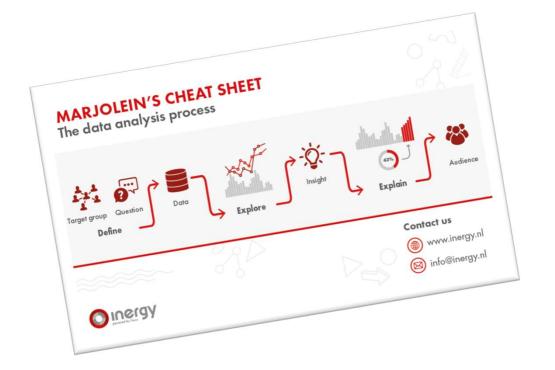


Explore vs Explain When do you build which dashboard and how?

By Marjolein Opsteegh, SQLBits, March 2024



Exploratory vs explanatory







Marjolein Opsteegh \bigcirc (She/Her)

I like to help you with building user friendly Power BI dashboards

;ံ: Top Data Visualization Voice

The Randstad, Netherlands · Contact info

4,977 followers · 500+ connections



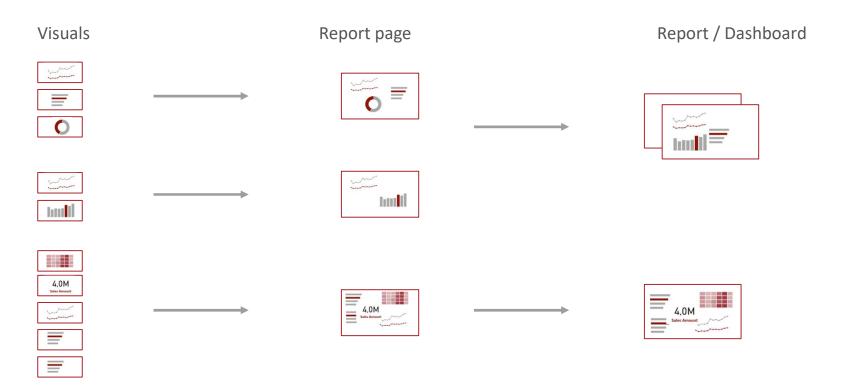
What is a dashboard, really?

A dashboard is a collection of visuals that help you understand data and make decisions.





What is a dashboard, really?





Why do we visualize?







The 10 second rule ...





What do you notice in this data?

Product A		Product B		Product C		Product D	
Maand	Aantal	Maand	Aantal	Maand	Aantal	Maand	Aantal
1	15	1	16	1	20	1	5
2	16	2	17	2	19	2	6
3	17	3	18	3	25	3	8
4	16	4	19	4	19	4	10
5	17	5	20	5	18	5	13
6	18	6	21	6	24	6	17
7	19	7	16	7	18	7	20
8	18	8	14	8	17	8	22
9	19	9	20	9	23	9	23
10	24	10	22	10	17	10	24
11	32	11	24	11	16	11	24
12	38	12	25	12	22	12	24



Did you notice the summer dip?

The 10-second rule...

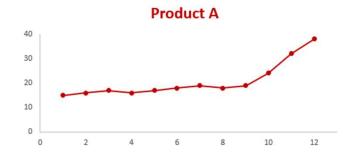


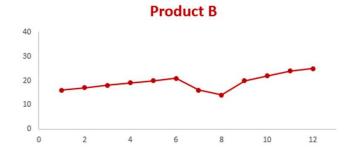


And now?

The 10-second rule...

Product A		Product B		Product C		Product D	
Maand	Aantal	Maand	Aantal	Maand	Aantal	Maand	Aanta
1	15	1	16	1	20	1	5
2	16	2	17	2	19	2	6
3	17	3	18	3	25	3	8
4	16	4	19	4	19	4	10
5	17	5	20	5	18	5	13
6	18	6	21	6	24	6	17
7	19	7	16	7	18	7	20
8	18	8	14	8	17	8	22
9	19	9	20	9	23	9	23
10	24	10	22	10	17	10	24
11	32	11	24	11	16	11	24
				12	22	12	24











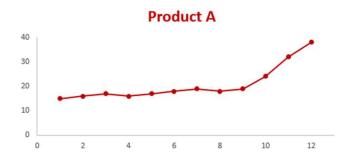
The 10 seconds rule...



