Dr. Ana Moya

Automating and Prioritizing Data Requests Across Departments

19.02.2025 |

Data Science Days

Short Introduction

Dr. Ana Moya

- Since Nov 2024 Principal Data Scientist and Green AI Researcher at Infomotion.
- 3 years **Head of Data Science & Analytics** at **Handelsblatt** Media Group
- 12 years at **FUNKE Media Group** as a Senior Data Analyst and Scientist, with a deep focus on data engineering and architecture.
  - In the last 3 years **Director of Data Science & Marketing Analytics** at FUNKE Data,
- 6 Years Lecturer at International School of Management (ISM) Dortmund for the M. Sc. Business Intelligence and Data Science
  - since Dec 24 Honorary Professor
- Passionate about gardening and nutrition

Agenda

1. Challenges: It beginns with the Request Formulation
2. Solution: Request Entry and their Priorization
3. Benefits & Summary: For the Data Teams and Organisations
4. Questions and Discussion

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Challenge

01

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A Data Team Somewhere

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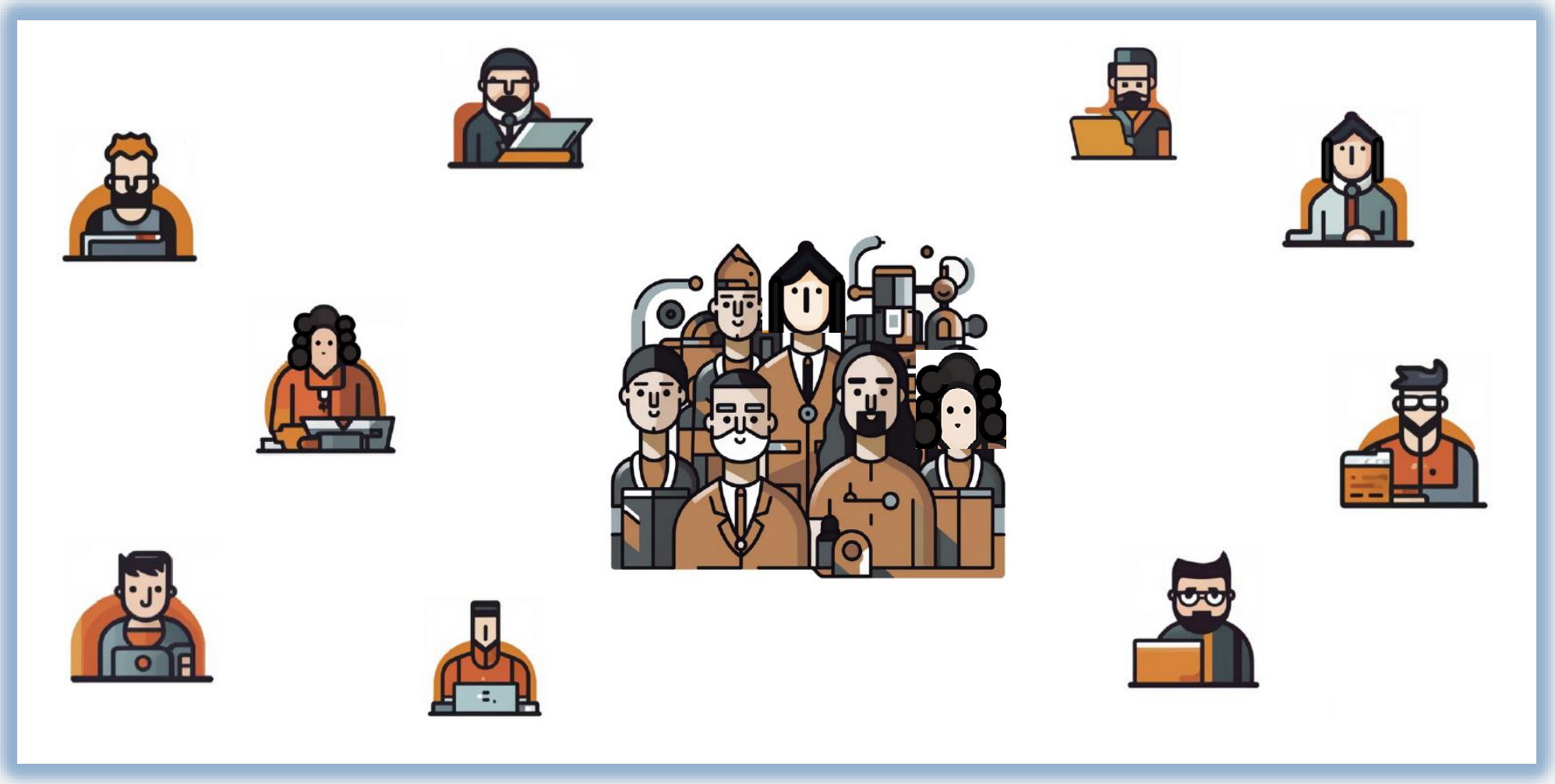
A Data Team and their Stakeholders Somewhere



