



Delivering Data-Driven Value

Risk Analytics Solution

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Risk Analytics – Using data effectively...

The Status Quo

Companies **see the opportunities** offered by Big Data, but in many cases do not know which use cases can be used to exploit the potential



The Challenge

The challenge for companies is to **recognize which opportunities are unlocked by Big Data** and which **specific use cases exist** for a certain department or process



The Way Forward

A **structured identification of Advanced Analytics Use Cases** enables companies to quickly implement them and **generate added value**



... to improve results and decisions

Risk Analytics - Where Management Consulting meets Data Science



Our unique H&P Know-How



Experienced data
scientist alongside
consultants



Successful launch of
pilot use-cases



Structured project
management approach



Structured framework for the
identification, evaluation and design
of use cases



Definition of the **analytics logic** and the
functional concept

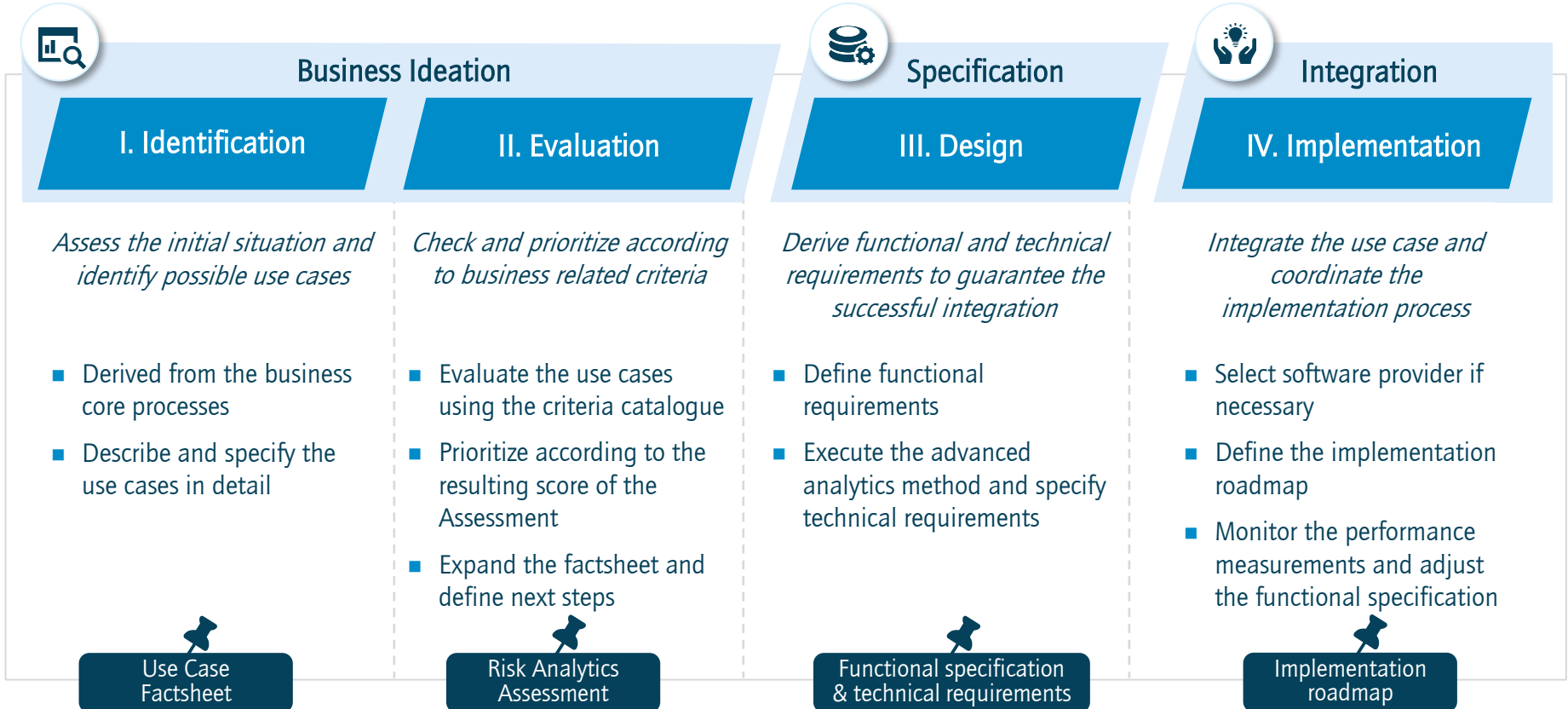


Use of the **latest data analysis tools** and
machine learning methods for the **best
possible use of data**



