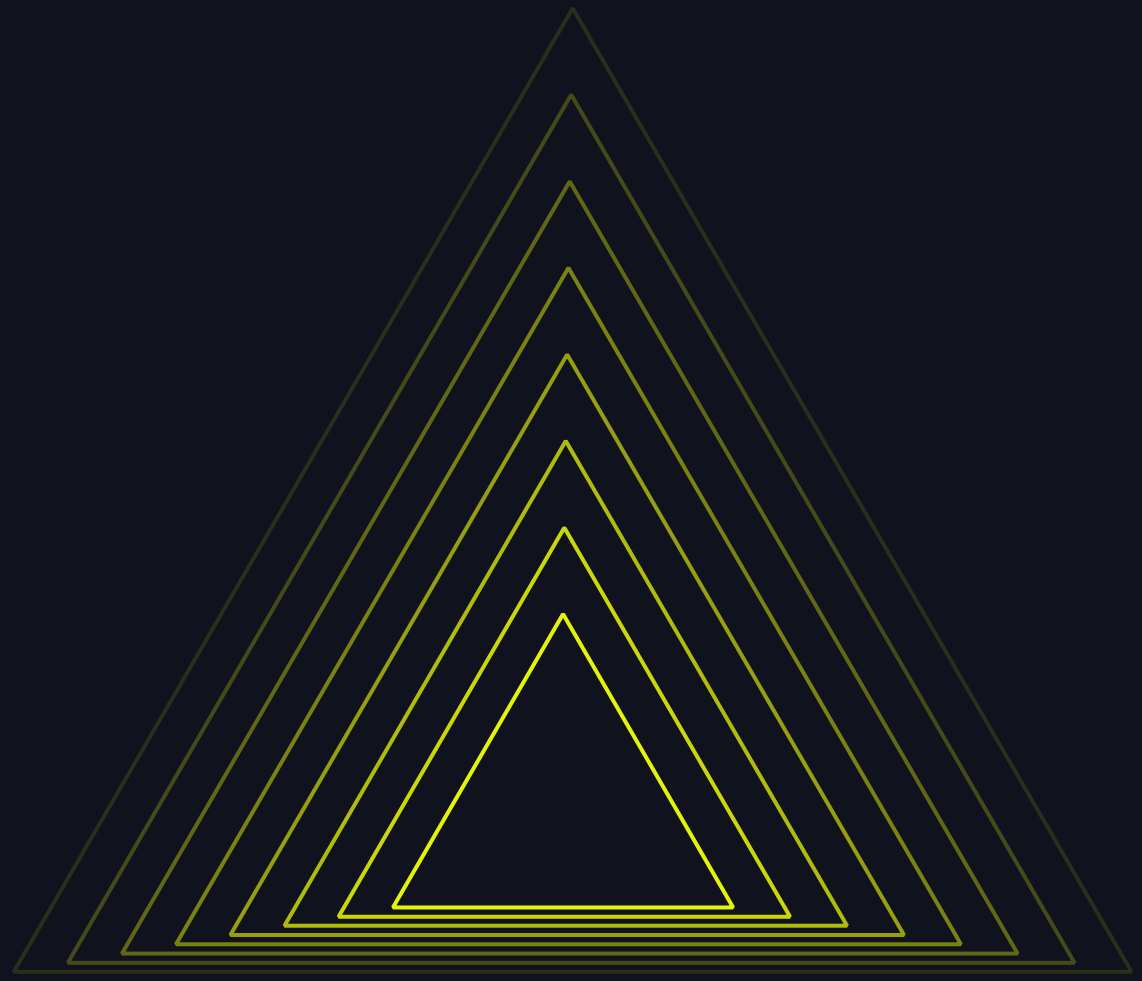
DATA+AI SUMMIT BY databricks

Pax' Journey from SAP to Databricks



Clemens Nickel & Jan Scharnetzky
11.06.2024

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Background

.Pax

Life insurance

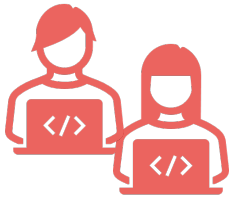
Founded 1876

CHF 8.6 billion assets

Cooperative society

oldest active policy January 1956

SAP BW, SAP ERP & many SAP custom solutions



Life Insurance Context

Challenging business with very complex data

high degree of customization

different data perspectives

challenging data quality

stringent regulations

retrospective mutations

many different data sources

The Analytics Stack

Status Quo

SAP BW on HANA

- **End of life 2028** (extended 2030)
- Complex Business Logic
- High costs & Performance limits