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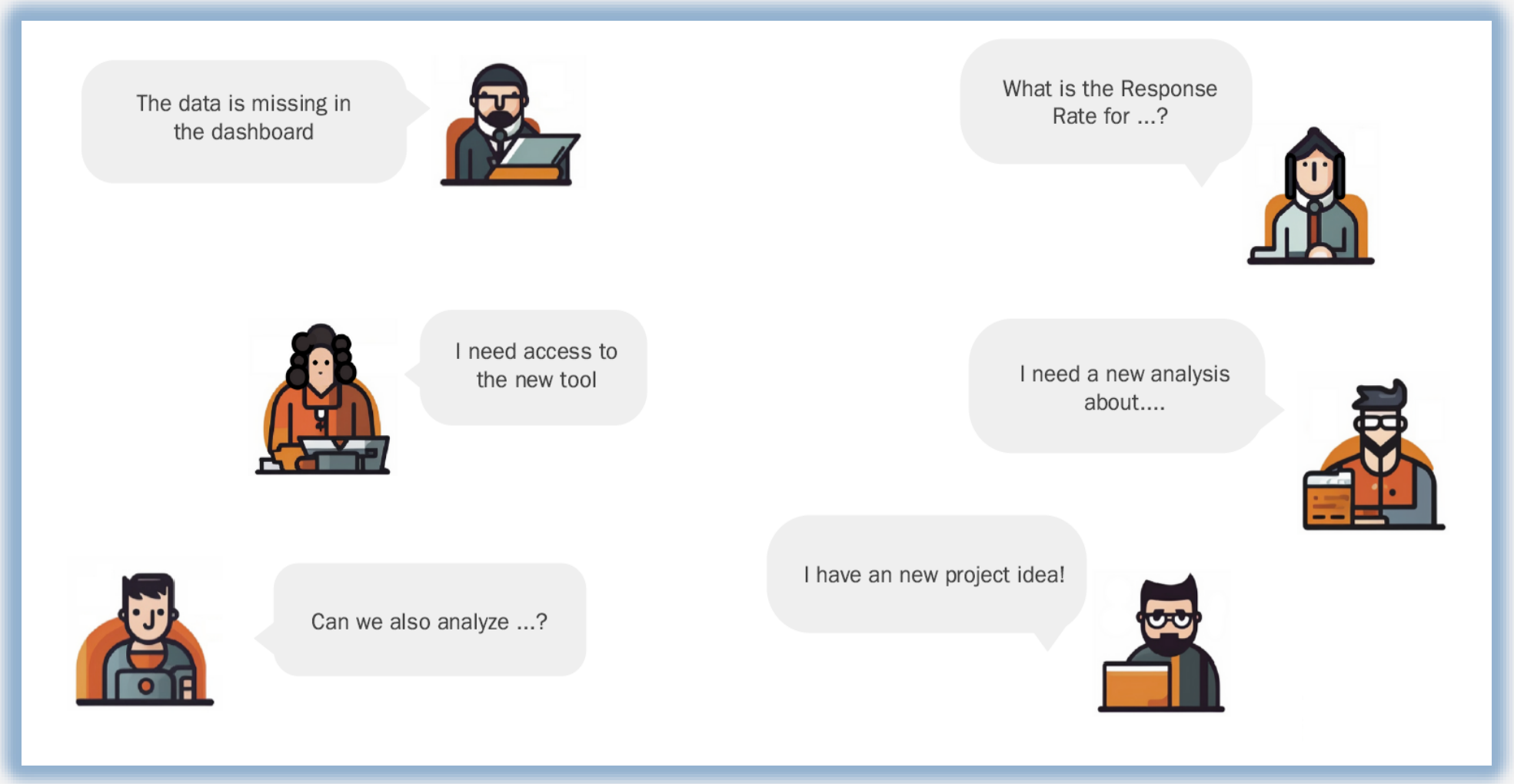
