



DZ BANK AG Data Analytics Journey CIBP Spark

Düsseldorf, 24.11.2020, Jonathan Fell

1.

Introduction

2.

Data LAB

3.

Data Analytics in Practise

,Intelligent' algorithms have been around for decades (e.g. neural networks since 1949) - why the hype now?

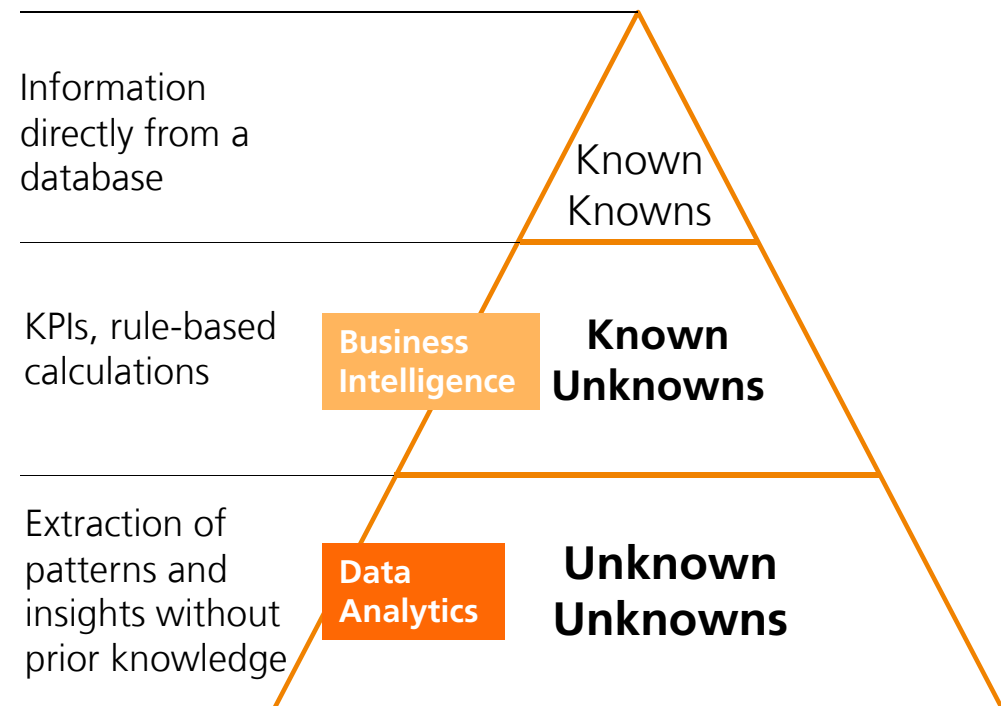
- Availability of appropriately powerful scalable hardware
- Rapidly increasing amount of data from various sources which also can be combined
- AI methods provide best results when trained on large datasets
- Ever-growing data science/data analytics community



