Design Thinking in BI Product Lifecycle

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SQL Konferenz ~ March 2026



Our Chapter…

Why?	Design Thinking
How?	Product Mindset
When?	BI Lifecycle



What is not defined cannot be measured.

What is not measured cannot be improved.

What is not improved is always degraded.

William Thomson Kelvin

Design Thinking





Empathize



Define



Ideate



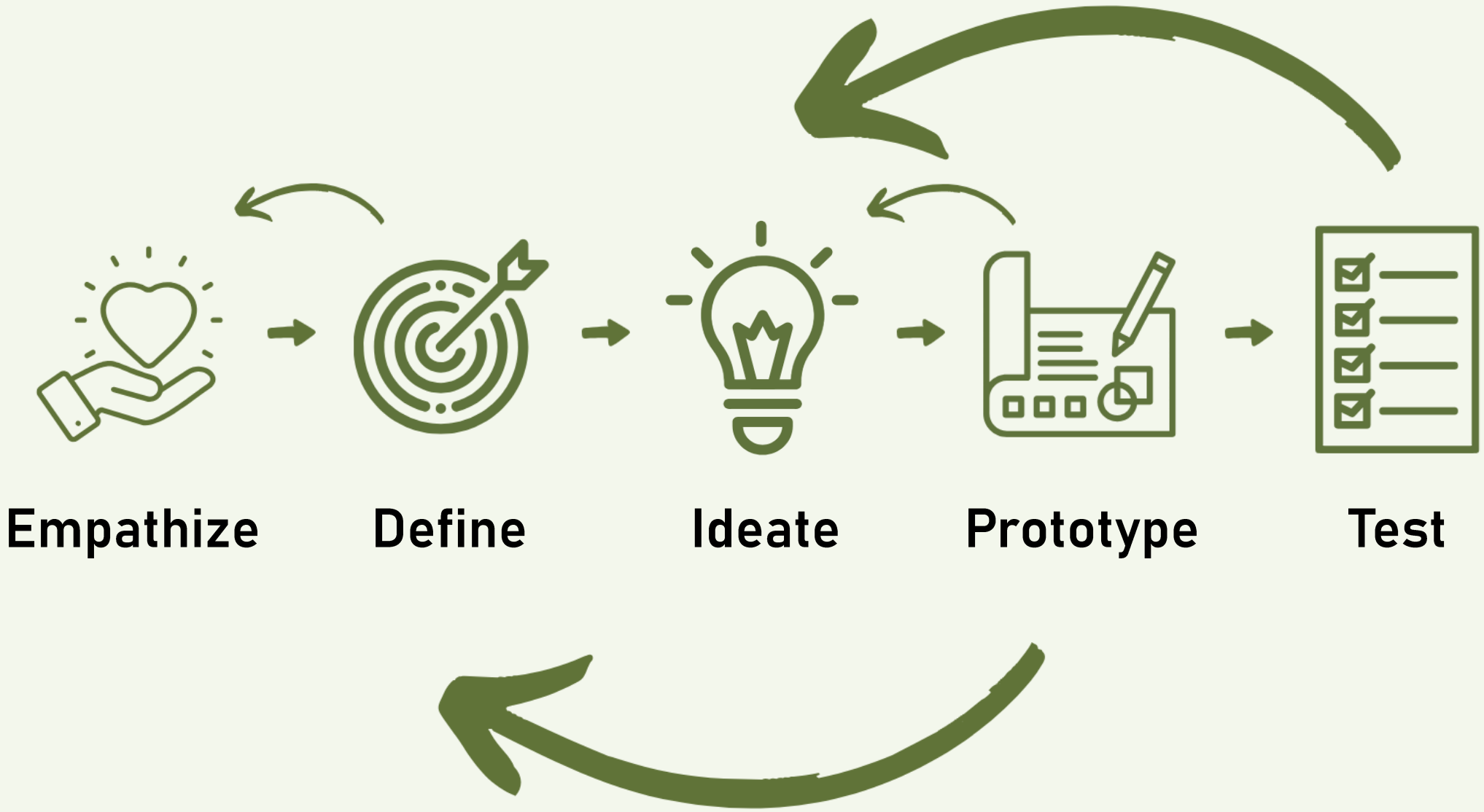
Prototype



Test



Empathize Define Ideate Prototype Test


Empathize
Define
Ideate
Prototype
Test

Mental Modelling



Whose opinion matters?



End Users

Top Management

Sponsors

UX Designers

Data Engineers

Business Leaders



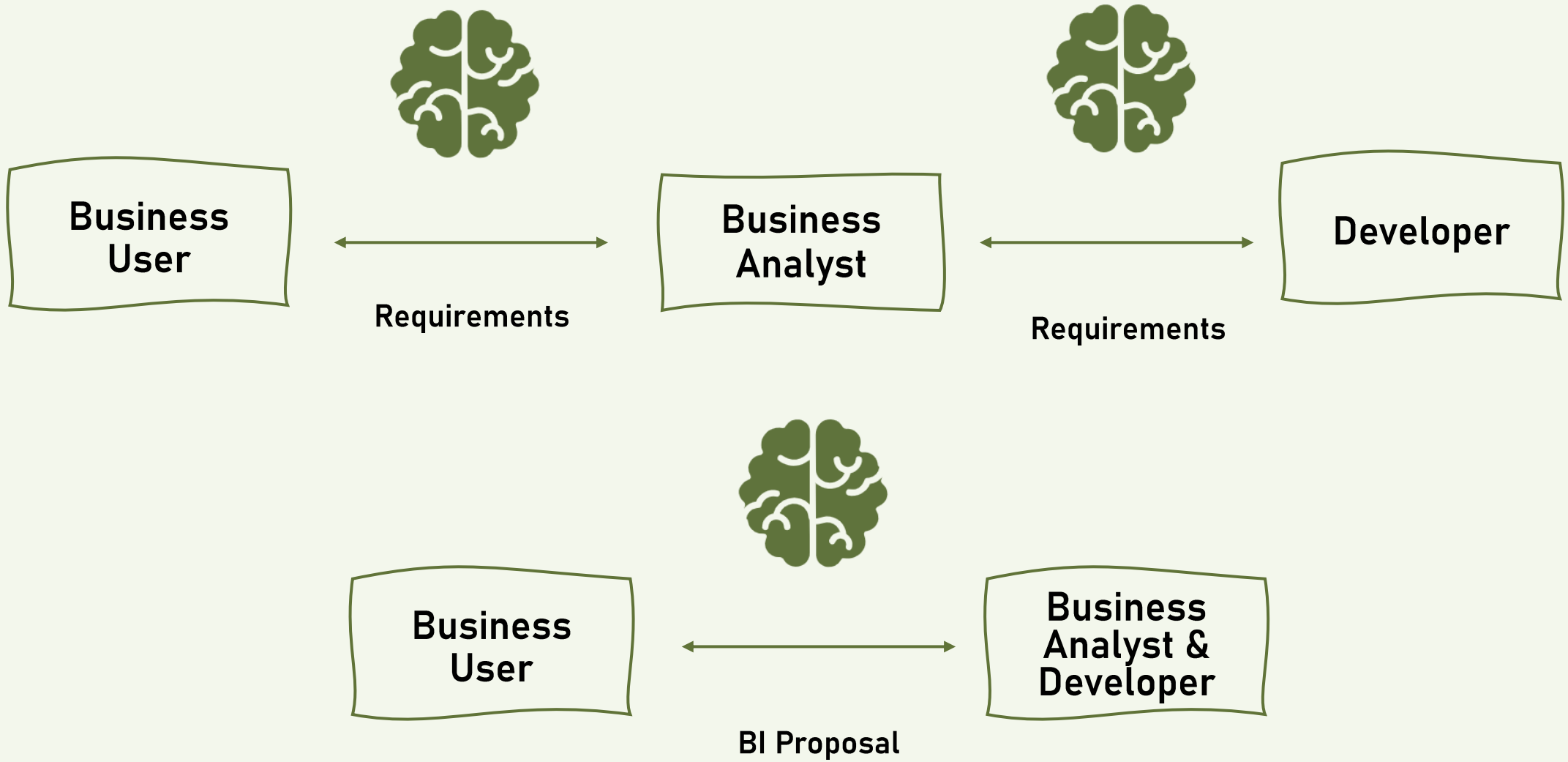
What questions should you ask?