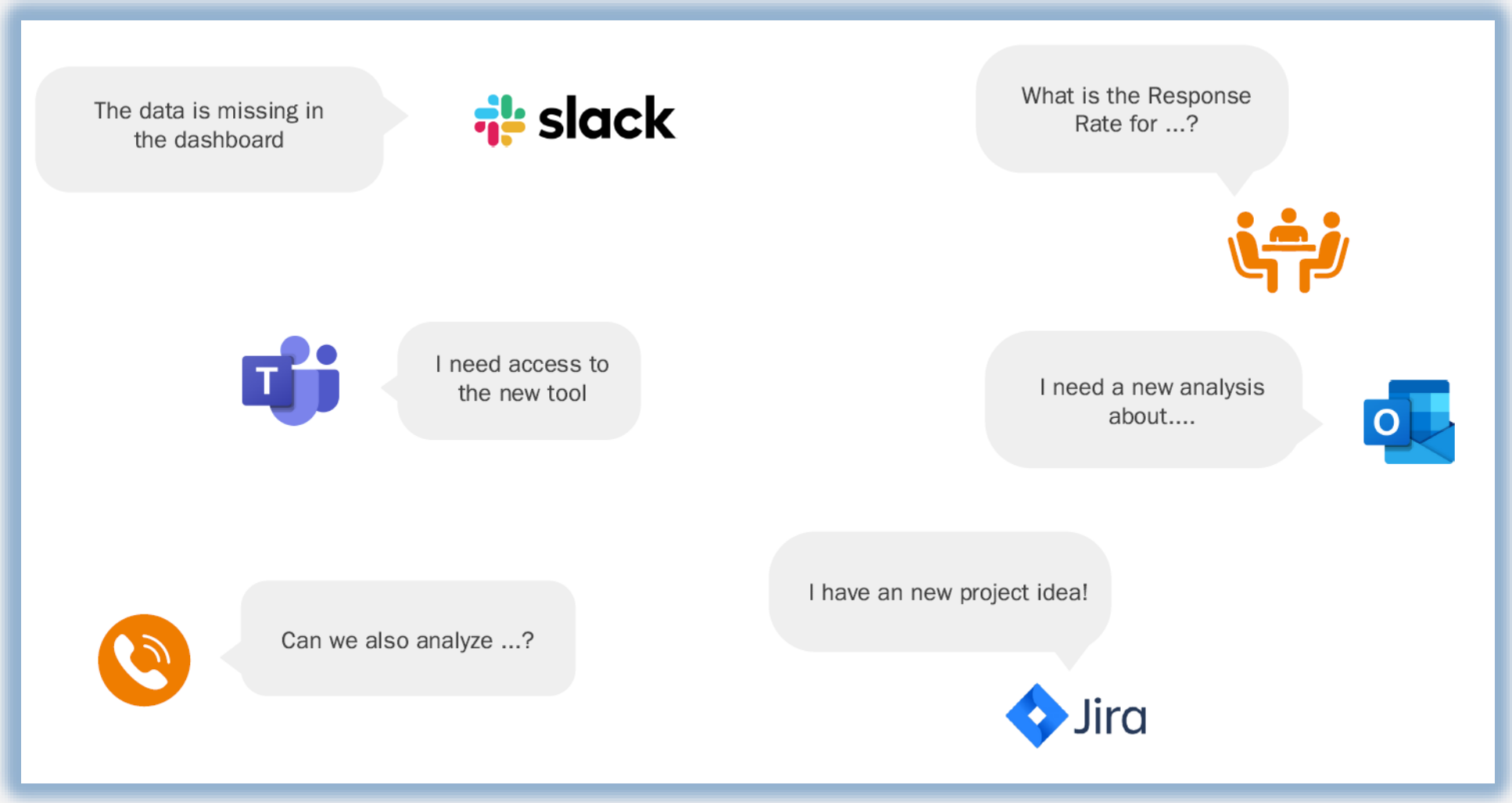
Stakeholders and their Requests Somewhere