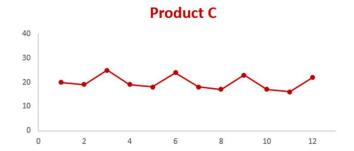


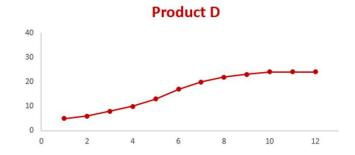
And what about now?

Product A		Product B		Product C		Product D	
Maand	Aantal	Maand	Aantal	Maand	Aantal	Maand	Aantal
1	15	1	16	1	20	1	5
2	16	2	17	2	19	2	6
3	17	3	18	3	25	3	8
4	16	4	19	4	19	4	10
5	17	5	20	5	18	5	13
6	18	6	21	6	24	6	17
7	19	7	16	7	18	7	20
8	18	8	14	8	17	8	22
9	19	9	20	9	23	9	23
10	24	10	22	10	17	10	24
11	22	11	24	11	16	11	24
				12	22	12	24











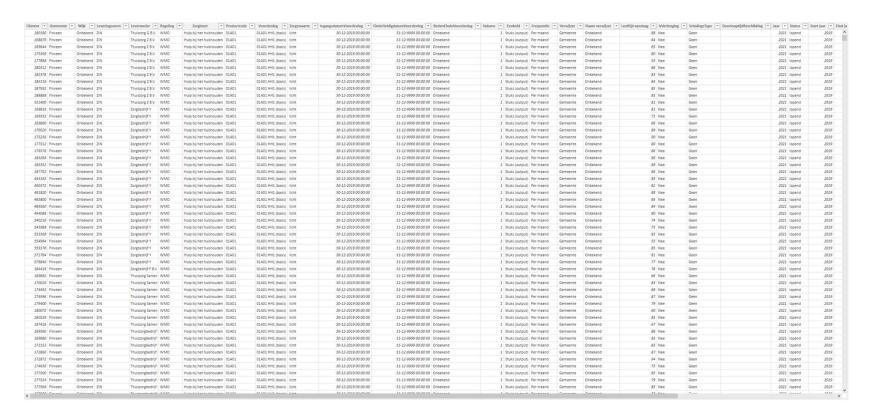
The power of visualization







From detailed data....





... to usable insights

















Exploratory or Explanatory?



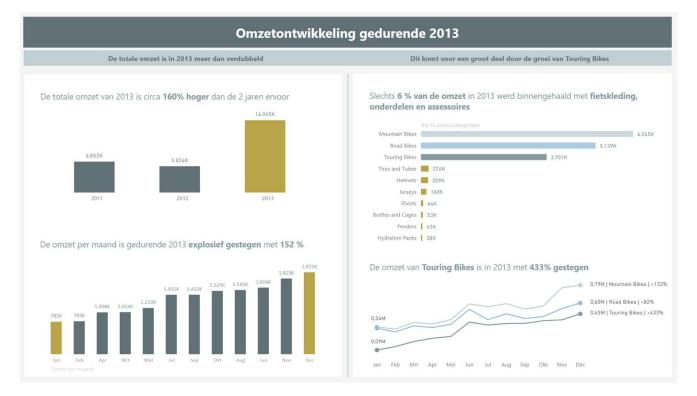




Exploratory or



Explanatory?





Exploratory or



Explanatory?





