

TUM School of Management Research Report 2021







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This report covers the years 2019 to 2021, a difficult period due to the COVID-19 pandemic. The priorities for TUM during this time have been to reduce health risks as far as possible. Among other things, that has meant switching to online teaching and meetings, and often working from home. Research at TUM School of Management has also been affected. Some types of research have become difficult to carry out, conferences and trips abroad have been cancelled or moved online, the additional effort required for online teaching in some cases means less time for research, and home schooling has put an additional burden on researchers with young children. But there are also positives: Virtual conferences are low-cost and time-saving, seminars run at other universities are accessible online, and invited speakers at our own research seminars may be based in Stanford, for example, and not have to worry about traveling to Germany. TUM School of Management has made good use of these new opportunities and our research has shown remarkable progress despite the pandemic.

Top research requires outstanding people. We are proud to report that since early 2019, no less than 13 new Professors have joined TUM School of Management. They are Miriam Bird, Jens Förderer, Svetlana Ikonnikova, Stefanie Jung, Gudrun Kiesmüller, Benjamin Loos, Mark-Oliver Mackenrodt, Sebastian Müller, Michael Stich, Siddharth Vedula, David Wuttke, Jingui Xie and Amy Zhao-Ding. In the same period, Philipp Maume, Luisa Menapace, Ruth Müller, Sebastian Pfotenhauer received tenure.

Many other activities have continued unabated. TUM School of Management was reaccredited by EQUIS and so retains its Triple Crown status (accreditation from AACSB, AMBA and EQUIS). The School's research contributed greatly to this success. TUM Campus Heilbronn, made possible by a generous donation from the Dieter Schwarz Foundation, grew further in terms of both student and staff numbers, and will soon be expanded to include a further ten professorships in the field of information systems. Interdisciplinary research remained important, for instance, the collaboration between the Departments of Informatics and Mathematics within the AdONE graduate school. To further improve training for doctoral students aspiring to an academic career, we will improve the Research Excellence Program and relaunch it as the Academic Career Track in fall 2021.

This report provides an overview of our research activities: the topics, projects, publications and most importantly the people involved. The details demonstrate our focus on the interface of management and technology, the role of internationalization, and our commitment to rigorous research combined with practical relevance. This report aims to raise awareness about research at TUM School of Management among a broad audience. We also hope that it will lead to even more exciting research opportunities in the future.



Prof. Dr. Gunther Friedl Dean

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Prof. Dr. Joachim Henkel Vice Dean of Research

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TUM SCHOOL OF MANAGEMENT

TUM School of Management conducts cutting-edge research and teaching at the interface of management and technology. Founded in 2002, it consistently leads the ranking of business schools in Germany.

Since 2017, TUM School of Management has been a member of a select international group of business schools that are accredited as "Triple Crown" by the AACSB (Association to Advance Collegiate Schools of Business), the AMBA (Association of MBAs) and the EQUIS (European Foundation for Management Development). The Triple Crown certification is internationally recognized as a seal of quality for students and academics.

TUM School of Management attracts students and researchers from all over the world. Its mission is to turn enthusiasm for innovation and technology into real products by teaching the necessary management skills. We believe that entrepreneurship and social responsibility go hand in hand. These are the values we pass on to our students. On the basis of our interdisciplinary teaching approach, we train future managers who feel equally at home talking



to management experts, engineers and scientists. Thanks to the entrepreneurial environment at TUM, a considerable number of our graduates start up their own businesses in technology-based industries.

In the coming years, we want to address the most important far-reaching developments in the course of digitalization, the UN goals for sustainable development and globalization. We will use our research expertise to contribute to solving social challenges. We will train our students to meet the challenges arising from the digital transformation and raise awareness of issues related to sustainable development. We will use the opportunities offered by digitization for our research, teaching and learning.



HEILBRONN

A beacon for shaping the digital transformation

At the state-of-the-art Heilbronn Education Campus, excellence in research and teaching meets the exciting, entrepreneurial challenges of one of the most innovative regions in Germany. Since the winter semester of 2018/2019, the Technical University of Munich has had a presence at the Heilbronn Education Campus with its faculty of economics, the TUM School of Management. Students are trained at the interfaces of topics that are constantly gaining importance in companies of all sizes: teaching and research focusses range from digital transformation management to medium-sized family businesses to information technology. These are highly sought-after competencies in the dynamic environment of the Heilbronn-Franken economic region. This is how modern research fields are created, for example with reference to digital transformation and the platform economy, which are used in the innovative companies of the Heilbronn-Franken region, as well as around the world. "We emphasise entrepreneurial skills by training our students to become responsible business leaders. They should not only put what they have learned into practice, but also ask the right questions in their careers in order to be able to deal with the challenges of tomorrow in a solution-oriented manner," says Prof. Dr. Helmut Krcmar, founding dean and President's Representative for the Heilbronn Campus.

Solutions for the challenges of tomorrow

Students in Heilbronn have the opportunity to start with a six-semester Bachelor's programme in Management and Technology. Two additional Master's programmes with an economic and technical focus complete the offer. Tailor-made courses can be taken part-time as part of the Executive Education programme. In general, the TUM School of Management offers excellent opportunities in all phases of academic education, from the first semester to a professorship. Studying at the TUM School of Management in Heilbronn also means studying with an international flair, because almost half of the students at the TUM Campus Heilbronn do not have a German passport. They all benefit from the attractive conditions at one of the most modern university locations in Germany, with an architecturally sophisticated canteen, an excellently equipped, innovative library and ideal study conditions thanks to small study groups.





TECHNICAL UNIVERSITY OF MUNICH THE ENTREPRENEURIAL UNIVERSITY

One of the leading technical universities in the world – with an entrepreneurial spirit

Technical University of Munich (TUM) is one of Europe's top universities. It is committed to excellence in research and teaching, interdisciplinary education and the active promotion of promising young scientists. The university also forges strong links with companies and scientific institutions across the world. The Technical University of Munich (TUM) ranks among Europe's most outstanding universities in research and innovation - an achievement powered by its distinctive character as the Entrepreneurial University. TUM's unparalleled range of disciplines covers engineering and natural sciences, life sciences and medicine, management and social sciences. This inspires modern fields of research extending from bioengineering to machine intelligence. At the same time, TUM links technological change more closely with social, political and ethical issues than other technical universities. Its outstanding degree programs are strongly oriented towards research and, at the same time, tightly coupled to practical experience. TUM offers amazing opportunities at every level of study and research – starting with the first semester right through to professorship.

It invests in the professional development of individual talent and produces many startup founders each year, thanks to its unique support infrastructure. TUM is also very international in nature: it builds long-term research partnerships with the most innovative global players and has a high proportion of foreign students, researchers as well as more than 150 partner universities around the globe. TUM has offices in Brussels, Mumbai, Beijing, San Francisco, and São Paulo. With the founding of TUM Asia in 2012 in Singapore, it became the first German university to establish an overseas campus. TUM was awarded the title of University of Excellence in 2006, 2012 and 2019 in recognition of its innovative, dynamic culture.

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^{chnis}che Universität München

TECHNICAL UNIVERSITY OF MUNICH THE ENTREPRENEURIAL UNIVERSITY

Sustainability as a key priority

In 2019/2020, under its new president Prof. Dr. Hoffmann, TUM has been integrating sustainability in all areas of teaching, research and operations. Together, we are identifying the building blocks required to create a holistic strategy that will act as a roadmap for our sustainability journey – an action plan fitting of a university of international standing with the power to influence society, industry and policymakers. We are in the process of creating the necessary governance structures, building on the commitment and support of the entire university community. Communication and knowledge transfer are key success factors in this process. Our objective is to unleash the full sustainability potential of TUM across our key action areas: research, teaching, entrepreneurship, campus and operations. To achieve this we have established a Sustainability Office, which brings together all existing initiatives and ideas under an overarching strategic framework, supports their implementation and generates new ideas and projects through cooperation. Moreover, our Sustainability Taskforce published a comprehensive report in spring 2020 to underpin TUM's sustainability strategy.

FACULTY RESEARCH SEMINAR



Winter Semester 2018/2019

TITLE	NAME	INSTITUTION	HOST
Intentions for Doing Good Matter for Doing Well: The Negative Effects of Prosocial Incentives	Lea Cassar	Universität Köln	Alwine Mohnen
Contagion Effects in Portfolios of Diversified Firms: the Distinct Role of Non-scale vs. Scale-free Resources	Marco Giarratana	IE Business School	Joachim Henkel
The impact of R&D collaboration on employee mobility and entrepreneurship	Markus Simeth	Copenhagen Business School	Hanna Hottenrott
Knowledge Spillovers from Clean and Dirty Technologies	Myra Mohnen	University of Essex	Hanna Hottenrott
Dynamic Capabilities and their Antecedents: Heterogeneous Configurations for Operating Process Change	Mark Ebers	Universität zu Köln	Oliver Alexy
Strategies of Subsidiaries of the Multinational Enterprise	Klaus Meyer	lvey Business School in London, ON, Canada	Thomas Hutzschenreuter
In-group and Out-group motives in group conflicts: An experimental study	Anwesha Mukherjee	University of Surrey	Hanna Hottenrott
A Recipe for Success? Award Winners and the One-Hit-Wonder effect – Evidence from the UK Cookbook Market	Markus Bär	Olin Business School, Washington University in St. Louis	Hana Milanov
Improving Remanufacturing Core Recovery and Profitability Through Seeding– Evidence from the UK Cookbook Market	Neil Geismar	Texas A&M	Alexander Hübner