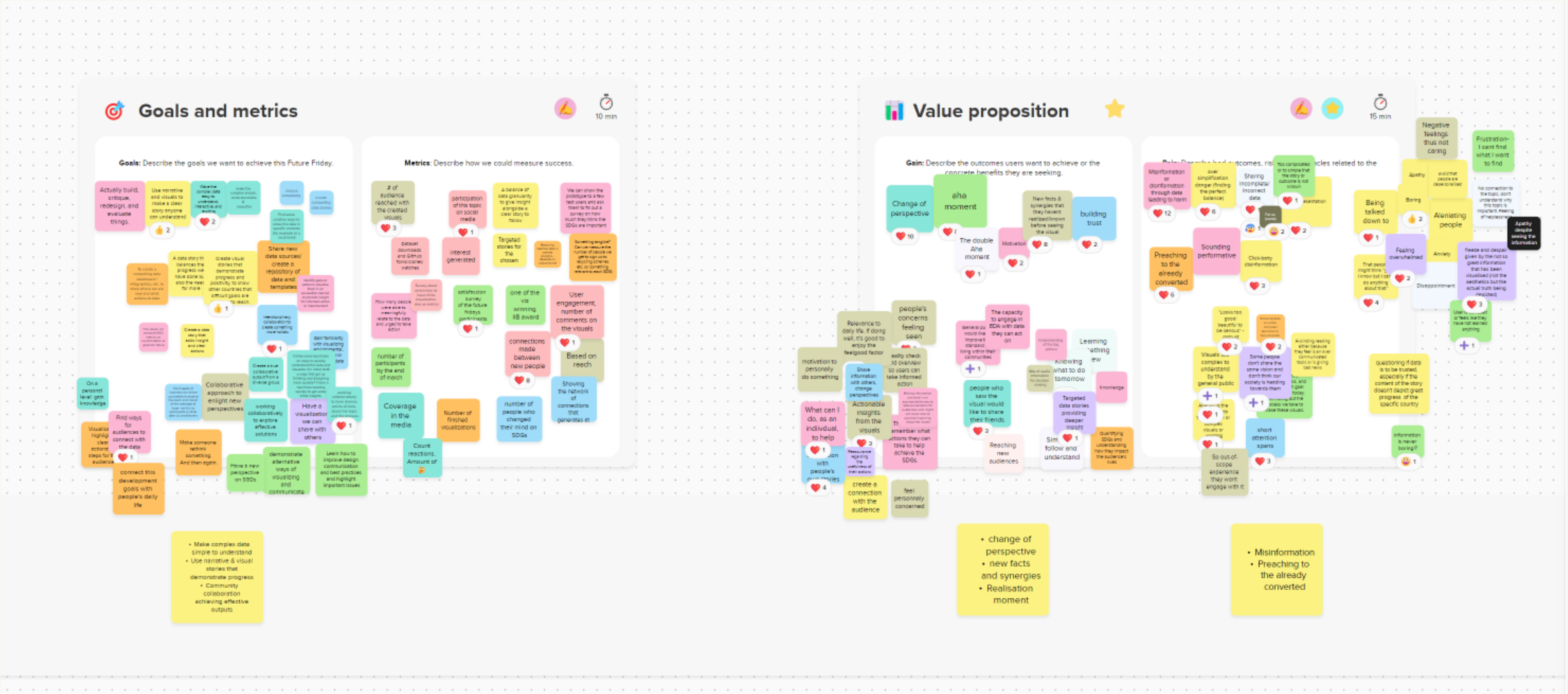
- What is the problem?
- What is the process?
- Who does what?
- Who will use that?
- What is the expected outcome?
- What decisions do you struggle with?
- What triggers action?



How do you create a Mental Model?



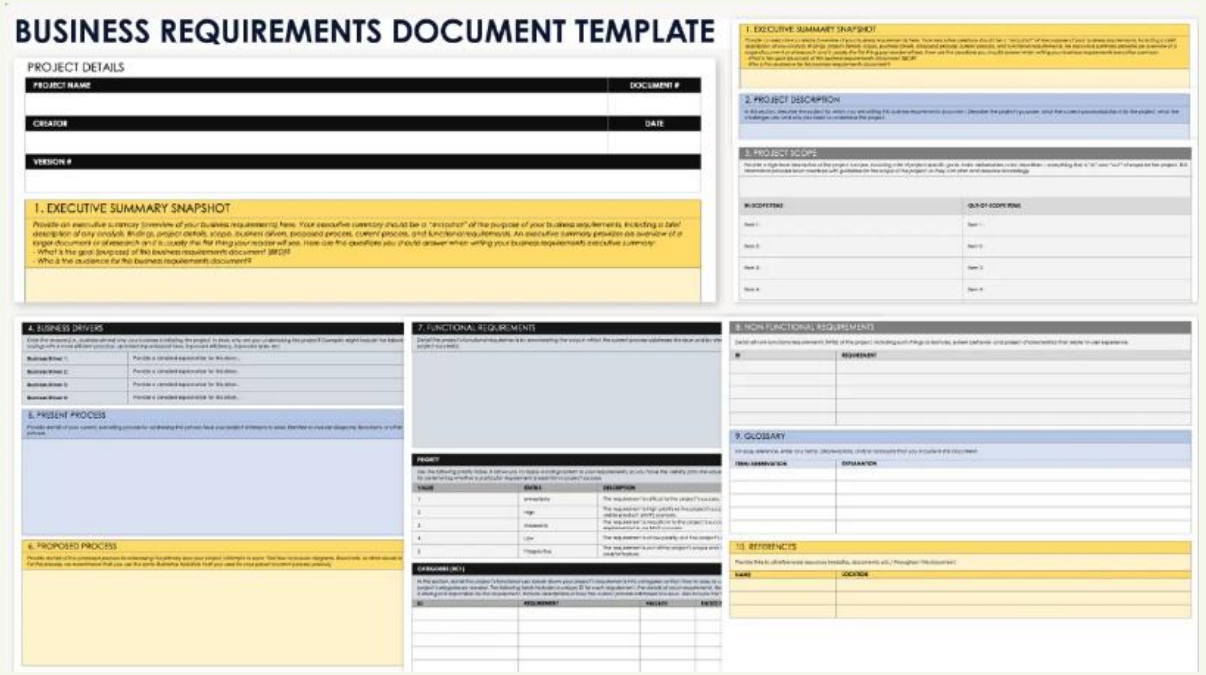
Examples:


Goals and metrics
10 min
Goals: Describe the goals we want to achieve this Future Friday.
Metrics: Describe how we could measure success.
Value proposition
15 min
Gain: Describe the outcomes users want to achieve or the concrete benefits they are seeking.
• Make complex data simple to understand
• Use narrative & visual stories that demonstrate progress
• Community collaboration achieving effective outputs
• change of perspective
• new facts and synergies
• Realisation moment
• Misinformation
• Preaching to the already converted

Examples:

Proposed:

- Overview:
  - Describe the background to why the reporting is necessary and how the reporting requirements will be used within the business
  - The overview should include descriptions of the reports identified so far that the metrics/kpis defined in this document will be used.
- Stakeholder:
  - Description of Stakeholders
- Current business process (at least high level)
  - What is the business process? (criticality)
  - When the process is executed and how frequently? Differences between soft/hard close?
  - Why does this process is in place
  - Where is the process maintained
  - Who are the process maintainers, beneficaries
- Current technical process
  - Data feeds, available accesses
  - Data processing / transformation (logics, mappings)
  - Granularity
  - Current process gaps and technical difficulties
- Out of Scope:
  - Description of any functionality or source system that is out of scope of this development.
  - If there is relevant functionality that is out of scope for delivery reasons, state the story or feature ID that the functionality will be delivered in
- In scope
  - To be business process / Process improvements
    - Any improvements to the above
  - To be technical process / Technical requirements
    - Data integration changes
    - Reporting location changes
    - Reporting layout changes
    - Any further enhancements/functionality
- Personas and Use Cases
  - Description of the personas and use cases that will be using these market requirements
  - MVP and Success Criteria
- Metrics & KPIs
  - Defition of the Metrics and KPIs that are required from data assets
    - Technical feasability
- High Level Bus Matrix - RACI
  - Description of the reference information needed to meet the reporting requirements defined in this document
- Non- Functional Requirements
  - Data Retention
  - User Access Management
  - Overall process controls (Internal vs. External)



