TUM School of Management
Technical University of Munich

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TUM SCHOOL OF MANAGEMENT
RESEARCH REPORT
2023

AACSB ACCREDITED   EQUIS ACCREDITED   ASSOCIATION AMBA ACCREDITED

Data includes information from 2021 to October 2023.

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TUM SCHOOL OF MANAGEMENT: INTRODUCTION

WELCOME

Ever since the founding of TUM School of Management in 2002, our mission has been to bridge the gap between business and technology. This is reflected in our interdisciplinary approach and our focus on the interface between management, engineering, and the natural and life sciences. Our goal is to educate responsible, talented individuals and pursue relevant research to advance innovation-based businesses and societies in Germany, Europe, and the world.

In this report we provide an overview of what we have accomplished over the past two years and take a look at our research activities – the topics, projects, publications, and, most importantly, the people behind them.

Speaking of the people that drive TUM School of Management, we are pleased to announce our continuous growth. In the last two years, eight additional professors – Professors Chengguang Li, Martin Meißner, Thorsten Pachur, Melanie Richards, Paul Momtaz, Jochen Hartmann, Anne Tryba, and Livia Cabernard – received tenure. Our researchers combine cutting-edge entrepreneurial knowledge with thought leadership to ensure our students receive a profound education and deep understanding of current and future challenges. At TUM School of Management, we welcome the most promising, engaged, and entrepreneurial students from

Germany and abroad who want to find new answers to the challenges of a globalized, digitalized, and sustainable world. In the winter semester of 2022/2023, nearly 7,000 students (6,868 to be exact) were enrolled at TUM School of Management and we received 7,118 applications for our degree programs.

As a university, we strive for excellence in our areas of research and publish our findings to make an impact. We want to contribute to solutions for grand societal transformations. The recognition we have received over the past two years encourages and strengthens us in our actions. According to QS World University Rankings, Technical University of Munich is once again number one in Germany – for the ninth time in a row. In the EU-wide QS rankings, we landed in second place, and in 37th place worldwide. The Shanghai Ranking 2023 came to a similar conclusion: TUM is one of the top two universities in Germany.

For us, it is important to make our research visible to a broad audience. In this report we are therefore pleased to present the research conducted at TUM School of Management in the years 2022 and 2023. We hope that it will lead to even more exciting research opportunities in the future.

Prof. Dr. Gunther Friedl

Dean

Prof. Dr. Joachim Henkel

Vice Dean of Research
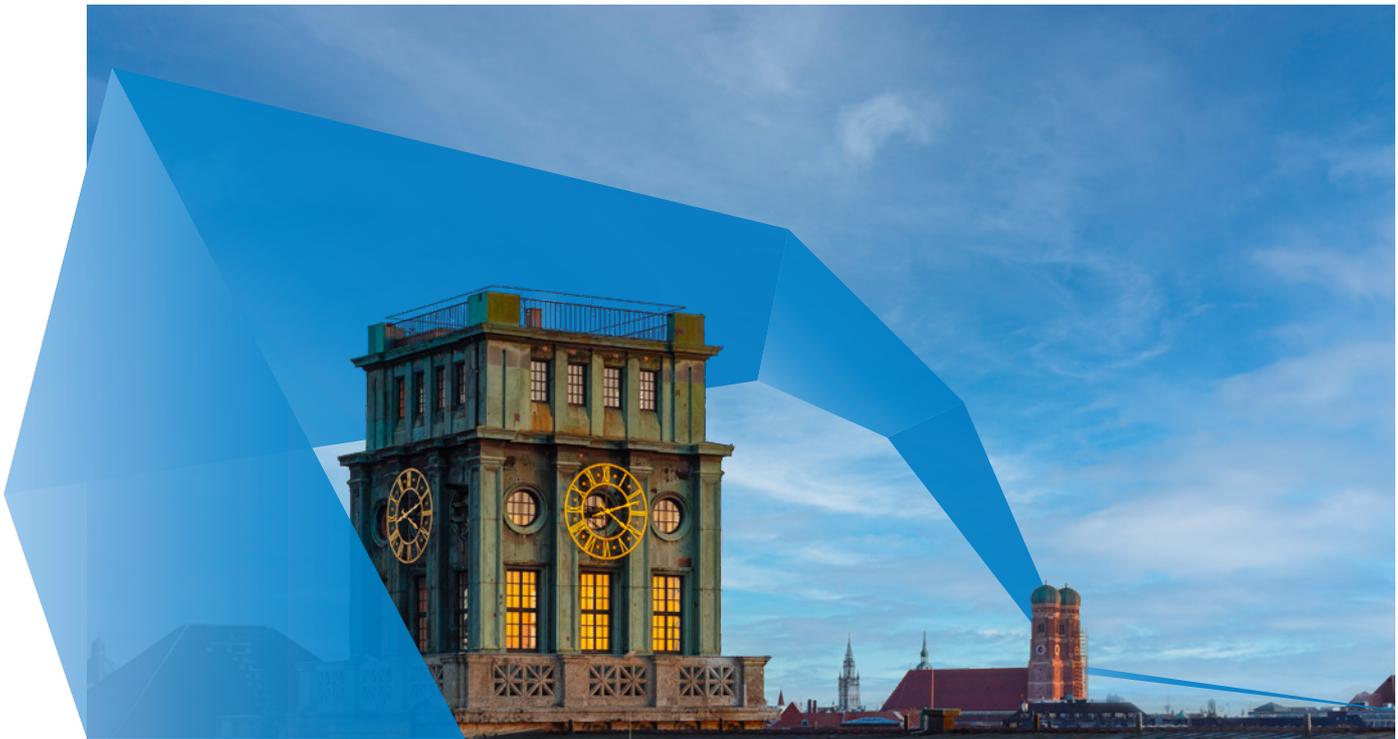
TUM SCHOOL OF MANAGEMENT

TUM School of Management, firmly rooted within TUM's technological and entrepreneurial ecosystem, places a unique focus on the interface between management, engineering, and the natural and life sciences. The School's goal is to bridge the traditional gap between the fields of management and technology.

The School sees its role as educating the leaders and decision-makers of tomorrow. Like TUM, it is committed to excellence. Since its foundation two decades ago, it has been consistently ranked as one of the top business schools in Germany.

- **Best Business School at a Technical University**
  Germany | QS World University Subject Ranking

- **Top 6 Masters in Management**
  Germany | FT Masters in Management Ranking

- **Top 2 Masters in Management**
  Germany | QS Business Masters Ranking

Outstanding quality

TUM School of Management belongs to the top one percent of business schools worldwide that hold Triple Crown accreditation by the Association of MBAs (AMBA), the European Foundation for Management Development (EQUIS) and the Association to Advance Collegiate Schools of Business (AACSB). Triple Crown accreditation is internationally recognized as a seal of quality for business schools.

A strong entrepreneurial environment

Helping our students develop an entrepreneurial mindset is a key part of our mission at TUM School of Management. The University's record speaks for itself: Members of TUM have launched more than 1,000 start-ups over the last 20 years, supported by UnternehmerTUM – the University's center for innovation and business creation. TUM School of Management fosters an entrepreneurial approach in its teaching and research, building on the expertise of the Entrepreneurship Research Institute (ERI). Many of our graduates start their own businesses in technology-based industries, leveraging their lasting connections to the School and its corporate partners.

HEILBRONN

Part of an initiative by the Dieter Schwarz Foundation, TUM School of Management has created a teaching and research facility at the state-of-the-art Heilbronn Education Campus.

At TUM Campus Heilbronn, excellence in research and teaching meets the exciting entrepreneurial challenges of one of the most innovative regions in Germany. TUM School of Management started operating at the Heilbronn campus in the winter semester of 2018/2019 and currently offers three study programs, as well as cutting-edge research at its Center for Digital Transformation and the Global Center for Family Enterprise at the Campus.

Students and researchers investigate areas such as the management of digital transformation and family businesses, highly sought-after competencies in companies of all sizes.

TUM ENTREPRENEURSHIP

The Technical University of Munich is one of the most successful start-up universities in Europe.

Ideas from researchers and students evolve into companies that transform our society and economy. We help founding entrepreneurs take advantage of these opportunities.

We offer founders the best support for starting technology companies. A key to our success is the development of an entrepreneurial mindset among our researchers and students. Thinking outside the box, being creative and innovative, taking risks and learning from failures, and tackling problems proactively is important for any career in today's dynamic and technology-driven world.

With our comprehensive action concept, we are steadily expanding our activities to promote start-ups. Together with its associated institute UnternehmerTUM GmbH, TUM offers a wide range of start-up consulting, research and qualification services, as well as a strong network for founders.

TUM Venture Labs

Our new entrepreneurial innovation centers drive technology-based spin-offs at the intersection of engineering, natural and life sciences, AI/IT, and medicine. Prospective founders are welcome to become part of the TUM Venture Labs to further develop their business ideas and get started with their ventures.

FACULTY RESEARCH SEMINAR

2022/2023

November 29, 2023, 11:00 am

Mats Alvesson (Lund University)
Title: Interviews: Beyond studying interview behaviour
Host: Claudia Peus

November 28, 2023, 10:30 am

Daan Stam (Rotterdam School of Management)
Title: How People Perceive and Judge Algorithmic Leadership
Host: Claudia Peus

November 15, 2023, 11:00 am

Thomas Zellweger (Universität St.Gallen)
Title: Head vs Heart: Antecedents and Performance Outcomes of Scientific versus Intuitive Entrepreneurial Action
Host: Melanie Richards

November 8, 2023, 1:00 pm

Qinshen Tang (Nanyang Technical University)
Title: The Analytics of Robust Satisficing: Predict, Optimize, Satisfice, then Fortify
Host: Jingui Xie

November 8, 2023, 11:00 am

Ali Aslan Gümüsay (LMU)
Title: Entrepreneurship of the Marginalized
Host: Melanie Richards

October 25, 2023, 10:30 am

Pierre Balthazard (Fairleigh Dickinson University)
Title: The paradigm shift of including the human brain in management research
Host: Claudia Peus

July 26, 2023, 1:30 pm

Daniel Armanios (Saïd Business School, University of Oxford)
Physical Infrastructure and Convergent vs Divergent Entrepreneurship
Host: Holger Patzelt

June 28, 2023, 3:00 pm

Daniel Bennett (University of Louisville)
Populism and the Allocation of Entrepreneurial Effort
Host: Siddharth Vedula

June 22, 2023, 1:15 pm

Prof. Dr. Vangelis Souitaris
(Bayes Business School London, UK)
What if you leave me now? The short and long term consequences of founder exit after IPO
Host: Miriam Bird

June 14, 2023, 3:00 pm

H. Dennis Park (University of Texas at Dallas)
Digitization of Inventive Records and Startup Innovation
Host: Siddharth Vedula

May 17, 2023, 5:00 pm

Matthias Sutter (Max Planck Institute for Research on Collective Goods)
Research on how teaching financial literacy affects risk and time preferences of adolescents
Host: Christoph Kaserer

FACULTY RESEARCH SEMINAR

April 26, 2023, 10:30am

Prof. Dr. Karl Wennberg (Stockholm School of Economics, Sweden)
How diversified should our founding team be? Insights from simulating the tradeoff between performance and the risk of disruption.
Host: Miriam Bird

April 20, 2023, 10:30 am

Mats Alvesson (Lund University)
Research on reflexivity as alternative research approach in social sciences
Host: Claudia Peus

April 18, 2023, 1:00 pm

Hui Sun (Stockholm School of Economics)
Research on algorithmic rating moderation as a value integration device
Host: Amy Zhao-Ding

January 25, 2023, 5:00 pm

Rui Silva (Nova School of Business and Economics)
Research on the economic value of trademarks
Host: Christoph Kaserer

January 24, 2023, 2:00 pm

Prof. Dr. Matthias Waldkirch
(EBS University Wiesbaden)
Research on innovation and professionalization processes in family firms, dynamics around ownership and change, and how organizational phenomena unfold in digital spaces
Host: Miriam Bird

January 18, 2023, 3:00 pm

Christian Busch, New York University
Research on an emerging "theory of serendipity"
Host: Hana Milanov

November 23, 2022, 3:00 pm

Martijn Willemsen, Eindhoven University of Technology
Research on on recommender systems and (digital) nudging
Host: Christoph Ungemach

November 3, 2022, 3:00 pm

Xu Li, Copenhagen Business School
Research on organizational hybridization
Host: Miriam Bird

October 12, 2022, 3:00 pm

Nicole Coviello, Wilfrid Laurier University
Research at the Entrepreneurship-Marketing-International Business Interface
Host: Hana Milanov

October 11, 2022, 2:00 pm

Grégoire Croidieu, Emlyon Business School
Research on how institutional persistence unfolds
Host: Miriam Bird

September 28, 2022, 4:00 pm

Stephen Zhang, University of Adelaide
Too distressed to lead their businesses toward CSR activities: Entrepreneurs' mental distress and their businesses' CSR under the COVID-19 crisis
Host: Miriam Bird

September 26, 2022, 10:30 am

Mats Alvesson, Lund University
Doing interesting research. Producing novel research questions
Host: Claudia Peus

TUM CONFERENCES

Innovation & Entrepreneurship

Conferences	Host	Year
Annual Symposium "Sustainable Energies and Entrepreneurship in the Global South" at IITB in India	Frank-Martin Belz	2022
Annual Symposium "Sustainable Energies and Entrepreneurship in the Global South" at KNUST in Ghana	Frank-Martin Belz	2023
Babson College Entrepreneurship Research Conference Doctoral Consortium	Nicola Breugst	2021
Munich International Patent Law Conference	Christoph Ann	Annually
New Venture Team Design Conference	Miriam Bird	2022
The Responsible AI Forum 2021	Christoph Lütge	2021
Venturing Together! Cross-disciplinary Network on Entrepreneurial Groups	Nicola Breugst	2022
Munich Summer Institute	Joachim Henkel	Annually
TUM Workshop on Blockchains and Smart Contracts: Collaboration in a Decentralized World	Joachim Henkel	2021
TUM Workshop on Blockchains and Smart Contracts: Decentralized Platforms and Innovation	Joachim Henkel	2022

TUM CONFERENCES

Operations & Technology

Conferences	Host	Year
30. MFK – Deutscher Materialflusskongress	Johannes Fottner	2023
CLEaR – Contruction Logistics, Equipment and Robotics	Johannes Fottner	2023
First workshop on Digital Technologies in Operations Management (DTOM)	Gudrun Kiesmüller	2021
Second workshop on Digital Technologies in Operations Management (DTOM) at the TUM campus in Heilbronn (co-organizer)	Gudrun Kiesmüller	2022
Digital Technologies in Operations Management	David Wuttke	2022
Fachtagung Schüttgutfördertechnik	Johannes Fottner	2023
Manufacturing & Service Operations Management (MSOM) Conference	Alexander Hübner & Stefan Minner	2022
Workshop on Deep Reinforcement Learning for Logistics and Healthcare at the TUM campus in Heilbronn (organizer)	Gudrun Kiesmüller	2022
Tagung der wissenschaftlichen Kommission Operations Research (VHB)	Gudrun Kiesmüller	2023
Workshop on Data-driven Dynamic Resource Management	Jingui Xie	2023
Workshop on Digital Technologies in Operations and Marketing (DTOM)	Gudrun Kiesmüller	2023

TUM CONFERENCES

Finance & Accounting

Conferences	Host	Year
Maschinelles Lernen und Monte-Carlo im Versicherungswesen und Risikomanagement	Rudi Zagst	2022
Munich Risk and Insurance Days	Rudi Zagst	2023

Marketing, Strategy & Leadership

Conferences	Host	Year
DTOM Workshop	Martin Meißner	2023
Food Reformulation – Regulation and Marketing	Jutta Roosen	2021
Forschungstagung Konsum und Verhalten	Jörg Königstorfer	2022
German Venture Conference 2022	Isabell Welpe	2022
Meeting of the Schmalenbach-Gesellschaft für Betriebswirtschaft Working Group "Unternehmenswachstum und internationales Management"	Thomas Hutzschenreuter	2022
Private Capital in Blockchain Conference 2022	Isabell Welpe	2022
ReBIOScover: Wiederentdeckung regionaler Getrede-Landsorten zur nachhaltigen Herstellung von Bio-Lebensmittelspezialitäten	Jutta Roosen	2023

TUM CONFERENCES

Economics & Policy

Conferences	Host	Year
1st Annual Meeting PRIMA EU project SIGMA Nexus (online)	Johannes Sauer	2021
2nd Annual Meeting PRIMA EU project SIGMA Nexus (online)	Johannes Sauer	2022
2nd Sino-German Junior Researcher Conference on Agricultural and Resource Economics	Johannes Sauer	2022
Field Experiments in Economics and Business	Philipp Lergetporer	2022
First Sino-German Junior Researcher Conference on Agricultural and Resource Economics (Online), Freising, Germany	Johannes Sauer	2021
General Assembly EU project IPM Popillia	Johannes Sauer	2021
Inaugural Drei-Länder-Konferenz in International Political Economy	Timm Betz	2022
Latin American Workshop on Climate-Smart Agriculture (online). In collaboration with Colombian partners from Net-CSA	Johannes Sauer	2021
Munich Econometrics Workshop (jointly with Daniel Wilhelm, LMU), Schloss Fürstenried, Munich	Helmut Farbmacher	2023
Munich Summer Institute	Hanna Hottenrott	Annually
Online Summer School of "Economics and Finance of Climate Change: a microeconomic approach". In collaboration with Colombian partners from Net-CSA	Johannes Sauer	2021
Webinar: Applications of Sustainable Resource Management and Ecosystem Services: insights from Latin America. In collaboration with partners from Peru	Johannes Sauer	2021
Winter School on the Economics of Climate Change and Policy for German and Colombian Master's students (NET-CSA)	Johannes Sauer	2022
Workshop in Field Experiments in Economics and Business	Philipp Lergetporer	2023
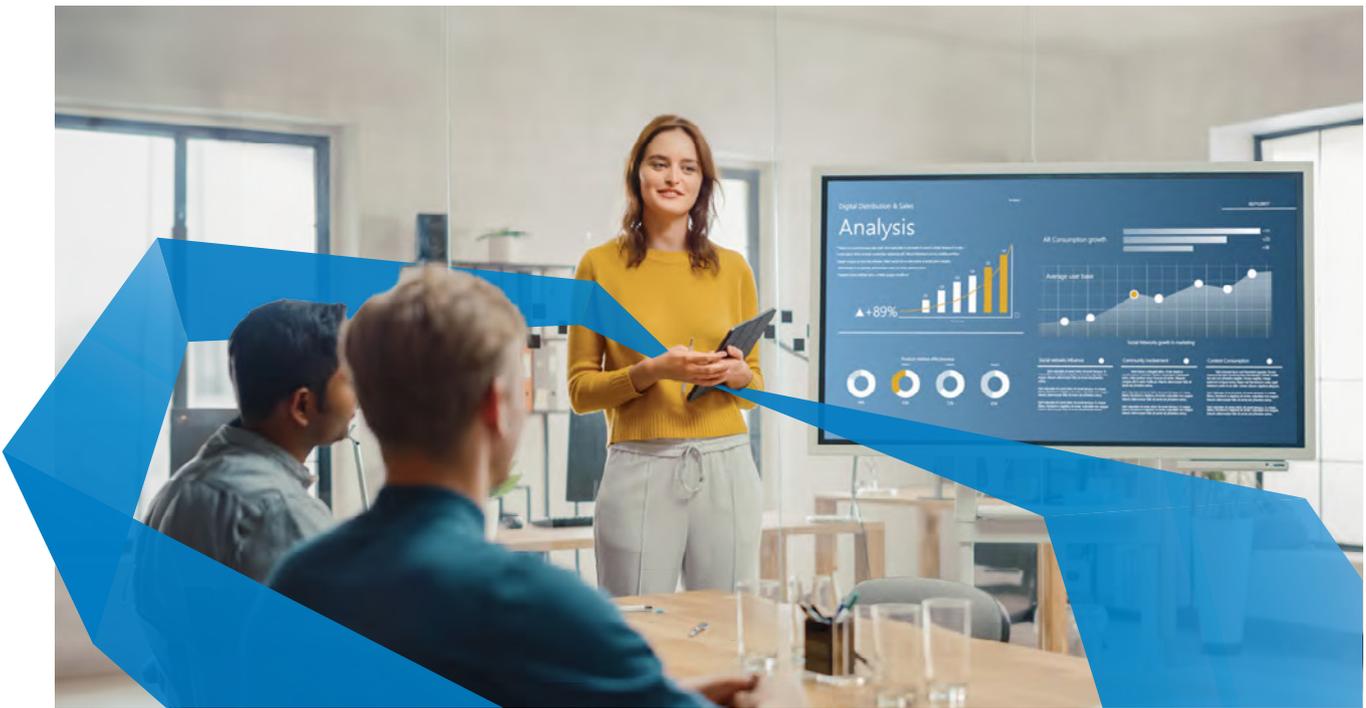
RESEARCH

TUM School of Management is ranked one of the top business schools for research in the German-speaking world. Our success is to a large extent due to our interdisciplinary approach, our close cooperation with industry, our effective tenure-track career system for academics, and our forward-looking orientation.

The School is particularly known for its interdisciplinary way of working. We pursue theoretical advances and applied research at the interface of management, engineering, and the natural and life sciences a unique approach that makes our research highly impactful. Our unusual perspective has also enabled us to attract around 350 German and international researchers to the School.

Our faculty publish around 200 peer-reviewed publications and receive more than EUR 8 million in third-party funding a year. Our research strength is widely recognized in leading independent rankings.

Best Business Research
Germany | Wirtschaftswoche Ranking

Best Management Research
Germany | Shanghai Subject Ranking

First Tier
Germany | CHE Ranking

Two of our faculty members are ranked among Germany's most influential economists by the Frankfurter Allgemeine Zeitung (FAZ): Professor Dr. Dr. Holger Patzelt, who has held the Chair of Entrepreneurship since 2010 and is Chair of the TUM Entrepreneurship Research Institute, and Professor Dr. Dr. Dr. h.c. Ann-Kristin Achleitner, who held the Chair of Entrepreneurial Finance and has been Distinguished Affiliated Professor at TUM School of Management since 2020. Both individuals have made distinguished contributions to the media, research and politics.

In the coming years, we will continue to address key issues in digitalization, globalization and sustainable development in line with the United Nations Sustainable Development Goals. We will use our research expertise to help solve the grand societal challenges and grasp the opportunities offered by digitalization to further improve our research, teaching and learning.

RESEARCH FEST 2022

Providing insights into all different academic departments, Research Fest has become a valuable tradition at the TUM School of Management. Established in 2012 by Prof. Dr. Oliver Alexy, and now organized by the Vice Dean of Research and Innovation, Prof. Dr. Joachim Henkel, the event offers each department the opportunity to present its current projects in presentations and a poster exhibition. Each year, the three best posters are awarded a prize donated by the TUM School of Management Alumni e.V. Additionally, the Supervisory Award is presented to honor the work of a doctoral candidate's supervisor.

Research Fest 2022

Research at TUM School of Management is advancing rapidly. At the Research Fest 2022, Professors and junior researchers shared insights from their recent research.

The three best posters on ongoing research projects were granted a prize sponsored by TUM Management Alumni e.V. and presented with the Best Poster Award 2022 by our Dean, Prof. Gunther Friedl.

- **1st place – Linus Hof, Veronika Zilker, Prof. Dr. Thorsten Pachur**

- **2nd place – Christina Neubig, Prof. Dr. Jutta Roosen**

- **3rd place – Christoph Gschnaidtner, Prof. Dr. Hanna Hottenrott, Julian Schwierzy**

Additionally, the TUM School of Management Supervisory Award 2022 was awarded to Prof. Siddharth Vedula. Every doctoral candidate who is a member of the TUM Graduate School had the chance to nominate his or her supervisor for this award.

Grounded in our technological and entrepreneurial ecosystem, our scientists research at the intersection of management, engineering, and the natural and life sciences. At the beginning of the event, scientists from several academic departments presented their insightful research, which included topics such as the following:

"Grasping the extent of the energy transition: New research venues in economics" by Prof. Svetlana Ikonnikova

"Financing Sustainable Entrepreneurship: ESG Measurement, Valuation, and Performance" by Prof. Paul P. Momtaz

"Competition and innovation in digital markets" by Prof. Jens Foerderer from TUM Campus Heilbronn

"Attention: The cognitive foundation of economic choice" by Prof. Thorsten Pachur

The Research Fest also included an introduction and round table on the New TUM Innovation Network 'GoTransTech' by Prof. Hanna Hottenrott, Prof. Michael Molls, Prof. Holger Patzelt and Prof. Sebastian Pfotenhauer.

AWARDS

Innovation & Entrepreneurship 2021–2023

Prof. Dr. Oliver Alexy

- EBS Best-Paper-Award, 2022, European Business School, Oestrich-Winkel

Prof. Dr. Christoph Ann

- Research Fellowship, 2021, Stellenbosch Institute for Advanced Study (STIAS)

Prof. Dr. Miriam Bird

- Kauffman Best Paper Award for Paper on Entrepreneurial Cognitions, Academy of Management, 2023

- Best Teaching Award (Jannis von Nitzsch), TUM School of Management, 2022

Prof. Dr. Nicola Breugst

- TUM School of Management Best Teaching Award, 2022, TUM School of Management

- Best Paper Proceedings of 2022 Babson College Entrepreneurship Research Conference, 2022, Babson College

- Best Paper Proceedings of the Academy of Management, 2021, Academy of Management

Prof. Dr. Jens Förderer

- Supervisory Award, 2023, TUM

- Visiting Research Fellowship, 2023, University of Oxford

- Best Paper in Track Award, 2022, International Conference on Information Systems

- Runner-up, VHB Nachwuchspreis, 2021, VHB

- Runner-up, TARGION Science Award, 2021, INTARGIA Managementberatung GmbH

Prof. Dr. Hana Milanov

- Best reviewer award, 2021, Journal of Business Venturing

- Executive Education Teaching Award, 2021, Technical University of Munich

- Best Teaching Performance (small formats), 2022, TUM School of Management

- Unipreneur award – voted one of top 20 professors in Germany providing excellent support for entrepreneurs, German Ministry for Research and Education

Prof. Dr. Melanie Richards

- Family Business Review (FBR) Excellent Reviewer Award, 2023

- Family Business Review (FBR) Excellent Reviewer Award, 2022

- IFERA Best Paper Award, 2021

Prof. Dr. Siddharth Vedula

- Best Conceptual Paper Award, 2022, Academy of Management Conference, Entrepreneurship Division

Prof. Dr. Joachim Henkel

- TUM School of Management Best Teaching Award, 2022, TUM School of Management

AWARDS

Operations & Technology 2021–2023

Prof. Dr. Johannes Fottner

- TUM Sustainability Award, 2021, Technical University of Munich

Prof. Dr. Martin Grunow

- 1st and 2nd in Best Online Courses in Business, 2021, Course Online

- International E-Learning Awards: Honourable Mention for Blended Learning Corporate Division, 2021

- International E-Learning Awards: Silver Medal (Runner-up) for Blended Learning Academic Division, 2021

- Reimagine Education Competition: Bronze Medal for the Best Online Course, 2021, Wharton-QS

Prof. Dr. Gudrun Kiesmüller

- Honorary doctor, 2023, Otto von Guericke University Magdeburg

- ISIR Service Award, 2022

Prof. Dr. Rainer Kolisch

- Best Teaching Award Large Lectures 20 Years School of Management, 2022

- Excellence in Reviewing Award, 2022, European Journal of Operational Research

- Omega Best Paper Award, 2021

Prof. Dr. David Wuttke

- International Journal of Operations & Production Management, best Reviewer Award, 2021

- International Journal of Production Economics, outstanding Reviewer Award, 2021

AWARDS

Finance & Accounting 2021 – 2023

Prof. Dr. Gunther Friedl

- Best Teaching Award, 2022, TUM School of Management

Prof. Dr. Dr. Paul Momtaz

- AOM ONE Division Emerging Scholar Award, 2023

- British Academy of Management Best Paper Award, 2022

- EBS Best Paper Award, 2023

- WAIFC Young Academic Award, 2022

Prof. Dr. Rudi Zagst

- Best Teaching Awards, 2023, 2022, 2021, 2019, 2018, 2017, 2016, 2015, 2014, 2013, Department of Mathematics

- Gauss Price, 2021, DGVFM

- German Diversity Award, 2023

- Werte-Medaille, Werte-Stiftung, 2023

- 100 most influential women in business, manager magazin, 2021, 2022, 2023

- Honorary Senator, University of St. Gallen (HSG), 2022

AWARDS

Marketing, Strategy & Leadership 2021–2023

Prof. Dr. Jochen Hartmann

- Wissenschaftspreis (2. Platz), 2023, Markenverband e.V.

Prof. Dr. Chengguang Li

- Professor of the Year (3rd place), 2022, UNICUM Foundation

Prof. Dr. Martin Meißner

- Workshop grant (Digital Technologies in Operations and Marketing), 2022

Prof. Dr. Jutta Roosen

- Fellow of the Agricultural and Applied Economics Association, 2021, Agricultural and Applied Economics Association

Prof. Dr. Isabell Welpe

- Best Paper Fitting The Conference Theme, Diana International Research Conference at Babson Collage, 2023, Babson College

- The 40 leading HR minds in 2023, 2023

- TUM Start-up Mentor of Excellence, 2023, TUM

AWARDS

Economics & Policy 2021–2023

Prof. Dr. Timm Betz

- Best Overall Paper Award, 2023, Southern Political Science Association

- Lawrence Longley Award, 2022, American Political Science Association

- Marian Irish Best Paper Award, 2023, Southern Political Science Association

- Sophonisba Breckinridge Best Paper Award, 2023, Midwest Political Science Assocation

Prof. Dr. Svetlana Ikonnikova

- Best Start-Up Pitch Night Award, 2023, Munich+AI

Prof. Sebastian Schwenen

- Best Teaching Award, 2021, School of Management

SELECTED RESEARCH PROJECTS

Women entrepreneurship

Prof. Dr. Miriam Bird

Miriam Bird is interested in better understanding the social context women entrepreneurs face and how it influences their organizational outcomes. In a current research project she and her co-authors investigate why, how, when, and where women start, grow, and exit their ventures. They uncover heterogeneity among women entrepreneurs by attending to the context in which the women entrepreneurs are embedded. This is a joint project with Professor Candida Brush from Babson College and Professor Kimberly Eddleston from Northeastern University.

Strategic role of owners

Prof. Dr. Miriam Bird

Miriam Bird is also interested in understanding the strategic role of owners within private firms and the implications for the firm's success. In particular, she is interested in understanding how firms can employ owners' competences to achieve competitive advantage and effective resource deployment within private enterprises. Her research therefore looks at how and under what conditions owners' competences affect growth of the firm.

Opportunity development and pivoting

Prof. Dr. Nicola Breugst

Nicola Breugst is interested in understanding how entrepreneurs develop and adapt their opportunities by relying on their resources, interacting with multiple stakeholders, and processing feedback. Several of her projects study how founding teams can deal with diverse or even contradictory feedback. Other projects explore entrepreneurs' decisions to pivot, revealing their crucial antecedents and contingencies.

Entrepreneurial well-being

Prof. Dr. Nicola Breugst

While entrepreneurship research has often studied firm performance as an important outcome, Nicola Breugst is also interested in the entrepreneurs' well-being. Several of her projects focus on understanding entrepreneurial energy and how entrepreneurs can refuel their energy by detaching from the venture or by being empowered by their social environment. Moreover, her work includes the notion of ill-being in the form of entrepreneurial fatigue or the potentially inhibiting role of entrepreneurs' envy.

