Landesbank Baden-Württemberg

LBBW

Earth. It‘s the place of origin and
home to all known forms of life.
When looked at from space,
you can see it in all its beauty.

Smart Data Collaboration Hub

Simon Steinacher, AI.Associates
Gerrit Bungeroth, LBBW

March 2018

Agenda

1 Company Profile

2 Collaboration Hub – Architecture

3 Private Customers
- Legacy Propensity Models
- Campaign Management

4 Financial Markets

5 Advanced Analytics as a Service

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1 Company Profile

Regional – universal – Bank.

LBBW

BW|Bank Baden-Württembergische Bank | LBBW Rheinland-Pfalz Bank | LBBW Sachsen Bank

Data and facts

- Head offices: Stuttgart, Mainz, Karlsruhe, Mannheim
- Employees in the Group: > 10,000
- LBBW offices across Germany: > 160
- LBBW offices around the world: 17
- Total assets: EUR 244bn

Corporate customers

Private customers

Saving banks

Financial Markets

Real estate financing

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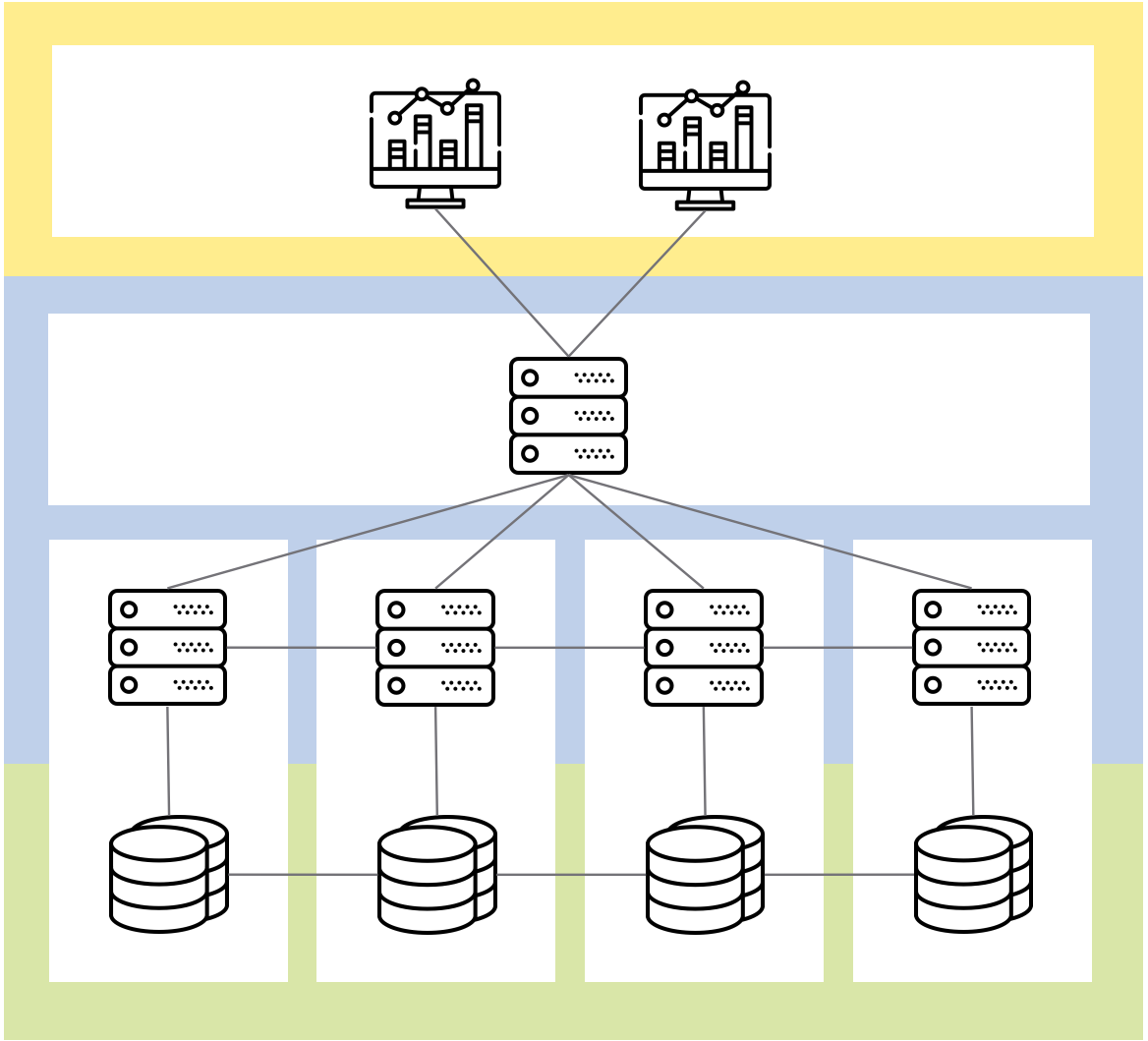
2 Collaboration Hub - Architecture