Wireframing



Visualize

⇩

Validate

⇩

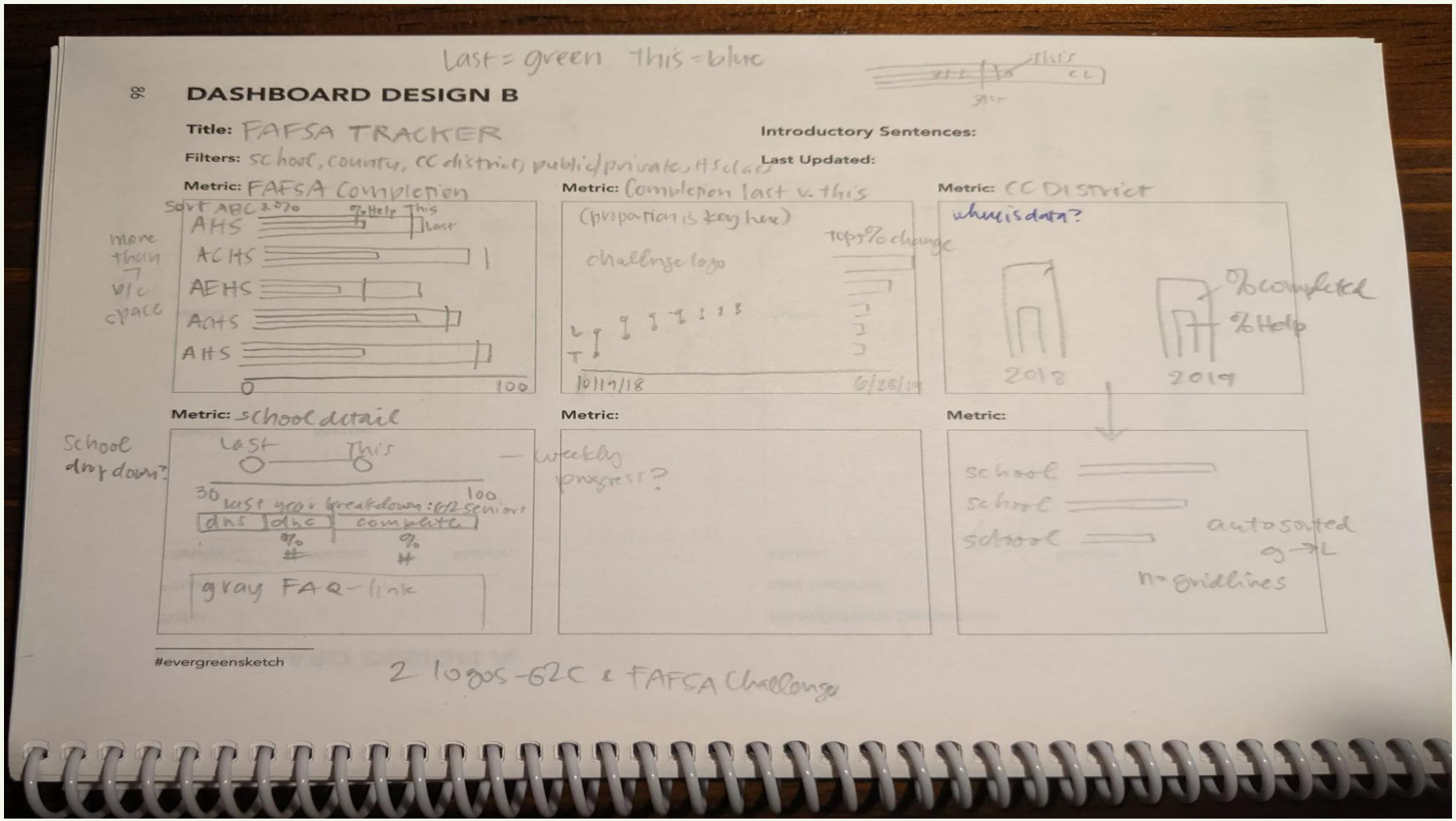
Simulate

⇩

Prototype



Dashboard Sketch



https://stephanieevergreen.com/the-dashboard-sketch-process/

Dashboard Wireframe



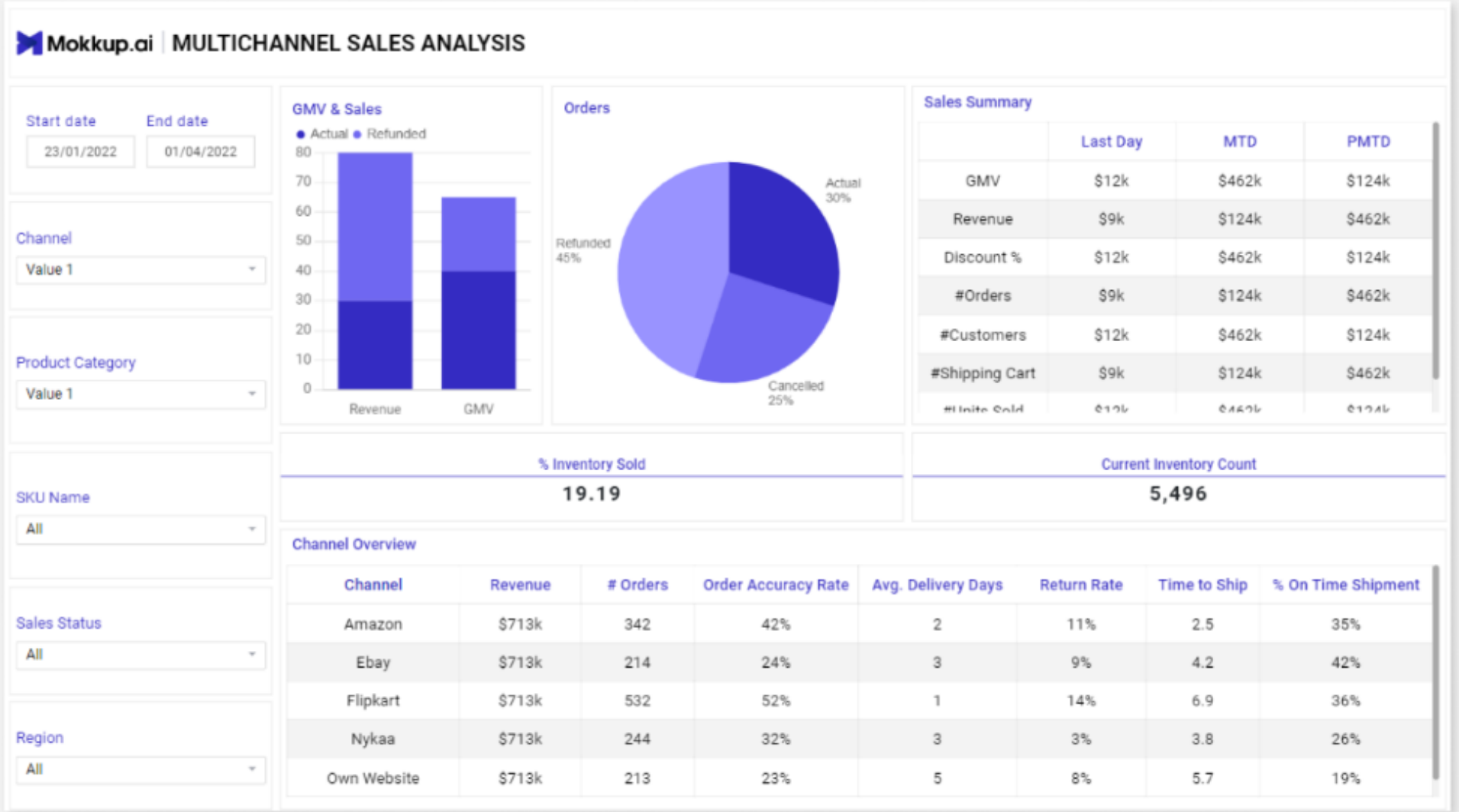
https://domoorewithdata.com/tag/wireframe/

