Faculty of Management, Economics and Social Science
Chair of Information Systems for Sustainable Society (Prof. Ketter)

Bachelor Thesis

Optimizing funding search for renewable energy investments

The transition of the energy system towards renewable energies resembles a Herculean task. Navigating the funding landscape adds another layer of complexity. For an SME looking to invest in a new energy system, the abundance of funding possibilities can be overwhelming. Each option comes with its own set of criteria, eligibility requirements, and timelines. There are government grants, tax incentives, loans, and private investment opportunities, each with its own nuances and application processes.

Moreover, the renewable energy sector itself is dynamic, with technology advancements, market fluctuations, and policy changes constantly reshaping the landscape. This adds an additional layer of uncertainty for SMEs seeking to invest in new energy systems.

The start-up concept**e** works on a mathematical optimization to solve the individual decision problem for designing a new energy system under individual constraints of the customers. To give the customer a realistic estimate of investment costs, it is important to know which funding would be applicable.

The aim of this thesis is to create a database of funding possibilities that allows for direct assessment during the optimization.

Key tasks and objectives of the thesis

- Familiarization with the concept**e** optimization
- Analysis of funding types and requirements
- Design of interface to optimization for necessary information transfer
- Implementation database and interaction with the concept**e** software

Your profile

- Study of mathematics, computer science, engineering or related
- Motivation for renewable energy transformation
- Experience in programming (preferable Python)

We offer

- Intensive and reliable supervision during your thesis
- Practical application of your work
- A young dynamic partner team in concept**e**

Topics

- Energy Systems
- Funding

Methods

- Database
- Optimization

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