Visualizing Data for Non-Data Experts

Making Reports Accessible

Thank you, partners

KOHERA

element 61
experience & expertise

lytix

bmatix
Act informed

inetum
realdolmen
Positive digital flow

datasense

MICROPOLE
BELUX

LACO

AKABI

Cloubis

datashift

EpicData.

Sparkle

Tabular Editor

solarwinds

u2u

Adapt
and
Enable

MONIN
Database Managed Services

proximus NXT
tech. bizz. people.

tillit data
shapers

ORDINA
Ahead of change

Valerie Junk

Data Analytics & Visualization

Data Storytelling

BI Standardization

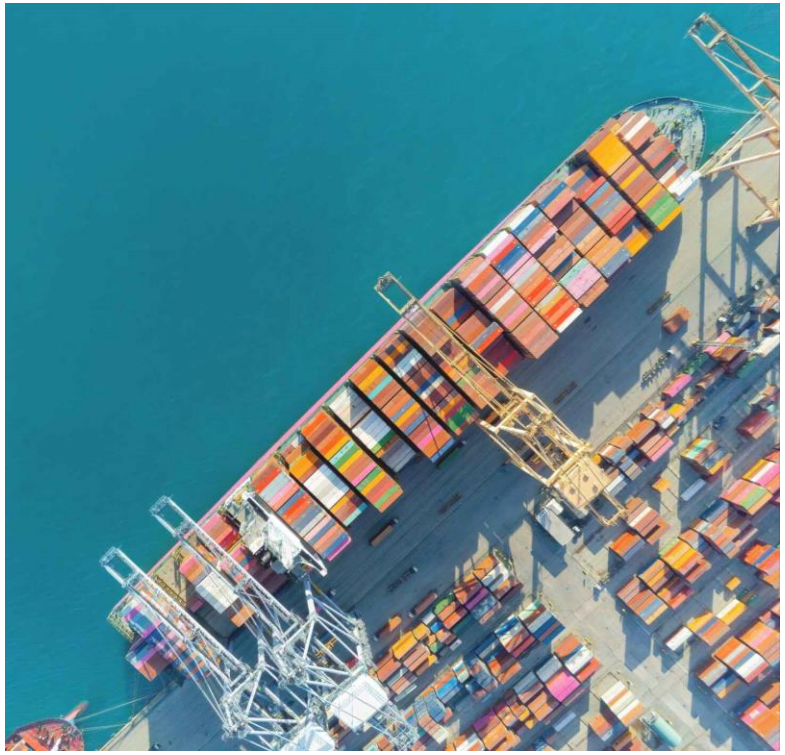
Process Improvement

I’ve created exactly what they want

…they just don’t get it

Why care?

An example from the real world..



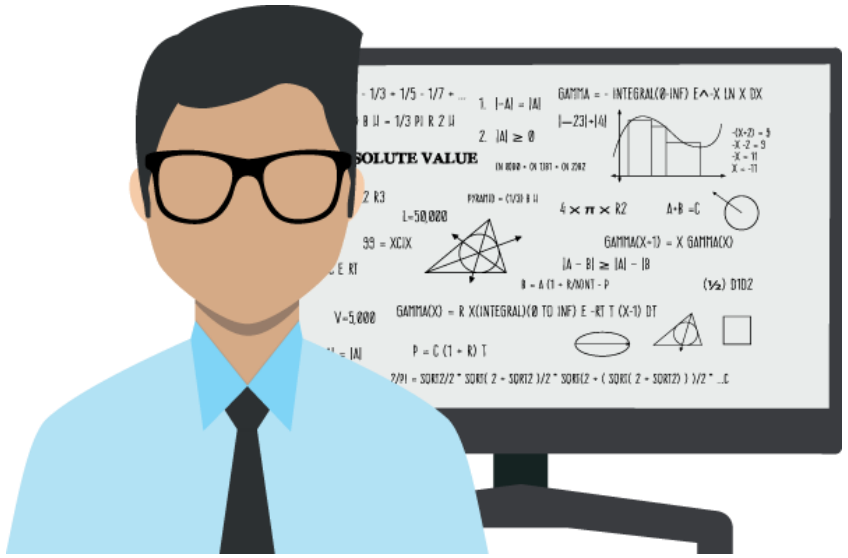
Vessel tracking

- Loading time
- Start time
- Time of arrival
- Unloading

Need: Efficiency report

Why care?

An example from the real world..



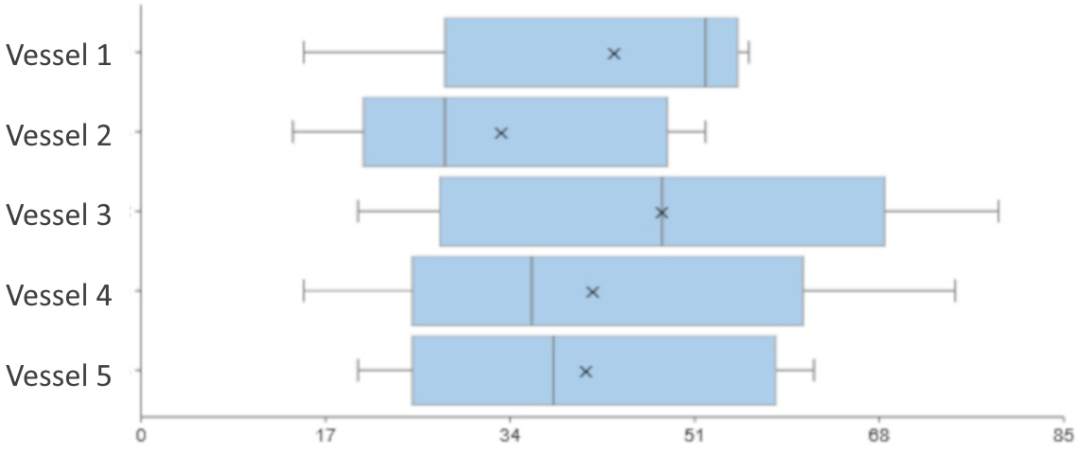
Data Scientist (basic Power BI knowledge)

