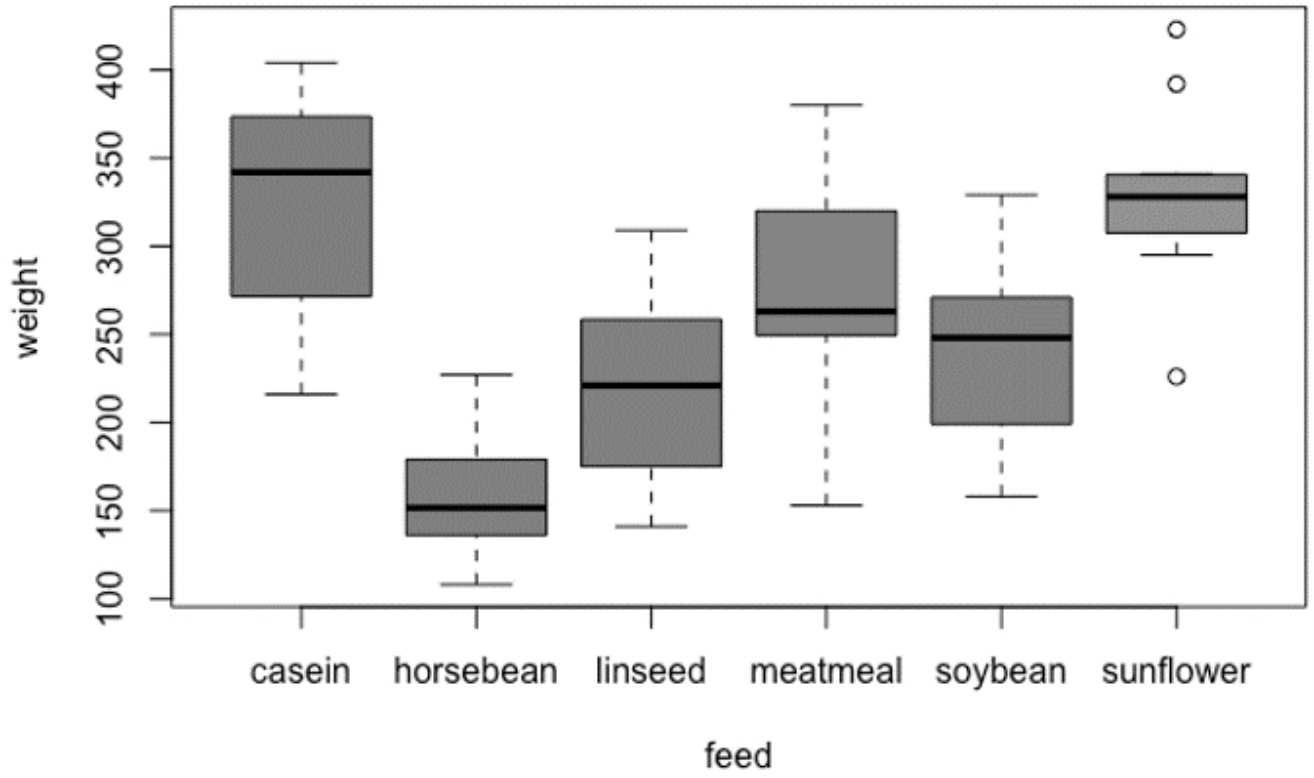
-The end-user

-Information structure

-Colours

-Font types

Who is your audience?



~~data~~ USER centered design



Your end user is crucial for

- choice of visuals
- amount of detail in analyses and visuals
- Structure of your information

~~data~~ USER centered design

- ❑ Similar or diverse audience?
- ❑ Math nightmares?
- ❑ Experience with graphs and/or BI?
- ❑ Mental state?
- ❑ Details needed?
- ❑ Kind of display/ screen?
- ❑ How can they resist?

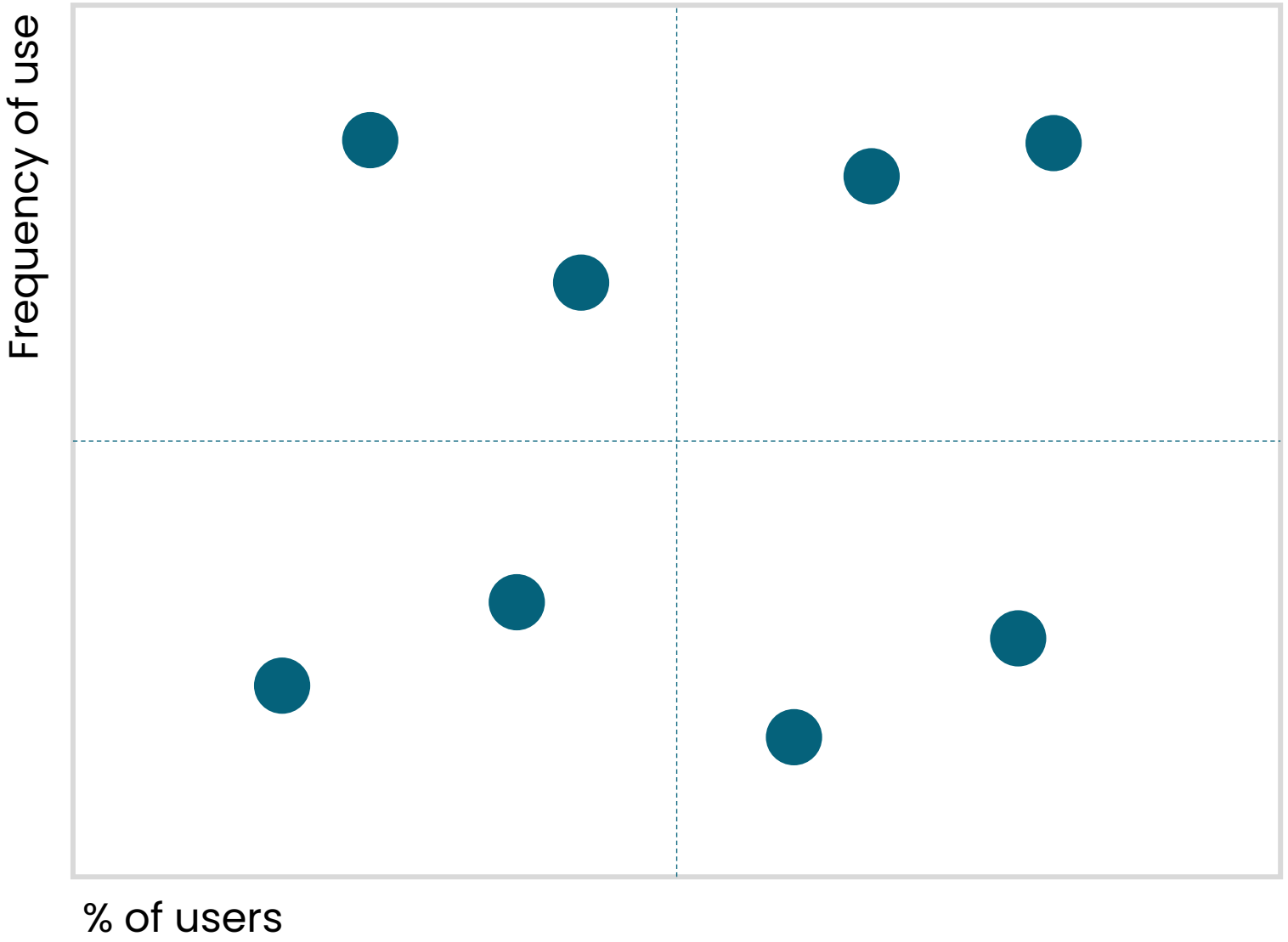


Information structure



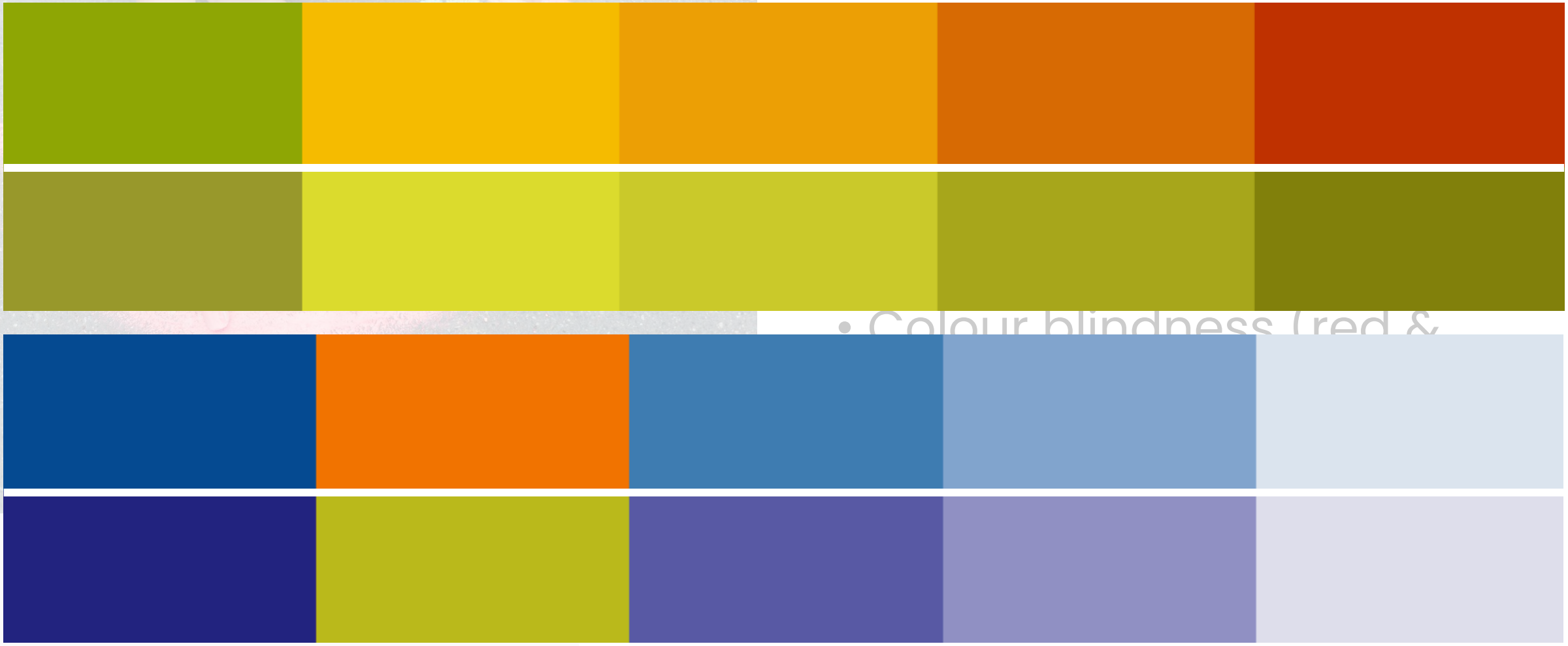
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Priorities



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Colour



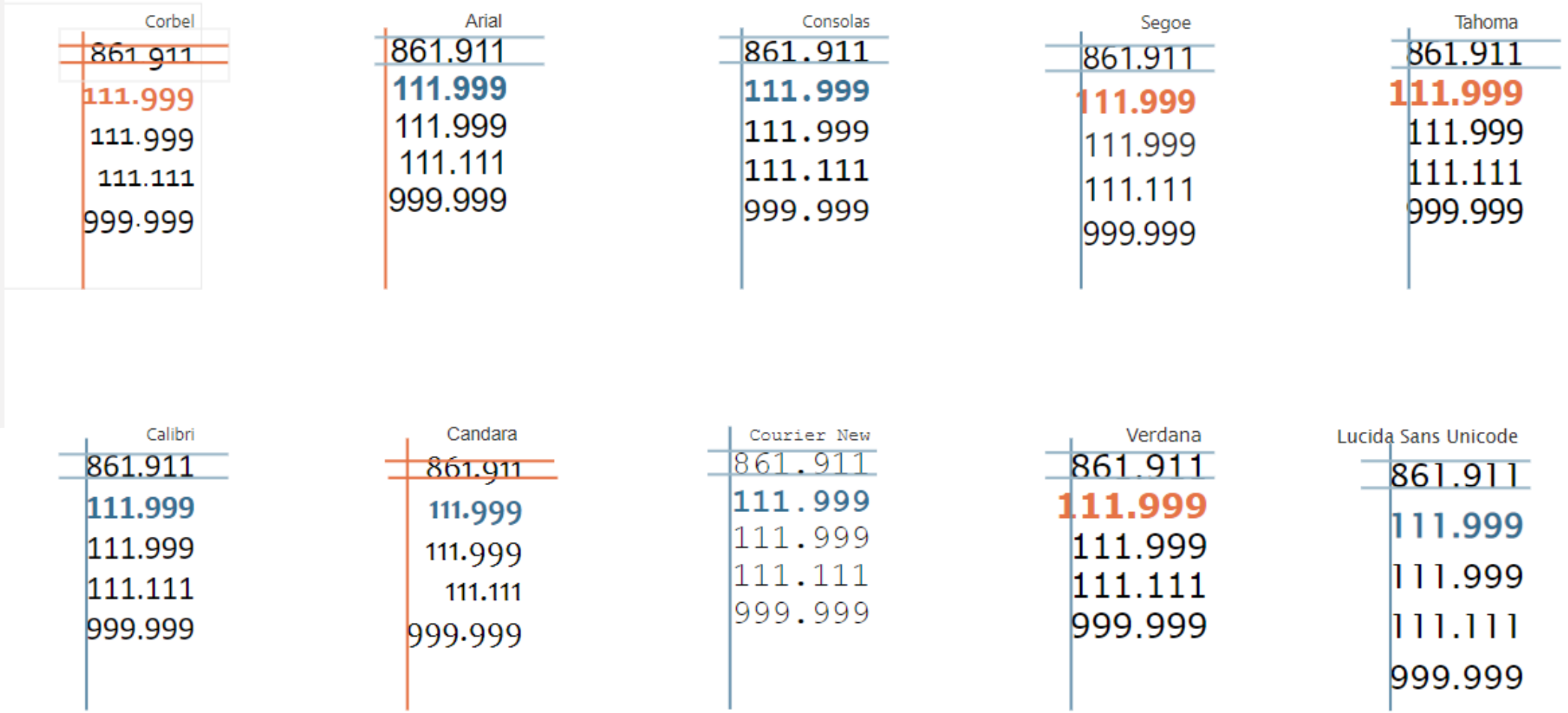
Using the company style

- Logo and colours, but rarely fonts…
- Website inspiration

Shadows | rounded corners | navigation | shapes | Style and placement of titles | tone of voice