Summer Semester 2019

NAME	INSTITUTION	HOST
Daniele Nosenzo	Luxembourg Institute for Socio- Economic Research; University of Nottingham	Michael Kurschilgen
Nora Szech	Karlsruhe Institute of Technology (KIT)	Michael Kurschilgen
Henning Piezunka	INSEAD	Oliver Alexy
Audrey Korsgaard	University of South Carolina	Isabell Welpe
Sendil Ethiraj	London Business School	Joachim Henkel
Nagesh Gavirneni	Cornell University	Stefan Minner
Christopher O'Donnel	The University of Queensland	Johannes Sauer
Jörg Sydow	FU Berlin	Oliver Alexy
Olivier Chatain	HEC Paris	Joachim Henkel
Sebastian Siegloch	Universität Mannheim & ZEW	Michael Kurschilgen
Joo Young Jeon	University of Reading	Hanna Hottenrott
	Daniele Nosenzo Nora Szech Henning Piezunka Audrey Korsgaard Sendil Ethiraj Nagesh Gavirneni Christopher O'Donnel Jörg Sydow Olivier Chatain Sebastian Siegloch	Daniele NosenzoLuxembourg Institute for Socio- Economic Research; University of NottinghamNora SzechKarlsruhe Institute of Technology (KIT) Henning PiezunkaAudrey KorsgaardUniversity of South CarolinaSendil EthirajLondon Business SchoolNagesh GavirneniCornell University The University of QueenslandJörg SydowFU BerlinOlivier ChatainHEC ParisSebastian SieglochUniversitä Mannheim & ZEW

FACULTY RESEARCH SEMINAR



Winter Semester 2019/2020

TITLE	NAME	INSTITUTION	HOST
Affectual readiness: A process model of how everyday conversation influences affective conflict in teams	Anna Brattström	Lund University	Nicola Breugst
From enabling to delivering: Understanding the implications of mission oriented innovation policy.	Jakob Edler	Fraunhofer Institute for Systems and Innovation Research	Hanna Hottenrott
Negotiation in Software Business: Failure, Teams, & Mindsets	Will Baber	Kyoto University	Alwine Mohnen
When ADHD Helps and Harms in Entrepreneurship: An Epidemiological Approach	Johan Wiklund	Syracuse University	Holger Patzelt
Academic Freedom and Trade Secrets Protection in the U.S., Europe, and Asia – Can industry shut up researchers?	Yuko Kimijima	Keio University	Christoph Ann
Research quality in transition: Perspectives from Research Policy studies	Merle Jacob	Lund University	Ruth Müller
Do the rules of the game determine who is playing and how? Institutional change and innovative entrepreneurship	Luca Grilli	Politecnico di Milano	Hanna Hottenrott
Service network design and planning two-tier city logistics systems	Teodor Gabriel Crainic	Université du Québec à Montréal	Stefan Minner
Bank Resolution Regimes and Systemic Risk	Thorsten Beck	Cass Business School	Christoph Kaserer

Summer Semester 2020

TITLE	NAME	INSTITUTION	HOST
Fulfilling the process promise: A review and agenda for new venture creation process research	Per Davidsson	Queensland University of Technology	Holger Patzelt
Creating Motivational Fit: How empowering leadership team climate and climate strength enhance the effects of employee goal choice behavior on impact and job performance	Tobias Dennerlein	IESE Business School	Isabell Welpe
Biform 2.0	Olivier Chatain	HEC Paris	Joachim Henkel
Taming the bell-curve in LED production	Paul Anand	University of Florida	Rainer Kolisch
Valuing SEPs: The battle to define the meaning of FRAND.	Bowman John Heiden Gunther Friedl	Hoover Institution, Stanford University	Christoph Ann
Freemium Killer Apps: Business Model Competition and the performance of digital PC games on steam	Joost Rietveld	University College London	Joachim Henkel
How hidden patterns of knowledge accumulation affect emergence of innovative solutions	Ann Majchrzak	Marshall School of Business, University of Southern California	Oliver Alexy
Recalls and innovation: Own and competitor firm response	Ariel D. Stern	Harvard Business School	Joachim Henkel

FACULTY RESEARCH SEMINAR



Winter Semester 2020/2021

TITLE	NAME	INSTITUTION	HOST
Who sees the future? A Deep Learning Language demonstrates the vision advantage of being small	Model Amir Goldberg	Stanford Graduate School of Business	Isabell Welpe
Al adoption and firm performance: Management versus IT	Sampsa Samila	IESE Business School	Joachim Henkel
Deference and Asymmetric Alliance Formation Between Ventures	Emily Cox Pahnke	Foster School of Business University of Washington	Oliver Alexy
A scientific approach to Innovation Management: Evidence from four field experiments	Alfonso Gambardella	Bocconi University	Joachim Henkel
Learning Narratives: How Creating a Pitch Influences Entrepreneurial Strategy	Susan Cohen	Terry College of Business University of Georgia	Oliver Alexy
Organizing for corporate business model innovation: In search for optimal designs of entrepreneurial initiative teams	Wouter Stam	Vrije Universiteit Amsterdam	Hana Milanov
Organizing form, innovation and performance: civilian drone industry	Kathleen Eisenhardt	Lessons from the nascent	Hana Milanov
The influence of pay transparency on (gender) inequity, inequality and the performance-basis of pay	Tomasz Obloj	HEC Paris	Joachim Henkel
An Inhabited View of Market Categories	Peer Fiss	University of Southern California	Oliver Alexy

Innovation & Entrepreneurship 2019-2021

Munich International Patent Law Conference 2017-2019 Chair of Corporate & IP Law

Digital Platforms & Challenges for Industry Workshop 2019 Chair of Innovation and Digitalization

Meeting on Entrepreneurial Groups funding by the German Research Foundation 2019 *Venturing Together! Cross-disciplinary Network* April 1-2, 2019 Professorship Entrepreneurial Behavior

Meeting of the Network "Venturing Together!" funded by German Research Foundation 2020 *Creating synergies between entrepreneurial team*

research and teaching September 21-22, 2020 Professorship Entrepreneurial Behavior

TUM Workshop on Trust, Blockchain, and Smart Contracts 2020

Online, June 19, 2020 Dr. Theo Schöller Chair of Technology and Innovation Management

TUM Workshop on Blockchains and Smart Contracts: Collaboration in a Decentralized World 2021

Online, June 25, 2021 Dr. Theo Schöller Chair of Technology and Innovation Management



Operations & Technology 2019-2021

VDI Deutscher Materialflusskongress 2020 Chair of Logistics Engineering

Fachtagung Schüttgutfördertechnik 2020

Chair of Logistics Engineering

Data-Driven Collaboration in

Industrial Supply Chains 2019 May 19-20, 2019 Professorship Logistics & Supply Chain Management

Workshop on Information Technology and Systems 2019 Munich, Germany, 2019 Professorship Decision Sciences & Systems

Doctoral Consortium, International Conference on Information Systems (ICIS) 2019

Munich, Germany, 2019 Professorship Decision Sciences & Systems



Finance & Accounting 2019-2021

23rd International Congress on Insurance: Mathematics and Economics (IME) 2019 Munich, Germany, 2019 Professorship Mathematical Finance



Marketing, Strategy & Leadership 2019-2021

TUM Kolloquium der Motivationsforschung und - praxis 2019 Munich, Germany, 2019 Chair of Psychology

Project Meeting of Förderlinie "Personennahe Dienstleistungen" 2019 Munich, Germany, 2019 Professorship Strategy and Organization

Panel "Make Munich Weird" 2020 February 2020 Professorship Strategy and Organization

Presentation "Design Your Life: Worauf es wirklich ankommt in Leben und Beruf"2020 Professorship Strategy and Organization

Presentation "Virtuelle Führung, virtuelle Zusammenarbeit und virtuelle Teams" 2020 Professorship Strategy and Organization

Preview of The Responsible Al Forum 2020 Online, 2020 Peter Löscher Chair of Business Ethics

Symposium FührMINT "Gewinnung und Aufstieg von Frauen in MINT-Führungspositionen in der Wissenschaft" 2019

Munich, Germany, March, 2019 Professorship Research and Science Management

Economics & Policy 2019-2021

Scholars Workshop Power Sharing or Power Shifts? Questioning the role of public-private interactions in global governance 2019 November 28-29, 2019 Professorship International Relations

Workshop on Behavioral and Experimental Economics 2019 Professorship Economics

Workshop on Innovation, Technological Change and International Trade 2019 Heilbronn, Germany, March 21-23, 2019 Professorship Economics of Innovation

International Workshop German Public Opinion on Foreign and Security Policy in a Time of Transatlantic Stress 2020 Munich, Germany, January 23, 2020 Professorship International Relations

Workshop on Governance of New Technologies: Technological Innovations, Market Competition, and Public Policy 2020

Raitenhaslach, Germany, February 10-12, 2020 Professorship Economics of Innovation and Professorship International Relations

International Workshop The Global Diffusion of Competition Policy: Causes, Consequences and Challenges 2020 Online, October 28, 2020 Professorship International Relations

14th Workshop on the Economics, Organization and Policy of Scientific Research 2020

Munich, Germany, July 8-9, 2020 Professorship Economics of Innovation

TUM-MIT workshop on Global Energy Transitions 2020

September 2020 Professorship Resource Economics Professorship Economics of Energy Markets

RESEARCH

Research at TUM School of Management is characterized by an interdisciplinary approach and a focus on the interface of management, engineering and the natural and life sciences. Our academics use methods ranging from theoretical models and qualitative and quantitative empirical work to applied research.

TUM School of Management has Triple Crown status, meaning accreditation from AACSB, AMBA and EQUIS. It boasts leading positions in all relevant national rankings. In particular, it tops the list of German universities in the 2020 Wirtschaftswoche research ranking for the field of management, and is second only to St. Gallen among management faculties and business schools in Germanspeaking countries. The School is also home to several "competence centers" that bundle resources and facilitate close collaboration with other institutions and corporate partners. These include the Center for Entrepreneurial and Financial Studies, the Center for Energy Markets, and – thanks to joint ventures with partner institutions – the Munich Intellectual Property Law Center and the Center for Digital Technology & Management. Our faculty is engaged in a broad range of cutting-edge research projects supported by the Federal Ministry of Education and Research, the German Research Foundation, the European Union and other bodies.

On the following pages we present research topics relating to the school, overall. Research carried out by individual academic departments appears in the relevant sections later in the report.