Consulting for technical implementation
(especially **vendor selection** and
implementation support)

Our 4-Step-Approach to guarantee the successful integration



Our structured use case identification approach enables companies to exploit the maximum potential of their enterprise data

I. Identification

II. Evaluation

III. Design

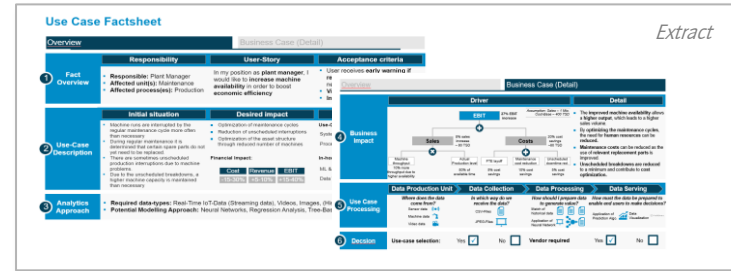
IV. Implementation

What has to be done in the first phase?

- **Primary research** of the initial situation and business core processes with information screening of internal and external data
- **Workshop-based survey** of the core processes to evaluate possible weaknesses and optimization potential
- **Specify the Analytics Assessment** in order to identify additional fields of action to be included in the analytics transformation
- **Concretization and detailed documentation** of the use cases by using our profound factsheet-template

Which tools and instruments are used?

Use Case Factsheet



The screenshot displays a 'Use Case Factsheet' template with a sidebar on the left containing sections: 1. Fact Overview, 2. Use-Case Description, and 3. Analytics Approach. The main content area is divided into several columns: Responsibility, User-Story, Acceptance criteria, Initial situation, Desired impact, and Use Case Description. The 'User-Story' section contains a text box with the placeholder 'In my position as plant manager, I would like to increase machine availability in order to boost economic efficiency'. The 'Acceptance criteria' section lists 'User receives early warning if' followed by a table with columns 'Status' and 'Value'. The 'Initial situation' and 'Desired impact' sections contain bullet points. The 'Use Case Description' section includes a 'Business Impact' table with columns 'Area', 'Impact', and 'Value'. The 'Analytics Approach' section lists 'Required data-eyes: Real-Time IoT-Data (Streaming data), Videos, Images, this' and 'Potential Modeling Approach: Neural Networks, Regression Analysis, Time Etc'. At the bottom, there are checkboxes for 'User case selection' and 'Vendor required'.



Recognition of weaknesses as well as unknown optimization potentials



Incorporation of company-wide strategic conditions

Use case assessment along defined decision parameters allows the best possible prioritization

I. Identification

II. Evaluation

III. Design

IV. Implementation

What has to be done in the second phase?

- Apply our **criteria catalogue** to evaluate the defined use cases defined in phase I
- Expand the **catalogue according** to business related criteria and **determine weighting factors** depending on need and purpose
- Evaluate **each use case** to derive potential business cases along the Risk Analytics Assessment
- Prioritize relevant **business cases** and define next steps by extend the factsheet

Which tools and instruments are used?



Risk Analytics Assessment incl. criteria catalogue



Valuation Dashboard for prioritization

Evaluation criteria	Brief explanations coming from the client	Score (1-10)	Factor (1-3)
I. Business Need			
1. Competency with corporate strategy	Is the use case derived from the corporate or IT strategy? Included in the corporate strategy for 2025	10	2
2. Business-Value-impact	Contribute to increasing the company value? 10-40% reduction in maintenance costs, reduce waste, new improvement opportunities uncovered.	8	3
II. Customer satisfaction and need for innovation			
1. Need for digital innovation - customers perspective	How much can customer satisfaction be increased by a more advanced analytics or digital processes/products?	10	2
2. Need for digital innovation - competitors perspective	Are there already state-of-the-art tools? What does the competitive environment look like?	6	2

Valuation of use cases based on the overall score

Extract



Use Case prioritization aligned with business needs



Transparent decision base

The design phase ensures the alignment of selected use cases perfectly with the needs and requirements of the company

I. Identification

II. Evaluation

III. Design

IV. Implementation

What has to be done in the third phase?