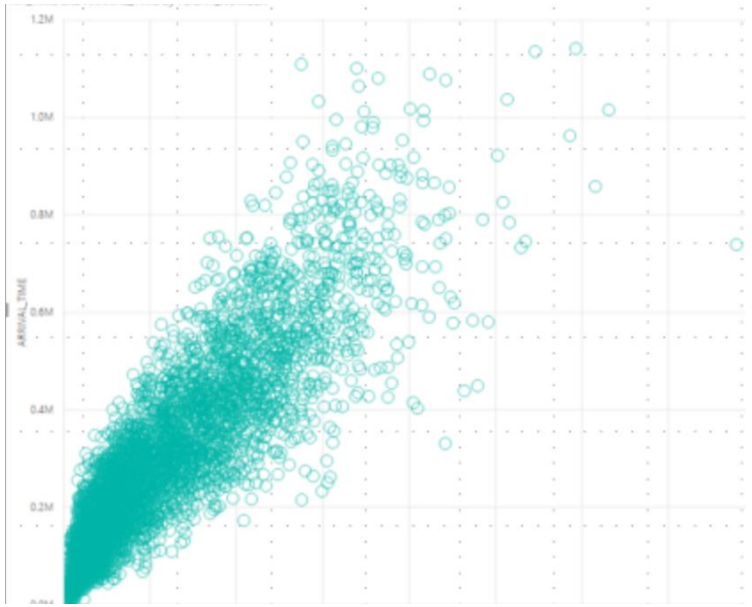
(Huge amounts of) Data

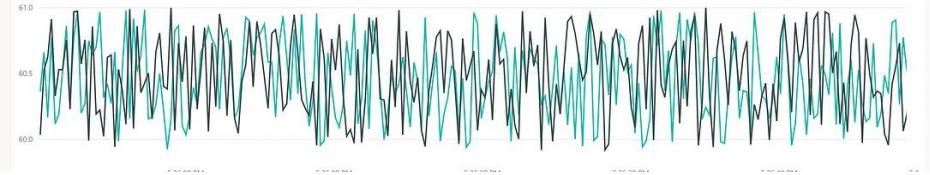
- GPS by second
- Vessel data
- Weather & current data
- Load/Unload data

Why care?

An example from the real world..

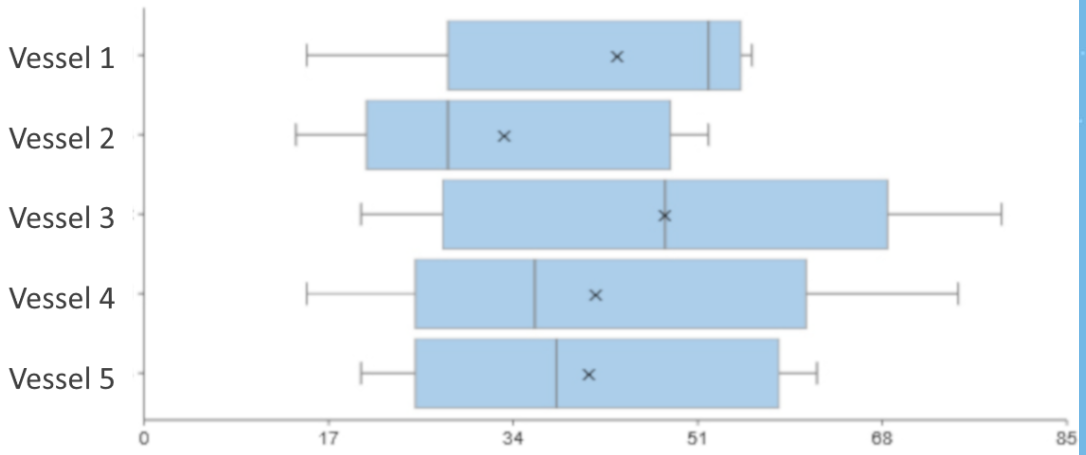






The Audience

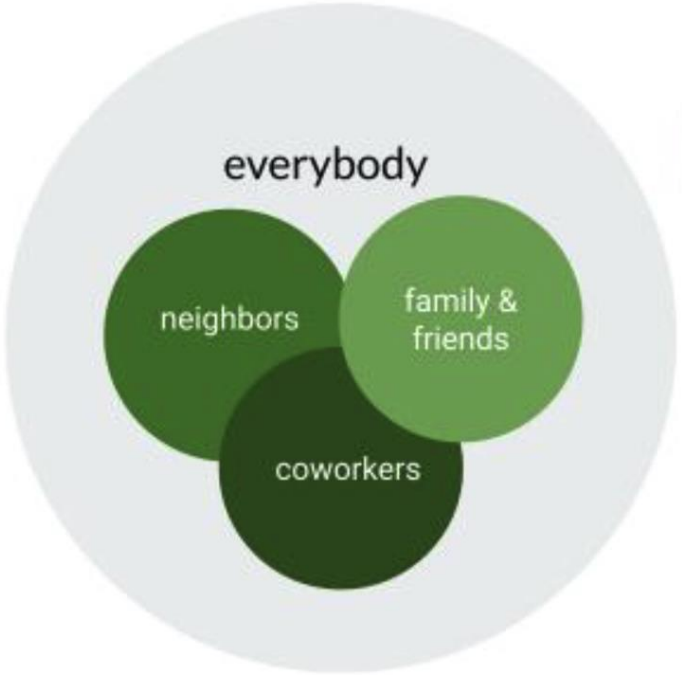
Vessel 3 won!