RESEARCH FEST 2019

Continuing a great tradition that started back in 2013, the Research Fest at TUM School of Management took place on May 24, 2019, at the TUM Main Campus. During the Research Fest, all academic departments had the opportunity to present their current research projects in a poster exhibition and win the "Best Poster Award". The Best Poster Award even comes with a prize, generously donated by TUM Management Alumni e.V. The first place received 2,000 €; the second 1,000 €; and the third, 500 €. The winner of the "Best Poster Award 2019" is Gerhard Hiermann, who presented a poster on the research topic "Towards Sustainable City Logistics via Access Restrictions". Daniel Bias, Claudia Guagliano, Martin Haferkorn, Michael Haimann and Prof. Christoph Kaserer took second place with their poster "Mutual Funds and Derivatives: Evidence from Linked Fund-Trade Data". Dr. Irina Dolgopolova and Prof. Jutta Roosen were placed third with their research poster on the topic "SEE WHAT YOU EAT: Fast-food Choices of Young Adults in an Experiment with Dynamic Feedback".





Additionally, the TUM School of Management "Supervisory Award 2019" was awarded. Every doctoral candidate who is a member of the TUM Graduate School had the chance to nominate his or her supervisor for this award. There were nine nominations for the TUM School of Management Supervisory Award 2019, two female and seven male candidates. Those who were particularly convincing in the categories of a high scientific standard in the supervision and in courses for doctoral candidates, regular and intensive research meetings, the support for international research stays and conferences as well as an active support while developing the research question, were chosen to win the award. The awards and respective certificates were awarded by the doctoral representative Christoph Gschnaidtner to the winners Prof. Jürgen Ernstberger, Prof. Oliver Alexy and Prof. Sebastian Schwenen.

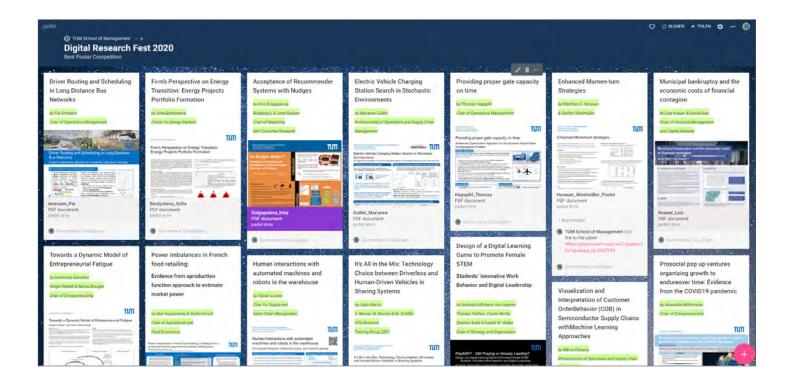
At TUM School of Management, research and teaching are conducted with an interdisciplinary approach at the interface of management and technology. This unique combination contributes to its international standing. The annual Research Fest aims at providing insights into the research that is being done throughout the various academic departments of the TUM School of Management. Additionally, the best poster of the research exhibition is awarded to young scholars, who presented their research topic at the event. Due to COVID-19 the Research Fest 2020 took place digitally for the first time on November 12, 2020, with more than 500 viewers.

The event started with panels held by several university professors and faculty members such as Prof. Joachim Henkel (Technology and Innovation), Prof. Hana Milanov (Innovation & Entrepreneurship), Prof. Sebastian Schwenen (Economics & Policy), Prof. Sebastian Müller (Finance & Accounting), Prof. Jingui Xie and Prof. Thomas Hutzschenreuter (Marketing, Strategy & Leadership).

The academic departments of TUM School of Management gave presentations on their research as part of a stage poster exhibition via an online platform called "Padlet". The three best exhibited posters of ongoing research projects were granted a prize, generously donated by TUM Management Alumni e.V.



The winners of the "Best Poster Award 2020" were Daniel Bias and Lisa Knauer. For their outstanding poster on "Municipal bankruptcy and the economic costs of financial contagion" they were endowed with a prize of 2,000 Euro. Irina Dolgopolova, Bingqing Li and Jutta Roosen took second place for their poster on the topic "Do Nudges Matter? Consumer perception and acceptance of recommender systems with nudges". The third prize was awarded to Marianne Guillet for her poster on "Electric vehicle charging station search in stochastic environments".



Innovation & Entrepreneurship

2019 - 2021

Prof. Dr. Oliver Alexy

- David Reetz: TUM School of Management Best Dissertation Award 2019; Finalist Grigor McClelland Dissertation Award
- Petteri Leppänen: Promotionspreis der Bund der Freunde der TUM, 2020
- David Huber: Strategy Research Foundation Dissertation Research Grant, 2020

Prof. Dr. Miriam Bird

- EBS Best Paper Award, honoring outstanding scientific papers with high practical relevance on innovation, entrepreneurship and transformation, 2020
- Academy Best Paper Proceedings, Academy of Management, 2017 and 2020

Prof. Dr. Nicola Breugst

 Best Paper in Entrepreneurial Cognition of the Managerial and Organizational Cognition Division of Academy of Management (jointly with Rebecca Preller and Holger Patzelt), 2020

Prof. Dr. Claudia Doblinger

• Academy of Management Best Paper Proceedings, Academy of Management, 2019

Prof. Dr. Jens Förderer

- Runner-up, VHB Nachwuchspreis 2021
- Academy of Management Best Paper Proceedings, 2020

Prof. Dr. Joachim Henkel

• Academy of Management Best Paper Proceedings 2021, Herbst, V., Henkel, J.

Prof. Hana Milanov, Ph.D.

- Reypens, L., Bacq, S., Milanov, H., Best Paper Award Finalist and Best Methods Paper nomination, Strategic Management Society conference, 2020 for the paper "Beyond Bricolage: Early-Stage Technology Ventures' Resource Mobilization Under Extreme Resource Scarcity"
- Teaching excellence Award, IE Business School visiting faculty, 2018 and 2020

Prof. Dr. Dr. Holger Patzelt

- Academy of Management 2020, Best Paper Award MOC Division, Best Paper on Managerial Cognition
- Academy of Management 2020, Best Paper Award ENT Division, Best Paper on Social Entrepreneurship

Prof. Dr. David Wuttke

• Outstanding Reviewer Award by the International Journal of Production Economics, 2020

Prof. Amy Zhao-Ding, Ph.D.

- Finalist, Kauffman Best Student Paper Awards in Entrepreneurial Cognition, 2020
- PhD Rudolf & Valeria Maag Scholarship in Entrepreneurship, 2019-2020
- Strategy Research Foundation (SRF) Dissertation Scholar Award, 2018-2020

Operations & Technology

2019 - 2021

Prof. Dr. Martin Bichler

 Recipient of a DFG Koselleck project by the German National Science Foundation 2019

Prof. Dr. Martin Grunow

- Finalist Best Working Paper Behavioural Operations, INFORMS 2020 (with Frank Hage and Sebastian Schiffels)
- Best application paper Design and Manufacturing IISE Transactions 2020: honorable mention (with Daniel Tonke and Renzo Akkerman)
- Two edX MOOCs ("Lean Production", "Six Sigma: Define and Measure") in the top 10 list of online classes in Class Central 2020, more than 350,000 MOOC participants (with Holly Ott)
- Best paper award IISE Transactions 2019: honourable mention (with Phillip Kriett)

Prof. Dr. Alexander Hübner

- Rank 45 im Ökonomen-Ranking der Wirtschaftswoche 2020 und Rang 54 im Ökonomen-Ranking der WirtschaftsWoche 2019
- Emerald Literati Award für Outstanding Paper im International Journal of Physical Distribution and Logistics Management, 2019

Prof. Dr. Rainer Kolisch

 Maximilian Pohl: 2019 Bronze Winner of the Anna Valicek Award for Innovative Research in Airline operations

Prof. Dr. Stefan Minner

- Winner of the MSOM practice-based paper competition (Christian Mandl and Stefan Minner), 2019
- Dissertation awards of German Operations Research Society (GOR) and Bundesverband Materialwirtschaft, Einkauf und Logistik (BME), Christian Mandl, 2020

Prof. Dr. Maximilian Schiffer

• Featured Article, IISE Transactions / Industrial and Systems Engineer Magazine, 2020

Economics & Policy

2019 - 2021

Prof. Dr. Tim Büthe

 Director's Award Public Engagement and Outreach, Doctoral College, University of Southampton, 2020; Oxford University Global Priorities Institute, Early Career Conference Programme Award, 2020/21; UK Royal Institute for Philosophy Bursary, 2020; Forethought Foundation Fellowship, 2021.

Prof. Dr. Stefan Hirsch

• #65 in the Forschungsmonitoring Young Economist Ranking (SNIP) of economists under 40 in German speaking countries, 2020

Prof. Michael Kurschilgen

TUM SoM Supervisory Award 2020

Prof. Dr. jur. Stefanie Jung

 Junior Researcher Award 2019 of the Association for the Promotion of Faculty III of the University of Siegen e.V.