Dashboard Wireframe



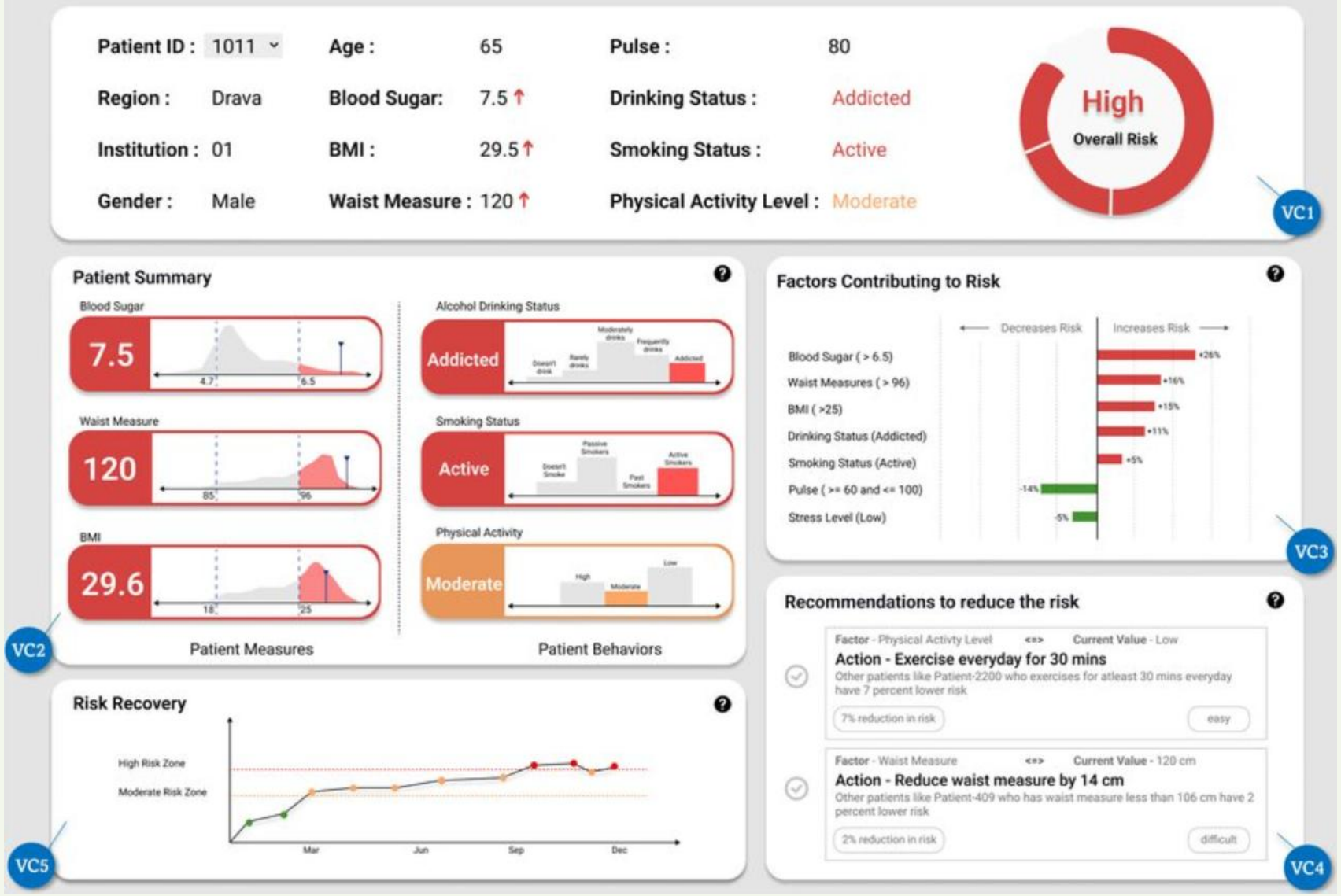
https://domoorewithdata.com/tag/wireframe/

Dashboard Mock-up



https://medium.com/microsoft-power-bi/tableau-power-bi-dashboards-vs-mokkup-dashboard-wireframing-90618a47149e

Dashboard Prototype



https://www.researchgate.net/figure/Dashboard-design-of-our-click-through-prototype-Visual-explanations-are-provided-using_fig1_368688190

Visual Guidelines



Are we achieving the MTD sales target?

https://www.sqlbi.com/articles/introducing-the-3-30-300-rule-for-better-reports/

MTD Sales Report

January
MTD Sales: 1.53 bn

February
MTD Sales: 1.55 bn

March
MTD Sales: 1.82 bn

April
MTD Sales: 1.64 bn

May
MTD Sales: 1.59 bn

June
MTD Sales: 1.64 bn

July
MTD Sales: 1.55 bn

August
MTD Sales: 1.06 bn

September
MTD Sales: --

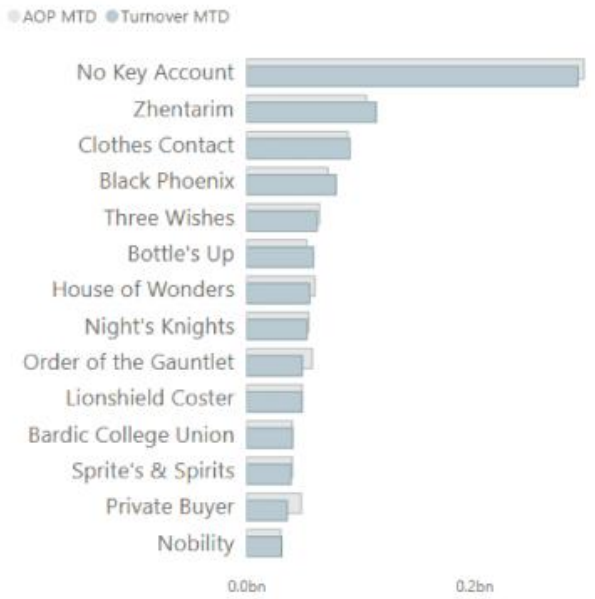
October
MTD Sales: --

November
MTD Sales: --

December
MTD Sales: --

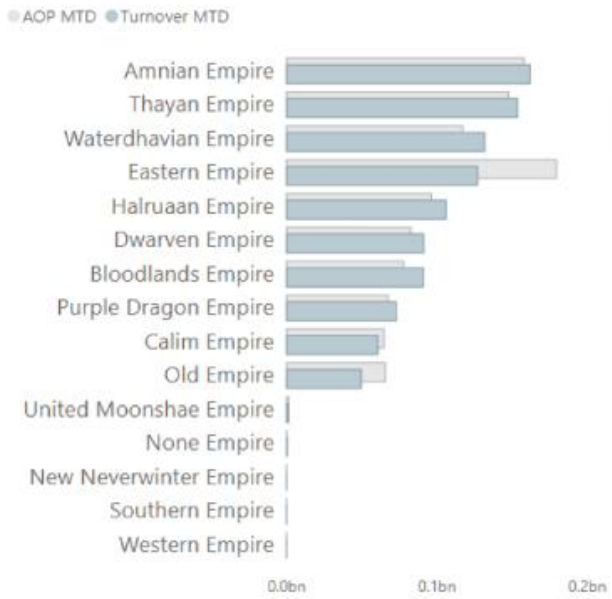
Customer Sales MTD

by Key Account



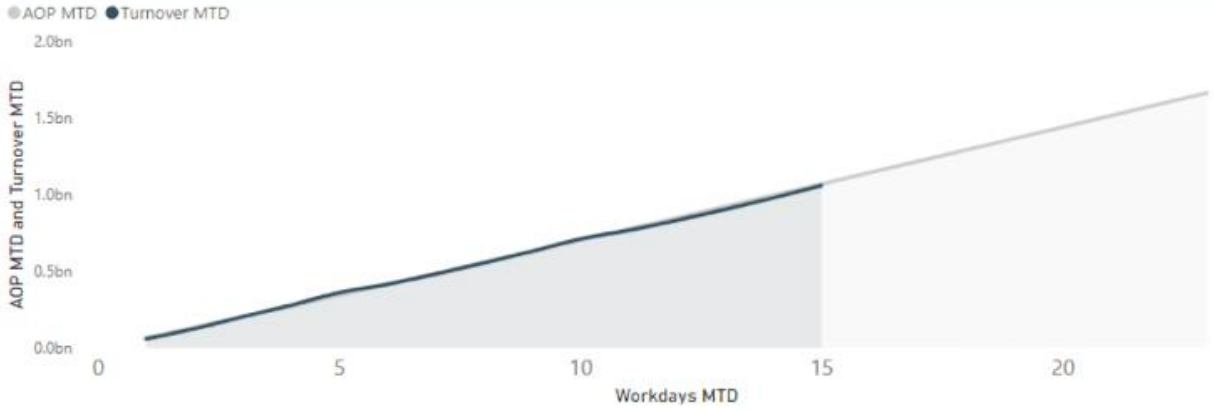
Regional Sales MTD

by Commercial Region



Sales Trend MTD

versus Annual Operating Plan (AOP) MTD



MTD Sales ($)
1.06bn
AOP MTD 1.07bn -1.1%
FCST MTD 1.01bn +4.5%
1YP MTD 1.06bn +0.3%

MTD Sales (Qty)
7.83M
1YP MTD 7.27M +7.8%

MTD Sales (Lines)
229K
1YP MTD 226K +1.3%

MTD Orders ($)
506M
1YP MTD 609M -17.0%

MTD Orders (Qty)
7.57M
1YP MTD 8.83M -14.3%

MTD Orders (Lines)
176K
1YP MTD 214K -18.0%

OTD % (Value)
68.6%

OTD % (Quantity)
51.2%

OTD % (Lines)
64.9%

In which regions are we underperforming?