The logical candidate

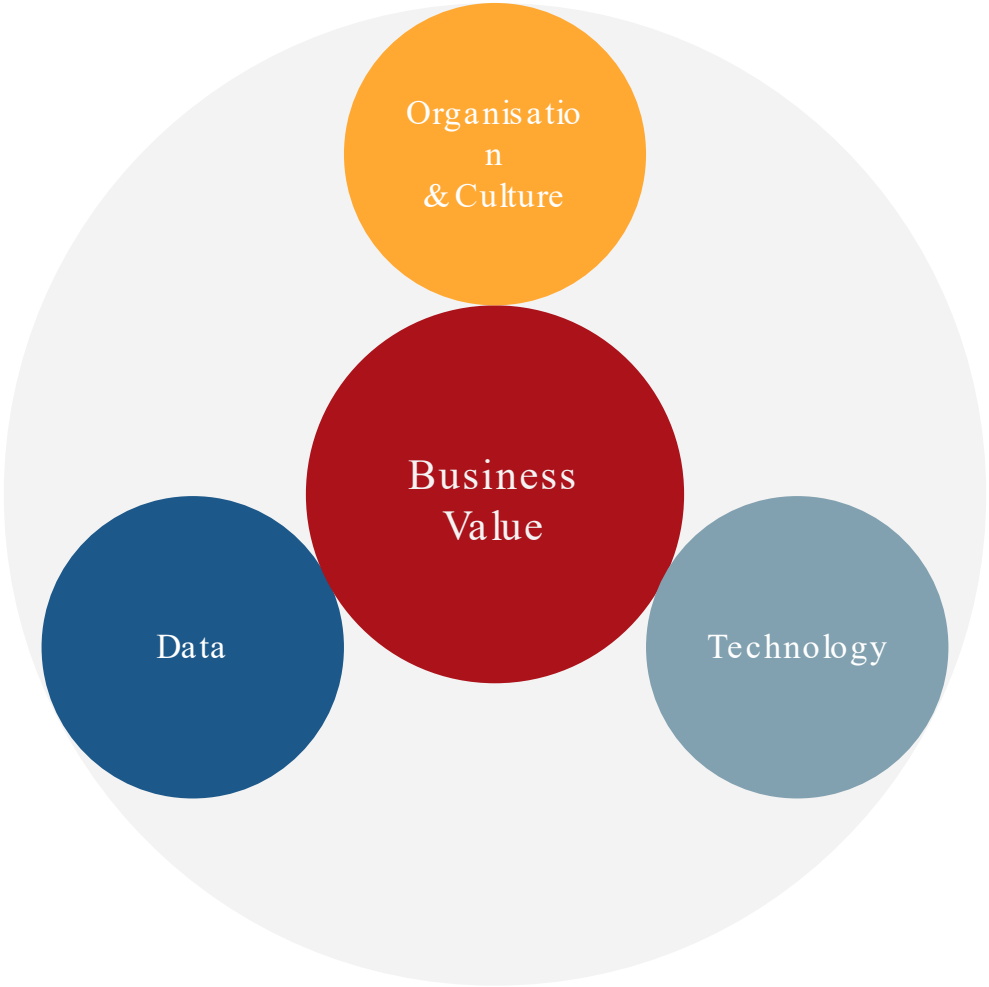
SAP BW/4HANA

- Integrated in SAP Solution (ERP System)
- Simple Migration of Business Logic
- Strong Developers in house

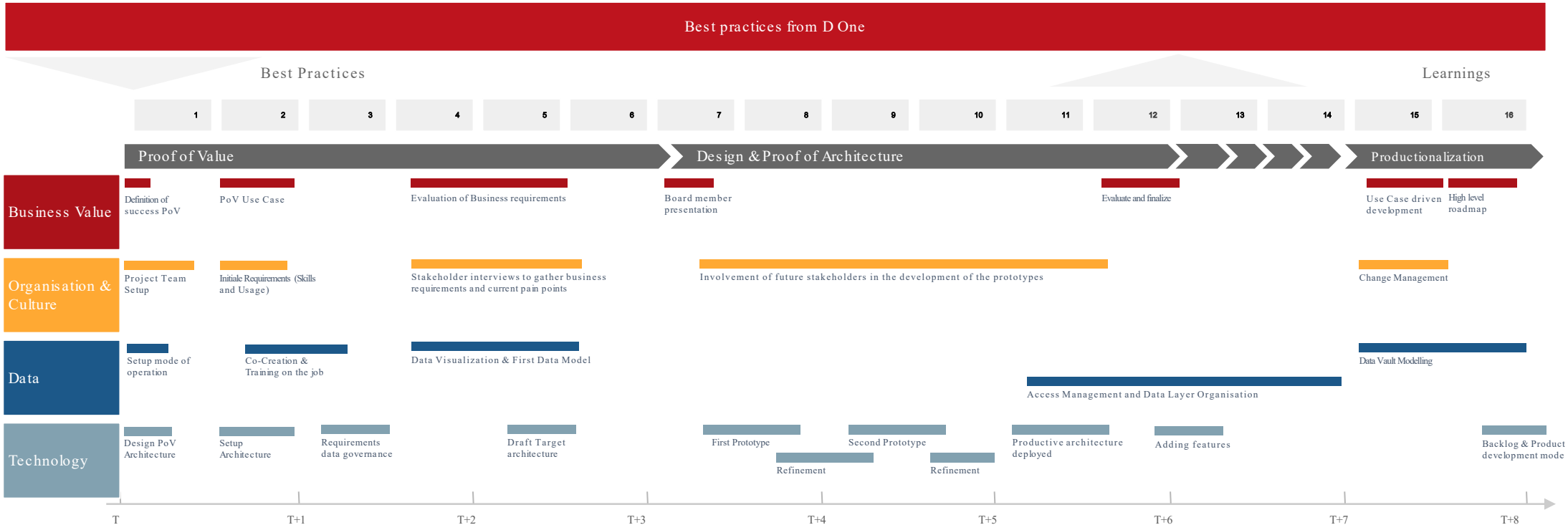
Is there a better alternative?