Ex·plora·tory



[ik'splorət(ə)ri, ɛk'splorət(ə)ri]

Adjective

Relating to or involving exploration or investigation

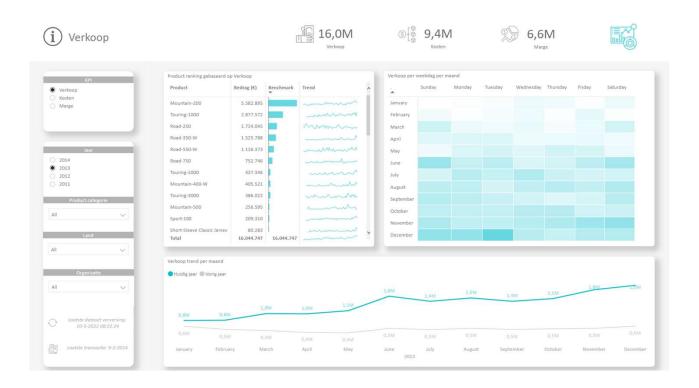
→ explore

Data source Oxford Languages



Explore - The exploratory dashboard







Explore - The exploratory dashboard







Explore - The purpose





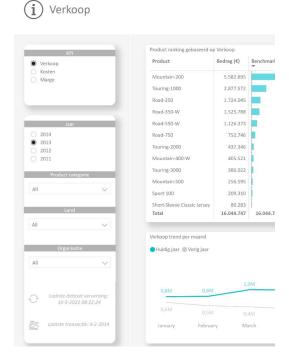
- Searching for paterns
- Comparisons
- Action lists



Explore - The exploratory dashboard



- Interactive
- Multiple pages
- Historical data
- More information than necessary
- Patterns and trends
- Will be regularly refreshed
- Drill down / through





Ex·plana·tory



[ɪkˈsplanət(ə)ri, ɛkˈsplanət(ə)ri] **Adjective**

Serving to explain something

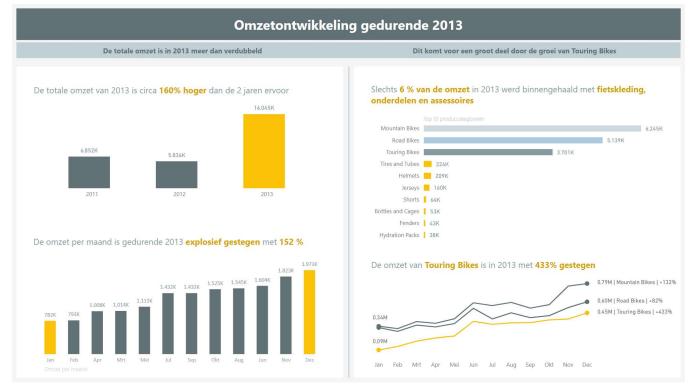
→ explain

Data source Oxford Languages



Explain - The explanatory dashboard

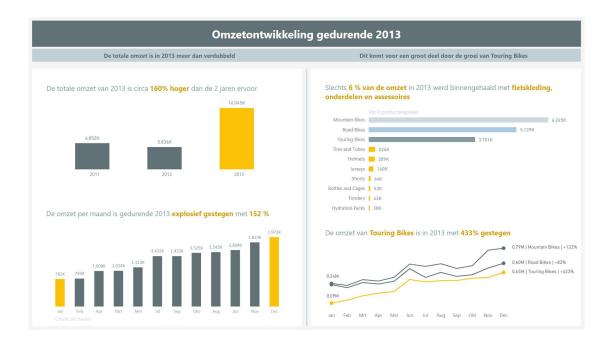






Explain - The purpose





- Sharing information
- Insights
- Answers
- Conclusions
- Recommendations

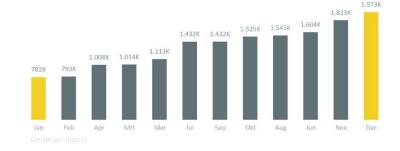


Explain - The explanatory dashboard



- The dashboard tells a story
- There is explanation with the visuals
- It's a snapshot
- There are no slicers/filters present
- There is no interaction with the data
- You can't drill through