Smart-Data Environment.



2 Collaboration Hub

Cloud-solution hosted in Germany, designed by ai.associates

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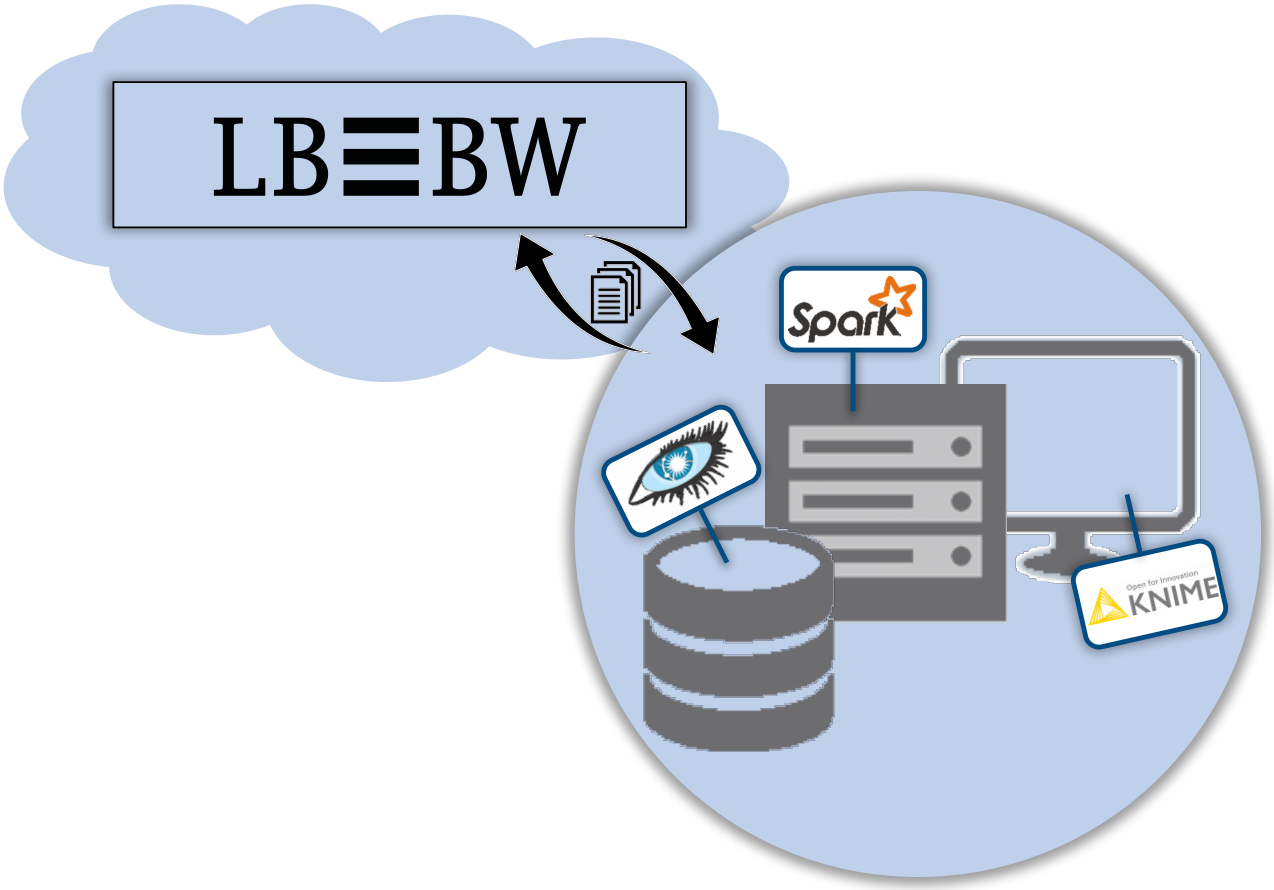