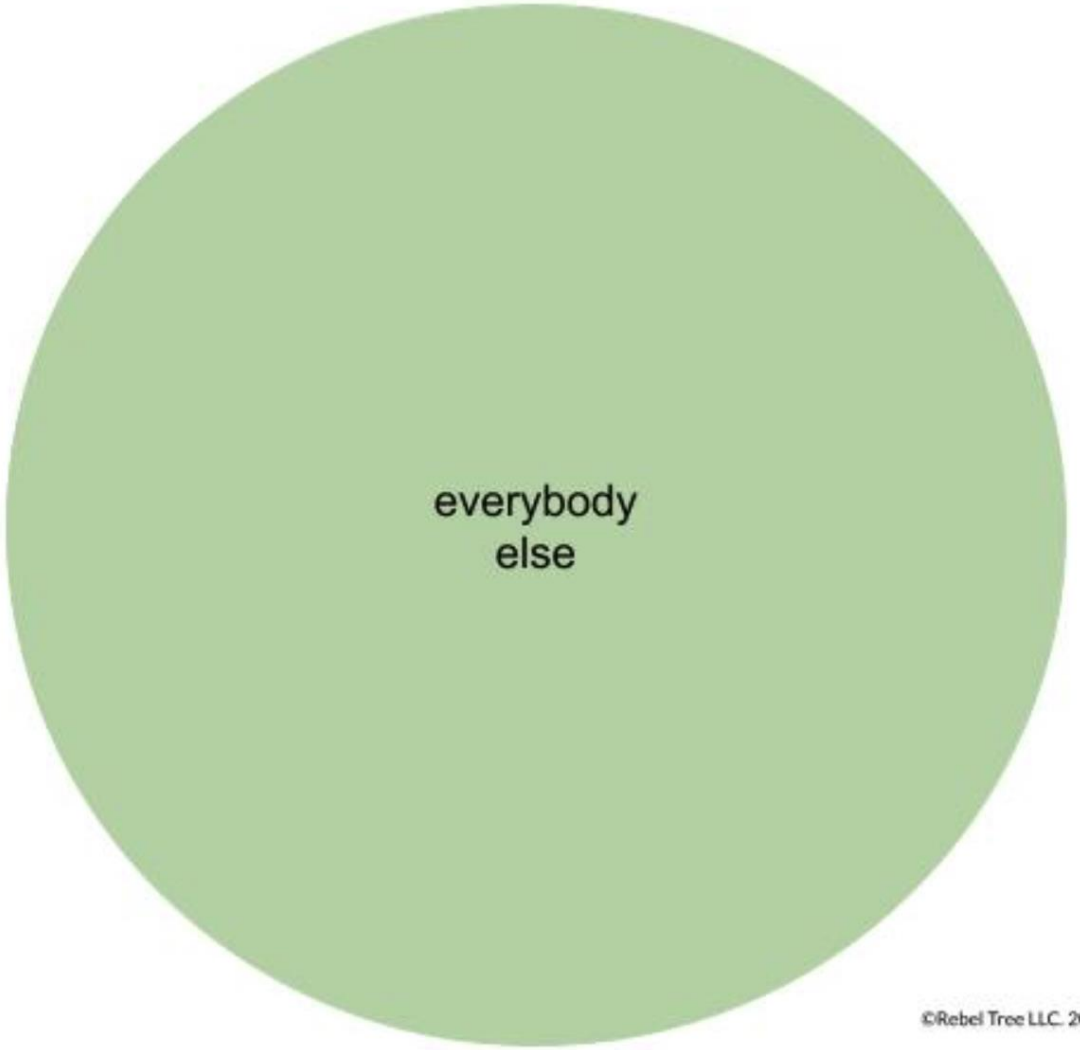


I’ve created exactly what they want

…they just don’t get it

The "Everybody Knows" Fallacy





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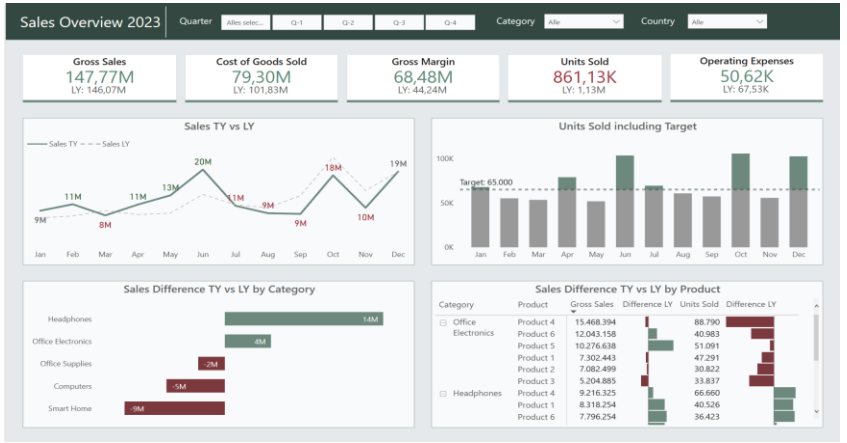
Who is ALL?

Who is All?

- Who is the audience?
- What is their knowledge level?
- How are they going to use the report?
- How much detail do they need (and understand)?
- What are they really looking for -> Actions
- Disabilities?

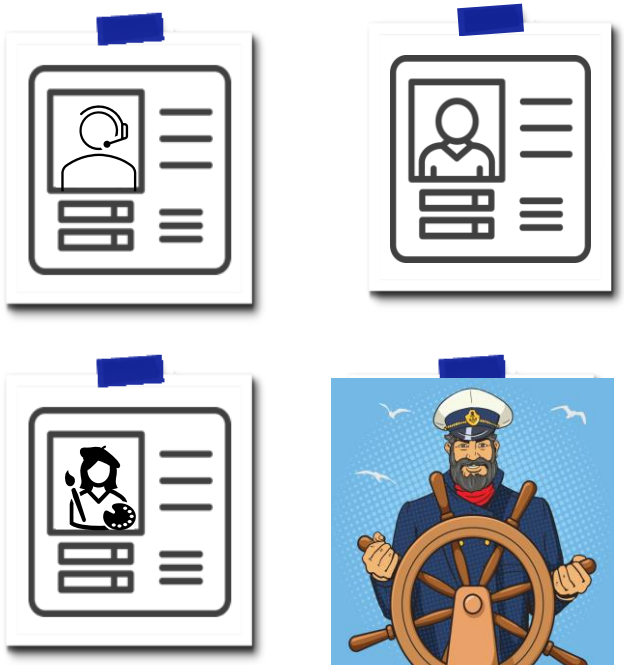
Ask questions!

- Provide examples
- What do you see?
- Ask what actions they expect to be able to take
- Ask about prior experience (& check)
  - APP
  - Workspace
  - Desktop



Personas & the message

Personas



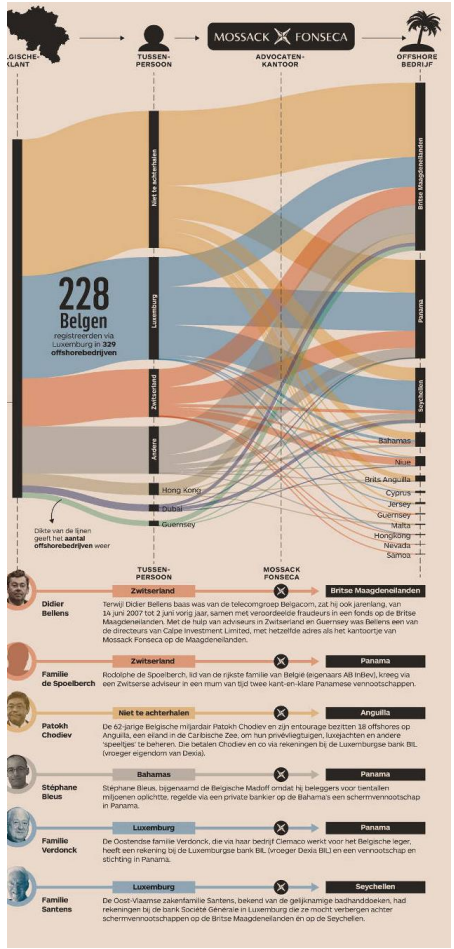
- Fictional representation of users
- Needs & wishes
- Similarities and difference
- Don‘t make assumptions

The message

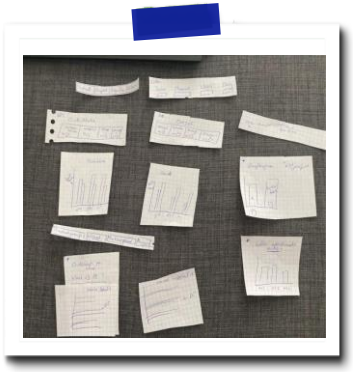
1 key message (sentence)

- Context
- Information
- Actions to take

What does this tell me?