Font types

serif Sans-serif



https://blog.datawrapper.de/fonts-for-data-visualization/

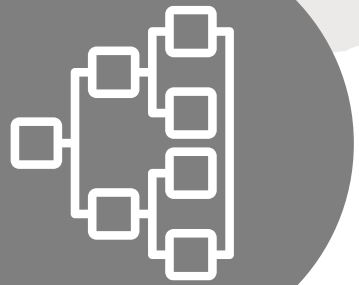


On to the second layer

3 layers of design

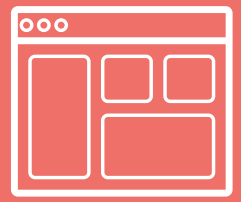
Three layers of design

OVERVIEW



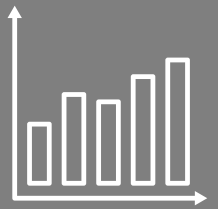
- The end-user
- Information structure
- Colour choice
- Font type

TAB



- Placement visuals
- Grid
- Filters

GRAPH



Placement of visuals

TOP real estate

Filters

Logo

Navigation

Information on source and date/time update

graph

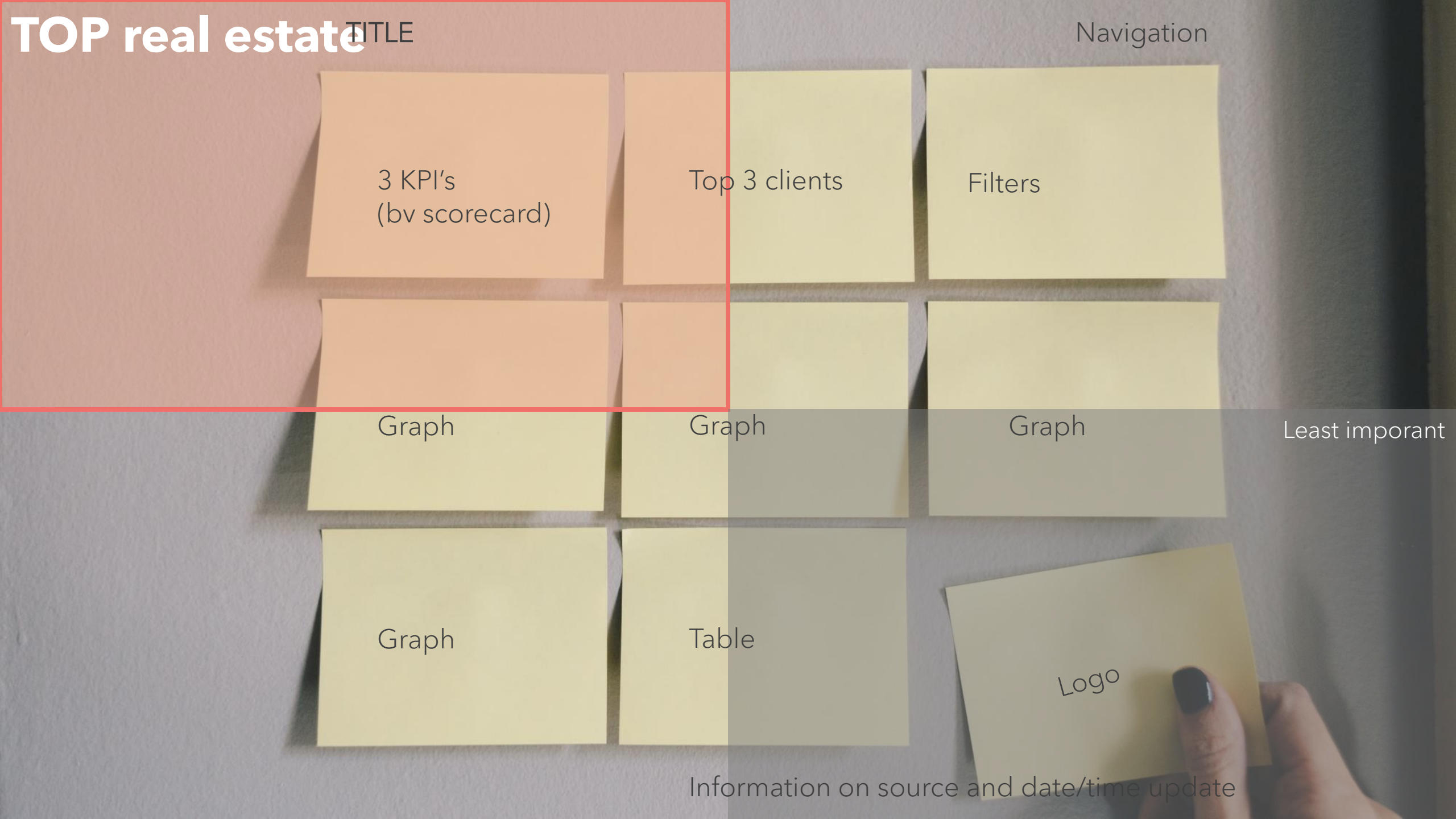
Top 3 clients

graph

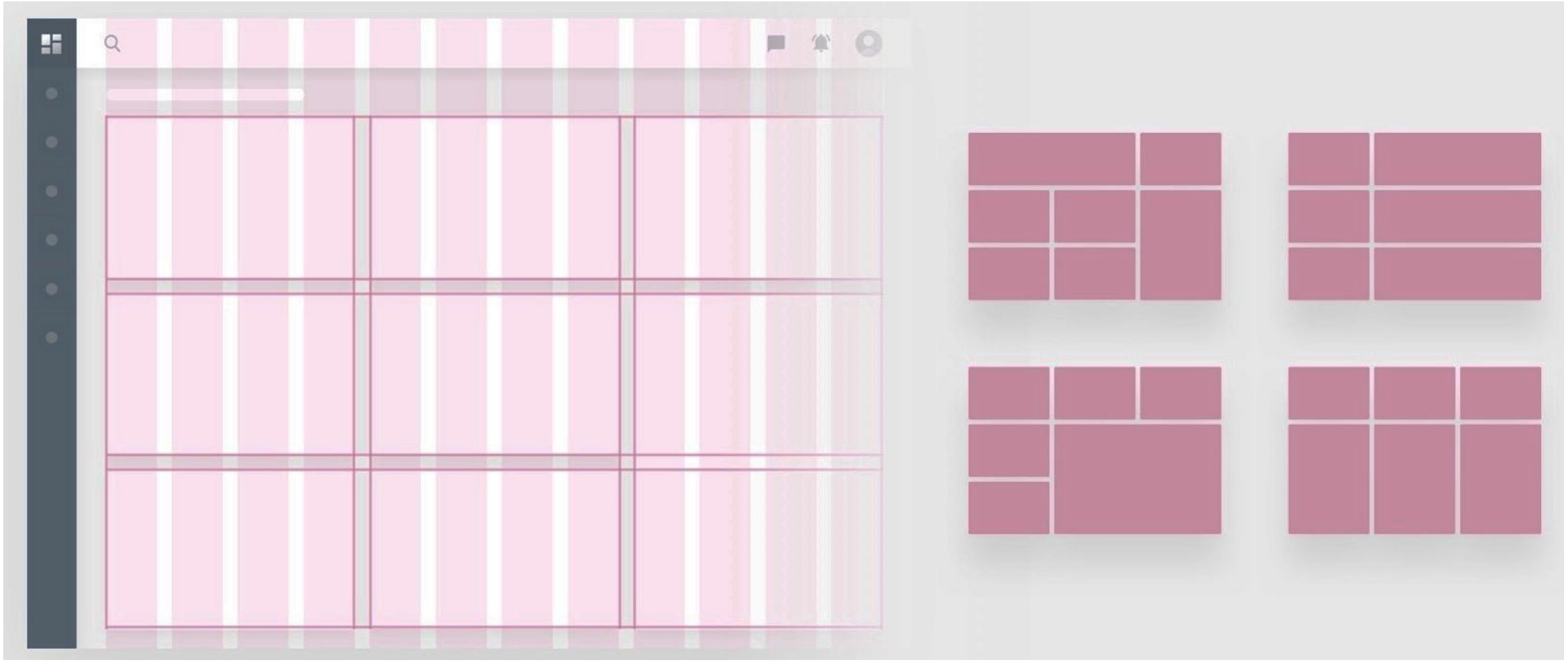
graph

3 KPI's
(bv scorecard)

Least imporant


TOP real estate
TITLE
Navigation
3 KPI's
(bv scorecard)
Top 3 clients
Filters
Graph
Graph
Graph
Least imporant
Graph
Table
Logo
Information on source and date/time update

Grid



https://uxplanet.org/10-rules-for-better-dashboard-design-ef68189d734c

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HR Management Dashboard

OVERVIEW AS OF TODAY

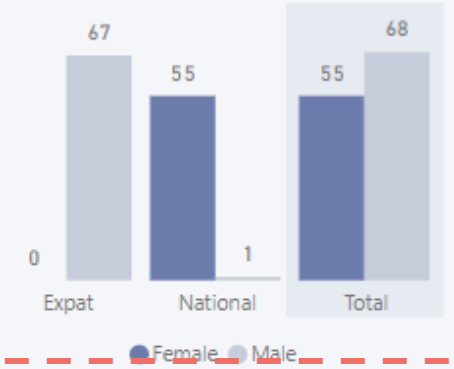
123	3	50	11
Employees	On Leave Today	On Leave This Month	Open Job Postings

(Geen beschikbare acties)

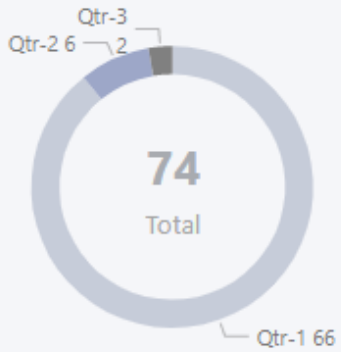
Employees by Unit

Home Organization	Active Employees
Administration Unit- CIO	8
Application Administration Unit	7
Application Services Unit	8
Audio Visual Support Services Unit	22
Data Center Unit	6
Enterprise Applications& Integ.Sec.	1
Infrastructure&Core Techno. Section	1
IT Help Desk Unit	12
IT Project Management Unit	3
IT Support Service Section	1
IT Support Services - Admin. Unit	14
IT Support Services-Academic A.Unit	13
IT Support Services-Student A.Unit	10
Network & Info. Security Unit	11
Web Services Unit	6