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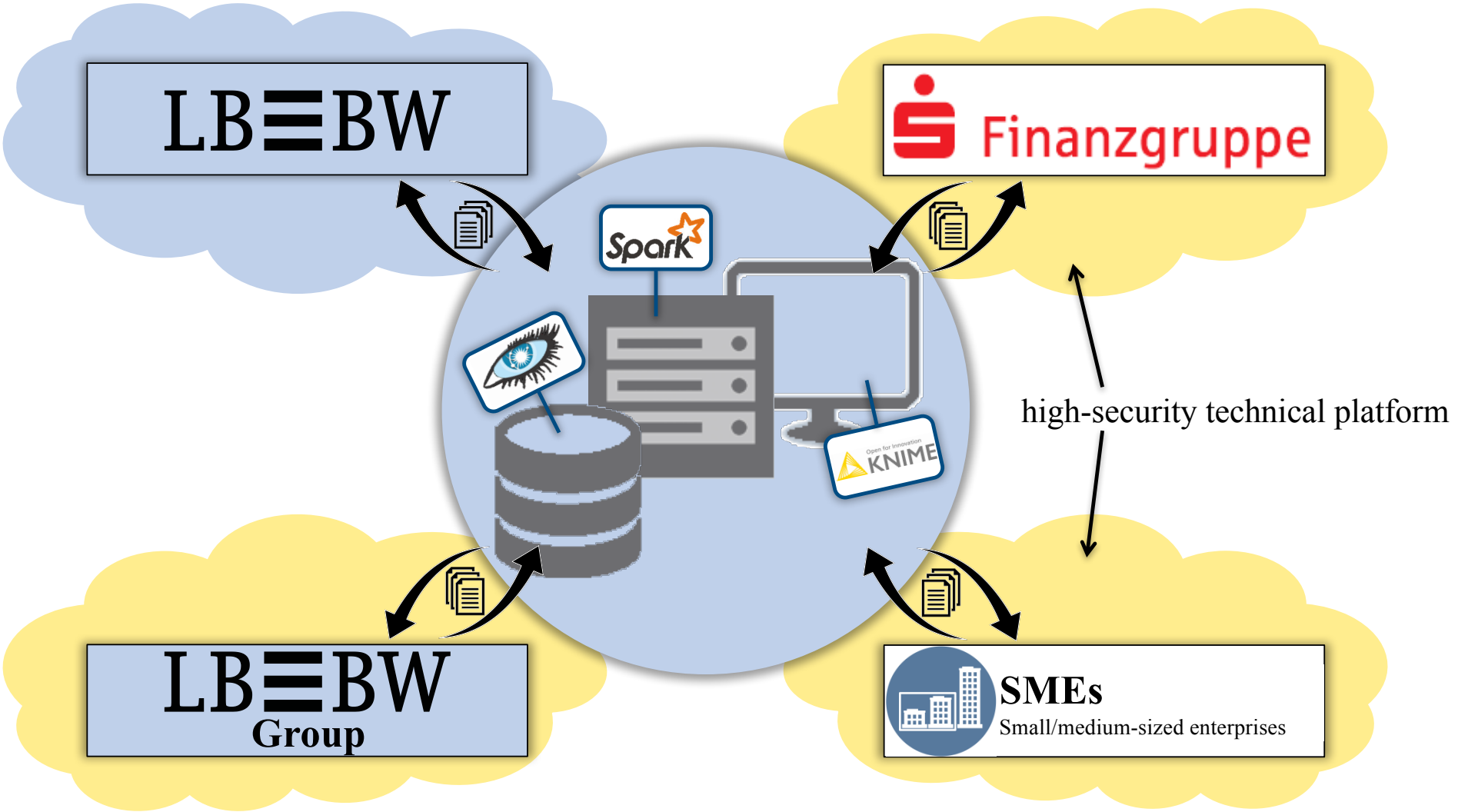