Sustainability reporting and carbon offsets

Prof. Dr. Jürgen Ernstberger

In various research projects Jürgen Ernstberger studies disclosure on sustainability topics and environmental, social and governance issues (ESG). These projects deal with the weaknesses of current carbon reporting regulations, the determinants and consequences of greenwashing, the implementation of the Corporate Social Responsibility Directive (CSRD), new rules for accounting for greenhouse gas emission allowances, analyses of sustainability reports, and the impact of sustainability reporting on various stakeholders.

New technologies in accounting and auditing

Prof. Dr. Jürgen Ernstberger

Jürgen Ernstberger's projects in this area explore how new technologies such as blockchain technology, smart sensors, and AI might influence the financial reporting and auditing of the future.

SELECTED RESEARCH PROJECTS

Sustainable Energies, Entrepreneurship and Development in the Global South (SEED)

Prof. Dr. Frank-Martin Belz

International and interdisciplinary research at the intersection of sustainable energies and entrepreneurship with eight partner universities from the Global South.

Learning from high-dimensional, heterogeneous data: Machine-learning methods in econometrics

Prof. Dr. Helmut Farbmacher

Supported by the German Research Foundation (DFG), 2021–2024. In this project we work with methods from machine-learning in microeconomic applications to estimate heterogeneous causal effects and to predict individual and firm behavior.

Founder personality and startup investments

Prof. Dr. Hanna Hottenrott

Personality drives human decision-making. Research on corporate research and development (R&D), however, typically considers strategic decision-making to be independent of the decision-maker's personality traits. This study investigates the role of CEO personality for R&D decisions, building on an entrepreneurial decision model which illustrates the role of major personality traits (ROCEAN: risk tolerance, openness to experience, conscientiousness, extraversion, neuroticism) for both risky and less risky investment decisions. We test the predictions from this model using detailed data from founders in 4,732 startups founded between 2011 and 2017 in Germany. The empirical results show that investment decisions in entrepreneurial firms are strongly shaped by the CEO's personality. We find that higher risk tolerance and openness to experience result in a greater likelihood that the firm engages in R&D, but only the former matters for levels of R&D expenditures. Comparing R&D decisions to tangible investments, we find that risk tolerance plays a less important role than for R&D, but higher scores for openness also drive tangible investments. Founders with higher scores for agreeableness and neuroticism

are less likely to invest in firm growth (both in terms of R&D and tangible investments) and invest lower amounts in tangibles. More conscientious founders show lower R&D engagement but invest more in tangible assets. We discuss implications for entrepreneurship research and policy.

Location factors and ecosystem embedding of sustainability-engaged blockchain companies in the US. A web-based analysis

Prof. Dr. Hanna Hottenrott

While digital technologies provide opportunities for creating business models with an impact on sustainability, some technologies, especially blockchain applications, are often criticized for harming the environment, e.g. due to high energy demand. In our study we present a novel approach to identify sustainability-focused blockchain companies and relate their level of engagement to location factors and entrepreneurial ecosystem embeddedness. For this, we use a large-scale web scraping approach to analyze the textual content and hyperlink networks of all US companies from their websites. Our results show that blockchain remains a niche technology, used by about 0.6% of US companies. However, the proportion of sustainable blockchain firms is significantly higher than in the overall firm population. Additionally, we find that blockchain companies with an intensified focus on sustainability have, at least quantitatively, a more intensive embedding in entrepreneurial ecosystems, while infrastructural and socio-economic location factors hardly play a role at all.

SELECTED RESEARCH PROJECTS

Addressing inequality, enhancing diversity and facilitating greater dialogue in the hosting of sport events

Prof. Dr. Jörg Königstorfer

This project seeks to explore the extent to which the landscape of sport events can be improved to ensure that a progressive, human rights-focused agenda is pursued by awarding organizations and host governments, and implemented in the formal institutions tasked with organizing these events. The project produces recommendations as to how sport events, organizing committees, awarding bodies, and the Federal states can be mandated to ensure that opportunities to address inequality, enhance diversity, and facilitate greater dialogue are enshrined in the planning, delivery, and legacy plans for the events.

Development of a measurement scale for healthy cooking

Prof. Dr. Jörg Königstorfer

The goal of this project is to offer a conceptualization of the concept of healthy cooking, which can provide the foundation for a reliable and valid instrument designed to measure the extent to which people engage in healthy cooking. Once a suitable measurement scale is available, the relationship of healthy cooking to important antecedents (e.g., health literacy) and consequences (e.g., subjective well-being) can be investigated.

Gender gap in resource mobilization

Prof. Dr. Hana Milanov

In a series of projects with collaborators, Prof. Milanov takes a gender lens to investigate differences in resource mobilization in entrepreneurship. The contexts include reward-based crowdunding, microfinance crowdfunding, and high-tech entrepreneurship in Kenya. Some of this work has been published in journals such as Strategic Entrepreneurship Journal, Journal of Business Ethics, and Journal of Business Venturing Insights.

Allyship in entrepreneurship

Prof. Dr. Hana Milanov

In a series of projects, Prof. Milanov and her team will investigate allyship in entrepreneurship. An ally is defined as "a person who is a member of the 'dominant' or 'majority' group, who works to end oppression in his or her personal and professional life through support of, and as an advocate with and for, the oppressed population." While allyship is recognized as advancing support for marginalized individuals in a number of contexts, it has so far not received attention in the entrepreneurship literature. This is surprising given the persisting gender gap documented in entrepreneurial finance literature, and resource mobilization more broadly. The research consists of conceptual, qualitative, and experimental work to better understand when, why, and how allyship can help reduce the gender gap.

Digital Logistics Laboratory

Prof. Dr. Stefan Minner

Digitalization and technology innovations drive future logistics. We realize applied projects with industry, embedded in an international research network, in the following areas: 1) Artificial Intelligence, Operations Research, and Machine Learning for Computational Logistics; 2) Platforms and Collaborative Planning in Online Logistics; 3) Quantum Engineering for Logistics Applications and Optimization.

SELECTED RESEARCH PROJECTS

Mean-variance optimization under affine GARCH models

Prof. Dr. Rudi Zagst

Affine GARCH models have recently been explored in the context of portfolio optimization, although in a quite narrow setting in terms of utility functions and risk aversion. This project aims to extend existing results, accommodating a richer class of objective functions for a large family of GARCH models. In particular, our approach allows for connections to constant proportion portfolio insurance (CPPI) and mean-variance portfolio strategies. We explore the latter numerically based on S&P 500 market data, revealing that a GARCH model clearly outperforms a homoscedastic variant in terms of the efficient frontier.

Coping with failure contexts

Prof. Dr. Anne Tryba

In cooperation with the Université Libre de Bruxelles, we investigate how and when a high degree of failed projects in an organization influences the work engagement of innovation project team members.

Toward a consumer-oriented innovation front end

Prof. Dr. Anne Tryba

We explore why and how behavioral factors influence the integration of consumer insights in the front end of innovation at technology firms.

Behind the scenes in sustainable ventures

Prof. Dr. Anne Tryba

We analyze how founders of new ventures with a sustainability mission and business model select and apply sustainability-oriented practices for managing their internal processes and teams.

Startup success factors

Prof. Dr. Isabell Welpe

What predicts co-founder breakup?

AI and leadership

Prof. Dr. Isabell Welpe

How will AI change work and leadership?

Incentives

Prof. Dr. Alwine Mohnen

In various research projects Alwine Mohnen analyzes the effectiveness of incentives. Her projects deal, for example, with the effectiveness of non-monetary and monetary incentives (with Hanna Sittenthaler, TUM), incentive mechanisms, as well as incentives, in light of the future of work (with Theresa Kaiser and Hanna Sittenthaler, both TUM).

Sustainability/circular economy

Prof. Dr. Alwine Mohnen

Alwine Mohnen also deals with topics in sustainability, with a specific focus on the circular economy. Together with Christoph Ratay (TUM) she analyzes, for example, consumer-to-business smartphone returns, the geographic network effects in the circular economy, and the durability of pro-environmental behavior.

SELECTED RESEARCH PROJECTS

Ameliorating inventory management

Prof. Dr. Martin Grunow

Amelioration of food inventory during storage facilitates product differentiation according to age and, consequently, induces a trade-off between immediate revenues and further maturation. Exemplary products, e.g., aged cheese, port wines, or spirits such as rum and whisky, can be found especially in the food sector.

Decision makers need to integrate recurring purchasing, fulfillment, and issuance decisions to balance the inventory levels in multiple age classes. Purchasing/ordering decisions determine the additions to the youngest age class. Fulfillment decisions determine the inventory volume allocated to each product, e.g., the total amount of ten-year-old port wine and the total amount of twenty-year-old port wine placed on the market. Finally, issuance decisions determine how the inventory from different age classes is allocated to the individual products. Many ameliorating products offer flexibility in the issuance decisions. For instance, port wines and whiskies can be blended from younger and older stocks, and cheese products are often labeled "matured for at least X months".

Several sources of uncertainty complicate the inventory management problem. Besides demand uncertainty, fluctuating harvest yields in geographically restricted growing areas lead to stochastic purchasing prices. Further, the maturation progress is subject to decay risks.

The curse of dimensionality renders the resulting infinite-horizon Markov Decision Process intractable. We provide a solution approach for large-scale problems, using interpretable machine-learning to derive generic decision rules from optimal solutions to aggregated problems. As an alternative, deep reinforcement learning algorithms are developed.

Robust appointment scheduling

Prof. Dr. Rainer Kolisch

Appointment scheduling problems under uncertainty encounter a fundamental trade-off between cost minimization and customer waiting times. Most existing studies address this trade-off using a weighted sum approach, which puts little emphasis on individual waiting times and thus customer satisfaction. In contrast, we study how to minimize total cost while providing waiting time guarantees to all customers. Given box uncertainty sets for service times and no-shows, we introduce the Robust Appointment Scheduling Problem with Waiting Time Guarantees. We show that the problem is NP-hard in general and introduce a mixed-integer linear program that can be solved in reasonable computation time. For special cases, we prove that polynomial-time variants of the well-known Smallest-Variance-First sequencing rule and the Bailey-Welch scheduling rule are optimal. Furthermore, a case study with data from the radiology department of a large university hospital demonstrates that the approach not only guarantees acceptable waiting times but, compared to existing robust approaches, may simultaneously reduce costs incurred by idle time and overtime. This work suggests that limiting instead of minimizing customer waiting times is a win-win solution in the trade-off between customer satisfaction and cost minimization. Additionally, it provides an easy-to-implement and customizable appointment scheduling framework with waiting time guarantees.

SELECTED RESEARCH PROJECTS

Optimal positioning of aircraft stands

Prof. Dr. Rainer Kolisch

At many airports, space on the apron is scarce and has to be used efficiently. To that end, we optimize the layout of aircraft parking positions adjacent to the airport terminal, pursuing two lexicographically ordered objectives. First, we minimize the number of aircraft that have to be diverted to remote parking positions because positions adjacent to the terminal are not available. Second, we minimize the construction effort required for gate infrastructure. Aircraft collisions must be prevented at all times, and we consider various traffic situations, as traffic volume and fleet mix are not constant in time. We introduce the Airport Gate Layout Problem and formulate it as a mixed-integer model, which considers both greenfield and brownfield scenarios. To solve the problem efficiently, we introduce a decomposition framework that exploits the structure of the problem, and employ various acceleration techniques. Our approach reduces computation times substantially, allowing us to solve instances that are intractable for commercial solvers. Based on a case study for Munich Airport, we demonstrate how airports can gain valuable insights from solving this problem.

Robust charging network planning for metropolitan taxi fleets

Prof. Dr. Rainer Kolisch

We study the robust charging station location problem for a large-scale commercial taxi fleet. Vehicles within the fleet coordinate on charging operations but not on customer acquisition. We decide on a set of charging stations to open to ensure operational feasibility. For the purpose of this decision, we propose a novel solution method situated between the Location Routing Problems with Intraroute Facilities and Flow Refueling Location Problems. Additionally, we introduce a problem variant that makes a station sizing decision. Using our exact approach, charging stations for a robust operation of city-wide taxi fleets can be planned. We develop a deterministic core problem employing a cutting plane method for the strategic problem and a branch-and-price decomposition for the operational problem. We embed this problem into a robust solution framework based on adversarial sampling, which allows for planner-selectable risk tolerance. We solve instances derived from real-world data for the metropolitan area of Munich, containing 1,000 vehicles and 60 potential charging station locations. Our investigation of the sensitivity of technological developments shows that increasing battery capacities show a more favorable impact on vehicle feasibility of up to ten percentage points compared to increasing charging speeds. Allowing for depot charging dominates both of these options. Finally, we show that allowing just 1% of operational infeasibility risk lowers infrastructure costs by 20%.

TUM SCHOOL OF MANAGEMENT

ACADEMIC DEPARTMENTS

INNOVATION & ENTREPRENEURSHIP

Who we are

The Academic Department of Innovation and Entrepreneurship investigates the management of innovation and company start-ups. The research focus lies on empirical investigation of innovation and start-up processes. Research subjects include corporate strategies to profit from innovation, openness in innovation processes, innovation by users, patent management, innovation policy, the socio-political and cultural aspects of innovation, the recognition of business opportunities, entrepreneurial individuals' and teams' psychological processes, strategies for young companies, and understanding the consequences of entrepreneurial failure.

Professors

Prof. Dr. Oliver Alexy . . . . Innovation and Organization Design
Prof. Dr. Christoph Ann . . . . Chair of Intellectual Property
Prof. Dr. Frank-Martin Belz . . . . Chair of Corporate Sustainability
Prof. Dr. Miriam Bird . . . . Professorship of Entrepreneurship and Family Enterprise
Prof. Dr. Nicola Breugst. . . . . Professorship of Entrepreneurial Behavior
Prof. Dr. Jens Förderer . . . . Innovation and Digitalization
Prof. Dr. Joachim Henkel. Technology and Innovation Management
Prof. Dr. Christoph Lütge. Peter Löscher Chair of Business Ethics
Prof. Dr. Dr. Mark-Oliver Mackenrodt . . . . Law of Digital Goods, Commerce and Competition
Prof. Dr. Hana Milanov. . . . . International Entrepreneurship
Prof. Dr. Dr. Holger Patzelt. . . . . Entrepreneurship
Prof. Dr. Melanie Richards. . . . . EQUA Endowed Chair for Family Business Culture
                                                                 and Ownership
Prof. Dr. Anne Tryba . . . . Entrepreneurial Education
Prof. Dr. Siddharth Vedula. . . . . Professorship for Entrepreneurship and Communities
Prof. Amy Zhao-Ding. . . . . Entrepreneurial Management

Affiliate Members

Prof. Dr. Claudia Doblinger . . . . Innovation and Technology Management
Prof. Dr. Johannes Fottner . . . . Logistics Engineering
Prof. Dr. Sebastian Pfotenhauer . . . . Science, Technology and Society

INNOVATION & ENTREPRENEURSHIP

PROF. DR. OLIVER ALEXY

INNOVATION AND ORGANIZATION DESIGN

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Biography

Oliver Alexy is Professor of Innovation and Organization Design, having joined TUM School of Management from Imperial College London in 2012. He teaches on topics such as organizational design, open innovation, entrepreneurial strategy & growth, and social entrepreneurship. He is also a liaison officer ("Vertrauensdozent") for the Heinrich-Böll-Stiftung.

In his research, Oliver studies how to design organizations that effectively deal with extreme uncertainty, such as high-tech start-ups, R&D units, or online communities. His recent interests mainly revolve around questions of how collaboration, knowledge disclosure, or framing strategies may help uncertainty-facing organizations become more legitimate or innovative, grow or reestablish themselves, or build or commandeer innovation ecosystems.

Oliver's work has been published in leading academic and practitioner-oriented outlets, such as the Administrative Science Quarterly or Harvard Business Review. Currently, he is a co-editor of Strategic Organization and sits on the editorial review board of several management journals.

Areas of interest

- Categories

- (Innovation) ecosystems

- (Innovation) strategy

- Knowledge generation, integration, sharing, and protection

- Novelty

- Open innovation

- Organization design

- Problem-solving

- Value creation and capture

INNOVATION & ENTREPRENEURSHIP

PROF. DR. CHRISTOPH ANN

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Biography

Prof. Ann (*1962) studied Law in Germany and the US and subsequently gained considerable experience in legal practice. He currently holds the TUM School of Management's Chair of IP Law, the German-speaking world's oldest and largest chair for patents and trade secrets. He teaches IP Law at both TUM and the Munich Intellectual Property Law Center (MIPLC). During his time as Associate Professor of IP Law at Freiburg University, Faculty of Law, Prof. Ann from 2001–03 served part time as a judge on the Mannheim Regional Court's renowned IP infringement panel, and in 2018 was proposed to Germany's federal judges' selection committee as a candidate for a judgeship at the German Federal Court of Justice. He declined the honor and had his name taken off the list in order to stay in academia.

Prof. Ann often teaches abroad and has done so at eminent universities on all continents. His publications include seven books, among them the German-speaking world's leading treatise on patent law (8th ed. 2022), and more than 160 articles and contributions to books. He is a listed Neutral with the WIPO Arbitration and Mediation Center, Chairman of the Nuremberg Chamber of Commerce's Standing Court of Commercial Arbitration, and has served as an arbitrator in almost two dozen arbitral proceedings. In 2021 he was privileged to hold a Research Fellowship at the renowned Stellenbosch Institute for Advanced Study (STIAS).

Areas of interest

- IP in Industry 4.0/IoT

- Patent systems and patent offices

- Trade secret protection

- IP in Africa

Selected current research projects

- Standard essential patents (SEP) – FRAND-compliant licenses

- Patents in pandemics

- Patent offices – tasks and incentives

- Trade secrets – adequate protective steps

INNOVATION & ENTREPRENEURSHIP

PROF. DR. FRANK-MARTIN BELZ

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Biography

Frank-Martin Belz has been a Full Professor of Corporate Sustainability at Technische Universität München (TUM School of Management) since 2003. He studied Business Administration at the University of Mannheim (Germany) and obtained his doctoral degree and habilitation from the University of St. Gallen (Switzerland). From 2004 until 2008 he was Academic Director of the Master Consumer Affairs, a leading international master program of TUM School of Management. In 2009 he released "Sustainability Marketing: A Global Perspective" (together with Ken Peattie), which received the prestigious VHB Award for Best Textbook of the Year. From 2012 to 2013 he was Distinguished Visiting Professor at Aalto University School of Business (Finland). During 2014–2016 he was coordinator of the large-scale European research project "Sustainable Lifestyles 2.0: End User Integration, Innovation, and Entrepreneurship (EU-InnovatE)". Since 2020 he has been Director of the TUM SEED Center, which focuses on the intersection of sustainable energies, entrepreneurship, and development in the Global South.

Frank-Martin Belz's primary research interest is entrepreneurship in the context of sustainable development. In terms of methodology, he is interested in qualitative research, more specifically case study research. His research has been published in leading international journals including Academy of Management Discoveries, Business Strategy and the Environment, and Entrepreneurship Theory and Practice.

Areas of interest

- Sustainable entrepreneurship

- Qualitative research

Selected current research projects

Sustainable Energies, Entrepreneurship and Developement in the Global South (SEED)

INNOVATION & ENTREPRENEURSHIP

PROF. DR. MIRIAM BIRD

PROFESSORSHIP OF ENTREPRENEURSHIP AND FAMILY ENTERPRISE, DIRECTOR AT THE GLOBAL CENTER FOR FAMILY ENTERPRISE

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Biography

Since June 2020, Prof. Dr. Miriam Bird has been Associate Professor of Entrepreneurship and Family Enterprise and Founding Director at the Global Center For Family Enterprise. Prior to joining TUM, she served as Assistant Professor and Operative Director at the Global Center for Entrepreneurship and Innovation at the University of St. Gallen (2015-2020). She has held several visiting professorships, for instance at Jönköping University (2018-2020) and the École Polytechnique Fédérale de Lausanne (EPFL, 2023). She received her PhD in 2014 from the Department of Management at the Stockholm School of Economics.

Miriam Bird's research investigates the intersection of entrepreneurship and family business. In particular, she is interested in investigating topics such as women entrepreneurship, new venture team design, strategic ownership, and the role of digital technologies in family enterprises. Further, she is interested in better understanding the social context in which entrepreneurs and family enterprises are embedded. Her research has been published in journals such as Organization Science, Journal of Business Venturing, and the Strategic Entrepreneurship Journal. She has also won several prestigious international awards and has been featured in various media outlets and business magazines.

Areas of interest

- Women entrepreneurship and the role of women in family enterprises

- New venture team design

- Strategic ownership, cognitive biases and entrepreneur' behavior

- Digital technologies in new venture team design and family enterprises

INNOVATION & ENTREPRENEURSHIP

PROF. DR. NICOLA BREUGST

PROFESSORSHIP OF ENTREPRENEURIAL BEHAVIOR

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Biography

Nicola Breugst has held the Professorship of Entrepreneurial Behavior at the Technical University of Munich since March 2012. She has a PhD in Entrepreneurship and a degree in Psychology. She has worked at the University of Duisburg-Essen, the Max Planck Institute of Economics in Jena, Indiana University, and the National University of Singapore. Her research focuses on the people side of entrepreneurship. More specifically, she addresses questions of entrepreneurial affect, entrepreneurial motivation, and collaboration in founding teams. Her papers have been published in leading entrepreneurship and management journals. She is a Field Editor at the Journal of Business Venturing and a member of several editorial review boards.

Nicola Breugst's fascination with the people side of entrepreneurship also inspires her teaching, which aims at developing students' entrepreneurial and analytical thinking. She teaches on the undergraduate, graduate, and executive programs at TUM, offering different formats, from large-group lectures and research-focused seminars to hands-on workshops. She has received several awards for her teaching activities.

Areas of interest

- Entrepreneurial cognition, motivation, and affect

- Founding teams

- Entrepreneurs' social environment, such as new venture employees, mentors, and customers

INNOVATION & ENTREPRENEURSHIP

PROF. DR. JENS FÖRDERER

INNOVATION AND DIGITALIZATION

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Biography

Jens Förderer holds the Professorship for Innovation and Digitalization. His research interests cover the economics of information systems, especially competition in digital markets, measuring digital transformation progress, and estimating the business value created by digital technologies. As part of this, he is also interested in data analytics, particularly web scraping and using state-of-the-art econometric methods for causal inference.

Jens Förderer studied Information Systems/Wirtschaftsinformatik at the University of Mannheim (B.Sc. 2011, M.Sc. 2013). This was followed by graduate studies at the Graduate School of Economic and Social Sciences (GESS) and working as a Research and Teaching Assistant at the University of Mannheim, plus a period working for the software company SAP. He received his Dr. rer. pol. (Business) in 2017 and later his habilitation from the University of Mannheim. In 2019 he was appointed Professor at the Technical University of Munich and received tenure in 2023. In 2023 he was appointed Visiting Research Fellow of the University of Oxford, Oxford Internet Institute.

Areas of interest

- Digital markets

- Digital transformation

- Information systems

Selected current research projects

- Fair Competition in App Markets (ERC Starting Grant)

- Fortschrittsbarometer Digitale Transformation Heilbronn-Franken

INNOVATION & ENTREPRENEURSHIP

PROF. DR. JOACHIM HENKEL

TECHNOLOGY AND INNOVATION MANAGEMENT

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Biography

Prof. Henkel (*1965) is a professor of technology and innovation management. His research focuses on patent management, standards, technology acquisitions, digitalization, and open and user innovation. His work has been published in leading journals, such as Academy of Management Discoveries, the Harvard Business Review, the Rand Journal of Economics, Research Policy, and the Strategic Management Journal. From 2020 to 2020, he served as an Associate Editor of the Academy of Management Discoveries and serves on the editorial review boards of Industrial and Corporate Change, Innovation: Organization & Management, and Research Policy. He regularly advises firms in the ICT industries, with a focus on patent litigation.

Joachim Henkel received a degree in Physics from the University of Bonn, his PhD in Economics from the University of Mannheim, and was an Assistant Professor at LMU Munich. After his PhD, he worked for the consulting firm Bain & Company for two years. He has been a visiting scholar at University College London, MIT Sloan, Harvard Business School, and Singapore Management University, and was appointed Full Professor at TUM School of Management in 2004.

Areas of interest

- Profiting from innovation

- Patent management

- Standards, digitalization

- Technology acquisitions

- Open and user innovation

INNOVATION & ENTREPRENEURSHIP

PROF. DR. CHRISTOPH LÜTGE

PETER LÖSCHER CHAIR OF BUSINESS ETHICS

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Biography

Christoph Lütge studied Business Informatics and Philosophy. He took his PhD at TU Braunschweig in 1999 and his habilitation at LMU Munich in 2005. He was awarded a Heisenberg Fellowship in 2007. Since 2010 he has held the Chair in Business Ethics at TUM, and since 2019 he is also Director of the TUM Institute for Ethics in AI.

Christoph Lütge's most recent books are "An Introduction to Ethics in Robotics and AI" (Springer, 2020, with co-authors) and "Business Ethics: An Economically Informed Perspective" (Oxford University Press, 2021, with M. Uhl). In 2020, he was appointed Distinguished Visiting Professor of Tokyo University. He has also held visiting positions at Harvard, Pittsburgh, Taipei, Kyoto and Venice. He is a member of the Scientific Board of the European AI Ethics initiative AI4People as well as of the German Ethics Commission on Automated and Connected Driving.

Areas of interest

- Business and corporate ethics

- Ethics of digitalization (artificial intelligence, autonomous driving, ...)

- Technological ethics

- Experimental ethics

- Corporate social responsibility

- Fundamental ethics

- Contractual ethics

- Ethics and risks

- Philosophy of science

- Philosophy of music

INNOVATION & ENTREPRENEURSHIP

PROF. DR. DR. MARK-OLIVER MACKENRODT

LAW OF DIGITAL GOODS, COMMERCE AND COMPETITION

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Biography

Mark-Oliver Mackenrodt is Professor of Law of Digital Goods, Commerce and Competition. He is trained as a lawyer and economist. He studied Law at the LMU Munich (Dr. iur., phD in law), NYU Law School (LL.M. (NYU)), in Würzburg, and the Université de Genève. For economics he attended the Karlsruhe Institute for Technology (KIT), The Research University in the Helmholtz Association (Dr. rer. pol. phD in economics), the Stern Business School (NY) and Würzburg University. He qualified as an attorney in New York and in Germany. His legal and academic practice has included working at the Max Planck Institute for Innovation and Competition, Harvard Law School, LMU Munich, with the Foreign Office and at UNCTAD. He has obtained scholarship funding from the German National Academic Foundation (Studienstiftung des deutschen Volkes), the European Recovery Program (ERP) and the German Ministry of Economics, the Association for the Protection of Intellectual Property (GRUR), and VG Wort. He was awarded the Prize of the Munich Law Society (Münchener Juristische Gesellschaft e.V.) and the Faculty Prize of LMU in law.

Areas of interest

- Law of the digital economy, platform markets, and data-driven markets

- European and German antitrust law and policy

- Competition law, entrepreneurial strategies, and innovation activities

- Private and commercial law

- Law and economics

Selected current research projects

Antitrust law and the role of competition authorities in digital markets and in the platform economy. Contract law, competition law, regulatory law and their interaction in digital markets and the data economy. The role of algorithms and artificial intelligence in competition. Price parity clauses on digital platforms. Damage claims and settlements after competition law infringements.

INNOVATION & ENTREPRENEURSHIP

PROF. DR. HANA MILANOV

INTERNATIONAL ENTREPRENEURSHIP

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Biography

Prof. Hana Milanov, PhD is Professor of International Entrepreneurship at Technical University of Munich, where she also serves as an academic director of the EMBA in Innovation and Business Creation and as a member of the Board of Center for Digital Technology and Management. She served on the TUM Board of Management as Senior Vice President for International Alliances and Alumni from 2014 to 2017. Her research interests lie in understanding how entrepreneurs effectively mobilize resources and how this influences opportunity exploitation and final performance at home and abroad, with an increasing focus on gender dynamics. Her work has been published in the Strategic Management Journal, the Journal of Business Venturing, the Strategic Entrepreneurship Journal, and the Journal of Business Ethics, among others. She has won several teaching awards for her work with students.

Prior to joining TUM, Hana Milanov worked at IE Business School in Spain, where she continues to teach as visiting faculty. She completed her Master's and Doctoral studies in Entrepreneurship at Kelley School of Business, Indiana University.

Areas of interest

- Entrepreneurship

- Resource mobilization

- Gender lens in entrepreneurship

- Social networks

- Legitimacy and status dynamics

INNOVATION & ENTREPRENEURSHIP

PROF. DR. DR. HOLGER PATZELT

ENTREPRENEURSHIP

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Biography

Holger Patzelt has been a Professor of Entrepreneurship and Chair of Entrepreneurship at TUM School of Management, the Technical University of Munich since 2010. From 2013 to 2019 he served as the School's Vice Dean of Academic Affairs. Prior to his employment at TUM, he worked at the Max Planck Institute of Economics in Jena, Germany. He completed his doctoral studies in Entrepreneurship at the University of Bamberg, Germany, and his doctoral studies in Biosciences at the University of Heidelberg, Germany. His research interests include entrepreneurial decision-making and opportunity recognition, the strategy of young ventures, managing entrepreneurial projects in large firms, and entrepreneurial failure. His research has been published in leading international academic journals of both social sciences, such as the Academy of Management Journal, the Journal of Management, the Journal of Business Venturing, and Entrepreneurship: Theory and Practice, and natural sciences, such as Nature and the Proceedings of the National Academy of Sciences (PNAS). He currently teaches entrepreneurship at the undergraduate, Master, Executive MBA, and PhD levels.

Areas of interest

- Entrepreneurial decision making

- Opportunity recognition

- New venture strategy

- Entrepreneurial failure

INNOVATION & ENTREPRENEURSHIP

PROF. DR. MELANIE RICHARDS

EQUA ENDOWED CHAIR FOR FAMILY BUSINESS CULTURE AND OWNERSHIP

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Biography

Melanie Richards has been Associate Professor at TUM School of Management since March 2022. She holds the Chair for Family Business Culture and Ownership, endowed by the EQUA foundation and located at the Munich Campus.

Prior to joining TUM School of Management, Melanie Richards was Associate Professor in Entrepreneurship and Innovation at the University of Bath. She also worked for the University of Bristol as Assistant Professor in Management and for the University of St. Gallen as Postdoctoral Researcher at the Center for Family Business after receiving her PhD in Management from the University of St. Gallen in September 2015. While working on her PhD, she spent 12 months as Visiting Scholar at Bayes Business School in London. Prior to her academic career, Melanie Richards gained experience as a consultant working for PwC Management Consulting in London.

Areas of interest

- Values, culture and ownership of family enterprises

- Sustainability and corporate social responsibility

- Philanthropy and impact investing

- Disruptive technologies and innovations

Selected current research projects

Family Culture and Organizational Outcomes – What are the unique characteristics of a family business culture and how does this unique culture affect organizational outcomes?

Family Owners, Reputation, and Legitimacy – How are family owners perceived in society? What are family owners' reputation and legitimization strategies?

Family Wealth and Social Entrepreneurship – What are the unique characteristics of Family Philanthropy and Family Impact Investing? How can Business Families collaborate with Social Enterprises?

INNOVATION & ENTREPRENEURSHIP

PROF. DR. ANNE TRYBA

ENTREPRENEURIAL EDUCATION

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Biography

Anne Tryba joined TUM School of Management in February 2023 as Professor of Entrepreneurial Education. She studied Business Administration at the TU Freiberg and worked as a strategy consultant at Capgemini Invent, as a senior manager in corporate marketing and strategy at Telefónica Germany, and co-founded a start-up. In 2018, she received her PhD in Entrepreneurship from the University of Luxembourg and subsequently worked as a postdoc at TUM. From 2019, she was a professor of entrepreneurship and innovation at Munich Business School where she also served as the Vice Dean of Learning and Teaching.