One minute of internet activity

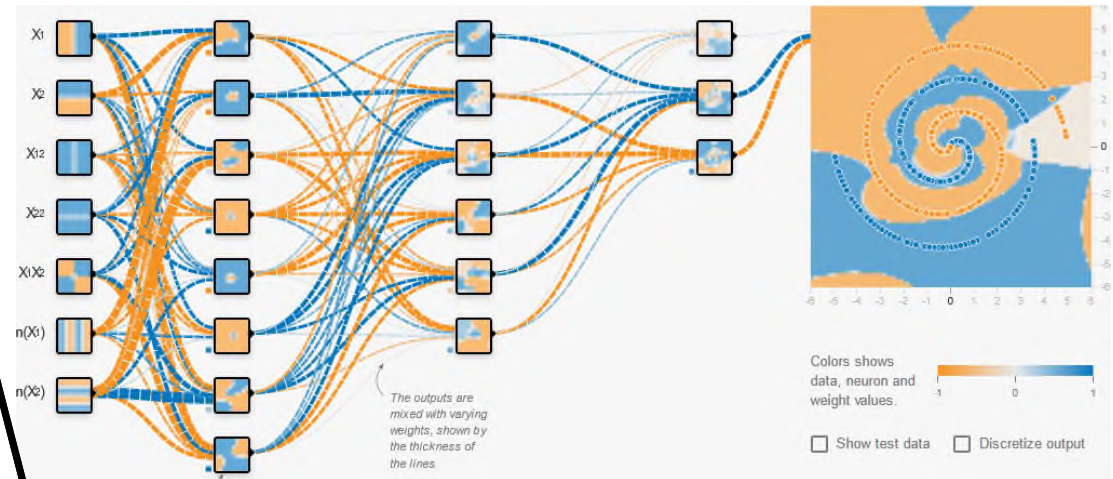
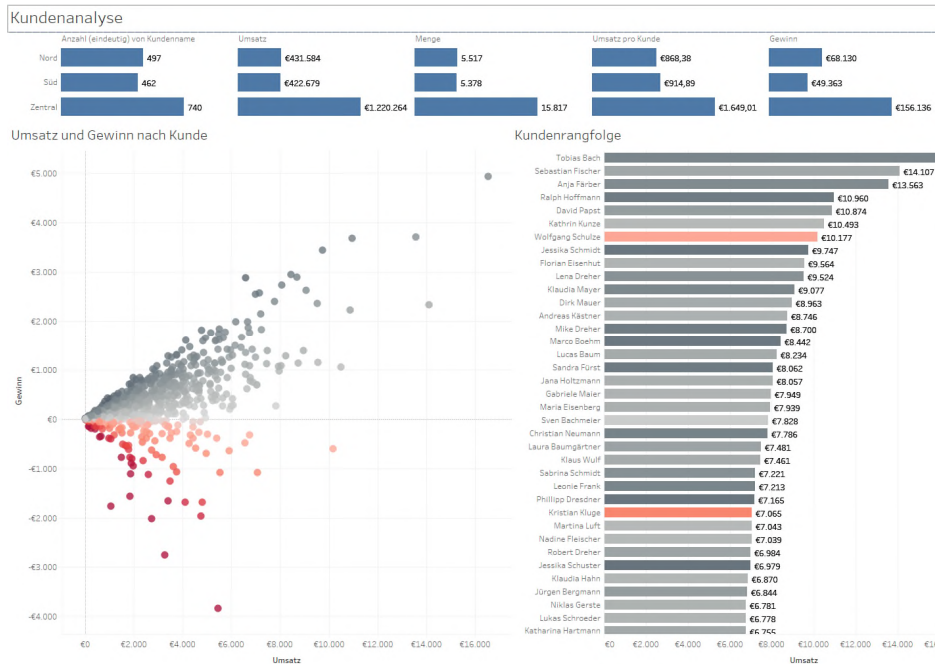
ITKD - Data Analytics & Business Intelligence

„ITKD enables DZ BANK AG to take advantage of data in a profitable and modern way“



First step: sharpen the distinction between Business Intelligence (BI) and Data Analytics