- Cloud Strategy Azure
- Costs & Performance
- New business cases

Our Approach

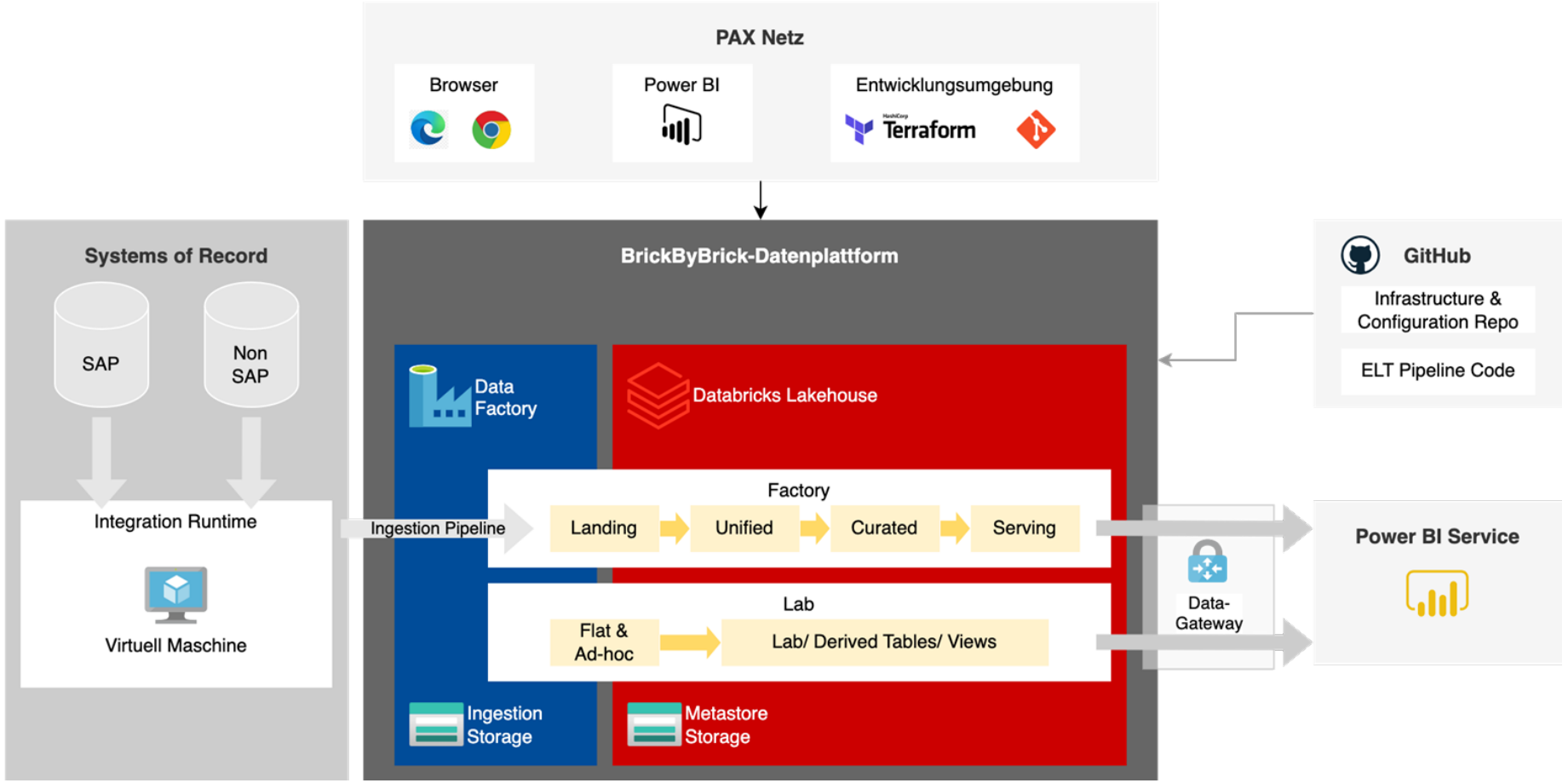


Framework for the Journey



Proof of Value

Architecture

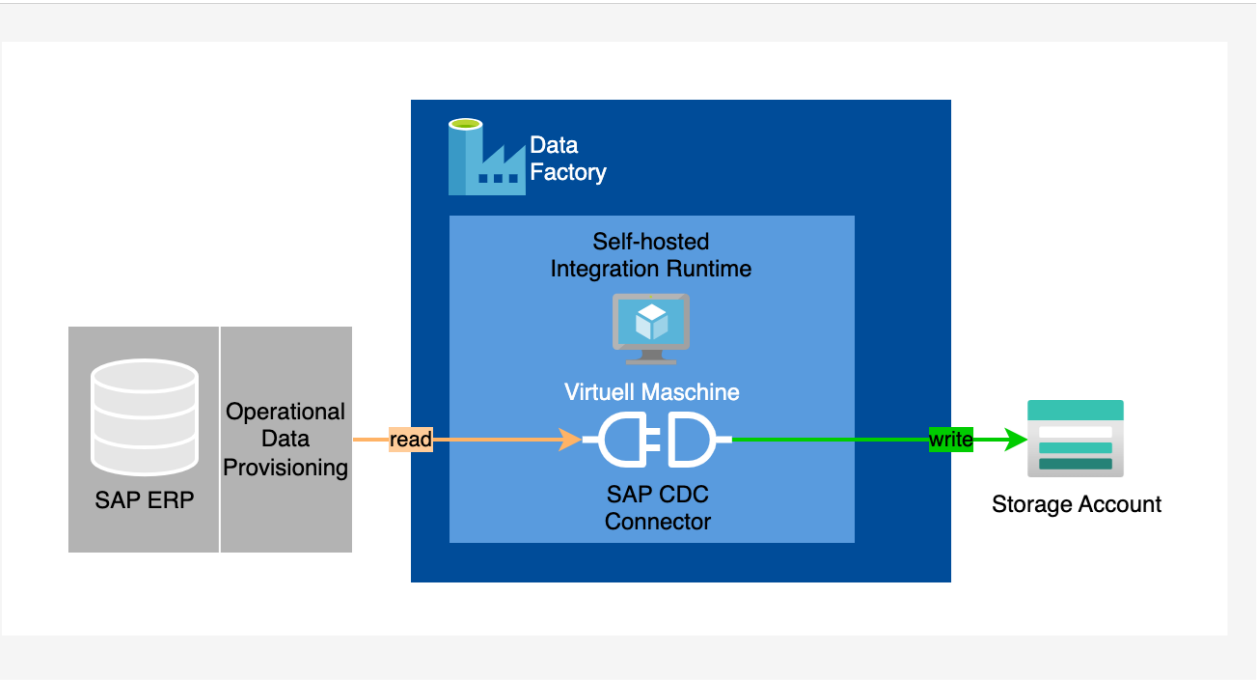


Zoom In: SAP Data Ingestion

In the center of the SAP Data Ingestion is the **SAP CDC Connector** integrated in the Azure Data Factory with following features:

- Using the ODP framework with Extractors
- It offers delta and full load option
- It allows Metadata-driven data extraction