In her research, Anne Tryba studies how motivations, competences, and cognition enfold in entrepreneurial and innovation contexts and shape behaviors and organizational outcomes. She particularly explores how entrepreneurial education influences sustainable entrepreneurship and innovation. Her research has been published in leading entrepreneurship and management journals. She is experienced in developing and teaching entrepreneurship and innovation courses across all levels.

Areas of interest

- Entrepreneurial competencies and motivations

- Entrepreneurial education

- Sustainable entrepreneurship and innovation

- Individual and team cognition and behavior in entrepreneurial and innovation contexts

- Organization design

Selected current research projects

"Coping with failure contexts" – In cooperation with the Université Libre de Bruxelles, we investigate how and when a high degree of failed projects in an organization influences the work engagement of innovation project team members.

Toward a consumer-oriented innovation front end – We explore why and how behavioral factors influence the integration of consumer insights in the front end of innovation of technology firms.

Behind the scenes of sustainable ventures – We analyze how founders of new ventures with a sustainability mission and business model select and apply sustainability-oriented practices for managing their internal processes and teams.

INNOVATION & ENTREPRENEURSHIP

PROF. DR. SIDDHARTH VEDULA

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Biography

Prof. Siddharth Vedula, PhD is Associate Professor of Entrepreneurship at TUM School of Management. Previously Assistant Professor of Entrepreneurship at Babson College, he has built his academic career with a focus on entrepreneurship, sustainability, and the geography of entrepreneurship. His educational background includes a PhD in Strategic Management and Entrepreneurship from the University of Colorado at Boulder, an M.Eng in Biomedical Engineering from McGill University, and a B.Sc. Hons in Physiology and Mathematics from the University of Toronto. He has received numerous academic awards and has made significant contributions to his field through publications in respected journals such as the Academy of Management Journal (AMJ), Organization Science, and Academy of Management Annals. Known not only for his substantial research contributions but also for his dedication to teaching, he brings his expertise in entrepreneurship, sustainability, strategic management, and systems thinking into the classroom.

Areas of interest

- Entrepreneurship

- Sustainability

- Economic geography

- Machine-learning (methods)

- Configurational methods

INNOVATION & ENTREPRENEURSHIP

PROF. AMY ZHAO-DING

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Biography

Prof. Amy Zhao-Ding, PhD is a management scholar. Her research focuses on understanding firm's changing beliefs and strategic behaviors in new technologies and nascent markets. She studies how organizations formulate problems and interpret feedback under uncertainty and ambiguity, and how they learn from and interact with their demand, competitive, and collaborative environments. She examines these questions in a wide range of digital, cultural, and knowledge-intensive industries, and approaches teaching and research in entrepreneurship through the lens of organization theory.

Amy Zhao-Ding studied at Peking University in China for a bachelor's degree in Economics and Finance and at the Chinese University of Hong Kong for a master's degree in Global Political Economy. She received her PhD in Management with a specialization in Entrepreneurship from INSEAD, and spent half a year at The Wharton School during her doctoral studies. In 2020 she was appointed to the Assistant Professorship for Entrepreneurial Management at TUM.

Areas of interest

- Organizational decision-making and learning

- Entrepreneurial strategy under uncertainty and ambiguity

- Emergence and novelty

INNOVATION & ENTREPRENEURSHIP

PROF. DR. CLAUDIA DOBLINGER

INNOVATION AND TECHNOLOGY MANAGEMENT

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Biography

Claudia Doblinger is Associate Professor for Innovation and Technology Management at the TUM Campus Straubing for Biotechnology and Sustainability and an affiliate member at TUM School of Management. Before joining TUM in October 2018, Claudia was a project manager for digitalization at the Maschinenfabrik Reinhausen GmbH. She holds a degree in Business Administration from the University of Regensburg, where she earned her PhD in Innovation and Technology Management. She worked as a postdoctoral researcher at the Harvard Kennedy School and has been a guest researcher at the University of Colorado at Boulder and the University of Cambridge. Claudia's research focuses on the interface of public policies, firm-level technological innovation, and sustainability with a particular focus on the (bio-)energy sector. Her research has been published in journals such as Nature Energy, Research Policy, and the Academy of Management Annals.

Areas of interest

- Environmental innovation

- Environmental entrepreneurship

- Climate and energy policy

Selected current research projects

"Co-location of manufacturing and innovation" – In cooperation with the University of Maryland and the University of Cambridge, we explore the drivers and impacts of technological innovation along the wind energy global value chain (funded by NSF/ESRC).

"Collaborating with your rival?" – Jointly with the University of Oslo and the University of Regensburg, we study how collaboration between start-ups and established firms in the clean transportation industry affects innovation.

INNOVATION & ENTREPRENEURSHIP

PROF. DR. SEBASTIAN PFOTENHAUER

SCIENCE, TECHNOLOGY AND SOCIETY

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Biography

Sebastian Pfotenhauer, Assistant Professor of Innovation Research, leads the Innovation, Society, and Public Policy Research Group at TUM School of Management and the Munich Center for Technology in Society (MCTS). His research covers innovation policy, regional innovation cultures, global innovation model circulation, responsible innovation, and science in international contexts. Previously, he was a research scientist and lecturer at MIT, affiliated with the Technology & Policy Program and Sociotechnical Systems Research Center, and a research fellow at the Harvard Program on Science, Technology, and Society. Sebastian has consulted on innovation policy for regional/national governments and the OECD in Paris. His work is published in outlets such as Research Policy, Social Studies of Science, Nature, and Issues in Science and Technology. Sebastian holds an S.M. in Technology Policy from MIT, a PhD in Physics from the University of Jena, Germany, and has post-doctoral training at MIT and Harvard. He also teaches graduate-level classes in science and technology policy and STS and, when time allows, plays the violin in various ensembles.

Areas of interest

- Social, political, and ethical aspects of innovation

- Innovation models and the "innovation society"

- Innovation "cultures"

- National and regional innovation strategies

- International partnerships for STI capacity-building

- Governance of complex sociotechnical systems

Selected current research projects

SCALINGS Project: Prof. Pfotenhauer leads SCALINGS, a 4 MEUR EU-funded H2020 initiative involving ten European partners. Investigating co-creation in robotics and urban energy across ten countries, the project informs European and global policy strategies.

Regional Innovation Cultures: Prof. Pfotenhauer and team explore how five German city regions reinvent themselves through innovation strategies, balancing innovation goals with socio-political factors and local identity, funded by DFG.

Responsible Innovation in Transnational Settings: Collaborating with the OECD, we examine the emergence of a responsible innovation paradigm for neurotechnology across OECD countries.

Test Beds Innovation: Studying "test beds" and "living labs", this project examines the evolving roles of researchers, policymakers, companies, and citizens/users in cases related to energy transitions, mobility, and robotics.

The Future of Mobility: Exploring disruptive changes in transportation, including electrification, autonomous driving, car-sharing, and post-car societies, this project delves into past and present sociotechnical imaginaries.

Cultivating Engagement: Collaborating with researchers and companies from the Netherlands, Belgium, and the UK, this project focuses on citizen engagement in food innovation, specifically indoor vertical farming.

PUBLICATIONS

Innovation & Entrepreneurship 2021–2023, peer-reviewed journals and books

Alexy, O.; Poetz, K.; Puranam, P.; Reitzig, M. (2021): Adaptation or Persistence? Emergence and Revision of Organization Designs in New Ventures, Organization Science, '1439–1472'

Anglin, A.H.; Milanov, H.; Short, J.C. (2022): Religious Expression and Crowdfunded Microfinance Success: Insights from Role Congruity Theory. Journal of Business Ethics

Bekkers, R.; Tur, E.M.; Henkel, J.; van der Vorst, T.; Driesse, M.; Contreras, J.L. (2022): Overcoming inefficiencies in patent licensing: A method to assess patent essentiality for technical standards, Research Policy, '104590'

Beneke, F.; Mackenrodt, M.-O. (2021): Remedies for algorithmic tacit collusion, Journal of Antitrust Enforcement, '152–176'

Chen, Q.; Cheng, W.; Gao, L.; Fottner, J. (2021): A pure neural network controller for double pendulum crane anti sway control: Based on Lyapunov stability theory, Asian Journal of Control, '387–398'

Coppens, K.; Knockaert, M. (2021): Committed to the venture or the family? A study of entrepreneurial persistence in distressed ventures, Small Business Economics

Cruz, C.; Milanov, H.; Klein, J. (2023): It's a family affair: A case for consistency in family foundation giving and family firm community CSR, Journal of Business Ethics

Desyllas, P.; Salter, A.; Alexy, O. (2022): The breadth of business model reconfiguration and firm performance, Strategic Organization, '231–269'

Doblinger, C.; Surana, K.; Li, D.; Hultman, N.; Anadon, L.D. (2022): How do global manufacturing shifts affect long-term clean energy innovation? A study of wind energy suppliers?, Research Policy

Doblinger, C.; Wales, B.; Zimmermann, A. (2021): Stemming the downturn? How ambidexterity and public policy influence firm performance stability during economic crises., European Management Journal

Domurath, A.; Taggar, S.; Patzelt, H. (2023): A contingency model of employees turnover intent in young ventures, Small Business Economics, 'forthcoming'

El-Awad, Z.; Brattström, A.; Breugst, N. (2022): Bridging cognitive scripts in multidisciplinary academic spinoff teams: A process perspective on how academics learn to work with non-academic managers, Research Policy

Feiner, L.; Geisel, V.; Fottner, J. (2022): Intuitives Bedienkonzept für Gabelstapler, Zeitschrift für wirtschaftlichen Fabrikbetrieb, '390–394'

Fischer, A.; Beiderwellen Bedrikow, A.; Tommelein, I.D.; Nübel, K.; Fottner, J. (2023): From activity recognition to simulation: impact of granularity on production models in heavy civil engineering, Algorithms, '24'

Foerderer, J. (2022): Erfolgsmodell Digitale Plattformen: Geschäftsmodelle - Netzwerkeffekte - Community-Management, Schäffer-Poeschel

Foerderer, J.; Lueker, N.; Heinzl, A. (2021): And the Winner Is ? The Desirable and Undesirable Effects of Platform Awards, Information Systems Research

Foerderer, J.; Schuetz, S.W. (2022): Data Breach Announcements and Stock Market Reactions: A Matter of Timing?, Management Science, '7298 7322'

Gaba, V.; Lee, S.; Meyer-Doyle, P.; Zhao-Ding, A. (2023): Prior Experience of Managers and Maladaptive Responses to Performance Feedback: Evidence from Mutual Funds, Organization Science

Hafner, Y.; Bock, J.; Keppler, C.; Fottner, J. (2021): Evaluation model for cooperative inventory pooling-systems, Procedia CIRP, '253–258'

Hafner, Y.; Urban, T.; Fottner, J. (2021): Life cycle phases and design morphology for the implementation of a cooperative inventory pooling-system, Procedia Computer Science, '24–31'

Haid, C.; Unruh, C.; Pröger, I.; Fottner, J.; Büthe, T. (2021): Personaleinsatzplanung in der Logistik, Zeitschrift für wirtschaftlichen Fabrikbetrieb, '908–912'

Henkel, J. (2022): Licensing standard-essential patents in the IoT A value chain perspective on the markets for technology, Research Policy, '104600'

Kathuria, V.; Mackenrodt, M.-O. (2021): The case against Narrow price parity clauses, Computer Law & Security Review, '105574'

Kohl, M.; Habl, A.; Kallali, K.; Puff, J.; Fottner, J.; Oger, R.; Lauras, M.; Li, J. (2022): Managing supply chains during the Covid-19 crisis: synthesis of academic and practitioner visions and recommendations for the future, The International Journal of Logistics Management

Leppänen, P.; George, G.; Alexy, O. (2023): When Do Novel Business Models Lead to High Firm Performance? A Configurational Approach to Value Drivers, Competitive Strategy, and Firm Environment, Academy of Management Journal, '164–194'

Lindenmayr, M.; Foerderer, J. (2022): Qualitätssicherung in Digitalen Plattform-Ökosystemen: Implementierung von Kontrollsystemen am Beispiel von Apple iOS, HMD Praxis der Wirtschaftsinformatik

Looschen, C.; Berger, S.; Lach, M.; Fottner, J. (2021): Consideration of RFID Systems in the Factory Planning Process, Proceedings of the Conference on Production Systems and Logistics : CPSL 2021

Lundmark, E.; Milanov, H.; Seigner, B.C.D.C.D. (2022): Can it be measured? A quantitative assessment of critiques of the entrepreneurship literature, Journal of Business Venturing Insights, 'e00301'

Mackenrodt, M.-O. (2021): Data Processing as an Abuse of Market Power in Multi-Sided Markets The More Competition-Oriented Approach in the German Federal Supreme Court's Interim Decision KVR 69/19 Facebook, GRUR International, '562–570'

Mackenrodt, M.-O. (2021): Digitale Märkte als Gegenstand der deutschen Kartellrechtspraxis, Europarecht (EuR), Beiheft 1, '87–127'

PUBLICATIONS

Mackenrodt, M.-O.; Wiedemann, K. (2021): Zur kartellrechtlichen Bewertung der Datenverarbeitung durch Facebook und ihrer normativen Kohärenz mit dem Datenschutzrecht und Datenschuldrecht, ZUM - Zeitschrift für Urheber- und Medienrecht, '89–103'

Mayershofer, C.; Fischer, A.; Fottner, J. (2021): Improving Visual Object Detection Using Synthetic Self-Training, Logistics Journal: Preceedings, 'Issue 17'

Mestiri, S.; Fottner, J. (2022): Simulationsbasierte Dimensionierung innerbetrieblicher Transportsysteme, Zeitschrift für wirtschaftlichen Fabrikbetrieb, '229–233'

Mittermaier, A.; Patzelt, H.; Shepherd, D.A. (2023): Motivating Prosocial Venturing in Response to a Humanitarian Crisis: Building Theory From the Refugee Crisis in Germany, Entrepreneurship Theory and Practice, '924–963'

Mittermaier, A.; Shepherd, D. A.; Patzelt, H. (2022): We Cannot Direct the Wind, But We Can Adjust the Sails: Prosocial Ventures' Responses to Potential Resource Threats, Organization Science, '1116–1141'

Muchna, C.; Brandenburg, H.; Fottner, J.; Gutermuth, J. (2021): Grundlagen der Logistik, Springer Fachmedien Wiesbaden

Müller, S.; Ahmed, M.; Fottner, J. (2021): Aufwandsarme Rekonstruktion von Bestandsanlagen, Zeitschrift für wirtschaftlichen Fabrikbetrieb, '322–326'

Patzelt, H.; Gartzia, L.; Wolfe, M.; Shepherd, D.A. (2021): Managing negative emotions from entrepreneurial project failure: When and how does supportive leadership help employees?, Journal of Business Venturing, '106129'

Patzelt, H.; Preller, R.; Breugst, N. (2021): Understanding the life cycles of entrepreneurial teams and their ventures: An agenda for future research, Entrepreneurship Theory and Practice, '1119–1153'

Reypens, L.; Bacq, S.; Milanov, H. (2021): Beyond bricolage: Early-stage technology ventures' resource mobilization under extreme resource scarcity, Journal of Business Venturing Vol.36(4), special issue on Entrepreneurial Resourcefulness

Richards, M. (2022): When do Non-financial Goals Benefit Stakeholders? Theorizing on Care and Power in Family Firms, Journal of Business Ethics

Roelandt, J.; Andries, P.; Knockaert, M. (2021): The contribution of board experience to opportunity development in high-tech ventures, Small Business Economics

Salvi, E.; Belz, F.-M.; Bacq, S. (2022): Informal Entrepreneurship: An Integrative Review and Future Research Agenda, Entrepreneurship Theory and Practice, '104225872211153'

Seigner, BDC.; Milanov, H.; Lundmark, E. (2023): Tweeting like Elon? The effect of confrontational language on social media engagement for new ventures, Journal of Business Venturing, Vol.38(2)

Shepherd, D.; Sattari, R.; Patzelt, H. (2022): A social model of opportunity development: Building and engaging communities of inquiry, Journal of Business Venturing, '106033'

Shepherd, D.A.; Breugst, N.; Patzelt, H. (2023): A founding-team model of creating a venture's culture, Journal of Business Venturing, '106286'

Shepherd, D.A.; Patzelt, H. (2021): Entrepreneurial Strategy: Starting, Managing, and Scaling New Ventures, Springer Nature

Shepherd, D.A.; Patzelt, H. (2023): Entrepreneurial Theorizing, Springer Nature

Shepherd, D.A.; Patzelt, H. (2023): Lean scholarship, Small Business Economics, 'forthcoming'

Shi, B.; Peng, H.; Wang, X.; Zhong, W.; Gao, L.; Fottner, J. (2021): A symplectic indirect approach for a class of nonlinear optimal control problems of differential algebraic systems, International Journal of Robust and Nonlinear Control

Smirnova, I.; Reitzig, M.; Alexy, O. (2022): What makes the right OSS contributor tick? Treatments to motivate high-skilled developers, Research Policy, '104368'

Standaert, T.; Knockaert, M.; Manigart, S. (2021): Venture Capital Winners: A Configurational Approach to High Venture Capital Backed Firm Growth, British Journal of Management

Tacke, F.; Knockaert, M.; Patzelt, H.; Breugst, N. (2023): When do greedy entrepreneurs exhibit unethical pro-organizational behavior? The role of new venture team trust, Journal of Management, '974 1004'

Tan, Y.; Rackl, M.; Yang, W.; Fottner, J.; Meng, W.; Kessler, S. (2021): A comparative study on design standards of screw conveyors in China, Germany and the USA Part I: Theoretical calculation and quantitative analysis, Particuology, '61–76'

Tan, Y.; Yu, Y.; Fottner, J.; Kessler, S. (2021): Automated measurement of the numerical angle of repose (aMAoR) of biomass particles in EDEM with a novel algorithm, Powder Technology

Tryba, A.; Patzelt, H.; Breugst, N. (2023): Knowledge diversity and venture growth: The contingent effects of early planning and experimentation, British Journal of Management, '343–362'

Van Lancker, E.; Knockaert, M.; Collewaert, V.; Breugst, N. (2023): Preparing for scaling: A study on founder role evolution, Journal of Business Venturing, '106315'

Vedula, S.; Doblinger, C.; Pacheco, D.; York, J. G.; Bacq, S.; Russo, M. V.; Dean, T. J. (2022): Entrepreneurship for the Public Good: A Review, Critique, and Path Forward for Social and Environmental Entrepreneurship Research, Academy of Management Annals, '391–425'

Vedula, S.; York, J.G.; Conger, M.; Embry, E. (2022): Green to Gone? Regional Institutional Logics and Firm Survival in Moral Markets, Organization Science

Wuennenberg, M.; Muehlbauer, K.; Fottner, J.; Meissner, S. (2023): Towards Predictive Analytics in Internal Logistics an approach for the Data-driven determination of Key Performance Indicators, CIRP Journal of Manufacturing Science and Technology

Wünnenberg, M.; Hujo, D.; Schypula, R.; Fottner, J.; Goedicke, M.; Vogel-Heuser, B. (2021): Modellkonsistenz in der Entwicklung von Materialflusssystemen, Zeitschrift für wirtschaftlichen Fabrikbetrieb

Xu, J.; Fottner, J. (2021): Retrofits von Regalbediengeräten: Methodisches Vorgehen für Anlagenbetreiber bei Modernisierungsvorhaben, Zeitschrift für wirtschaftlichen Fabrikbetrieb, '501–504'

Yang, W.; Meng, W.; Gao, L.; Tan, Y.; Fottner, J.; Dai, X.; Yao, F.; Yuan, Y.; Sun, X. (2021): Analysis of the Screw Flight Wear Model and Wear Regularity of the Bulk Transport in Screw Ship Unloader, Iranian Journal of Science and Technology, Transactions of Mechanical Engineering

EDITORSHIPS

Innovation & Entrepreneurship 2021–2023

Prof. Dr. Oliver Alexy

- Strategic Organization, Co-editor, 2021–

Prof. Dr. Frank-Martin Belz

- Business Strategy and the Environment, Member of the Editorial Board, 2003–

- Academy of Management Discoveries, Member of the Editorial Board, 2022–

Prof. Dr. Miriam Bird

- Academy of Management Discoveries (AMD), Editorial Board

- Journal of Business Venturing, Editorial Review Board

Prof. Dr. Nicola Breugst

- Journal of Business Venturing, Field Editor, 2020–

- Entrepreneurship Theory and Practice

- Member of editorial board, 2016–

- Small Business Economics, Member of editorial review board, 2017–

Prof. Dr. Claudia Doblinger

- Organization & Environment, Editorial Review Board, 2022–

Prof. Dr. Jens Förderer

- Business and Information Systems Engineering, Associate Editor, 2022–

- Journal of Management Information Systems, Guest Associate Editor, 2023

Prof. Dr. Joachim Henkel

- Academy of Management Discoveries, Associate editor, 2020–2022

- Guest Editor, Industrial and Corporate Change Special Issue "20 Years of 'Design Rules'"

- Member of the Editorial Review Board Industrial and Corporate Change Innovation: Organization & Management Research Policy

Prof. Dr. Hana Milanov

- Journal of Business Venturing Insights, Associate Editor

- Journal of Business Venturing, Editorial Board member

Prof. Dr. Dr. Holger Patzelt

- Entrepreneurship Theory and Practice, Editor, 2016–

Prof. Dr. Melanie Richards

- Family Business Review Board, 2022

Prof. Dr. Siddharth Vedula

- New England Journal of Entrepreneurship, Editorial Board, 2020–

VISITORS

Innovation & Entrepreneurship 2021 – 2023

Prof. Dr. Yuko Kimijima
Prof. Dr. Richard A. Stevens

2021 and 2022, Keio University

Graduate School of Law

Stellenbosch University, Faculty of Law

Prof. Nicole Coviello

2022, Wilfried Laurier University

Mirjam Knockaert

2021 & 2022, Ghent University

Prof. Dr. Timoleon Kosmides, LL.M.

2022, University of Thessaloniki
(Alexander v. Humboldt Scholar)

Prof. PhD Vangelis Souitaris

Bayes Business School, City University London

Prof. PhD Karl Wennberg

Stockholm School of Economics, Sweden

Prof. Christina Kyprianou, PhD

2022, IE University

OPERATIONS & TECHNOLOGY

Who we are

The Academic Department of Innovation and Entrepreneurship investigates the management of innovation and company startups. The research focus lies on the empirical investigation of innovation and startup processes. Research subjects include corporate strategies to profit from innovation, openness in innovation processes, innovation by users, patent management, innovation policy, the socio-political and cultural aspects of innovation, the recognition of business opportunities, entrepreneurial individuals' and teams' psychological processes, strategies for young companies, and understanding the consequences of entrepreneurial failure.

Professors

Prof. Dr. Martin Grunow . . . . Production and Supply Chain Management
Prof. Dr. Gudrun Kiesmüller . . . . Operations Management
Prof. Dr. Rainer Kolisch . . . . Operations Management
Prof. Dr. Stefan Minner . . . . Logistics and Supply Chain Management
Prof. Dr. Maximilian Schiffer . . . . Business Analytics and Intelligent Systems
Prof. Dr. Andreas S. Schulz . . . . Operations Research
Prof. Dr. David Wuttke . . . . Supply Chain Management
Prof. Dr. Jingui Xie . . . . Business Analytics

Affiliate Members

Prof. Dr. Klaus Bengler . . . . Ergonomics
Prof. Dr. Martin Bichler . . . . Decision Sciences & Systems
Prof. Dr. Magnus Fröhling . . . . Head of Professorship Circular Economy
Prof. Dr. Johannes Fottner . . . . Materials Handling, Material Flow, Logistics
Prof. Dr. Alexander Hübner . . . . Supply and Value Chain Management
Prof. Dr. Helmut Krcmar . . . . Information Systems, Department of Informatics

OPERATIONS & TECHNOLOGY

PROF. DR. MARTIN GRUNOW

PRODUCTION AND SUPPLY CHAIN MANAGEMENT

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Biography

Martin Grunow is Professor of Production and Supply Chain Management at the Technical University of Munich. He is head of the German Operation Research Society's Supply Chain Management Section. Previously, he held a Professorship in Operations Management at Technical University Denmark, worked at Technical University Berlin, and worked in the R&D Department of Degussa, a multinational company producing special chemicals.

His research interests are in production and logistics management, focusing on the process, electronics, and automotive industries. He teaches MOOCs on Quality Engineering and Lean with more than 350,000 participants from all over the world.

Martin Grunow has co-authored more than 50 research publications that appeared in journals such as Production and Operations Management, IISE Transactions, European Journal of Operational Research, CIRP Annals, Computers & Chemical Engineering, Flexible Services and Manufacturing Journal, International Journal of Production Economics, International Journal of Production Research, and OR Spectrum. He has been on the program committee of more than 50 conferences and has organized numerous special tracks.

Areas of interest

- Robust supply chain management under uncertainty and disruptions

- Shortage management and allocation

- Machine learning in production planning and scheduling

- Product and process design integration with supply network design

- Sustainable operations

- Sales and operations planning

Selected current research projects

Master production scheduling for crop protection products

Agrochemical companies manage complex worldwide supply chains with an extensive product portfolio, long production lead times, and complex planning problems. Since crop protection products follow crops' growth cycle, the product demand exhibits strong seasonality. Accurately forecasting seasonal demand is limited by unpredictable parameters such as weather conditions. Production and supply planners are thus looking for advanced strategies to manage demand uncertainty and ensure efficient operations throughout the supply chain. To this end, we develop novel approaches to overcome the barriers preventing using conventional stochastic programming in master production scheduling. Aggregating products into optimal families allows production recourse and improves planning flexibility. Additionally, we guide planners in choosing suitable methodologies for reducing nervousness in raw-material demand and production plans.

OPERATIONS & TECHNOLOGY

PROF. DR. GUDRUN KIESMÜLLER

OPERATIONS MANAGEMENT

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Biography

Gudrun Kiesmüller has been Full Professor for Operations Management at TUM School of Management, Technical University Munich since 2019. She studied Mathematics at the Julius Maximilians University Würzburg, where she also obtained her doctoral degree. Subsequently, she joined the Technical University Eindhoven in the Netherlands as a PostDoc and later as Assistant Professor. At the Christian Albrechts Universität zu Kiel she was appointed Full Profesor for Supply Chain Management, which she remained until 2013. She joined the Otto-von-Guericke University as a Professor for Operations Management until 2019.

Areas of interest

- Inventory management

- After sales service

- Deep reinforcement learning

OPERATIONS & TECHNOLOGY

PROF. DR. RAINER KOLISCH

OPERATIONS MANAGEMENT

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Biography

Rainer Kolisch has been a Full Professor for Operations Management since the inauguration of TUM School of Management in 2002. He studied Industrial Engineering, majoring in Production Management at the Technical University of Darmstadt, and obtained his doctoral degree and his habilitation from Christian-Albrechts-Universität zu Kiel. Before joining TUM, Rainer Kolisch held faculty positions at Technical University of Darmstadt and Technical University of Dresden. From 2015 to 2016 he was a visiting professor at the Department of System and Industrial Engineering of North Carolina State University.

Rainer Kolisch's research is in project management and scheduling, routing, make-to-order production, and service operations, in particular in airports and health care. He has published in leading international journals such as Management Science, the Journal of Operations Management, Production and Operations Management, Transportation Science, IIE Transactions, Naval Research Logistics, and the European Journal of Operational Research. He has served as editor-in-chief of OR Spectrum, and as associate editor of, amongst others, Omega and the Journal of Scheduling. Currently, he is on the editorial boards of the journals EURO Journal of Decision Processes, International Journal of Production Research, Operations Research for Health Care, and Review of Managerial Science.

Areas of interest

- Service operations

- Routing

- Make-to-order manufacturing

- Project management and scheduling

OPERATIONS & TECHNOLOGY

PROF. DR. STEFAN MINNER

LOGISTICS AND SUPPLY CHAIN MANAGEMENT

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Biography

Stefan Minner is Full Professor for Logistics and Supply Chain Management at the School of Management, Technical University of Munich (TUM) and a core-member of the Munich Data Science Institute (MDSI). His research interests using methods of operations research, artificial intelligence and machine learning are in global supply chain design, transportation optimization and inventory management. His work has been published in many peer reviewed journals, including Management Science, Manufacturing & Service Operations Management, Operations Research, Production and Operations Management, Transportation Science, Transportation Research Part B, and the European Journal of Operational Research. He serves on several editorial boards of logistics and operations research journals. Currently, he is the Editor-in-Chief of the International Journal of Production Economics. He is a fellow of the International Society for Inventory Research (ISIR) and is currently vice-chairman of the scientific advisory board of the German Logistics Association (BVL) and a member of the Research Committee of the European Logistics Association (ELA).

Areas of interest

- Digital logistics

- Resilient and sustainable supply chains

- Machine learning and operations research

Selected current research projects

Advanced Optimization in a Networked Economy (AdONE): DFG Research Training Group GRK 2201, www.gs.tum.de

Digital Logistics Laboratory: The use of Artificial Intelligence algorithms is seen as a major acceleration in logistics optimization, complementing classical Operations Research approaches. We combine fundamental research on machine learning algorithms with logistics domain knowledge, apply competitive reinforcement learning for real-time optimization, and promote data-driven approaches for integrated forecasting and decision making.

City Crowd Logistics and Radlast: Last-mile delivery is the most complex and costly part of goods distribution in urban logistics and has received increasing importance due to growth of e-commerce. We develop innovative business and organization models for designing platforms to crowd source and optimize last-mile services.

Data-driven Collaboration in Industrial Supply Chains: New disruptive business models in freight transportation that need decision support. Collaborations often require the sharing of large amounts of data and centralized planning, which raises concerns and hinders adoption. We develop decentralized planning approaches with limited data-sharing requirements by using encryption and edge computing to take advantage of the benefits of collaborative logistics.

Integrated Learning and Optimization for Mobility and Transportation Services: New business models in transportation are exposed to a large degree of uncertainty at the stage of design and operations due to limited available historical information. We build on concepts from data-driven optimization, stochastic programming and machine learning to develop decision support with the application to transportation and mobility, in particular for bike- and car-sharing.

OPERATIONS & TECHNOLOGY

PROF. DR. MAXIMILIAN SCHIFFER

BUSINESS ANALYTICS AND INTELLIGENT SYSTEMS

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Biography

Maximilian Schiffer is a tenured Associate Professor of Business Analytics & Intelligent Systems at TUM School of Management, Technical University of Munich. Before joining TU Munich, he was a visiting postdoctoral scholar at Stanford University and a postdoctoral scholar at RWTH Aachen University. He is an associate member of the GERAD. He received a PhD degree in Operations Research from RWTH Aachen University in 2017. His expertise lies in the fields of Prescriptive Analytics, Machine Learning, and Operations Research applied to a variety of application fields, e.g., transportation problems, supply chains, production networks, and big data. His research currently focuses on electric vehicles, autonomous systems, interpretable machine learning, as well as innovative applications in supply chain and production management. He is the recipient of several awards, including the INFORMS TSL Dissertation Prize and the GOR Doctoral Dissertation Prize. He serves as an Associate Editor for Transportation Science, Service Science, Business & Information Systems Engineering, and Transportation Research Part E.

Areas of interest

- Prescriptive analytics

- Artificial intellgigence & machine learning

- Interpretable & explainable learning

- Optimization

- Reinforcement learning

- Transportation systems

- Supply chains

Selected current research projects

Scalable Deep Reinforcement Learning: We work on methodological enhancements in the field of DRL. Among other research questions, we explore new global reward structures for multi-agent DRL and utilize techniques from (combinatorial) optimization to develop pipelines that make it possible to train DRL agents with very large discrete action spaces.

Contextual Multi-stage Stochastic Optimization: We develop methodologies to solve decision-making problems under uncertainty, with a special interest in problems that require decisions over multiple stages and exhibit context. In this context, we develop optimization augmented machine-learning pipelines that combine the benefits of classical optimization and artificial intelligence.