De omzet per maand is gedurende 2013 explosief gestegen met 152 %





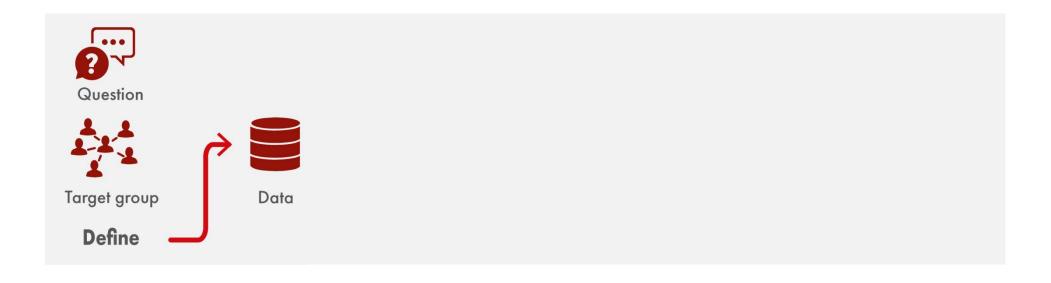
The data analysis process





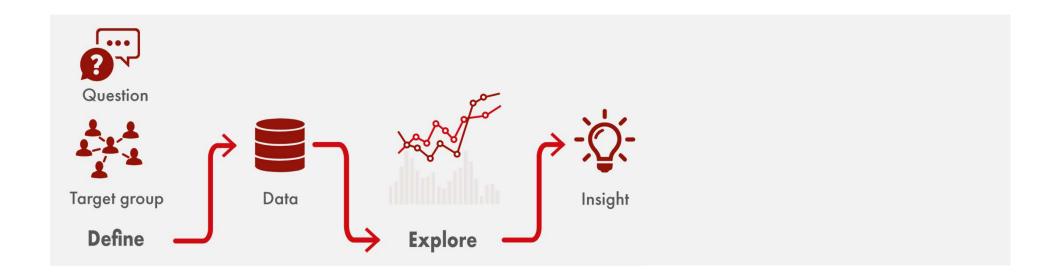


The data analysis process, define



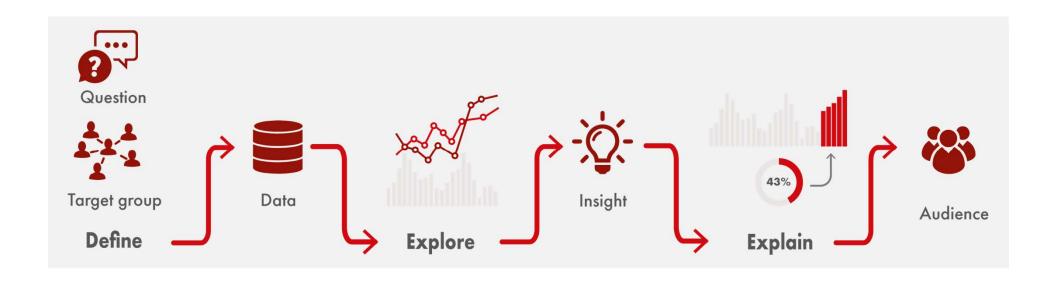


The data analysis process, explore



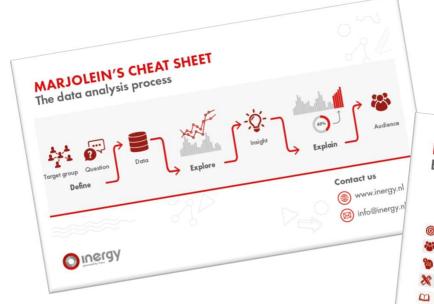


The data analysis process, explain









RESUME Exploratory vs explanatory

◎ Goal	Exploratory	Explanatory		
Audience	Understand	101111111111111111111111111111111111111		
Data familiarity	You	Communicate		
Visualization focus	Very familiar (you)	Other people		
Narrative	Flexibility and speed	Less familiar (others)		
i Outcome	Unknown	Simplicity, clarity, and cohesion		
- come	Insight	Known		
A A		Action		
luergy O				
		Source book: Reading tip! Effectieve Data Storytelling by Brent Dykes		