Storyboard



Gather all the information

- Sticky Notes (easy to rearrange)

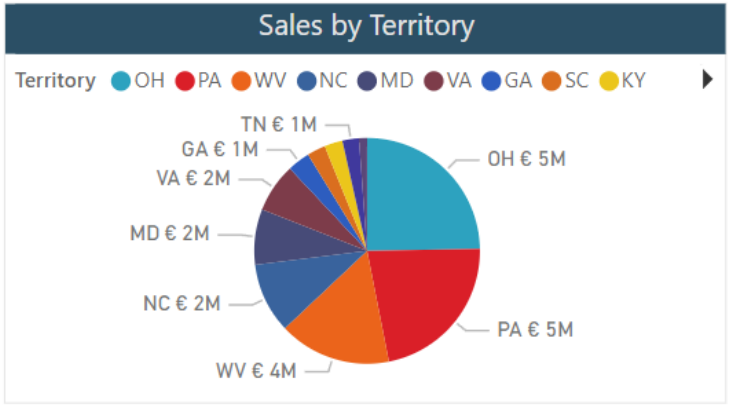
Translate pieces to design

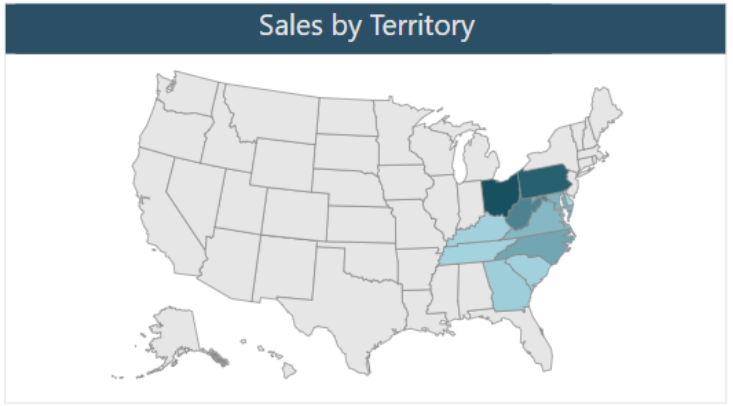
- Each piece tells a part of the story
- Check your story