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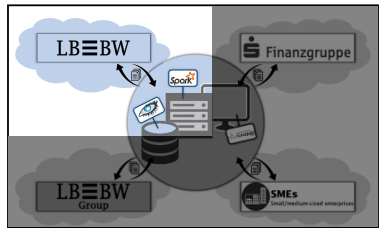
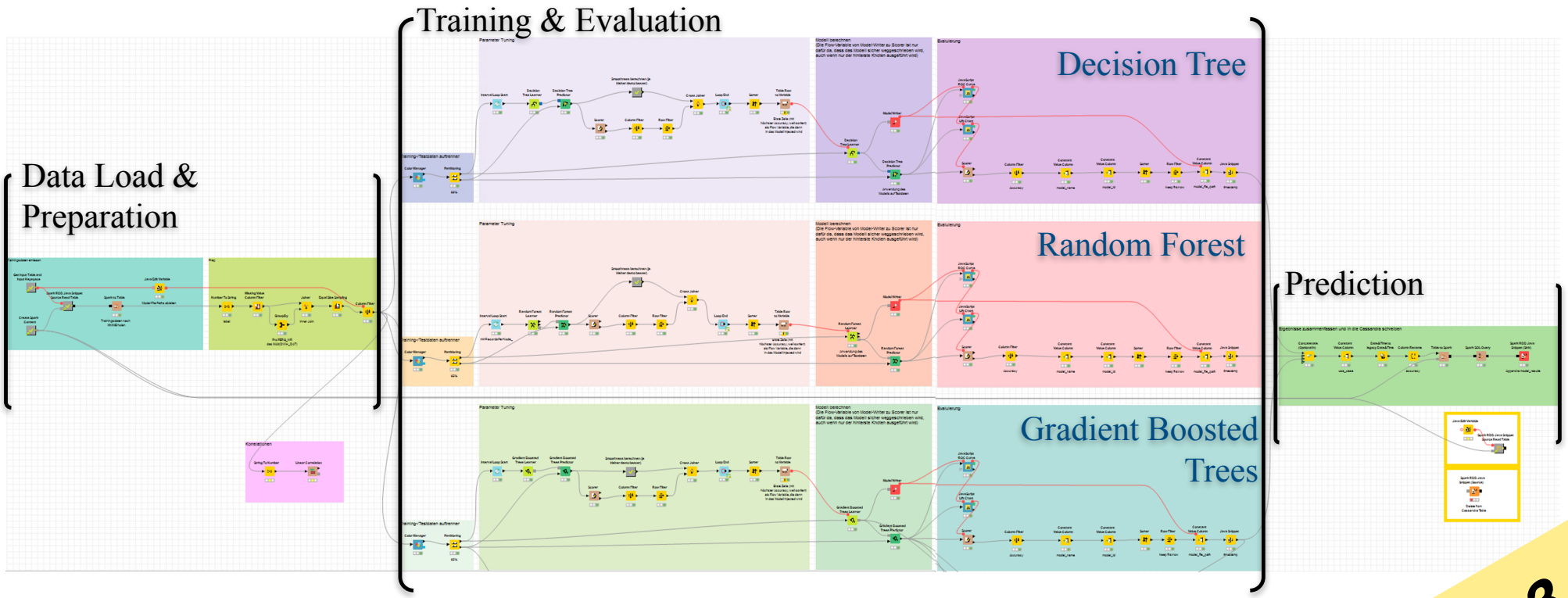
3 Private Customers – Legacy Propensity Models

Boosted analytics efficiency with KNIME.