Building a dashboard, explore vs explain



Exploratory 3 layer model (SAD) • Scorecard • Analyse • Detail Explanatory PDF Infographic





Building a dashboard, explore vs explain







3 layer model

Scorecard

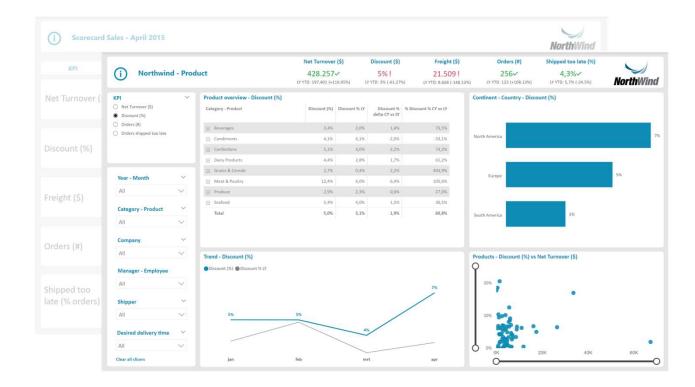






3 layer model

Analyse



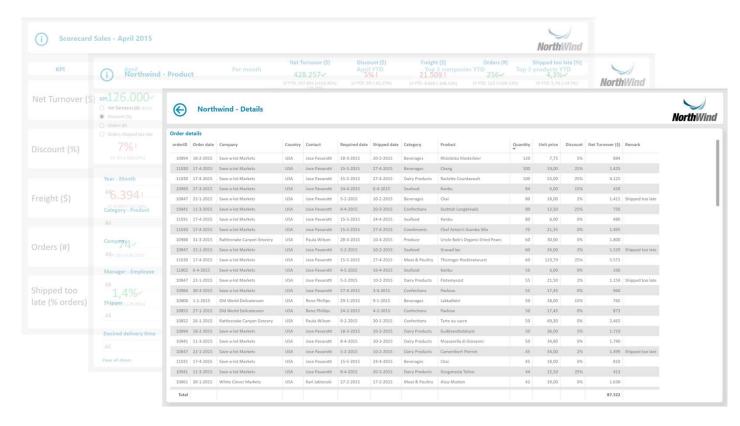




3 layer model

Detail







Layer 1 - scorecard

- KPI's
- Trendline
- Period
- Good / bad
- Information button
- Title / logo
- Drillthrough
- Top / bottom x







Layer 2 - analyse

- Slicers
- Sliders
- 1 or more reactive visuals
- Field parameters
- Drill down
- Drill through
- Clear all slicers



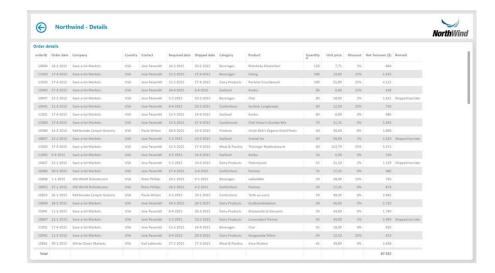




Layer 3 - detail

- A list
- Scroll bars
- Flat table
- "back" button
- Filter path







Building a dashboard, explore vs explain



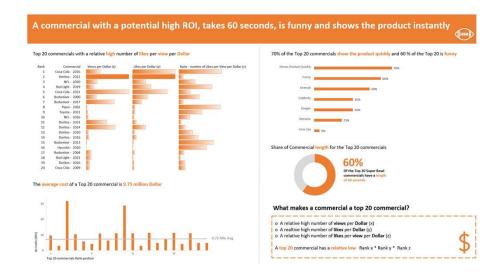




PDF

- Static, no interaction
- A dominant conclusion / recommendation
- Explanation texts
- Use of colors
- Grouping