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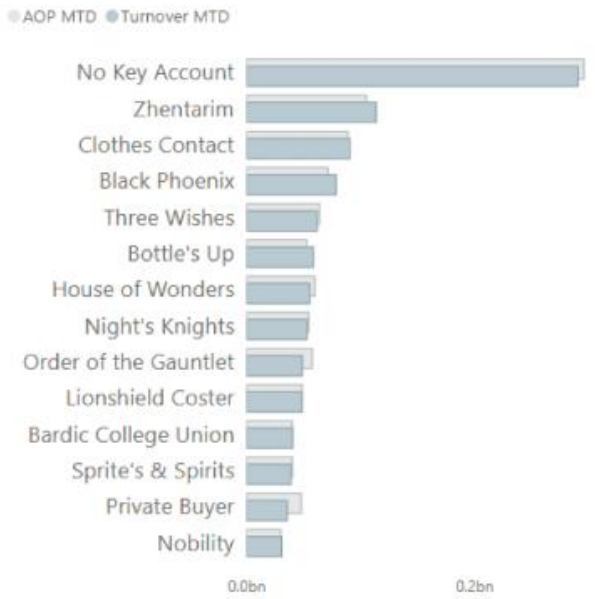
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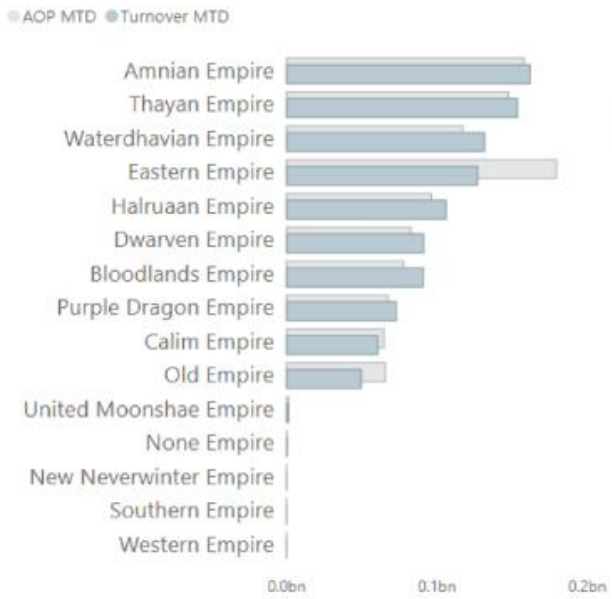
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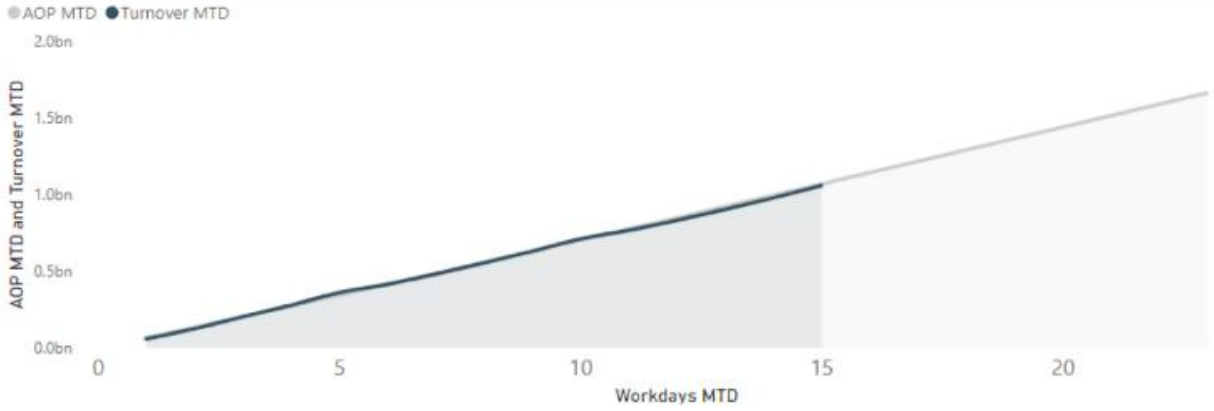
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MTD Sales Report

Jan | Feb | Mar | Apr | May | Jun | Jul | **Aug** | Sep | Oct | Nov | Dec

MTD Sales

1.06bn !

AOP MTD: 1.07bn (-1.1%)

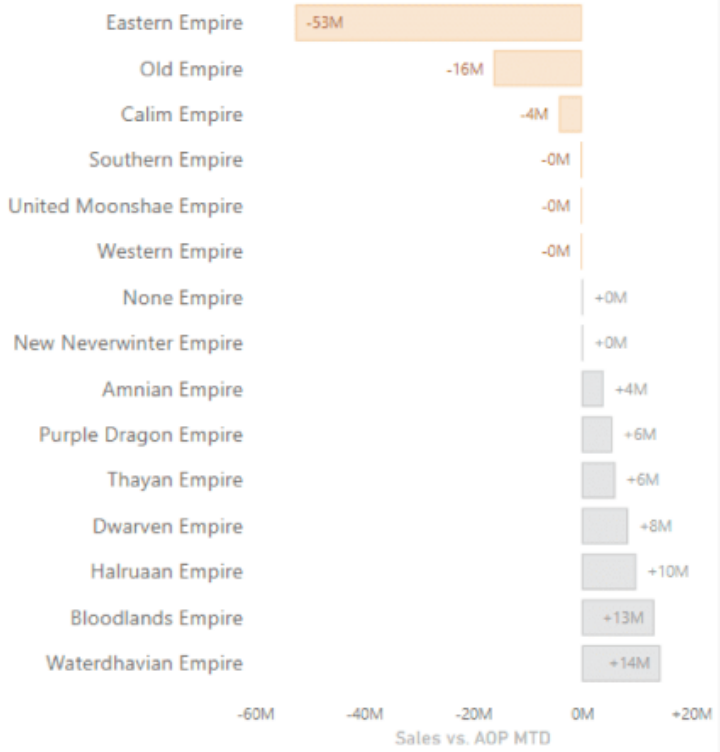
vs. MTD AOP target

-1.1%

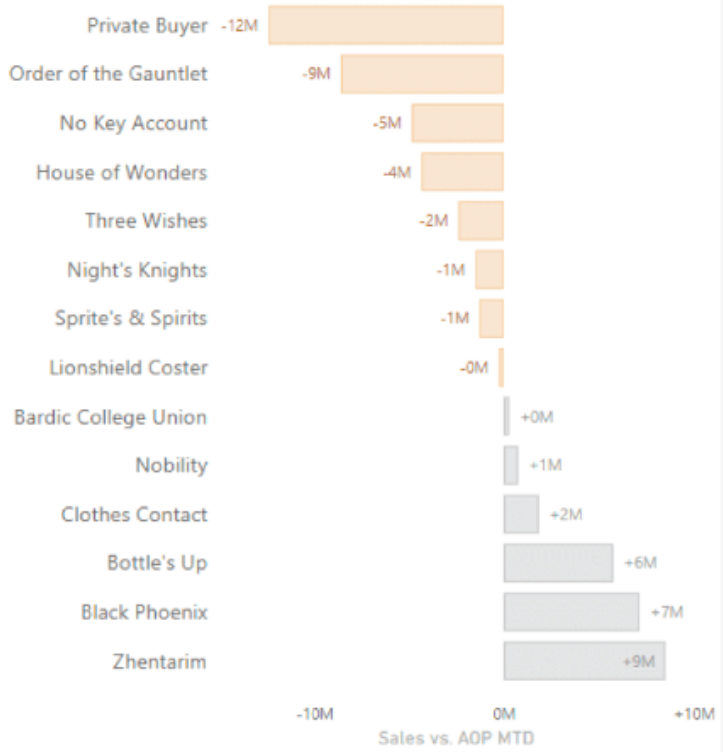
AOP MTD vs. Gross Sales (%)



vs. AOP by Region



vs. AOP by Customer



Product Details

Account Name	vs. AOP (Δ)	Trend	Turnover MTD	AOP MTD
⊟ Belen's Outlets Waterdeep	+2,612K		16.18M	13.57M
⊞ Weapons	+1,753K		9.37M	7.61M
⊞ Armour	+99K		1.76M	1.67M
⊞ Adventuring	+380K		1.49M	1.11M
⊞ Instruments	+147K		1.37M	1.22M
⊞ Tools & Kits	+244K		1.01M	0.77M
⊞ Enchantment	-20K		0.55M	0.57M
⊞ Mobility	+93K		0.44M	0.35M
⊞ Jewelry	-84K		0.19M	0.27M
⊟ Waterdeep Zhentarim	+1,425K		14.53M	13.11M
⊞ Weapons	+811K		7.02M	6.21M
Total	**-11,288K**		**1,058.84M**	**1,070.13M**

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MTD Sales

1.06bn !