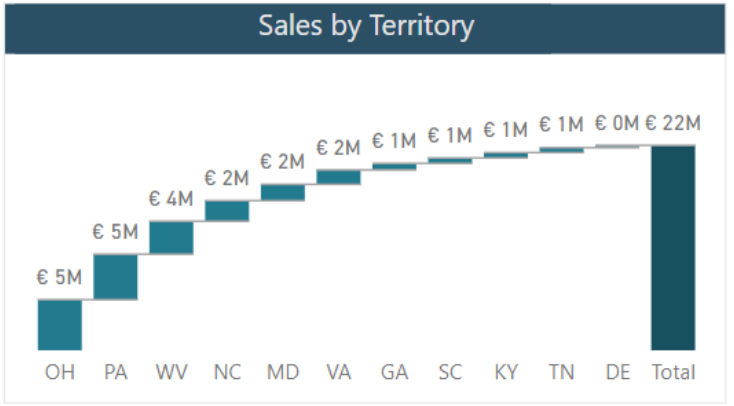
- **Keep it simple**

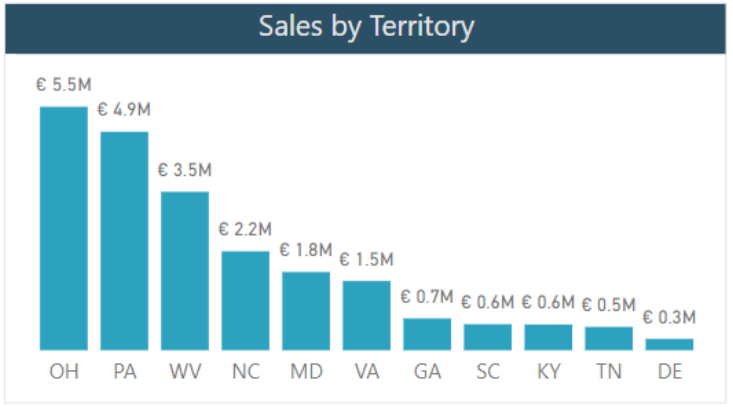
Using the *Right* Visual

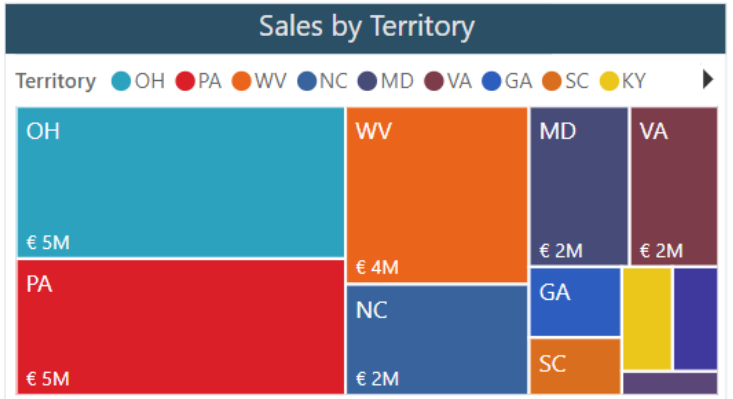
Choosing the visual 1

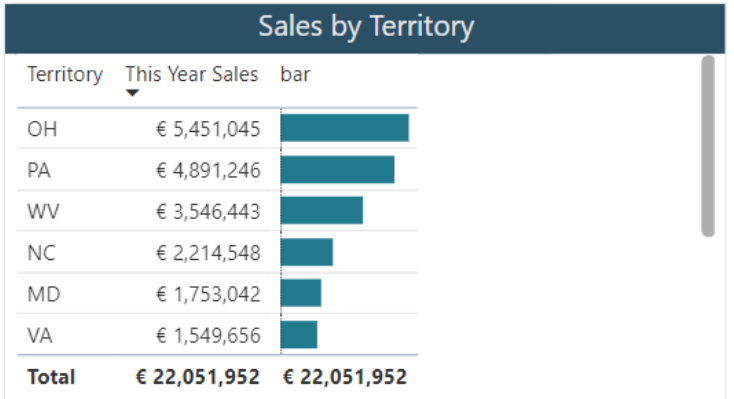




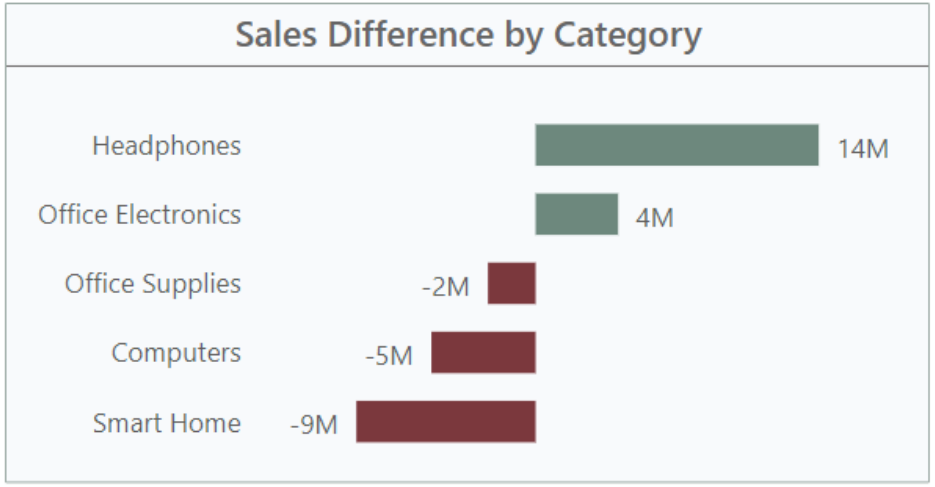


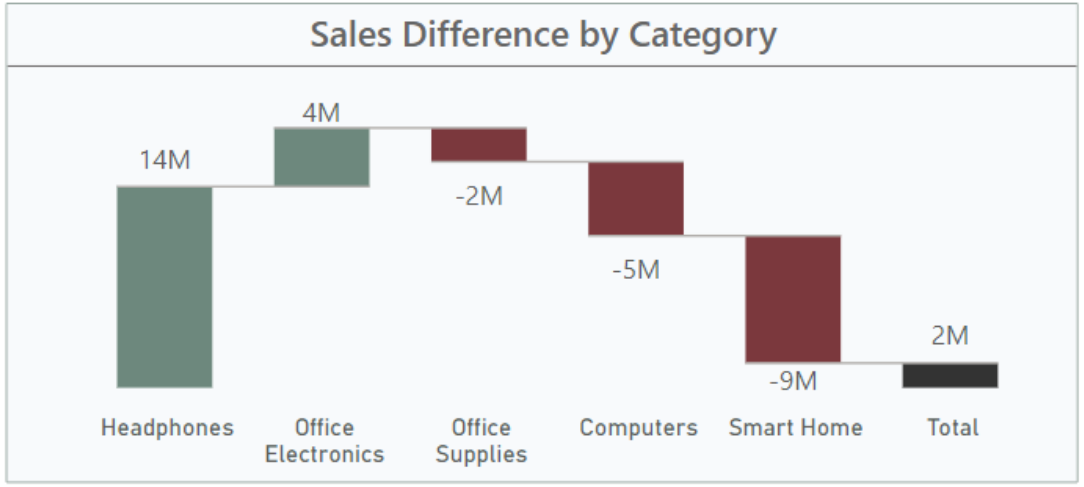


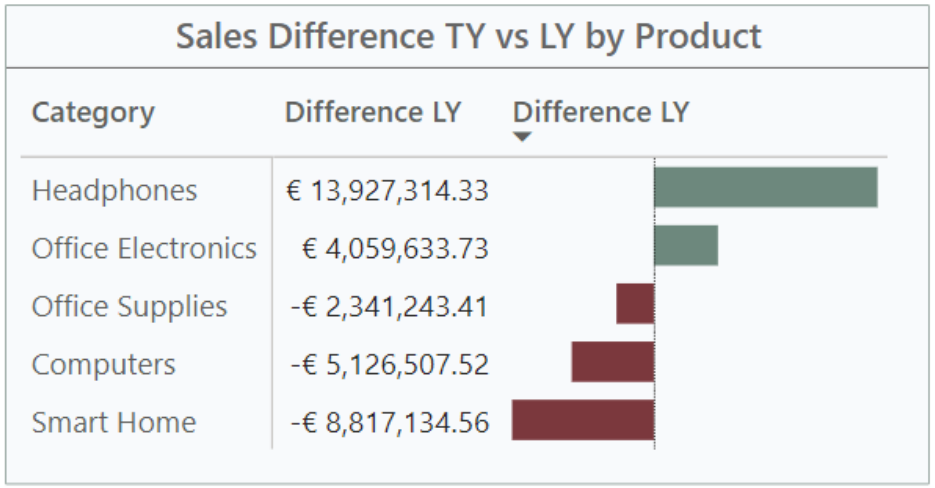


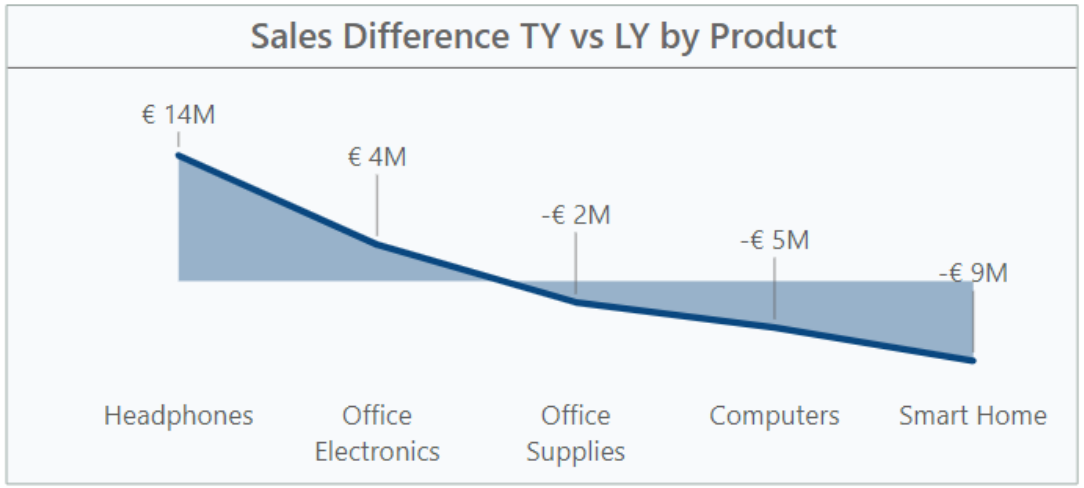


Choosing the visual 2









Choosing the visual 3

Sales Difference TY vs LY by Product

Category	Gross Sales	Difference LY	Units Sold	Difference LY
Office Electronics				
Product 4	€ 15,468,394	-583,396.53	88,790	-31,303.00
Product 6	€ 12,043,158	1,804,151.16	40,983	-15,084.50
Product 5	€ 10,276,638	5,093,043.05	51,091	-2,640.50
Product 1	€ 7,302,443	-502,078.43	47,291	-8,067.50
Product 2	€ 7,082,499	-313,509.85	30,822	-10,722.00
Product 3	€ 5,204,885	-1,438,575.67	33,837	-16,389.00
Headphones				