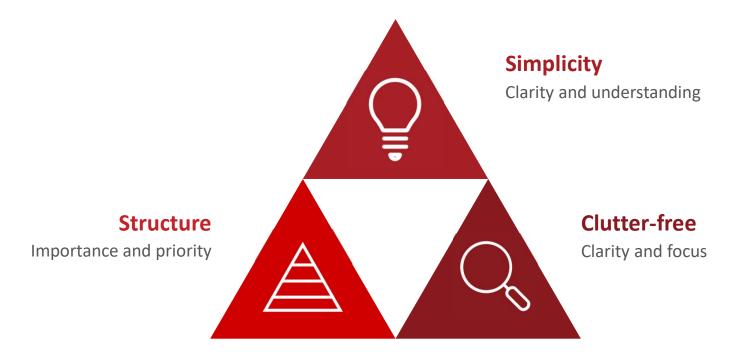
Infographic

- Static, no interaction
- Visual elements
- Easy to digest, concise content
- Specific subject
- Facts and statistics
- Recognizable structure
- Informing, persuading or inspiring











- Choose 1 structure
 - Where, what, fixed
 - Elements
 - Fonts
 - Colors
 - Navigation
- Cluster
- Be predictable





- Use simple visuals, simplicity over variety
- Be clear
- Explain
 - Visuals
 - Colors
 - Conclusions
 - Recommendations
 - Figures





- Consider the need of elements like
 - Axes
 - Labels
 - Grid lines
 - Titles
 - Legends
- Allign your visuals
- Be consistent
- Limit the number of colors
- Start with grey

















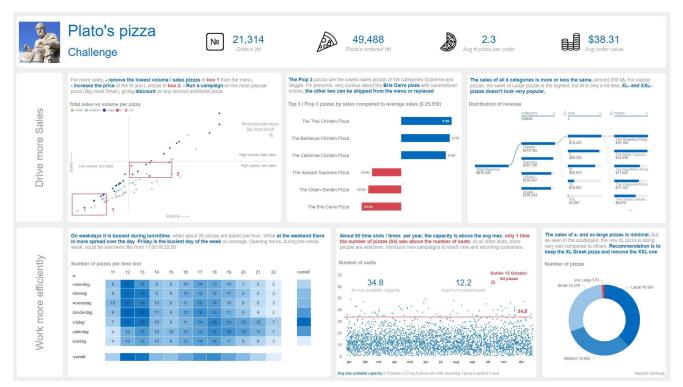
Exploratory or Explanatory?







Explanatory

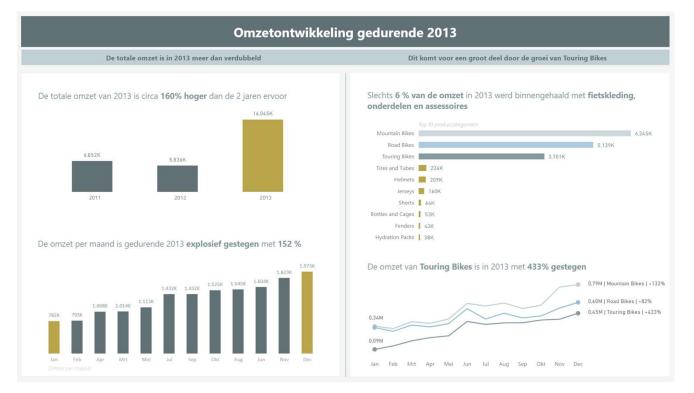




Exploratory or

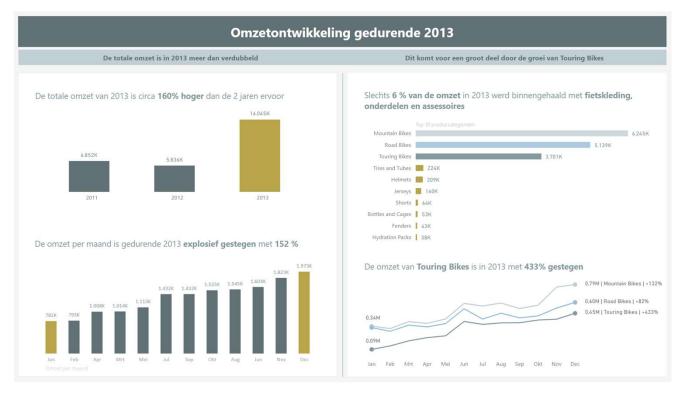


Explanatory?