Employees per Nationality en Gender



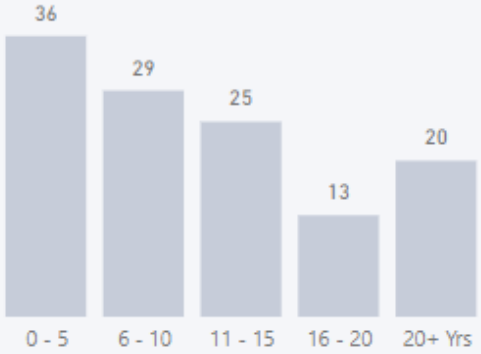
Approved Sick Leave Requests by Quarter



Employees by Grade



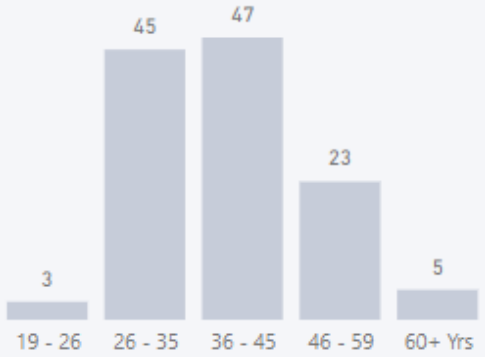
Employees per Service Years Range



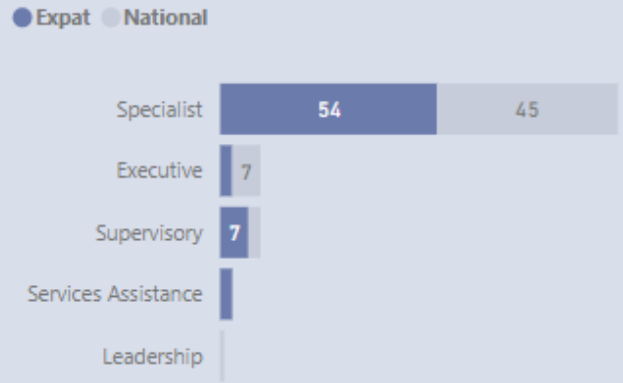
Employees per Employee Class



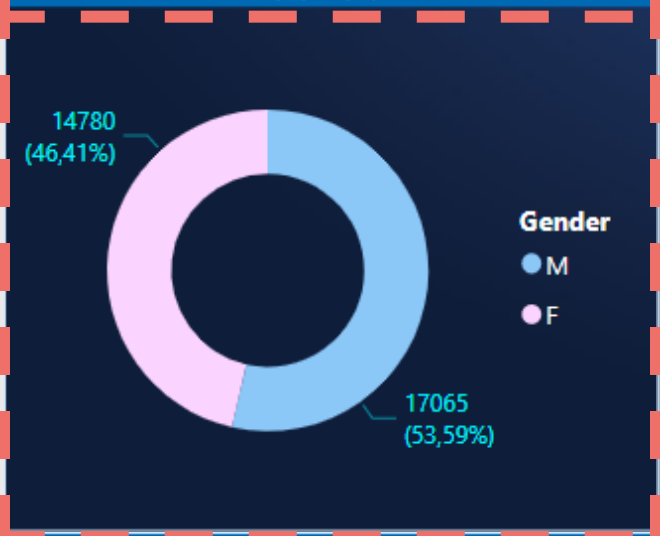
Employees per Age Range



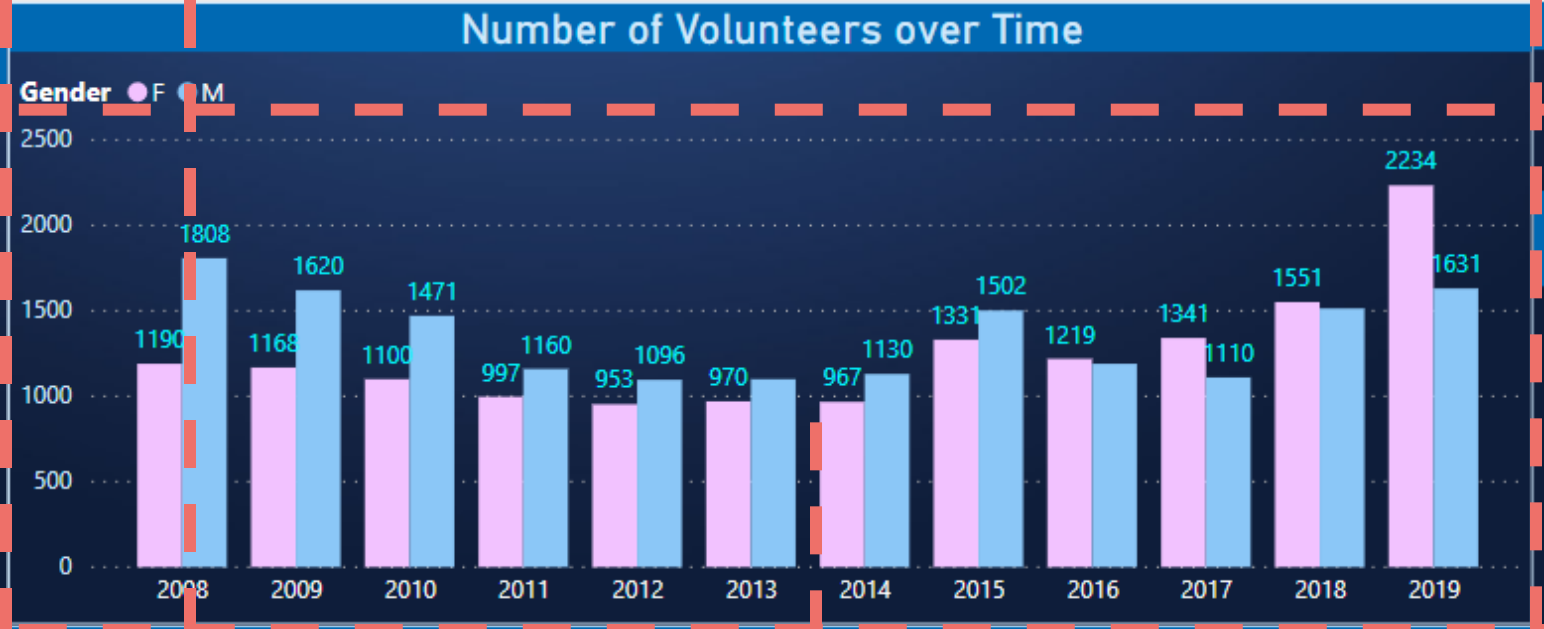
Employees per Job Category en Nationality



