

Next generation trading strategies with advanced analytics

The energy trading industry has been put under pressure in recent years

Falling commodity prices, intense competition, new regulations as well as the increasing proliferation of decentralized assets are challenging proven and well-established strategies in energy trading. As a result, many energy trading companies built extensive systems and processes to solve today's issues, sometimes at the expense of efficiency and cost-effectiveness.

Energy trading companies are in need of new insights to serve as a basis for optimizing and standardizing processes, managing cost and complexity as well as streamlining IT investments. Across industries advanced analytics and data

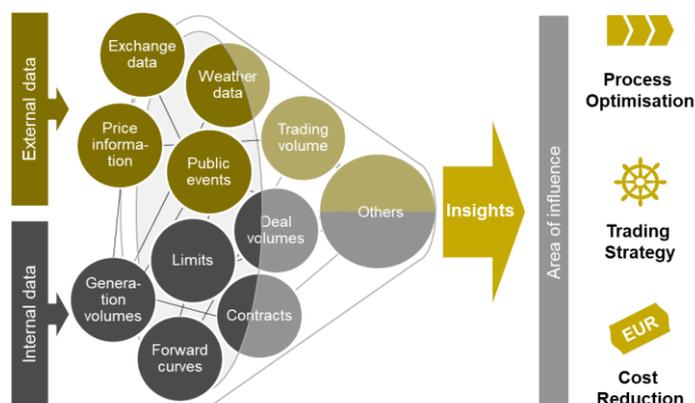
science is the preferred response to challenges in turbulent markets. Accordingly, advanced analytics also gains importance in energy trading to successfully tackle the search for more profitable strategies, optimized processes and innovative products.

Energy trading companies find themselves at the crossroads and need to make an informed choice whether they prefer to adhere to known ground with their currently established processes and strategy or embark more strongly on the digital journey.

Tap the potential of your data

Data and its inherited valuable information is considered as the gateway to competitive advantage. With energy trading analytics large amounts of internal data such as price curves, contract information, limits and volumes can be combined and blended with external data such as weather data, exchange data and public events.

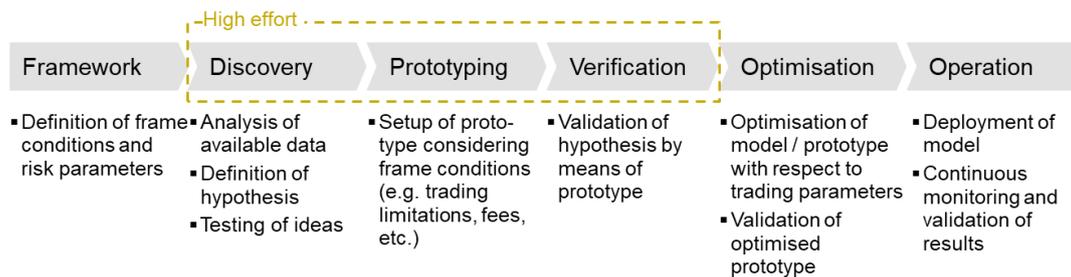
Most of this data is already available within the organization and too often only used for its specific purpose. Looking at data insights holistically by applying statistical methods, optimization algorithms and machine learning approaches enable energy trading companies to identify patterns, verify hypotheses, optimize processes, lower costs and finally gain competitive advantage.



Increase your efficiency and ROI

Referring to the standard process of trading strategy development the first phases (discovery, prototyping, verification) are the ones that drive the effort. Using tools like R, Python or Excel is a very common but time consuming approach for defining, building and testing new trading strategies. Taking into consideration that a substantial set of strategies do not deliver the desired results in the verification phase, and hence are discarded, the cost-value ratio of this approach tends to be low.

By choosing an advanced analytics approach the development effort for a specific trading strategy is decreased since hypotheses can be validated more quickly and strategies do not need to be formulated and programmed in detail. This increases the share of profitable strategies in terms of both the quantity and the overall time for development. Due to the declining development cost and the raise in the share of profitable strategies the corresponding net income increases.



You have the questions - we support you in finding the answers

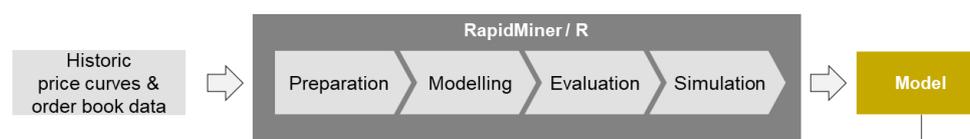
There are a lot of pressing questions related to trading strategy or to unexplored areas. What are your questions?

