

Data-driven solutions to cut energy expenses

Niklas Mayer | HSG Alumni Webinar | 30 Nov 2022

High energy costs pose a challenge and are here to last

Several factors likely push energy costs even higher in the coming years¹:



>300 EUR / MWh May become a more frequent wholesale electricity price range











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Niklas Mayer Al Project Manager



Our end-to-end offering unlocks the power of Al for your business



Identification, evaluation and strategic planning of business cases through external support or internal capability building



Al Development

Explore, define, assess and build custom Al products from initial validation to fully deployed industry solution



Al Operation

Integrate, operate and monitor cutting edge AI pipelines without downtime and a maximum level of reliability





Providing AI solutions to every industry





Enterprises have several means to reduce their energy bills



Data-driven consumption & production planning

short-term

- Generate insights from historic consumption data
- Identify demand peaks and root causes
- Predict consumption patterns and plan accordingly

Energy-optimised production parameters

medium-term

- Leverage machine
 parameters to detect
 workflow inefficiencies
- Address individual aspects of the shop floor process
- Optimise along the whole process chain

Change energy mix and production technologies

long-term

- Adapt energy sources and requirements
- Develop proprietary production machinery
- Upgrade existing production lines to more energy efficient plants



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The big lever of data & Al are predictions and recommendations

Intelligent planning

Generate recommendations for production planning and process parameters





Predictive AI systems enable data-driven energy management and sustainable cost reductions





Efficiency analyses

Evaluation of energy data to identify inefficiencies and derive appropriate solution strategies.

> REALISATION OF SAVINGS

Load profile prediction

Identify consumption patterns of different machines and predict expected load profiles.

> SHAVING CONSUMPTION PEAK

Production steering

Dynamic load management and recommendations for energy optimisation of production steps.

> COST-OPTIMISED PRODUCTION

What is AI actually?



Three core aspects are crucial to every AI project





Organisational setup

Who implements & operates the solution?



The AI Canvas framework helps addressing all relevant aspects of data-driven development projects





MERANTIX



Kick-start your AI energy project and cut energy costs



Exemplary calculation for an average manufacturing company¹:

10% reduced energy costs results in savings of

EUR **300,000**

Relevant steps to realise these savings

- > Technical interview to identify the status quo and the pain point
- > Validation of available data sets and the business case (ROI!)
- > Planning an individual development roadmap
- > Implementation of an initial prototype



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