



NUMEROBIS

optimization

Key points:

AI-ASSISTED
OPTIMIZATION

USER-FRIENDLY
INTERFACE

MATHEMATICALLY
PROVEN

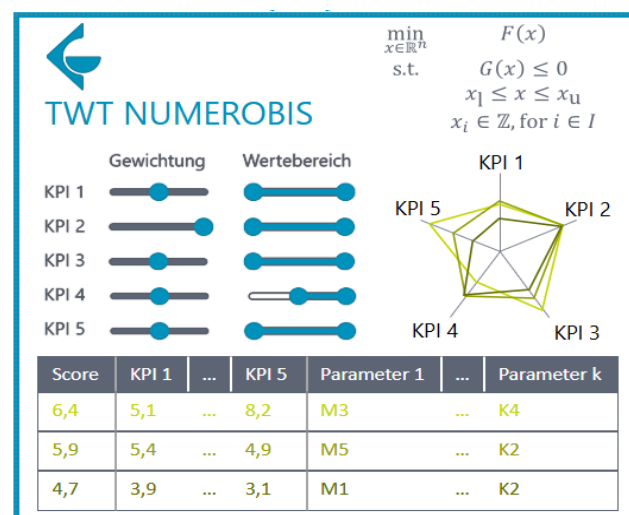
TRANSPARENT &
EXPLAINABLE
DECISION MAKING

NUMEROBIS is a digital toolbox designed to create tailored solutions for optimization challenges. It enables users to assemble individual tools by combining various modules, each responsible for specific tasks within the optimization process. Each module contains different widgets that can be selected as required, allowing for flexible and customized workflows.

The platform supports users in formulating and solving complex optimization problems—including multi-objective, mixed-integer, and solution space engineering tasks—through an intuitive graphical interface. This interface facilitates the visualization of trade-offs and optimal configurations, making the decision-making process transparent and actively supported.

The core of **NUMEROBIS** is a state-of-the-art mathematical kernel that guarantees mathematically secure, reliable, and fully documented results. Unlike heuristic methods or intuition-based decisions, **NUMEROBIS** delivers proven, robust solutions. This foundation is especially valuable for handling discrete or mixed-discrete variables, a challenge that traditional gradient-based optimization methods often struggle with. The algorithmic core is specifically developed to manage such complexity natively and efficiently.

The platform has been successfully applied in areas such as vehicle concept development, modular system design, variant management, lifecycle analysis, and complex process optimization. With its unique combination of modular flexibility, mathematical precision, and interactive visualization, **NUMEROBIS** enables better, faster, and more transparent decision-making for teams across industries.



Graphical Summary of TWT NUMEROBIS

APPLICATION AREAS

CAR-DOOR TRIM DESIGN

- KPIS: sustainability, costs, luxury, materials, etc.

GEARBOX DEVELOPMENT

- KPIS: weight, costs, efficiency, size, fitment, etc.

CAR LOADING ASSISTANCE

- **Maximizing the Load of a Car Transporter**
- KPIS: height, space, width, security, load, number, etc.

HEALTHCARE SYSTEMS

- **Ontological Modelling of an Healthcare System**
- KPIS: staff, devices, beds, rooms, etc.

CONTACT PERSONS

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