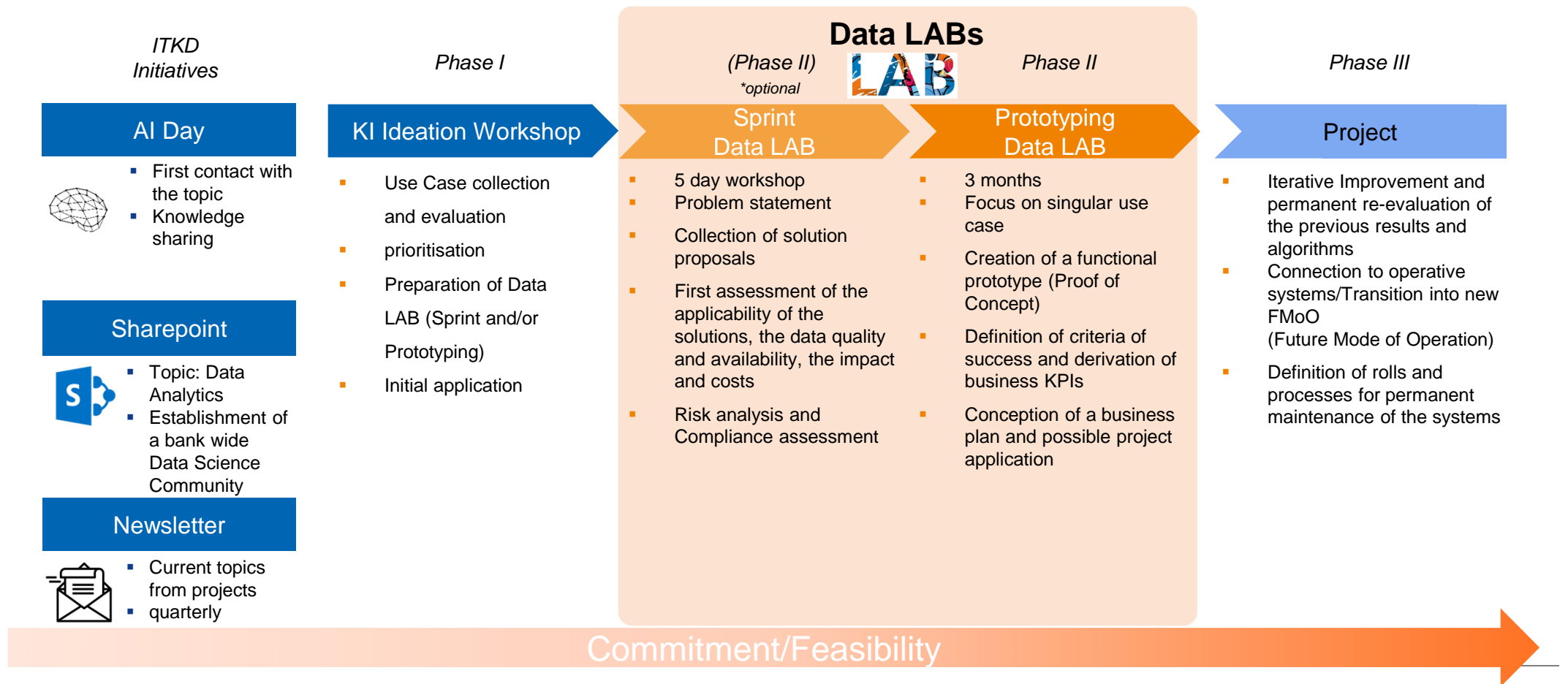
BI: Standardized Data Aggregation and rule-based computations, mostly SQL, descriptive and diagnostic



Data Analytics:
Complex Algorithms, trained models,
predictive, prescriptive

“If you can do it with SQL, it most likely isn’t Advanced Analytics”

From idea generation to the finished, data-driven product



Trend LAB AI: 2 months of intensive topical work to propose approaches to the subject of Data Analytics

20+ Participants

15 Companies

12 Guest Talks

8 Use Cases

Definition AI

Further Stakeholders

 **VR Payment**

TeamBank

 **VR Smart
Finanz**

R+V

DZ BANK AG gave itself a set of guidelines to further Data Analytics efforts and streamline the development of data driven products and applications



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Data Sprint LAB: 5 days of concentrated Use Case discussion