Number of Volunteers per Gender



Number of Volunteers over Time



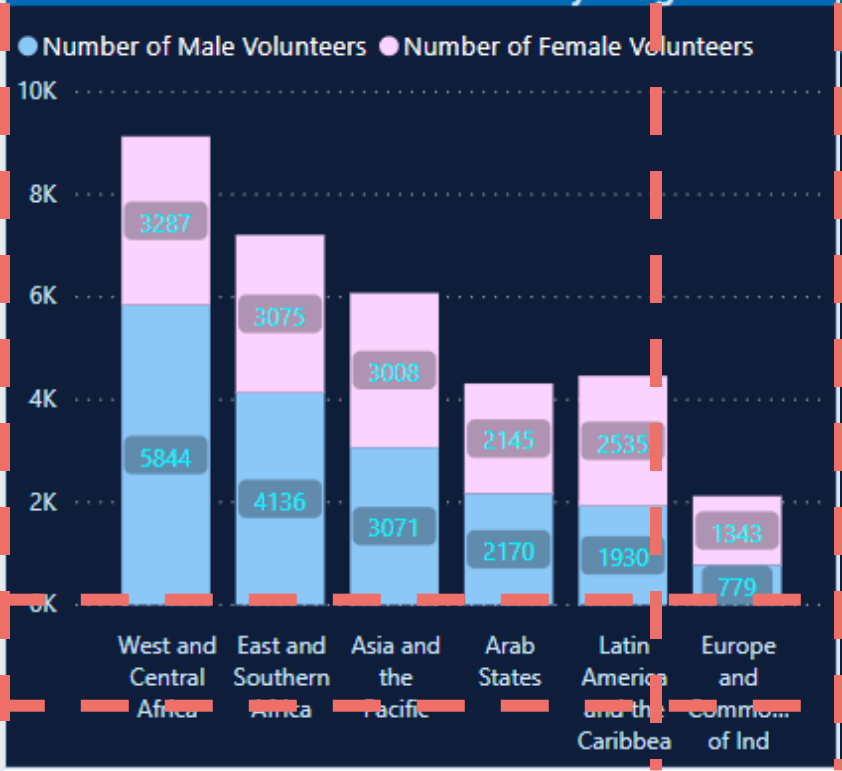
Total Volunteers

31845

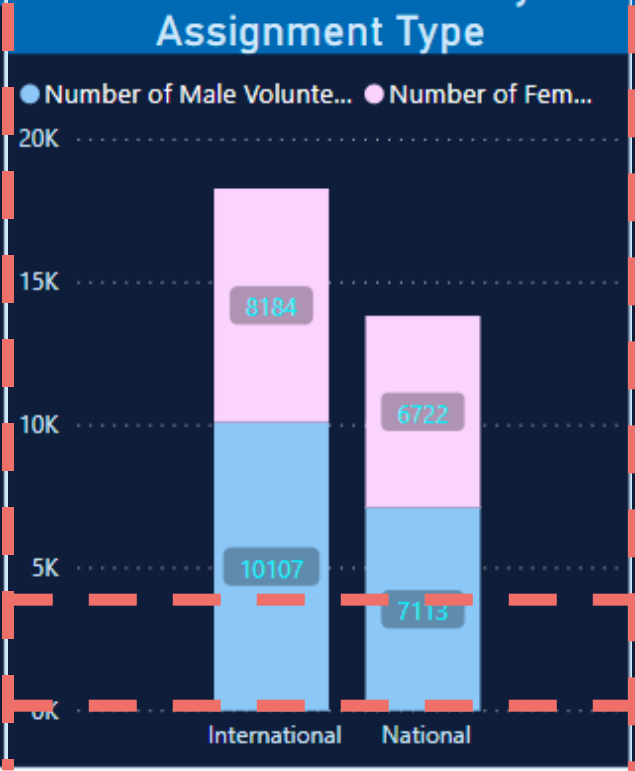
Female Volunteers

46,41%

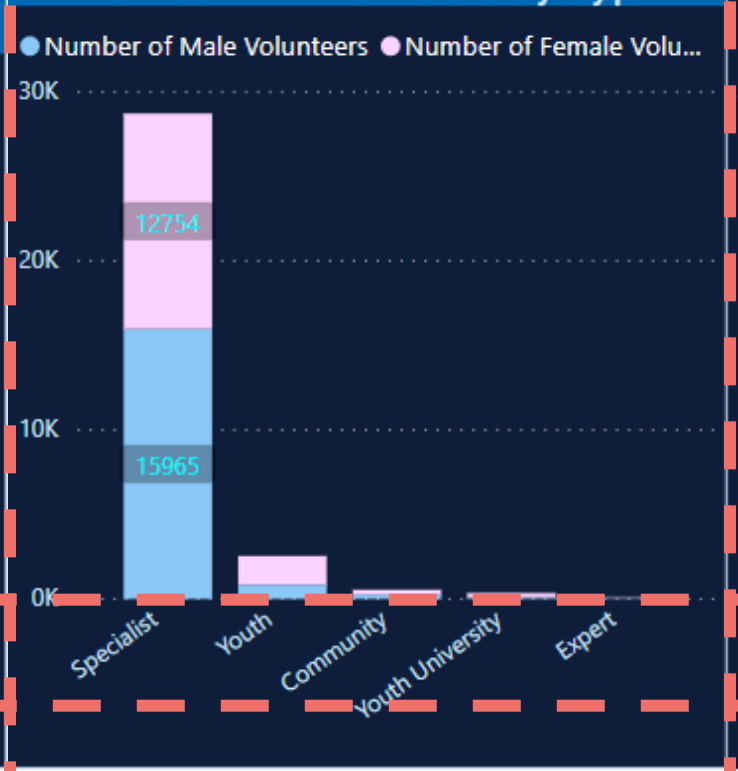
Number of Volunteers by Region



Number Volunteers by Assignment Type



Number of Volunteers by Type



Gender

Alle

Year

Alle

Age

8

93

Country

Alle

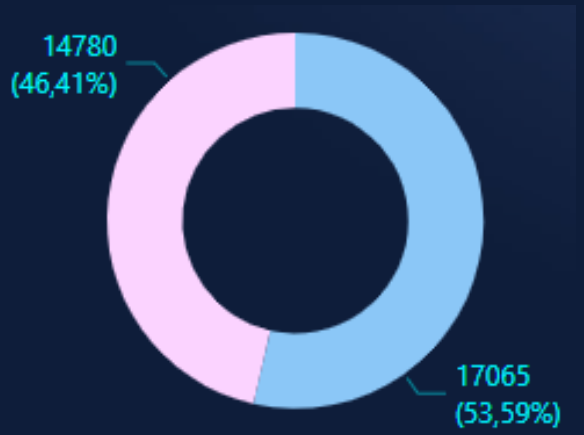
Region

Alle

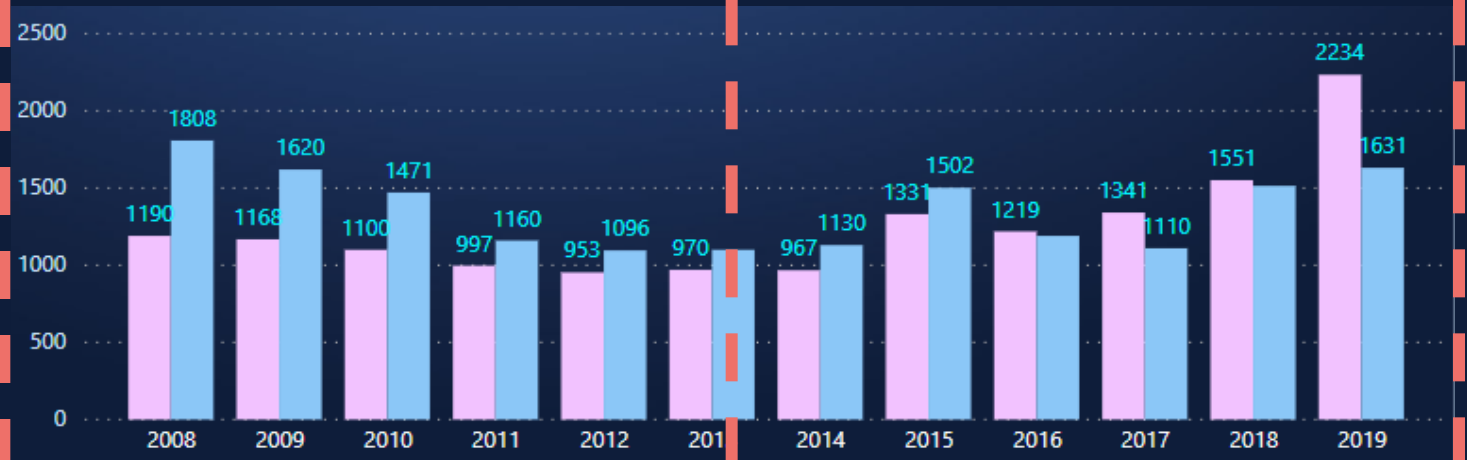
Organization

Alle

MALE and FEMALE volunteers



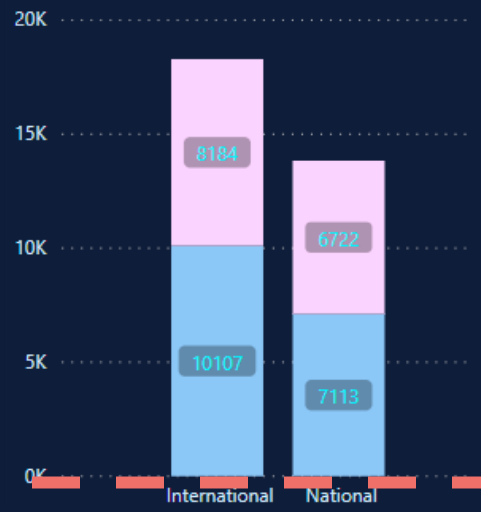
Volunteers over Time



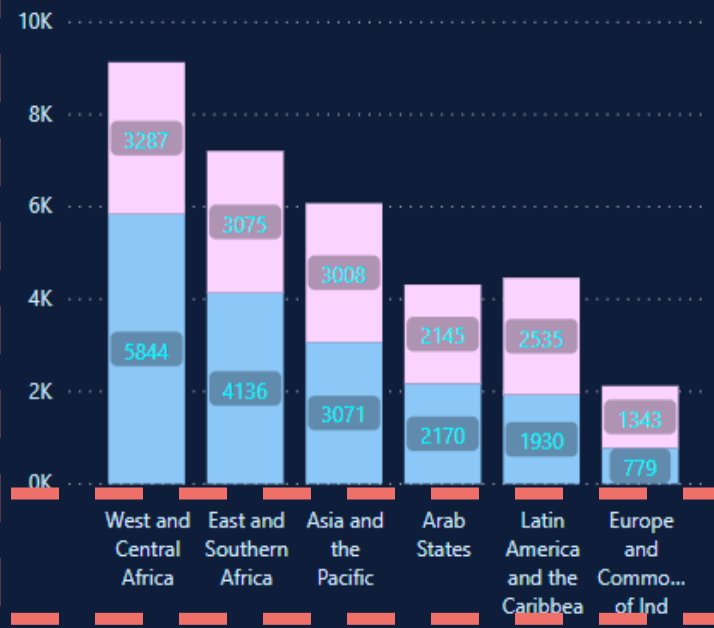
Total Volunteers

31845

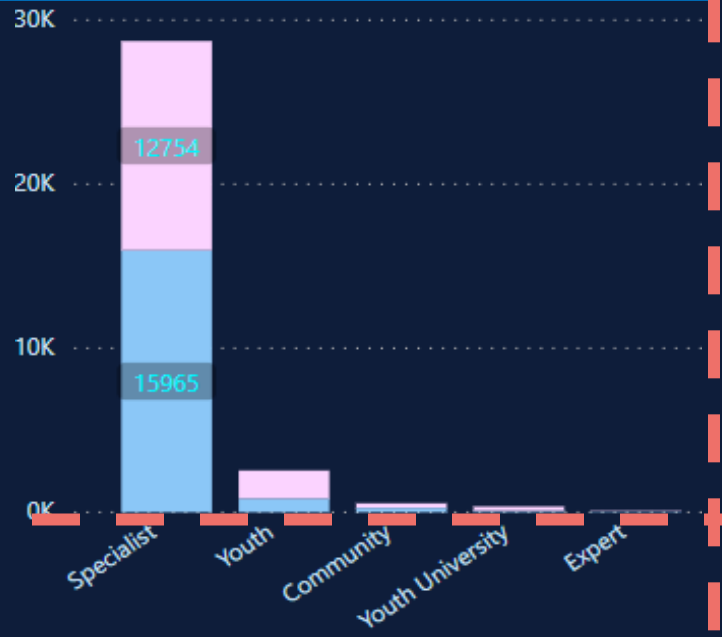
Assignment Type



Volunteers by Region



Volunteers by Type



Gender

Alle

Year

Alle

Age

8

93

Country

Alle

Region

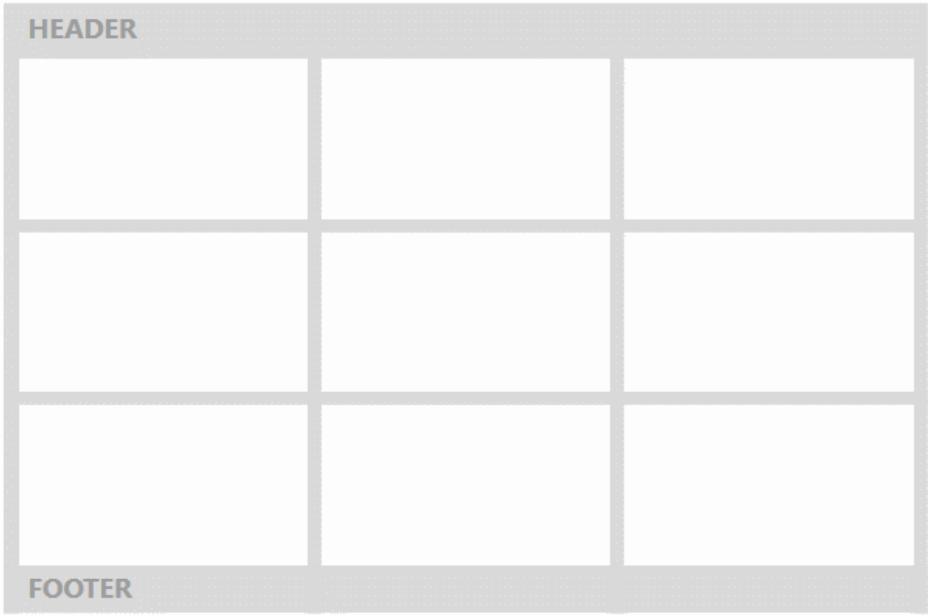
Alle

Organization

Alle

Prepare grid

- Create grid with shapes
  - Alignment: distribute horizontal and vertical
  - Space for header/ footer/ margins
  - Optional: room for filters
- Group shapes, name
- Place graphs, then hide grid



Roompot KPI overview

Month: All

Product: All

Roompot

Aantal orders deze maand
6.37K !
Zelfde periode vorig jaar: 8.49K (-25.02%)



Winst deze maand
€ 21.86K✓
Zelfde periode vorig jaar: € 27.6K (+20.82%)



Omzet deze maand
€ 3.22M✓
Zelfde periode vorig jaar: € 4.25M (+24.41%)



Aantal orders deze maand
6.37K !
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Aantal orders deze maand
6.37K !
Zelfde periode vorig jaar: 8.49K (-25.02%)



Winst deze maand
€ 21.86K✓
Zelfde periode vorig jaar: € 27.6K (+20.82%)



Omzet deze maand
€ 35.63M !
Zelfde periode vorig jaar: € 4.25M (-737.38%)



Aantal orders deze maand
6.37K✓
Zelfde periode vorig jaar: 8.49K (+25.02%)



Click on the arrow for more information

Omzet deze maand
€ 3.22M✓
Zelfde periode vorig jaar: € 4.25M (+24.41%)

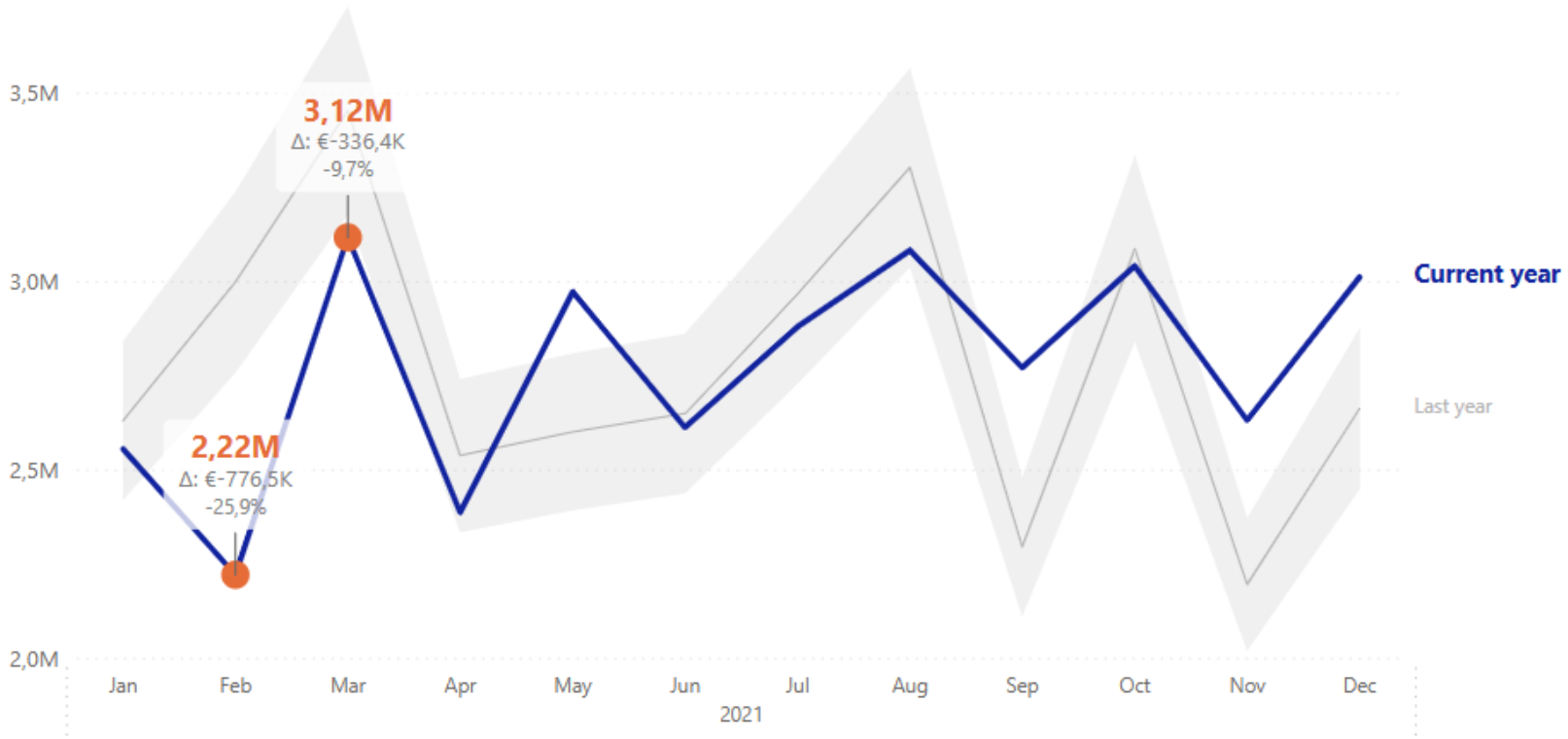


Aantal orders deze maand
6.37K !
Zelfde periode vorig jaar: 8.49K (-25.02%)



Sales in comparison to last year

What months are we not reaching our last years' sales?