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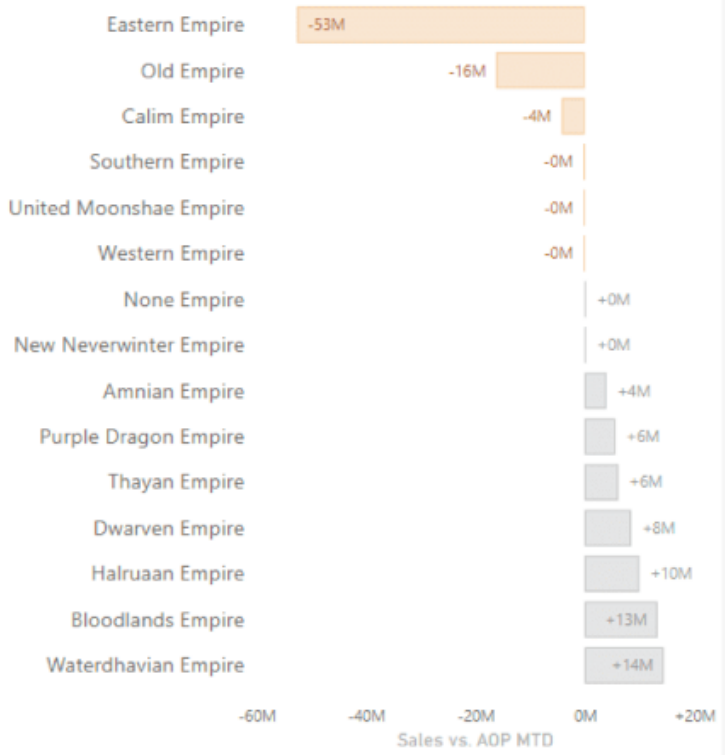
vs. MTD AOP target

-1.1%

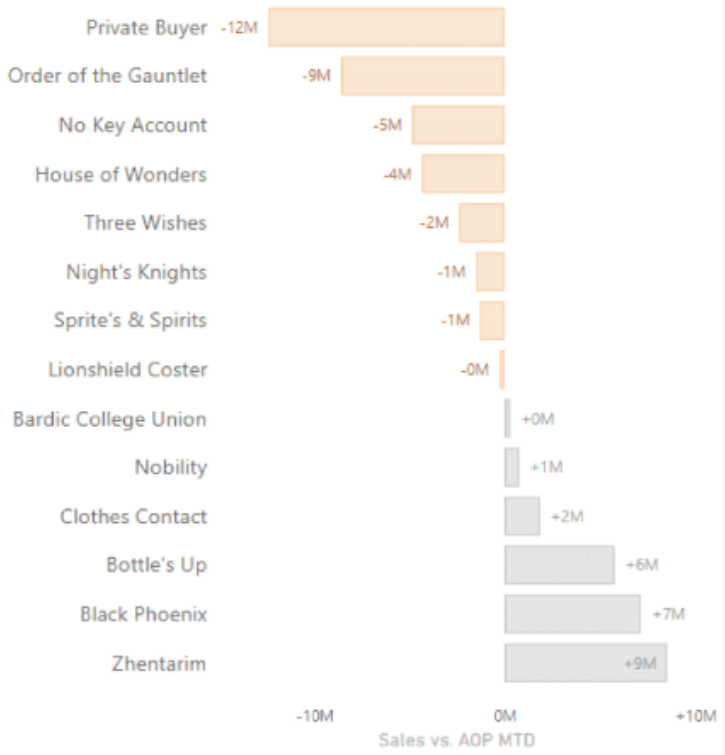
AOP MTD vs. Gross Sales (%)



vs. AOP by Region



vs. AOP by Customer



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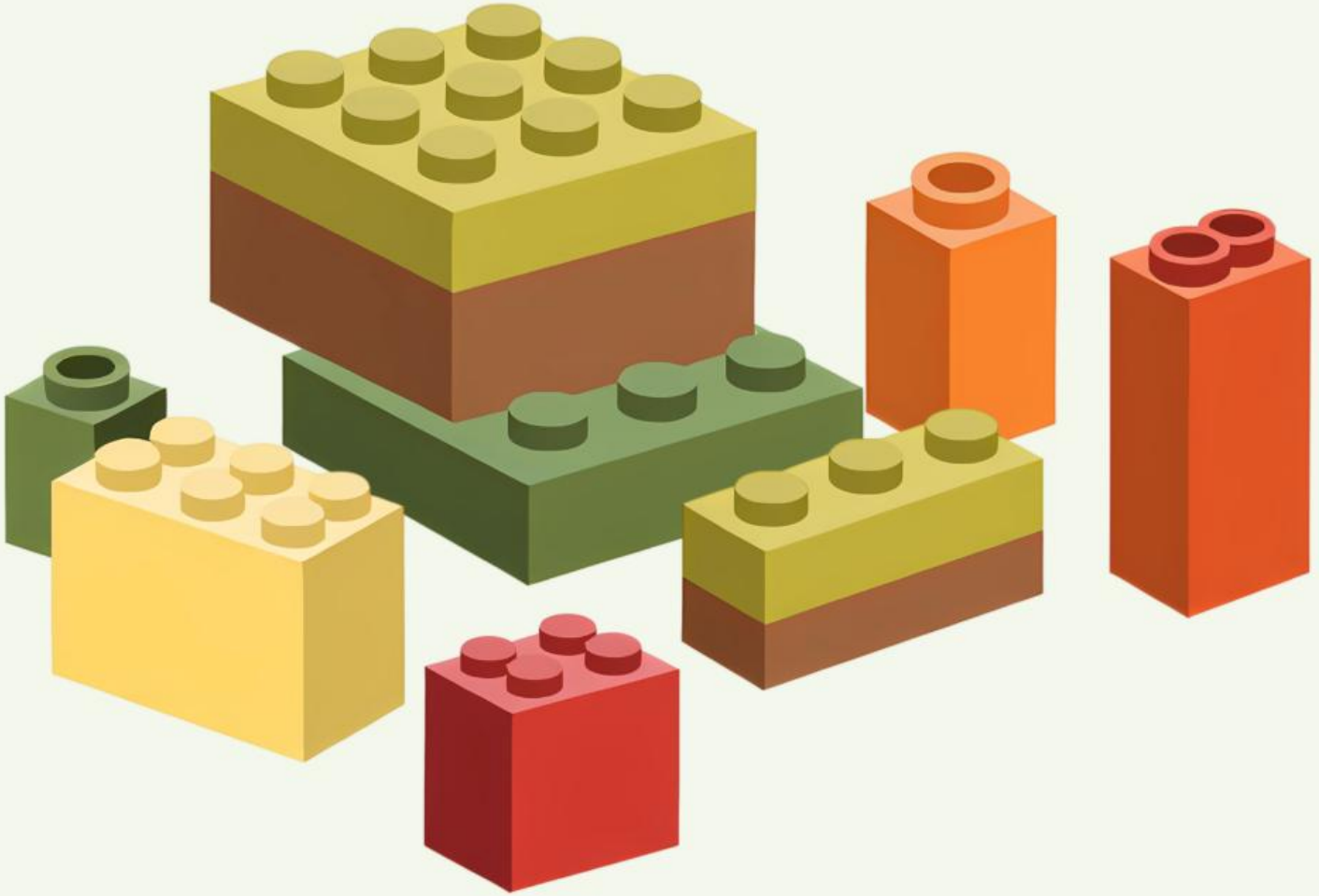
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Information Gathering

- 3 seconds: ~ *Inform*
  - Your KPIs and Targets
- 30 seconds: ~ *Guide*
  - Details about your KPIs
- 300 seconds (5 minutes): ~ *Understand*
  - Detailed information on what we saw in the graphs before