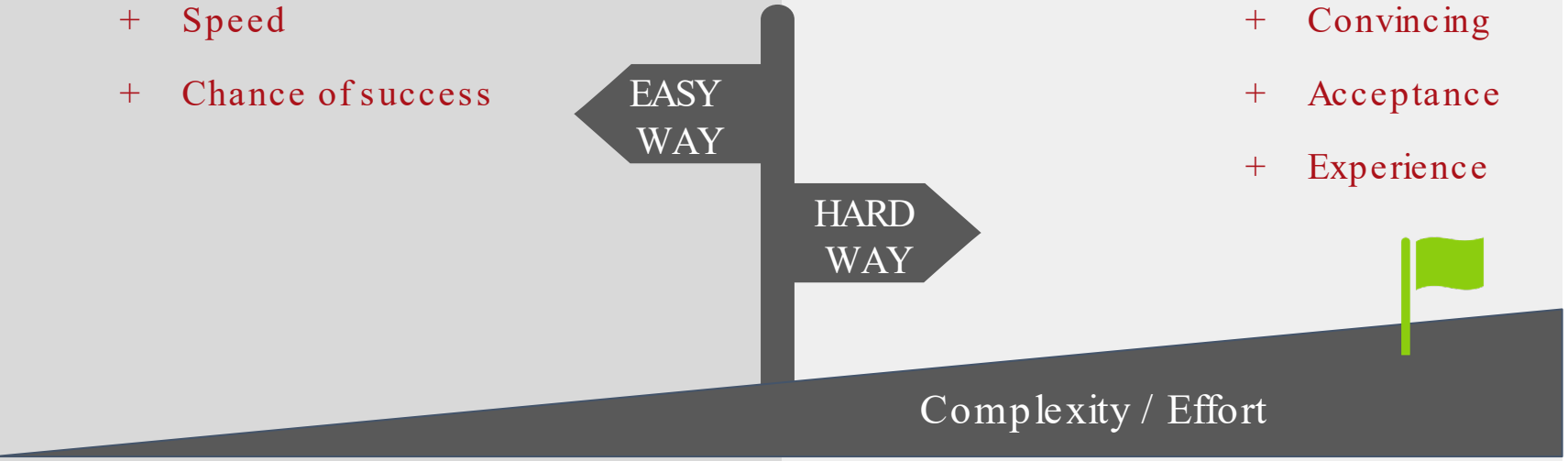
Prod/Acce/Test/Dev-Spoke



Convincing Use Case

Easy Report

+ Speed
+ Chance of success



Complex Analysis

+ Convincing
+ Acceptance
+ Experience

PoC Use Case Transaction Statistics

- Bitemporal modelling & retrospective corrections
- ~1 year initial development time
- ~10’000 lines ABAP Code
- ~2.3 billion records

Our Journey

Culture

Co-creation

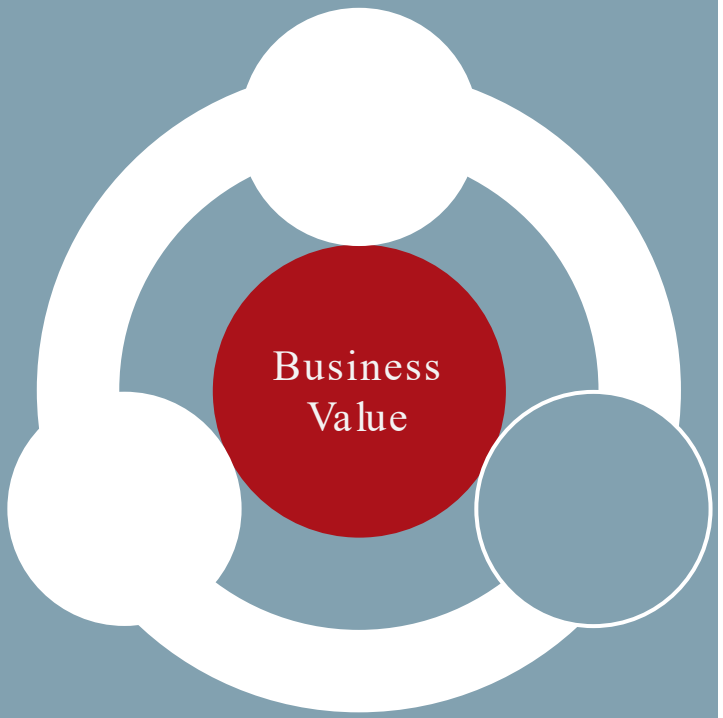
Synergies

Appreciation

Culture

- Excellent team chemistry
- Extensive knowhow transfer to Pax
- Specialized business process knowledge
- Strong analytics & hands-on performance

Technology



Value Proposition Technology

Value Drivers

1 Eliminate Cost & Complexity

Reduce Total Cost of Ownership (TCO)

- Retire Existing Software
- Reduce data processing costs
- Increase Data Team Productivity

Other 'hidden' cost & complexity

"Hard TCO benefits" → Softer TCO benefits

2 Accelerate Innovation

Business Use Cases…
Streaming, data warehousing & data science

- ⬆ Revenue
- ⬇ Operational Risk
- ⬇ Cost

… Accelerated with Databricks
Simplicity, Performance & Productivity

'Go-live' sooner

Scale faster

.Pax

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Data Team Productivity

Before Deadline

Below Budget

Expectation

Above expectations

«If we get the mapping right, it would already be a success»

Reduce Costs and Runtime

upscaling

Cost reduction

required

Decrease
d runtime

Compute Resources

Time

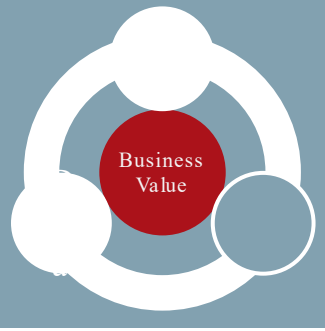
SAP

CHF ~190‘000/year
BW/4HANA

CHF ~160‘000/year
BW on HANA

Runtime reduced by **81%**
compared to SAP BW

CHF ~52‘000/year*
(*estimated from PoC)



Retire Existing Software

Status Quo

Lack of self-service capabilities on SAP BW

Numerous non-centralized business solutions

SAP BW

jedox.