Autonomous Mobility on Demand Systems: We study the impact of autonomous mobility on demand (AMoD) systems on city logistics and passenger transportation. Within this, we develop mathematical models and algorithms from a system perspective to assess potential benefits but also develop real-time algorithms. Further, we focus on smart grid topics and develop models that consider the interdependencies between an AMoD system and the power network.

OPERATIONS & TECHNOLOGY

PROF. DR. ANDREAS S. SCHULZ

OPERATIONS RESEARCH

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Biography

Andreas S. Schulz holds a joint appointment in the Department of Mathematics and the School of Management. He is also an Honorary Fellow of the Institute of Advanced Study and a Research Affiliate of the Massachusetts Institute of Technology, where he was a faculty member for almost twenty years. He has held visiting positions at the UBC, Maastricht University, ETH Zurich, and TU Berlin. In 2014, he received an Alexander von Humboldt Professorship, Germany's most valuable international research award. Previously, he was the recipient of a Humboldt Research Award to recognize his lifetime achievements (2010). Earlier, the German Academy of Sciences Leopoldina and the Berlin-Brandenburg Academy of Sciences and Humanities had named him one of 20 founding members of "Die Junge Akademie".

Andreas S. Schulz has been on the editorial boards of several scientific journals, including ACM Transactions on Algorithms, Discrete Optimization, INFORMS Journal on Computing, Journal of Scheduling, and Operations Research. In 2015, he established the Operations Research group at TUM. He serves as Spokesperson of the DFG Research Training Group "Advanced Optimization in a Networked Economy.

Areas of interest

- Algorithmic game theory

- Computational complexity

- Discrete optimization

- Graph algorithms

- Integer programming

- Mathematical programming

- Network optimization

- Robust optimization

- Scheduling theory

OPERATIONS & TECHNOLOGY

PROF. DR. DAVID WUTTKE

SUPPLY CHAIN MANAGEMENT

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Biography

In his research, David Wuttke (*1984) focuses on supply chain management, especially supply chain finance, digitalization, innovations in supply chains and behavioral operations management. He uses both empirical and quantitative methods.

After completing his diploma studies at the University of Paderborn and Dublin City University in 2009, David Wuttke received his doctorate at EBS Universität für Wirtschaft und Recht in 2013 on the subject of supply chain finance. In 2019 he was habilitated there, with publications in the areas of supply chain finance and supply chain risk management, and others. Parallel to his doctorate, he studied Mathematics (Bachelor) at FernUniversität in Hagen. He was Assistant Professor at EBS University from 2016 to 2019 before being appointed Assistant Professor at TUM School of Management at Heilbronn Campus in 2020.

Areas of interest

- Digital transformation in supply chains

- Supply chain finance

- Supply chain resilience

OPERATIONS & TECHNOLOGY

PROF. DR. JINGUI XIE

BUSINESS ANALYTICS

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Biography

Jingui Xie is an Associate Professor at the School of Management, Technical University of Munich. His research interests include business analytics, optimization with prediction, queueing theory, and healthcare management.

Areas of interest

- Business analytics

- Healthcare management

OPERATIONS & TECHNOLOGY

PROF. DR. KLAUS BENGLER

ERGONOMICS

Biography

Klaus Bengler studied Psychology at the University of Regensburg, receiving a doctorate in 1995 for work he performed in cooperation with the BMW Group on the design of driver navigation information. He then headed the "Human Machine Interaction" team in BMW's Research & Development Department, where he also managed the Usability Lab. Since 2009, he has been head of the Ergonomics Department at TUM.

Areas of interest

Professor Bengler conducts research in the field of "micro ergonomics". The primary focus of his work is human-machine interactions, particularly in the area of driver assistance, software ergonomics, and cooperation between humans and robots. One of his research projects examines the effect of additional tasks on driver performance while another project studies the design of driver workstations for the vehicle of the future, addressing issues associated with demographic change. His research covers both anthropometric and cognitive problems.

OPERATIONS & TECHNOLOGY

PROF. DR. MARTIN BICHLER

DECISION SCIENCES & SYSTEMS

Biography

Martin Bichler received his MSc degree from the Technical University of Vienna, and his PhD as well as his habilitation from the Vienna University of Economics and Business. He worked as a research fellow at UC Berkeley and as a research staff member at the IBM T. J. Watson Research Center, Yorktown Heights, New York. Since 2003 he has been a Full Professor at the Department of Informatics of the Technical University of Munich (TUM) and also a faculty member at TUM School of Management. He has been a visiting scholar at the University of Cambridge (2008), HP Labs Palo Alto (2008), the Department of Economics at Yale University (2016), and the Department of Economics at Stanford University (2017). Martin is responsible for the Master's program in Information Systems at TUM and a faculty and board member of the Bavarian Elite Master program "Finance and Information Management". He is currently editor-in-chief of the BISE journal, vice president of the INFORMS Section on Auctions and Market Design, and a fellow of the Agora Group on Market Design at the University of New South Wales, Australia. He is also a principal investigator in the DFG-funded research training group AdONE, which carries out research at the intersection of informatics, management science, and mathematics.

Martin Bichler has contributed to different areas in computer science, operations research, and information systems. In particular, he is interested in market design, optimization and resource allocation for cloud computing providers, econometrics, and data analysis. He has published in journals such as INFORMS ISR, Management Science, Production and Operations Management, Games and Economic Behavior, ACM TEAC, IEEE TCC, IEEE TSC, International Journal of Industrial Organization, Economics Letters, Experimental Economics, EJOR, OR Letters, Telecom Policy, IEEE Computer, CACM, Computer Networks, Distributed and Parallel Databases, and SIGMOD Records and is on the editorial board of a number of journals. He has received the EURO Excellence in Practice Award, the HP Labs eAward, the IBM Faculty Award, the INFORMS ISS Design Science Award, and he won the Siemens SCM Olympics. Since 2012 he has been Editor-in-Chief of the journal Business and Information Systems Engineering.

In 2014 Martin Bichler was ranked 19th overall and 3rd in terms of A+ publications in the five-year ranking by Handelsblatt, among 2346 scholars in Europe. He also was ranked 14th in terms of A+ publications in the lifetime ranking.

OPERATIONS & TECHNOLOGY

PROF. DR. MAGNUS FRÖHLING

HEAD OF PROFESSORSHIP CIRCULAR ECONOMY

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Biography

Magnus Fröhling works on quantitative approaches for the analysis, assessment, and planning of the circular economy and bioeconomy systems. This covers technologies for recycling and biomass conversion as well as biorefineries, production, and recycling networks, and global material cycles.

Magnus Fröhling studied Industrial Engineering and Management at Karlsruhe University. In 2005, he received his PhD for a thesis on material flow-based production planning in the process industries. He built up a mainly third-party-funded research group at Karlsruhe University and obtained his habilitation in 2011 at the Karlsruhe Institute of Technology (KIT). His habilitation thesis was on resource and energy efficiency in industrial value chains. In 2013 a stay as visiting scholar at Queensland University of Technology (QUT), Brisbane followed. In 2015 he was appointed Professor of Business Administration, especially Resource Management at TU Bergakademie Freiberg. In 2018, he joined TUM as Professor of Circular Economy at the TUM Campus Straubing for Biotechnology and Sustainability.

Magnus Fröhling has co-authored more than 25 peer-reviewed journal articles in international journals of multiple disciplines, including Applied Energy, the European Journal of Operational Research, the Journal of Industrial Ecology Journal of Business Economics, the International Journal of Production Research, the Journal of Cleaner Production, Fuel Processing Technology, and World of Metallurgy. In all of his positions, he has acquired, led, and worked on numerous third-party funding projects together with other research institutions and industries.

Areas of interest

- Material cycles and circular economy concepts

- Biorefineries and bioeconomy concepts

- Industrial symbiosis

- Techno-economic and sustainability assessments

- Sustainable supply chain management

Selected current research projects

Biotenside Alliance: Together with partners from industry and academia, new biotenside value chains are developed. The TUM part covers the techno-economic assessment and optimization of selected routes.

r+TeTra – Technology Transfer Project: Together with the Fraunhofer Institute for Systems and Innovation Research (ISI) in Karlsruhe, we investigate research projects in the BMBF funding program r+Impuls on industrial resource efficiency regarding their resource efficiency effects.

OPERATIONS & TECHNOLOGY

PROF. DR. JOHANNES FOTTNER

MATERIALS HANDLING, MATERIAL FLOW, LOGISTICS

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Biography

Johannes Fottner (b. 1971) studied Mechanical Engineering at TUM and received his PhD at the same university in the field of materials handling, material flow and logistics. From 2002 to 2008, he held a number of managerial positions at the Swisslog Group. In 2008, he took over as managing director of the MIAS Group. He holds the Bavarian state chair and deputy national chair of the Society for Production and Logistics at the Association of German Engineers (VDI). In 2016, he was appointed Professor of Logistics Engineering at TUM.

Areas of interest

Johannes Fottner's research work focuses on several central topics of technical logistics, especially new technical solutions and systems approaches to improve logistical processes, including the control and optimization of material flow processes using innovative identification technologies (RFID), the development of logistics planning based on digital tools, and the role of humans within logistics. He places a special emphasis on practical applications of scientific knowledge, especially in small and medium-sized enterprises (SMEs), for which the chair runs the Logistics Innovation Center (liz) and the RFID Application Center Munich (RFID-AZM) at TUM.

Selected current research projects

- Biogenic Hydrogen Production with Innovative Distribution Logistics

- Car2Car – Circular and Sustainable Recycling Concepts

- K3I-Cycling – AI-supported optimization of the cycle management of plastic packaging

- MiProcess2Twin – Digital twin for optimizing construction processes through equipment connectivity

- SME Digital-Center Augsburg

- TUM4HealthTech

OPERATIONS & TECHNOLOGY

PROF. DR. ALEXANDER HÜBNER

SUPPLY AND VALUE CHAIN MANAGEMENT

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Biography

Alexander Hübner (b. 1978) is Full Professor of Business Administration at TUM, where he holds the Chair of Supply and Value Chain Management at the TUM Campus Straubing. His research focuses on the design of sustainable supply chains. His work involves developing decision support tools for transportation, inventory management, capacity management and assortment planning with particular applications in retailing, consumer goods industries and health care systems. He studied Business Administration at the Catholic University of Eichstätt-Ingolstadt, where he also completed his doctoral studies and was Assistant Professor. He then moved to Massachusetts Institute of Technology (MIT), where he was Associate Professor at the MIT's Luxembourg Center of Logistics. Before he moved to TUM, he led the Institute of Supply Chain Management at the European Business School in Oestrich-Winkel. Furthermore, he worked as project manager for six years at McKinsey & Company. He currently leads the EURO Working Group on Retail Operations and is a member of the advisory board of the German Logistics association (BVL).

OPERATIONS & TECHNOLOGY

PROF. DR. HELMUT KRCMAR

INFORMATION SYSTEMS, DEPARTMENT OF INFORMATICS

Biography

Helmut Krcmar's (b. 1954) research covers information management, IT-enabled value networks, service management, computer-supported cooperative work, and information systems for IT service providers in health care and e-government.

Helmut Krcmar studied business management in Saarbrücken and obtained his doctorate in 1983. After that, he worked as a postdoctoral fellow at the IBM Los Angeles Scientific Center and as assistant professor of information systems at the Leonard Stern Graduate School of Business, New York University and Baruch College, City University of New York. From 1987 to 2002, he held the Chair of Information Systems at the University of Hohenheim, Stuttgart. From 2000 to 2002, he served as Dean of the Department of Business, Economics, and Social Sciences. He is a member of the TUM School of Management and was Dean of the Department of Informatics from 2010 to 2013.

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Prof. Dr. Martin Grunow

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- Flexible Services and Manufacturing Journal, Area Editor, Associate Editor, 2001–2008, 2008–2023

- Business Research, Editor, 2008–2020

- Schmalenbach Journal of Business Research, Editor, 2021–

Prof. Dr. Gudrun Kiesmüller

- OR Spectrum, associate editor, 2021,2022

- International Journal of Production Economics, Guest Editor, 2022

- International Journal of Production Economics, Guest Editor Special Issue, 2022/2023

Prof. Dr. Rainer Kolisch

- EURO Journal of Decision Processes, Editor, 2021–2022

- International Journal of Production Research, Member Editorial Board, 2021–2022

- Operations Research for Health Care, Member of the Editorial Board, 2021–2022

- Review of Managerial Science, Member of the Editorial Board, 2021–2022

Prof. Dr. Stefan Minner

- International Journal of Production Economics, Editor-in-Chief, since 2018

- Sustainable Manufacturing and Service Economics, Editor-in-Chief, since 2020

- Service Science, Associate Editor 2019–2023

- European Journal of Operational Research, Editorial Board Member, since 2014

- International Journal of Production Research, Editorial Board Member, since 2020

- Review of Managerial Science, Editorial Board Member, since 2006

Prof. Dr. Jingui Xie

- Queueing Models and Service Management, Associate Editor, 2022–

VISITORS

Operations & Technology 2021–2023

Gert Jan van Houtum

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Yifan Cao

2022–2023, Donghua University Shanghai

Szilvia Keszthelyi

2022, Eötvös Loránd University, Budapest, Hungary

Daniele Giovanni Gioia

2022, Politechnico di Torino

FINANCE & ACCOUNTING

Who we are

The Academic Department of Finance & Accounting spans the traditional fields of corporate finance, management accounting and financial accounting. We conduct empirical, theoretical, and experimental research in these fields. Moreover, the Department runs several industry cooperation projects. The Department is home to the Center for Entrepreneurial and Financial Studies (CEFS), focused on entrepreneurial finance, in particular topics such as venture capital, private equity, family businesses and the financing of small and medium-sized enterprises. In addition, the Department was involved in the establishment of the Center for Energy Markets (CEM) focused on the economic and financial analysis of the wider area of energy markets.

Professors

Prof. Dr. Dr. Dr. Ann-Kristin Achleitner . . . . Entrepreneurial Finance
Prof. Dr. Reiner Braun . . . . Entrepreneurial Finance
Prof. Dr. Jürgen Ernstberger . . . . Financial Accounting
Prof. Dr. Gunther Friedl . . . . Management Accounting
Prof. Dr. Christoph Kaserer . . . . Financial Management and Capital Markets
Prof. Dr. Philipp Maume . . . . Corporate Governance and Capital Markets Law
Prof. Dr. Alwine Mohnen
Prof. Dr. Dr. Paul Momtaz . . . . Entrepreneurial Finance
Prof. Dr. Sebastian Müller . . . . Finance
Prof. Dr. Michael Stich. . . . . Accounting

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FINANCE & ACCOUNTING

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Biography

Ann-Kristin Achleitner is TUM Distinguished Affiliated Professor of Entrepreneurial Finance at TUM School of Management, Technical University of Munich (TUM) in Germany. She has held the Chair of Entrepreneurial Finance since 2001 and has been Scientific Co-Director at the Center for Entrepreneurial and Financial Studies (CEFS) at Technical University of Munich (TUM) since 2003. From 1995 to 2001, she was Professor of Banking and Finance at the European Business School (ebs), Oestrich Winkel, and also worked as a consultant for McKinsey & Company, Inc. and MS Management Service AG, St. Gallen. She earned her degrees and her PhD in both law and business administration from the University of St. Gallen (HSG) in Switzerland.

Ann-Kristin Achleitner conducts research in the area of entrepreneurial finance with a focus on the financing of innovation, venture capital, private equity, and family businesses.

She currently serves as a non-executive director on the boards of MunichRE, Linde and Lazard. Previous directorships include Deutsche Börse, Engie, Metro, and Vontobel. She is a member of the Board of Trustees of the Institute of Advanced Study (IAS) in Princeton, the Supervisory Board of UnternehmerTUM, the American-German Institute (AGI), and she is Vice President of the National Academy of Science and Engineering (acatech).

She has advised multiple commissions in the German, Bavarian, and Swiss governments, as well as in the EU commission, and multiple award juries. She is currently a member of the Future Council of the Federal Chancellor.

Ann-Kristin Achleitner has earned several awards for both research and teaching. Further honors include the Officer's Cross of the Order of Merit of the Federal Republic of Germany and the Bavarian Order of Merit.

Selected current research projects

International evidence on value creation in private equity transactions (with Benjamin Puche and Reiner Braun): The paper analyzes value creation drivers in private equity transactions across regions, industries, deal sizes, and time. Key results are decreasing value creation over time and a sharp drop in value creation with increasing transaction size, in terms of enterprise value.

Foundation-owned firms – A qualitative empirical study
(with Jörn Block and Florian Khajeh Hosseini, Scientific Co-Director)

Areas of interest

- Private equity

- Venture capital

- Family firms

FINANCE & ACCOUNTING

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Biography

Reiner Braun is Professor of Entrepreneurial Finance at TUM School of Management, Technische Universität München (TUM) in Germany.

He has held the Chair of Entrepreneurial Finance since 2015 and has been Scientific Director at the Center for Entrepreneurial and Financial Studies (CEFS) at Technische Universität München (TUM) since 2015. He is Academic Program Director of the International Master in Industrial Management at TUM School of Management (TUM). From 2013 to 2015 he was Professor of Entrepreneurial Finance at Friedrich-Alexander University Erlangen-Nürnberg (FAU).

Professor Braun engages in research within the realm of private markets, primarily focusing on private equity and venture capital. His research predominantly takes an empirical approach, also aiming to incorporate machine learning and AI methodologies whenever viable.

He is a member of the Committee "Attractiveness of IPO candidates and their IPO maturity" of the task force "More IPOs of high- growth companies in Germany" organized by the Federal Ministry of Economics and Technology (BMWi). He is Founding Partner at Captona Beteiligungsgesellschaft.

He is active in the TU München Alumni Business Angel Network and was a member of the Advisory Board at Wirtschaftswoche Best of Consulting.

Areas of interest

- Private equity

- Venture capital

- Behavioral entrepreneurial finance

- Innovation funding

- Start-up financing

Selected current research projects

The Levered Returns of Leveraged Buyouts: The Impact of Competition (with Nicholas G. Crain and Anna Gerl): In this study, we investigate how credit cycles and competition for buyout targets between private equity funds drive the relationship between deal leverage, pricing, and performance. In a further step, we evaluate the effects of debt on the investment behavior of general partners in the private equity industry.

Peaches or dogs? The performance of private equity co-investments (with Tim Jenkinson and Christoph Schemmerl): Co-Investments are becoming a significant part of the Private Equity investment landscape. This research project aims at examining whether risk-return profiles of co-investments differ from traditional Private Equity fund investments. Furthermore, potential return drivers such as investment expertise and network relationships are analyzed from various perspectives.

FINANCE & ACCOUNTING

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Biography

Jürgen Ernstberger joined TUM School of Management in 2014 as a Full Professor of Financial Accounting.. He received a degree in Business Administration from the University of Regensburg and the Copenhagen Business School, a doctorate as well as a habilitation in Business Administration from the University of Regensburg. He was a visiting scholar at Rotman School of Management of the University of Toronto and at University Graz.

Jürgen Ernstberger's research has been published in international premier journals including The Accounting Review, Contemporary Accounting Research, Accounting, Organizations and Society, European Accounting Review, and the Journal of Business Ethics.

He has received several awards and serves as a member on the editorial boards of the International Journal of Accounting and the International Journal of Accounting, Auditing and Performance Evaluation, and is ad hoc reviewer at many journals and conferences. Three of his former doctoral and habilitation students hold faculty positions at German universities. Since 2019, he serves as TUM School of Management's Dean of Academic and Student Affairs.

Areas of interest

- International accounting

- Sustainability reporting

- ESG disclosure

- Carbon footprints

- Carbon offsets

- Blockchain technology

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Biography

Gunther Friedl has been Dean of TUM School of Management at Technical University of Munich since 2010. He joined TUM as a Full Professor of Management Accounting in 2007. He holds both a M.Sc. in Business Administration from the University of Munich and an M.Sc. in Physics from the Technical University of Munich. He received his PhD and habilitation in Business Administration from the University of Munich.

Before joining the Technical University of Munich, Gunther Friedl was Full Professor at the University of Mainz. He has also been a visiting scholar at Stanford University and guest professor at Warsaw School of Economics.

He is author and co-author of several textbooks and monographs on management accounting and valuation. His current research interests lie in the area of corporate governance, performance management, valuation, and energy markets. His work has been published in journals such as the European Journal of Operational Research, OR Spectrum, Research Policy, and Schmalenbach Business Review.

Areas of interest

- Management accounting

- ESG and decarbonization

- Corporate goernance

- Executive compensation

- Valuation

- Patent valuation

- Energy markets

Selected current research projects

- The Future of Mobility and Car Ownership, in cooperation with Banco Santander, S.A. (2020–2022)

- Management of decarbonization and other ESG challenges in family businesses, in cooperation with Dr. Hans Riegel Stiftung (2021–2024)

- ESG risks in banking regulation and financial institutions, in cooperation with Frankfurter Institut für Risikomanagement und Regulierung (2020–2021)

- Economic evalution of second life EV batteries and recycling options, in cooperation with Siemens AG (2021–2024)

- Carbon accounting, in cooperation with SAP (2022–2025)

PROF. DR. CHRISTOPH KASERER

FINANCIAL MANAGEMENT AND CAPITAL MARKETS

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Biography

Christoph Kaserer is a Full Professor of Finance at Technische Universität München (TUM). Since 2016 he has acted as economic advisor to the European Securities Markets Authority (ESMA).

His area of expertise is empirical capital market research, corporate finance, financial market regulation, and asset management. He is also active as an expert for the German Government as well as for public and private institutions. He regularly invited to parliamentary hearings as an expert witness.

Before joining TUM, he became a Full Professor of Financial Management and Accounting at Université de Fribourg, Switzerland, in 1999. From 2005 to 2010 he was the Dean of TUM School of Management. Christoph earned a degree in Economics from the University of Vienna. He holds a PhD in Finance from the University of Würzburg.

Areas of interest

- Empirical capital market research

- Corporate finance

- Financial market

- Regulation, asset management

FINANCE & ACCOUNTING

PROF. DR. PHILIPP MAUME

CORPORATE GOVERNANCE AND CAPITAL MARKETS LAW

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Biography

Philipp Maume studied law at Albert-Ludwigs-University Freiburg (Germany) and La Trobe University Melbourne (Australia). After his practical legal training at the Higher Regional Court Karlsruhe, he joined TUM School of Management as a Senior Researcher in 2005. In 2009 he was awarded a PhD by the University of Augsburg. In 2010 he moved to Australia for a research project on information rights and corporate law. In 2013 he was awarded a Doctor of Juridical Science (S.J.D.) by La Trobe University, Melbourne. During his candidature, he was a sessional staff member at La Trobe University School of Law, and a research assistant at Monash University Department of Business Law and Taxation, Melbourne. In 2013, he was appointed Assistant Professor for Corporate Governance and Capital Markets Law at TUM School of Management. In 2019, he was promoted to Associate Professor (with tenure).

Areas of interest

- Financial markets regulation (DLT/blockchain, robo-advisory, market abuse)

- Company law (digitalization and conflicts of interest regulation)

- Consumer law (online)

Selected current research projects

Spectacular cases such as the LIBOR scam or the Porsche/VW takeover have raised questions of overlaps of anticompetitive or abusive conduct and securities regulation. Policymakers have not addressed this issue yet. What are the implications for the design of the overlapping rules, their enforcement, and market conduct supervision in general?

The finance industry is facing enormous challenges caused by digitalization. Algorithms give financial advice to clients and make independent investments decisions. The traditional toolbox for regulation of intermediaries needs to be adjusted, for example, in relation to avoiding and disclosing conflicts of interest, and in particular concerning liability for bad investment decisions.

FINANCE & ACCOUNTING

PROF. DR. ALWINE MOHNEN

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Biography

Alwine Mohnen has been Full Professor at the Chair of Corporate Management at TUM School of Management since 2011. She holds a diploma in economics (1997) from the University of Bonn, a doctoral degree (2002) and a habilitation in Business Administration (2008) from the University of Cologne. Before joining RWTH Aachen as Full Professor in the Department of Business and Economics in 2008, she was a visiting scholar at Stanford University for one year as well an Adjunct Professor at the CEU Business School of the Central European University in Budapest. Furthermore, she has been a research Fellow of the IZA (Institute of Labor Economics) since 2009.

Alwine Mohnen is member of the supervisory boards of KPMG Germany and TTTech Auto AG, and a member of the advisory board of the Wolf family business. Since 2013, she has been Head of TUM SOM Graduate School and since 2023 member of dhl

Sustainability Board and Vice Dean of the TUM Graduate School. She directs the experimental laboratory "experimenTUM" of TUM School of Management, which investigates questions in the fields of behavioral and experimental economics. Her research focuses on corporate governance, personnel economics (with a particular focus on incentive systems and performance measurement), family firms, behavioral & experimental economics, and sustainability-related topics. Her work has been published in the Journal of Behavioral Decision Making, the Journal of Labor Economics, the Journal of Economic Psychology, the Review of Accounting Studies, the Journal of Cleaner Production, the Journal of Business Venturing Insights, and Applied Energy.

Areas of interest

- Behavioral & experimental economics

- Corporate management

- Family firms

- Personnel economics

- Sustainability

- Circular economy

Selected current research projects

Incentives

In various research projects, Alwine Mohnen analyzes the effectiveness of incentives. Her projects deal, for example, with the effectiveness of non-monetary and monetary incentives (with Hanna Sittenthaler, TUM), incentive mechanisms, as well as incentives in light of the future of work (with Theresa Kaiser, Hanna Sittenthaler, both TUM).

Sustainability/circular economy

Alwina Mohnen deals with topics in sustainability, with a specific focus on the circular economy. Together with Christoph Ratay (TUM), she analyzes, for example, consumer-to-business smartphone returns, the geographic network effects in the circular economy, and the durability of pro-environmental behavior.

FINANCE & ACCOUNTING

PROF. DR. DR. PAUL MOMTAZ

ENTREPRENEURIAL FINANCE

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Biography

Paul Momtaz studied the universities of at Hamburg, Paris, Cambridge, and UCLA. He has held academic appointments at Goethe University Frankfurt, Wharton School at UPenn, UCL Computer Science, and TUM.

Areas of interest

- Finance, entrepreneurship

- Innovation, sustainability

- Emotion

- AI/ML

FINANCE & ACCOUNTING

PROF. DR. SEBASTIAN MÜLLER

FINANCE

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Biography

Sebastian Müller is Professor of Finance at TUM School of Management, Campus Heilbronn. His research is quantitative/empirically oriented and focuses mostly on asset pricing, asset management, and behavioral finance. Within these fields, he is particularly interested in the price formation process of financial markets, the investment decisions of market participants, and the impact of digitalization and sustainability on corporations and markets. He teaches courses in finance in the Master's, Bachelor's, and Executive Education programs of TU Munich. His teaching experience covers the areas of corporate finance, investments and asset pricing, banking, behavioral finance, digital finance, and sustainable finance.

Areas of interest

- Asset pricing

- Asset management

- Behavioral finance

- Digital finance

- Sustainable finance

Selected current research projects

- The Influence of Wikipedia on Stock Returns

- The "Digital Premium": Why Does Digitalization Drive Stock Returns?

- Global Business Networks

- Machine Learning for Mutual Funds

FINANCE & ACCOUNTING

PROF. DR. MICHAEL STICH

ACCOUNTING

Email: michael.stich@tum.de

Biography

Michael Stich studied Business Administration (Honors Program of the Elite Network of Bavaria) at the University of Regensburg and the Katholieke Universiteit Leuven. From 2009 to 2011, he worked as a Research Assistant at the Chair of Accounting and Auditing of the Ruhr-University Bochum and earned a doctorate in management and economics. From 2011 to 2017, he served as an Assistant Professor of Accounting at the Friedrich-Alexander University of Erlangen-Nuremberg. From 2017 to 2021, he was a Professor of Empirical Accounting at the University of Cologne. In April 2021, he joined the TUM Campus Heilbronn as Professor of Accounting and Academic Program Director for the Bachelor Program in Management and Technology.

Areas of interest

- Integrated and sustainability reporting

- Investor impatience and managerial myopia

- Real effects of accounting regulation

- Sustainability assurance

- Accounting enforcement

Selected current research projects

Do transparency regulations thwart corporate social responsibility? (Stich, M.): This paper demonstrates that several mandatory reporting requirements induce managerial myopia and work against the sustainable development of the global economy.

Earnings management around the 'Tax Cuts and Jobs Act' of 2017 (Lynch, D., Pflitsch, Maria und Michael Stich): The paper illustrates corporates tax-saving strategies around the tax rate decrease from 35% to 21% in the United States. The findings suggest so-far unconsidered tax income shortfalls of about $30 billion for the US Government.

Integrated reporting, analyst forecast accuracy, and integrated reporting expertise (Maria und Michael Stich): Integrated reporting is an innovative accounting concept that helps to promote a sustainably acting society. The paper suggests that such favorable effects are only likely when market participants invest in their own holistic reporting competencies.

FINANCE & ACCOUNTING

PROF. DR. RUDI ZAGST

MATHEMATICAL FINANCE

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professorinnen-und-professoren/rudi-zagst/

Biography

Rudi Zagst holds the Chair of Mathematical Finance at the Technical University of Munich. He previously worked for HypoVereinsbank as Head of Product Development in Institutional Investment Management, as Head of Consulting in Asset Management and Managing Director of RiskLab GmbH – Private Research Institute for Financial Studies. He has held various teaching assignments at the Universities of Augsburg, St. Gallen, Munich, Toronto, Ulm and Singapore and is a member of the Munich Financial Center Initiative (FPMI) of the Bavarian State Ministry of Economic Affairs, Regional Development and Energy, and of the Advisory Board of the Bavarian Research Foundation. His research focuses on financial engineering and quantitative risk and asset management. He has published over 140 papers and ten books in quantitative finance and actuarial sciences. He has won more than ten Best Teaching Awards and been honored with various academic prizes, such as the Gauss Price, the SCOR Price in Actuarial Sciences, and the BAI Scientific Award. He was named "Professor of the Year 2007" for his commitment to the practical education of his students.