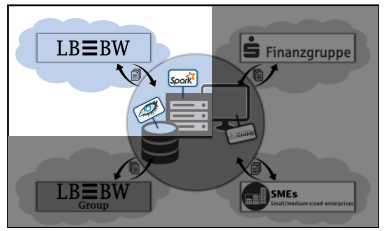
Advanced Analytics Methods

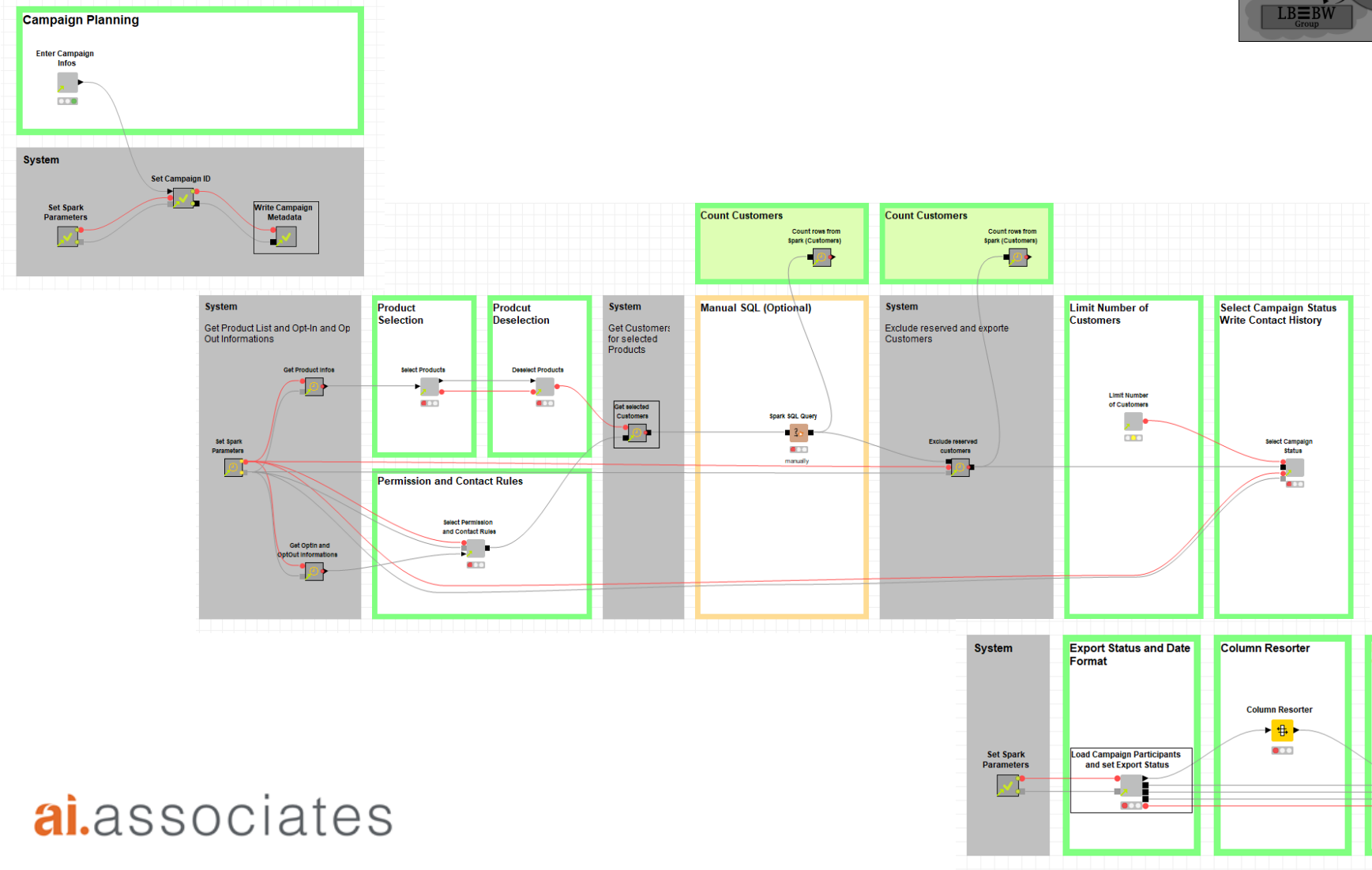
- Machine learning easy to handle
- Automated Hyperparameter optimization
- Learning loop for retraining