Prof. Dr. Ruth Müller

Brocher Residency

Prof. Dr. Johannes Sauer

- OECD Expert Adviser, Farm Level Economic Analysis Network, 2017 and 2020
- Bavarian Academy of Science, Invited Member Roundtable on Bioeconomy and Biodiversity, 2019
- Leibniz-Foundation, Invited Member of Evaluation Committee, Berlin, 2017 and 2019

Prof. Dr. Sebastian Schwenen

• TUM School of Management PhD Supervisory Award, 2019

Finance & Accounting

2019 - 2021

Prof. Dr. Reiner Braun

- Review Award (WS 18/19) acatech Zuwahl (March 2020)
- Best Entrepreneurship Research Newcomer Award 2020 G-Forum (WS 20/21)

Prof. Dr. Jürgen Ernstberger

- Best PhD Supervisor Award 2019, TUM School of Management, 2019
- Best Teaching Award Executive Education 2019, TUM School of Management, 2019
- Best Paper Award, 10th European Audit Research Net (EARNet) Symposium, 2019

Prof. Dr. Sebastian Müller

- 7th SUERF/UniCredit Foundation Research Prize 2019 for the article "Anomalies across the globe: Once public, no longer existent?"
- Spängler-IQAM award (Runner-Up) for Best Investments Paper in the Review of Finance 2018/2019 for the article "Economic links and crosspredictability of stock returns: Evidence from characteristic-based 'styles'"

Prof. Dr. Rudi Zagst

- 1. Place SCOR-Price for Actuarial Sciences (Best Supervised Master Thesis)
- Best Teaching Award "Golden Circle": 3. Place (Best Masters Lecture), Winter Term 2019/20

Marketing, Strategy & Leadership

2019 - 2021

Prof. Dr. Dr. Vera Bitsch

 Fellow Award of the International Food and Agribusiness Management Association - September 2020

Prof. Dr. Christoph Fuchs

 Jürgen Hausschildt Award 2019 (VHB Best Paper Award, TIM Division)

Prof. Dr. Christoph Lütge

- Distinguished Visiting Professor at the University of Tokyo, 2020
- Appointed External Member of the Karel Čapek Center for Values in Science and Technology, Czech Academy of Sciences, Prague, 2019

Prof. Dr. Claudia Peus

- Academy of Management, "Help When Dads need Somebody? Follower Reactions to Leader Work-Family Conflict", Best Paper Proceedings, Jamie Gloor, Susanne Braun, 2020
- Academy of Management, MED Best Symposium in Management Education and Development Award, Stephanie Rehbock, Jamie Gloor, 2020
- Top 40 over 40: Germany's Most Inspiring Women, Claudia Peus, 2020

Prof. Dr. Jutta Roosen, Ph.D.

• Fellow of the Agricultural and Applied Economics Association

Prof. Dr. Isabell Welpe

• Bavarian State Medal for Services to the Bavarian Economy, 2019

Prof. Dr. Isabell Welpe More women and diverse groups in leadership by more effective diversity instruments

In the last decade, companies have invested considerable personnel and financial resources in initiatives to increase their proportion of women and other minorities. Many companies have put their focus on diversity training. Over the last 15 years, average estimates for annual investments in such areas have reach as 8 billion USD. Despite these efforts, statistics show that the gender gap in top leadership positionsis is closing slowly, stagnating, or even increasing. There is only limited research about the effectiveness of diversity instruments on individuals and groups. Based on the state of international research, the diversity research group from the Chair of Strategy and Organization (Prof. Dr. Isabell Welpe) presents new evidence-based and effective approaches to increase the proportion of women and minorities in leadership positions. Research shows, e.g., that voluntary diversity training has a more positive effect than mandatory, and purposeful recruitment and setting diversity goals are even more effective, but may also have negative and unintended effects. As part of the research agenda, the group surveys a sample of executives in Germany on their assessment of diversity instruments and their willingness to use them. To gain evidence on the causal effects of interventions, the research group strongly recommends to scientifically evaluate them using randomized controlled trials and offers companies support in this process. More information about the activities of the group is available on https://diversity.strategy.wi.tum.de.

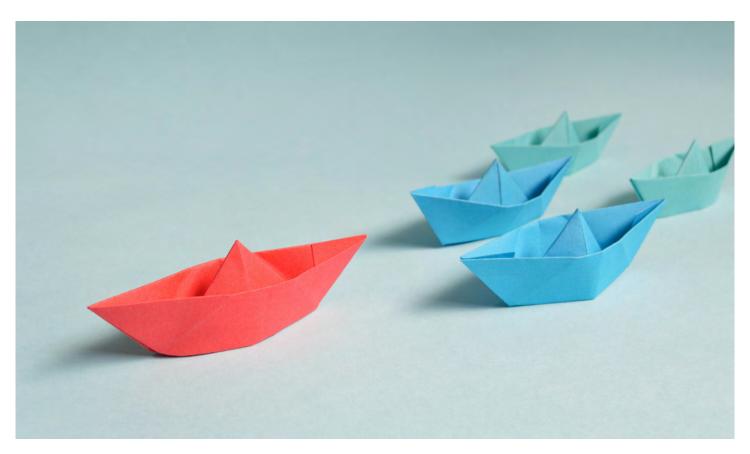


Prof. Dr. Claudia Peus Leadership in the laboratory – unraveling the neurophysiological mechanisms underlying the perception of human and robot leaders

Effective and ethical leadership become even more relevant in a global pandemic, during which human life seems to be directly weighted against economic disaster. To find solutions, leadership on all levels of society must be involved. Effective, ethical and value-oriented leadership are fundamental to societal success in a multitude of contexts, be it in the corporate world, the military, or politics. Constructive leadership can reduce conflict, unite followers, and see societies and organizations flourish, while destructive leadership has devastating effects. This EUfunded project (Marie Skłodowska-Curie Actions, project heads Dr. Franziska Emmerling & Prof. Dr. Claudia Peus) unravels the mechanisms underlying (destructive) leadership based on a threefold approach.

First, the project provides a comprehensive overview of the current status quo of research on destructive forms of leadership, their antecedents, and consequences. Based on extensive literature review, gaps in the field are detected and suggestions for future research avenues are developed. Second, the project takes a first step towards the laboratory-based experimental study of leadership behavior and its perception. Leadership is not only based on a leader's actions but emerges (as effective or ineffective) from followers' perceptions of and reactions to these actions. The current project investigates the neurophysiological mechanisms – assessed via methods including electroencephalogram, eye-tracking, and physiology – underlying the perception of leaders and how various leadership behaviors affect this perception. Third, the project explores the potential of digital technologies – including social robotics and virtual reality – for leadership research.

This project (LEADERPROFILE) was chosen to be featured on the EU CORDIS platform.



Prof. Dr. Miriam Bird New venture team design – A key to firm growth and survival

The joint research project including Professor Miriam Bird (TU Munich, GCFE), Professor Karl Wennberg (Linköping University), Karin Hellerstedt (Jönköping University) and Professor Elena Kulchina (North Carolina State University) entitled "New Venture Team Design – A Key to Firm Growth and Survival", generously supported by the Swiss National Science Foundation (SNSF), takes a closer look at entrepreneurial team design.

High-growth firms are important for an economy as they substantially contribute 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 the first five years of existence. This raises fundamental questions with regarding to how entrepreneurs can achieve firm growth and survive the uncertain initial years of existence. Studying firm growth and survival of nascent firms is particularly relevant, given that new firms face resource constraints and are particularly prone to failure as they must compete against larger firms, have to build legitimacy, and have not yet established roles and routines within the new venture team. Research has found that entrepreneurial endeavors involve collective action, thereby recognizing that the new venture team occupies a towering position in shaping the venture's strategy and hence new venture success. Yet, extant research does not provide a comprehensive view of how new venture teams should be designed to achieve firm growth and survival. We aim to fill this research gap by studying the impact of key elements of new venture team design on nascent firm growth and survival. The study of new venture team design needs to move beyond static perspectives of founding team composition by addressing elements of power distributions within new venture teams, the role of employees in complementing the entrepreneurial team and team dynamics such as entrepreneurial team turnover events.



Prof. Dr. Hutzschenreuter Ownership, governance, and strategy - from 'The Germany AG' to 'The Growth AG' in 30 years

Who owns the German publicly listed corporations? What governance schemes and corporate strategies are enforced by the corporations? How did ownership, governance, and strategy change over the past 30 years and how will these dimensions develop in the future?

These questions are addressed by a research project of the TUM Chair of Strategic and International Management headed by Professor Thomas Hutzschenreuter. The project investigates the different settings of ownership, governance, and strategy in German publicly listed corporations, starting with the era of the proverbial 'Germany AG' that is characterized by close capital and personal interlockings between German firms. After many decades in which the configuration of the three dimensions remained almost unchanged from a macro-perspective, the collapse of the Eastern bloc, political and regulatory reforms, and vast technological innovations (including advances in information technology, passenger and freight transportation) became catalysts for the end of the 'Germany AG'. Consequently, a new setting emerged in which ownership, governance and strategy are primarily focused on one objective: growth.

Today, there are again many developments that could lead to a further far-reaching transformation. The reduced coherence among the members of Western multilateral treaties (NATO, EU), the increasing influence of China, a new era of technological innovation ("Industry 4.0") and the staggering challenge of climate change could reverse, accelerate, or even overthrow the recent developments in the configuration of ownership, governance, and strategy.

Prof. Dr. Jens Förderer Competition in digital platforms (DFG)

Platforms are currently the subject of debate throughout the entire economy. The German government has recently made the topic the focus of its Digital Summit. Platform strategies are the business models of many of the world's most valuable internet firms: Amazon, Google, Apple, Facebook, Uber, etc. – all these companies derive their success from platform strategies. In this research project, we study the competition between platform companies and their partners (e.g., Amazon competing with merchants, Apple competing with app developers). In particular, we are interested in understanding when partners are at risk of facing competition with platform owners.



Prof. Dr. Sebastian Pfotenhauer Scaling up co-creation: Avenues and limits for integrating society in science and innovation (SCALINGS)

What is co-creative innovation in theory and what is it in practice? How can co-creation be scaled up in a socially robust manner? And what can policy-makers do to promote responsible innovation across Europe?

