Prof. Dr. Grit Walther

(*01.09.1974, married, two children: 2007, 2017)
RWTH Aachen University
Faculty for Economics and Business Administration
Chair of Operations Management
Kackertstraße 7, D-52072 Aachen
Phone: +49 241 80 23831, walther@om.rwth-aachen.de

ORCID: 0000-0003-0022-9027
URL for web site: http://www.om.rwth-aachen.de/
https://scholar.google.com/citations?user=aLF1H4MAAAAJ&hl=en&oi=ao

Working group vision and contribution to catalaix

The working group serves as an interface between practical requirements of the plastics sector and the catalytic research in catalaix. It involves the detection of the plastic sector's requirements regarding future materials and technologies, the modeling and evaluation of the catalaix technologies, and the analysis of the effects of their implementation in the context of transforming the plastic sector into an open-loop circular system.

Current & Previous Positions

Since 2012	**Professor** of Operations Management (W3), RWTH Aachen University, Aachen, Germany
2010-2012:	**Professor** of Production & Logistics (W3), Bergische University Wuppertal, Germany
Since 2006:	**Visiting Professor/Researcher** at Indian Institute of Science (IISc), Bangalore (India), Instituto Superior Técnico, University of Lisbon (Portugal), HEC Montréal (Canada), Rotterdam School of Management, Erasmus University Rotterdam (The Netherlands)
2004-2010:	Postdoctoral Fellow, TU Braunschweig, Germany

Education

2004-2009:	**Habilitation**, Venia Legendi for Business Administration, TU Braunschweig, Germany
2000-2004:	**PhD** with Prof. Spengler, TU Braunschweig, Germany
1994-2000:	**Diploma in Geo-Ecology** (Environmental Science), TU Braunschweig, Germany

Fellowships and Awards

2015	**Gert-von-Kortzfleisch Price** of the German System Dynamics Society
2013	**Teaching Award** for the Lecture „Production Planning in the Automotive Industry“, best lecture based on students’ evaluation
2006	**Scholarship** of the Rotterdam School of Management for Visiting Researchers
2005	**Heinrich Büssing Award** of TU Braunschweig for excellent achievements of Junior Scientists

Contributions to the science system

Since 2018	**Steering Board Member DFG Center of Excellence** The Fuel Science Center,
Since 2016	**Speaker NRW Graduate Research School** ACCESS!
Since 2016	Member of **Scientific Advisory Boards: FINEST** (Helmholtz Center Dresden, since 2023), **CAPTNEnergy** (BMBF/WIR!, since 2023), **German Research Center on Biomass** (DBFZ, Leipzig, 2016-2020)
2015-2018	**Vice Speaker** (2017-2018) & Member, **Strategy Council RWTH** Aachen University
Since 2014	Core Group Leader & PI at the **BioEconomy Science Center NRW**
2016-2020	Elected Member of the **DFG Review Board in Economics** (DFG-Fachkollegium 112)

2014-2018	**Founder and Coordinator** of the **EURO-Working Group** "Sustainable Supply Chains" (Association of European Operational Research Societies, EURO)
Since 2014	**Steering Committee Member**, RWTH Profile Area „Mobility & Transport Engineering"
2014-2016	**Chair** of the **VHB Scientific Panel** on "Sustainability Management" (Association of the German Professors of Business Administration, VHB)
2009-2015	Deputy Head of the **GOR-Working Group** „Simulation and Optimization of Complex Systems" (German Association for Operations Research, GOR)
2003-2016	Member of the **VDI Commission** for the Revision of Directive VDI 2343 „Recycling of Electrical and Electronic Equipment" (The Association of German Engineers, VDI)
2011-2016	**Jury Member Dissertation Award** (German Association for Operations Research, GOR)
Since 2014	Head of the **Coordination Committee** for all RWTH Degree Programs in Industrial Engineering (2014-2020), Head of Board of Examiners for the Degree Programs in "Management, Business and Economics" (since 2021) & extra-occupational Master "Logistics and Supply Chain Management" (2014-2022)

