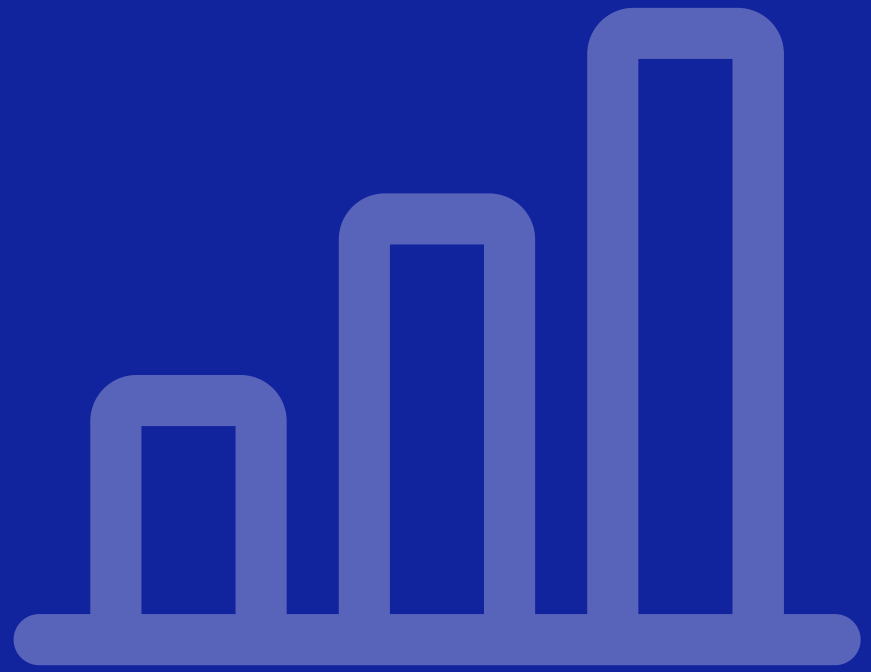
From visualization to storytelling:

creating story-like data experience in Power BI

Martynas Jočys

Power BI Gebruikersdag

2024-03-09



Platinum partners

creates.

In Summa

Goud partners

Kimura

plainwater
de kracht van heldere data

KASPAROV FINANCE & BI

Zilver partners

rockfeather

Dynamic People

GET RESPONSIVE

Brons partners

Hso

macaw

iqbs

VICTA
BUSINESS INTELLIGENCE

Quanto
collective analytics

ilionx

valcon

VALID
STAY AHEAD

Community partners

broadwick
Data & development recruiters

THE DATA COOKS

Tabular Editor

Datamanzi

Power BI Connector by DAVISTA

MINOVA

AZURROFINANCE

DATA KINGDOM

volda;
INFORMATIESPECIALISTEN

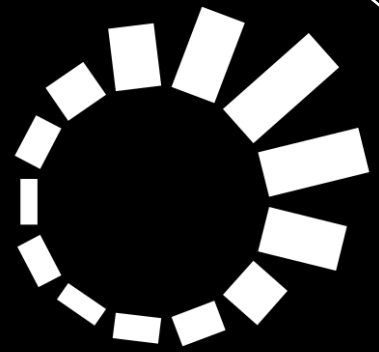
DashData.