Requests and their Channels Somewhere



The Reality

There is no Process!

The Challenges

- **No guidelines for requests**
  - Too many ways of commuication
  - No transparent responsibilities
  - Same questions multiple times

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Solutions

02

The Goal: Request Entry

Standardization & automation

- A single path of communication
- Systematic collection and storage
- User friendly access
- Integrable into the existing system

iPaaS: Definition and Core Features

*"IPaaS, or **Integration Platform as a Service**, is a cloud-based platform that enables users to integrate different applications and services together, often with the goal of automating workflows and improving business processes.*

*IPaaS solutions typically provide a set of **pre-built connectors** that allow users to connect with different applications and services **without** requiring extensive **coding** or technical expertise."*

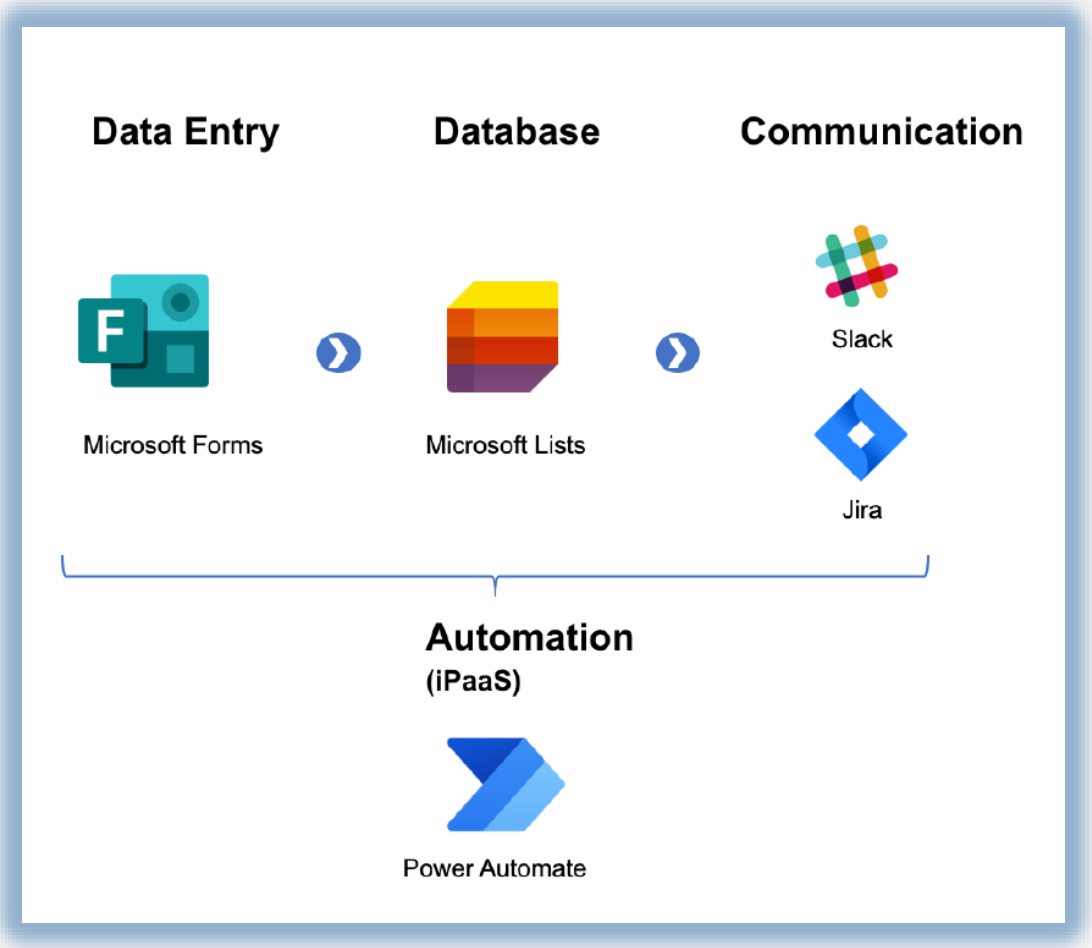
Connectivity

Ease of use (NoCode)

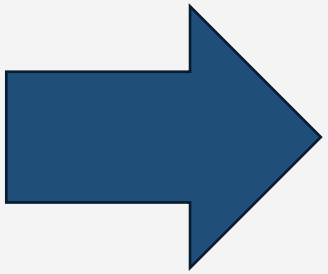
Rapid Development

Flexibility

Example of a Request Ecosystema



and what happens after collecting Requests?