Channel

Multiple selections

Warehouse Code

Multiple selections

Customer Names

All

Product Name

All

Filter selection

Channel = Wholesale, Export
Warehouse = AXW291, FLR025, GUT930

Clear all slicers

Activated Filters

```
Activated filters =

VAR MaxFilters = 3
RETURN
IF (
    ISFILTERED ( Channels[Channel] ),
    VAR ___f = FILTERS ( Channels[Channel] )
    VAR ___r = COUNTROWS ( ___f )
    VAR ___t = TOPN ( MaxFilters, ___f, Channels[Channel] )
    VAR ___d = CONCATENATEX ( ___t, Channels[Channel] , ", " )
    VAR ___x = "Channels = " & ___d
                    & IF(___r > MaxFilters, ", ... [" & ___r & "
items selected]") & " "
    RETURN ___x & UNICHAR(13) & UNICHAR(10)
)
    RETURN ___x & UNICHAR(13) & UNICHAR(10)
)
-- this continues for the other columns in the data model
```


```
VAR MaxFilters = 3
RETURN
IF (
    ISFILTERED ( Channels[Channel] ),
    VAR ___f = FILTERS ( Channels[Channel] )
    VAR ___r = COUNTROWS ( ___f )
    VAR ___t = TOPN ( MaxFilters, ___f, Channels[Channel] )
    VAR ___d = CONCATENATEX ( ___t, Channels[Channel] , ", " )
    VAR ___x = "Channels = " & ___d
                    & IF(___r > MaxFilters, ", ... [" & ___r & "
items selected]") & " "
    RETURN ___x & UNICHAR(13) & UNICHAR(10)
)
```


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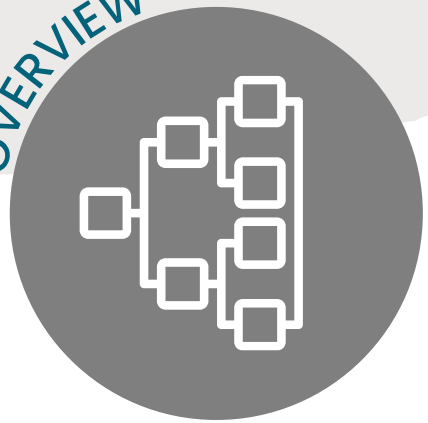


On to the third layer

3 layers of design

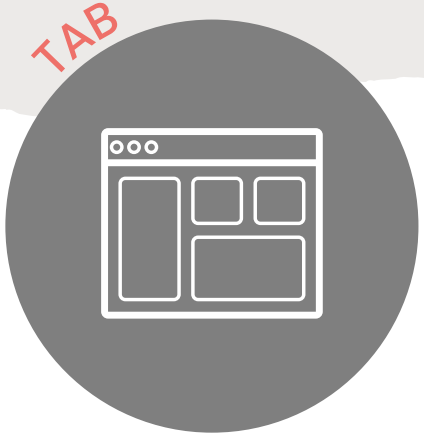
Three layer of design

OVERVIEW



- The end-user
- Information structure
- Colour choice
- Font types

TAB



- Placement visuals
- Grid
- Filters

GRAPH



- Pick your graph



Expand your graph vocabulary with

Graph specials

The ones you might have seen, but never use...

The right chart

Pick based on your key message



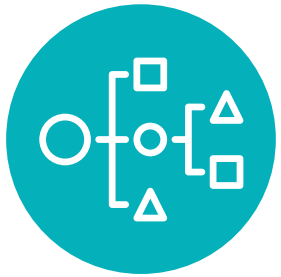
Comparison of categories



Trend over time



Part to whole



Relations & hierarchies



Geographical information



distribution



Single value

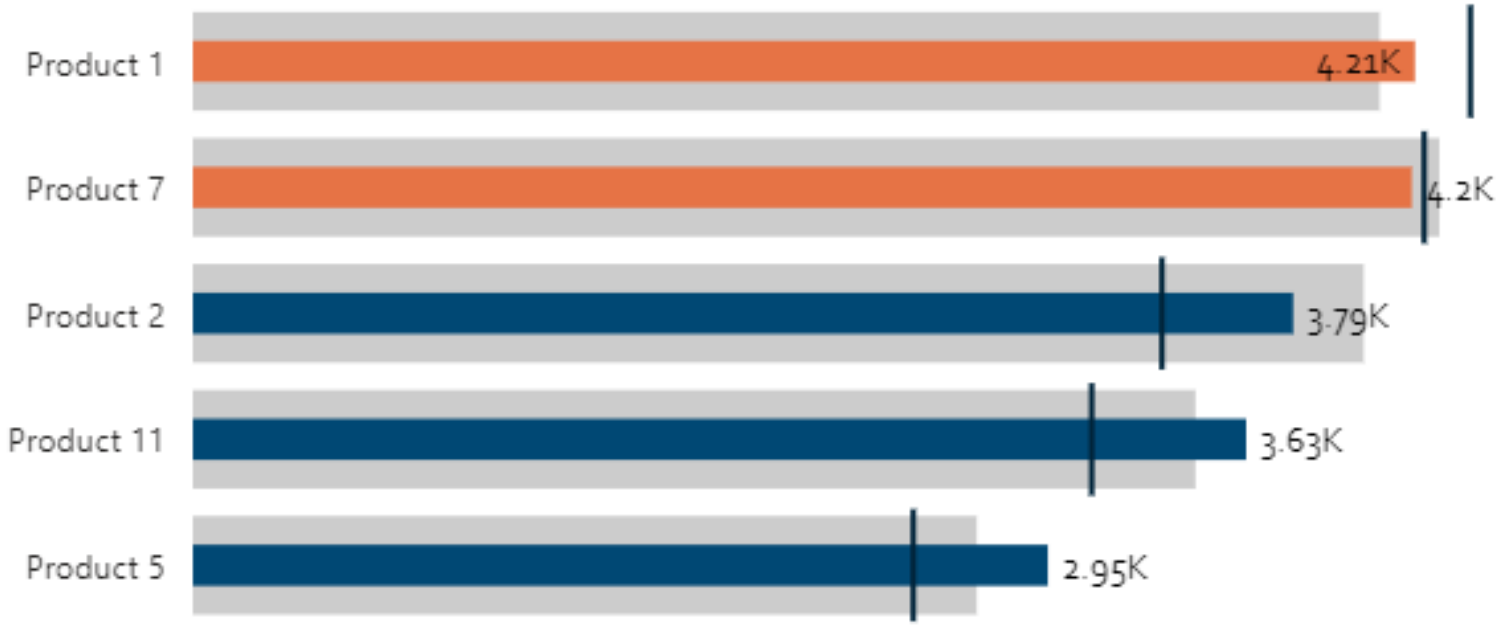
- ✓ Space efficient
- ✓ clear & direct
- ✓ meet requirements of end-user
- ✓ Core visuals when possible, custom when needed