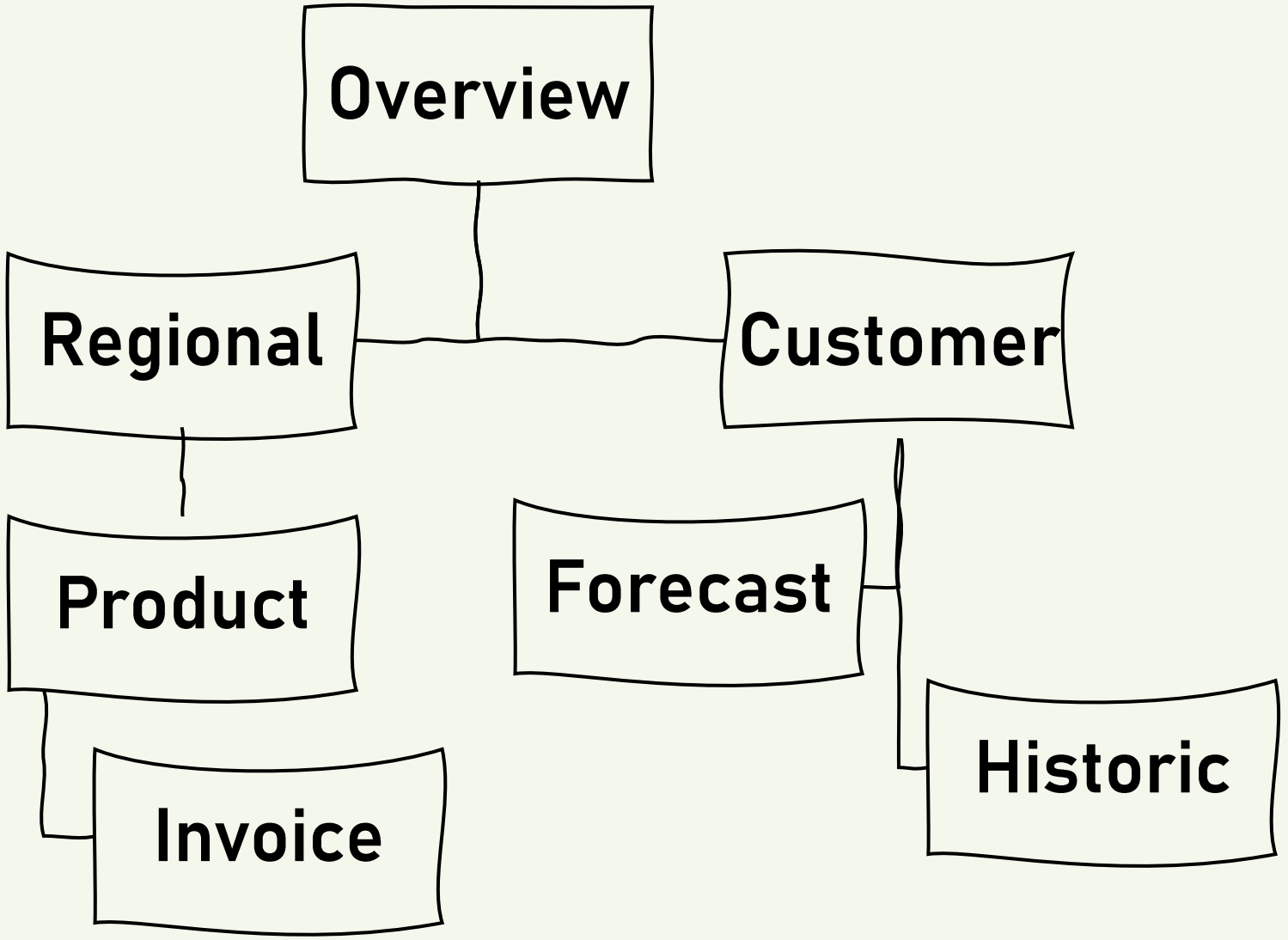
Signed, Sealed, Delivered?