Areas of interest

- Financial engineering

- Risk management

- Asset management

Selected current research projects

- Mean-Variance Optimization under Affine GARCH

- Bayesian Learning in an Affine GARCH models

- Term Structure Forecasting using Machine Learning

- Robust Clustering for Mean-Variance Optimization

PUBLICATIONS

Finance & Accounting 2021–2023, peer-reviewed journals and books

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Blitz, D.; Hanauer, M. X. (2021): Resurrecting the Value Premium, The Journal of Portfolio Management, '63–81'

Blitz, D.; Hanauer, M. X. (2021): Settling the Size Matter, The Journal of Portfolio Management, '99–112'

Blitz, D.; Hanauer, M. X.; Honarvar, I.; Huisman, R.; van Vliet, P. (2023): Beyond Fama-French Factors: Alpha from Short-Term Signals, Financial Analysts Journal, '1–22'

Blitz, D.; Hanauer, M. X.; van Vliet, P. (2021): The Volatility Effect in China, Journal of Asset Management, '338–349'

Brosch, N. (2021): Purpose in der Praxis: Insights einer Leitbildstudie aus der deutschen Wirtschaft, Controlling, '36–39'

Brück, F. (2022): Exact simulation of continuous max-id processes with applications to exchangeable max-id sequences, Journal of Multivariate Analysis

Brück, F.; Fermanian, J.-D.; Min, A. (2022): A corrected Clarke test for model selection and beyond, Journal of Econometrics

Brück, F.; Mai, J.; Scherer, M. (2022): Exchangeable min-id sequences: Characterization, exponent measures and non-decreasing id-processes, Extremes

Bücher, A.; Jaser, M.; Min, A. (2021): Detecting departures from meta-ellipticity for multivariate stationary time series, Dependence Modeling

Czado, C.; Bax, K.; Sahin, Ö.; Nagler, T.; Min, A.; Paterlini, S. (2022): Vine copula based dependence modeling in sustainable finance, The Journal of Finance and Data Science

De Vries, A.; Stoll, C. (2021): Bitcoin's growing e-waste problem, Resources, Conservation and Recycling, '105901'

Defend, M.; Min, A.; Portelli, L.; Ramsauer, F.; Sandrini, F.; Zagst, R. (2021): Quantifying Drivers of Forecasted Returns Using Approximate Dynamic Factor Models for Mixed-Frequency Panel Data, Forecasting, '56–90'

Desmettre, S.; Wahl, M.; Zagst, R. (2021): Dynamic Surplus Optimization with Performance- and Index-Linked Liabilities, European Actuarial Journal

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Downar, B.; Ernstberger, J.; Koch, C. (2021): Who makes partner in Big 4 audit firms? Evidence from Germany, Accounting, Organizations and Society, '101176'

Downar, B.; Ernstberger, J.; Koch, C.; Prott, M. (2022): Does Practitioner Research Help Auditors to Provide Higher Audit Quality and Improve their Reputation?, European Accounting Review, '1–30'

Downar, B.; Ernstberger, J.; Reichelstein, S.; Schwenen, S.; Zaklan, A. (2021): The impact of carbon disclosure mandates on emissions and financial operating performance, Review of Accounting Studies, '1137–1175'

Ehaji, A.; Koçak, M. (2021): Macroprudential measures and developments in bank funding costs, International Review of Financial Analysis, '101943'

Ehaji, A.; Koçak, M. (2021): Tightening and Loosening of Macroprudential Policy, Its Effects on Credit Growth and Implications for the COVID-19 Crisis, Economic and Business Review, '207–233'

Ehaji, A.; Koçak, M. (2022): Bank lending and small and medium-sized enterprises access to finance Effects of macroprudential policies, Journal of International Money and Finance, '102612'

Escobar-Anel, M.; Spies, B.; Zagst, R. (2021): Expected Utility Theory on General Affine GARCH Models, Applied Mathematical Finance, '477–507'

Escobar, M.; Gollart, M.; Zagst, R. (2022): Closed-form portfolio optimization under GARCH models, Operations Research Perspectives, '1–13'

Escobar, M.; Havrylenko, Y.; Kschonnek, M.; Zagst, R. (2022): Decrease of capital guarantees in life insurance products: can reinsurance stop it?, Insurance: Mathematics and Economics

Escobar, M.; Havrylenko, Y.; Zagst, R. (2022): Constrained portfolios in incomplete markets: a dynamic programming approach to Heston's model, Working Paper submitted for publication

Escobar, M.; Kschonnek, M.; Zagst, R. (2022): Portfolio Optimization: Not Necessarily Concave Utility and Constraints on Wealth and Allocation, Mathematical Methods of Operations Research, '1–40'

Escobar, M.; Kschonnek, M.; Zagst, R. (2023): Mind the Cap! - Constrained Portfolio Optimisation in Heston's Stochastic Volatility Model, Quantitative Finance

Escobar, M.; Molter, M.; Zagst, R. (2023): The Power of Derivatives in Portfolio Optimization under Affine GARCH models, Working Paper submitted for publication

Escobar, M.; Theilacker, L.; Zagst, R. (2023): Revisiting the 1/N-strategy: a neural network framework for optimal strategies, Decisions in Economics and Finance

Escobar, M.; Wahl, M.; Zagst, R. (2022): Portfolio Optimization with Wealth-Dependent Risk Constraints, Scandinavian Actuarial Journal, '244–268'

Friedl, G.; Ann, C. (2021): Bemessungsgrundlagen für FRAND-konforme SEP-Lizenzentgelte - Warum der Blick auf Kosten wichtig ist!, Mitteilungen der deutschen Patentanwälte

Friedl, G.; Blaschke, M. (2022): Product Mining - Das Produkt als zentrale Stellgröße strategischer Entscheidungen, Zeitschrift für erfolgsorientierte Unternehmenssteuerung, '71–73'

Friedl, G.; Hofmann, C.; Pedell, B. (2022): Kostenrechnung. Eine entscheidungsorientierte Einführung, Vahlen

Friedl, G.; Hofmann, C.; Pedell, B.; Schäfer, P. (2023): Cost Accounting, World Scientific Publishing

Friedl, G.; Straßer, T.; Storp, R. (2021): Bestimmung der Marktrisikoprämie in der 4. Regulierungsperiode, EnWZ - Zeitschrift für das gesamte Recht der Energiewirtschaft

PUBLICATIONS

Fuchs, F.; Wahl, M.; Zagst, R.; Zheng, X. (2022): Stock Market Crisis Forecasting using Neural Networks with Input Factor Selection, Applied Sciences, '1–16'

Genest, C. und Scherer, M. (2023): When copulas and smoothing met: An interview with Irène Gijbels, Dependence Modeling

Haimann, M.; Kaserer, C.; Ljubicic, K. (2023): Cui bono? Large-scale evidence on the impact of COVID-19 policy measures on listed firms, The Quarterly Review of Economics and Finance, '228–243'

Hanauer, M. X.; Kalsbach, T. (2023): Machine learning and the cross-section of emerging market stock returns, Emerging Markets Review, '101022'

Hanauer, M. X.; Kononova, M.; Rapp, M. S. (2022): Boosting Agnostic Fundamental Analysis: Using Machine Learning to Identify Mispricing in European Stock Markets, Finance Research Letters, '102856'

Hanauer, M. X.; Lesnevski, P.; Smajlbegovic, E. (2023): Surprise in short interest, Journal of Financial Markets, '100841'

Hanauer, M. X.; Windmüller, S. (2023): Enhanced Momentum Strategies, Journal of Banking & Finance, '106712'

Heger, J.; Min, A.; Zagst, R. (2022): Analyzing Credit Spread Changes using Explainable Artifcial Intelligence, Working Paper

Heilmann, C.; Friedl, G. (2021): Factors influencing the economic success of grid-to-vehicle and vehicle-to-grid applications A review and meta-analysis, Renewable and Sustainable Energy Reviews, '111115'

Höcht, S.; Min, A.; Wieczorek, J.; Zagst, R. (2022): Explaining Aggregated Recovery Rates, Risks, '1–30'

Kaserer, C.; Keppler, H.; Jarchow, S. (2023): Family firm performance in times of crisis - new evidence from germany, Eurasian Business Review

Kielmann, J.; Manner, H.; Min, A. (2021): Stock market returns and oil price shocks: A CoVaR analysis based on dynamic vine copula models, Empirical Economics

Kowalzick, M.; Ahrens, J. P.; Lauterbach, J. G.; Tang, Y. (2023): Overconfident CEOs in Dire Straits: How Incumbent and Successor CEOs Overconfidence Affects Firm Turnaround Performance, Journal of Management Studies

Kschonnek, M.; Dobrovolska, I.; Protzer, U.; Zagst, R. (2023): COVIX - An Index Allowing to Assess the Pandemic Situation Based on Infections and Hospitalization Data, Applied Sciences, Vol. 13, No. 7, 4554

Lichtenstern, A. und Zagst, R. (2021): Optimal investment strategies for pension funds with regulation-conform dynamic pension payment management in the absence of guarantees, European Actuarial Journal

Lichtenstern, A.; Shevchenko, P.; Zagst, R. (2021): Optimal life-cycle consumption and investment decisions under age-dependent risk preferences, Mathematics and Financial Economics, '275–313'

Matthäus, D.; Schwenen, S.; Wozabal, D. (2021): Renewable auctions: Bidding for real options, European Journal of Operational Research, '1091–1105'

Maume, P.; Maute, L.; Fromberger, M. (2021): The Law of Crypto Assets, Beck/Hart/Nomos

Nagler, T.; Krüger, D.; Min, A. (2022): Stationary vine copula models for multivariate time series, Journal of Econometrics

Pabst, S.; Mohnen, A. (2021): On founders and dictators: Does it pay to pay for signals in crowdfunding?, Journal of Business Venturing Insights, 'e00247'

Pabst, S.; Wayand, M.; Mohnen, A. (2021): Coordinating contributions in crowdfunding for sustainable entrepreneurship, Journal of Cleaner Production, '128677'

Ratay, C.; Mohnen, A. (2022): Motivating consumer-to-business smartphone returns: Evidence from a factorial survey experiment, Journal of Cleaner Production, '133114'

Regier, M. (2021): Does Longer Duration of Executive Compensation Foster Investment Efficiency?, European Accounting Review, '1–34'

Runde, I.; Scherer, M. (Hg.) (2022): Emil Julius Gumbel. Mathematiker Publizist Pazifist, Universitätsverlag Winter Heidelberg

Schaefer, P. (2022): Relative Performance Evaluation and Strategic Differentiation, The Accounting Review

Scherer, M.; Stahl, G. (2021): The Standard Formula of Solvency II: A critical discussion, European Actuarial Journal, '3–20'

Schneider, F.; Neumair, M.; Lehmkuhl, D.; Schult, A.; Ahrend, K.-M.; Friedl, G.; Schulz, C. M. (2022): Gesundheit und Kapitalanlagen - wie sind die 237 Mrd. der berufsständigen Versorgungswerke angelegt?, Zeitschrift für Evidenz, Fortbildung und Qualität im Gesundheitswesen

Sloot, H. (2023): Implementing Markovian models for extendible Marshall Olkin distributions, Dependence Modeling

Stoll, C.; Klaaßen, L. (2021): Harmonizing Corporate Carbon Footprints, Nature Communications

Swishchuk, A.; Zagst, R.; Zeller, G. (2021): Hawkes Processes in Insurance: Risk Model, Application to Empirical Data and Optimal Investment, Insurance: Mathematics and Economics, '107–124'

Tumasjan, A.; Braun, R.; Stolz, B. (2021): Twitter sentiment as a weak signal in venture capital financing, Journal of Business Venturing, '106062'

Windmüller, S. (2021): Firm Characteristics and Global Stock Returns: A Conditional Asset Pricing Model, Review of Asset Pricing Studies, '447–499'

Zeller, G.; Scherer, M. (2021): A comprehensive model for cyber risk based on marked point processes and its application to insurance, European Actuarial Journal

Zeller, G.; Scherer, M. (2023): Risk mitigation services in cyber insurance: Optimal contract design and price structure, The Geneva Papers on Risk and Insurance Issues and Practice

EDITORSHIPS

Finance & Accounting 2021–2023

Prof. Dr. Gunther Friedl

- Junior Management Science, Department Editor Controlling and Taxes

Prof. Dr. Alwine Mohnen

- Department Editor Journal of Business Economics since 2023

Prof. Dr. Dr. Paul Momtaz

- Entrepreneurship Theory and Practice, Editorial Review Board, 2022–

- Journal of Entrepreneurial Finance, Editor, 2022–

- European Journal of Finance, Associate Editor, 2022–

MARKETING, STRATEGY & LEADERSHIP

Who we are

The Academic Department of Innovation and Entrepreneurship investigates the management of innovation and company startups. The research focus lies on empirical investigation of innovation and startup processes. Research subjects include corporate strategies to profit from innovation, openness in innovation processes, innovation by users, patent management, innovation policy, the socio-political and cultural aspects of innovation, the recognition of business opportunities, entrepreneurial individuals' and teams' psychological processes, strategies for young companies and understanding the consequences of entrepreneurial failure.

Professors

Prof. Dr. Vera Bitsch . . . . Economics of Horticulture and Landscaping
Prof. Dr. Jochen Hartmann . . . . Professorship of Digital Marketing
Prof. Dr. Hugo Kehr . . . . Psychology
Prof. Dr. Chengguang Li . . . . Strategic Management
Prof. Dr. Martin Meißner . . . . Professorship of Digital Marketing
Prof. Dr. Claudia Peus . . . . Research and Science Management
Prof. Dr. Thorsten Pachur . . . . Behavioral Research Methods
Prof. Dr. Jutta Roosen . . . . Marketing and Consumer Research
Prof. Dr. Benedikt Schnurr . . . . Marketing
Prof. Dr. Christoph Ungemach . . . . Tenure Track Professorship of Marketing
Prof. Dr. Hutzschenreuter Thomas . . . . Chair of Strategic and International Management
Prof. Dr. Isabell Welpe . . . . Strategy and Organizaton

Affiliate Members

Prof. Dr. Jörg Königstorfer . . . . Chair of Sport and Health Management
Prof. Dr. Christoph Lütge . . . . Business Ethics
Prof. Dr. Klaus Menrad . . . . Marketing and Management of Biogenic Resources

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. VERA BITSCH

ECONOMICS OF HORTICULTURE AND LANDSCAPING

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Biography

Vera Bitsch conducts research on sustainability in agricultural value chains. She prefers working with qualitative approaches, where she also contributes to methodological development and the doctoral certificate program Agricultural Economics on the national level in Germany. She graduated from Leibniz University of Hannover, Germany. Her doctoral degree in horticultural sciences and her habilitation in agricultural economics were also awarded by University of Hannover. Before accepting the chair position at TUM, she held a professorship at Michigan State University (US) for ten years. Among her many awards are Distinguished Extension/Outreach Program of the AAEA, IFAMA Fellow, and an Honorary Doctorate of the Swedish University of Agricultural Sciences. As part of her teaching and research activities, she engages in furthering the competent use of qualitative research methods. She also is a practitioner of experiential learning methods.

Areas of interest

- Sustainability, in particular social sustainability, its measurement and evaluation across the value chain

- Organizational development and strategy

- Qualitative research approaches and case studies

Selected current research projects

- Succession and ownership transfer in family farming

- Community supported agriculture in Germany

- Sustainable apple production in Germany and New Zealand

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. JOCHEN HARTMANN

PROFESSORSHIP OF DIGITAL MARKETING

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Biography

Jochen Hartmann joined TUM School of Management at the Munich Campus in January 2023. Before that, he was Assistant Professor at the Faculty of Economics and Business at the University of Groningen. He obtained his PhD at the University of Hamburg. From 2019 to 2022, he coordinated the DFG research unit (FOR 1452). Before his doctoral studies, he worked as a management consultant at McKinsey & Company. Jochen Hartmann is a regular visiting scholar at Columbia Business School and adjunct faculty for Machine Learning and Data Mining at Mannheim Business School.

Areas of interest

- Generative AI

- Social media and multi-modal digital advertising analytics

- Unstructured data (image, video, text, speech)

- Algorithmic fairness

- Diversity in advertising

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. HUGO KEHR

PSYCHOLOGY

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Biography

Hugo Kehr received his Diploma in Business Administration as well as his PhD and his habilitation in Psychology from Munich University. Currently, he holds the Chair of Psychology and is Academic Program Director of the Master in Management at TUM School of Management. Before coming to Munich, he held the Chair of Organizational Behaviour at Macquarie Graduate School of Management, Sydney. He has been a visiting scholar at UC Berkeley (CA), UNSW (Sydney) and U Hawaii. He received the Heisenberg Fellowship and is a Fellow of the Alexander von Humboldt-Foundation. He currently serves on the editorial boards of Motivation Science, the German Journal of Human Ressource Management, and the Zeitschrift für Arbeits- und Organisationspsychologie. Since 2008, he has organized the Munich Symposium of Motivation, a biannual international scholarly conference.

Areas of interest

- Motivational phenomena and leadership, such as the implicit sex, power, and death motives

- Intrinsic motivation and flow experience

- The motivating potential of visions

Selected current research projects

- The sex motive at the workplace

- Theory X and Y revisited

- The imperial motive pattern in sales managers

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. CHENGGUANG LI

STRATEGIC MANAGEMENT

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Biography

Chengguang Li is Professor of Strategic Management at TUM School of Management, TUM Campus Heilbronn. He and his team conduct research on the strategy of multinational enterprises (MNEs), small and medium-sized enterprises (SMEs), and family firms, with an emphasis on global strategy, firm reputation, and sustainability. His research has been published in the Strategic Management Journal, Journal of International Business Studies, Journal of Management, Journal of Management Studies, and Harvard Business Review, and has been funded by the German Research Foundation (DFG). He is founder and initiator of the CEO Leadership Series at TUM Campus Heilbronn and president of TUMselect. He has served on the editorial boards of the Journal of International Business Studies, Journal of Management Studies, and Global Strategy Journal. He studied Industrial Engineering at the Technical University of Berlin and obtained a Master of Science from the Nanyang Technological University in Singapore and a Master of Engineering from the Massachusetts Institute of Technology (MIT). Prior to joining academia, he worked as a consultant at the Boston Consulting Group (BCG) and Roland Berger in Berlin, Dubai, and Munich.

Areas of interest

- Global strategy

- Firm reputation

- Sustainability

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. MARTIN MEISSNER

PROFESSORSHIP OF DIGITAL MARKETING

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Biography

Martin Meißner's (b. 1979) research focuses on social media and digitalization, as well as consumer decision-making processes, applying eyetracking and augmented and virtual reality. In the context of social media, he particularly investigates influencer marketing. He uses eyetracking to understand decision-making processes in detail. His research has been published in internationally renowned journals such as the Journal of Marketing Research and Information Systems Research. He studied Business Administration at the Faculty of Business Administration and Economics at Bielefeld University. After a research stay at Monash University in Australia, he was Associate Professor at the University of Southern Denmark from 2013 to 2019. In 2020, he accepted the position as Professor of Marketing at Zeppelin University. Since 2022, he has been Professor of Digital Marketing at TUM School of Management at the Heilbronn Campus.

Areas of interest

- Visual attention and eyetracking

- Virtual and augmented reality

- Social media and digitalization

- Decision making

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. THORSTEN PACHUR

BEHAVIORAL RESEARCH METHODS

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Biography

Thorsten Pachur joined TUM as Professor for Behavioral Research Methods in 2022. His research investigates adaptive cognition, that is, how the psychological mechanisms underlying thinking, reasoning, and decision making are shaped by the structure of the environment. In his research, he employs an integrative multi-method approach that includes behavioral experiments, computational modeling, process tracing (e.g., eye tracking), and neuroimaging. He studied Psychology at the Free University Berlin and the University of Sussex. He obtained his PhD in Psychology from the Free University Berlin in 2006 and his habilitation from the University of Basel in 2012. He has worked as a Research Scientist at the University of Basel (2006–2012) and as a Senior Research Scientist at the Max Planck Institute for Human Development (2012–2022).

Areas of interest

- Decision making

- Cognitive science

- Behavioral research methods

- Computational modeling

- Process tracing

- Decision making under risk and uncertainty

- Memory

- Bounded rationality

- Open science

- Bayesian statistics

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. CLAUDIA PEUS

RESEARCH AND SCIENCE MANAGEMENT

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Biography

Claudia Peus has been Professor of Research and Science Management at the TU Munich since May 2011, Senior Vice President for Talent Management and Diversity since October 2017, and founding director of the TUM Institute for LifeLong Learning (TUM IL3) since December 2019. After completing her doctorate at LMU Munich, she worked as a Visiting Scholar at the Sloan School of Management, Massachusetts Institute of Technology, and as a Post-Doctoral Fellow at Harvard University.

In her research, Claudia Peus focuses on leadership and leadership development in the digital age, the management of research organizations, and diversity in organizations. She is a member of various boards, such as the management board of RWI – Leibniz Institute for Economic Research, the board of trustees of the "Wertekommission" and the Max Planck Institute for Physics, and advises organizations from business and science on topics such as leadership, diversity, and talent management. In 2020, she was included in the list of "Germany's Most Inspiring Women".

Areas of interest

- Leadership

- Research and science management

- (International) HR management

- Digital transformation

Selected current research projects

Multiple Team Membership: In cooperation with colleagues from INSEAD and LMU and supported by an international professional service, firm we investigate the impact multiple-team membership has on team members' attitudes and team performance over time. Implications for leading project-based organizations will be derived.

Does the place make the people? The role of leadership and work climate for moral and prosocial socialization in the workplace: In a DFG-funded research project we are investigating how facets of (un)ethical leadership interact with the work climate in teams and organizations. The main objective is to examine these two areas in terms of their socialization potential for the moral and prosocial development of employees. A longitudinal study with newcomers over three years will allow the identification of potential socialization effects over time, including effects on wellbeing and performance.

TUM Neurophysiological Leadership Laboratory (NeLeLab): The TUM Neurophysiological Leadership Lab integrates neurophysiological methods with social science research. It is funded by the European Union and the Excellence Strategy. We study different forms of leadership, including destructive leadership, and their perception by followers, focusing on intraindividual effects on cognition, affect, and behavior. Our lab also enhances methodological literacy by teaching TUM students about the application of neurophysiological and experimental methods.

FührMINT II: This BMBF-funded project investigates gender-specific differences in the perception and evaluation of destructive leadership in academia, with a special focus on the male-dominated STEM disciplines. Within the project, we aim to determine the prevalence of perceived destructive leadership of male and female professors in STEM disciplines in Germany, and investigate gender differences and the role of gender stereotypes in the perception and evaluation of destructive leader behaviors.

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. JUTTA ROOSEN

MARKETING AND CONSUMER RESEARCH

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Biography

Jutta Roosen studied Agricultural Economics at the University of Bonn and Washington State University (USA) and received her PhD in Economics at Iowa State University (USA) in 1999. Before joining Technische Universität München, she served as a faculty member at the Université cath. de Louvain (Belgium) and at the University of Kiel.

In her research, she focuses on questions of consumers' perception, in particular regarding food products, and analyses consequences for food markets. Her research allows for conclusions regarding marketing and an efficient consumer policy.

She is member of the ADAC test advisory board.

Areas of interest

- Consumers' perception of food products

- Food marketing

- Sustainable consumption

- Visual attention, eye tracking and consumer choice

- Willingness-to-pay studies

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. BENEDIKT SCHNURR

MARKETING

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Biography

Benedikt Schnurr has held the Professorship of Marketing at the Technical University of Munich (TUM) since 2021. Before that, he studied Business Administration at the Ludwig-Maximilians-University in Munich. He completed his doctorate in 2014 at the Leopold-Franzens-Universität Innsbruck and moved to the Technical University of Munich (TUM) as a Research Assistant in 2018. In his research, he studies new market phenomena, the relationship between socio-economic inequalities and consumption, and sustainable consumer behavior. His research has been published in leading academic journals such as the Journal of Marketing, Journal of Consumer Research, and Journal of Consumer Psychology.

Areas of interest

- Social inequality and consumption

- Consumer well-being

- Sustainable consumption

Selected current research projects

- How signing one's work reduces feelings of objectification

- Acceptability of unsustainable consumption

- Consumer reactions to accessible services

- Second-hand markets and overconsumption

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. CHRISTOPH UNGEMACH

TENURE TRACK PROFESSORSHIP OF MARKETING

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Biography

Christoph Ungemach joined TUM School of Management in November 2016. Prior to that, he was an Associate Research Scientist at Columbia University for three years, where he is still a Research Affiliate at the Center for Research on Environmental Decisions. He also worked as a Data Scientist for a technology startup in New York.

Christoph Ungemach holds an advanced degree in Psychology from the Justus Liebig University Giessen and received his PhD at the University of Warwick, where he was awarded a fellowship by the Economic and Social Research Council to conduct his research on decision making under risk and uncertainty. At Warwick, he also worked as a postdoctoral researcher for three years. He has also been a visiting scholar at the University of Chicago Booth School of Business.

Christoph Ungemach's research focuses on the behavioral science of decision-making. Working on the intersection of economics and cognitive psychology, he seeks to understand the processes driving consumer choice across a variety of domains, including environmental and financial decisions. His current work investigates the application of choice architecture to help consumers make decisions that are better aligned with both their own preferences and social goals.

The findings of his research have been published in leading international journals, including Management Science, Psychological Science and Judgment, and Decision Making.

Selected current research projects

Research areas: choice architecture, consumer behavior, judgment and decision making, decisions under risk and uncertainty, and consumer analytics.

Choice architecture: In collaboration with scholars at Columbia University and Duke University, Christoph Ungemach is investigating alternative choice architecture tools. His research has shown that, unlike traditional nudges, decision signposts can facilitate choices in line with both individual preferences and societal goals. This work has shown to be very useful, particularly in the domain of environmental decision making, and offers important insights for the design of consumer labels.

Another strand of his research is devoted to understanding the cognitive processes underlying decision making under risk and uncertainty. His research has shown that preferences can be altered by incidental experiences in systematic ways that challenge economic accounts. These findings are in line with decision making models in which subjective values are constructed from comparisons with samples and experiences from our environment or from memory.

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. THOMAS HUTZSCHENREUTER

CHAIR OF STRATEGIC AND INTERNATIONAL MANAGEMENT

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Biography

Thomas Hutzschenreuter holds the Chair of Strategic and International Management at the Technical University of Munich (TUM). Before joining TUM, he taught at Handelshochschule Leipzig, Boston University, and WHU – Otto Beisheim School of Management. He has held visiting positions at Duke University and elsewhere, and has been invited for keynotes and guest speeches by multiple international universities and institutions. He has provided consulting services to large and medium-sized enterprises from different industries. At TUM School of Management, he serves as the Associate Dean for International Alliances, as well as the Academic Program Director of the Master in Management and Innovation.

Thomas Hutzschenreuter publishes in leading international journals, such as the Strategic Management Journal, Journal of International Business Studies, Journal of Management Studies, and Journal of Management. His research has received multiple national and international awards. For his teaching, he received the "Best Teacher Award" from the Bucerius Law School and WHU and the "Executive Education Award for Teaching Excellence" from TUM School of Management.

Areas of interest

- Development of competitive and corporate strategies

- Development of governance structures for corporations, foundations, and universities

- Offshoring, business process outsourcing, and mergers & acquisitions

- Transformation of established enterprises

Selected current research projects

- Strategizing in turbulent environments

- Growth practice in Germany, India, and China

- Internationalization of Emerging Market MNEs

- Ownership, governance, and strategy

- Fundamental uncertainty

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. ISABELL WELPE

STRATEGY AND ORGANIZATON

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Biography

Isabell M. Welpe is the Chair of the Strategy and Organization research group at the Technical University of Munich, Germany. She was elected among the 40 leading HR personalities by the journal Personalmagazin. Her expertise includes digital transformation of companies, business model innovation, the impact of digital technologies on the economy and organizations, and the future of leadership and work/organizational design.

Areas of interest

- Strategy

- Blockchain

- Predictors of startup success

- Leadership

- Innovation

- Digital transformation

- AI

Selected current research projects

- ChemDelta Bavaria: Market launch strategy of an H2 real laboratory

- AI in customer interactions

- Return on Purpose – Corporate purpose as a competitive factor for SMEs

- Smart Office via Gamification

- Structural increase in the visibility of female scientists at universities, research institutions and in traditional and digital media

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. JÖRG KÖNIGSTORFER

CHAIR OF SPORT AND HEALTH MANAGEMENT

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Biography

Since 2012, Jörg Königstorfer has held the Chair of Sport and Health Management. He is member of the TUM School of Medicine and Health and TUM School of Management. He received his PhD from Saarland University and was a postdoc at Pennsylvania State University. He currently serves as an Associate Editor for European Sport Management Quarterly and is a member of several Editorial Boards. In his research, he investigates managerial decisions by sport and health companies and their impact on consumers and welfare. He and his team identify factors that help consumers pursue a healthy lifestyle. The results of these studies have been published in scientific journals and cited by various mass media outlets (e.g., NBC, USA Today, Boston Globe, Washington Post, Men's Health, ZDF, Handelsblatt, Bayerischer Rundfunk, Apothekenumschau).

Areas of interest

- Sustainable consumer behavior

- Managing sport and physical activity

- Sponsorship-linked marketing

- Healthy foods and eating

- Consumer welfare

MARKETING, STRATEGY & LEADERSHIP

PROF. DR. KLAUS MENRAD

MARKETING AND MANAGEMENT OF BIOGENIC RESOURCES

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Biography

Klaus Menrad holds a PhD in Agricultural Economics from the University of Hohenheim and finished his habilitation in Agricultural Marketing at the same University in 2003. Before becoming a professor, he was working at Germany's leading market research company GfK SE (Nuremberg) and the Fraunhofer Institute for Systems and Innovation Research (ISI) (Karlsruhe) in innovation research. Since 2003, he has been Professor for Marketing and Management of Biogenic Resources at the TUM Campus Straubing. Between 2012 and 2017 he was Scientific Director of the Straubing Center of Science. In his research, his team investigates food systems, innovations in the agro-food area and bioeconomy, consumer aspects in food and nutrition, sustainable development, and bio-based products.

Areas of interest

- Consumers' interest in sustainable products (e.g., food, bio-based products, horticultural products)

- User behavior related to agricultural or bio-based products

- Agro-food systems

- Innovations in the food industry and bioeconomy

Selected current research projects

PlantGriD: Funded by BLE, this project aims to develop AI-based algorithms and models to analyze consumer demand and supply of selected horticultural products in small and medium-sized companies in this sector.

FleWoKo: Consumer estimates to flexible housing concepts that are realized with high amounts of wood materials are analyzed in this project funded by the Bavarian Ministry of Agriculture.

NeHoReg: Innovative plant-based product concepts aiming to enhance cognitive capabilities are developed and tested in this project funded by the Bavarian Ministry of Agriculture.

HOT: This project, funded by FNR, analyzes the reactions of private gardeners and urban garden activists to reduction of peat in substrates of horticultural plant products.