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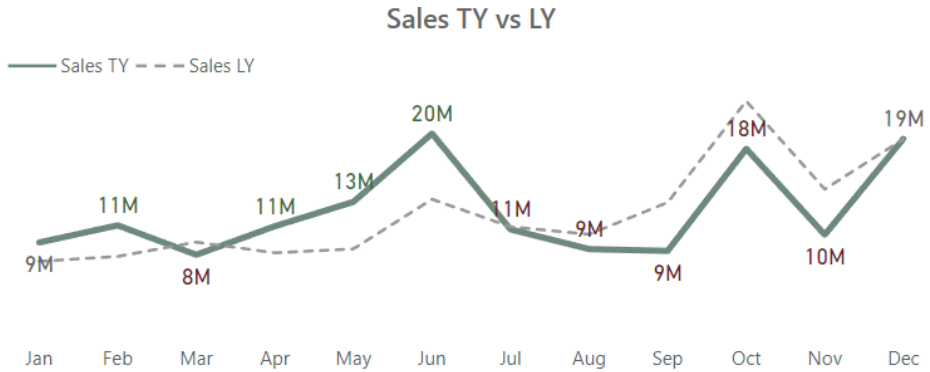
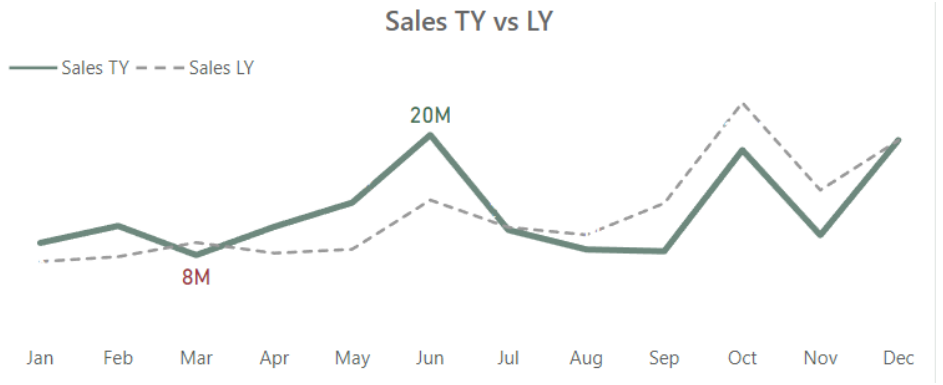
Declutter & Enrich

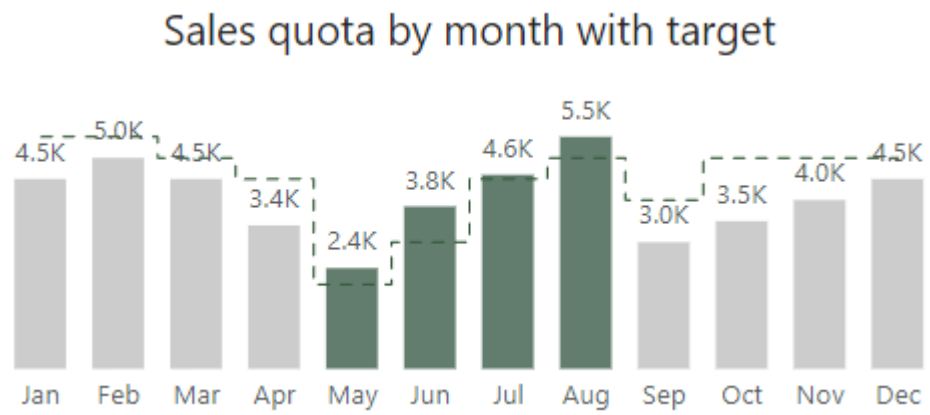
- What information & how much guidance is needed?



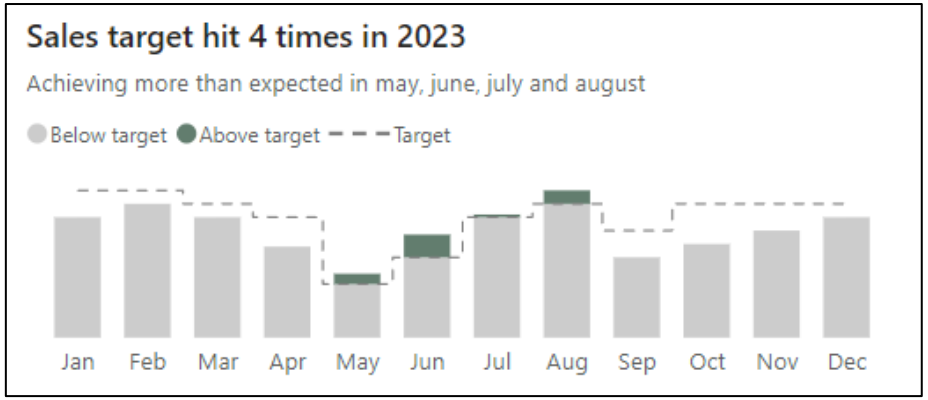


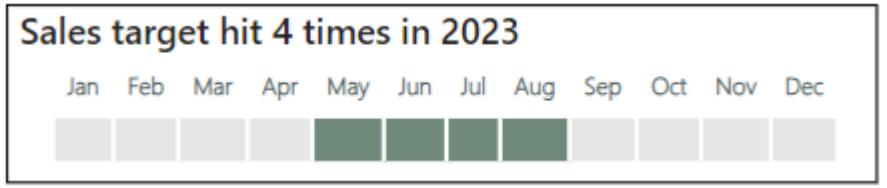
Context is key!