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The right chart

Specials

- bullet chart

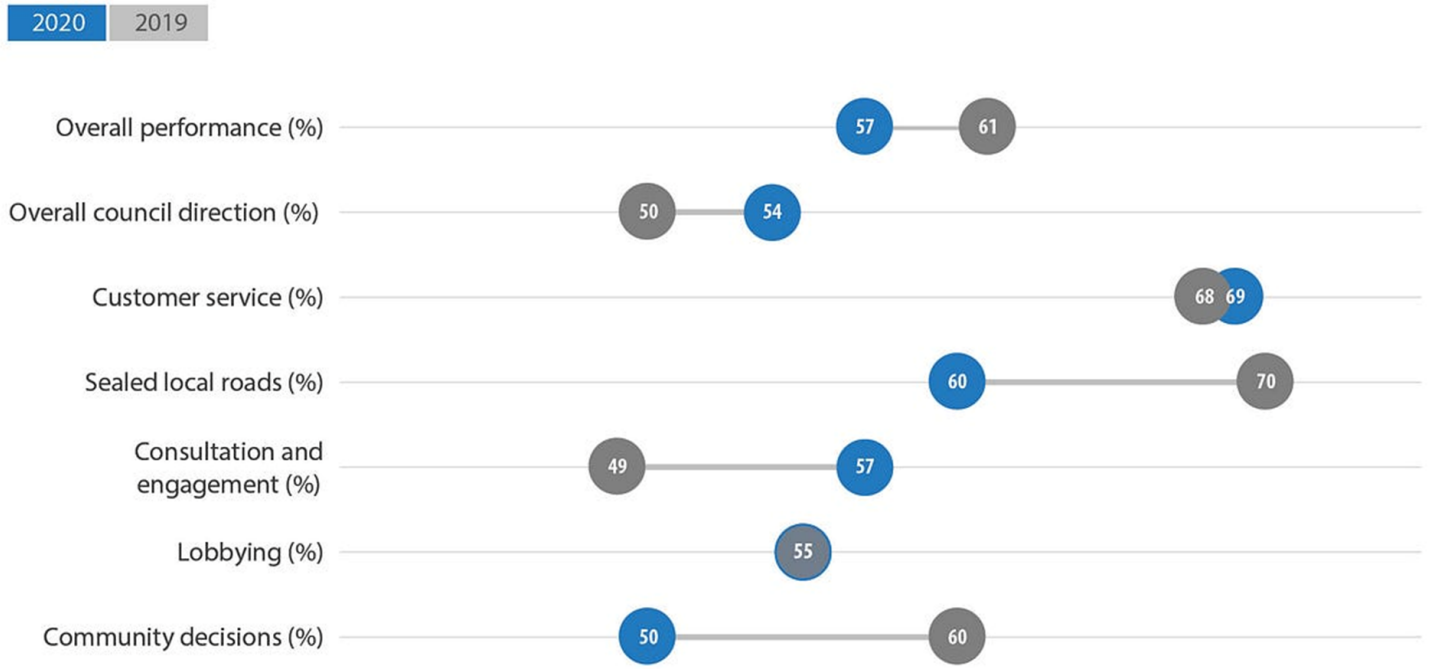


StatStories

The right chart

Specials

- bullet chart
- dumbbell dot plot



StatStories

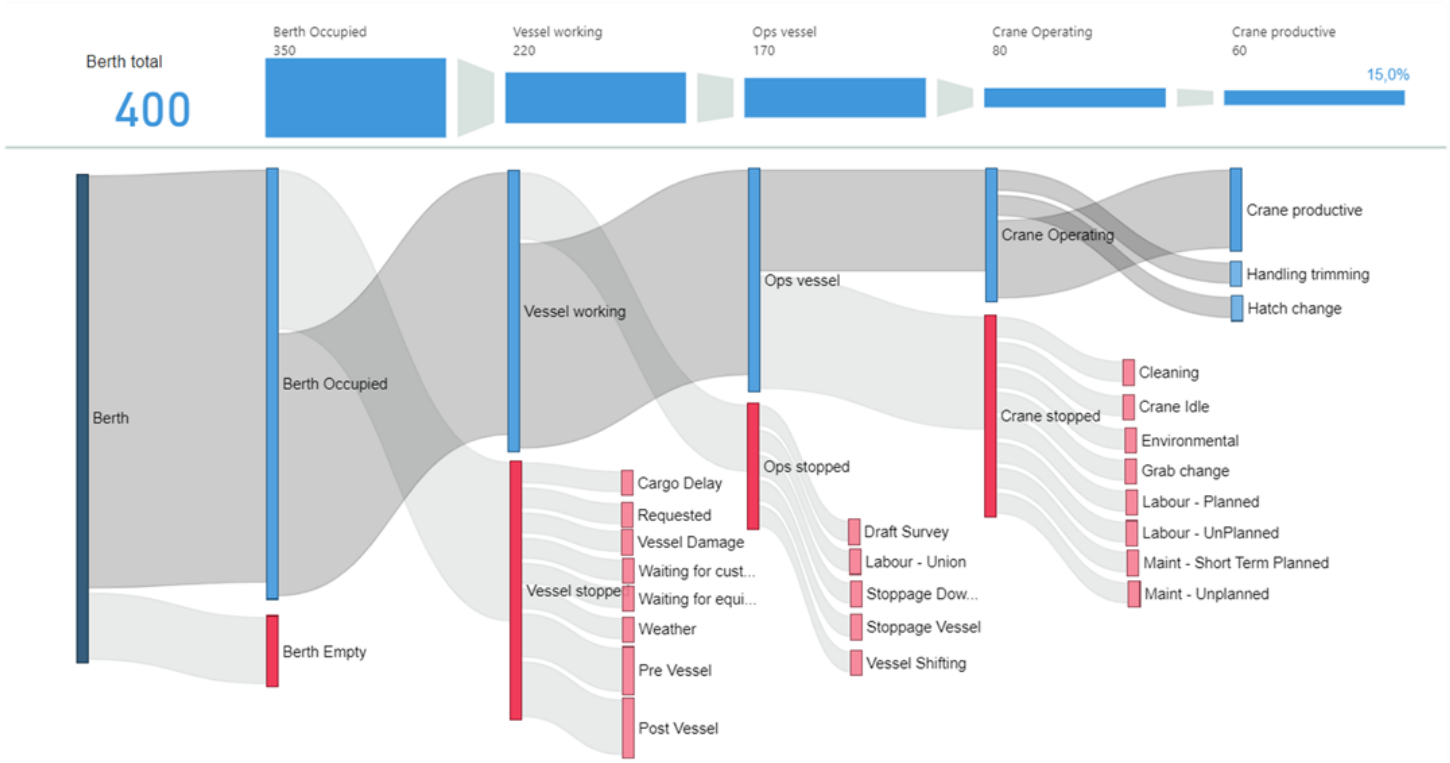


StatStories

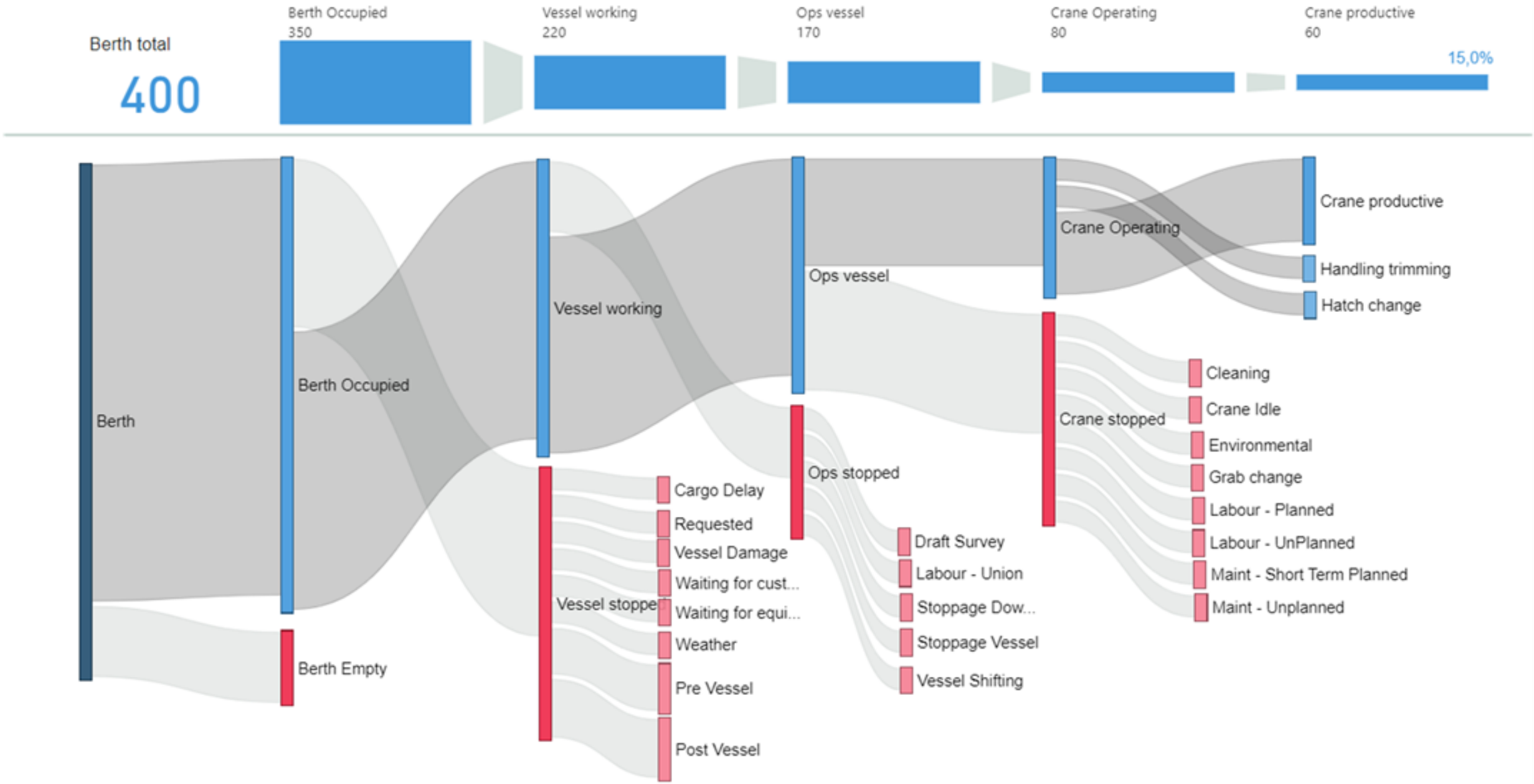
The right chart

Specials

- bullet chart
- dumbbell dot plot
- sankey diagram



StatStories

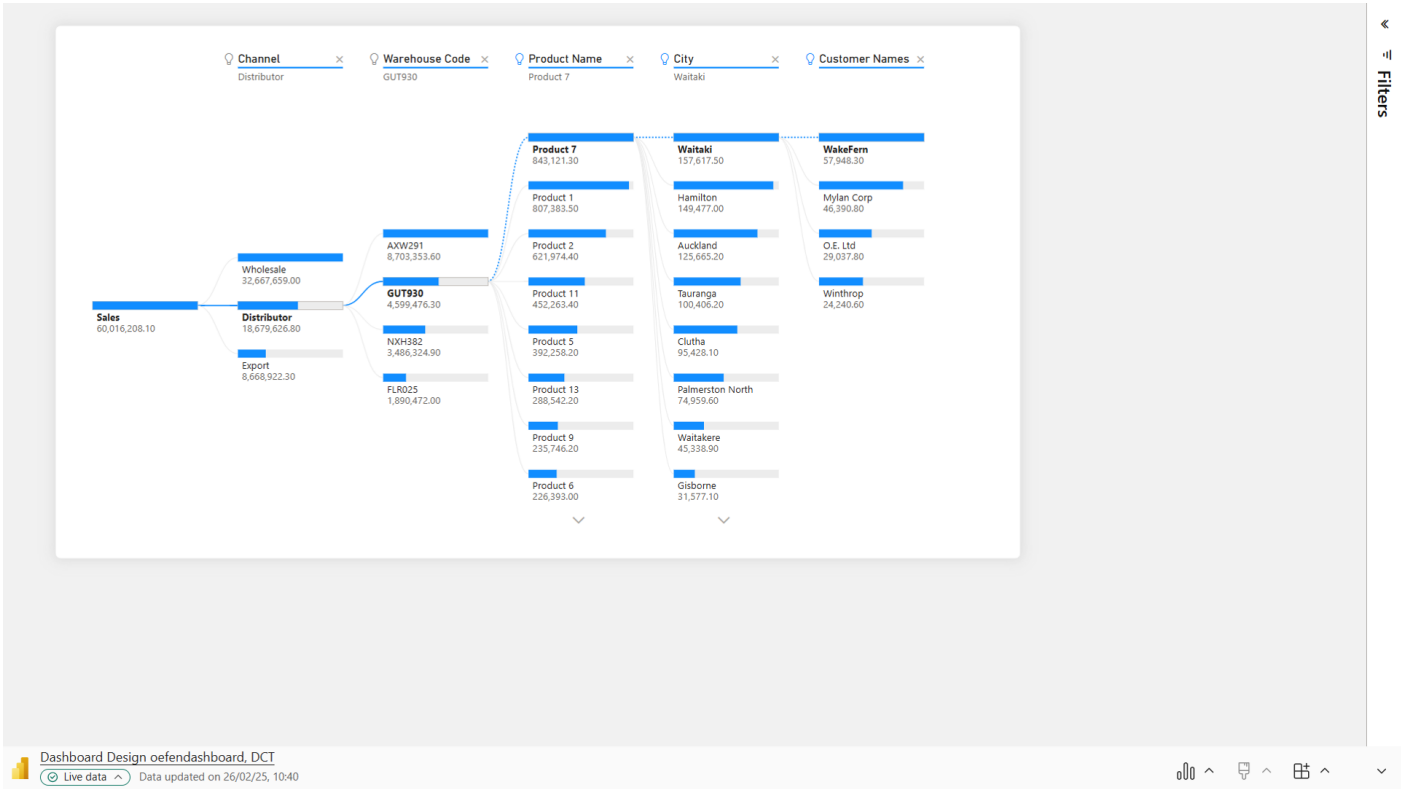


StatStories

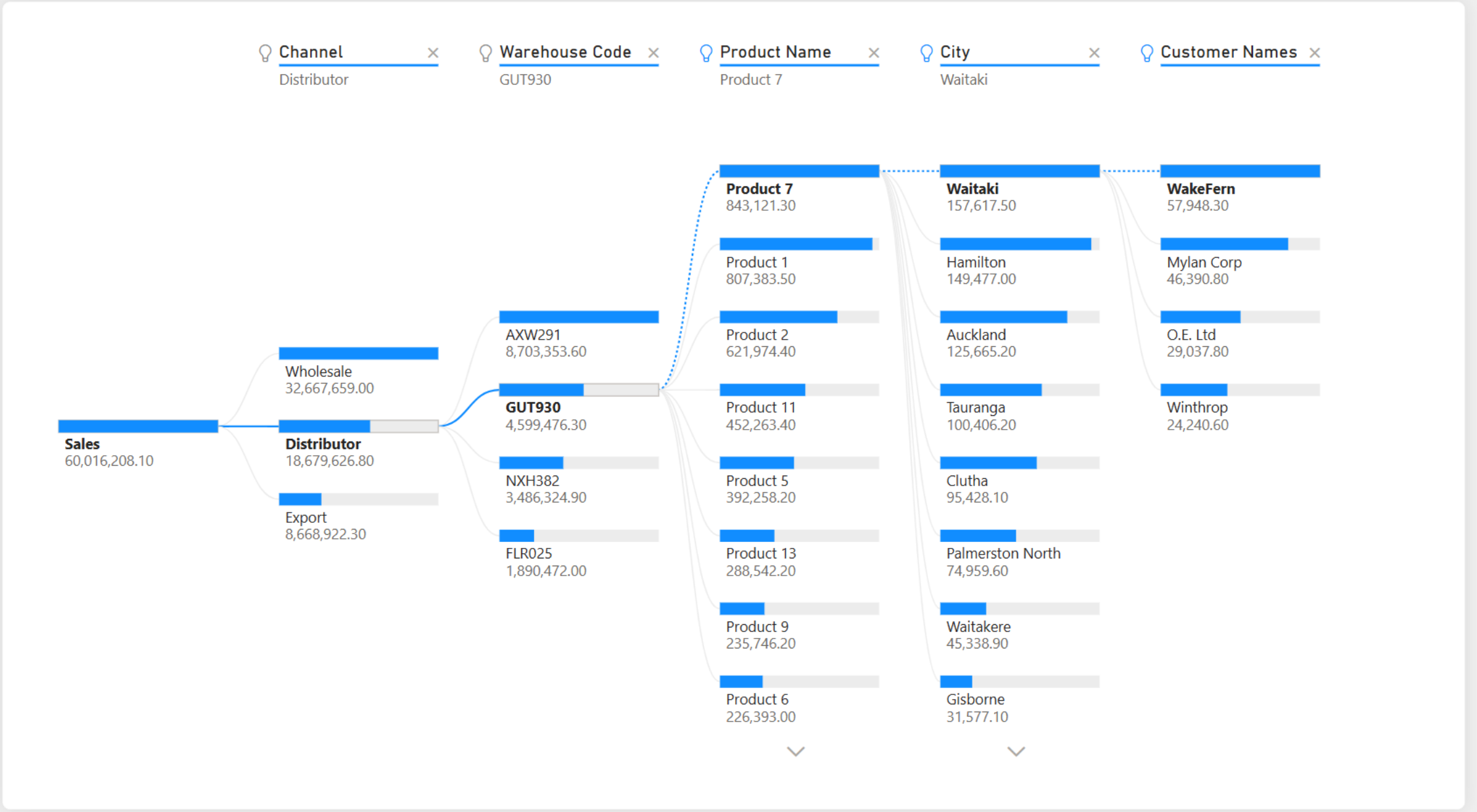
The right chart

Specials

- bullet chart
- dumbbell dot plot
- sankey diagram
- decomposition tree



StatStories



Filters

Dashboard Design oefendashboard, DCT

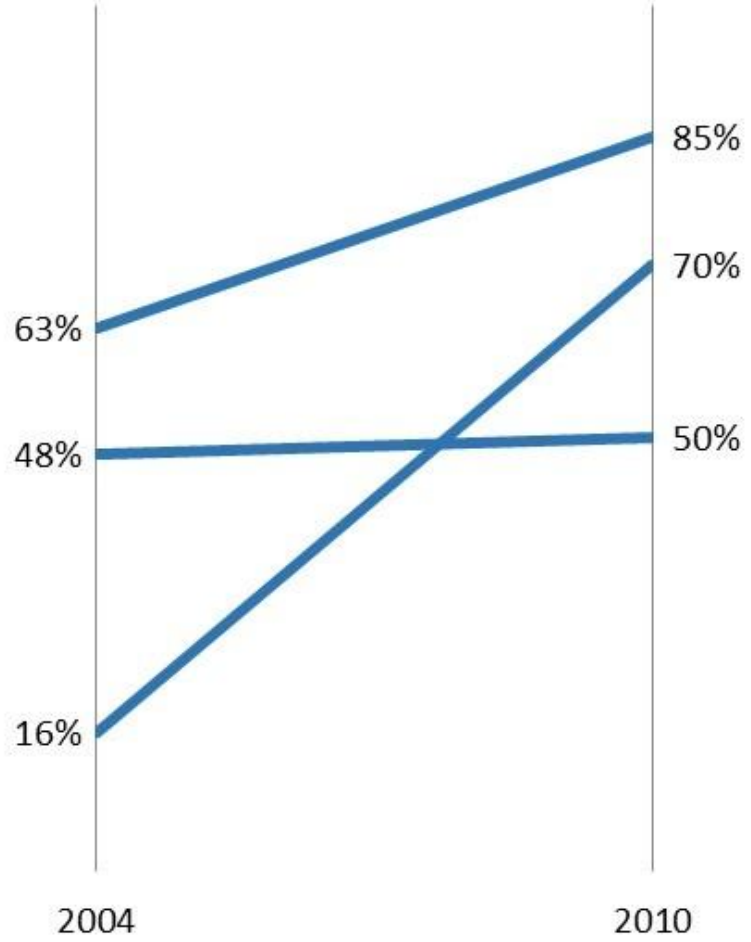
Live data

Data updated on 26/02/25, 10:40

The right chart

Specials

- bullet chart
- dumbbell dot plot
- sankey diagram
- decomposition tree
- slope graph