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Neu, E.; Michailov, M.; Foltinova, J.; Luetge, C.; Schumitz, H.; Weber, G. (2021): On social psychiatry: Psychopathology of German justice on example of resident houses (RH), European Psychiatry

O'Leary, D.; Volkmer, S. A. (2021): Are the negative effects of social networking a privilege of the rich? Social network usage and life satisfaction across European countries, Computers in Human Behavior Reports, '100078'

Palmas, F.; Reinelt, R.; Cichor, J. E.; Plecher, D. A.; Klinker, G. (2021): Virtual Reality Public Speaking Training: Experimental Evaluation of Direct Feedback Technology Acceptance, IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR 2021)

Perey, I.; Koenigstorfer, J. (2022): Perceived Similarity Determines Social Comparison Effects of More and Less Physically Active Others, Journal of Health Psychology

Perkovic, S.; Otterbring, T.; Schärli, C.; Pachur, T. (2022): The perception of food products in adolescents, lay adults, and experts: A psychometric approach., Journal of Experimental Psychology: Applied

Peus, C. (2021): Zukünftig führen, Perspectives 11

Peus, C.; Hauser, A. (2021): Herausforderung Digitalisierung acht Thesen für zukunftsorientiertes Führungshandeln, Wirtschaftspsychologie aktuell

Peus, C.; Hauser, A. (2021): Leading in the Digital Age, Journal of Financial Transformation

Quirin, M.; Malekzad, F.; Kazén, M.; Luckey, U.; Kehr, H. (2021): Existential Threat: Uncovering Implicit Affect in Response to Terror Reminders in Soldiers, Frontiers in Psychology

Rehbock, S. K.; Knipfer, K.; Peus, C. (2021): What got you here, won t help you there: changing requirements in the pre- versus the post-tenure career stage in academia, Frontiers in Psychology

Rombach, M.; Dean, D. L.; Widmar, O. N. J.; Bitsch, V. (2021): Oh, You Shouldn t Have! Understanding Key Factors Impacting Cut Flowers Gifting Preferences in Germany, Horticulturae, '16'

Rombach, M.; Dean, D. L.; Widmer, N. J. O.; Bitsch, V. (2021): The Ethically Conscious Flower Consumer: Understanding Fair Trade Cut Flower Purchase Behavior in Germany, Sustainability

Roosen, J.; Hobbs, J. E. (2022): A modern guide to food economics, Edward Elger Publishing

Roosen, J.; Neubig, C. M.; Staudigel, M.; Agovi, H. (2023): Product appeal, sensory perception and consumer demand, European Review of Agricultural Economics

Roosen, J.; Staudigel, M.; Rahbauer, S. (2022): Demand elasticities for fresh meat and welfare effects of meat taxes in Germany, Food Policy, '102194'

Sarkar-Sengupta, A.; Kleindienst, I.; Hutzschenreuter, T. (2023): Heterogenous internationalization processes of emerging economy MNEs: A review and research agenda, Journal of International Management, '101032'

PUBLICATIONS

Schiepe-Tiska, A.; Schattke, K.; Seeliger, J.; Kehr, H. M. (2021): Distal and proximal motivational processes related to flow experience: Investigating the role of implicit motives, affective and cognitive preferences, and perceived abilities, Current Psychology

Schmid, E. A.; Knipfer, K.; Peus, C. (2021): Narcissistic Leaders Promise or Peril? The Patterns of Narcissistic Leaders Behaviors and Their Relation to Team Performance, Frontiers in Psychology

Schmidt, S.; Koenigstorfer J. (2021): Fan centricity of German soccer teams: exploring the construct and its consequences, Soccer & Society

Schnurr, B.; Fuchs, C.; Maira, E.; Puntoni, S.; Schreier, M.; van Osselaer, S. M. J. (2021): EXPRESS: Sales and Self: The Non-Economic Value of Selling the Fruits of One's Labor, Journal of Marketing, '002224292110642'

Schnurr, B.; Halkias, G. (2022): Made by her vs. him: Gender influences in product preferences and the role of individual action efficacy in restoring social equalities, Journal of Consumer Psychology

Schulze, C.; Hertwig, R.; Pachur, T. (2021): Who you know is what you know: Modeling boundedly rational social sampling., Journal of Experimental Psychology: General, '221–241'

Sellare, J.; Börner, J.; Brugger, F.; Garrett, R.; Günther, I.; Meemken, E.-M.; Pelli, E. M.; Steinhübel, L.; Wuepper, D. (2022): Six research priorities to support corporate due-diligence policies, Nature, '861–863'

Soellner, M.; Koenigstorfer, J. (2021): Compliance with medical recommendations depending on the use of artificial intelligence as a diagnostic method, BMC Medical Informatics and Decision Making, '236'

Soellner, M.; Koenigstorfer, J. (2022): Motive perception pathways to the release of personal information to healthcare organizations, BMC Medical Informatics and Decision Making

Staudigel, M.; Brandl, B.; Roosen, J.; Kiesswetter, E.; Siebentritt, H. M.; Wawro, N.; Linseisen, J.; Skurk, T.; Volkert, D.; Hauner, H. (2022): Association of eating motives with anthropometry, body composition, and dietary intake in healthy German adults, Appetite, '105865'

Staudigel, M.; Trubnikov, A. (2022): High price premiums as barriers for organic meat demand? A hedonic analysis considering species, cut, and retail outlet, Australian Journal of Agricultural and Resource Economics

Theurer, C. P.; Schäpers, P.; Tumasjan, A.; Welpe, I. M.; Lievens, F. (2021): What You See is What You Get? Measuring Companies' Projected Employer Image Attributes via Companies' Employment Webpages, Human Resource Management

Van Quaquebeke, N.; Salem, M.; Wenzel, R.; Van Dijke, M. (2022): Conducting organizational survey and experimental research online: From convenient to ambitious in study designs, recruiting, and data quality, Organizational Psychology Review

Verbeke, A.; Hutzschenreuter, T. (2021): Imposing versus Enacting Commitments for the Long-Term Energy Transition: Perspectives from the Firm, British Journal of Management

Verbeke, A.; Hutzschenreuter, T.; Pyasi, N. (2021): The dark side of B2B relationships in GVCs Micro-foundational influences and strategic governance tools, Journal of Business Research, '816–828'

Vespa, M.; Kortsch, T.; Hildebrand, J.; Schweizer-Ries, P.; Volkmer, S. A. (2022): Not All Places Are Equal: Using Instagram to Understand Cognitions and Affect towards Renewable Energy Infrastructures, Sustainability, '4071'

Volkmer, S. A.; Chóliz, M.; Lermer, E. (2021): Deutsche Version des Test of Mobile Phone Dependence Brief (TMD Brief-G), Zusammenstellung sozialwissenschaftlicher Items und Skalen (ZIS)

Wagner, C.; Mair, S.; Bitsch, V. (2022): Mindsets in intra-familial farm transfer: Successful successor and predecessor prototypes, International Journal on Food System Dynamics, '143–164'

Waldrop, M. E.; Roosen, J. (2021): Consumer acceptance and willingness to pay for cow housing systems in eight European countries, Q Open

Waters, E. A.; Pachur, T.; Pogge, G.; Hunleth, J.; Webster, G. D.; Shepperd, J. A. (2023): Linking cognitive and affective heuristic cues to interpersonal risk perceptions and behavior, Risk Analysis

Wiesche, M.; Welpe, I. M.; Remmers, H.; Krcmar, H. (2021): Systematische Entwicklung von Dienstleistungsinnovationen. Augmented Reality für Pflege und industrielle Wartung, Gabler Verlag

Yang, Y.; Hu, H.; Koenigstorfer, J. (2022): Effects of Gamified Smartphone Applications on Physical Activity: A Systematic Review and Meta-Analysis, American Journal of Preventive Medicine, '602–613'

Yang, Y.; Koenigstorfer, J. (2021): Determinants of Fitness App Usage and Moderating Impacts of Education-, Motivation-, and Gamification-related App Features on Physical Activity Intentions: A Cross-Sectional Survey, Journal of Medical Internet Research

Yang, Y.; Koenigstorfer, J.; Pawlowski, T. (2022): Predicting transfer fees in professional European football before and during COVID-19 using machine learning, European Sport Management Quarterly, '1–21'

Zanger, V.; Meißner, M.; Rauschnabel, P. (2022): Beyond the Gimmick: How affective responses drive brand attitudes and intentions in Augmented Reality Marketing, Psychology & Marketing, 39, '1285–1301'

Zilker, V.; Pachur, T. (2022): Nonlinear probability weighting can reflect attentional biases in sequential sampling., Psychological Review, '949 975'

Zyberaj, J.; Bakaç, C.; Seibel, S. (2022): Latent transition analysis in organizational psychology: A simplified how to guide by using an applied example, Frontiers in Psychology

EDITORSHIPS

Marketing, Strategy & Leadership 2021–2023

Prof. Dr. Hugo Kehr

- Zeitschrift für Arbeits- und Organisationspsychologie, Editorial Board Member

- Motivation Science, Editorial Board Member

- German Journal of Humen Ressource Management, Editorial Board Member

- German Journal of Human Ressource Management, Editorial Board Member

Prof. Dr. Jörg Königstorfer

- European Sport Management Quarterly, Associate Editor, 2017–

- Marketing ZFP, Editor, 2023–

- Frontiers in Sports and Active Living, Chief Editor, 2023–

Prof. Dr. Chengguang Li

- Journal of International Business Studies

- Journal of Management Studies

- Global Strategy Journal

Prof. Dr. Thorsten Pachur

- Journal of Experimental Psychology: Applied, Editorial board member

- Journal of Experimental Psychology: Learning, Memory, and Cognition, Editorial board member

- Decision, Editorial board member

- Journal of Behavioral Research Methods, Editorial board member

Prof. Dr. Jutta Roosen

- Food Policy, Co-editor, 2021–

- Bio-based and Applied Economics, Member International Editorial Board

- Review of Agricultural, Food and Environmental Studies, Member Scientific Board, 2018–

Prof. Dr. Thomas Hutzschenreuter

- Global Strategy Journal, Editorial Review Board Member, 2009–

- Multinational Business Review, Editorial Advisory Board Member, 2014–

VISITORS

Marketing, Strategy & Leadership 2021–2023

Prof. Dr. Hsueh-wen Chow

2023, National Cheng Kung University, Taiwan

Dr. Paul Issock Issock

2021, University of Witwatersrand, Johannesburg

Stefan Raff

2023, Business School of the Bern
University of Applied Sciences

Professor Jeffrey J. Reuer, PhD

2022, Leeds School of Business –
University of Colorado/USA

Professor Giovanni Sogari

2022, University of Parma

Prof. Dr. Andy Wu

Harvard Business School

VISITORS
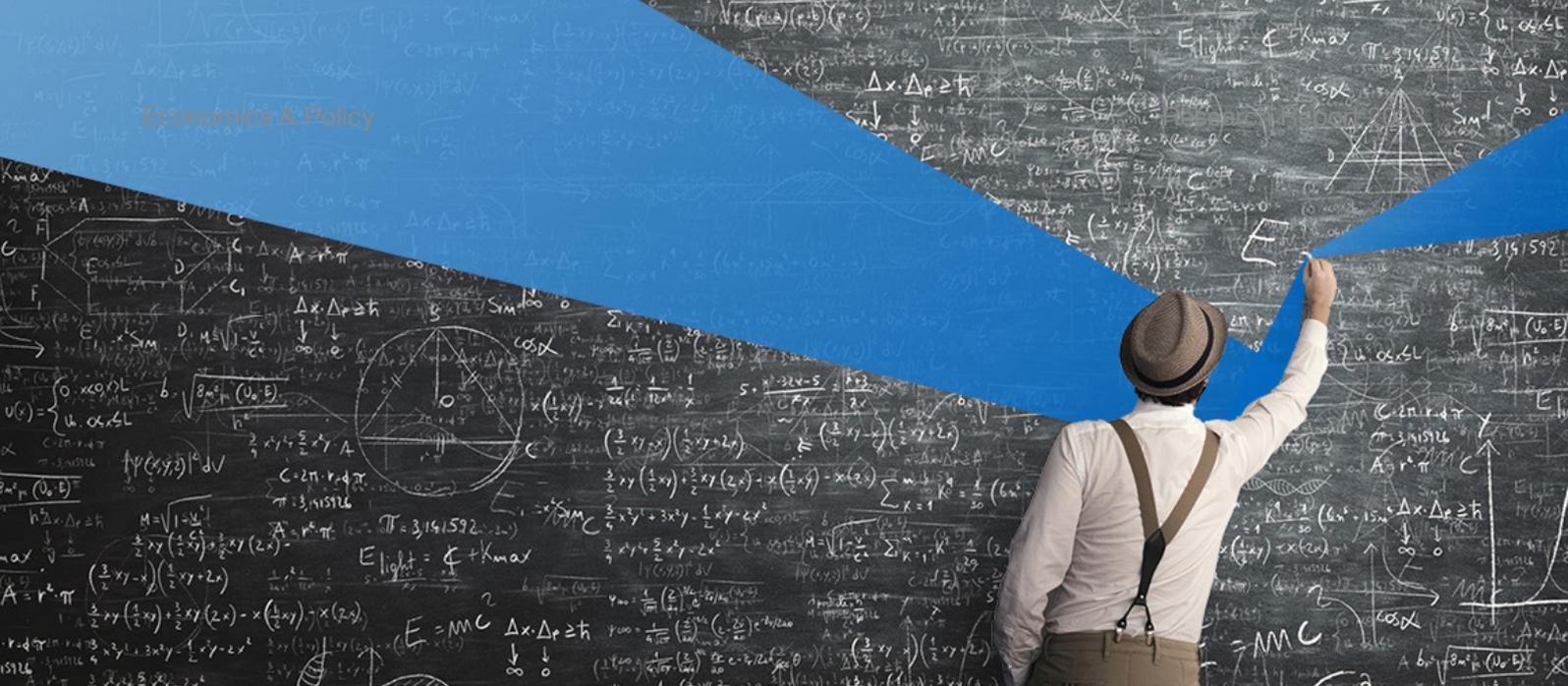
ECONOMICS & POLICY

Who we are

The Economics & Policy Department examines economic processes with a focus on the role of public policy. It addresses contemporary policy issues by means of theoretical and empirical investigations into public economics, health economics, industrial organization, environmental economics, sustainable resources management, agricultural and food economics, forestry, energy economics, and the economics of ageing. Special emphasis is given to policy conflicts between equity, efficiency, and sustainability.

These topics are of importance across disciplinary boundaries. For this reason, our faculty is involved in TUM's Integrative Research Centers, such as the Munich Center for Technology in Society and the TUMCS for Biotechnology and Sustainability, as well as other interdisciplinary initiatives.

Professors

Prof. Dr. Livia Cabernard
Prof. Dr. Helmut Farbmacher. . . . . Applied Econometrics
Prof. Dr. Hanna Hottenrott. . . . . Economics of Innovation
Prof. Dr. Svetlana Ikonnikova . . . . Resource Economics
Prof. Dr. Stefanie Jung . . . . Corporate Law
Prof. Dr. Philipp Lergetporer . . . . Economics (Heilbronn)
Prof. Dr. Luisa Menapace . . . . Governance in International Agribusiness
Prof. Dr. Ruth Müller . . . . Science & Technology Policy
Prof. Dr. Johannes Sauer. Production and Resource Economics
Prof. Sebastian Schwenen . . . . Economics of Energy Markets
Prof. Dr. Michael Suda. . . . . Forest and Environmental Policy

Affiliate Members

Prof. Dr. Timm Betz . . . . International Political Economy
Prof. Dr. Tim Büthe . . . . International Relations
Prof. Dr. Anja Faße. . . . . Environmental Policy and Resource Economics
Prof. Dr. Sebastian Goerg . . . . Economics
Prof. Dr. Andreas Pondorfer . . . . Sustainable Economic Policy
Prof. Dr. Hubert Röder. . . . . Economics of Renewable Resources

ECONOMICS & POLICY

PROF. DR. LIVIA CABERNARD

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Biography

Livia Cabernard was born in Switzerland in 1991. She studied Environmental Sciences at ETH Zurich from 2011 to 2017. She holds a Major in Biochemical Cycles and Pollutant Dynamics and had a particular interest in microplastics research during her studies. For her master thesis, she spent six months at the Alfred Wegener Institute in Helgoland (Germany) to optimize an automated method based on Raman spectroscopy for microplastics analysis in the North Sea. During her internship at the Cantonal Office for the Environment (AWEL) in 2016, she implemented a procedure to quantify microplastics in surface and sewage waters of Zurich.

From 2017–2021, Livia Cabernard has completed her PhD studies at the interdisciplinary interface of the Institute of Environmental Engineering and the Institute of Science, Technology and Policy at ETH Zürich. Her thesis, entitled "Creating transparency in global value chains and their environmental impacts to support sustainability policies", was awarded the ETH medal in 2022. During her thesis and subsequent work as a postdoc at ETH Zürich, she demonstrated the practical relevance of her work through global and national case studies, including the plastics supply chain, the metals and building material industry, and agri-food systems. Since 2023, Livia Cabernard has been heading the newly created Chain in Sustainability Assessment of Food and Agricultural Systems at TUM.

ECONOMICS & POLICY

PROF. DR. HELMUT FARBMACHER

APPLIED ECONOMETRICS

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Biography

Helmut Farbmacher joined TUM School of Management 2021 as a Professor of Applied Econometrics. He received his PhD in Economics from the University of Munich (LMU) in 2012. In 2011, he joined the Max Planck Society as a Senior Researcher, and has been Head of the Health Econometrics Research Unit since 2014. In 2013, he spent the summer term as a Visiting Research Fellow at the University of Bristol. From 2017 to 2018, he joined the University of Mannheim as Professor of Microeconometrics and, a year later, the University of Munich (LMU) as Professor of Economics.

Helmut Farbmacher's research covers a wide range of topics in econometrics and data science with applications in health, labor, and experimental economics. He particularly focuses on the exploration and analysis of big data, which are generally not amenable to standard econometric models. He is co-organizer of the Munich Econometrics Seminar and Workshop. His research has been published in the Journal of Econometrics, Journal of Business & Economic Statistics, Journal of the American Statistical Association, Journal of Applied Econometrics, and elsewhere.

Areas of interest

- Statistical learning and data science

- Machine learning and artificial intelligence

- Causal inference

- Health, labor and experimental economics

Selected current research projects

Learning from high-dimensional, heterogeneous data: Machine learning methods in econometrics, supported by the German Research Foundation (DFG), 2021–2024. In this project, we work with methods from machine learning in microeconomic applications to estimate heterogeneous causal effects and to predict individual and firm behavior.

ECONOMICS & POLICY

PROF. DR. HANNA HOTTENROTT

ECONOMICS OF INNOVATION

Email: hanna.hottenrott@tum.de

Biography

Hanna Hottenrott's areas of interest involve industrial economics and applied microeconomics. Her research examines the economics of innovation, science and technological change. Since April 2023, she has headed the research department for Economics of Innovation and Industrial Dynamics at the Leibniz Centre for European Economic Research (ZEW). She holds an advanced degree in Economics from the University of Heidelberg and obtained a PhD in applied economics from KU Leuven (Belgium) in 2010. At KU Leuven she was affiliated with the Department of Managerial Economics, Strategy and Innovation and worked on topics relating to the financing of research and development (R&D) in the business sector. After graduating, she was awarded a fellowship from the Flemish Science Foundation (FWO) and investigated questions in the fields of innovation and science policy. In 2013 she accepted an Assistant Professorship at the Düsseldorf Institute for Competition Economics (DICE) of the University of Düsseldorf, before joining TUM School of Management in May 2016. She is also a core member of the Munich Data Science Institute.

Areas of interest

- Economics of innovation and new technology, innovation policy

- New firm formation and innovation

- Entrepreneurship policy

- Industrial economics

- Business dynamics

PROF. DR. SVETLANA IKONNIKOVA

RESOURCE ECONOMICS

Email: svetlana.ikonnikova@tum.de

Web: https://www.ep.mgt.tum.de/cem/team/staff/ikonnikova/

Biography

Svetlana Ikonnikova is Associate Professor for Resource Economics at TUM School of Management, focusing on resources, decarbonization, and innovative technological solutions for affordable and environmentally sustainable future. She holds the Senior Energy Economist position at the Center for Energy Economics, University of Texas at Austin, and is a Senior Fellow at the Foreign Policy Research Institute in Philadelphia, USA. She has a PhD in Economics and Management from the Humboldt University of Berlin and an MS in Applied Physics and Mathematics from the Moscow Institute of Physics and Technology. With 20 years of professional experience, she has numerous publications and presentations of her research to industry, government, and academic partners. Her diverse background and experience allow her to specialize in complex models integrating multi-disciplinary knowledge. Her current research focuses on hydrogen technologies, their scalability and competition from a global perspective, the role of international trade in energy transition, and ethical use of AI solutions, such as interactive multi-objective optimization.

Areas of interest

- Energy and natural resource economics

- Economics of new technological solutions for decarbonization

- Responsible use of machine learning for sustainability strategies

- Security of supply and collaborative international trade

Selected current research projects

H2Global: Research to Advance the Hydrogen Economy at Scale (in collaboration with the University of Texas at Austin, the Center for Houston Future)

The Potential for AI in the Extractive Industries to Promote Multi-objective Optimization (in collaboration with TUM School of Engineering and Design, Centre of Land, Water and Environmental Risk Management, TUM Institute for Ethics in Artificial Intelligence, TUM School of Social Science and Technology, Kwame Nkrumah University of Science and Technology (KNUST))

Between National and Economic Security: The Analysis of Disruptions and Collaborative Strategies in International Trade (in collaboration with the Foreign Policy Research Institute, USA)

ECONOMICS & POLICY

PROF. DR. STEFANIE JUNG

CORPORATE LAW

Email: stefanie.jung@tum.de

Biography

Stefanie Jung graduated from the University of Siegen (Germany) and the ESC Dijon (France) in German and European Business Law. Afterwards, she obtained a postgraduate Master in European Economic Integration and Business at the College of Europe (Bruges, Belgium). In 2010, she joined the chair of Prof. Krebs as a research assistant at the University of Siegen. She received her doctorate in European company law in 2013 from the University of Siegen. In the same year, she completed a research stay at the European Commission devoted to European company law. In 2016, she was appointed Junior Professor of civil law, particularly corporate law, at the University of Siegen. Since 2014, she has also held a Visiting Fellowship at the Classical Liberal Institute (New York University, USA) upon invitation by Prof. Epstein. Since February 2020, she has been Professor of Corporate Law at the Technical University of Munich at the Heilbronn Campus.

Areas of interest

- Company law

- Comparative law

- Contract negotiations

- Contract governance

- Business networks

- Corporate governance

- Legal methodology

- Law and economics

- Empirical legal studies

ECONOMICS & POLICY

PROF. DR. PHILIPP LERGETPORER

ECONOMICS (HEILBRONN)

Email: philipp.lergetporer@tum.de

Biography

Professor Lergetporer completed his PhD in Economics at the University of Innsbruck in 2014. From 2014 to 2021, he was a postdoctoral researcher at the ifo Center for the Economics of Education, ifo Institute Munich. During that time, he was also a visiting scholar at the University of Chicago, Stanford University, and NHH Bergen. In September 2021, he joined TUM School of Management, Heilbronn Campus, as Professor of Economics at the Global Center for Family Enterprise (GCFE).

Areas of interest

- Education economics

- Political economy

- Public economics

- Behavioral economics

ECONOMICS & POLICY

PROF. DR. LUISA MENAPACE

GOVERNANCE IN INTERNATIONAL AGRIBUSINESS

Email: luisa.menapace@tum.de

Biography

Luisa Menapace holds a Laurea degree in Agricultural Sciences (University of Padua, Italy), a Master's degree in Agribusiness (Sacred Heart Catholic University, Italy), and a PhD in Economics (Iowa State University, USA). After completing her PhD, she worked as a Marie Curie Postdoctoral Researcher in the Department of Economics at the University of Trento, Italy (2010–2012), and as an assistant professor at the University of Bonn, Germany (2012–2013). Since 2013, she has held the Professorship of Governance in International Agribusiness' at TUM. She received a tenured position at TUM in 2020.

Areas of interest

- Consumers' role in the transition to a sustainable food system

- Food labels; origin-based labels; geographical indications

- Certifications and private governance in the agro-food sector

- Regional, global, alternative, and sustainable agro-food value chains

- Sustainable technology adoption in the agro-food sector

- SMEs' and smallholders' access to high-quality food markets and modern retail chains

Selected current research projects

GreenDriedFruits: Supported by the PRIMA program, the project aims to develop, test, and implement the effectiveness of novel sustainable technologies that can contribute to increasing the resilience and sustainability of agricultural commodities value chains in the Mediterranean basin area. Specifically, the project focuses on sustainable solutions for post-harvest pest control in dried fruit commodities with the potential to improve environmental footprint as well as firms' economic performance.

BATModel: Supported by Horizon 2020, the overall goal of the BATModel (Better Agri-food Trade Modelling for policy ANalysis) is to improve existing trade modelling tools and approaches to support policy analysis of agricultural products and foods. We investigate the international trade effects of Geographical Indications (GIs).

ECONOMICS & POLICY

PROF. DR. RUTH MÜLLER

SCIENCE & TECHNOLOGY POLICY

Email: ruth.mueller@tum.de

Biography

Ruth Müller is a researcher in the interdisciplinary research field of Science & technology studies. She studied Molecular Biology (M.Sc.; 2000–2007) and Sociology (PhD 2007–2012) at the University of Vienna, Austria. During her studies, she conducted research on breast cancer at the Medical University of Vienna (2001–2005) before she started to work on issues of life sciences, society & policy at the Department of Science and Technology Studies at the University of Vienna (2005–2011). She held postdoctoral positions at the Austrian Institute of International Affairs (2012–2013) and at the Research Policy Institute, Lund University, Sweden (2013–2015), and she has been a recurring visiting researcher at the Science & Justice Research Center, University of California Santa Cruz, U.S. In February 2015, she was appointed Assistant Professor of Science & Technology Policy at the Munich Center for Technology in Society, a co-appointment with TUM School of Management and TUM School of Life Sciences.

Areas of interest

- Academic knowledge cultures in transformation

- Emergent knowledge cultures in the life sciences

- Gender, diversity and social justice

- Gen-AU (2010)

Selected current research projects

Obviously Excellent? Evidence practices in preparing scientific research and biographies when applying for ERC starting and consolidator grants

Responsible Robotics (RR-AI). Tracing Ethical and Social Aspects of AI-Based Transformations in Healthcare Work and Knowledge Environments. (bidt), 04.2020 – 04.2023

SCALINGS – Scaling up Co-Creation: Avenues and Limits for integrating Society in Science and Innovation (EU Horizon 2020), 09.2018 – 09.2021

Evidence for Excellence (TUM Gender & Diversity Incentive Fund; MCTS Lab Engineering Responsibility)

Public Imaginations of Genome Editing in Livestock (Bayerische Forschungsstiftung), 09.2018 – 05.2021

Plastics – Publics – Politics (BMBF), 03.2018 – 08.2021

Situating Environmental Epigenetics. A Comparative, Actor-Centered Study of Environmental Epigenetics as an Emergent Research Approach in Three Research Fields (DFG), 10.2018 – 09.2021

ECONOMICS & POLICY

PROF. DR. MICHAEL SUDA

FOREST AND ENVIRONMENTAL POLICY

Email: office.wup@mgt.tum.de

Biography

Michael Suda studied Forest Science in Munich and, subsequently, wrote his PhD on the possible influence of forest decline in alpine regions, using models from natural science and economy. His habilitation dealt with the role of forests and water supply on local and regional political systems. Since 1995, he has been Head of the Chair of Forest and Environmental Policy at TUM.

Areas of interest

- Forest policy – small scale forestry and organizations, evaluation of political instruments, perception of forests and forestry

- Environmental policy – natural hazards, certification, international organizations, EU policy

Selected current research projects

Development of forest owners and private forest owner associations: Structural transformation in Germany's rural areas leads to drastic changes with regard to the use of forests by forest owners, that potentially cause supply bottlenecks of the woodworking industry. Our scientific focus lies in studying the impact of structural and communicative measures in this context.

Perception of forests and forestry and their influence on forest management: The alienation of people from production and the related decline of its acceptance leads to increasing restraints concerning the utilization of woods in Germany's forests. The emphasis of research in this focus area is on the perception of forests and their relevance for the public.

Analysis of discourses about forests: Discourse analysis is used to study the influence of political actors on the perception of forests, legal frameworks, and media coverage.

Great Bear Rainforest: Implementation of the Central Coast Land Use Decision in British Columbia's Great Bear Rainforest (Canada). The Central Land Use Decision (2006) introduced several innovations for British Columbia's forestry sector.

ECONOMICS & POLICY

PROF. DR. JOHANNES SAUER

PRODUCTION AND RESOURCE ECONOMICS

Email: jo.sauer@tum.de

Biography

Since 2013 Full Professor, Chair of Production
and Resource Economics, TU Munich;
Since April, 2021 Honorary Professorship, Australian
National University (ANU), Canberra, Australia
2016–2018 Vice Dean of TUM School of Life
Sciences Weihenstephan, TU Munich
Since 2021 Head, Department Economics and Policy, TU Munich
2014–2017 Head, Department Agricultural Economics, TU Munich
2011–2013 Professor and Director, Dairy and Food
Industry Economics, CAU Kiel of Kiel
2009–2011 Senior Lecturer, Research Theme Leader, Sustainable
Consumption Institute, University of Manchester, UK
2007–2009 Lecturer, Deputy Director Center for Agri-Environmental
Studies, University of Kent and CEPA, Imperial College London, UK
2005–2007 Associate Professor, Institute for Food
and Resource Economics, KU Copenhagen
2004–2005 Senior Researcher, Center for
Development Research, University of Bonn
2000–2004 Senior Consultant, PricewaterhouseCoopers International

Areas of interest

- Production, efficiency, and resilience

- Technology adoption, climate change adaptation, and sustainable innovation

- Agricultural, development, and environmental policy evaluation

- Bioeconomy and biotechnology modelling

- Circular economy and waste management

- Microeconometric modelling and risk analysis

Selected current research projects

- EU Novasoil

- EU Retouch Nexus

- EU IncitisFood

- ERA SustainIT

- EU Popillia

- EU Ponderful

- EU SigmaNexus

- EU DeepWater

- GrassWorks

- Net-CSA

- EU Effect

- EU Biomonitor

- VCF Bioeconomy

ECONOMICS & POLICY

PROF. SEBASTIAN SCHWENEN

ECONOMICS OF ENERGY MARKETS

Email: sebastian.schwenen@tum.de

Biography

Sebastian Schwenen's research interests are in energy economics and industrial organization, with a focus on the global energy transition and the decarbonization of industries. Next to research and teaching, he has been involved in various research projects and research-based policy advice for the EU Commission (DG Energy) and the Federal Ministry for Economic Affairs and Energy (BMWi).

Sebastian Schwenen obtained a PhD in Economics and Management from Copenhagen Business School and a Master in Economics from Humboldt University Berlin. He was a visiting PhD student at the London School of Economics and Political Science and a post-doctoral researcher at the European University Institute in Florence and DIW Berlin. He joined TUM School of Management in September 2015. He is also a Research Affiliate at the German Institute for Economic Research DIW Berlin and the Mannheim Institute for Sustainable Energy Studies.

Areas of interest

- Energy markets

- Decarbonization of industry

- Industrial economics

- Applied microeconomics

ECONOMICS & POLICY

PROF. DR. TIMM BETZ

INTERNATIONAL POLITICAL ECONOMY

Email: timm.betz@tum.de

Biography

Timm Betz is Assistant Professor of International Political Economy at TUM School of Management, the Munich School of Politics and Public Policy, and TUM School of Social Sciences and Technology. His research examines how global markets and international rules shape domestic political coalitions and contests between governments, firms, and citizens. His work has appeared in, for example, the American Political Science Review, International Organization, the Journal of Politics, and Political Analysis. He studied Political Science and Economics at Freie Universität Berlin and at Universitat Pompeu Fabra, and received his PhD in Political Science from the University of Michigan, Ann Arbor in 2015. Prior to joining TUM, he was Associate Professor of Political Science at Texas A&M University.

Areas of interest

- Non-market strategy

- Trade policy

- Production networks

- International finance

- Institutions

- Spatial econometrics

- Causal inference

ECONOMICS & POLICY

PROF. DR. TIM BÜTHE

INTERNATIONAL RELATIONS

Email: timm.betz@tum.de

Biography

Tim Büthe's research examines the politics of international economic relations. His work primarily focuses on (1) the role of "technical" standards in the governance of international product and financial markets, in medicine and health policy, and for consumer safety; and (2) the causes and consequences of the rapid global diffusion of competition law and policy. Other research interests include political risk analysis, focusing on foreign direct investment, and the potential and limits of private development aid. Overall, his research seeks to advance the theoretical understanding of power, stability, and change in political institutions, guided by the expectation that this can ultimately yield practical insights for both public policy and the private sector, for example, to resolve transnational conflicts and foster international cooperation.

Tim Büthe studied primarily at Harvard University (BA 1995) and Columbia University, New York (PhD 2002). Prior to joining the teaching staff at TUM in 2016, he was Associate Professor of Political Science and Public Policy (tenured) at Duke University (USA), having previously taught at Stanford University and Columbia University. He has held postdoctoral research appointments at Harvard University and the University of California, Berkeley.

ECONOMICS & POLICY

PROF. DR. ANJA FASSE

ENVIRONMENTAL POLICY AND RESOURCE ECONOMICS

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Biography

Anja Faße studied Horticultural Sciences at the Leibniz University of Hannover. Subsequently, she obtained a PhD in Economics at the Faculty of Economics and Management of the Leibniz University of Hannover in 2013. There, she was affiliated with the Institute for Environmental Economics and World Trade and worked on topics related to bioenergy, agroforest, value chain analysis, sustainability, and poverty in Sub-Saharan Africa. After graduating, she coordinated research projects focusing on the impact assessment of agricultural innovations on the food security of the rural population in Kenya and Tanzania. She joined the TUM Campus Straubing in 2016 and TUM School of Management in 2018. She is a Senior Fellow at the Institute for Environmental Economics and World Trade at the Leibniz University Hannover.