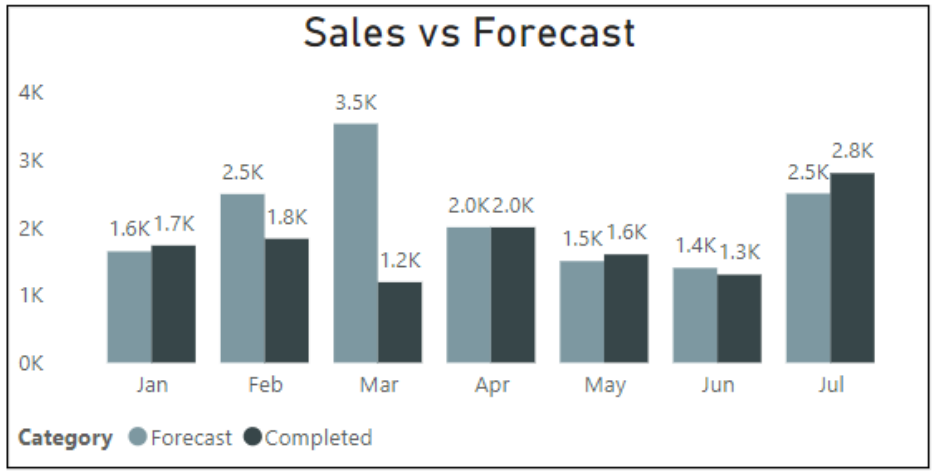
- Title & color coding

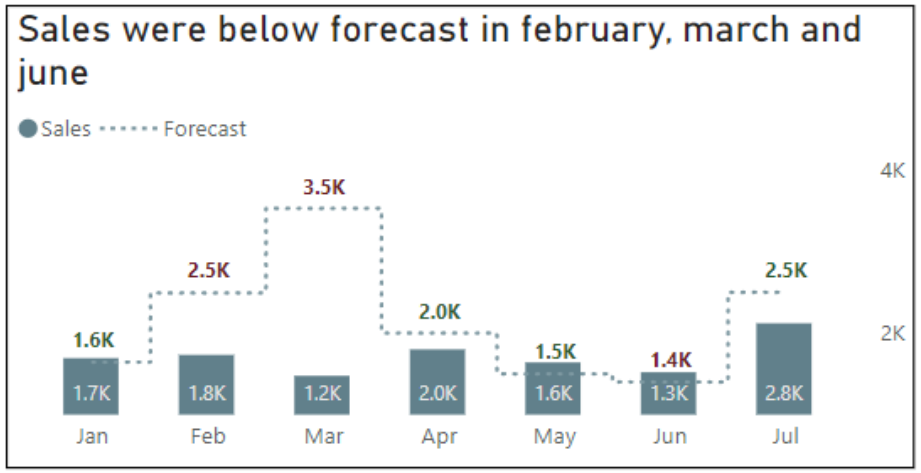


If possible - Simplify



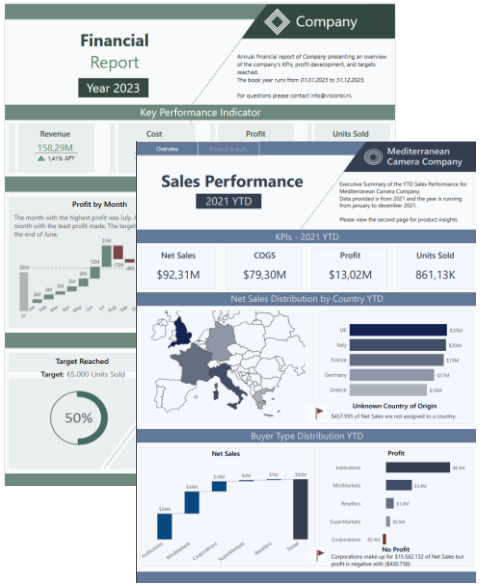


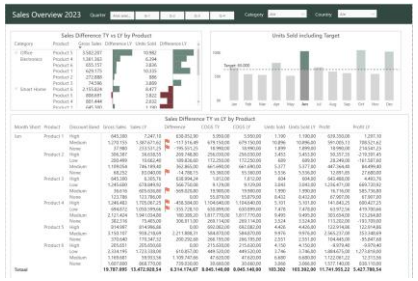




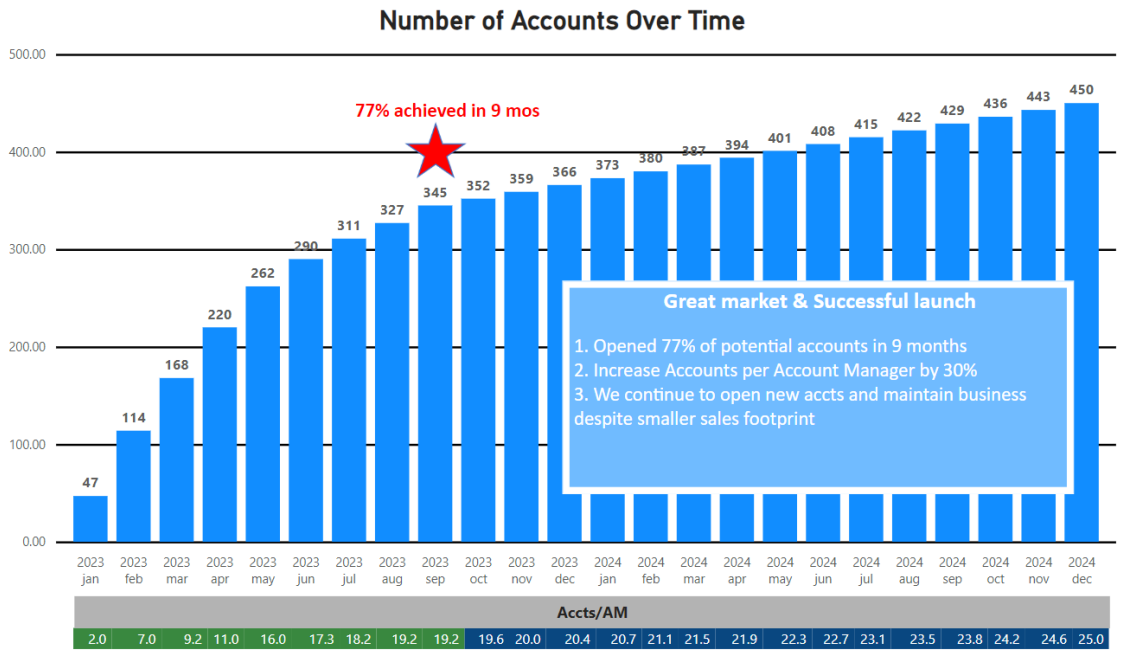
Experience
+
Message
=
Design

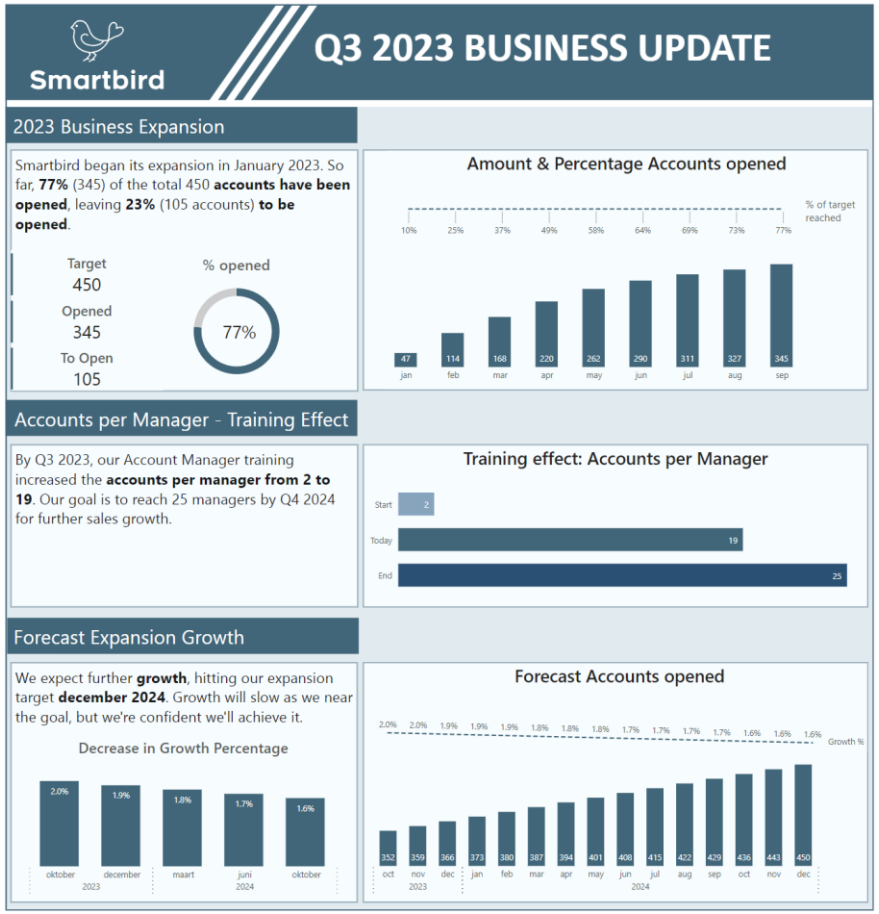
Experience + Message = Design





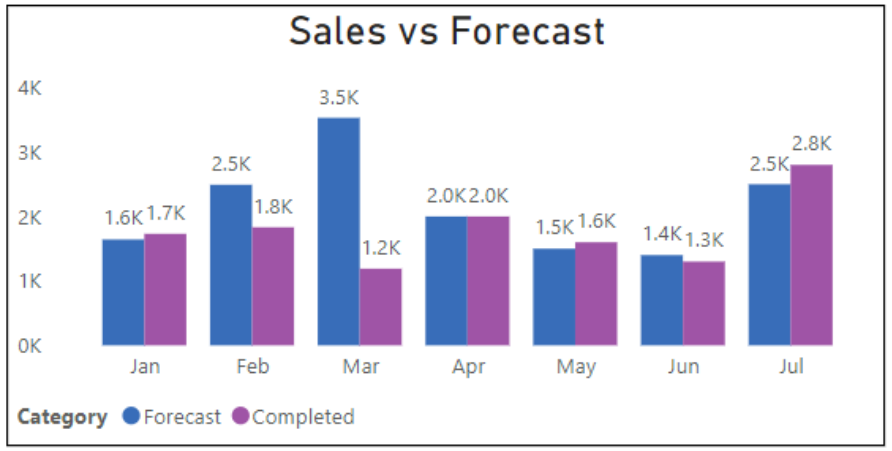
High vs. Low Experience

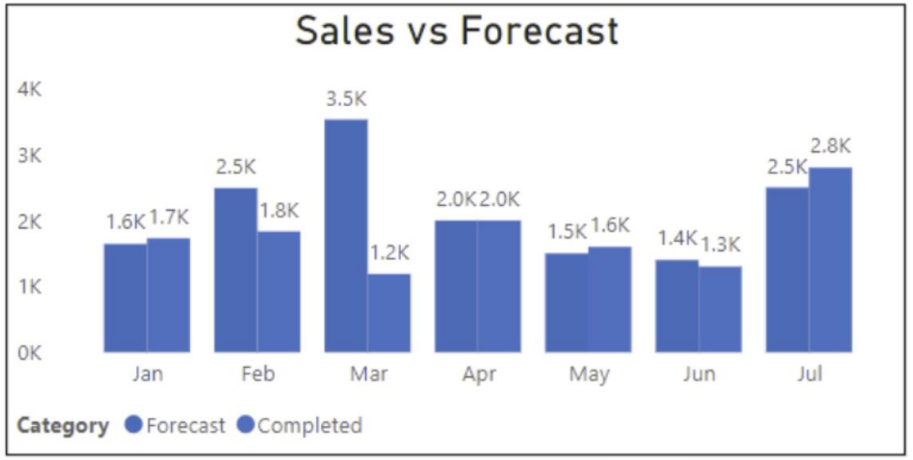




Accessibility

Visual


Sales vs Forecast
4K
3K
2K
1K
0K
1.6K 1.7K
2.5K 1.8K
3.5K 1.2K
2.0K 2.0K
1.5K 1.6K
1.4K 1.3K
2.5K 2.8K
Jan
Feb
Mar
Apr
May
Jun
Jul