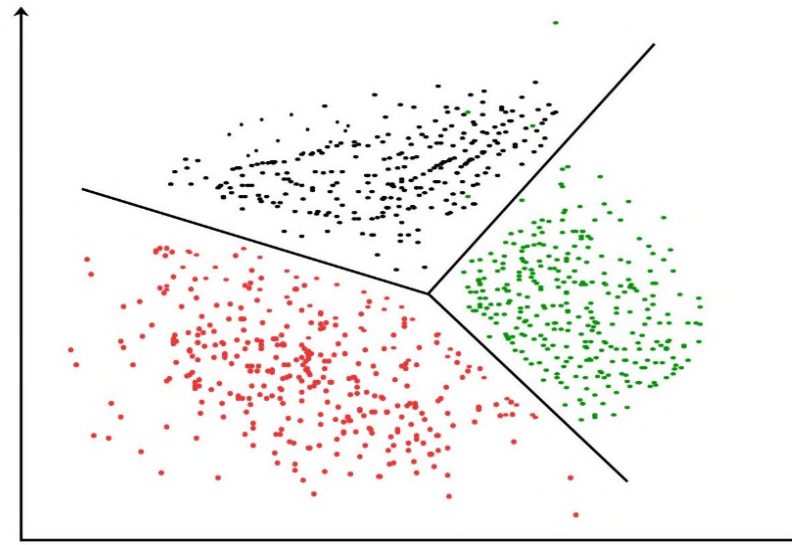


Summary

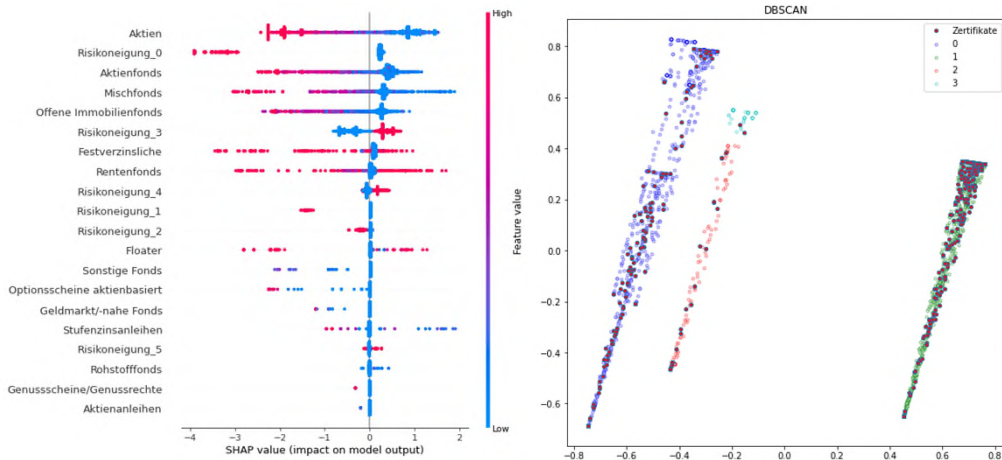
- Three use cases of Business Intelligence- and Advanced Analytics-methods were discussed
- Focus on value-creation and customer satisfaction
- Modern, contemporary methods of Data Analytics require a different legal framework for data storage, transmission and handling
- Privacy is paramount to this topic and was already a hot topic in this preliminary LAB
- Completely remote

Use Case 1: Customer Classification

- Using Clustering/Classification accounts are categorized and evaluated regarding the affinity to certificates.
- Customers can be addressed in a personalized and customer-oriented way
- New products can be created targeting specific customer groups