VisionBI
Smart Data Experts

easydash

Goedendag

My name is Martynas

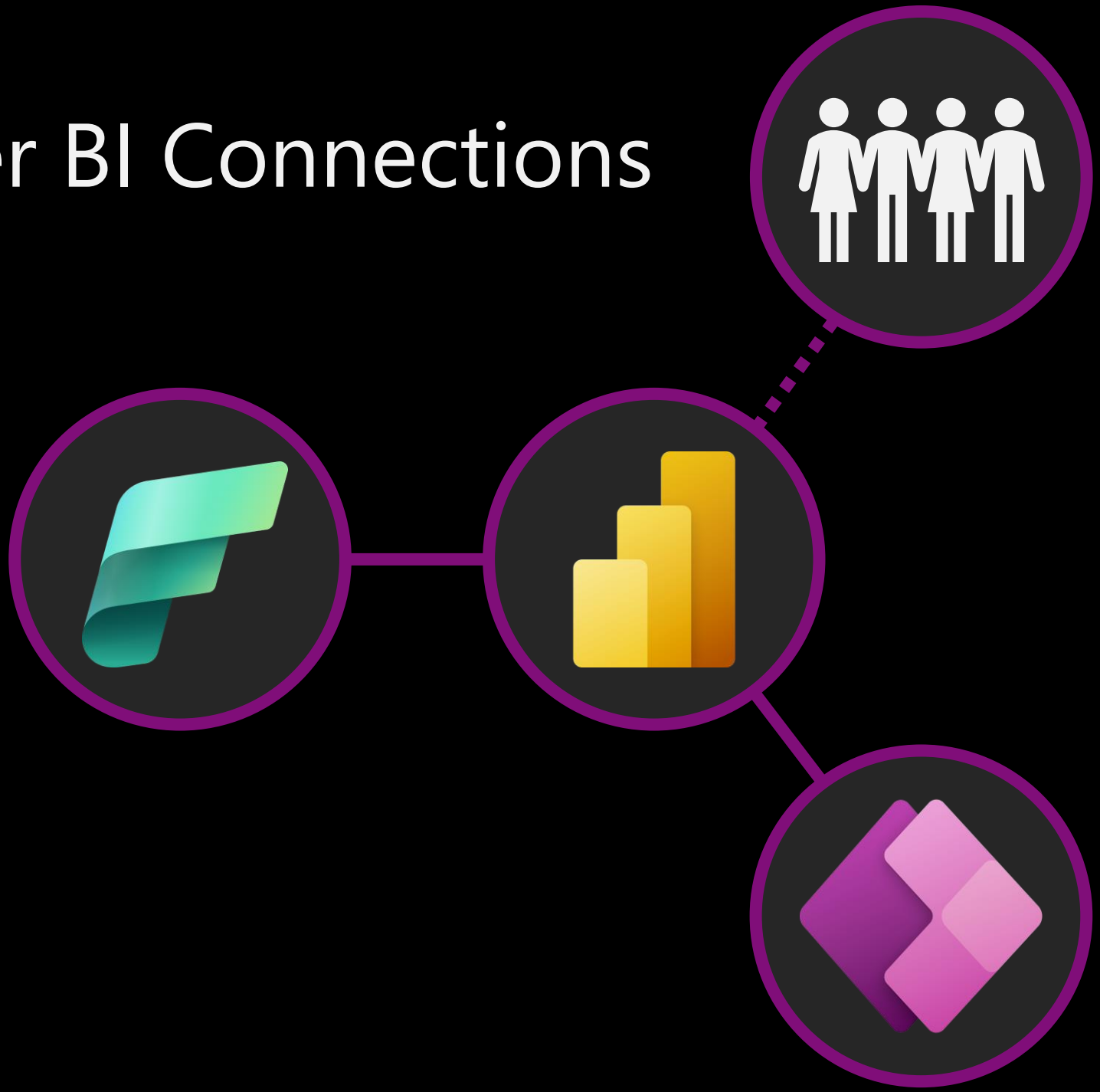


chartplanet.net

macaw

Data
Visualization
Lithuania

Power BI Connections

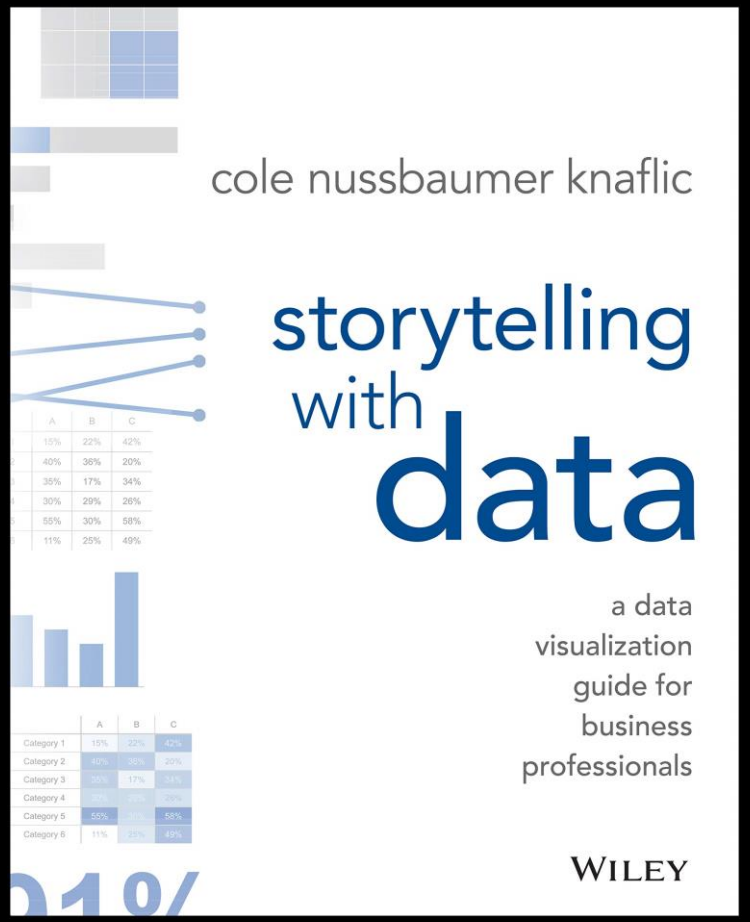


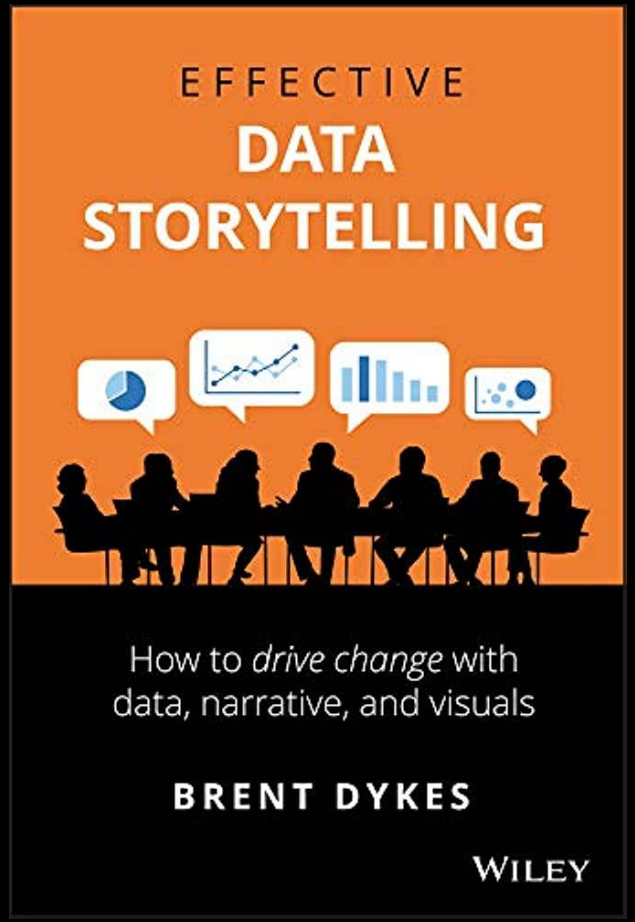
I will tell you a story about storytelling

- Dashboards cannot handle stories
- What is a story
- From data to story
- How to put a story into dashboard

1

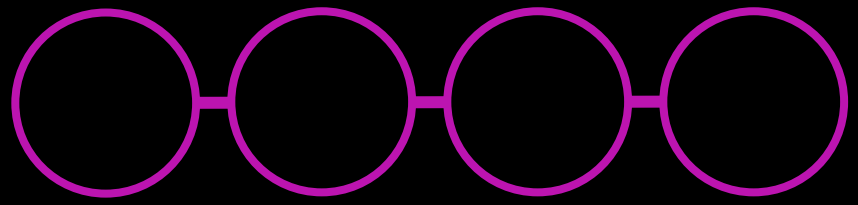
Dashboards cannot handle stories


cole nussbaumer knaflic
storytelling with data
a data visualization guide for business professionals
WILEY

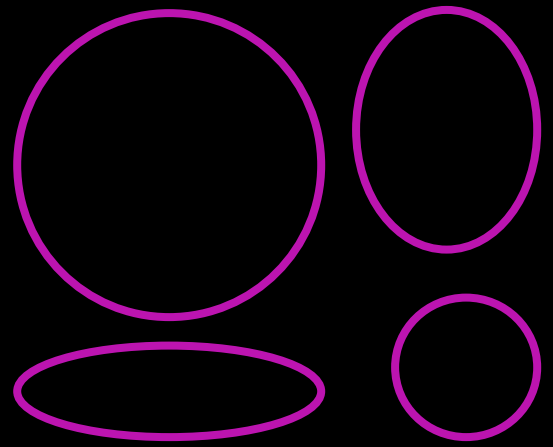

EFFECTIVE
DATA STORYTELLING
How to drive change with data, narrative, and visuals
BRENT DYKES
WILEY

Where can we find data stories:

- Presentations
- Data journalism

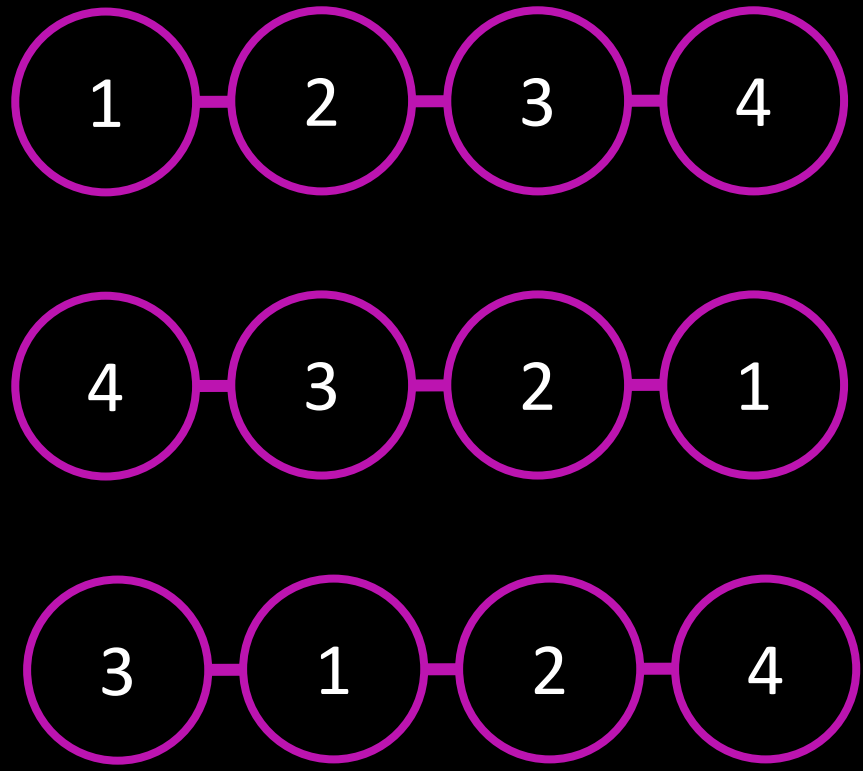


- But not dashboards



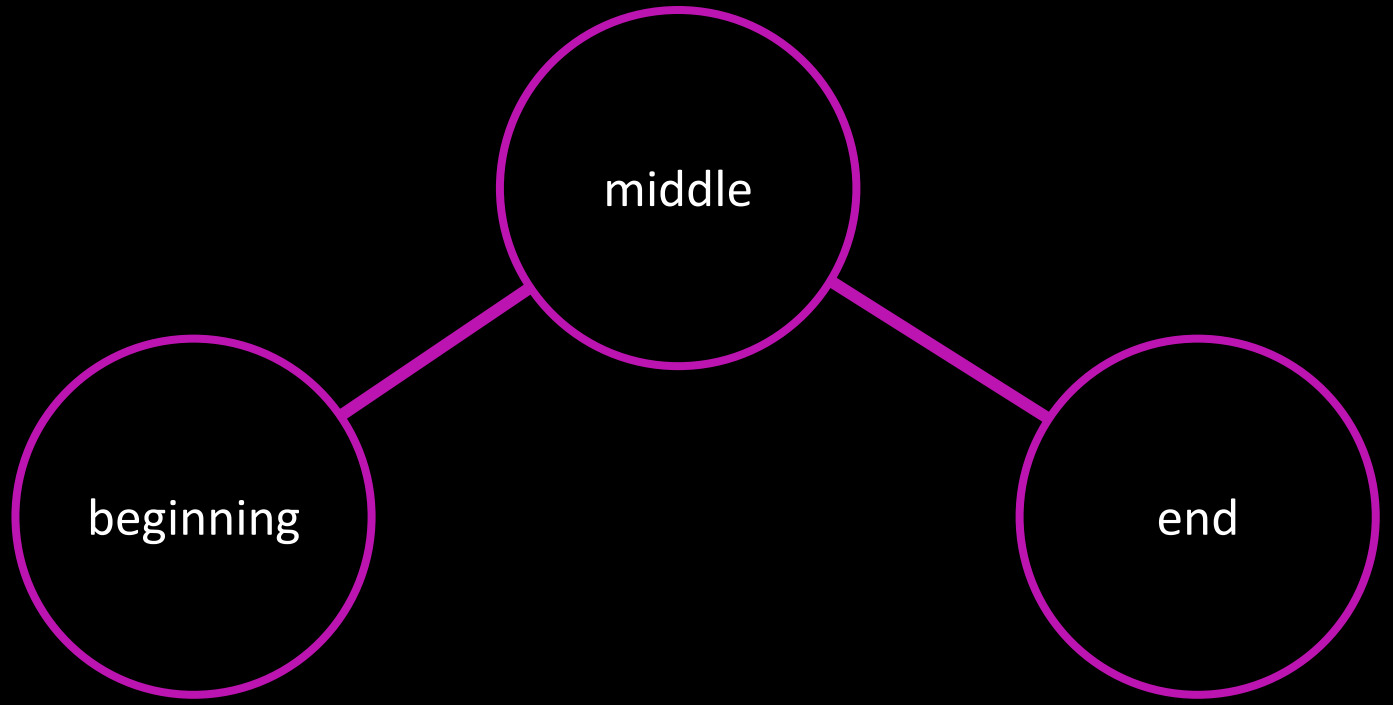
2 What is a story

Linear structure



Narrative models

- 3 act model
- Freytag's pyramid
- Hero's journey



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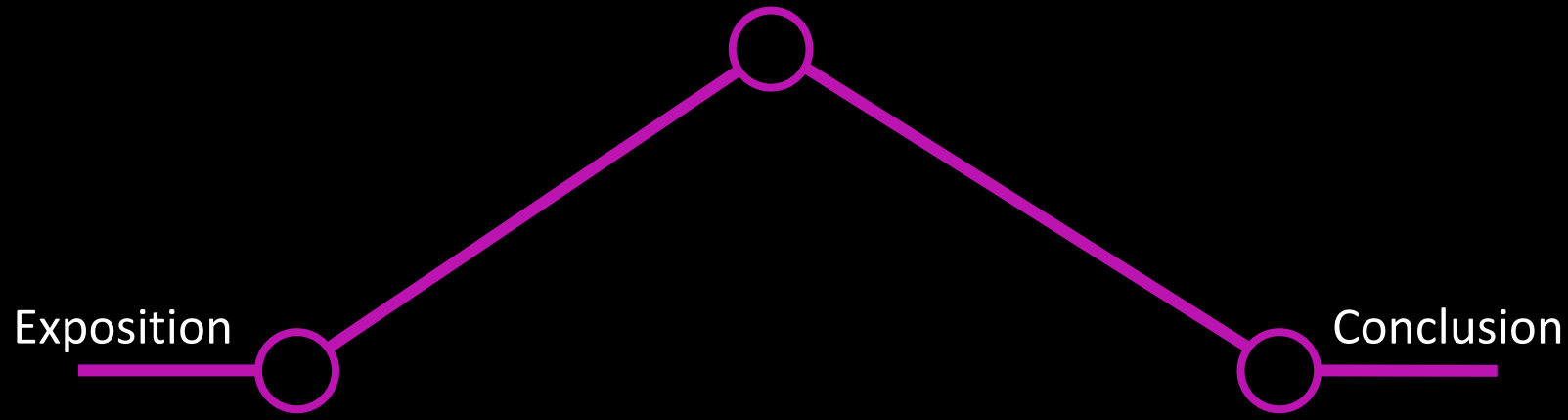

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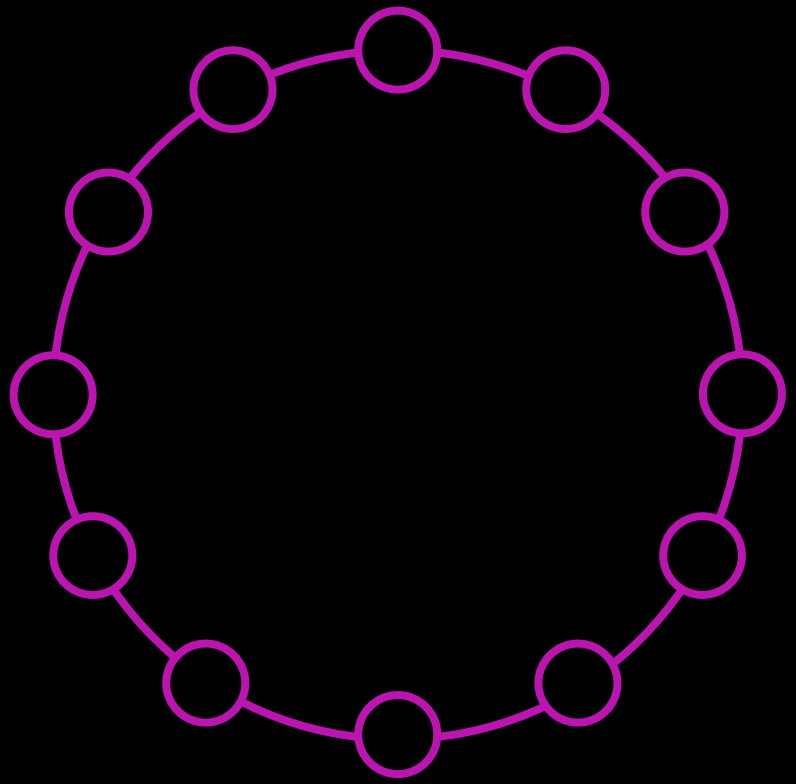

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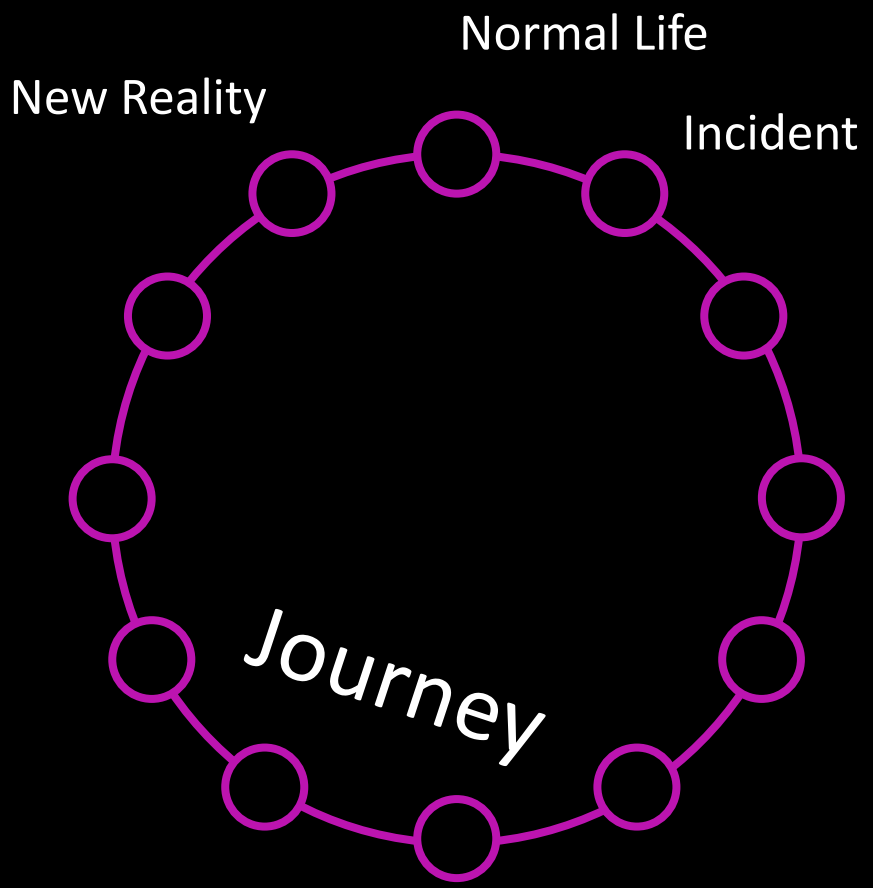