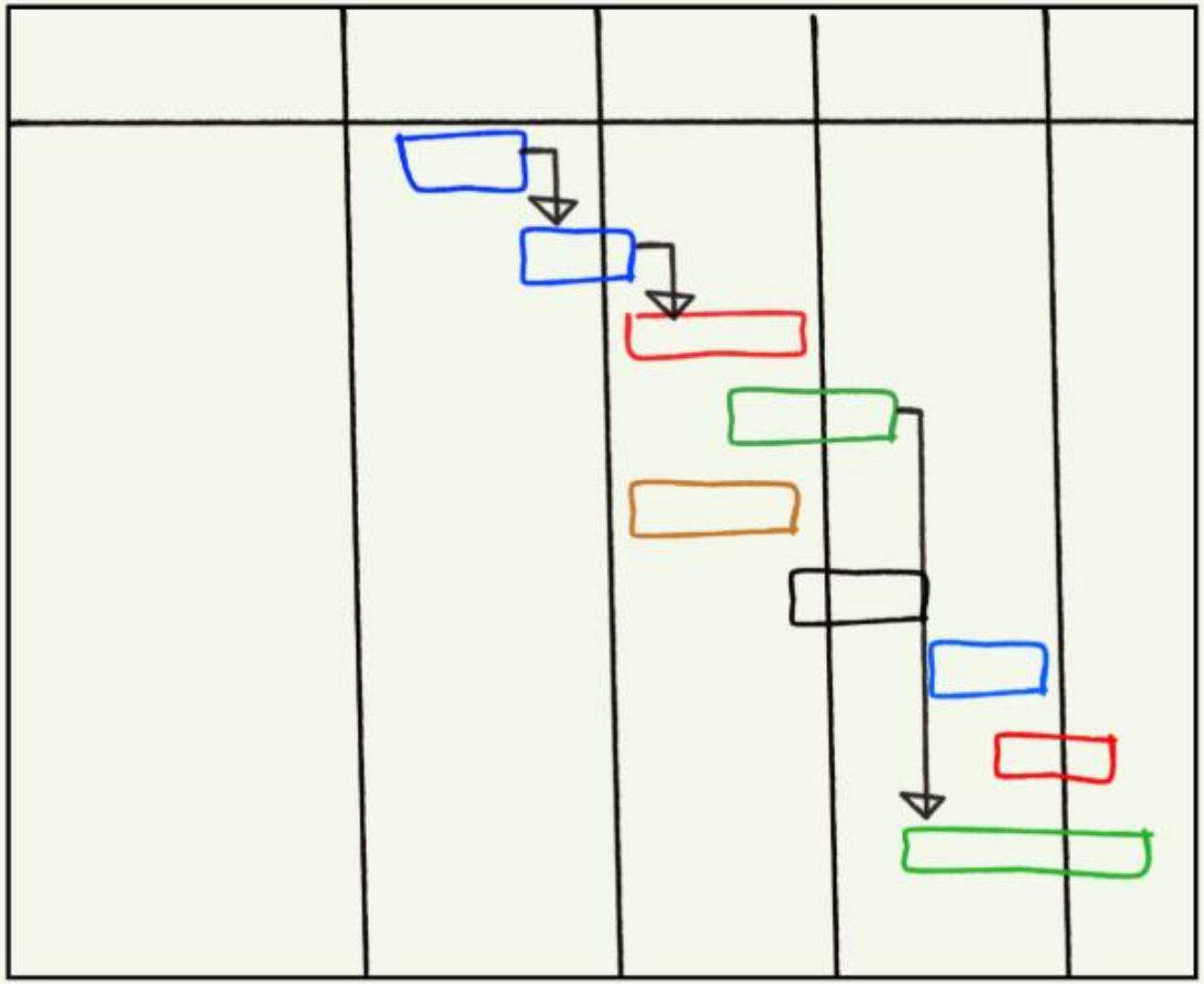
Digital Products



Dashboard vs. Digital Product



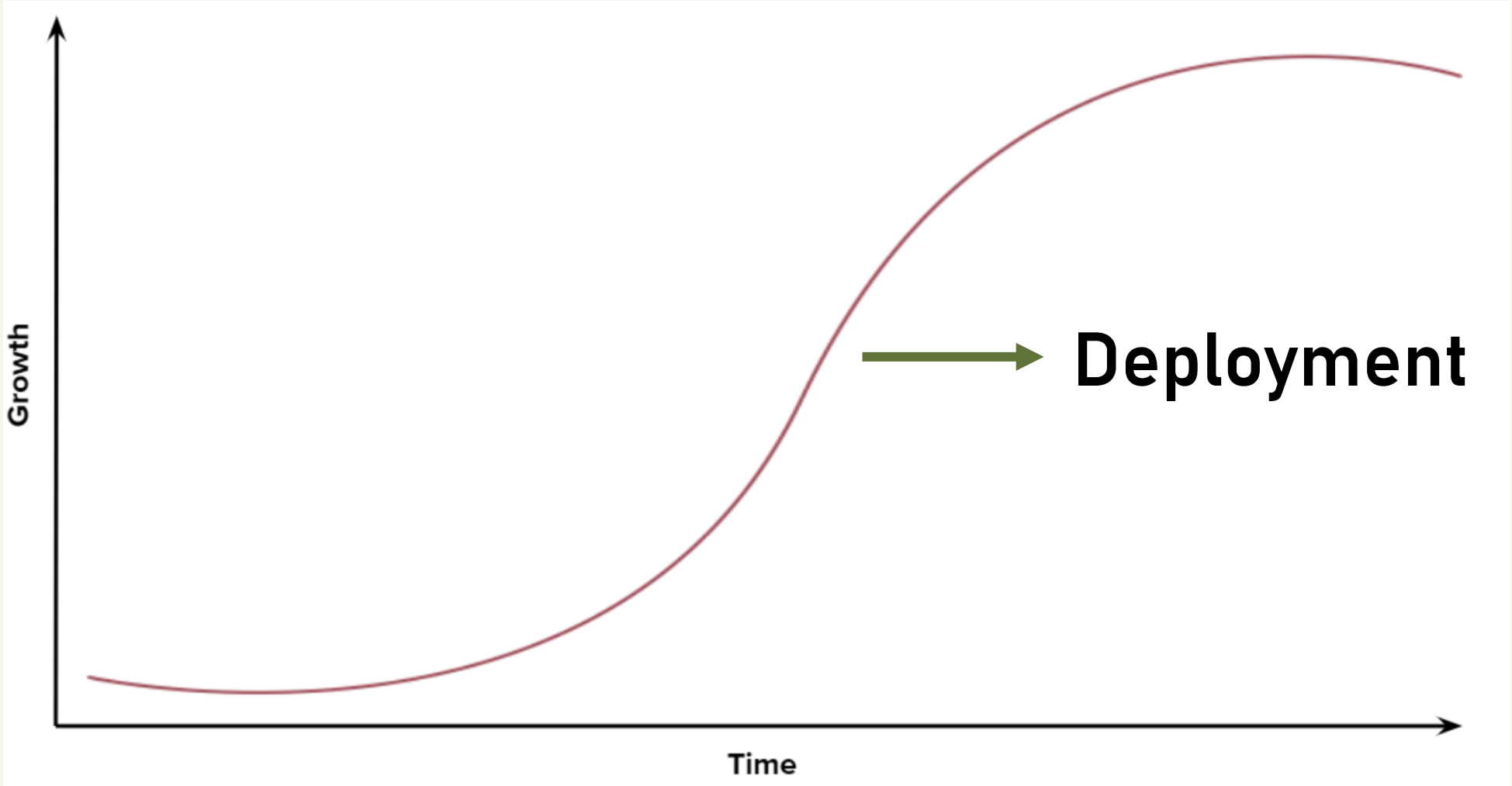
Project Phasing & Road Maps



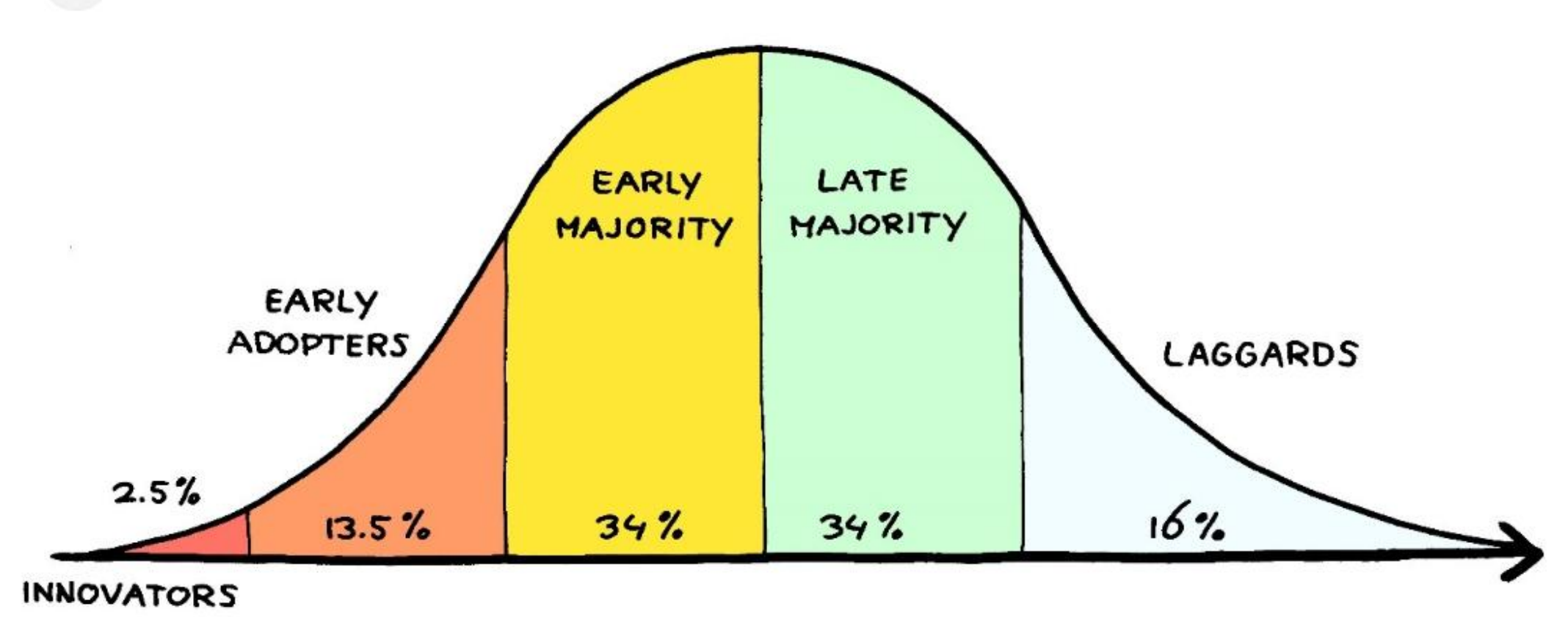
BI Product Lifecycle



User Education & Deployment



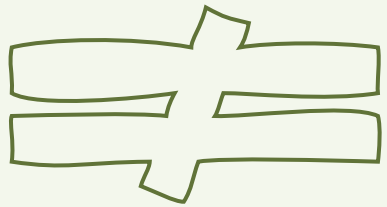
Adoption Tracking



https://www.flickr.com/photos/jurgenappelo/5201275209

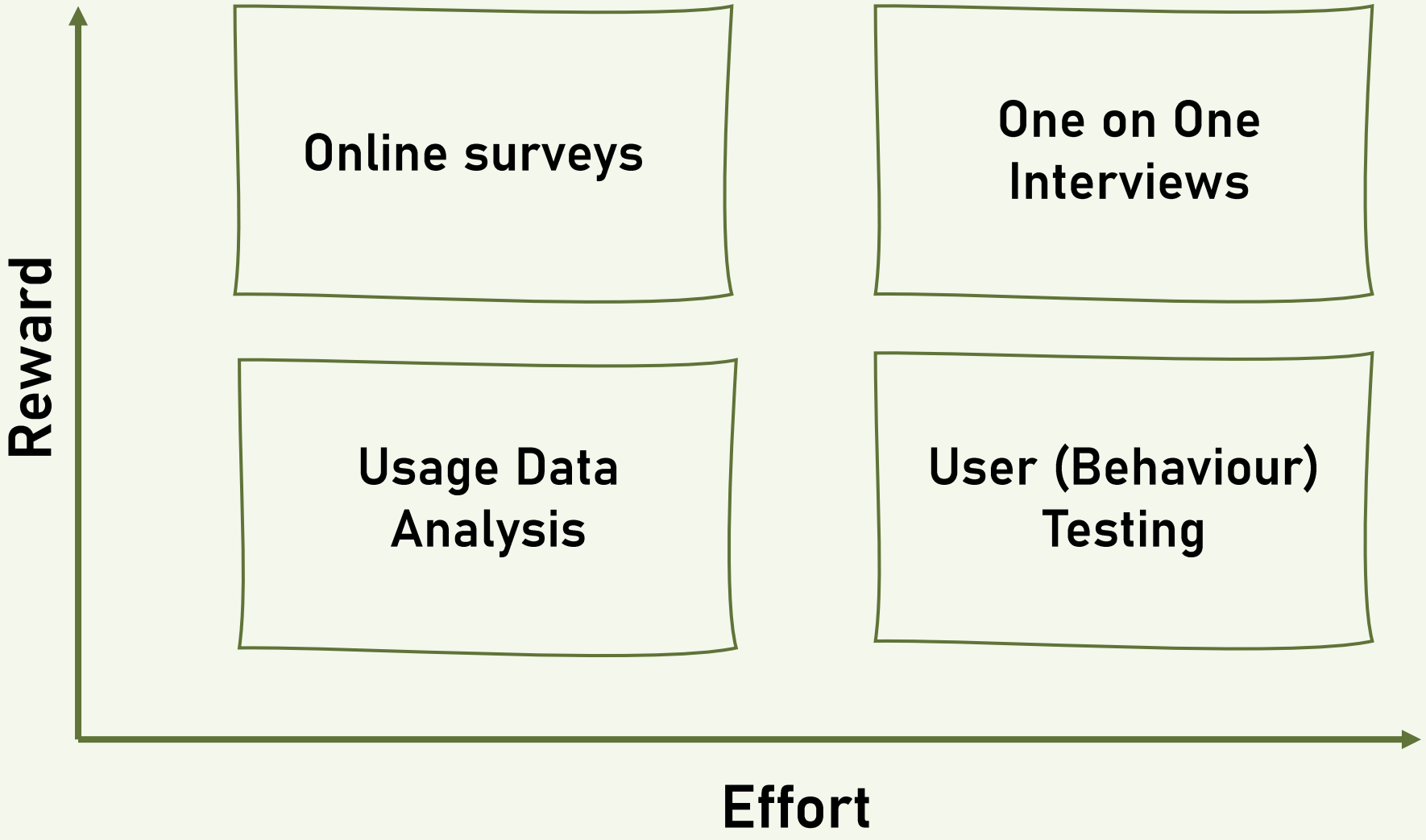
Dashboard Depreciation Disaster

User Satisfaction



User Happiness

User Feedback



Mental Model

Wireframing

Lifecycle



Empathize



Define



Ideate



Prototype



Test

Mental Goodie Bag

Step into the user's shoes



Session Feedback



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