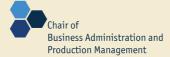
# Prof. Dr. Jutta Geldermann



Prof. Dr. Jutta Geldermann is professor of Business Administration and Production Management at the University of Duisburg-Essen.

After her diploma degree in Industrial Engineering, obtaining her doctorate and postdoctoral lecturing qualification at the University of Karlsruhe (now KIT - Karlsruhe Institute of Technology), she was chair holder and professor of Production and Logistics at the Georg-August-University of Göttingen from 2007 to 2018. She has successfully acquired and conducted more than 40 research projects funded by industry, German

Research Foundation (DFG), Volkswagen Stiftung, the European Union (EU) and various ministries



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**Open-**Minded



Chair of Business Administration and Production Management

#### Academia

We teach the application of classical and innovative methods and models for decision support in production management and logistics.

Our lectures, seminars, practical lectures and excursions are primarily aimed at students of industrial engineering. Bachelor's and Master's theses are supervised for ongoing research projects or in cooperation with companies.

The range of courses offered by the Chair of ABWL and Production Management comprises:

#### **Bachelor:**

- Introduction to Business Administration for Industrial Engineers
   Operations Research for Industrial Engineers
- Production Management
- Bachelor seminar Production Management

#### Master:

- Supply Chain Management (POM 1)
- Plant Management in Industry and in the Energy Sector (POM 2)
- Methods of Production and Operations Managements (POM 3)
- Seminar for Production and Operations Management

#### Research

Our research projects focus on planning and decision-making models for improving resource and energy efficiency in individual production systems and in supply chain management. In particular, we use methods of operations research, especially multicriteria decision support, for the techno-economic optimisation of production systems, also taking sustainability into account. In the context of Industry 4.0 many current research questions emerge. We are interdisciplinary and cooperate with national and international partners from science and industry.

### **Selected research projects**

**SustEnergyPort** - Simulation-based evaluation of measures to increase energy sustainability in port operations

In cooperation with HHLA Hamburg Harbour and Logistic AG, a catalogue of measures to improve energy efficiency and the use of renewable energies was compiled. The techno-economic and ecological evaluation of the measures is carried out with the aid of multi-criteria decision support. On this basis, a roadmap for achieving a profitable and environmentally compatible terminal operation will be developed.

### **SALAM 2 -** Transboundary Strategies for Integrated Water Resources Management (IWRM) for Solving the Water Deficit Problem in the Middle East

The research project serves the development of integrated planning instruments for sustainable use and adaptation of sustainable water technologies to different climatic, economic and social conditions. The chair is responsible for the techno-economic evaluation and multi-criteria decision support for the selection from a variety of technical alternatives.

Contact: M.Sc. Sebastian Schär

## **WISDOM4E** - Knowledge-based design of complex materials and systems for sustainable electrochemical energy storage and conversion (Concept Phase)

The aim of WISDOM4E is to develop new functional materials from available resources, to maximize the performance of electrode structures and to optimize the complex interaction of system components as well as to accelerate the scale-up of core technologies to industrial scale. Within the project consortium, the chair is responsible for the techno-economic evaluation of production processes by applying methods of multi-objective decision support and lifecycle assessment for the systematic analysis of the environmental impacts of products during the entire life cycle and within complex value-added networks.

Contact: M.Sc. Christina Scharpenberg
M.Sc. Sebastian Schär

Contact: M.Sc. Frik Pohl

Contact: M.Sc. Marcel Dumeier