Analysis for Excel

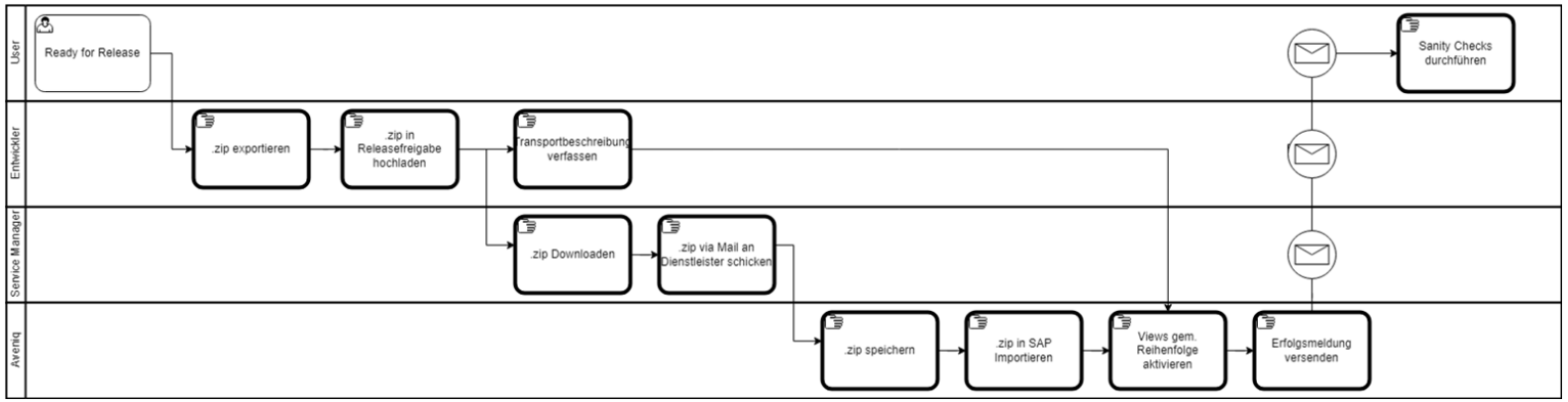
Target Operating Model

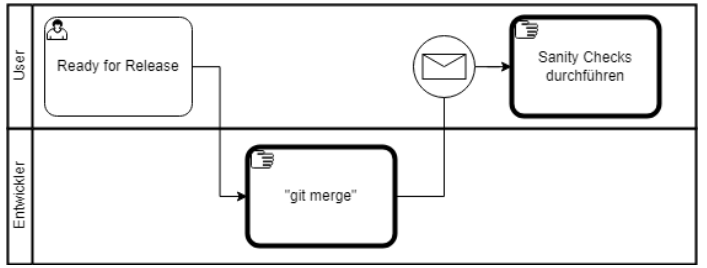
Databricks for data analysis and self-service

Power BI as reporting solution

Other hidden Costs - Releases

SAP BW





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1 Eliminate Cost & Complexity

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2 Accelerate Innovation

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⟷

… Accelerated with Databricks
Simplicity, Performance & Productivity

'Go-live' sooner

Scale faster ✓

.Pax

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Organization

IT must serve business

25 interviews with all business areas

45 relevant criteria for business value

Organization

Time to market

Self-service

We require substantial improvement

Common understanding of data

Central data hub

Organization

Weighted requirement fulfilment score

Status Quo

SAP BW/4HANA

6
(no must-haves)

Databricks

29

65

Independent of platform

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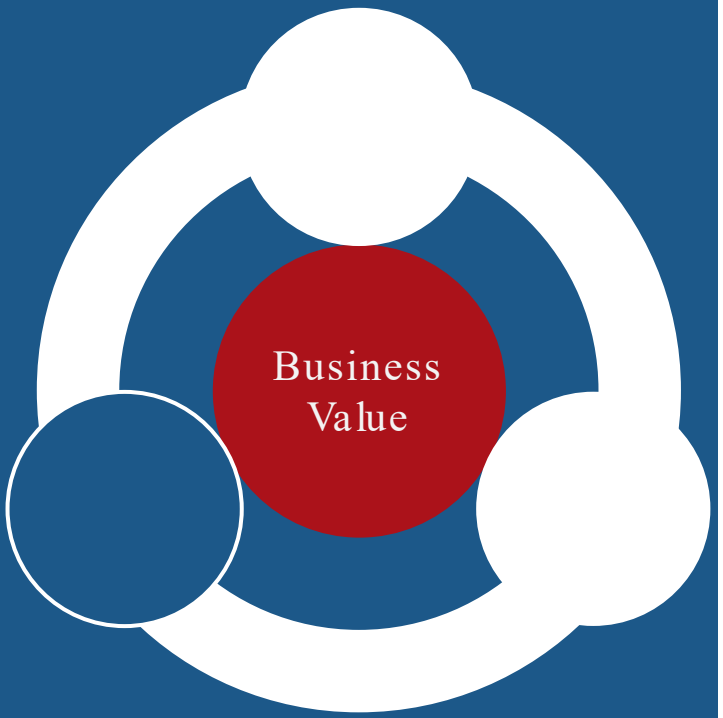
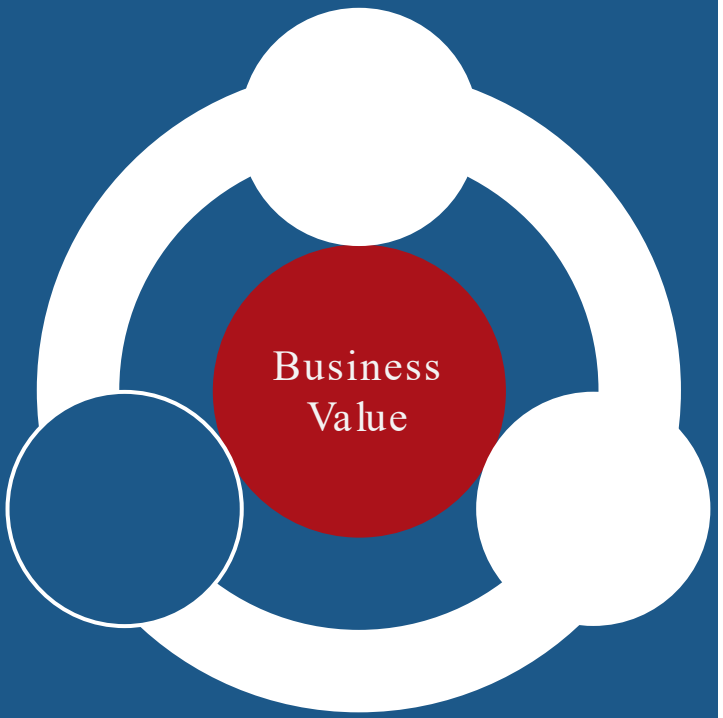
Data