UPLIFT > 3

3 Private Customers – Campaign Management with KNIME

Fully integrated & Insight driven Campaign Management





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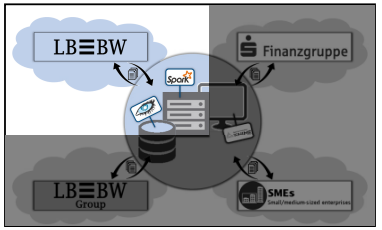
3 Private Customers – Campaign Management with KNIME

Fully integrated & Insight driven Campaign Management



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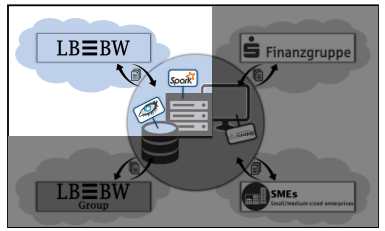

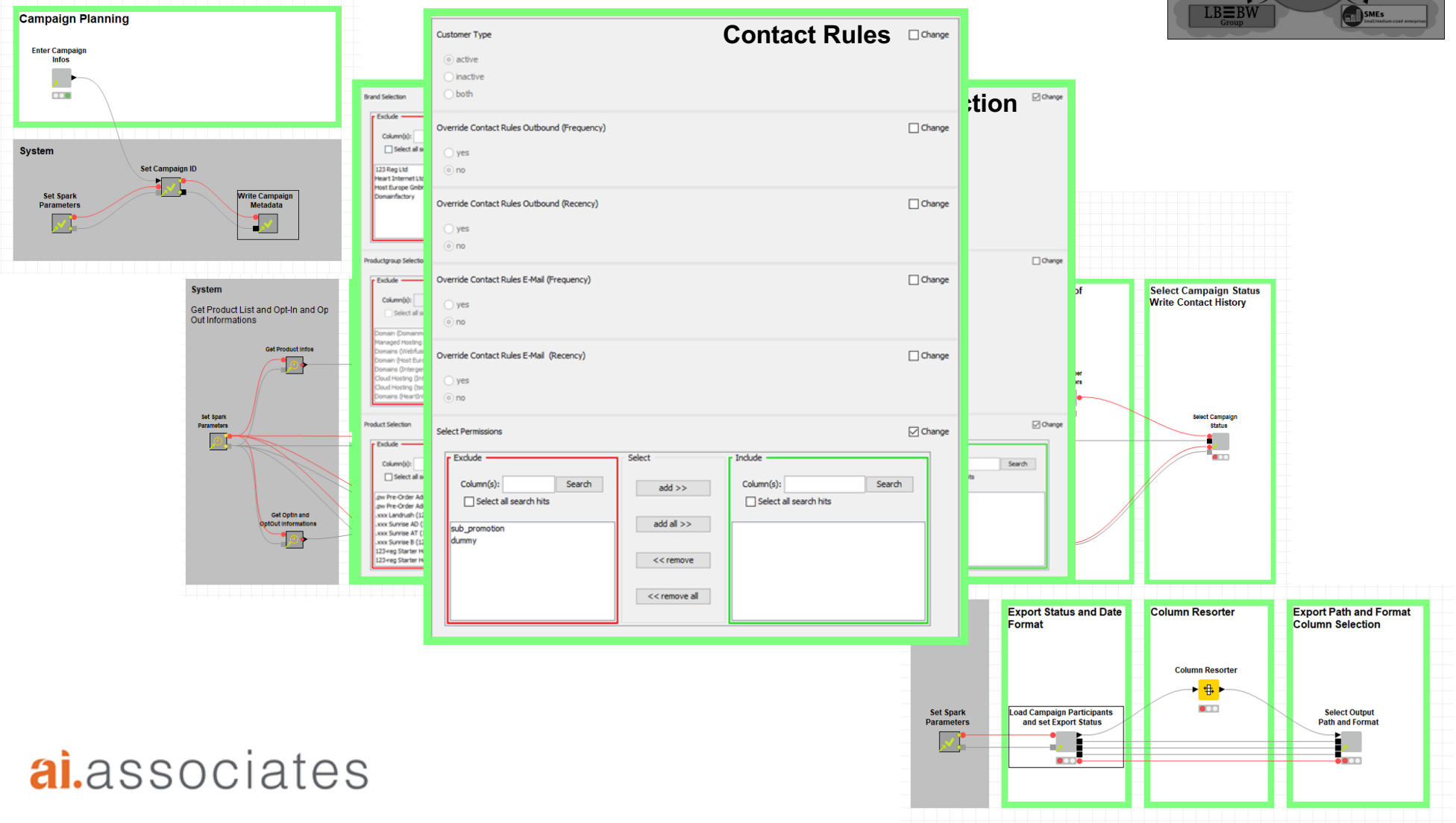

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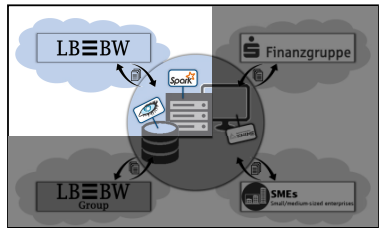
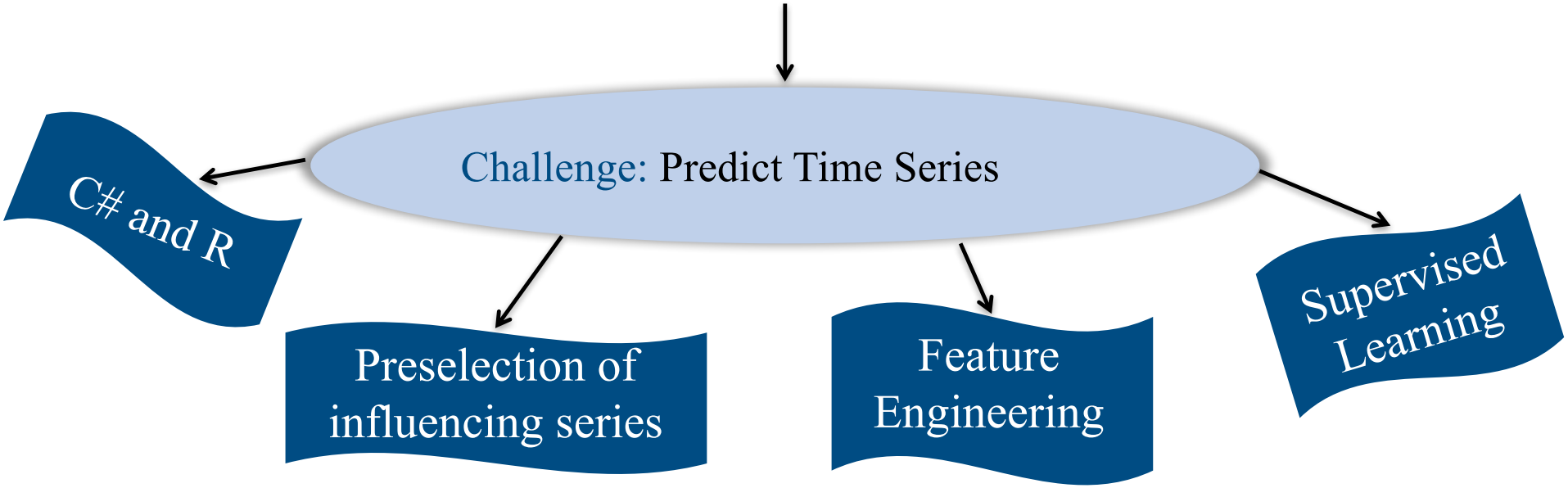
4 Financial Markets