Hero's journey

Normal Life

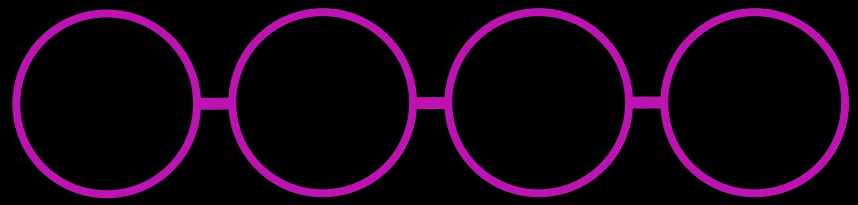
Incident

Journey

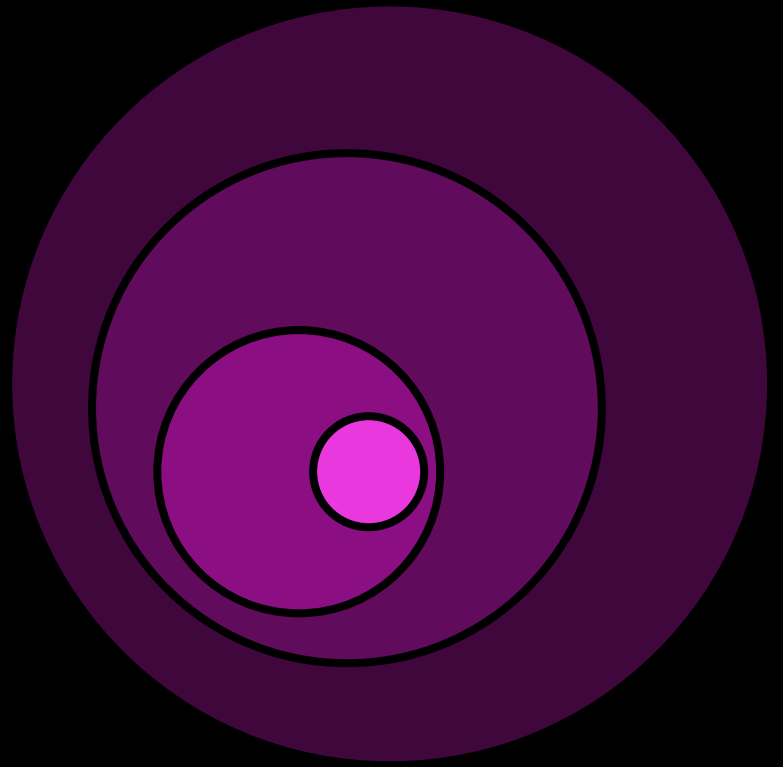
New Reality

3 From data to story

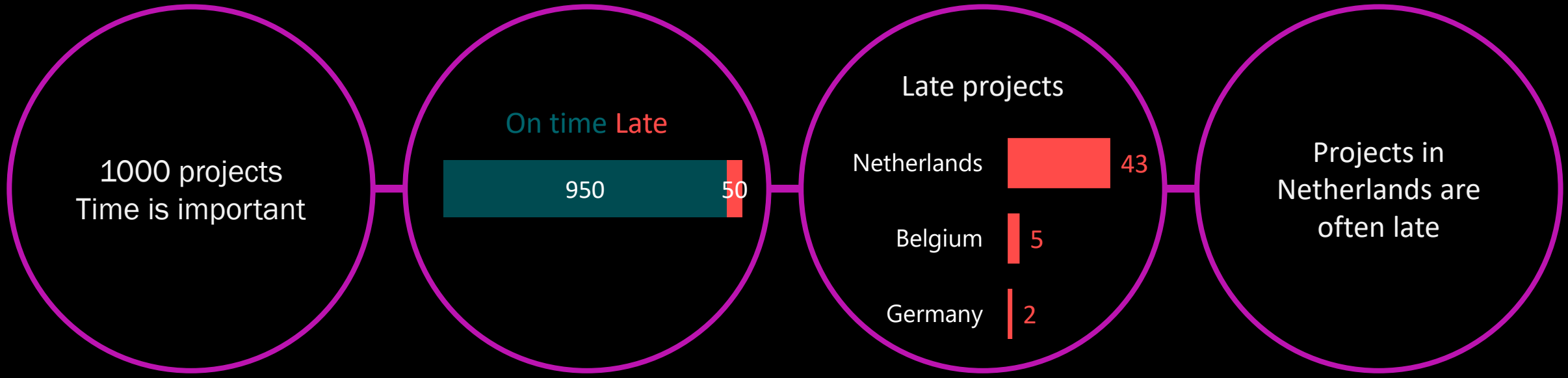
Time sequence



Depth sequence



You're a detective doing an investigation



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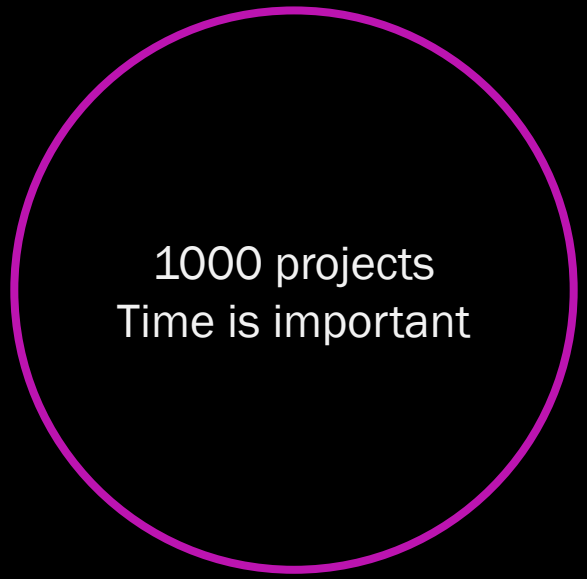
Incident

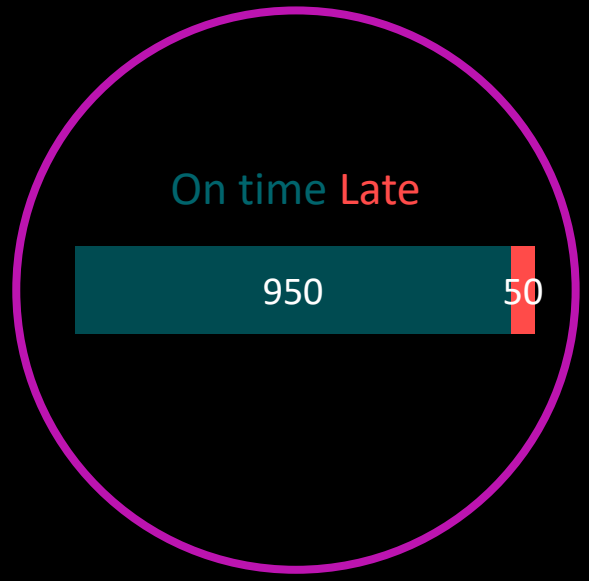
Journey

New Reality



Normal Life

- What are the KPIs
- What are their values
- What are targets

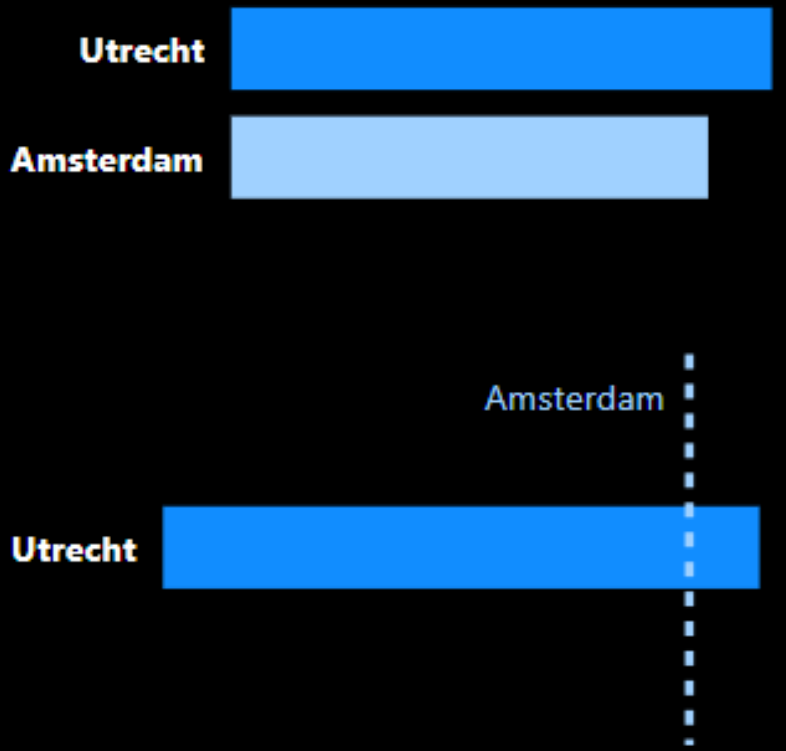


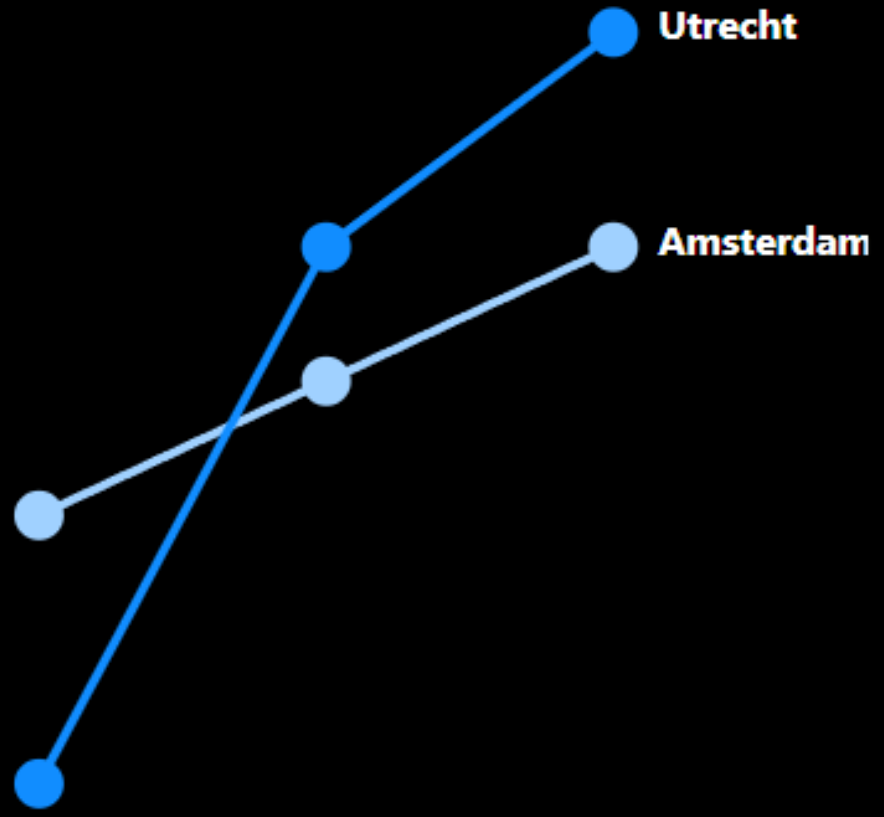
Incident

- Deviation from target?
- Drop compared to LY?
- Less than peers?

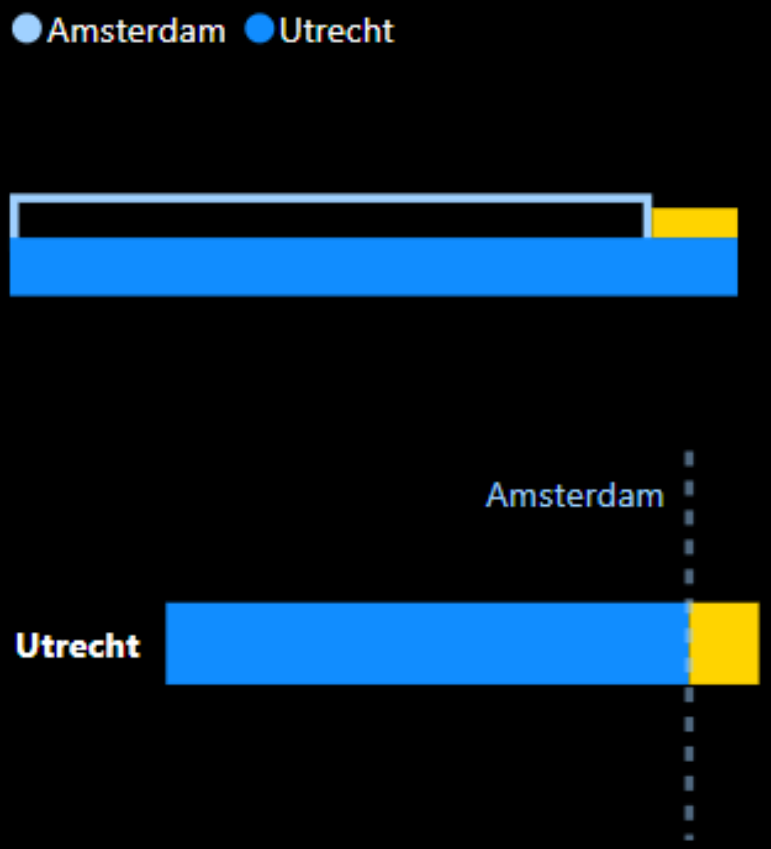
- Compare!
- Highlight!