The research of the chair concerns the field of environmental and developmental economics as well as applied econometrics. More precisely, it addresses research questions in the fields of impact assessment of shocks and innovations on poverty, food security, inequality, entrepreneurship, satisfaction, and migration in developing countries. Furthermore, the chair deals with topics related to the bioeconomy and the effects of environmental, agricultural, climate, and trade policies on the international competitiveness of national economies.

Areas of interest

- Development economics

- Environmental

- Bioeconomy

Selected current research projects

"Innovating Strategies to safeguard Food Security using Technology and Knowledge Transfer: A people-centered Approach" (Trans-SEC) (http://www.trans-sec.org/), Tanzania, (BMBF)

"Diversifying Food Systems: Horticultural Innovations and Learning for Improved Nutrition and Livelihood in East Africa" (HortinLEA) (http://www.hortinlea.org/), Kenya, (BMBF)

"Effect of Payment for Ecosystem Service initiatives on forest governance, livelihoods & forest condition in East", Kenya, (VW Stiftung)

"Nachhaltigkeit in globalen Wertschöpfungsketten" (DFG Projektakademie)

ECONOMICS & POLICY

PROF. DR. SEBASTIAN GOERG

ECONOMICS

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Biography

Sebastian Goerg is a Behavioral and Experimental Economist who investigates how incentives, information, and (legal) institutions influence actual human behavior. Together with his co-authors from the social and natural sciences, he pursues an interdisciplinary research agenda.

Sebastian Goerg studied Economics at the University of Bonn, where he also obtained his PhD under the supervision of Prof. Reinhard Selten. Between 2009 and 2012, he worked at the Max Planck Institute for Research on Collective Goods. After research stays at the Shanghai Jiao Tong University and the University of Michigan, he joined Florida State University in 2012 as an Assistant Professor. There, he was granted tenure in early 2018. In 2018, he joined TUM as an Associate Professor and holds the Chair of Economics at the TUMCS for Biotechnology and Sustainability. He is Research Fellow at the IZA – Institute for Labor Economics and Research Affiliate at the MPI for Research on Collective Goods.

His work has been published, in journals including the European Economic Review, Experimental Economics, Games and Economic Behavior Management Science, Journal of Labor Economics, Proceedings of the National Academy of Sciences, and The American Economic Review.

Areas of interest

- Behavioral & experimental economics

- Organizational economics

- Personnel economics

- Sustainable cooperation

Selected current research projects

The project "Self-chosen goals, incentives, and effort" investigates the interplay between self-chosen work goals and monetary incentives, and their effects on work performance. We observe that the use of personal work goals leads to a significant output increase. Strikingly, the positive effect of self-chosen goals can persist even without performance-contingent monetary incentives. However, then the impact of self-chosen goals depends on the exact size of the goals and the diffculty of the task. Our results suggest that work contracts where workers set goals themselves can help to improve performances, even in the absence of explicit monetary incentives.

"Rules, violations and spillovers" investigates how exposure to rule violations leads to the spreading of rule violations across different domains. We provide causal evidence, that spillover effects exist and that their occurrence is more likely if the underlying decision situations are similar. In addition, through self-contamination, rule violations can spread into even seemingly unrelated situations. Lastly, we demonstrate spillover effects in a field experiment and show that they can lead to adverse behavior at the workplace with actual economic costs.

ECONOMICS & POLICY

PROF. DR. ANDREAS PONDORFER

SUSTAINABLE ECONOMIC POLICY

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Biography

Andreas Pondorfer's research focuses on individual decision making by integrating insights from biology, anthropology, and psychology into economics. In a first line of work, he studies the origins and economic implications of behavior across countries. In a second line of work, he aims to understand the societal and behavioral challenges of the bioeconomy by analyzing public perception of climate change and climate policies.

He completed his PhD in Economics at the University of Kiel in 2016. During his PhD studies, he was employed as an economist at the Kiel Institute for the World Economy (IfW). From 2016 to 2021, he worked as a postdoctoral researcher in the Institute for Applied Microeconomics at the University of Bonn. He also held a visiting position at Harvard University in the fall term of 2018. In March 2021, he joined TUM and was appointed Professor of Sustainable Economic Policy at TUMCS for Biotechnology and Sustainability.

Areas of interest

- Behavioural economics

- Development economics

- Environmental economics

ECONOMICS & POLICY

PROF. DR. HUBERT RÖDER

ECONOMICS OF RENEWABLE RESOURCES

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Biography

Hubert Röder holds the Chair of Sustainable Economics at the Technical University Munich – TUM Campus Straubing for Biotechnology and Sustainability, and at the University of Applied Sciences Weihenstephan-Triesdorf. Since 2016, he has acted as Speaker of the Forestry and Wood Cluster Initiative in Bavaria (www.cluster-forstholzbayern.de).

In his current projects, he focuses on the economy of bio-based resources, materials, products, technologies, and business models. A second focus is on bioenergy markets and technologies, renewable energy concepts, and business models. In this context, the current research focus is on projects on the transition towards a sustainable bioeconomy, sustainability assessment, life cycle assessment (LCA), life cycle costing (LCC), and socio-economic impact assessment.

Hubert Röder studied Forestry (Univ.-Dipl) at the Ludwig-Maximilians-University (LMU) in Munich, Germany, and completed his doctorate (Dr. rer. silv.) on "Structure Analysis of Forest Economic Data by the Formal Concept Analysis". After that, he worked for 12 years as a consultant in the forest industry sector. From 2001 to 2007, he lectured at TUM on international forestry and forest industry markets. Since 2012, he has lectured at the University of Applied Sciences Wiener Neustadt at the Campus Wieselburg on international bioenergy markets.

Areas of interest

- Bioenergy and bio-based industries

- Negative emission technologies (BioCCS, BioCCU)

- Sustainable bioeconomy

- Life cycle assessment – LCA

- (Environmental) life cycle costing – LCC

Selected current research projects

Climate-efficient use of wood-based resources

Development of an innovative forest development and service concept for the optimization of sustainable forest management in small private forests

TeFuProt II - Innovation Alliance: Sustainability Assessment of Technical Proteins from canola press cake and canola meal

Research on natural substances from blue-green algae as a development model of the cross-border scientific collaboration between Bavaria and the Czech Republic

The Czech Republic - Sustainability Assessment of products and conversion technologies

From molecule to material - Sustainability assessment of bio-based adhesives

TeFuProt - Innovation Alliance: Sustainability Assessment of Technical Proteins from canola press cake and canola meal

New business models for municipal energy utilities through bioenergy and load management

Empirical investigation of the factors influencing energy-related renovations by private homeowners

Economic Modeling and Sustainability Sustainability assessment of a bio-fermentative "power-to-gas process"

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Etzerodt, S. F. (2021): Explaining economic growth in advanced capitalist democracies: varieties of capitalism and welfare production regimes, Comparative European Politics, '471–493'

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EDITORSHIPS

Economics & Policy 2021–2023

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Prof. Dr. Hanna Hottenrott

- Research Policy, Advisory editor, since 2021

Prof. Dr. Philipp Lergetporer

- European Economic Review, Lead Guest Editor, Special Issue on "Field Experiments to Reduce Inequality" 2024–2025 (scheduled)

Prof. Dr. Johannes Sauer

- Egyptian Journal of Agricultural Sciences, Associate Editor, since 2022

- Circular Eonomy, Editorial Board Member, since 2022

- INMATEH-Agricultural Engineering, Editorial Board Member, since 2021

- Economia Agro-Alimentare/Food Economy, Scientific Advisory Board Member, since 2020

- European Review of Agricultural Economics, Editorial Board Member, 2015–2022

- Journal of Productivity Analysis, Associate Editor, since 2010

- Journal of Agricultural Economics, Associate Editor, since 2023

- Australian Journal of Agricultural and Resource Economics, Co-Editor-In-Chief, since 2023

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2022, Universidad EAFIT, Antioquia, Colombia

Helga Ottermann
2022, University of Pretoria

Oksana Koshulko
2022, Lviv Business School der
Ukrain. Kath. Univ.(LvBS)

Lun Runqi
2022, Institute of Agricultural Resources
and Regional Planning, Chinese Academy
of Agricultural Sciences, Beijing, China

Chen Yu
2022–2024, College of Management,
Sichuan Agricultural University, China

Li Yi
2021–2022, Chongqing Technology
and Business University, China

Cui Yu
2021–2022, Northwest Agricultural
and Forestry University, China

Lorenz Aigner
2021, University of Copenhagen

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2023, Universite de Montreal

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TENURE-TRACK PROFESSORS

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Sustainability Assessment of Food and Agriculture Business

Research topics: Sustainability assessment of global supply chains chain, especially in the metals industry, the future bio-economy, and with regard to the energy transition; design of more sustainable supply chains and final products

Joined TUM in September 2023

Prof. Dr. Jochen Hartmann
Professorship in Digital Marketing

Research topics: Generative AI; social media and multi-modal digital advertising analytics; unstructured data (image, video, text, speech); algorithmic fairness; diversity in advertising

Joined TUM in January 2023

Prof. Dr. Stefanie Jung
Professor for Corporate Law

Research topics: (European) company law and corporate governance, comparative law, contract negotiations, business networks, legal methodology, law and economics, and empirical legal studies

Joined TUM in 2020

Prof. Philipp Lergetporer, PhD
Professorship in Economics

Research topics: Education economics, public economics, and behavioral economics; economic and educational inequality

Joined TUM in September 2021

Prof. Dr. Paul P. Momtaz
Professorship in Entrepreneurial Finance

Research topics: Entrepreneurial finance; venture capital and private equity; blockchain technology; crypto; Web3; metaverse; decentralized autonomous organizations; innovation economics

Joined TUM in August 2022

TENURE-TRACK PROFESSORS

Prof. Dr. Sebastian Schwenen
Professorship in Economics of Energy Markets

Research topics: Energy economics, industrial organization, applied microeconomics

Joined TUM in September 2015

Prof. Dr. Christoph Ungemach
Professorship of Marketing

Research topics: Behavioral science of decision-making

Joined TUM in November 2016

Prof. Dr. David Wuttke
Assistant Professor for Supply Chain Management

Research topics: Supply chain finance, supply chain risk management, digital transformation

Joined TUM in 2020

Prof. Amy Zhao-Ding, PhD
Professor for Entrepreneurship Research

Research topics: Opportunity identification, market emergence, organizational learning, technology management and ecosystems, entrepreneurial/managerial cognition, demand-side strategy

Joined TUM in 2020

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Managing Director Vocatus Diagnostics GmbH

Prof. Dr. Florian Bieberbach
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Prof. Hana Milanov, PhD

A quest to understand entrepreneurial resourcefulness: How can medical technology ventures obtain the resources they need in a resource-poor environment?

It is no secret that technology and startups play an important role in meeting sustainability goals. For example, most African countries' populations keep growing while losing ever more medical professionals to migration. Startups developing novel medical technologies, like faster, simpler, and portable diagnostics tools, can help to remedy this issue. However, these situations also represent a conundrum for entrepreneurs and scholars alike: How can sophisticated technology ventures reconcile their high resource needs with the low resource availability in their immediate environments? Indeed, many low-income countries commonly lack the basic resource infrastructure that high-tech startups rely on and take for granted in the developed world. Without venture capital, regulatory frameworks, accessible talent, and industry networks—how should startups in less privileged countries pursue their worthy missions?

In a forthcoming article in the Special Issue on Entrepreneurial Resourcefulness of the Journal of Business Venturing, Lina Reypens (TUM School of Management), Prof. Sophie Bacq (Indiana University), and Prof. Hana Milanov (TUM School of Management) address this important question. For their analyses, the authors studied seven startups in Uganda, which develop medical technologies to advance women's, maternal, and neonatal health.

First, the study shows that all ventures actively transcended their local environment and looked for resources (e.g., approaching investors, manufacturers, or universities) beyond Ugandan (or even African) borders. Such entrepreneurial resilience in refusing the limitations of the local context serves to inspire entrepreneurs to challenge the very meaning of a "resource-scarce context." When knowledge, money, and goods flow amply beyond national borders, where and how can we draw the line between one context and another?

Second, the study finds that how startups dynamically combine their resource approaches is key to understanding the differences in technological advancements. While the natural tendency of startups in challenging resource environments may be to primarily "make do" with the resources at hand and only supplement inaccessible ones with purposeful search abroad, the findings show that consistently doing so leads to suboptimal outcomes. More successful ventures managed to increasingly adopt standard resource seeking practices (commonly found in higher income countries) by purposefully seeking specific resources that were more difficult to obtain. They combined such acquired resources with dynamically employing complementary creative "making do" approaches. In doing so, the article challenges entrepreneurs and scholars alike to rethink the idea of entrepreneurial resourcefulness from celebrating isolated instances of creatively "making do" towards a more long term, dynamic way of combining resource mobilization behaviors.

Third, the authors were able to trace the differences between less and more successful ventures to their participation in early "catalytic events"—e.g., incubator or contest participations. While the less successful startups were first exposed to local events, which reinforced their "making do" approaches, the more successful ones were first exposed to international catalytic events that opened their resource seeking repertoire to approaches pursued by startups in Europe or the US. Importantly, both groups eventually participated in international (less successful group) and domestic (more successful) events, but it was the first catalytic event that left a strong mark on their approaches in responding to local resource scarcity. Thus, the study cautions entrepreneurs to not only choose their incubation and award contests wisely, but also be mindful about the sequence of such events.

In conclusion, the study aims to inspire new generations of technology entrepreneurs who face the challenge of getting more for less in helping those that need it the most.

Prof. Dr. Jürgen Ernstberger

Birds of a feather flock together: How auditors select their companions for audits and how this selection influences audit quality

Teamwork is important for the success of all businesses. When choosing team members, people have an implicit preference for others who are similar. This so-called homophily shapes all types of social networks, including friendship, marriage, and working relationships. The main reasons homophilous relationships develop are (1) preference, i.e. people tend to associate with similar people simply because they prefer to do so and (2) opportunity, i.e. others who are similar are more likely to be found within their geographical and organizational environment. This study examines whether homophily also plays a role in the case of dyads between the two auditors responsible for an audit, which in contrast to typical teams are hierarchically structured and highly-regulated.

In a forthcoming article in Accounting, Organizations and Society, Professor Christopher Koch at the University of Mainz, as well as Prof. Dr. Jürgen Ernstberger and Dr. Benedikt Downar, both of TUM School of Management, address this question. For their analyses, they draw on the German professional register, which covers the entire pool of auditors available for audits and which provide information on their background. The authors investigate the role of gender, age, and ethnicity (the latter measured on the basis of a shared local dialect) as important similarity factors between an incumbent lead auditor and a newly-selected concurring auditor. The authors find that auditor dyads are more likely to

form based on the same gender and dialect than the average characteristics of the potential pool of candidates would suggest. These findings indicate that despite the comprehensive regulations in place to promote an expertise-based choice of incoming auditors, homophily is a key consideration in the creation of auditor dyads. Further, the authors observe that being the same age reduces the likelihood of dyad formation. An explanation for the latter finding may be the desire to establish legitimacy in hierarchical differentiation.

Next, the authors examine whether dyads sharing similar characteristics are associated with higher or lower quality audits. They find that auditor dyads with the same dialect produce lower audit quality. Thus, homophily matters in auditor dyad formation with potentially adverse consequences for quality. Auditors in homophily-based work relationships might exhibit insufficient levels of skepticism when evaluating the work performed by colleagues with similar backgrounds. In contrast, quality of audit is not influenced by auditors of the same age and gender.

Overall, the study warns of a (subconscious) preference for similar auditors as companions. Although homophily in other areas of team collaboration has positive effects, such as better communication, it can have negative consequences in the hierarchical and regulated setting of an audit.

Benedikt Schnurr | Georgios Halkias

Made by her vs. him: Gender influences in product choice

Due to technical advancements in production, markets are increasingly characterized by standardized and impersonal offerings, alienating consumers from producers. In response, consumers are increasingly seeking alternative ways of making purchases, such as buying products directly from the producer. For example, in 2021, almost 100 million consumers bought handmade products on Etsy. Buying products on such online marketplaces where people sell their handmade creations can satisfy consumers' need for unique and personal purchase experiences. Indeed, on these platforms, consumers have access to various information about individual producers, the most common and easy-to-detect one being the producers' gender.

In a recent study published in the Journal of Consumer Psychology, Benedikt Schnurr (TUM School of Management) and Georgios Halkias (Copenhagen Business School) investigate whether the gender of the producer—whether a product is made by a woman or by a man—influences consumers' purchase decisions. In other words: Are consumers more likely to buy products made by women or products made by men? A total of thirteen studies reveal the following:

First, while female consumers show a strong and consistent preference for products made by women, male consumers do not show a clear product preference. In a field study, for example, more female consumers bought face masks that were made by a woman than face masks that were made by a man. In contrast, the

share of male consumers buying face masks made by a woman did not differ from the share of male consumers buying face masks made by a man.

Second, the authors find that compared to male consumers, female consumers more strongly believe that buying products made by women can contribute to restoring gender equality in business—what the authors call action efficacy beliefs, which leads them to prefer products made by women. As a consequence, the difference between female and male consumers' product preferences is smaller when the revenues from sales of both female and male producers go to a gender equality charity.

Third, the authors find that female, but not male, consumers' product preferences depend on the extent to which they believe that women are discriminated against in business and on the extent to which they are motivated to change gender disparities. Specifically, the more female consumers believe that women face gender discrimination in business, and the more they want to act against it, the greater their preference for products made by women.

Fourth, the authors find that female consumers' higher action efficacy beliefs drive their preference for products made by women more than their beliefs that their product choice reflects their identity, and that female and male consumers do not judge women's and men's production skills differently. That is, women and men are believed to be equally skilled in producing various products, such as handmade mugs, smartphone cases, and leather wallets.

These findings have important implications for producers, managers, and policymakers. Female producers selling their self-made products should highlight their gender as prominently as possible to gain a competitive advantage in the marketplace and should especially target prospective female buyers. In return, managers of online marketplaces, such as Etsy or Amazon Handmade, can boost sales by promoting products that are made by female producers. Finally, the findings elucidate the conditions that can promote prosocial behavior. Acknowledging that social inequalities exist and being motivated to act against them seems necessary, yet insufficient, in driving people to align their behavior accordingly. Instead, consumers need to believe that their seemingly trivial individual actions (such as buying products made by women) can contribute to the cause. In this sense, consumers need to believe that their actions matter.

Prof. Dr. Christoph Kaserer

What is the systemic risk of insurance companies and how should regulators act on it?

Due to concerns about insurance companies posing systemic risks during financial crises, some of the largest global insurers have been classified as systemically important, alongside the banking sector, and are subject to additional prudential regulation. But how systemically important are they, and what should be the appropriate regulatory approach? These issues are explored in this paper by Christoph Kaserer, Professor of Finance at TUM, and Christian Klein, PhD student at TUM.

During the financial crisis of 2007–09, many banks were on the brink of failure, as was at least one major insurer: American International Group (AIG). In order to prevent a meltdown of the financial system, the US Government bailed out AIG in September 2008 with an $85 billion loan. As a consequence, in 2013 the Financial Stability Board published a list of global systemically important insurers (G-SIIs). The November 2016 update of the list comprises nine firms, including UK-based Aviva and Prudential, and German-based Allianz. These insurers are required to adhere to higher capital standards, as well as to implement recovery and resolution plans. Munich Re is not on this list because, for the time being, reinsurers are not included.

What is the difference between banking and insurance?

The question of whether insurers pose a substantial systemic risk for the wider financial system has given rise to much controversy. In fact, the main factors why banks pose systemic risks, i.e. liquidity and maturity transformation, contagion effects and negative externalities, do not directly apply to insurance firms.

However, a potential negative externality caused by a crisis in the insurance sector cannot be easily dismissed. Most importantly, such externalities arise among those insurers that play an important role in financing the real economy, such as life insurers, bond and mortgage insurers, and reinsurers. Recently, this interconnectedness with the real sector has become even more important, as the distinction between the banking sector and the insurance sector has blurred.

Empirical evidence on systemic risk in insurance

Ultimately, whether or not the insurance sector is systemically risky is an empirical judgement – and, if it is, to what extent and why. This is the major contribution of the paper. Using simulations based on empirically observable spreads of credit default swaps (CDS), we evaluate three major systemic risk measures, i.e., the distress insurance premium (DIP), the conditional probability of default (CoPD), and the conditional probability of systemic distress (CoPSD).

Based on this methodology, we analyze a total of 201 major banks and insurers over the period 2004 to 2014. Our results highlight an important ambiguity between the systemic risk of the insurance sector as a whole and the systemic importance of individual insurance companies. Indeed, we find that the insurance sector as a whole accounted for less than a tenth of the global financial system's aggregate systemic risk, even during the financial crisis and the ensuing European sovereign debt crisis. This difference can be seen in a graph, where we show the distress insurance premium (DIP), i.e., the insurance premium each sector would have to pay for insuring the losses that financial crises inflict on their depositors, policyholders, investors, and other creditors of financial institutions. More than 90 percent of the total premium would have to be paid by the banking sector, clearly indicating that the systemic risk of this sector is larger by an order of magnitude as compared to the insurance sector.

However, while the insurance sector as such is not a major contributor to systemic risk, we identify a limited number of insurance companies that individually still appear to be systemically important. Among the financial institutions with the highest marginal DIP—that is, the highest individual contributions to aggregate systemic risk—we classify numerous banks and some large insurers from the multi-line insurance and life insurance segments. Property & casualty insurers and bond and mortgage insurers come in low in either ranking, and therefore do not appear to be systemically important.

Our empirical findings are consistent with the previous theoretical argument that systemic risk in insurance is not obvious. For many of the insurers' traditional business activities, such as property & casualty insurance, systemic risk is not expected. This may well be the reason why the systemic risk contribution of the insurance sector as a whole is rather limited. Nonetheless, business activities that entail high interconnectedness and large externalities, such as life insurance and reinsurance, may well indicate an elevated level of systemic risk.

Policy implications

Our results have implications for the regulation of systemic risk in financial markets, especially with respect to the regulatory approach prevailing in the EU. On the one hand, the insurance sector's contribution to aggregate systemic risk is relatively contained. Our results, therefore, do not support tighter regulation of the insurance sector in general. Rather, we advocate directing the majority of the regulatory effort to enhancing financial stability in the banking sector. The insurance sector's contribution to aggregate systemic risk ought, nevertheless, to still be monitored closely to provide an early warning signal should the risk increase in the future. On the other hand, some individual insurers appear to be as risky as systemically important banks. Moreover, insurers' systemic importance appears to cluster by business activity. While regulation today is focused on a small number of systemically important insurance firms, a differentiating approach should focus more on specific business activities within the insurance sector. This paper advocates for integration of an activity-based approach with the entity-based approach that is in place today.

Prof. Dr. Dr. Holger Patzelt

Managing employees across projects – implications for project success

In today's dynamic business enviroments, firms must continuously start new projects and, if unsuccessful, terminate them early and frequently. Project termination means that employees are transferred to new projects that have more promising perspectives. Transitions between projects, however, are not always easy for employees because their learning and application of new knowledge generated within the exited project can impact how the subsequent project develops. In addition, project exit means that the prior project team breaks up, potentially leading to decreased employee commitment and lower motivation on the new project. How can managers effectively help employees transition from one project to the next and thereby enhance the subsequent project's performance?

In an article published in the Journal of Business Venturing, Professor Patzelt from the TUM School of Management together with Professor Behrens (Solvay School of Business, Brussels), Professor Wolfe (Oklahoma University, USA) and Professor Shepherd (University of Notre Dame, USA) explore how management can

facilitate employees' transitions between projects. Drawing on a series of studies on hundreds of team members of R&D projects, the authors develop a new psychometric scale—the perceived project transition support (PPTS) scale—that measures employees' beliefs that their firm effectively supports them during project transitions. The authors then use this scale to study the implications of PPTS for employee motivation and project success.

An important insight from the study is that employees indeed perceive project exit and entry as part of one transition process. To manage this process effectively, firms should use the following managerial practices: (1) debriefing; (2) providing reflection time; (3) briefing; building a new project team employees (4) view as competent and (5) can relate to; and (6) organizing the transition process in a structured manner. When these practices are used, employees' commitment to the firm increases while their feelings of work stress decrease. Further, the study shows a clear positive relationship between PPTS and better performance of the subsequent project. Therefore, effective project management does not only cover the action phases of projects, but the project transition phase is also an important area for managing employees working on projects effectively.

Prof. Dr. Dr. Holger Patzelt

Why employees do (not) speak up about project flaws

Innovation is crucial in modern business environments, and successful innovation usually involves the pursuit of multiple projects. As these projects advance, they generate new information but also require higher investments for further development. A key task for project managers is to evaluate the available information and then decide whether the project should be continued and investments be made, or the project should be abondoned and resources be allocated to other projects. At the same time, such decisions are challenging because the flaws of a project may been known by some of the team's members but not the project leader. When are these project team members willing to share their information about a flaw in their project with the project leader?

In an article published in the Journal of Management, Professor Holger Patzelt from TUM School of Management together with Professor Dean Shepherd (University of Notre Dame, USA) and Professor Christopher Berry (Indiana University, USA) explore to what extent information about a flaw in a project impacts project team members' willingness to share their concerns with the project leader, and to what extent this relationship varies between project team members. To do so, the authors draw on insights from the literature on voice and an experimental decision making task involving 235 R&D project team members from large and innovative firms.

As a first important new insight, the study shows that information about a flaw in a project is generally a good thing – the more objective information a project team member has, the more likely they are to voice concerns to their project leader, thus facilitating the manager's decision making process. However, the study also finds that project team members vary considerably in their willingness to act on available information. In particular, the study shows that the project leader's open-mindedness plays a key role. That is, more information about a flaw in a project particularly enhances team members' willingness to voice concerns when they perceive their project leader to be open-minded. Second, those team members who are more pro-socially motivated also placed more emphasis on objective information when voicing concerns than less pro-socially motivated team members. For practicing managers, the important implication is not only that they should facilitate team members' access to information about aspects indicating project performance (or potential flaws), but also that they should signal open-mindedness regarding employees' concerns. Finally, when assembling project teams, it can pay off to add team members who are known for their pro-social mindset and motivation – it is these team members who are most likely to approach a project leader with their concerns that the project may not meet its future goals.

TUM SCHOOL OF MANAGEMENT

INTERDISCIPLINARY RESEARCH CENTERS

ERI – Entrepreneurship Research Institute

Entrepreneurship is an emerging and important research field in business, economics, and psychology. The goal of the Entrepreneurship Research Institute is to help develop this field and improve our understanding of entrepreneurial individuals and organizations. One part of the research at this center takes a psychological perspective and investigates entrepreneurial cognition and decision making. Our second research stream follows a business perspective and tries to understand the behavior of young organizations and factors that contribute to their success. The ERI team is interdisciplinary and composed of researchers with diverse backgrounds and qualifications, including management, psychology, economics, sociology, and natural sciences.

LSM – Center for Life Sciences and Management

The Center for Life Sciences and Management brings together closely networked specialist sectors such as forestry and agriculture, chemicals, plastics, food & food technology, and plant engineering. It thus builds a bridge between technology, ecology, and economic efficiency. Work takes place at an international level, particularly in the areas of bioeconomy and "closing the loop". The research encompasses the entire value chain from production to consumption. "Reverse flows" such as recycling play a crucial role here. Moreover, by effectively combining research and teaching, the Center for Life Sciences and Management ensures that its research findings exert a lasting impact and generate valuable synergies.

CEM – Center for Energy Markets

The Center for Energy Markets (CEM) at TUM School of Management conducts rigorous analysis of the evolution of the energy industry and offers excellent interdisciplinary training to young professionals in this emergent field. Research focuses on the analysis of energy prices, investment, and trading strategies in the energy sector, as well as policy and regulatory strategies for an efficient energy transition. CEM's research also includes works on regulated electricity and gas networks, as well as asset management in the energy industry. Another research area is electromobility. Research at the CEM appears in journals such as the RAND Journal of Economics, the Journal of the European Economic Association, Operations Research, the European Journal of Operational Research, the Journal of Industrial Economics, Energy Economics, the Energy Journal, Energy Policy, Utilities Policy, and the Journal of Regulatory Economics. The Center regularly hosts research seminars as well as workshops with policymakers and high-level practitioners from the energy industry.

CEFS – Center for Entrepreneurial and Financial Studies

In 2003 the Chair in Entrepreneurial Finance (Prof. Dr. Dr. Dr. Ann-Kristin Achleitner) and the Chair of Financial Management (Prof. Dr. Christoph Kaserer) jointly founded the Center for Entrepreneurial and Financial Studies (CEFS). Prof. Dr. Reiner Braun (Chair in Entrepreneurial Finance) joined in 2015, completing the Scientific Director Team. CEFS is supported by around 20 Scientific Assistants and a Managing Director. Its portfolio also includes an international network of renowned scientists and representatives of numerous business fields. CEFS aims to provide state-of-the-art research and teaching in the fields of entrepreneurial and financial studies. The research focus is on corporate financing and ownership structures in public and private capital markets. Special attention is paid to the analysis of demand for capital by young, innovative companies and the supply of debt and risk capital from banks and institutional investors. Within the scope of its research, CEFS collaborates on a series of projects with selected industry partners, including leading investment companies, consulting firms and financial intermediaries. The Center places a special focus on the practical relevance and applicability of its research. It identifies solutions for real-life problems using scientific analyses, in close dialogue with practitioners. As a recent example, the contribution to the "Biotech Ecosystem Germany" project, funded by the Federal Ministry of Research and Education, should be mentioned. This project addresses the challenge of translating exceptional scientific research in Germany into marketable products. With a focus on the biotech industry, it evaluates the entire ecosystem, emphasizing the context and opportunities within the German setting, while highlighting areas for improvement. By bridging the gap between scientific expertise and business acumen through a dedicated "business for scientists" course and comprehensive analysis, the project aims to foster economic value creation and strengthen Germany's position as an innovation hub in biotechnology. Further information can be found on the homepage at www.professors.wi.tum.de/cefs/home/.

CDT – Center for Digital Transformation

The Center for Digital Transformation (CDT) at TUM Campus Heilbronn was founded in 2019 and researches issues related to digitalization and its challenges and opportunities. Our goal is to develop solutions through practice-oriented research and thus generate direct benefits for the economy and society. New findings flow directly into teaching, to prepare our students for the tasks of the future.

Research at the Center for Digital Transformation Data-driven decision making

New technologies, such as the Internet of Things, social media or sensor networks, have made it possible to gather and store a huge amount of data. The massive volume and different formats and sources of this data necessitate new methods to extract insights and information from the data and use them for decision-making. Further, to support decision makers, adequate data organization and fast algorithms are necessary for online decision-making based on real-time information.

At the Center for Digital Transformation, we apply big data analytics, machine learning, and optimization to support decision-making in health care, finance, marketing, and supply chain management. We also renew the methods for specific applications and develop new algorithms and methods for dealing with the uncertainty usually present in data.

Digital platforms

Digital platforms are important for the commercialization and innovation of digital goods and services. As such, they play a crucial role in the context of digital transformation and are applied in many industries, for example, banking, transportation, or software development. Digital platforms

can connect demand and supply of goods and services, as well as people and companies. To be successful, managers need to understand network effects as the inherent challenge, overcoming which requires a profound technical and organizational response.

At the Center for Digital Transformation, we study new digital business models where competition as well as other determinants are taken into account. We develop methods and incentive schemes that help a platform gain traction among users, suppliers, and consumers, and we investigate the steps that need to be taken to establish successful platforms in the market.

Impact of digital technologies on business

The development of new technologies has led to a significant change in businesses processes and a reshaping of markets. The Internet and especially social media have changed the interaction between companies and customers enormously, resulting in new marketing strategies. Sensor technology, cyber-physical systems, distributed ledger technologies, and AI have driven automation in production and transportation, and have also led to new financial services.