Prioritizing

Central Key Factors for Creating Business Value from Data

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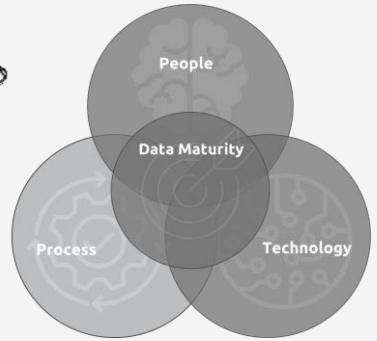
Focus on scaling and sustainability

Idetifying and Priorising Use Cases

Well defined Objectives

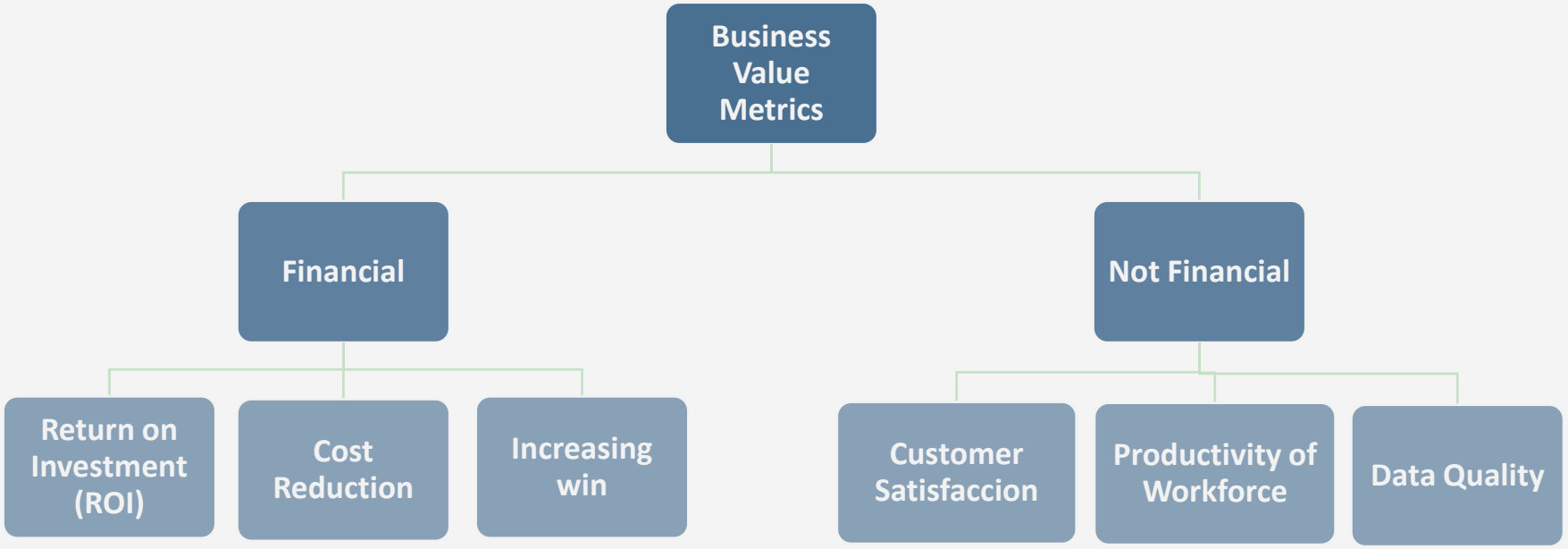
Data Availability and Quality



Process to Evaluation and Optimizing

Work together Data, Technology and Departments

Business Value: Definition and Metric



Use cases often fail due to unclear goals, abstract concepts and a lack of relevance to concrete business problems.