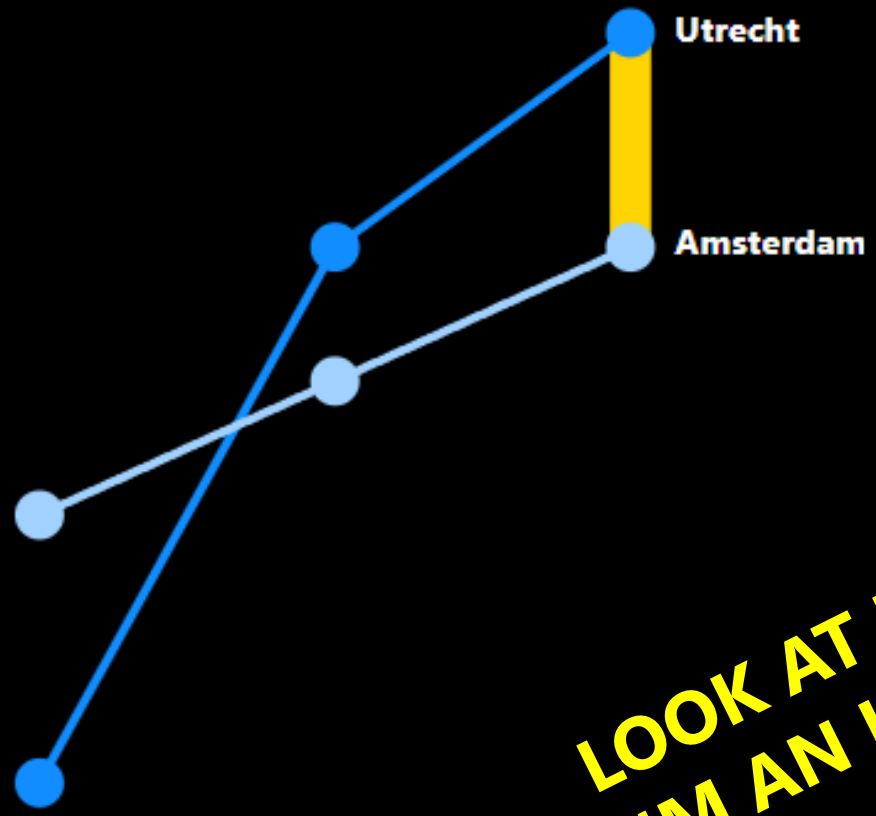
Compare





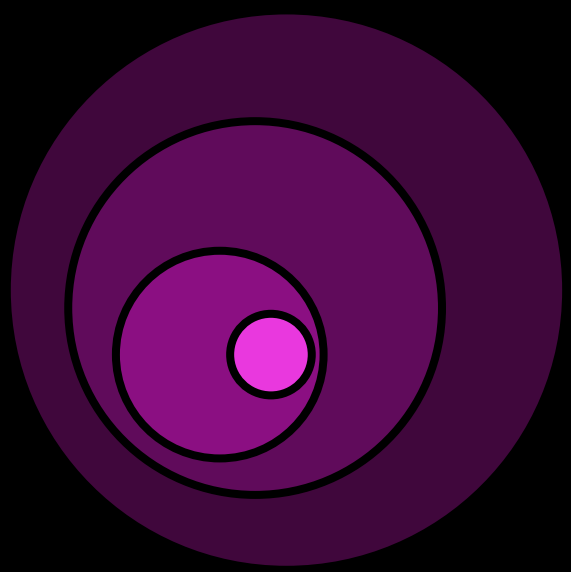
Compare & Highlight

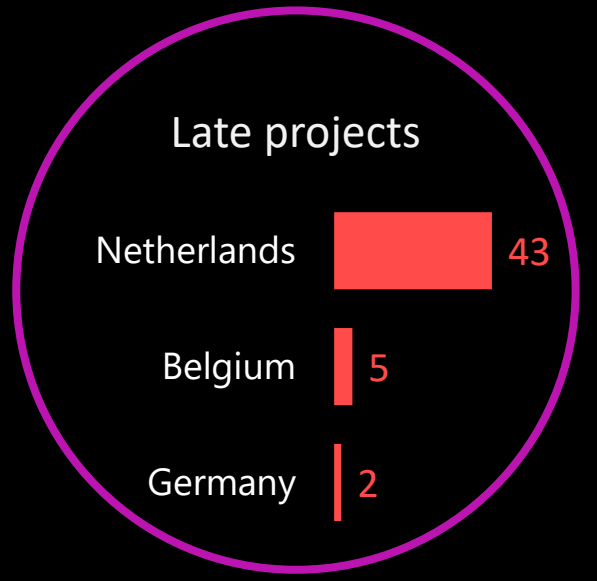




LOOK AT ME!
I'M AN INCIDENT

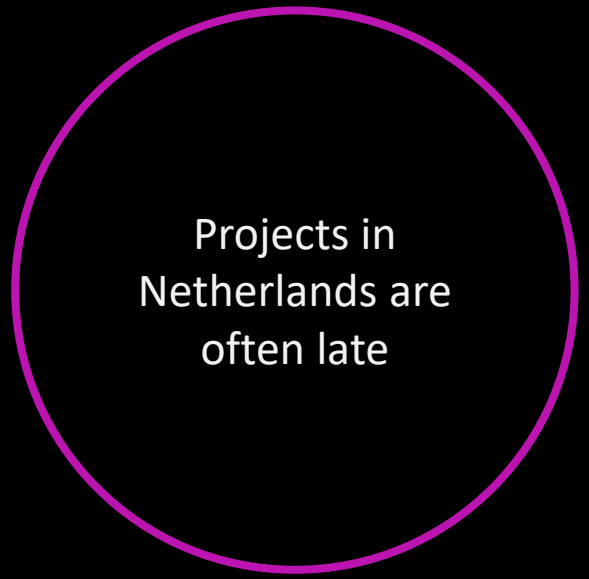
- Slicer
- Drill-through
- Navigation
- …





Journey

- Aha! moment
- Cliffhanger for sequel (decisions, solutions)
- Cliffhanger for next episode (next month)



New Reality

From data to story

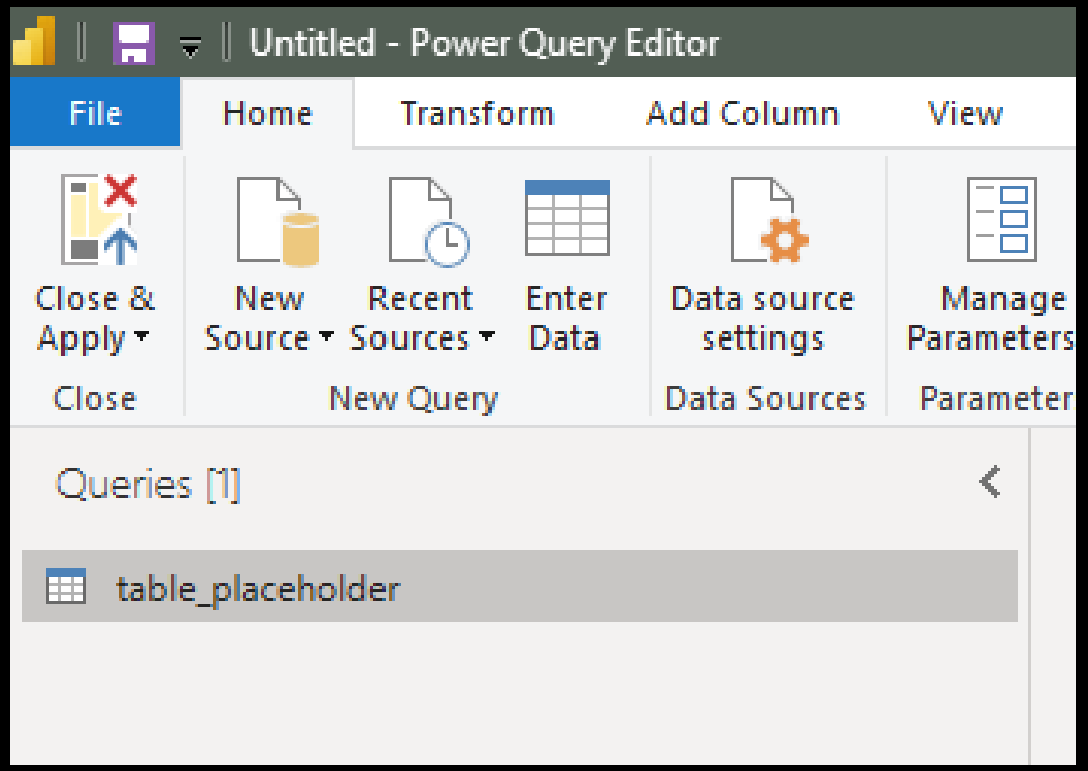
- Put data in depth sequence
- Identify deviations (incidents)
- Give an insight, conclusion (or guide towards it)

4

How to put a story into dashboard

Problem 1: linearity

Problem 2: unknown insights



data:

- not ready
- not correct
- partial

Problem 3: goals

From data to story

- Put data in depth sequence
- Identify deviations (incidents)
- Give an insight, conclusion (or guide towards it)

From data to story

- Have clear hierarchy
- Have a way to highlight incident
- Guide the user through the dashboard

- Put data in depth sequence
- Identify deviations (incidents)
- Give an insight, conclusion (or guide towards it)

Solution 1

UX & Information Design

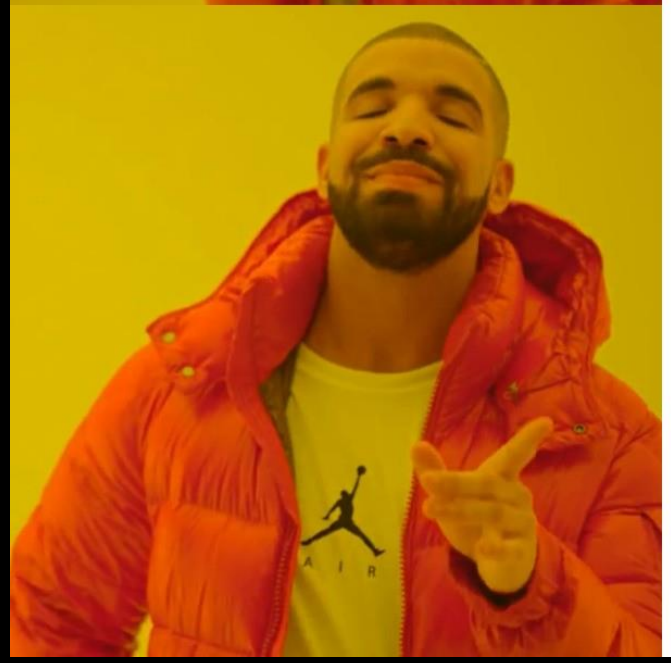
- how to guide reader's attention to achieve the right reading sequence

Data analyst

Business analyst

BI analyst

BI developer



Information Designer

Solution 2

Visual Information-Seeking Mantra:

- Overview first
- Zoom and filter
- Details on demand

Overview first

WAYED method

Where

Are

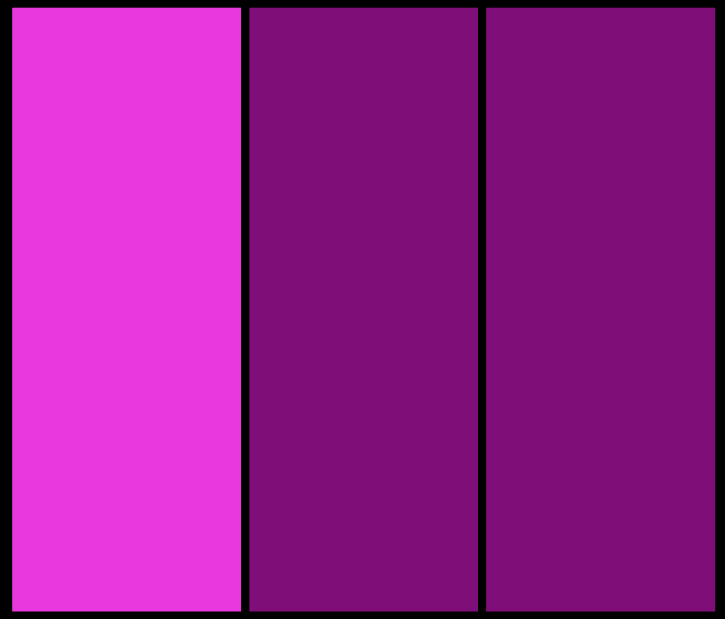
Your

Eyes

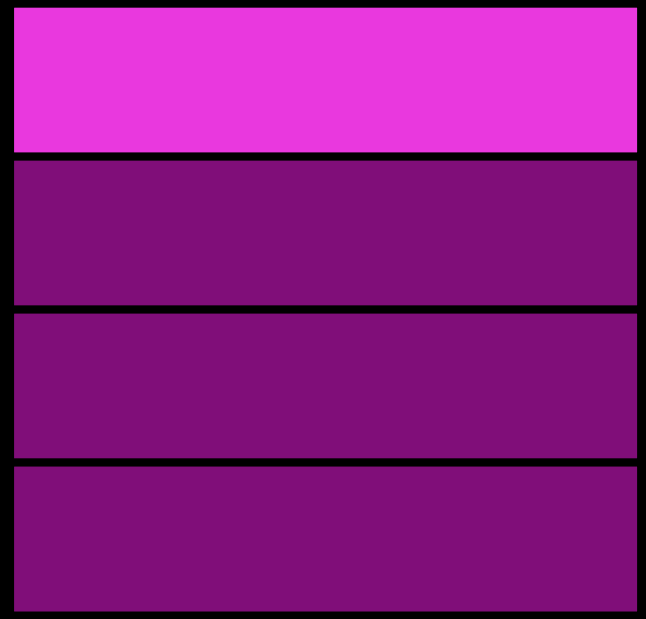
Drawn

Zoom and filter

Right

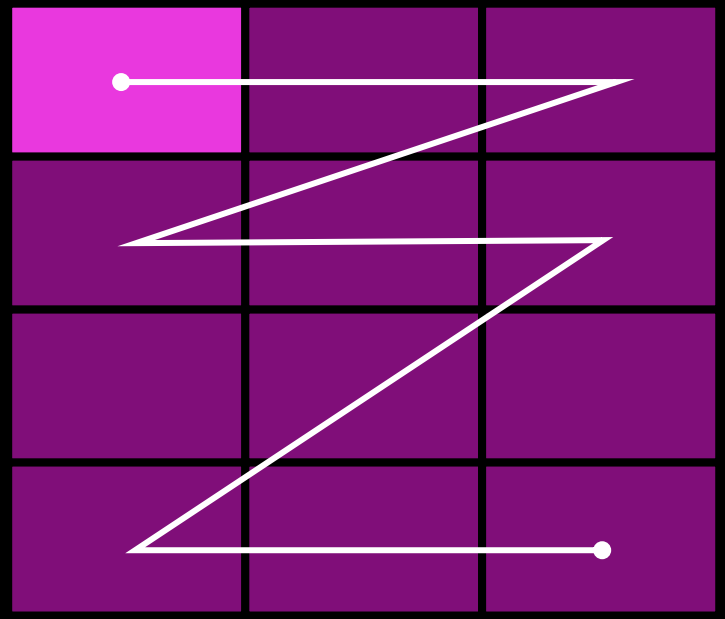


Down

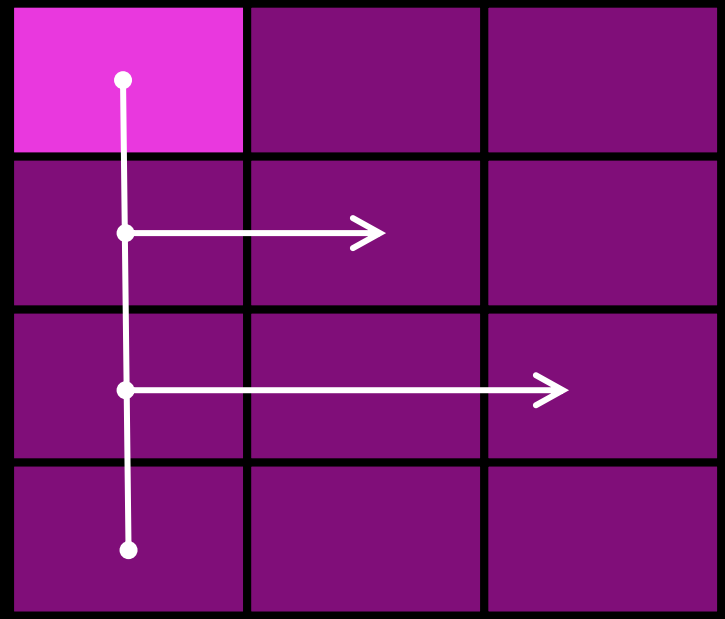


Zoom and filter

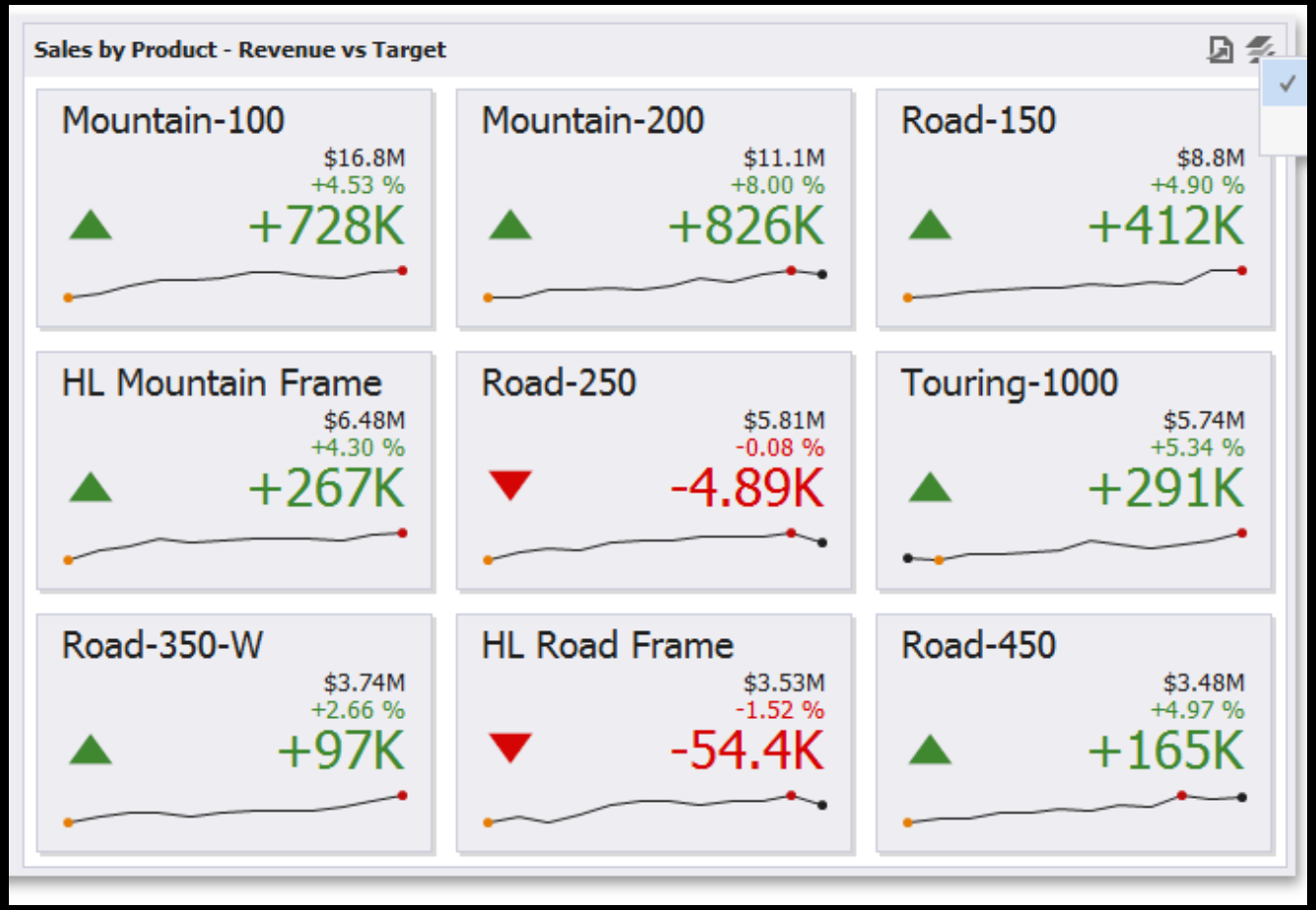
Z



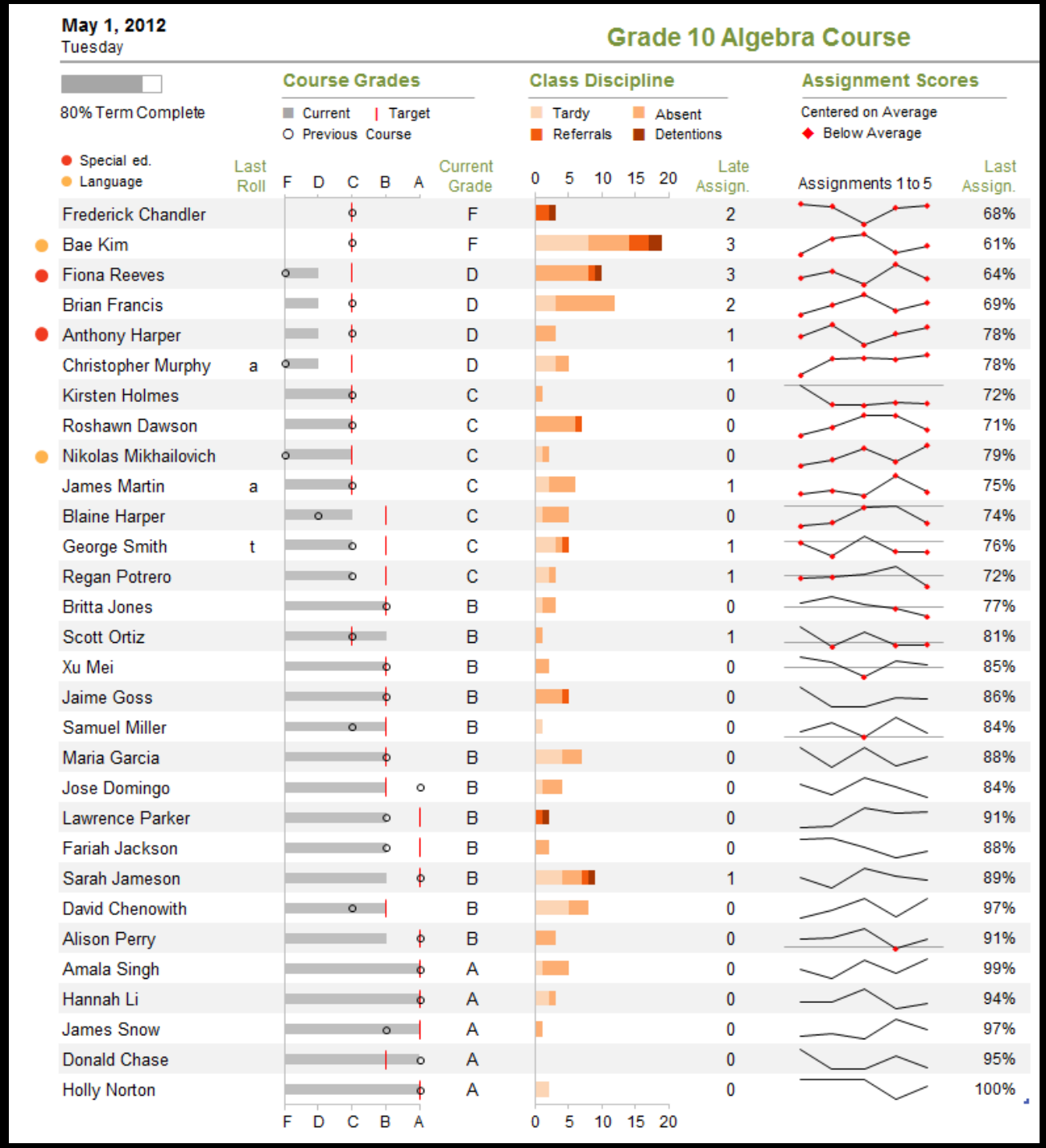
F



Z


Sales by Product - Revenue vs Target
Mountain-100
$16.8M
+4.53 %
+728K
Mountain-200
$11.1M
+8.00 %
+826K
Road-150
$8.8M
+4.90 %
+412K
HL Mountain Frame
$6.48M
+4.30 %
+267K
Road-250
$5.81M
-0.08 %
-4.89K
Touring-1000
$5.74M
+5.34 %
+291K
Road-350-W
$3.74M
+2.66 %
+97K
HL Road Frame
$3.53M
-1.52 %
-54.4K
Road-450
$3.48M
+4.97 %
+165K

F


May 1, 2012
Tuesday
Grade 10 Algebra Course
80% Term Complete
Course Grades
Current
Target
Previous Course
Class Discipline
Tardy
Absent
Referrals
Detentions
Assignment Scores
Centered on Average
Below Average
Special ed.
Language
Last Roll
F D C B A
Current Grade
0 5 10 15 20
Late Assign.
Assignments 1 to 5
Last Assign.
Frederick Chandler F 2 68%
Bae Kim F 3 61%
Fiona Reeves D 3 64%
Brian Francis D 2 69%
Anthony Harper D 1 78%
Christopher Murphy a D 1 78%
Kirsten Holmes C 0 72%
Roshawn Dawson C 0 71%
Nikolas Mikhailovich C 0 79%
James Martin a C 1 75%
Blaine Harper C 0 74%
George Smith t C 1 76%
Regan Potrero C 1 72%
Britta Jones B 0 77%
Scott Ortiz B 1 81%
Xu Mei B 0 85%
Jaime Goss B 0 86%
Samuel Miller B 0 84%
Maria Garcia B 0 88%
Jose Domingo B 0 84%
Lawrence Parker B 0 91%
Fariah Jackson B 0 88%
Sarah Jameson B 1 89%
David Chenowith B 0 97%
Alison Perry B 0 91%
Amala Singh A 0 99%
Hannah Li A 0 94%
James Snow A 0 97%
Donald Chase A 0 95%
Holly Norton A 0 100%

Details on demand

- Tooltips
- Drill-down
- Drill-through
- Pop-up
- Navigation
- …

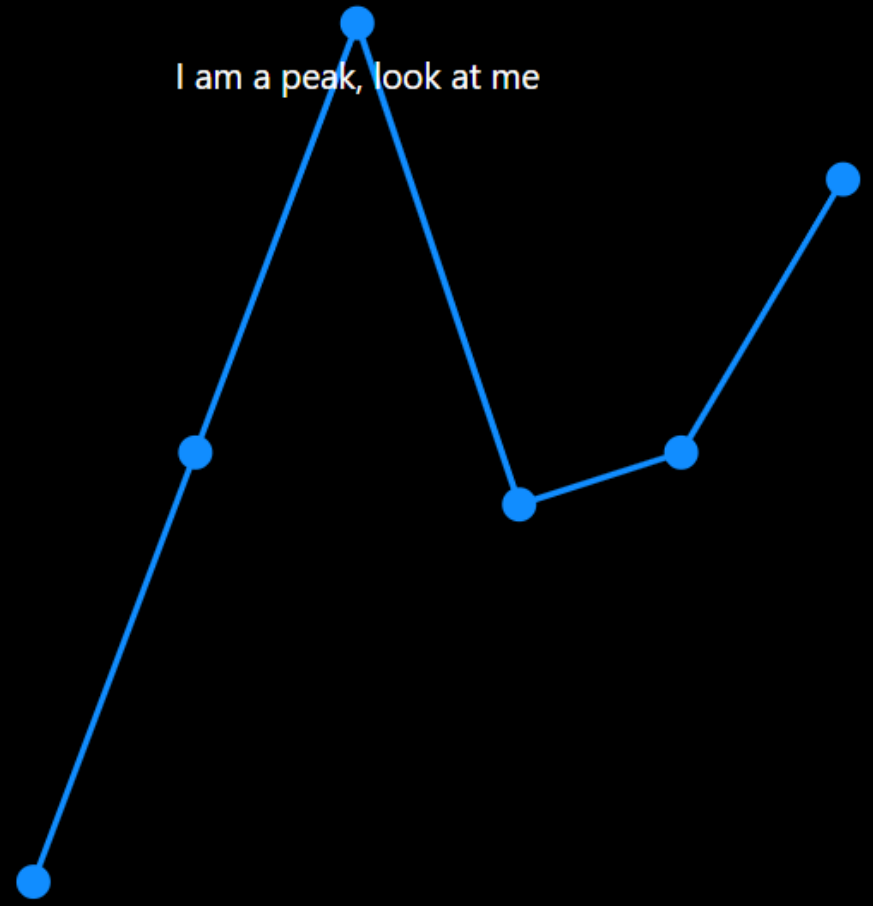
Keep guiding!