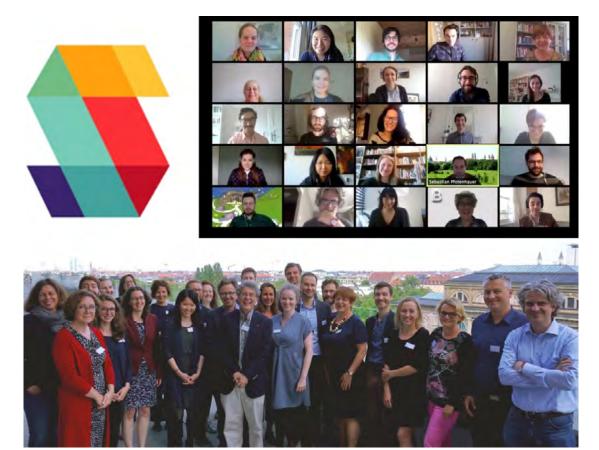
There is broad recognition that complex societal challenges cannot be solved through technical solutions alone but require scientists and engineers to work together with users, businesses, citizens, and governments. The past decade has marked a decisive turn in innovation theory and practice - from uni- or bilateral towards more open innovation formats, such as "co-creation". Co-creation describes a collaborative innovation endeavour of multiple stakeholders with the goal of reaching a mutually beneficial outcome. By involving end users and citizens, cocreation often comes with the promise of better tailoring innovation to the needs of society. However, it remains contested whether these promises are truly met. Against this backdrop, SCALINGS systematically studies co-creation in various cultural, societal and regulatory contexts. Funded by the EU Horizon 2020 Programme (2018-2021),

SCALINGS involves 10 European institutions and 9 academic disciplines under the lead of Prof. Dr. Sebastian Pfotenhauer (Co-Director of MCTS and Professor of Innovation Research, TUM). Empirically, the project investigates the implementation, uptake and outcomes of 3 cocreation instruments (Public Procurement of Innovation, Co-creation Facilities, and Living Labs) in 3 technological domains (Robotics, Urban Energy, and Autonomous Driving), across 7 European countries.

SCALINGS aims to build effective cooperation between science and society, to support EU innovation policy, and to pair scientific excellence with social awareness and responsible innovation. Together with case study partners from industry, government, and society, it will develop educational content to foster context-sensitive and socially robust co-creation.

For further information, please contact the project coordinator Prof. Dr. Sebastian Pfotenhauer

(sebastian.pfotenhauer@tum.de) or visit www.scalings. eu.

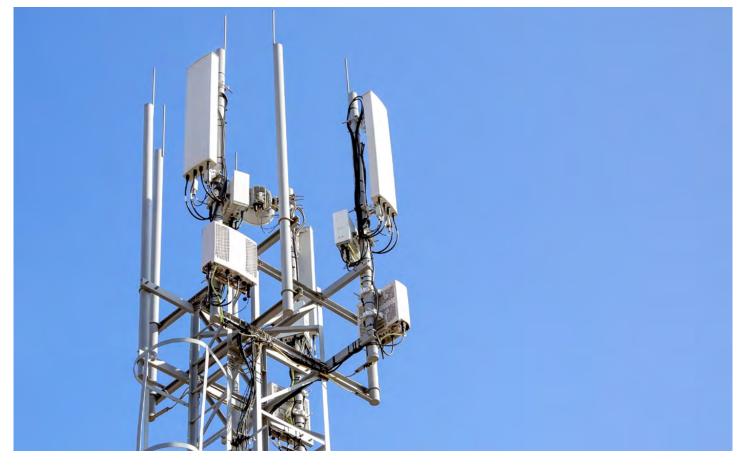


Prof. Dr. Joachim Henkel Assessing essentiality of patents declared to be standard-essential

Standards such as LTE, Wifi, MPEG and Blu-Ray are of the highest importance for the ICT industry. They are open in the sense that anyone interested can build products implementing them, but at the same time protected by numerous patents, so-called standard-essential patents (SEPs). To ensure that owners of SEPs cannot stipulate excessive royalties by threatening to block the use of the standard, standard-setting organizations such as 3GPP and ETSI require that contributors commit to licensing their SEPs under conditions that are fair, reasonable, and non-discriminatory (FRAND), and often also demand that they declare which of their patents they consider standard-essential. The challenge is that many declared SEPs, by some estimates more than fifty percent, are in fact not essential, and there is no public and reliable information source to find out. This uncertainty complicates licensing negotiations and sets incentives for patent owners to over-declare SEPs.

To address these problems, the European Commission's Joint Research Center (JRC) commissioned a study to investigate the technical and institutional feasibility of a system of essentiality tests for potential SEPs. The study was headed by Prof. Rudi Bekkers from TU Eindhoven and coauthored by Prof. Joachim Henkel and Dr. Lisa Teubner from the TUM School of Management. It involves an analysis of court cases involving large-scale essentiality assessments, the essentiality assessment of select patent pools, the Japanese Hantei for Essentiality advisory opinion. The central piece is a pilot experiment to assess the technical feasibility of essentiality tests by various types of assessors, including examiners from several European patent offices, patent attorneys, and engineers from TU Eindhoven and TUM.

The study finds that a system of essentiality assessments in the style of the pilot experiment should be both technically and institutionally feasible, and recommends policy makers pursue the development and implementation of such a system.



Prof. Dr. Rudi Zagst Optimal investment strategies for pension funds with regulation-conform dynamic pension payment management in the absence of guarantees

The goal of this project is to find the optimal investment strategy for the accumulation and decumulation phase of a specific pension program in Germany, called "Nahles-Rente" or "Social Partner Model", which comes without guarantees. The corresponding optimization problem consists of two specialties: First, we have a product specific pension adjustment mechanism based on a certain capital coverage ratio, which stipulates compulsory pension adjustments if the pension fund is underfunded or significantly overfunded. Second, the retiree's fear of and aversion to pension reductions is considered by introducing a total wealth distribution to an investment portfolio and a buffer portfolio to lower the probability of future potential pension shortenings. Due to the inherent complexity of the investment decision, we apply a discrete-time version of the optimization problem and solve it via the Bellman principle. In addition, for computational reasons, a policy improvement algorithm will be applied to find a stationary solution to the problem in a computationally efficient and elegant fashion. In a numerical case study, the benefits of the proposed model will be highlighted.



Prof. Dr. Johannes Sauer BioMonitor

(EU Funded) The overall objective of the Monitoring the Bioeconomy (BioMonitor) project is to establish a sustainable data and modelling framework for the bioeconomy. This will be achieved by developing and implementing a data and modelling framework that is effective (supported by a stakeholders' platform) and robust (implementable in existing systems of statistical and customs offices, laboratories and industries). The framework will enable quantification of the bioeconomy and its economic, environmental and social impacts in the EU and its Member States. Interlinks with current CEN standardisation work related to bio-based products will be established from the outset of the project. The contributions of BioMonitor are threefold. First, the project will close the data gaps in measuring the bioeconomy by updating and enhancing currently used data sets. BioMonitor will assure the inclusion of new emerging bio-based products and industries by developing appropriate tools and strategies. Second, the improved data will be used to enhance established and new modelling tools, linked in the BioMonitor toolbox, to guide industries and governments responsible for the execution of consistent, coherent and longer-term strategies with desirable consequences for multiple objectives. Third, a BioMonitor platform for stakeholder engagement and training will be created to design, test (by industry-based and country-level case studies) and disseminate results of the improved datasets and modelling capacity. The platform will inform the formulation of strategies and policies directing the bioeconomy to achieve its economic, environmental and social policy objectives according to the EC Bioeconomy Strategy and Action Plan. The awareness about the importance of measuring the bioeconomy within the industry will be raised through tailored training on bioeconomy standards and measurement of sustainability indicators targeted towards SMEs within the sector. The chair group of Professor Johannes Sauer leads the work package on "Data Needs for Indicators on Industrial Uses of Biomass" and significantly contributes to econometric and statistical modelling of forecasting models for the EU bioeconomy sectors.









Prof. Dr. Jürgen Ernstberger Prof. Dr. Sebastian Schwenen Dr. Benedikt Downar The impact of carbon disclosure mandates on emissions and financial operating performance

We examine the impact of a disclosure mandate for greenhouse gas emissions on firms' subsequent emission levels and financial operating performance. For UK-incorporated listed firms a carbon disclosure mandate was adopted in 2013. Our difference-indifferences design shows that firms affected by the mandate reduced their emissions by about 8% relative to a control group of European manufacturing firms. At the same time, our tests indicate that the treated firms experienced no significant change in their gross margins. Taken together, our findings indicate that the disclosure mandate had a real effect in terms of the variable to be disclosed without adversely affecting the financial operating performance of the treated firms.



Prof. Dr. Christoph Ungemach Bicycle sharing as pro-environmental behavior: Evidence from the field

Promoting sustainable lifestyles among individuals is crucial, yet evidence on how to facilitate behavioral change in this domain is scant. Building on previous work on choice architecture and behavioral spillover, Prof. Ungemach (TUM School of Management) and Prof. Gruber (HEC Montreal) conducted a large field experiment to assess how different decision signposts influence individuals' frequency and intensity to use a bicycle sharing program. In collaboration with North America's first large-scale bike sharing system, the researchers provided users with different types of feedback messages to stress either the economic impact (amount of dollars saved) or environmental impact (kilograms of CO2 or number of trees saved). In addition, they measured related behaviors such as individuals' willingness to participate in a recycling project, or their propensity to donate to a reforestation project. They find differences in terms of bicycle usage and other environmental behaviors, depending on whether the feedback information focused on money or the environment. By employing a longitudinal design, and by measuring actual behavior, the research contributes to our understanding of behavioral spillover, which has to date mainly focused on cross-sectional self-report data. The findings demonstrate how psychological insights can be used to help individuals make more sustainable decisions that are aligned with their goals.



Prof. Dr. Maximilian Schiffer Balanced and Staggered Routing for Autonomous Mobility on Demand Systems

Urban areas worldwide suffer from congestion and noxious emissions. Today's transportation systems are often overloaded and struggle to realize sustainable passenger transport, partly because public transport and current shared-mobility concepts often do not offer enough capacities for sustainable passenger transport. To this end, experts value autonomous mobility on demand (AMoD) systems as a promising future technology that allows for sustainable shared yet individual mobility services. In such a system, a central operator controls a fleet of self-driving vehicles and offers a ride-hailing service to customers.

With a transparent, centralized control over the fleet, such an AMoD system bears significant advantages. It allows for a better matching between demand and supply, improved customer pooling, congestion-aware routing, and better accessibility due to continuous rebalancing operations. However, the operation of such a system bears an inherent combinatorial complexity on all levels, and its efficiency depends heavily on appropriate algorithmic solutions, which have not yet been sufficiently explored.