Selected Projects

Starting 2023	PI **ACCeSS** „Active Carbon Capture for Sustainable Synthesis", Profile Area NRW
Since 2022	PI **BioPlastiCycle** „Transitioning bioplastics to the circular economy", BioSC NRW
Since 2022	PI **NewBias** „New Biochars for the Improvement of Agricultural Soils, BioSC NRW
Since 2022	PI **EnArgus** 3.0 „KI-based Information System Energy Research", BMWK
Since 2019	Core PI **The Fuel Science Center** „Adaptive Conversion Systems for Renewable Energy and Carbon Sources", Cluster of Excellence, DFG
Since 2016	Speaker **ACCESS!**, PhD Graduate School NRW
Since 2016	PI **Verbund.NRW** „Increasing resource efficiency in the use of composite materials and structures in the construction industry", PhD Graduate School NRW
2021 – 2022	Supervisor **Marie Curie Individual Fellowship** DeltaDev „Integrating energy systems and supply chain optimisation for sustainable development", European Union
2019 – 2022	PI **Transform2Bio** „Integrated transformation processes and regional implementations: Structural Change from the Fossil Economy to the Bioeconomy" BioSC NRW
2018 – 2022	Core PI **SCI4climate.NRW** „Scientific Competence Center for climate-neutral Industries in NRW", NRW Strategy Project
2018 – 2021	PI **HyImPAct** "Hybrid processes for important precursors and active pharmaceutical ingredients", BioSC NRW

Most important scientific contributions

Merchan, A.; Fischöder, Th., Hee, J.; Lehnertz, M.; Osterthun, O.; Pielsticker, S.; Schleier, J.; Tiso, T.; Blank, L.; Klankermayer, J.; Kneer, R.; Quicker, P.; Walchter, G.; Palkovits, R. (2023): Chemical Recycling of bioplastics: technical opportunities to preserve chemical functionality as path towards a circular economy. Green Chemistry, Volume 24, pages 9428-9449 (Interdisciplinary analysis and LCA results for plastic recycling technologies)

Abdelshafy, A.; Hermann, A.; Herres-Pawlis, S.; Walther, G. (2023): Opportunities and challenges of establishing a regional bio-based Polylactic Acid supply chain. Global Challenges, Volume 7, Issue 7, 2200218 (Analysis of new biobased value chains for plastics through interdisciplinary examination of new technologies/catalysts and resulting material flows)

Schleier, J.; Simons, M.; Greiff, K.; Walther, G. (2023): End-of-Life treatment of EPS-based building insulation material - An estimation of future waste and review of treatment options. Resources, Conservation & Recycling, Volume 187, 106603 (Spatially and temporally highly resolved estimation of waste potentials in the building sector as a prerequisite for planning future recycling systems for EPS (Expanded Polystyrene))

Amiri, M.; Meyer, J.C.; Walther, G. (2023): Multi-objective optimization of renewable fuel supply chains regarding cost, land use, and water use. Applied Energy, Volume 349, Pages 1-24 (Consideration of significant environmental criteria (land/water use) in addition to economic indicators in the planning of sustainable value chains)

Radloff, R.; Abdelshafy, A.; Walther, G. (2023): An integrative and prospective approach to regional material flow analysis: Modelling the decarbonisation of the North-Rhine Westphalian Steel Industry. Journal of Industrial Ecology. Volume 27, Issue 3, pages 662-675 (Integration of process simulation and material flow analysis for predicting the impact of alternative technologies on (inter)regional material flows and forecasting intersectoral effects)

Sommer, V.; Becker, T.; Walther (2022): Steering Sustainable End-of-Life Treatment of Glass and Carbon Fiber Reinforced Plastics Waste from Rotor Blades of Wind Power Plants. Resources, Conservation and Recycling, Volume 181, 106077 (Integration of techno-economic assessment, life cycle assessment, and mathematical optimization models for the planning of recycling networks for carbon fiber-reinforced plastics)

Inghels, D.; Dullaert, W.; Raa, B.; Walther, G. (2016): Influence of composition, amount and life span of passenger cars on end-of-life vehicles waste in Belgium: a System Dynamics approach. Transportation Research Part A: Policy and Practice Volume 91, Pages 80-104 (Dynamic simulation for long-term forecasting and impact assessment of waste streams (quality and quantity) in the Automotive Industry)

Hombach, L. E.; Walther, G. (2015): Pareto-efficient legal regulation of the (bio)fuel market using a bi-objective optimization model. European Journal of Operational Research Volume 245, Pages 286-295 (Methodological approach for assessing the impact of legal frameworks on the design of new supply chains)

Walther, G.; Wansart, J.; Kieckhäfer, K; Schnieder, E.; Spengler, T.S. (2010): Impact assessment in the automotive industry: mandatory market introduction of alternative powertrain technologies. System Dynamics Review Volume 26, Issue 3, Pages 239-261 (Technology and Policy Impact Assessment: Dynamic simulation and evaluation approach for analyzing the effects of introducing new propulsion strategies in the automotive industry)

Walther G. Nachhaltige Wertschöpfungsnetzwerke - Überbetriebliche Planung und Steuerung von Stoffströmen entlang des Produktlebenszyklus. Gabler Verlag; 2010 (Methods and Applications for Planning and Evaluating Sustainable Value Chains throughout the Entire Lifecycle (Habilitation))

Patents