- Icons and images - not for decoration!
- Hint the interactive things!
- Navigation is visible - or at least findable!

LOOK AT ME!
I'M A GRAPHICAL ELEMENT

Highlight automatically

- Use labels
- Use error bars
- Use reference lines
- Use colour coding for easy tracking



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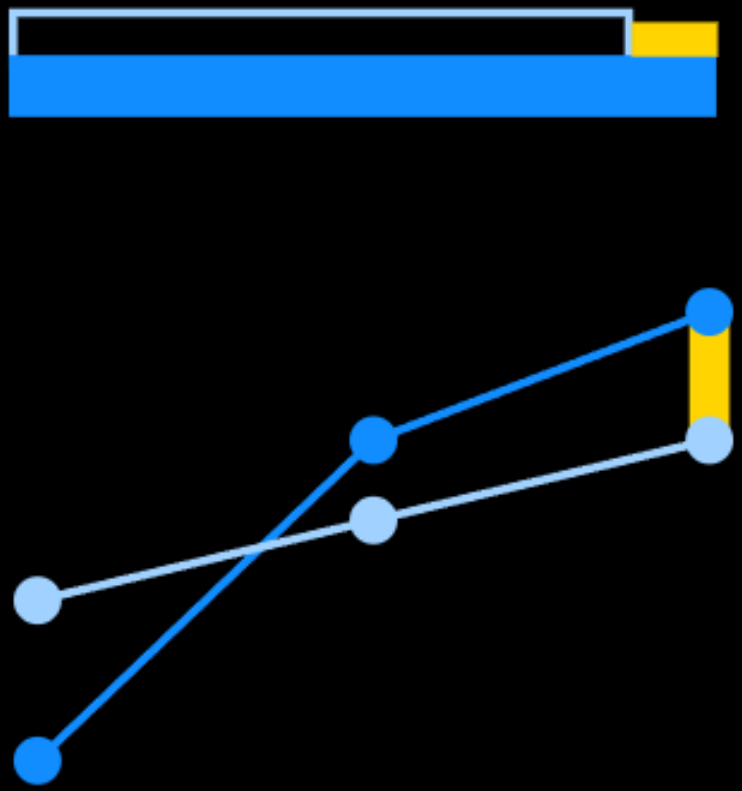

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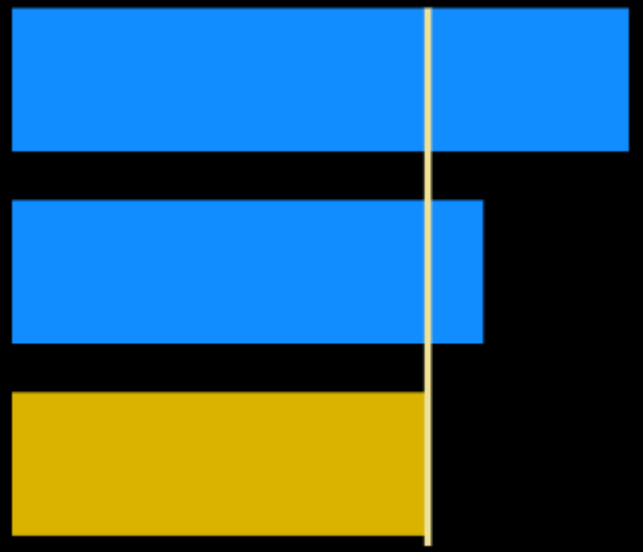

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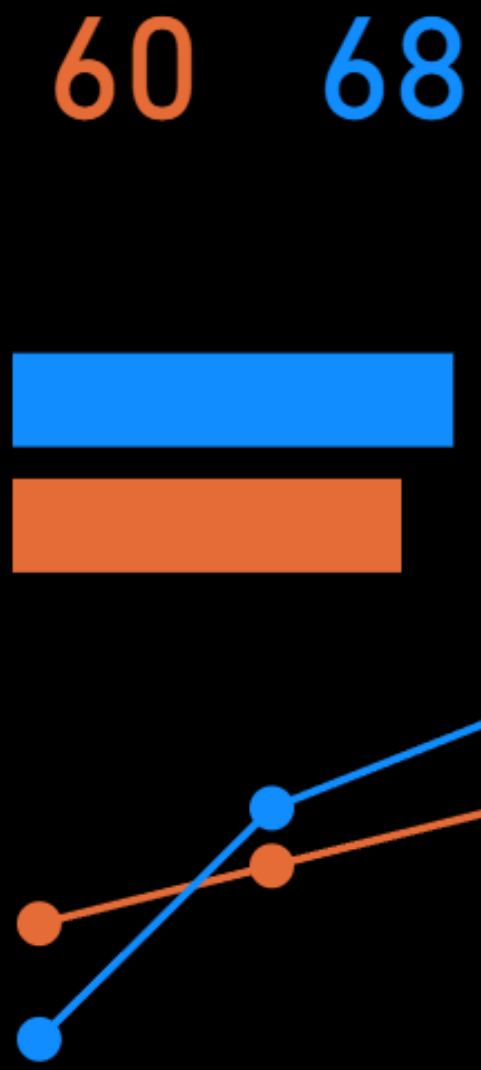
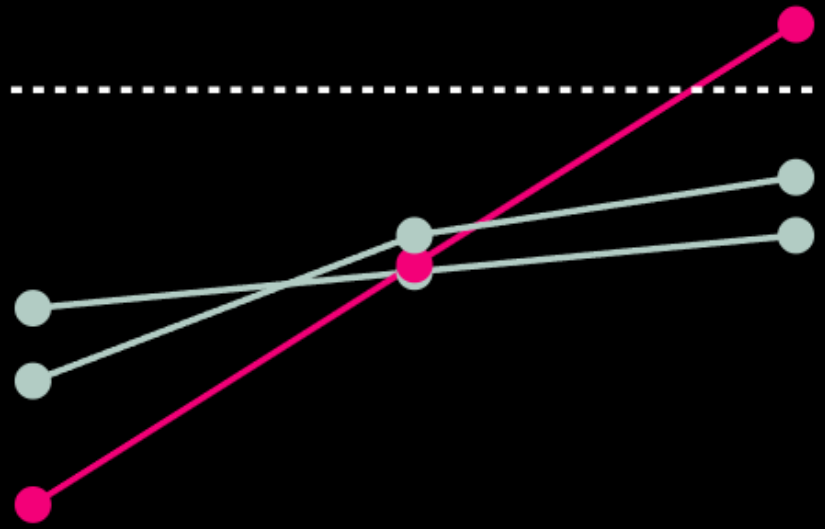
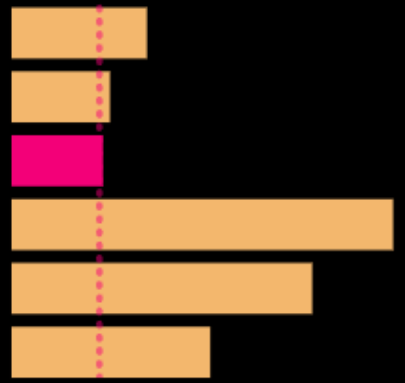


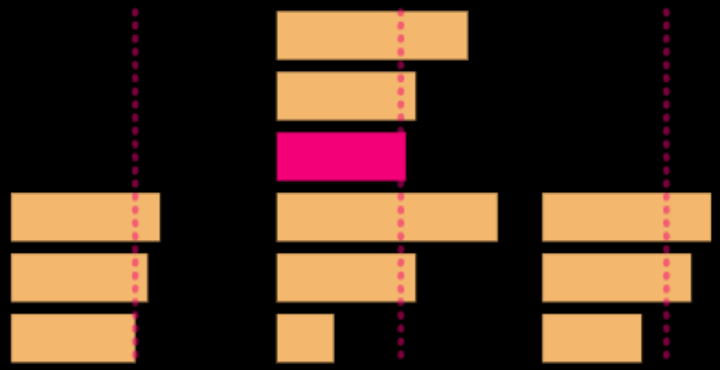
Example dashboard

60



68





How to have a story-like dashboard

- Have a clear information hierarchy (sequence)
- Start with overview
- Put the rest according Z, F or other layout principle
- Move details somewhere on demand
- Highlight deviations (incidents) automatically
- Guide the user through your sequence

PBIG
POWER BI GEBRUIKERSGROEP

Session evaluation

Event evaluation