In this research project, we develop a general algorithmic framework for large-scale AMoD fleet management, which will allow a sustainable operation of AMoD systems in the near future. This algorithmic framework covers three essential components that constitute the central planning tasks of a fleet operator: demand pooling, i.e., matching (if possible) customers with similar transportation requests in order to increase the vehicle utilization; vehicle dispatching, i.e., assigning (pooled) transportation requests to vehicles; and vehicle routing, i.e., deciding on



routes for customer carrying vehicles but also on routes for idling vehicles in order to rebalance the fleet. Moreover, we focus particularly on two additional concepts that cannot be utilized in a non-autonomous system but gain importance when aiming at efficient AMoD fleet management from a system perspective. First, balanced routing, i.e., routing flows from a system perspective to reduce capacity bottlenecks, becomes increasingly important to avoid or reduce congestion. Second, staggered pooling and routing, i.e., delaying or forwarding a customer's departure in time, allows for additional temporal flexibility to avoid bottlenecks and congestion.

The project is funded by the German Science Foundation (DFG) and involves collaborations with professors and researchers from Stanford University, Polytechnique Montreal, and Ecole des Ponts ParisTech.

EXAMPLE RESEARCH PROJECTS



Prof. Dr. Michael Kurschilgen Filter bubbles and infection control

Filter Bubbles and Infection Control (with Johannes Müller) investigates the interdependence of information, opinion formation and the spread of infections. In a public health crisis like the current COVID-19 epidemic, citizens need to be able to trust the recommendations of experts. Trusting the expert, however, is complicated by the fact that, in principle, the expert could have (hidden) incentives to not tell the truth. Complex societies are multi-layer networks of individuals, who affect one another by what they do (e.g. wearing a mask or not) and by what they say (e.g. "COVID-19 is serious" or "it is a hoax").





TUM School of Management Academic Departments



TUM School of Management Academic Department: Innovation & Entrepreneurship



INNOVATION & ENTREPRENEURSHIP

Who we are

The Academic Department of Innovation and Entrepreneurship explores developments and extends research into 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.

Organization and Professors

•	Prof. Dr. Oliver Alexy	Strategic Entrepreneurship
•	Prof. Dr. Christoph Ann	Corporate and Intellectual Property Law
•	Prof. Dr. Frank-Martin Belz	Corporate Sustainability
•	Prof. Dr. Miriam Bird	Entrepreneurship and Family Enterprise
•	Prof. Dr. Nicola Breugst	Entrepreneurial Behavior
•	Prof. Dr. Claudia Doblinger*	Innovation & Digitalization
•	Prof. Dr. Johannes Fottner*	Logistics Engineering
•	Prof. Dr. Joachim Henkel	Technology and Innovation Management
•	Prof. Dr. Maximilian Lude	Innovation
•	Prof. Dr. Dr. Mark-Oliver Mackenrodt	Law of Digital Goods, Commerce and Competition
•	Prof. Hana Milanov	International Entrepreneurship
•	Prof. Dr. Dr. Holger Patzelt	Entrepreneurship
•	Prof. Dr. Sebastian Pfotenhauer	Innovation Research
•	Prof. Dr. Siddharth Vedula	Entrepreneurship & Communities
•	Prof. Dr. Amy Zhao-Ding	Entrepreneurial Management
* A	ffiliate Member	





Prof. Dr. Oliver Alexy

Professor of Strategic Entrepreneurship

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Selected current research projects

Origins of organizing: In cooperation with INSEAD and the University of Vienna, we inquire how young firms go about designing their fledgling organizations. The insights that we develop will help startups organize better and shed new light on the path-dependent processes by which firms are shaped.

Harnessing External Innovations Project (HEIP):

Together with partners from Imperial College London and the University of Bath, we seek to understand better how firms can successfully innovate together with agents and entities outside the firm. In doing so, we want to improve our understanding of why, when and how firms can successfully engage in more open and distributed forms of innovation.

Areas of interest

- Growth & renewal of firms
- (Innovation) strategy
- Open innovation
- Organization design

Curriculum vitae

In his research, Oliver studies how to design organizations that effectively deal with extremely high uncertainty, such as high-tech startups, R&D units, online communities and social enterprises. In particular, he looks at how collaboration, knowledge disclosure or framing may contribute to the strategic renewal of established companies and the establishment and growth of startups, as well as entire industry ecosystems. As such, Oliver's work is of great interest and relevance to academics and practitioners alike. His research has been published or is forthcoming in leading international academic journals, such as the Administrative Science Quarterly, Academy of Management Review, Academy of Management Journal and Strategic Management Journal, as well as practitioner-oriented outlets such as the Harvard Business Review, California Management Review, Sloan Management Review and the McKinsey Quarterly.





Prof. Dr. jur. Christoph Ann, LL.M.

Professor of Corporate and Intellectual Property Law

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Selected current research projects

- Parameters determining patent quality
- Availability of preliminary injunctive relief
 against patent infringers
- Calculation of FRAND-compliant licensing fees for standard essential patents (SEPs)
- Concepts for the effective protection of trade secrets in Germany and under German law

Areas of interest

- European and international law of technology protection (patents & trade secrets)
- Licensing and competition law including corresponding business environments (IP strategy and IP management)

Curriculum vitae

Professor Christoph Ann has held TUM School of Management's Chair of Corporate and IP Law since 2003.

Christoph holds Law degrees in both Germany and the U.S. (LL.M., Duke ,88). Before coming to the TUM, he practiced as an attorney in Munich and Erlangen, and from 2000-2003 taught IP Law as a full Professor of Law in Freiburg/Br., then Germany's number one law school. From 2001-2003 he also served as a judge on the Mannheim Regional Court's renowned IP Infringement Panel with jurisdiction over the German state of Baden-Württemberg, which is technologically eminent. In Munich, Christoph teaches IP Law at TUM and at the Munich Intellectual Property Law Center (MIPLC), where he also serves on the Managing Board.

On a regular basis, Christoph teaches at universities abroad: in the United States (GWU, UWash, Duke University, Stetson, UOregon), Australia (La Trobe University, University of Queensland, TC Beirne School of Law), Japan (Keio University, Tokyo), France (IHEE and Université Robert Schuman, Strasbourg) and Hungary (Andrássy University, Budapest). He holds Adjunct Professorships at both George Washington University Law School, Washington D.C., and LaTrobe University, School of Law, Melbourne. Christoph had two stays at the Visiting Scholar, Anton Mostert Chair of Intellectual Property, Stellenbosch University, South Africa.

Christoph has published six books and more than 150 articles and contributions to books. His new edition of the Germanspeaking world's leading treatise on Patent Law (1,120 pages) appeared in February 2016. Christoph's interests focus on European and International Law of Technology Protection (Patents & Trade Secrets), including Licensing and Competition Law as well as the corresponding business environments (IP strategy and IP management).

Christoph 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 for the ICC, UNCITRAL and the German Arbitration Institution (DIS). In Britain and the United States he has served as an expert on German and European IP Law.





Prof. Dr. Frank-Martin Belz Professor of Corporate Sustainability

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Selected current research projects

SEED:

Sustainable Energies, Entrepreneurship and Development in the Global South.

For further information see www.seed.tum.de and page 160 of the TUM Research Report

Areas of interest

- Sustainable entrepreneurship
- Qualitative research

Curriculum vitae

Frank-Martin Belz has been Full Professor of Corporate Sustainability, Brewery and Food Industry Management, at 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 to 2008 he was Academic Director of the Master in Consumer Science, a leading international master program at TUM School of Management. In 2009 he released the book "Sustainability Marketing: A Global Perspective", together with Ken Peattie, which received the prestigious VHB Award for Best Textbook of the Year. In 2012 and 2013 he was Distinguished Visiting Professor at Aalto University School of Business (Finland). Between 2014 and 2016 he has been 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 Academic Director of the TUM SEED Center, an international and interdisciplinary Center focussing on sustainable energies and entrepreneurship in the Global South.

Frank-Martin's primary research interest is entrepreneurship in the context of sustainable development. In terms of methodology, he is interested in qualitative research. His research has been published in international journals such as the Academy of Management Discoveries as well as Business Strategy and the Environment.





Prof. Dr. Miriam Bird

Professor of Entrepreneurship and Family Enterprise

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Selected current research projects

Entrepreneurs' mental-well being and social support.

This project sheds light on how entrepreneurial well-being influences entrepreneurial outcomes. So far, it is unclear whether entrepreneurs are more successful when they possess good mental well-being, or instead perform better when being 'on the edge.'

CEO Divorce and Firm Performance: A life course perspective. In this research project, we investigate the impact of CEO divorce on firm performance and examine how this relationship alters with CEOs' life courses, specifically the timing of the divorce and the linkage of CEOs' lives to family members' lives via the firm. This project is a collaboration with the University of St. Gallen.

Areas of interest

- Entrepreneurship, innovation and strategy in family enterprises
- Firm growth
- Economic sociology
- Family entrepreneurship
- Organization and structure of start-ups

Curriculum vitae

Miriam Bird has held the professorship for Entrepreneurship and Family Enterprise since 2020 at the TUM School of Management, TUM Campus Heilbronn. As director she is also leading the Global Center for Family Enterprise (GCFE). In her research, Miriam Bird focuses on topics such as entrepreneurship, innovation and strategy in family enterprises. In particular, she is interested in understanding better the social context, in which enterprises are embedded in. Her research has been published in leading journals such as Organization Science, Journal of Business Venturing, Entrepreneurship Theory and Practice, Journal of Product Innovation Management and Family Business Review. Miriam Bird serves on the editorial review boards of Journal of Business Venturing and Academy of Management Discoveries. Her research won several prestigious international awards (e.g., Carolyn Dexter Award) and has been featured in various media outlets and business magazines such as Forbes and Harvard Idea Watch. Her research grant on new venture team design was classified as excellent research contribution by the Swiss National Science Foundation (SNSF).