Explanatory

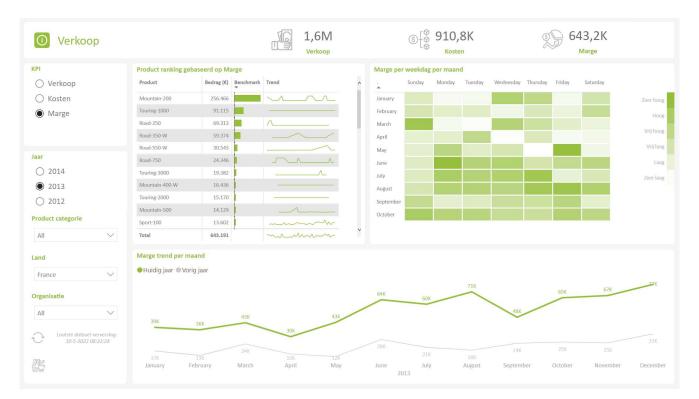




Exploratory or

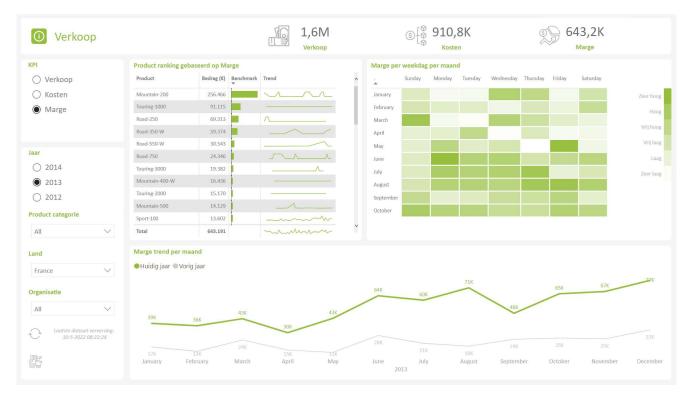


Explanatory?

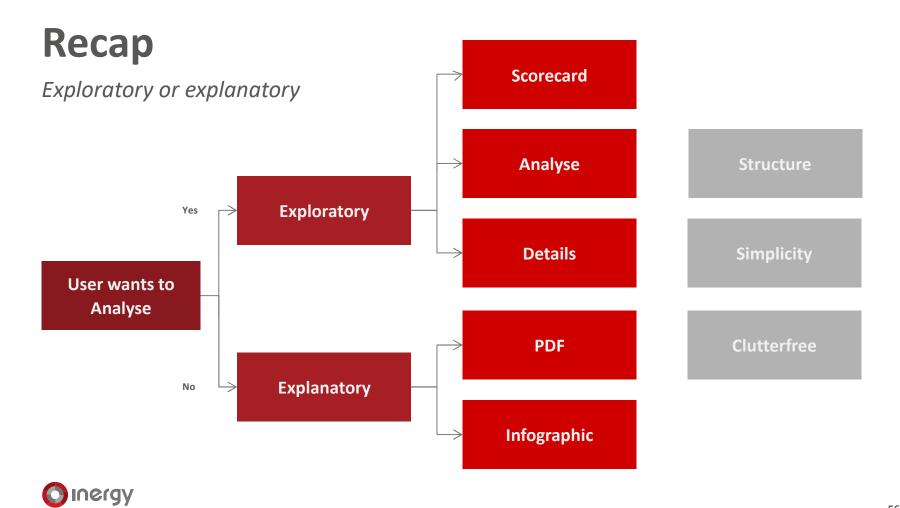




Exploratory







Are there any more questions?





LinkedIn connection invitation



Marjolein Opsteegh

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References

Book, Effective Data Storytelling, Brent Dykes