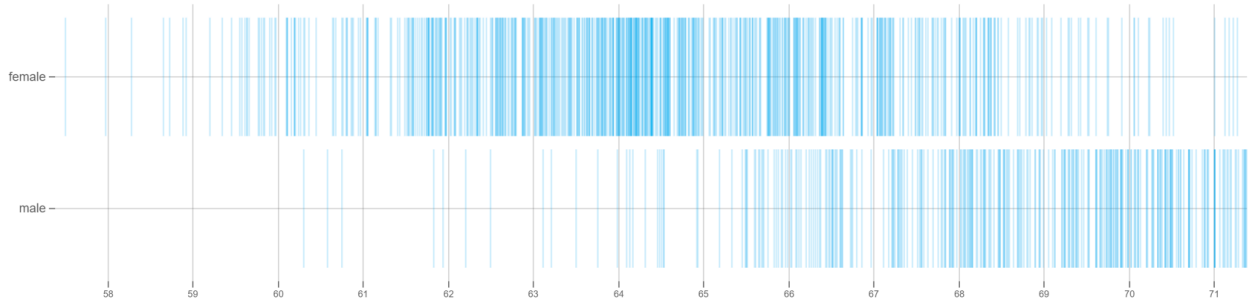


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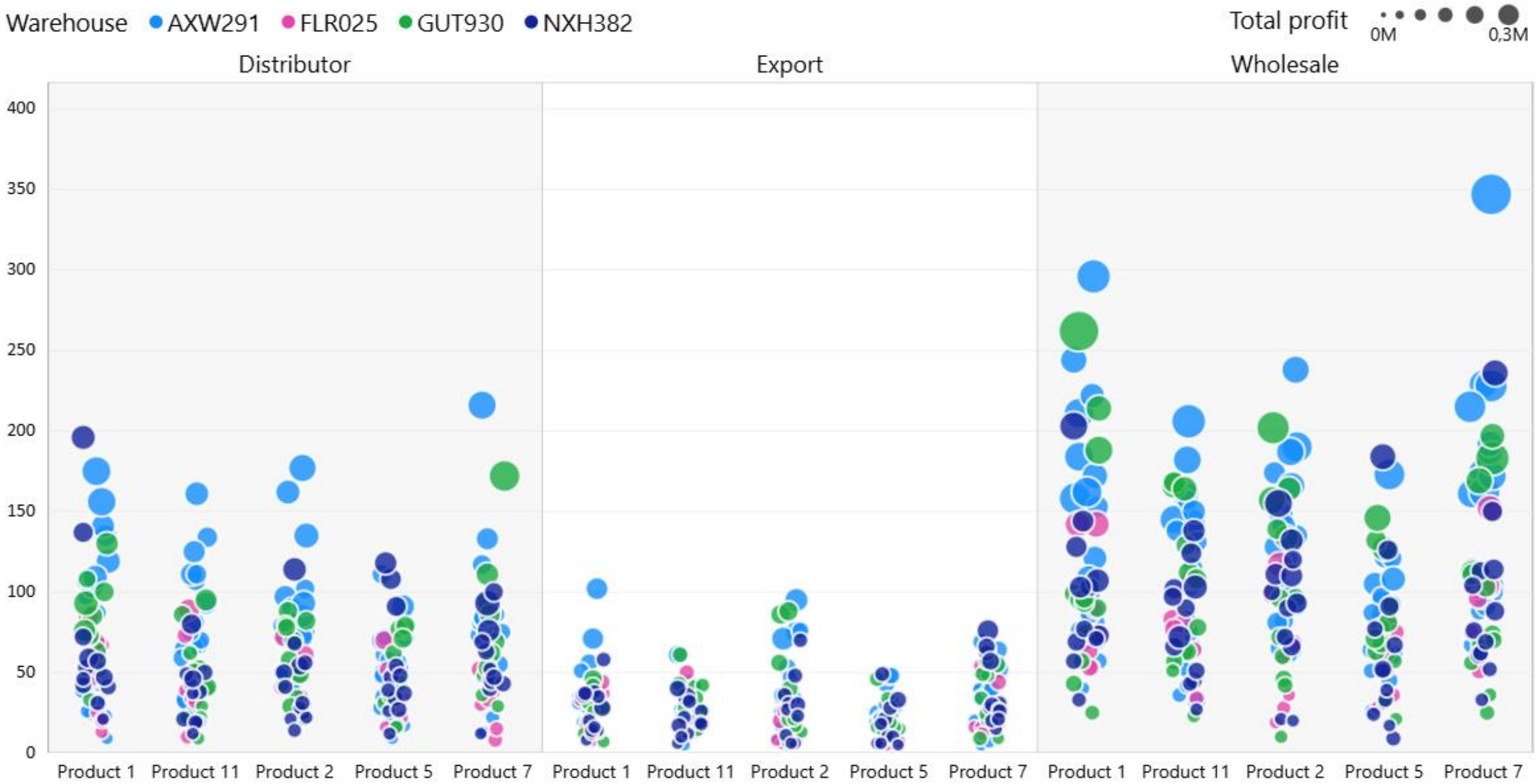
The right chart

Specials

- bullet chart
- dumbbell dot plot
- sankey diagram
- decomposition tree
- slope graph
- strip plot



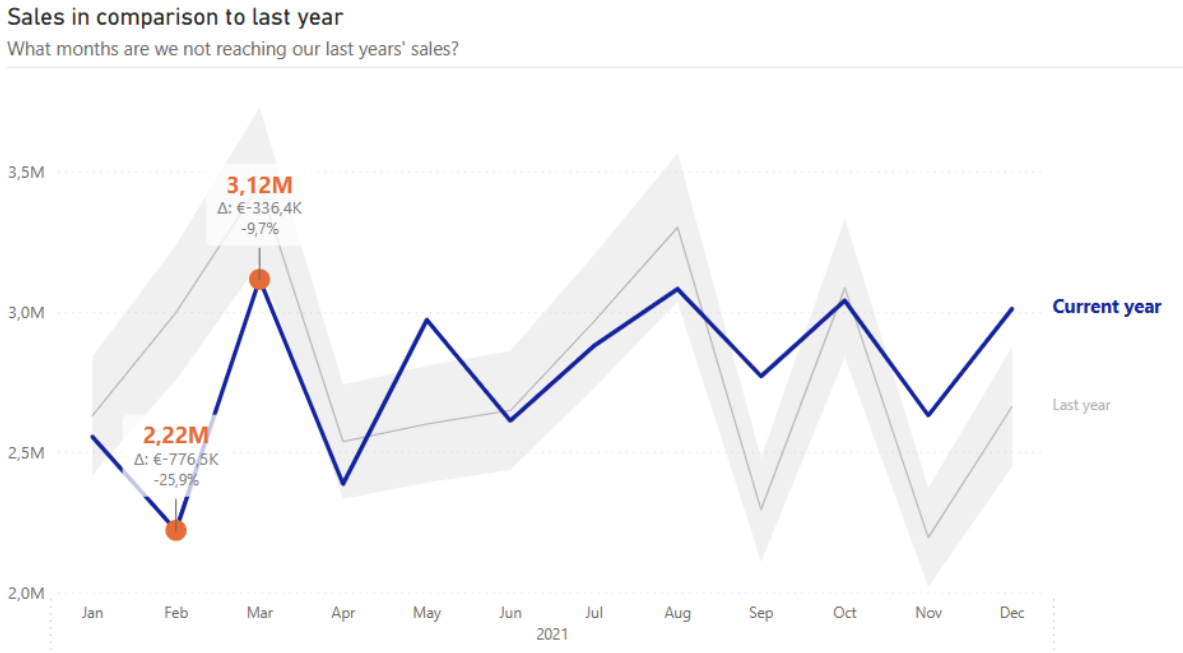
Dot plot/ strip plot with jitter effect



The right chart

Specials

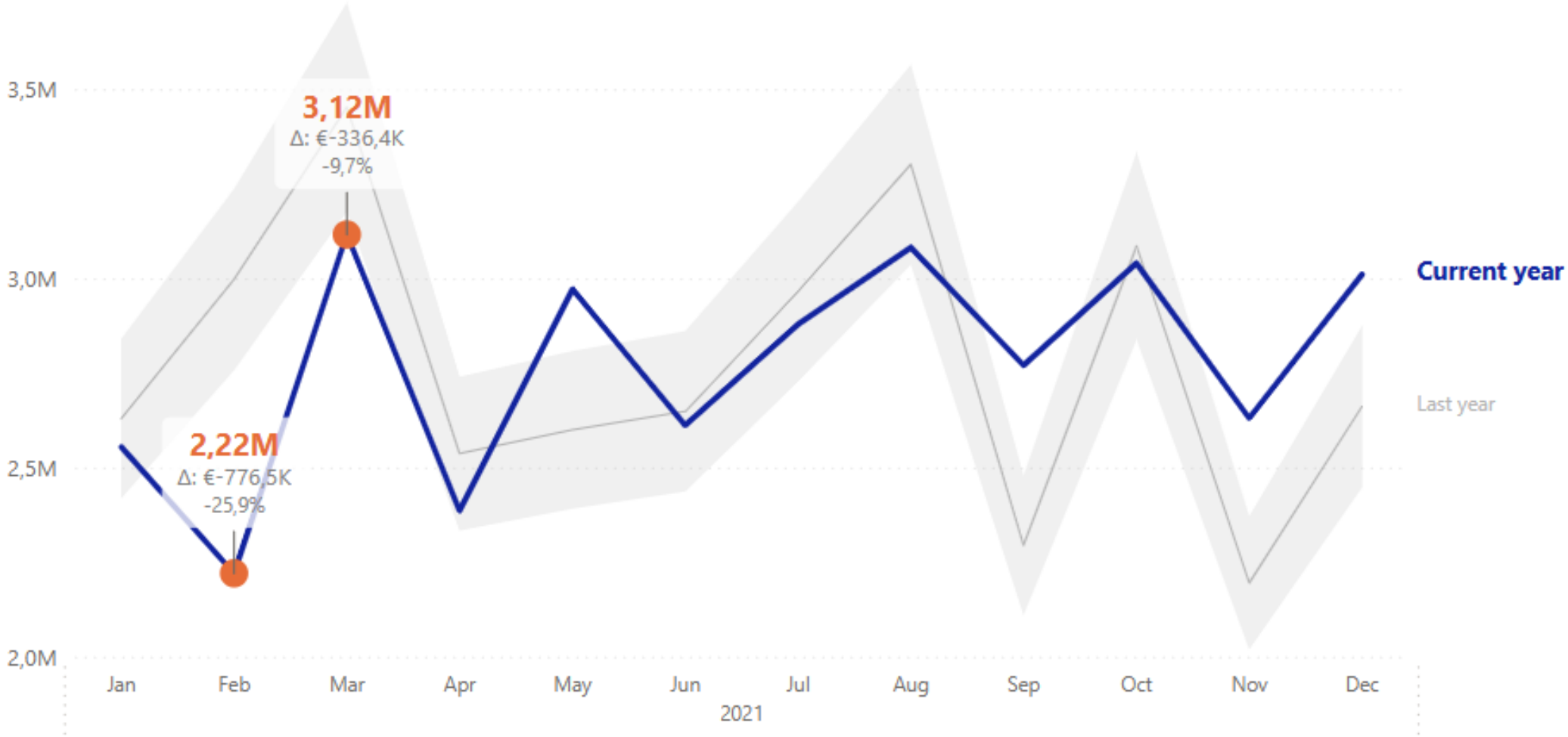
- bullet chart
- dumbbell dot plot
- sankey diagram
- decomposition tree
- slope graph
- strip plot
- line chart with area band



StatStories

Sales in comparison to last year

What months are we not reaching our last years' sales?