Category Forecast Completed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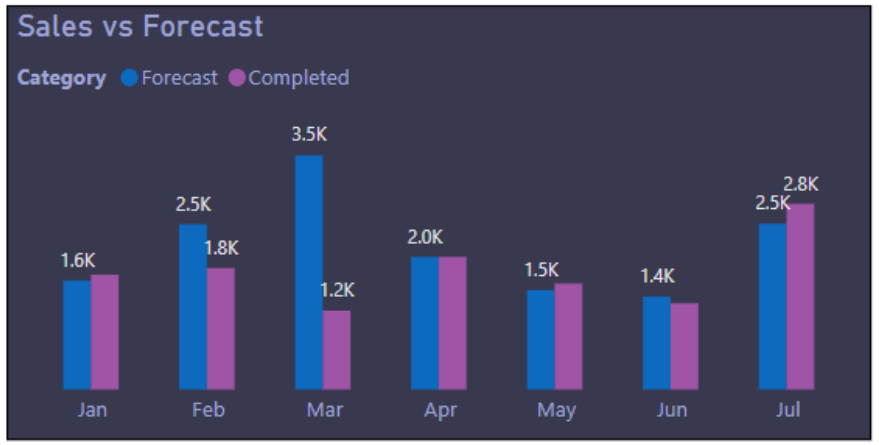
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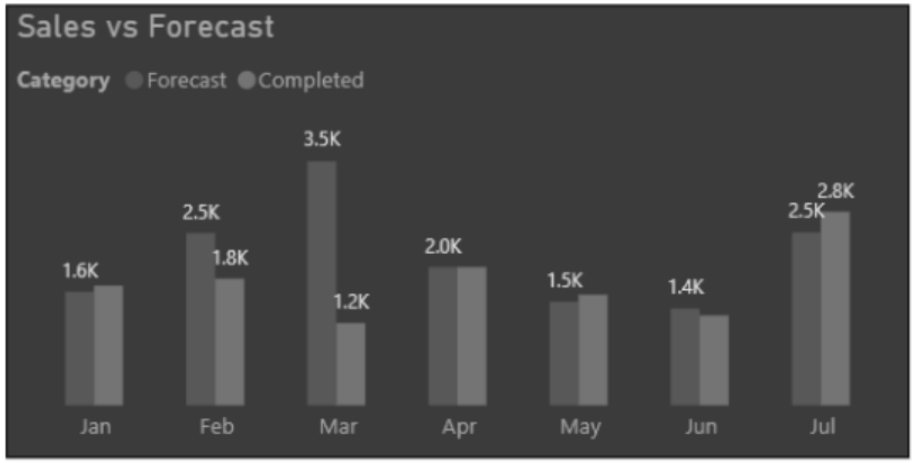
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Mar
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Jul

Accessibility

- Mobility
  - Difficulty using mouse or keyboard

- Cognitive impairment
  - Difficulty understanding complex information
  - Difficulty understanding visuals
  - Difficulty understanding numbers

Takeaway

- Consider the audience
- 1 message
- Use a storyboard & check the visuals
- Think about accessibility
- Keep it simple

Session Feedback