Prof. Dr. Nicola Breugst Professor of Entrepreneurial Behavior

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Selected current research projects

"War of roses of friendly divorces in entrepreneurial teams?" This project sheds light on the hostility of entrepreneurial team members' exit and how the remaining entrepreneurial team can cope with the exit by restructuring the team and the venture.

"Does it take a strong team to identify opportunities?" Jointly with École Polytechnique Fédérale Lausanne, we investigate how founder teams use their human capital to transfer a technology into entrepreneurial opportunities.

Areas of interest

- Founder teams
- Entrepreneurial cognition
- Affect in entrepreneurship
- Entrepreneurial motivation
- | Leadership in young ventures

Curriculum vitae

Nicola Breugst has held the Professorship of Entrepreneurial Behavior at TUM School of Management since March 2012. She has a Ph.D. in entrepreneurship from the University of Jena, Germany and a degree in psychology of the University of Munich, Germany. She has worked at the University of Duisburg-Essen, the Max Planck Institute of Economics in Jena, the Kelley School of Business at Indiana University and the National University of Singapore.

Nicola's research focuses on the people side of entrepreneurship. More specifically, she addresses questions of entrepreneurial affect, motivation and cognition, and integrates the entrepreneurs' social contexts, such as the founding team, new venture employees, and support providers. Her papers have been published in internationally leading entrepreneurship and managements journals. Her fascination with the people side of entrepreneurship also inspires her teaching and she aims at developing her students' entrepreneurial thinking.





Prof. Dr. Claudia Doblinger

Professor of Innovation and Technology Management

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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.

Areas of interest

Entrepreneurial innovation
Drivers of cleantech innovation
Energy policy
Innovation Ecosystems

Curriculum vitae

Claudia Doblinger is Assistant Professor of Innovation and Technology Management at the TUM Campus Straubing for Biotechnology and Sustainability and an affiliate member at the TUM School of Management. Before joining TUM in October 2018, Claudia was a project manager for digitization 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. After her doctoral studies, she worked as a postdoctoral researcher at the Harvard Kennedy School. She has further 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 main focus is on understanding how political incentives affect the innovation and entrepreneurial activities of firms, especially in the context of clean energy and transportation technologies. Her research has been published in international academic journals such as Nature Energy, Research Policy, or the Journal of Product Innovation Management.





Prof. Dr. Jens Förderer

Professor of Innovation and Digitalization

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Selected current research projects

Does Platform Privacy Harm Complementary Innovation? In this project, we investigate the debated relationship between platform privacy and innovation. Stricter privacy may increase user adoption, but may erode the revenues of complementors that offer their services at zero price, crowding out their innovation. To investigate, we exploit a policy-change on the Google Android platform in a quasi-experiment.

Platform Superstars – Evidence from Ninja: Characteristic to platforms is the existence of a few supply-side 'superstars' who receive most of the demand. In a research project together with the Erasmus University Rotterdam, we investigate the direct and indirect competitive effects of superstars on other supply-side participants. We use data from the online live-video streaming platform Twitch.tv and exploit a series of quasi-experiments surrounding the superstar streamer Richard Tyler 'Ninja' Blevins.

Areas of interest

Platform business modelsPrivacyInformation systems

Curriculum vitae

Jens Förderer and his team study the platform and data economy from a business perspective. The goal is to help firms and entrepreneurs to successfully design, launch, and manage digital platforms and ecosystems. For this purpose, he and his team collect massive datasets and apply econometric methods for causal inference, especially quasi-experiments. Their research contributes to the field of information systems.

Jens' research has been published in leading scientific journals, including Management Science, Information Systems Research, and Information Systems Journal. Jens regularly reviews for various institutions and scientific journals, including the German Research Foundation (DFG) and Management Science. He also serves as an expert for various media outlets and associations, including ZEIT and acatech.

Jens holds a B.Sc., M.Sc., and Dr. rer. pol from the University of Mannheim, Business School.





Prof. Dr.-Ing. Johannes Fottner Professor of Logistics Engineering

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Selected current research projects

- Building 4.0 Digitalization of the construction site (www.mw.tum.de/en/fml/research/current-research-projects/ building-40-digitalization-of-the-construction-site/)
- HPAO A Human Prefrerence Aware Optimization System (within Institute for Ethics in Artificial Intelligence www.mw.tum.de/en/fml/research/current-research-projects/ hpao-a-human-prefrerence-aware-optimization-system/)
- Consistent Development of Material Flow Systems using a Modelbased approach (DFG-funded www.mw.tum.de/en/fml/research/ current-research-projects/consistent-development-of-materialflow-systems-using-a-model-based-approach/)
- Medium-sized companies 4.0 (www.mw.tum.de/en/fml/research/ current-research-projects/medium-sized-companies-40/)
- Robot in the Cloud (www.mw.tum.de/en/fml/research/current-research-projects/robot-in-the-cloud/)

Areas of interest

Artificial Intelligence
Autonomous Mobile Robots
Optimization of Organization and Control in Logistics Engineering
Auto ID-Technologies
Simulation of Material Flow Systems
Start-ups
Business Development

Curriculum vitae

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. Fottner 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.





Prof. Dr. Joachim Henkel

Professor of Technology and Innovation Management

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Selected current research projects

Smart contract based governance of transactions on a blockchain Daniel Obermeier, a fourth-year doctoral student, and Joachim Henkel research how smart contracts on a blockchain facilitate transactions. Smart contracts are preprogrammable and automatically executed computer scripts that can act upon the data stored on the blockchain. They automate exchanges by specifying a clear triggering condition and a unique outcome for every action they can execute. If the organization offering a transaction based on a smart contract discloses the verified source code of the smart contract, prospective transaction partners can attain "deductive certainty" about the proposed transaction, based on pure logic. Obermeier and Henkel analyze theoretically how transactions governed by smart contracts and enforced by the blockchain differ from those governed by legal contracts, enforced by the judicial system, and those governed by relational contracts, enforced by norms and trust. Empirically, they study the adoption of smart contracts on the Ethereum blockchain, and how it is driven by the possibility to obtain deductive certainty.

The Effect of Acquisitions on Open Source Software Development Michael Vetter, a doctoral student, Henning Piezunka, professor at INSEAD, and Joachim Henkel study acquisitions in the field of open source software (OSS). OSS has become an common way for firms to develop software, in particular for small and young firms. Those firms typically sponsor public OSS projects, thus harnessing the power of a community. When such a firm is acquired, the question arises how its public OSS projects and the community affiliated with them are affected – which are resources only partially under the control of the acquired firm. The authors address this question by a matched-sample analysis of 347 OSS projects affected by an acquisition, finding acquisitions to have a negative effect on contributions on average, but also an enormous variation across acquisitions that can be traced back to differences in acquirers' ability and tendency to extract resources.

Curriculum vitae

Joachim Henkel joined TUM School of Management in 2004 as a Full Professor of Technology and Innovation Management. He received a degree in Physics from the University of Bonn, a Ph.D. in Economics from the University of Mannheim, and his habilitation in Innovation Management at Ludwig-Maximilians-University Munich. He was a visiting scholar at University College London, MIT Sloan School of Management, Singapore Management University and twice at Harvard Business School. He is regularly invited to give research seminars at international universities and business schools. After his Ph.D., he worked for two years with the consulting firm, Bain & Company. He consults for firms in the ICT industries, in particular on IP litigation matters. In his research, Joachim studies digitalization, technology acquisitions, markets for technology, patent management, standards, and value capture. Specifically, he researches how incumbents and startups collaborate in innovation through licensing or acquisition, and how firms balance open and proprietary approaches in their efforts to profit from innovation. His work has been published in the Academy of Management Discoveries, Harvard Business Review, Rand Journal of Economics, Research Policy, Strategic Management Journal and elsewhere.

Joachim is an Associate Editor with the Academy of Management Discoveries, and serves on the editorial review boards of Industrial and Corporate Change, Innovation: Organization and Management, and Research Policy. Three of his former doctoral and habilitation students hold faculty positions at German universities. Since 2015, Joachim serves as TUM School of Management's Vice Dean of Research.

Areas of interest

- Digitalization
- Acquisition of high-tech startups
- Markets for technology
- Patent management
- Standardization
- Profiting from innovation





Prof. Dr. rer. pol. Maximilian Lude Interim Professor of Innovation

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Selected current research projects

Ambidexterity, Family Firms and Resilience

In cooperation with selected family firms, we enquire how ambidexterity structures lead to increased resilience of family firms during external shocks (like the COVID-19 pandemic). Thereby we investigate the perception of non-family employees by conducting large-scale employee surveys.

Perceptions of family firms

Several paper projects center around the perception of family firms by various stakeholders (e.g. customers, employees, investors). Thereby we apply experimental research designs to reveal potential (dis)advantages of displaying the family firm nature towards external/internal stakeholders.

Idea Evaluation Bias in Family Firms

Together with researchers from Politecnico di Milano, we investigate whether the idea source has influence on the idea evaluation within the context of family firms, which are coined by multiple identities/ roles through the ongoing interplay between the family and the business level.

Curriculum vitae

Maximilian Lude is interim Professor at the TUM School of Management, TUM Campus Heilbronn. Concurrently he is Managing Partner at philoneos GmbH, a marketing and innovation office for family businesses located in Munich. He studied Management and Economics at Zeppelin University and Copenhagen Business School. His dissertation was on the perception of family firms, bridging marketing, consumer behavior and family business research. This intersection also reflects the current research focus of Maximilian Lude. His research has been published in international peer-reviewed journals such as Entrepreneurship Theory and Practice (ETP) or Journal of Business Research. Maximilian Lude also serves as Reviewer for several journals such as Journal of Brand Management and Entrepreneurship Theory and Practice and is Member of the Editorial Board of Journal of Family Business Strategy.