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Use Case	Top line impact	Bottom line impact	Maturity (low maturity = severe pain points)	Data Sources				
				1	2	3	4	5
Personalization	0.25 to 0.50%		Medium	✓	✓	✓		
Targeting	<0.25%		High	✓	✓		✓	
Customer lifetime value	0.25 to 0.50%		Low	✓	✓			
Cross-selling and upselling	1 to 3%		Low	✓	✓			✓
A/B testing	0.25 to 0.50%	2-4%	High	✓	✓	✓		
Precision marketing	1 to 2%	1-3%	Medium	✓	✓			✓
Marketing mix modeling	1 to 2%	0.5-1.0%	Low		✓		✓	
Predictive analytics	0.5 to 1%		Medium		✓	✓	✓	
Social media monitoring	<0.25%		Low					✓

Identifying data-driven use cases with a value driver tree | by Shri Salem | ZS Associates | Medium

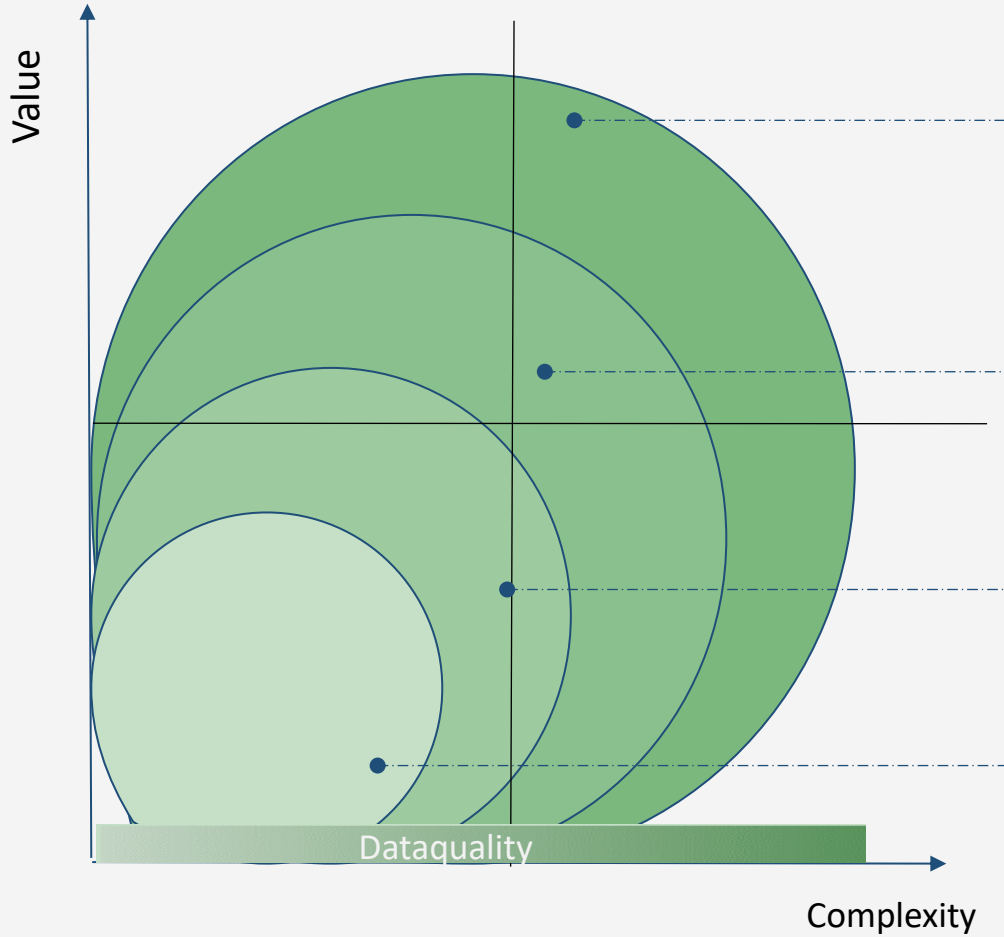
Prioritization:
Business value:
Does the use case fit the overall company goals?

Feasibility: Data availability, technological requirements, resources (skills) & Effort/Complexity.

Risks: Potential obstacles such as data protection, scalability or organizational resistance.

For Use Cases you also need:

Value & Effort/Complexity



Prescriptive: What do I need to do?

- recommended **actions** and **strategies** based on champion/challenger testing strategy outcomes
- applying advanced analytical techniques to make specific recommendations

Predictive: What's likely happening?

- historical **patterns** being used to predict specific outcomes using algorithms
- **decisions** are automated using algorithms and technology

Explorative: Why is it happening?

- ability to drill down to the **root-cause**
- ability to isolate all confounding information

Descriptive: What's happening in my business?