Data Prototyping LAB: three months for a Proof of Concept and a Business Case



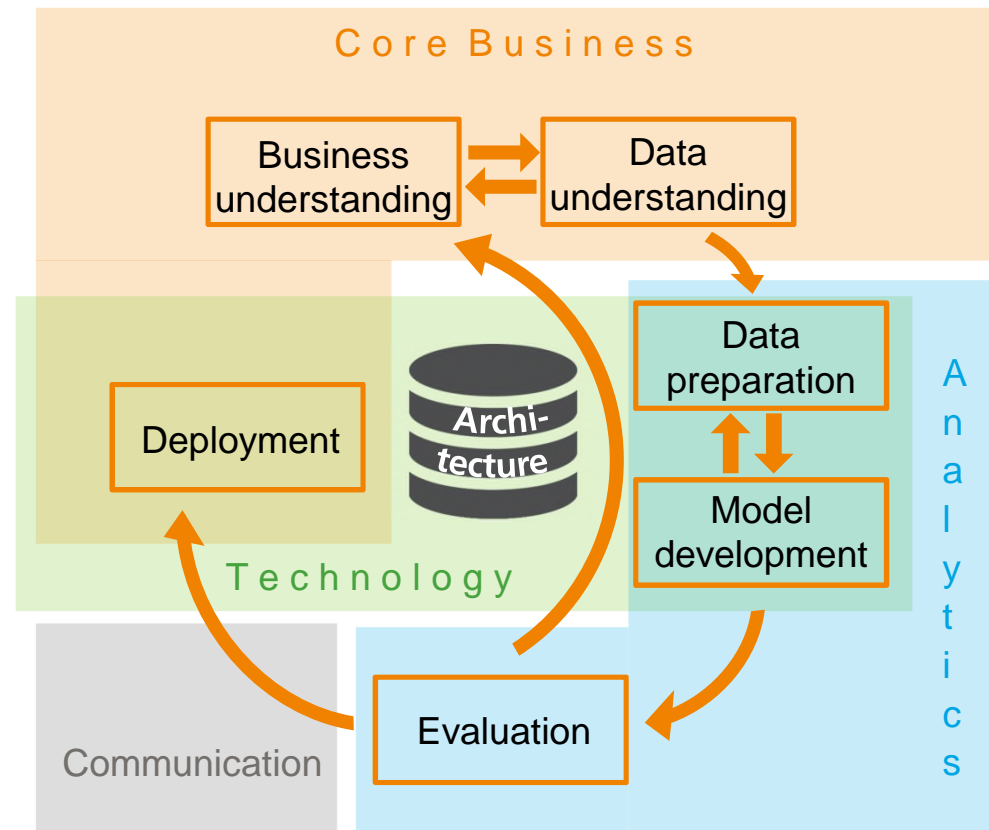
SHAPley Values from a XGBoost model showing feature importance

Clustering of portfolios via the DBSCAN model

Summary

- Allows for a detailed discussion between Data Scientists, the department and other stakeholders (legal department, compliance)
- Ensures that a subsequent project is technically and economically feasible

CRISP-DM



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Project: Compliance AI

Background:

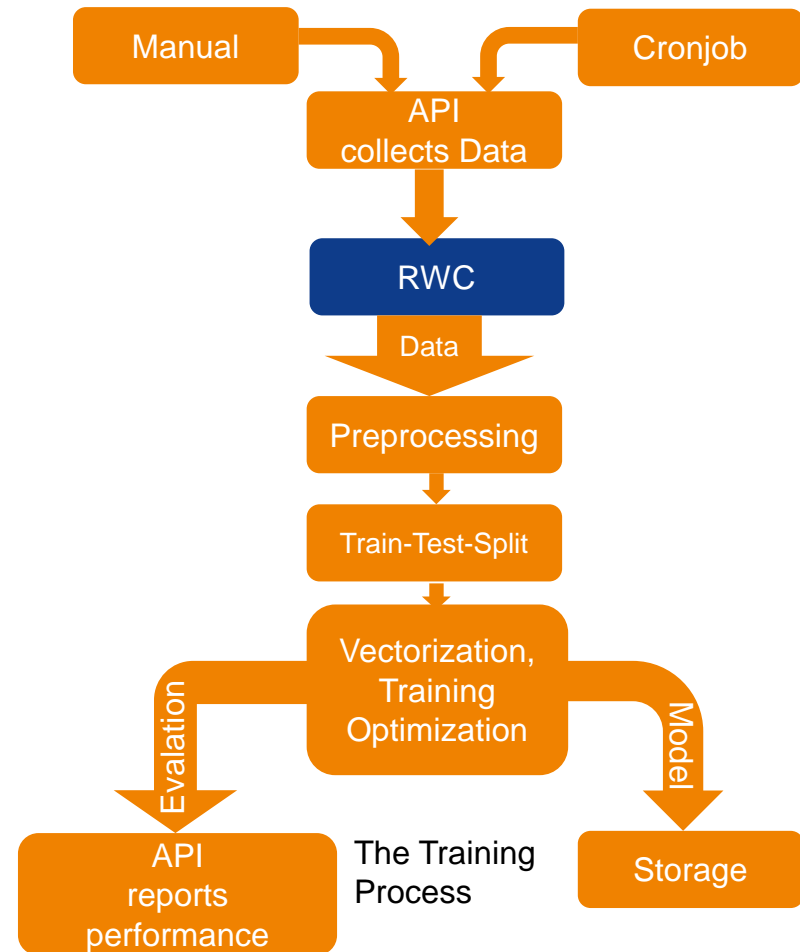
- Legal norms are currently distributed manually within the bank
- AI model predicts the probability that a norm is relevant for some unit/group/department
- Final decision remains with the compliance department experts