At the Center for Digital Transformation we study the improvement of processes, business models, and business ecosystems by use of a combination of several digital technologies in order to ensure the competitiveness of a company. Further, we investigate the application of virtual reality and augmented reality in the industry, as well as in research and teaching. Further information about the Center for Digital Transformation can be found at: www.wi.tum.de/cdt

GCFE – Global Center for Family Enterprise

The Global Center for Family Enterprise (GCFE) was founded in 2020 is located at the TUM Campus Heilbronn. The center comprises Prof. Dr. Miriam Bird (Director GCFE and Professor of Entrepreneurship and Family Enterprise), Prof. Dr. Stefanie Jung (Professor of Corporate Law), and the Prof. Dr. Philipp Lergetporer (Professor of Economics) and their respective teams. The Global Center for Family Enterprise (GCFE) focuses on the interplay between the "family" and the "enterprise". The Center's research focuses on three main research areas: Sustainability, New Technologies and Innovation and Strategy and Governance in Family Enterprises. It is of utmost importance for the GCFE to take an interdisciplinary research approach by incorporating diverse perspectives (e.g. psychological, sociological, economic and legal) to examine family enterprise behavior. The Center's research is mostly evidence-based and its goal is to achieve academic excellence while researching highly relevant topics. It is also the Center's mission not only to create but to disseminate knowledge within Germany, Europe and the world.

Further information about the Center can be found at: https://www.mgt.tum.de/global-center-for-family-enterprise

**Research at the Global Center
for Family Enterprise**

Sustainability in family enterprise

How can family enterprises contribute to and benefit from sustainability to ensure their longevity?

We examine the theory, conceptual underpinnings, and implications of sustainability for family enterprises. We apply a multi-dimensional approach to (corporate) sustainability and provide insights into how family enterprises can generate long-term value for their owners and stakeholders, fostering companies' longevity. In so doing, we take responsible leadership, business, innovation practices, and forward-looking training activities as the basis for family enterprises' sustainable development. More specifically, we aim to better understand how family enterprises contribute to solving the grand societal challenges of the 21st century, promote gender equality, and how they effectively pursue responsible business activities. We also investigate topics such as sustainable entrepreneurship. We aim to understand how families can sustain their business for the long term and across generations, and develop the competences to adapt to structural and environmental changes in terms of adjusting their human capital, cognitive skills, and corporate governance structure to changing environmental demands.

New technologies and innovation in family enterprises

How can family enterprises adapt and introduce new technologies in the 21st century?

New technologies, such as artificial intelligence (AI), digital technologies and blockchain technology, are considered path-breaking drivers of organizational change and innovation in family enterprises. New ground-breaking technologies pose significant new challenges for organizations in research and business, particularly with regard to responsible leadership, business and innovation practices, and social integrity. Family enterprises face the challenge of how to efficiently react to and shape these new technologies. We are interested in examining how family enterprises implement strategies, structures, and employee training using their unique competences to leverage the potential arising from these new technologies. For instance, AI might lead to faster and more accurate decisions by managers, while also having the ability to transform interactions between humans and AI within teams and organizations. We are interested in investigating how family enterprises can effectively deploy path-breaking technologies and aim to generate knowledge about what family enterprises may look like in the 21st century. For example, we provide insights on managerial practices and strategies that help family enterprises leverage disruptive technological changes, design technology-based forms of collaboration, and effectively establish human-machine interaction.

Strategy and governance in family enterprises

Which strategies and governance structures help family enterprises gain competitive advantage?

Family enterprises are characterized by a unique governance structure. They need to sustain competitive advantages in rapidly changing business environments with high uncertainty and time pressure. While the specific governance constellations of family enterprises having ownership and management within the family might diminish, (e.g., owners' impatience and managerial short-termism, and agency costs), issues may arise due to company succession, nepotism, stakeholder interactions, and family conflicts. We are thus interested in understanding how governance (i.e., corporate governance, ownership, and family governance) can be strategically employed to achieve competitive advantage and effective resource deployment within family enterprises. Hence, we investigate, for instance, topics such as strategic ownership, ownership competence, corporate and contract governance, and contract negotiations to ensure family enterprises' long-term success.

PARTNER RESEARCH CENTERS

CDTM – Center for Digital Technology and Management

Current Academic Director (TUM) CDTM – Prof. Dr. Isabell Welpe

The Center for Digital Technology and Management (CDTM) is a joint institution of TUM and the Ludwig-Maximilians-Universität München (LMU) and a member of the Elite Network Bavaria. Founded in 1998, it is a center for interdisciplinary teaching, research, and entrepreneurship with around 75 active students and more than 1,000 alumni. Each semester, 25 highly qualified, ambitious students from various backgrounds are selected to attend the add-on study program "Technology Management". CDTM is run by a management team consisting of ten doctoral candidates and is supported by 20 Professors from LMU and TUM.

An important node in Munich's startup network

Over the years, CDTM has developed into an important center for innovation and entrepreneurship in Munich. Around a quarter of all former CDTM students eventually found their own company in the field of digital technology. Examples of high-growth ventures include the Munich unicorn Personio and the sports intelligence company Kinexon that supported industry players with tracking software to protect workers from COVID infections. Demodesk, a meeting platform for remote sales was selected for the prestigious YC's winter 2019 batch and the online medical start-up Teleclinic achieved an eight digit exit in 2020, while many other CDTM start-ups were able to successfully close funding rounds in the last six months (e.g., forget.finance, Luminovo, e-gym, recogni, razor group, finn.auto). Events such as the CDTM Inspire&Dine speaker series and the newly launched podcast "Mostly Awesome" attract over 1,200 people each semester, playing an increasingly important role in connecting Munich's startup scene. Thanks to its expertise in entrepreneurship education, CDTM took an active role in the task force for the Zentrum Digitalisierung Bayern (Z.DB) and supports the State Ministry for Digitalization, which strives to foster digitalization and entrepreneurship in Bavaria.

Research at the intersection of digital technology and entrepreneurship, with an increasing focus on sustainability

CDTM's strong focus on interdisciplinary projects and collaboration necessarily results in a multifaceted research agenda. CDTM researchers have received the "Best Empirical Paper" award at the Academy of Management Annual Meeting twice since 2015: once, for their research on how to attract job seekers for startup jobs (with the TUM chair of Prof. Welpe) and a second time for their research on the effect of female role models in entrepreneurship (with the Max Planck Institute for Innovation and Competition). Additionally, CDTM is involved in applied research projects. Its researchers are developing a corporate entrepreneurship platform for SMEs that brings together innovation training, idea management, and collaboration (with TU Freiberg). The goal is to encourage and enable employees to contribute innovative ideas to increase the degree of innovation in SMEs. Also, we are working on the BMWi-funded project "BIG – The next big thing in embodied intelligence" (with Siemens and Fortiss), aimed at identifying guiding trends and recommendations for the German economy. These projects leverage CDTM's core competency: using digital technologies to foster innovation. Due to the pressing issue of climate change, research on sustainability and technology has become an additional core research topic: CDTM researchers published a study on meat-free diets in the journal Nature Sustainability, worked on sustainable food consumption habits, are researching the implementation of smart grids at the Chair of Renewable and Sustainable Energy Systems, and are using machine learning to identify the long-term impact of climate change on droughts.

Merging innovative teaching methods with applied research

CDTM strives to combine its research with innovative teaching approaches, creating benefits for both students and researchers. One research project that is taking shape is the evaluation of entrepreneurship education and entrepreneurial ecosystems, which are at the core of CDTM's activities.

MIPLC – Munich Intellectual Property Law Center

The Munich Intellectual Property Law Center (MIPLC), a nexus for education and research in the field of intellectual property, was founded jointly by TUM and TUM School of Management, the University of Augsburg and the Max Planck Institute for Intellectual Property, and the George Washington University Law School (Washington D.C., USA). In order to provide the urgently needed next generation of experts in this field with the necessary training, MIPLC offers an internationally-oriented, two-semester, fee-paying Master's program in Intellectual Property and Competition Law.

MCTS – Munich Center for Technology in Society

The Munich Center for Technology in Society (MCTS) is one of three Integrative Research Centers at TUM, and the latest institutional addition to the vibrant TUM community. Launched in June 2015, it is a central pillar of the University's award-winning Future Concept that featured prominently in the Excellence Initiative of the German federal government.

MCTS's mission rests on the insight that today's most pressing challenges and transformations – including climate change, energy transitions, personalized health, emobility, social robotics, and the digitalization of society and industry – are all thoroughly socio-technical in nature. Furthermore, excellence in the natural sciences and engineering requires equal excellence in the social sciences to find adequate responses at the crucial intersection of science, technology, and society.

MCTS aims to provide an institutional platform at an excellent technical university for comprehensive interdisciplinary reflection on the conditions and effects of science and technology in highly technologized societies. Across a range of different domains and topics, MCTS researchers conduct work on the social, political, historical, ethical, and legal aspects of scientific research and technological change. It examines these issues with regard to technological controversies, public acceptance and participation, changing forms of knowledge production and dissemination, the governance of science and complex socio-technical systems, the design of science and innovation policies, and in other contexts. MCTS is committed to multi-faceted forms of dialogue across academic communities and public stakeholders. Many projects are conducted in close collaboration with other research units at TUM, and all MCTS faculty and senior researchers hold dual appointments with other TUM faculties.

MCTS is led by two co-directors, Prof. Dr. Ruth Müller and Prof. Dr. Sebastian Pfotenhauer, who both hold co-appointments with TUM School of Management. The Center offers two Master's Programs (Science and Technology Studies, and Responsibility in Science, Engineering, and Technology) and an interdisciplinary doctoral program (TechnoScienceStudies). With its academic strength, MCTS pushes a variety of research projects on the interplay of science, technology, and society – for example, under the leadership of MCTS, the European Research Consortium SCALINGS explores the avenues and limits for the wider dissemination and use of co-creation (the practice of bringing together diverse actors in a joint innovation activity to mutual benefit) across Europe. Another interdisciplinary TUM research consortium, called M Cube: Munich Cluster for the Future of Mobility in Metropolitan Regions, brings together different university departments (Automotive Engineering, Innovation Research, Settlement Structure and Transport Planning) as well as local industry and the public sector, laying the foundation stone for a new phase of interdisciplinary, socially-oriented mobility research at TUM. As part of a third transdisciplinary consortium on digitalization, the MCTS research project Responsible Robotics not only seeks to study the social, ethical, and legal dimensions of novel AI-based technologies in healthcare practice but also aims to develop a practical toolbox for future interdisciplinary AI innovation and its responsible integration into healthcare.

TUM SCHOOL OF MANAGEMENT

SELECTED FUNDED PROJECTS

Advanced optimization in a networked economy (AdONE)

Stefan Minner, Martin Grunow, Gudrun Kiesmüller, Rainer Kolisch, Maximilian Schiffer, Andreas S. Schulz

AdONE develops new mathematical models and computational methods for efficient resource allocation and coordination among multiple parties in dynamic logistics networks, transportation, and mobility systems. The work is at the intersection of mathematics, computer science, and management science, driven by exciting applications such as airport operations, auction mechanisms for network procurement, autonomous mobility, carsharing systems, production planning, vehicle routing, and warehousing & e-commerce. The PhD program is jointly hosted by the School of Management and the School of Computation, Information and Technology at TUM. We are funded by the German Science Foundation (DFG) as a "Research Training Group".

AI in customer-client interactions

Isabell Welpe

The research project investigates the use and implementation of artificial intelligence (AI) across diverse customer interactions (e.g., customer acquisition, development, and retention) for small and medium-sized enterprises (SMEs). Here, it aims to provide insights into how AI could be positively integrated into the workflow for employees and customers alike. Furthermore, it aims to illustrate how AI can be utilized to deliver sustainable value to SMEs, customers, and society. As its central output, this project seeks to define criteria for measuring AI's success and deployment in customer interactions, and to identify opportunities and chances for SMEs for integrating AI applications into their business models and the customer-retention cycle.

Artificial intelligence for earth observation: reasoning, uncertainties, ethics, and beyond (AI4EO)

Christoph Lütge

The IEAI and Prof. Christoph Lütge is a research partner for the newly established Future Lab Artificial intelligence for Earth Observation (AI4EO). Led by the Technical University of Munich in cooperation with the German Aerospace Center, the Lab focuses on the development of AI technologies for earth observation (EO). It brings together 20 renowned international organizations across nine countries and 27 highly ranked scientists at all levels to address three fundamental challenges in EO-specific cutting-edge artificial intelligence research: reasoning, uncertainties, and ethics.

Sample applications include using satellite data with intelligent big data analysis to model global urbanization, the feeding of the world's population, or the management of natural hazards. In this way, smart data from space can help decision-makers on the ground, for example, to design sustainable and livable cities or contain forest fires at an early stage.

Along with the use of big data and AI-based technology in EO comes the need for greater attention to legal and ethical requirements for the use of these tools. Thus, building responsible AI4EO that embody social norms and values while ensuring sustainable and inclusive development is of central relevance. Accordingly, this project addresses issues of data protection/privacy, data portability, and fairness/equality not just of data collection, but also of data use and dissemination within the sphere of ethics in AI4EO.

Blockchain enabled multi-echelon supply chain financing (BEMS, DFG funded)

David Wuttke

Over the past decades, virtually all firms have improved their supply chains to facilitate efficient product and information flows from raw materials to end customers, that is, across multiple echelons. More recently, some firms started using supply chain financing, but encounter substantial and often insurmountable risks when financing more than their direct suppliers, due to information asymmetries and inefficient verification processes. Recent blockchain applications show how this new technology can solve both problems. If all firms are willing to, they can effectively apply blockchain to share all the required information securely, create trust in the reliability of data, and use smart contracts to guarantee execution. Besides technical feasibility, however, a key managerial question that is still open and that I seek to address is whether all firms in a supply chain are better off sharing the required information and should thus engage in blockchain-enabled multi-echelon supply chain financing when this becomes available in their supply chain. For suppliers, information sharing can weaken their bargaining position. For buyers, lack of information sharing exposes them to elevated risks. Finding the optimal balance to make both players better off is part of my research project. On a more fundamental level, the research relates to how value is created in this new financing scheme, given the various risks, and whether this value can be shared among participants to lead to a Pareto improvement.

In this research project, I will take a management perspective and provide a comprehensive analysis of optimal strategies for firms that are considering using blockchain to facilitate the financing of their upstream supply chain. I will gain deep qualitative insight into the mechanisms of current solutions, develop and analyze a novel game theoretical model to provide structural insight into the underlying dynamics and incentive conflicts and examine behavioral motives that arise in the realm of data sharing and trust. More broadly, I will contribute to our understanding of how technology transforms established processes, such as enabling firms rather than banks or governments to support other firms financially. Introducing blockchain to facilitate multi-echelon supply chain financing could be an important step towards more transparent supply chains, where firms can trace their money and, if desired, use such superior knowledge to foster more sustainable and compliant behavior in their supply chain.

Competition with the platform owner: a quantitative-empirical study of mobile-app-platforms (2021–2024)

Jens Förderer

A significant business risk for firms is platform owners' entry into their market space. Platform firms such as Apple, Microsoft, and SAP regularly enter markets complementary to their platforms with their own complements. For example, in 2018 Apple surprisingly announced an app called ScreenTime, which gave users an overview of the time they spent on their iPhone. Several firms had been offering apps with similar functionality before and were now confronted with having to compete with Apple. For affected complementors, entries by the platform owner can be consequential, eventually leading to them going out of business. Existing research provides little insight into the risk of market entries by the platform owner. Previous research predominantly studied the consequences of entries on complementors. However, these studies provide little insight into the factors that explain market entries. Understanding the

systematics behind platform owners' entries would help improve complementors' decision-making regarding what market niches to join and what complements to offer.

The aim of the research project is to address this gap by studying the factors that explain market entries by the platform owner. The goal is to examine the relationship between the characteristics of individual ecosystem niches (e.g., the quality of the complements, the innovation performance) and the market entry by the platform owner. In order to achieve this goal, a quantitative-empirical study will be conducted in the context of the mobile app platforms Apple iOS and Google Android. The iOS and Android ecosystems will be divided into market niches in a systematic procedure. A comprehensive data set on market entries will be built up for the period 2008 to 2020.

DOMINO

Jutta Roosen

DOMINO is a Horizon Europe funded research project aiming to attribute health benefits to traditional fermented foods, and to develop novel plant-based fermented foods which address the changing societal demands for healthier and more sustainable nutrition. The project will last five years (2023-2028) and gathers 19 partners from ten countries in a collaboration between top universities and research centers, as well as expert non-profit organizations and the private sector. The Chair of Marketing and Consumer Research will carry out a market and innovation analysis on fermented food (FF) products, identifying drivers of demand and supply of FF. FF producers will be identified and subjected to qualitative and quantitative surveys. A pan-EU survey will identify drivers of persistent innovative activities. In addition, the Chair will carry out a multi-country consumer survey on the perception and acceptance of FF and will provide input to the FF prototypes, accompanied with sensory experiments.

ERC StG: Fair competition in app markets

Jens Förderer

App markets—such as Apple's App Store or Google Play—have significant economic importance and drive digital innovation. In 2021, the App Store alone facilitated transactions worth over EUR 511 billion, equal to the GDP of Sweden.

However, app market operators have also attracted severe scrutiny from regulators due to their integrated gate-keeper structure: They operate a marketplace, while also competing within them with their own apps. This gives app market operators an incentive for self-preferencing: They promote their own apps over third-party apps, consequently distorting competition and harming app innovation.

Uncertainty remains regarding how self-preferencing can effectively be counteracted with public policy interventions. Although legislators have advanced bills to restrict self-preferencing, including the Digital Markets Act, existing theoretical models are scant, make mixed predictions, and lack empirical validation. This uncertainty is problematic because app markets represent a complex node of the digital economy where regulatory interference—if not done "right"—can likewise harm innovation.

This project will empirically evaluate which public-policy interventions against self-preferencing are effective in restoring app developers' innovation incentives.

To achieve this objective, the project will (i) conduct four in-depth quasi-experimental studies, (ii) which exploit plausibly exogenous policy-changes against self-preferencing, (iii) leverage unique time-series product-level data from mobile app markets, and (iv) integrate the findings into a holistic understanding using measurement and analyses protocols. An extensive communication plan ensures the transfer of scientific expertise into public knowledge.

EU HORIZON-EIC-2022-TRANSITION: Real-time nutrient sensing for mapping fertilizer needs (LiveSen-MAP)

Claudia Doblinger

Within the project LiveSen-MAP, we will collect in collaboration with farmers for the first time a high-resolution dataset of the crop nutrient status over multiple growing seasons, to validate and deploy an ensemble of predictive models for field-scale and region-scale nutrient prescriptions. We will produce 20,000 of our test strips for the main plant nutrients N-P-K for field testing at test sites in Bavaria and North Rhine-Westphalia over the project duration. Together with farmers, we will develop our business model and drive product development. Collaborating with potential customers early on will be key for (i) deploying our technology to create the dataset needed to consolidate machine learning-based predictions, and (ii) testing the business model and verifying our competitive position in the intended market. The insights gained from potential customers will be combined with a detailed stakeholder and market analysis to validate the business model and pricing strategy. We will be able to identify and engage key strategic partners such as agricultural and digital businesses. In this way, we can build and strengthen our network to highlight the unique value of our approach as a tool for reorienting towards a more sustainable and resource-efficient agriculture in Europe and beyond. The project results will be commercially exploited by a company that will offer a subscription-based fertilization recommendation service to farmers.

Integrated logistics concepts for sustainable and flexible urban logistics networks (InterLog)

Johannes Fottner, Stefan Minner, Maximilian Schiffer

As part of the BMBF-funded cluster M-Cube, InterLog pursues an interdisciplinary and holistic approach to the development, testing, and evaluation of sustainable and flexible logistics concepts for the prevention and relocation of inner-city delivery traffic. To achieve this objective, the chosen approach includes (i) testing and designing flexible distribution structures on the last and second last mile, (ii) complementary technology development, in particular with regard to micro-consolidation centres, electric and low-emission vehicle concepts, and modular transport containers, and (iii) testing of the developed concepts in real-world laboratories and field trials. The multi-criteria evaluation is carried out from the perspective of all stakeholders involved in urban logistics.

Learning from high-dimensional, heterogeneous data: Machine learning methods in econometrics

Helmut Farbmacher

In this project, we work with methods from machine learning in microeconomic applications to estimate heterogeneous causal effects and to predict individual and firm behavior. German Research Foundation (DFG), €151,300, 2021-2024

MELISSA – Mobile artificial intelligence solution for diabetes adaptive care

Christoph Lütge

The use of AI enabled personalized devices to manage health is a rapidly growing industry. The ethical concerns and challenges accompanying this trend are important to confront, as these tools are being developed and forms of governance are being considered.

The number of people being diagnosed with diabetes is growing across the globe, with the WHO estimating that it was the ninth leading cause of death worldwide in 2019. Diabetes management and treatment is, thus, an increasingly important issue for healthcare systems worldwide. This EU Horizons funded project's main objective is to provide a clinically validated, efficient and cost-effective AI-based digital diabetes management solution, providing personalized treatment and care recommendations.

As part of the consortium, TUM IEAI will investigate the ethical aspects related to trustworthy AI, to provide user requirements and recommendations to the development teams.

New venture team design – a key to firm growth and survival?

Miriam Bird

High-growth firms are important for an economy, as they contribute substantially to a country's economic development. However, only a small proportion of start-ups in Europe are able to achieve high firm growth, and less than half of all newly founded firms survive their first five years of existence. This raises fundamental questions with regard to how entrepreneurs can achieve firm growth and survive the uncertain initial years. Research has increasingly shifted from an individualistic view of the entrepreneur to a focus on entrepreneurial teams, thereby recognizing that the pursuance of entrepreneurial endeavors involves collective action. Hence, in this research project we aim to answer the fundamental research question: How can we design new venture teams in a way that is conducive to firm success? This project is funded by the Swiss National Science Foundation.

Ocean College

Philipp Lergetporer | PI: Helena Baier (doctoral student)

Add-on Fellowship for Interdisciplinary Economics and Interdisciplinary Business Administration, Joachim Herz Stiftung

Online scheduling in smart factories

Martin Grunow

The Fourth Industrial Revolution, or Industry 4.0, conceptualizes rapid change to technology, industries, and processes in the 21st century due to increasing interconnectivity and smart automation. A central point of the advancements is the interconnection of machines, devices, sensors, and humans, allowing communication via the Internet of Things (IoT). The interconnection enables cyber-physical systems to make decentralized decisions independently and perform their tasks as autonomously as possible. These concepts, combined with the design of Smart Factories following Industry 4.0 paradigms, enable more flexible production and therefore increase operational efficiency. Scheduling is one of the application areas that can profit from these advancements. The common practice in scheduling is to generate a rigid plan for a given horizon, e.g., one day. Production is then executed based on this plan.

However, production faces many uncertainties. The resulting disturbances lead to inefficient schedules and require rescheduling. An alternative is to perform scheduling online, i.e., in real time, by utilizing the real-time data of the production system provided by the IoT. This enables us to deal actively with uncertainties. Online scheduling calls for fast and reliable state-dependent online optimization that considers the current state and possible future outcomes. Collaborating with SAP SE, we formulate online scheduling as a Markov Decision Process (MDP). We suggest multiple methods based on (Deep) Reinforcement Learning and priority rules developed by Genetic Programming to solve the MDP. Further, we explore the generalizability of the approach and integrate our suggested online scheduling approaches with production planning.

PINPOINT: Politics, institutions, and production networks

Timm Betz

What are the political sources and consequences of economic globalization, and how do political institutions shape globalization? Current frameworks for understanding the politics of economic globalization emphasize a fragmentation of politics: political conflict breaks down to individual firms and citizens, because the gains from trade are concentrated on large, globally engaged, and politically active firms. Departing from this view, PINPOINT develops an innovative framework built on the linkages between firms created by domestic production networks. Production ties imply a much broader impact of economic globalization, because many domestic firms interact with international markets indirectly as suppliers and as customers of globally engaged firms. Moreover, these linkages vary in quantity and quality. To date, we know surprisingly little about the role of production networks in politics, which creates a mismatch between the structure of modern economies and current theoretical frameworks. Ignoring such ties risks misattributing the impact of economic globalization, overlooking the economic roots of political coalitions, and misunderstanding the sources and consequences of economic globalization. PINPOINT places economic exchange between firms front and center in an account of the behavior of governments, firms, and citizens in the context of international markets, and of the role of institutions in such an account. PINPOINT will provide theoretical and empirical innovations that lead to a revised understanding of the political underpinnings of economic globalization and of the mechanisms through which institutions shape it.

ReBIOscover

Jutta Roosen

The ReBIOscover project looks at the rediscovery of regional cereal landraces for sustainable production of organic food specialties. The Chair of Marketing and Consumer Research, as one of the four project partners, will develop target-group specific communication strategies for consumers. The perception as well as preferences for products made from cereal landraces will be investigated among consumers. The approach is based on mean-end chain analysis.

Research project in collaboration with Stiftung Familienunternehmen

Alwine Mohnen

The research project aims to analyze the general attractiveness of family firms (in contrast to non-family firms). For this, a regular survey with the participants (high potentials) of the "Karrieretag Familienunternehmen" is conducted, each year focusing on different core topics, for example, location factors, New Work, or employee retention.

Resilient supply chain planning for fast-moving consumer goods

Martin Grunow

For many industries, increasing the resilience of their supply chains has become a top priority in recent times. In this project's context, we regard resilience as capturing and coping with uncertainty in supply chain planning to best prepare for effective pivoting in case of change. In general, uncertainties related to demand and supply complicate the already complex planning procedures. However, like many industries, supply chain planning in fast-moving consumer goods (FMCG) still leverages deterministic approaches (i.e., single-value planning). Maintaining buffer stocks is just one example of how companies indirectly prepare for uncertainty: by adding slack to their deterministic planning results, so as to leave room for uncertainty to unfold. In contrast, in research, many approaches exist to incorporate uncertainty dynamically and explicitly (i.e., a multitude of futures) in supply chain planning. However, despite vast research existing around differing methodologies, practice still falls short of adopting these enhanced capabilities for handling uncertainty. We aspire to bridge this gap between research and practice with the global software company SAP SE within real-world use cases for their FMCG customers. An essential aspect of the project is the effective communication (including visualization) of planning results to decision-makers and other stakeholders. As a methodology, we use stochastic programming to accommodate uncertain input and balance the commitment to certain decisions with the flexibility of future decisions. Providing risk-based profit implications and representing relevant planning decisions as ranges of future decisions are just two of the goals that we pursue within this project.

Return on purpose

Isabell Welpe

This project addresses the measurement and improvement of corporate purpose in small and medium-sized enterprises. First, the current state of research on corporate purpose is presented. Second, we will develop a maturation logic to measure corporate purpose readiness. Third, we will design a roadmap that identifies the next steps companies can take to improve their corporate purpose. At the end of the project, a practical IT tool will be developed to enable companies to measure their corporate purpose, show them the next steps they can take to improve their corporate purpose, and demonstrate the monetary gains from implementing these steps.

SAP & TUM ESG-Finance Lab (STEFL)

Gunther Friedl, Michael Stich, Jürgen Ernstberger

In collaboration with SAP, we develop concepts and tools that empower companies to stay compliant and to efficiently steer their businesses based on relevant and reliable carbon emission data. The core of the project is the concept of a "green ledger" as a foundation for holistic corporate carbon accounting. This ledger allows companies to measure, account, and effectively take actions in dynamic and heterogeneous regulatory environments. With this collaboration project, we also want to create impact on accounting standard setters around the world.

SAP-collaboration: New approaches to tour planning and vehicle routing

Stefan Minner

This project involves joint research regarding the use of data-driven approaches and decomposition algorithms in the context of the VRP to enable the solution of larger and complex real-world problems. This touches on several more detailed questions that expand our knowledge with regards to AI and advanced optimization, e.g., how are the clusters rated when aggregating and breaking down into sub-clusters? Or how can we improve the user acceptance of data-driven/AI-based approaches.

SeSiWi

Isabell Welpe

Although visibility is essential for scientific career success, female scientists and their achievements are less visible than their male colleagues. Previous research provides too few answers about the reasons for female scientists' lack of visibility and how to reach gender-equal visibility. Therefore, this project aims to investigate the underlying mechanisms for female scientists' lack of visibility and to develop sustainable strategies to increase their visibility. We build the Gender Equality Tech Tool (GETT), which uses AI to analyze texts and images from German media outlets to examine how female scientists are represented quantitatively and if they are portrayed in a stereotypical way. Based on the GETT-results, we conduct workshops with scientists and media representatives to agree on goals and cooperations for the visibility of female scientists.

Smart office

Isabell Welpe

Due to the changing landscape of the workplace, it is necessary to implement new approaches to enhance work engagement. One of the most promising approaches for this purpose is gamification. For this reason, we are developing an app that can gamify various sustainability aspects at the workplace in cooperation with IT. We are aiming at enhancing the motivation of employees to engage with smart home energy management systems and saving energy themselves.

Sustainability analysis: Life Cycle Assessment of vehicle repairs

Svetlana Ikonnikova

The transition to carbon neutrality and achievement of environmental goals require continuous measurement of emissions and evaluation of sustainability indicators. The pressing public and economic demand for environmental preservation and conservation of resources has inspired the International Organization for Standardization (ISO) to develop 14,000 standards, including Life Cycle Assessment (LCA) and Ecodesign. These standards, intended for environmental footprint assessment, ensure consistency in evaluations and are becoming a critical reference for environmental and international trade regulations. The purpose of this project is to identify and explain the gaps in LCA and suggest enhancements aimed at the evaluation of the sustainability of a product system (in its entirety). The project relates to the emerging so-called LCA-based Absolute Environmental Sustainability Assessment (AESA) studies focusing on an impact — an integrated product system — and pointing out the necessity of accounting for the system component's origin and use.

The potential for ai in the extractive industries to promote multi-objective optimization

Svetlana Ikonnikova

Climate change and the carbon-neutrality agenda have led to the introduction of clean energy technologies and spurred demand for alternative energy sources and new infrastructure. Demand for minerals and metals such as copper, cobalt, and lithium, needed for the production and supply of clean energy, has skyrocketed (IEA, 2021). Mining these critical resources poses environmental, social, and economic challenges, especially in politically unstable and economically poor regions such as African and "Global South" countries (Lèbre, 2020). Artificial intelligence (AI) and machine learning (ML) are playing an increasing role in boosting productivity, optimizing operational costs, and maximizing profitability; however, their use in multi-objective optimization (i.e., in tackling multiple sustainability goals) in mining industries has been overlooked. The objective of this research project is to create a database with the attributes of sustainable development, in order to set up the formal AI-based algorithms solving the multiobjective optimization. This should (1) capture the link between economic, environmental, and governance decisions and outcomes measuring the distance to UN SDGs, and (2) allow users to project and choose the optimal sustainable development strategies for the mining industry, local communities, and governments.

The role of moralization in the interpretation and use of nutritional evidence

Jutta Roosen

This project examines the evidence practices of consumers in the field of nutrition. Nutrition is an evolutionary and culturally engrained practice that has only recently – approximately in the last hundred years – been strengthened, confronted, or changed by findings from the nutritional sciences. The results of the first research phase show that evidence – understood as meaningful and socially accepted knowledge that guides consumer action – is not only based on scientific knowledge, but is influenced by heuristics and values. This is especially the case when scientific knowledge is fragile and in conflict with intuitive judgments of right or wrong, or good or bad. We pursue this tension further in Phase 2 of the project, widening the research focus from the area of food safety to the field of nutrition as a whole. The hypothesis for this phase is that, when engaging with evidence, consumers resort to their own stabilization mechanisms, which are influenced by moral judgements, especially when scientific evidence is perceived as fragile and tentative.

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