- comprehensive, accurate and live data
- effective visualization

Evaluate and Prioritize Requests

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Value

- The use cases found are evaluated based on the previously **defined KPI**. A scale of 1-5 is used to avoid apparent precision.

Effort

- Additional values are assigned to the use cases that represent the effort to implement them. In addition to **investments, risk and change** aspects are also taken into account here

Priority

- From the two values obtained above, a **priority** is derived that can be used to create a backlog

Measure of Success

Use Case	KPI-1	KPI-2	KPI-3	Value Score	**Value Priority**
Use Case-1	1	1	2	4	3
Use Case-2	1	1	1	3	4
Use Case-3	2	3	2	7	**1**
Use Case-4	2	2	1	5	2

Effort Impact Score

Use Case	Investment	Risk	Change	Impact Score	**Impact Priority**
Use Case-1	3	2	2	7	3
Use Case-2	2	3	3	8	4
Use Case-3	2	2	1	5	2
Use Case-4	1	1	1	3	**1**

Combined Score

Use Case	Value Score	Impact Score	V/E	**Priority**
Use Case-1	4	7	0,57	3
Use Case-2	3	8	0,38	4
Use Case-3	7	5	1,40	2
Use Case-4	5	3	1,67	**1**

Evaluate, Prioritize and Create Backlog

Combined Score

Use Case	Value Score	Impact Score	V/E	**Priority**
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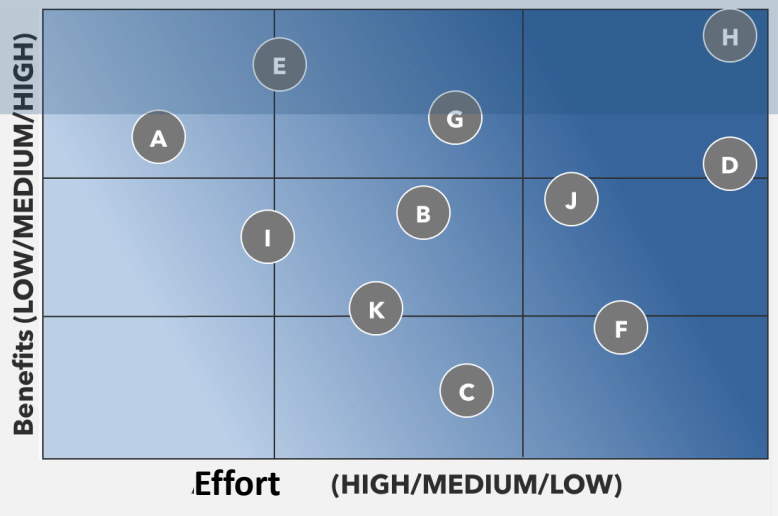

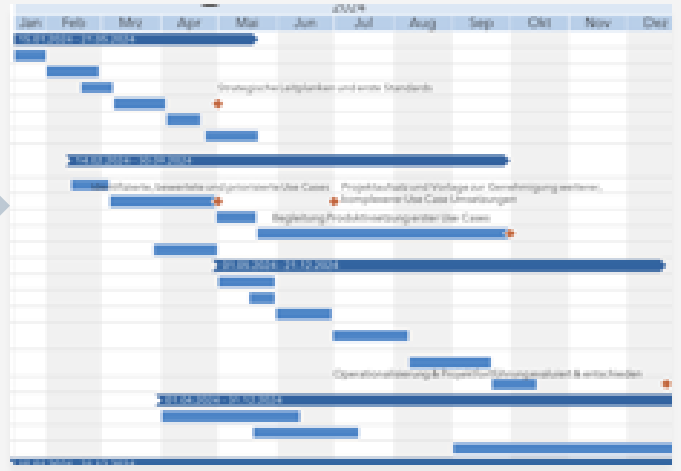

Some ways to identify data products used in practice

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Design Sprint

Guided idea & concept development with departments & IT

Expert Advisory

Expert advice from the departments

KPI Driven

Analysis of value/cost driver trees

Process Driven

Use case development based on the **process mining** implementation

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Benefits & Summary

03

Benefits & Summary

- To start AI projects, you need more than just use cases.
- Automating and **Prioritizing leads to ---------- >**

- Clear and measurable business goals are crucial to the success of AI projects.
- Data quality is required.
- Creating business value requires a strategic and collaborative approach.

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Questions and Discussion

04

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04.03.2025

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