- How can we increase **quality** of our energy **forecasts**?
- How can we better **predict** the **impact of weather**?
- How can we **optimize** our asset **portfolio** and its geographical distribution?
- How can we **leverage** the increasing **diversity** and **decentralization** of power generation?
- How can we establish **faster access** to relevant **market data** for analysis?
- How do **inter-commodity** and **inter-country dependencies** change over time?
- How do **influence factors** on **prices** change over time?
- What are the **key drivers** of certain phenomenons

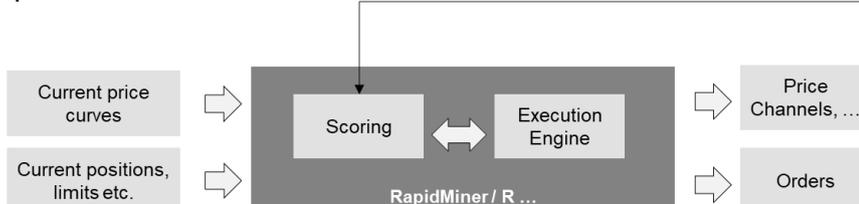
Depending on the specific use case(s) to be evaluated we identify the data required and derive the appropriate data and analytics model. E.g. by using historic trading data we train the model in order to validate the hypothesis as well as optimise the model with respect to relevant trading parameters. Or we train the model to evaluate given data for correlations and identify key drivers to focus on.

The optimised model is deployed to the production environment afterwards to be fed with current market and price data in order to generate appropriate trading signals.

Model development:



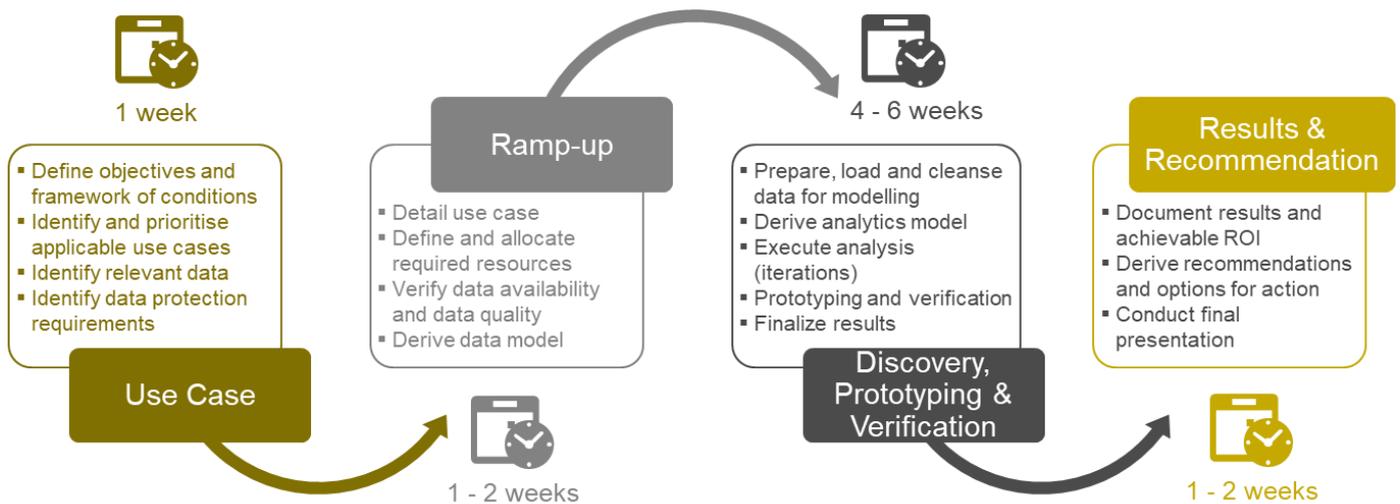
Operationalisation:



Do not invest in advanced analytics without a business case

Undoubtedly, gaining new insights is a challenging task, especially if the required analytics platform, IT infrastructure and staff with the right skills are not in place. There is substantial effort and costs associated with introducing advanced analytics. A prototype-based approach can reduce the amount of sunk costs by testing the economic viability of

use cases prior to committing investment in implementation. The Advisory House supports energy trading companies with the following approach that ensures a basic enablement of key users in advanced analytics and delivers concrete results to be used for a business case calculation within 7 to 11 weeks.



The Advisory House helps you to capitalise the hidden values of your data

The Advisory House is a management consultancy 100% focused on Europe's energy and energy technology industry with over 50 consultants operating out of four locations across Europe.

We use our industry experience to frame feasible business cases for trading analytics and perform their proof of concept by use of prototypes. With our strong partners we ensure that required infrastructure and tools are provided on-demand and without interfering with your existing system landscape.

During the prototyping phase energy trading companies gather additional insights into their trading activities, build expertise in the area of advanced analytics and receive recommendations for action that make a difference.

Based on our significant implementation experience we support your advanced analytics journey from the first conceptual design through to implementation of algorithmic trading bots. Please contact us with your potential use cases to schedule a demo workshop.