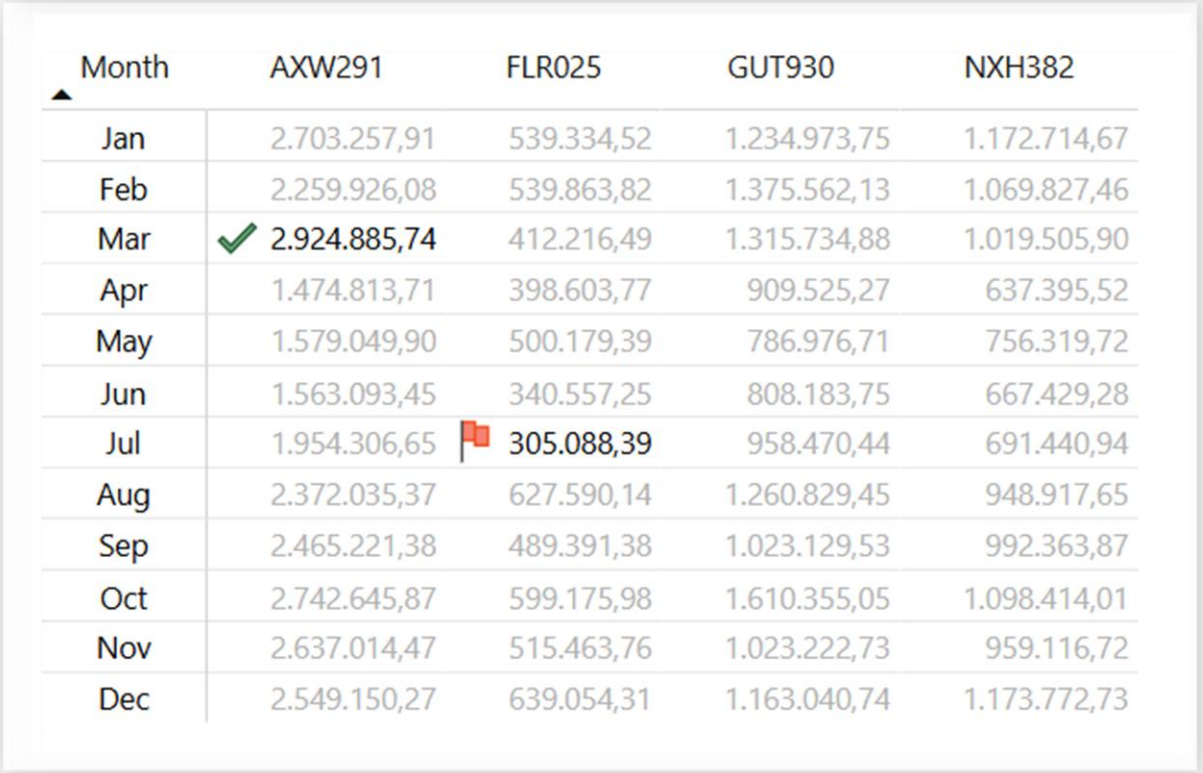


StatStories

The right chart

Specials

- bullet chart
- dumbbell dot plot
- sankey diagram
- decomposition tree
- slope graph
- strip plot
- line chart met area band



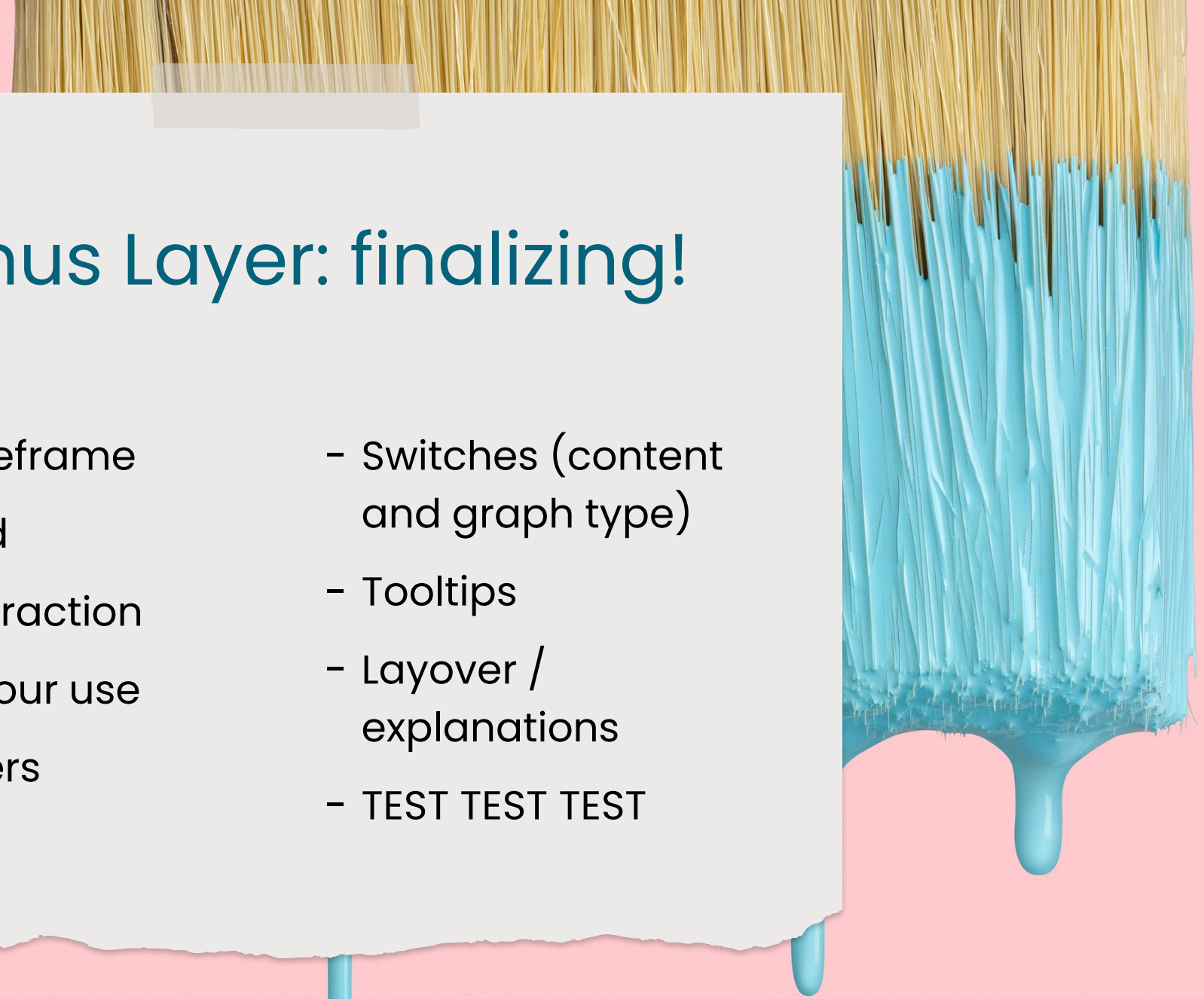
Month	AXW291	FLR025	GUT930	NXH382
Jan	2.703.257,91	539.334,52	1.234.973,75	1.172.714,67
Feb	2.259.926,08	539.863,82	1.375.562,13	1.069.827,46
Mar	2.924.885,74	412.216,49	1.315.734,88	1.019.505,90
Apr	1.474.813,71	398.603,77	909.525,27	637.395,52
May	1.579.049,90	500.179,39	786.976,71	756.319,72
Jun	1.563.093,45	340.557,25	808.183,75	667.429,28
Jul	1.954.306,65	305.088,39	958.470,44	691.440,94
Aug	2.372.035,37	627.590,14	1.260.829,45	948.917,65
Sep	2.465.221,38	489.391,38	1.023.129,53	992.363,87
Oct	2.742.645,87	599.175,98	1.610.355,05	1.098.414,01
Nov	2.637.014,47	515.463,76	1.023.222,73	959.116,72
Dec	2.549.150,27	639.054,31	1.163.040,74	1.173.772,73

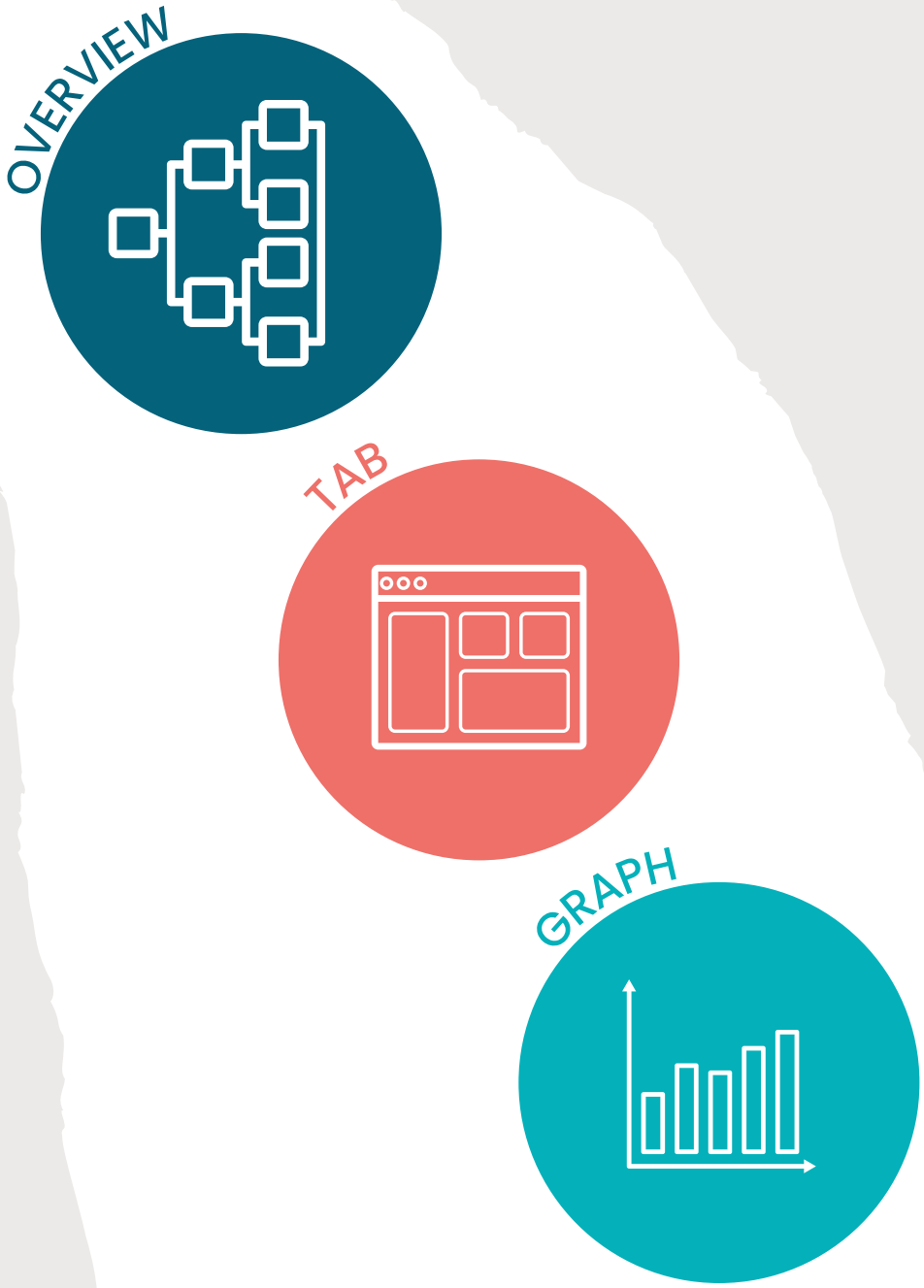
- table! → with conditional formatting…

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Bonus Layer: finalizing!

- Wireframe
- Grid
- Interaction
- Colour use
- Filters
- Switches (content and graph type)
- Tooltips
- Layover / explanations
- TEST TEST TEST





Keep in mind…

- Involve the end user in the entire process
- Create an information structure and prioritize
- Use the company style for recognition and familiarity
- Pay attention to accessibility
- Keep your design calm, with a clear grid
- Place charts in a logical order
- Select graphs that match your key message
- Be consistent in EVERYTHING YOU DO

THANK YOU

Evaluate my session



SQL KONFERENZ 2025

LinkedIn

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www.statstories.nl

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