Challenges and opportunities:

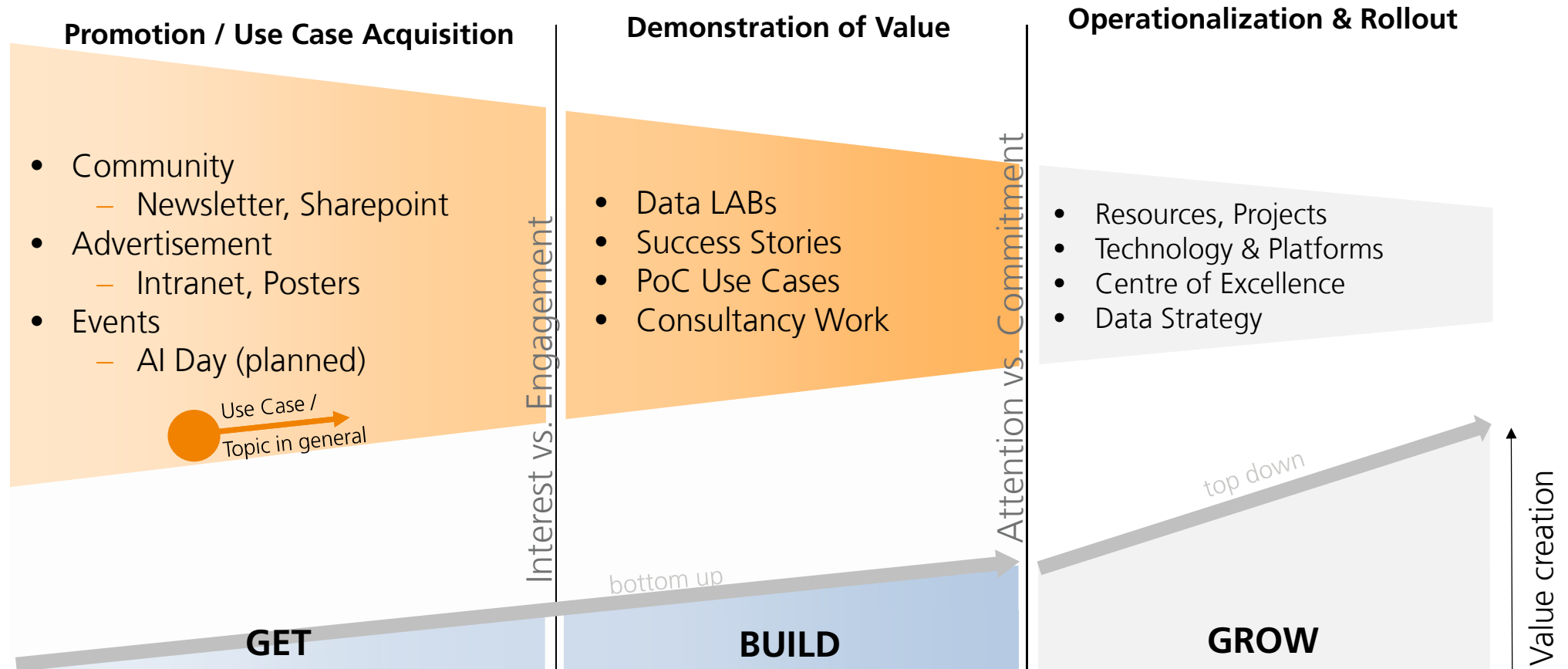
- Development process not appropriate for AI software
- Revision process for AI is in development
- Enthusiasm and cooperativeness at all stakeholders
- First mover advantages

Business model

- AI as a supportive tool which enables employees to have more time for non-automatable work
- Final decision always stays with human decision makers
- Solution- and customer-oriented



The DZ BANK AG Data Analytics Journey



Thank you for your attention

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