- **Define functional specifications** including following subject areas: organizational requirements, process requirements as well as data related requirements
- **Execute technical requirements** in order to derivate third-party support
- **Involve the IT department and data experts** into the technical design process to ensure the fit of required sets into the reigning IT applications and tools

Which tools and instruments are used?



Template to define functional specifications and technical requirements



Tailor-made solution instead of "one-fits-all-solution"



Safeguarding a successful implementation

Once all necessary requirements have been specified, the rollout and integration of business cases start

I. Identification

II. Evaluation




III. Design

IV. Implementation

What has to be done in the fourth phase?

- Use all existing research activities and consolidate the deliverables of phases I to III completed before to design the implementation roadmap
- Define quality gates and key performance indicators to ensure an effective rollout and close a potential operational or strategic gap
- Operationalization of resulting data knowledge within the affected processes and departments

Which tools and instruments are used?

-  Checklist for the supplier selection
-  Agile implementation roadmap development
-  Performance management cycle



Leading experience in use case implementation and rollout



Strategic approach to ensure successful implementation over the long term

The Risk Analytics Algorithmic Map

From Use Case derivation to Digital Transformation – Excerpt of our asset library

Risk

Strategy

Forecast

Fraud Detection

Detection of fraudulent acts

Counterparty-risk

Identification of stakeholders with increased default risk

Business Radar

Identification of future trends, opinions and sentiments

Competitor Analysis

Strategic analysis of the market environment

Time Series Forecast

Prediction of time series (e.g. energy consumption)

Utilization Optimization

Forecast of demand for better resource planning

Churn Risk

Detection of customers who are likely to churn

Supply Chain Risk

Identification of risks and complex dependencies

Customer Lifetime Value Pricing

Optimized pricing to increase added economic value

Rec. Engine

Recom. of products and services for long-term and strategic customer relations

Predictive Maintenance

Prediction of possible component failures

Scenario Modelling

Modelling and analysis of scenarios and impacts

What are the use cases of Risk Analytics?

PROJECT EXAMPLES

Plan-To-Strategy

Extended Market Screening

Semantic Analysis external data (network)

INPUT

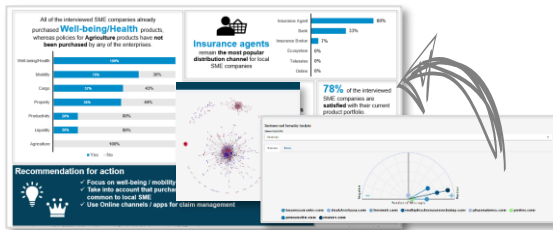
- More than 40 mio. global sources and over 9k relevant documents

APPROACH

- The **Global Business Radar** analyses the sentiment of 100k news articles to identify relevant trends and relationships

RESULT

- Detecting **hidden patterns** for further strategic decisions



Sales

Automated Sales Forecast

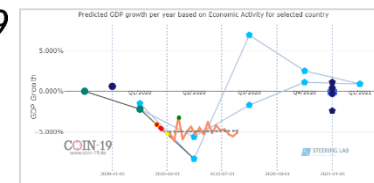
Time Series Analysis

- External available data sources and publications about current figures and statistics

- The **COIN-19 application** combines actual values and current economic factors to provide a systemic and data model-based prognosis

- Displaying the trend forecast in an **interactive frontend**

COIN-19



Example

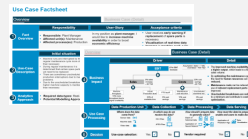
Optimization along the value chain by using a variety of data and analytics methods!

Risk Analytics – Your Advantages

Get a head-start with our Proof-of-Concept Package

INPUT – Transparent factsheet

The requirements for the PoC are defined in the **Use Case Factsheet**



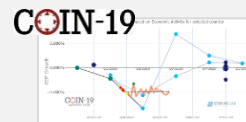
APPROACH – Clear prioritization

Our **Risk Analytics Assessment** facilitates a prioritization of the most interesting use cases

Use Case ID	Use Case Description	Priority	Score
1	Business Model	High	95
2	Customer Acquisition	Medium	75
3	Operational Efficiency	Low	55

SOLUTION – Actionable results

The **PoC Product** delivers usable results, perfectly tailored to the needs of the company



Added Value

Real-life Use Cases aligned with your business challenges



Structured identification of full analytics potential



Tangible results by focusing on the most promising areas



Combining strategic analysis expertise with data know-how





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