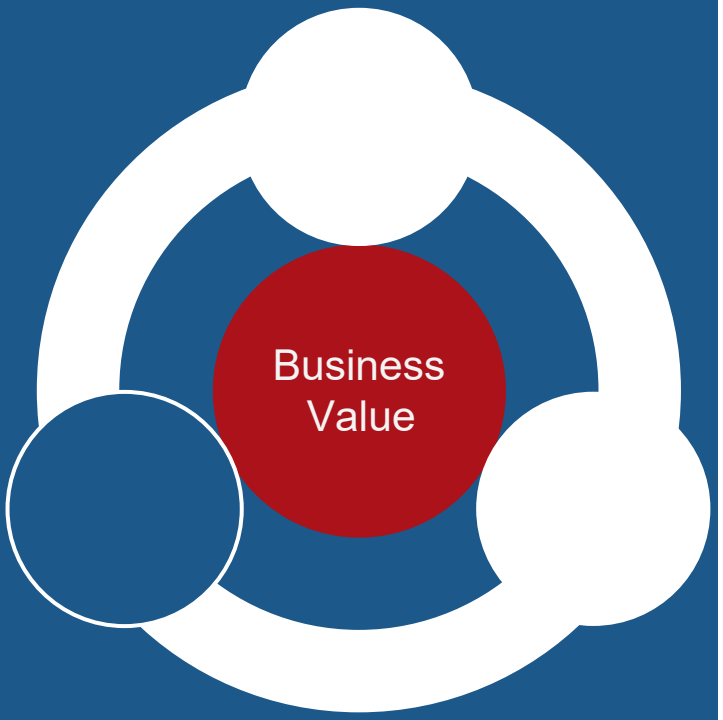


Essence of curation



vs.

Data Modelling



Separating the data elements according to functionality into hubs, satellites & links

Curating the data incl. calculation of derived quantities, harmonisation, consolidation

Shaping the data into dedicated & tailored access interfaces

Landing

Temporary layer within the Information Factory to enable data processing

Unified

Single version of facts Storage of the data as raw as possible fully historized

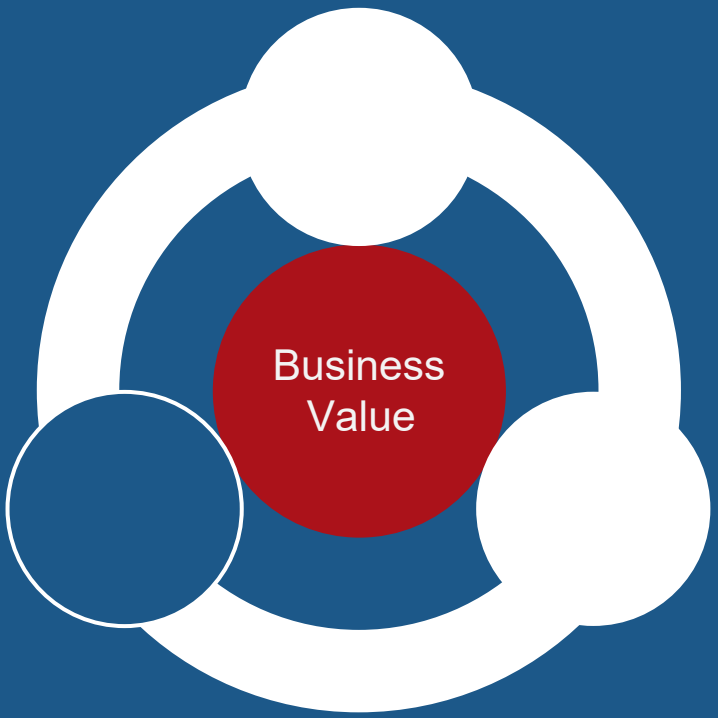
Curated

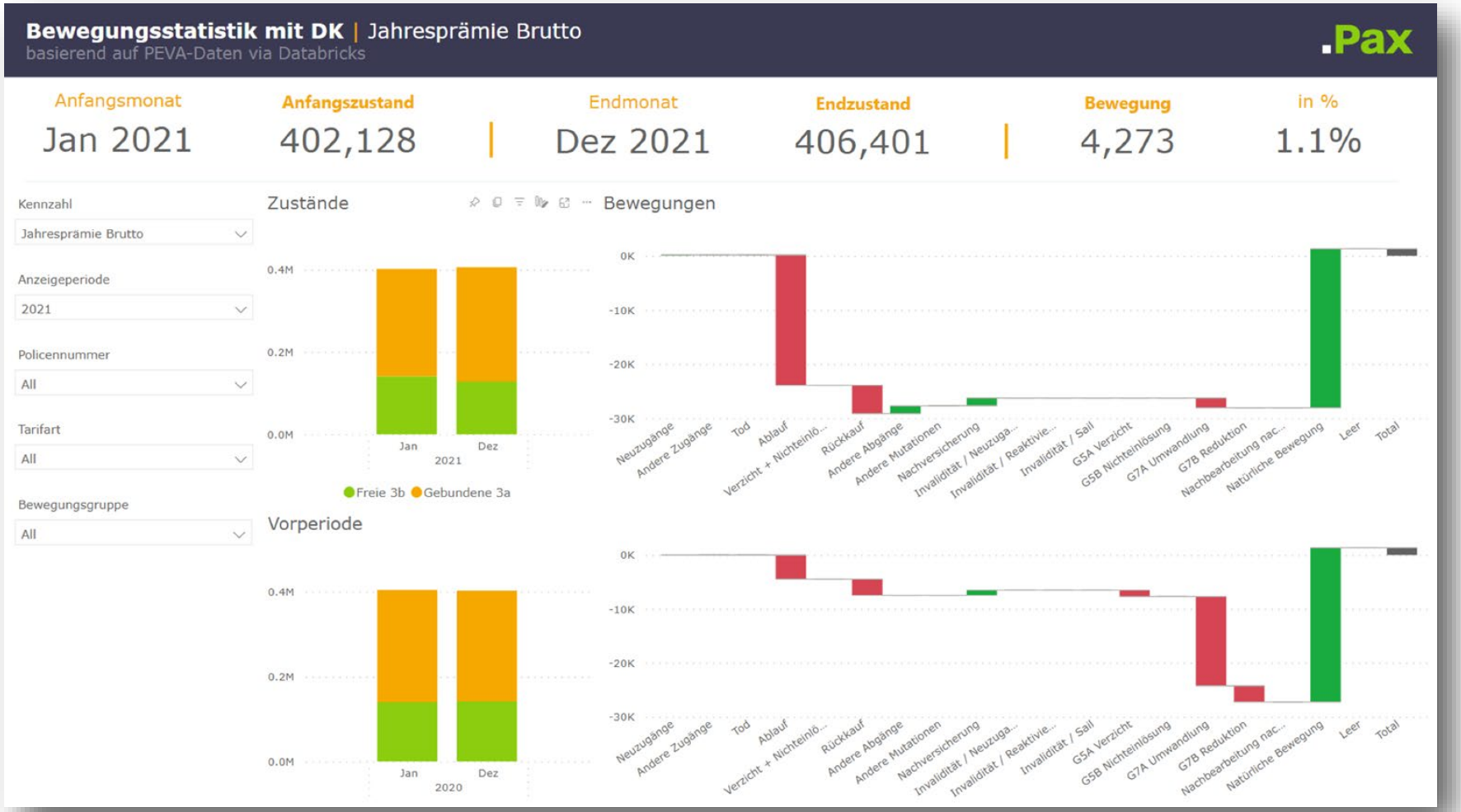
Curated & consolidated data that supports multiple versions of the truth depending on business domain