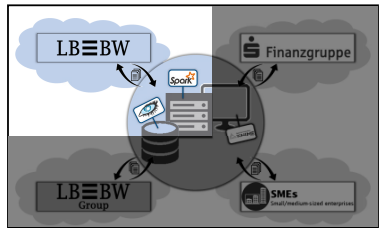
Time Series Prediciton & Methodology.



Application	Quant fund system
Data	• Equity indices • 300 assets worldwide • 17 years on daily basis
Assumption	Contagion and spillover effects between markets exist



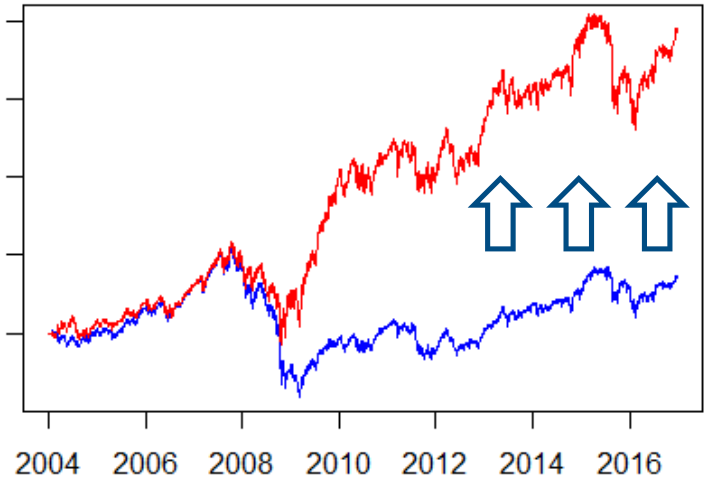
4 Financial Markets



Results I.

Long trading strategy for equity portfolio backtest with long trading

---- Long Trading Strategy („invest in case of positive prediction“)
---- Benchmark Strategy („invest always, without time series prediction“)

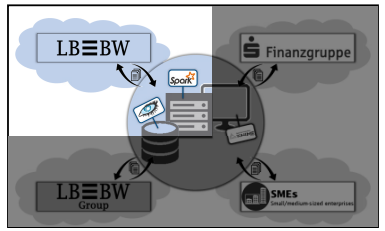


A higher end value shows an improved strategy

- Correlations are observable.
- Fast prototype implementation in C# and R.

- Further development is not done easily
- flexibility, scalability, maintenance error-prone.

4 Financial Markets



Results II.

Use case implemented in KNIME.

Improvement	Easy to extend, flexibel, documented when implemented
Technics	• Implementation in Spark ongoing • Import Data to Cassandra
Organisation	One technical platform, open for corporate wide use case development

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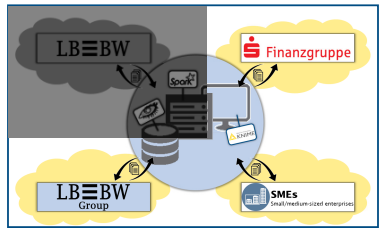
Unlock new market models and foster collaboration on analytics.



high-security technical platform

Input (Data) → Pre-processing → Modeling → Scoring → Output (Insights)

- LBBW Group
- Finanzgruppe
- SMEs

Cooperation	Fraud Detection & Prevention
AAaaS	Legacy Propensity Models
PaaS	Internet of things

Thank you for your attention!

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