Serving

Dedicated & tailored **access interfaces** for the various data consumers

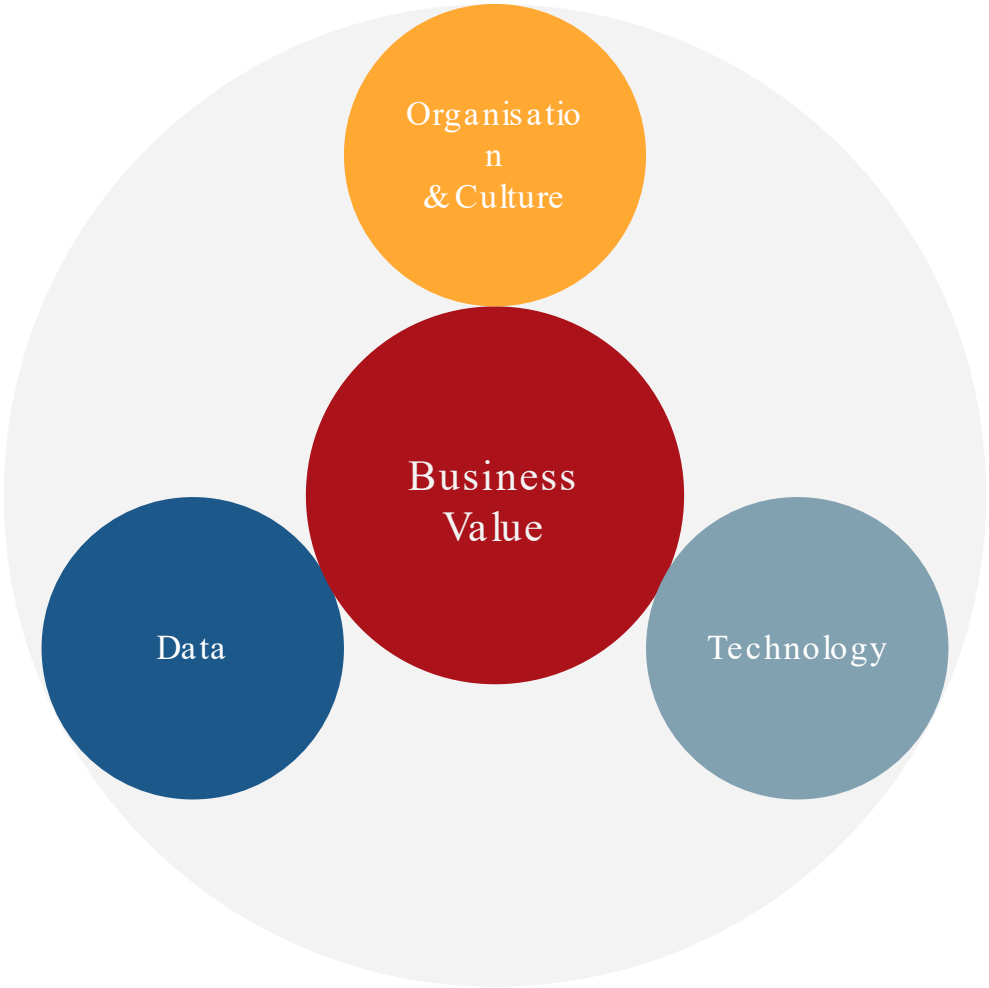
Data Visualization





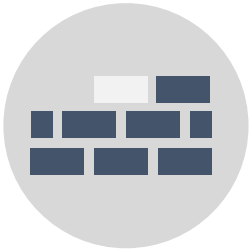
mock data

Our Journey



Executive Board Decision

SAP BW



BrickByBrick

Organisation & Culture	Self-service platform to reduce time to market Increase data literacy across the organisation
Technology	Reduce cost and increase performance Simplify the technical landscape
Data	Data model living up to the complex requirements Enterprise data catalog & lineage

Outlook & Our Vision

Immediate Use Case

Replacement of a legacy self-developed information system for insurance claims

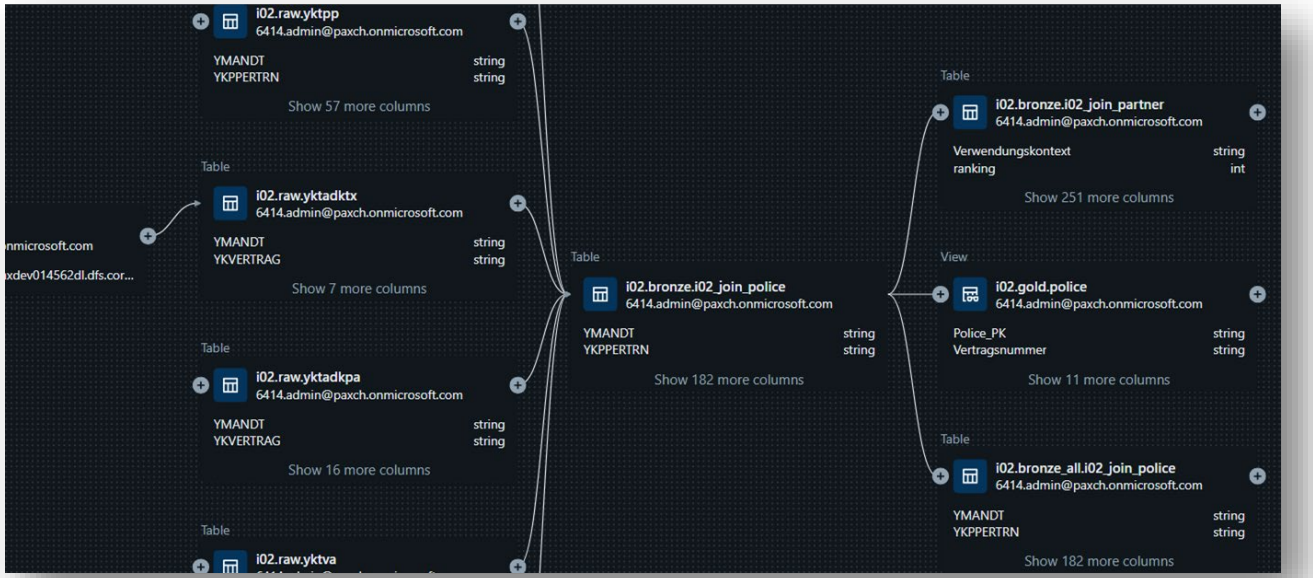
YYSBSECD
YYERWCD
YYPCKTONR
YYNILASCD
YYBERCD
YYZIVILDAT
YYRELCD
YYLNACHDAT
YYLNACHCD
YYGESTCD
YYTODURS
YYAHVNR
YYEXTNR1
YYKUKATVB
YYKUKATCPU
YYNATCD1
YYNATDAT2
YYKAUFKRCD
YYRAUCHERCD
YYHHEINKOM
YYGERSTAND_LAND
YYGERSTAN
YYFLAG_HAREG
YYFIRMSCD
YYWOHNSCD
YYSEQCD
YYANZKINDER
YYHAREG
YYLEGI

Explorative approach

50+ Tables

160+ Columns

82+ Mio Rows



Cluster Scaling

Onboarding

Connectivity

Fun to work and a great success

.Pax

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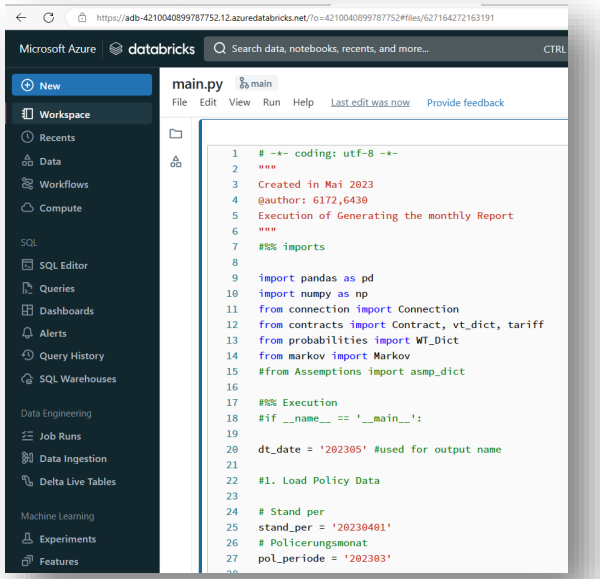
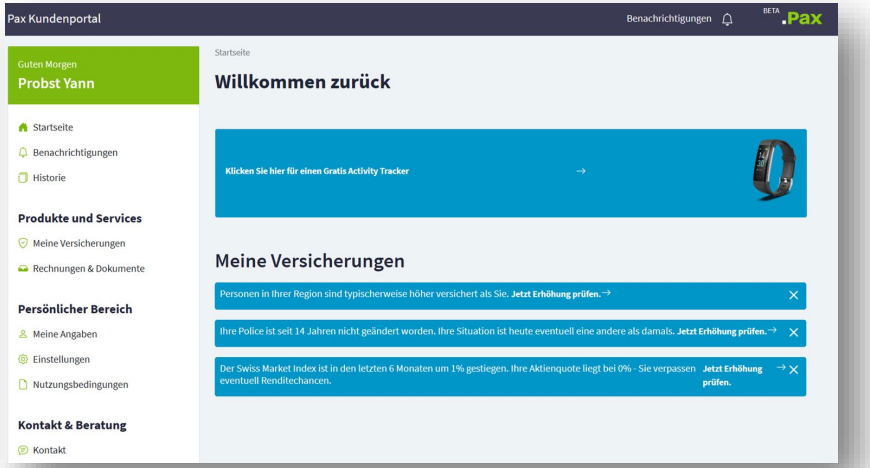
Excitement Across the Organization



Product & Pricing

PoC Kundenportal
SQL Endpoints



OpenAI

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> … the value has been recognized company-wide

The Journey Continues at Pax

Company-wide Reporting

Discover & Use Opportunities

Data Driven Company

Key takeaways

- Bottom-up approach
- Business IT
- Co-creation

DATA+AI SUMMIT

Your questions are welcome!

Clemens Nickel

IT-Expert with a strong background in business administration/stochastics/eco...

Jan Scharnetzky

Senior Consultant D ONE

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