Areas of interest

Family Business / Family Entrepreneurship
Marketing / Consumer Behaviour
Innovation / Business Model Innovation
Experimental Research Designs





Prof. Dr. Dr. Mark-Oliver Mackenrodt, LL.M. (NYU)

Professor of Law of Digital Goods, Commerce & Competition

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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 in 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

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

Curriculum vitae

Mark-Oliver Mackenrodt has joined the TUM School of Management faculty coming from the Max Planck Institute for Innovation and Competition.

He is educated as a lawyer and an economist. He studied law at the Ludwig Maximilians University Munich (Dr. iur., phD in law), NYU Law School (LL.M. (NYU)), in Würzburg and at the Université de Genève. In 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 in New York and the University of Würzburg.

Mark-Oliver is qualified as an attorney in the United States (Attorney at Law (New York)) and in Germany. His legal and academic practice included working at the Max Planck Institute for Innovation and Competition, at Harvard Law School, at LMU Munich, at the Foreign Office, German Embassy London, and at UNCTAD (United Nations Conference on Trade and Development).

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 the 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.





Prof. Hana Milanov, Ph.D. Professor of International Entrepreneurship

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Selected current research projects

How female-friendly is crowdfunding, really? In two projects (Kickstarter, with my doctoral candidate, Benedikt Seigner; and Kiva, with Prof. Anglin, TCU, and Prof. Short, OU), we explore boundaries of female advantage in crowdfunding. On Kickstarter, we find that physical attractiveness in a photo can boost performance for women, but this backfires when they frame their campaigns as novel, especially in female-dominated contexts. On Kiva, we find women should avoid exhibiting 'communal' qualities, and appear more entrepreneurial. Together, we highlight the complexities of "doing gender" across different crowdfunding platforms.

Resourcefulness in extreme settings. How do tech ventures reconcile high resource needs with low local resource availability in contexts like Uganda? Together with my former doctoral student, Dr. Reypens, and Prof. Bacq (IU), we investigate 7 medtech ventures. Successful ventures dynamically combined standard resource seeking practices, typical of Western technology scale-ups, and bricolage – relying on resources at hand – typical of ventures in resource constrained environments.

Areas of interest

Gender dynamicsEntrepreneurial networksEntrepreneurial communicationInternational entrepreneurship

Curriculum vitae

Hana Milanov has been a Professor of International Entrepreneurship and Academic Director of the Executive MBA in Innovation and Business Creation at TUM School of Management since 2012. From 2014 till 2017 she served as TUM Senior Vice President for International Alliances and Alumni. Previously, she worked at IE Business School. She completed her doctorate at Indiana University, and was a finalist for the Heizer Award. She is experienced in teaching across all levels (from undergraduate to executive and doctoral) and across different countries.

In her research, some of the questions she seeks to answer are: How do young ventures achieve early legitimation with various audiences? How do entrepreneurs mobilize resources for opportunity identification and exploitation? How do their networks evolve over time, and with what consequences? The research contexts are varied, including high-tech ventures, venture capital, microfinance, crowdfunding, as well as public family businesses. Her work has been published in leading international academic journals (e.g. Strategic Management Journal, Journal of Business Venturing) and recognized with distinctions (e.g. Best Paper Finalist Award at Strategic Management Society Conference).





Prof. Dr. Dr. Holger Patzelt Professor of Entrepreneurship

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Selected current research projects

"Startup EKG" We explore the development of organizational cultures and organizational identity in entrepreneurial ventures using a longitudinal study of more than 100 startups.

"Project success panel" We investigate how large firms can facilitate team members' transitions from one entrepreneurial project to the next.

"Compassion venturing for refugees" – We analyze how spontaneous ventures emerged in the context of the German refugee crisis and the benefits that these ventures provided to refugees.

Areas of interest

- Entrepreneurial decision-making
- Opportunity recognition and exploitation
- Entrepreneurial strategy
- Entrepreneurial failure
- Anaging entrepreneurial projects in large corporations

Curriculum vitae

Holger Patzelt has been Professor of Entrepreneurship and Chair of Entrepreneurship at TUM School of Management, Technical University of Munich, since 2010. Prior to TUM, he worked at the Max Planck Institute of Economics in Jena, Germany, as a Post-doc and Associate Director of the Entrepreneurship, Growth and Public Policy Group. 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.

In his research, Holger draws on perspectives from psychology, business strategy and organization theory. His interests include entrepreneurial decision-making and opportunity recognition, strategy of young ventures, managing entrepreneurial projects in large firms and entrepreneurial failure. His research has been published in leading international academic journals in the field 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). Since 2017 he has served as an Associate Editor for Entrepreneurship: Theory and Practice.





Prof. Dr. Sebastian Pfotenhauer Professor of Innovation Research, Munich Center for Technology in Society (MCTS)

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Selected current research projects

Munich Cluster for the Future of Mobility in Metropolitan Region (M Cube): Funded by the German Ministry for Research and Education, we co-lead this flagship initiative on mobility innovation.

Regional Innovation Cultures: Funded by the German Research Foundation (DFG), we compare five German city-regions (Berlin, Dortmund, Dresden, Karlsruhe and Munich) in terms of local social, cultural, political and economic differences that affect regional innovation strategy and performance.

Responsible Innovation in Trans-nationalen Governance Settings: In a collaboration with the OECD, we study the emergence and harmonization of international practices in responsible innovation, their transferability and their scalability.

Scaling up co-creation (SCALINGS): In this EU-Horizon2020 project, we explore the use of new collaborative innovation formats such as living labs and pre-commercial procurement in robotics, autonomous driving, and urban energy systems.

Areas of interest

- National and regional innovation strategiesInnovation policy
- Innovation models and theory
- STI in international settings
- Responsible innovation
- Science and technology studies (STS)

Curriculum vitae

Sebastian Pfotenhauer is Co-Director at the Munich Center for Technology in Society (MCTS) and Carl von Linde Associate Professor of Innovation Research at Technical University of Munich, where he heads the Innovation, Society and Public Policy research group. His research interests include regional and national innovation strategies; open/co-creative innovation practices and responsible innovation; science and innovation in international settings; and complex socio-technical transformations.

Before joining TUM, Sebastian was Research Scientist and Lecturer with the MIT Technology & Policy Program and the MIT Sociotechnical Systems Research Center, where he continues to hold an affiliate appointment, as well as Research Fellow at the Harvard Program on Science, Technology and Society. He has served as a consultant on innovation policy to various regional and national governments, and for the Organization for Economic Co-operation and Development (OECD) in Paris.

His work has appeared in journals such as Social Studies of Science, Research Policy, Nature, and Issues in Science and Technology. He holds an S.M. in Technology Policy from MIT and a Ph.D. in Physics from the University of Jena, Germany, and received post-doctoral training at MIT and Harvard. He enjoys teaching graduate classes in technology and innovation policy, responsible innovation and STS.





Prof. Siddharth Vedula, Ph.D. Professor of Entrepreneurship and Communities

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Selected current research projects

Different Strokes for Different Folks: A Configurational Analysis of Regional Entrepreneurial Ecosystems for Low and High-Growth Entrepreneurship

In this project my colleague Daniel Bennett, at the University of Louisville, and I study how different configurations (i.e. combinations of elements) in a regional entrepreneurial ecosystem lead to either "regular" or more "high-growth" forms of entrepreneurship. We assemble a longitudinal dataset of ecosystem inputs and outputs of U.S. cities, and use qualitative comparative analysis.

Green to Gone? Regional Institutional Logics and Firm Exit in Moral Markets

In this project, co-authored with Jeffrey York (University of Colorado Boulder), Michael Conger (Miami University of Ohio), and Elizabeth Embry (University of Colorado Boulder) we examine how regional variations in institutional logics - shared meaning systems that and taken for granted assumptions - influence the competitive balance between new ventures and incumbent firms in moral markets. We use a comprehensive sample of firms in the green building supply industry, and analyze their relative performance using survival analysis.

Curriculum vitae

Prof. Vedula completed his Bachelors degree in Physiology and Mathematics from the University of Toronto. He subsequently obtained a Masters degree in Biomedical Engineering from McGill University, and a Ph.D. in Strategic, Organizational, and Entrepreneurial Studies from the University of Colorado Boulder. He then worked as an assistant professor of Entrepreneurship at Babson College. Since November 2020, Prof. Vedula was appointed to the professorship for Entrepreneurship and Communities at TUM.

Areas of interest

- Entrepreneurship
- Institutional geography
- Economic geography
- Environmental entrepreneurship
- Econometrics





Prof. Dr. Amy Zhao-Ding Professor for Entrepreneurship Research

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Selected current research projects

Functionality and product positioning in nascent markets:

Using data in the mobile application industry, my dissertation project introduces the concept of functionality—the purposes/goals customers use products for—as anchors to guide firms' product positioning. I study how firms learn from their own and others experience as well as customer feedback to navigate the functionality landscape and the implications of their product positioning. This project seeks to shed lights on firms' learning, cognition and behaviors in nascent markets.

Revival of legacy technology: with collaborators at Harvard Business School, we study the revival of instant photography and how Fujifilm managed to keep the legacy technology alive when it is in decline and successfully seized the opportunity to become technology leader in its revival. In doing so, we contribute to the understanding of technology evolution and how it is shaped by both changes in customer preferences and resource allocation of firms.

Intrapreneurial identity: with collaborators at INSEAD, we conduct a qualitative study how female employees in beauty industry develop and enact intrapreneurial identity as they make the transition to intrapreneurs. In doing so, we shed new lights on the relationship between intrapreneurial decisions and identity development.we contribute to the understanding of technology evolution and how it is shaped by both changes in customer preferences and resource allocation of firms.

Areas of interest

- Opportunity Identification
- Market Emergence
- Organizational Learning
- Technology Evolution and Ecosystems
- Entrepreneurial/Managerial Cognition
- Demand-side Strategy

Curriculum vitae

Amy Zhao-Ding's research focuses on firm's cognition and behaviour in nascent markets and emerging fields, where gamechanging technologies have enabled a wide range of entrepreneurial opportunities. In her dissertation she studies mobile application developers and examines how they learn from their own and competitors' experiences as well as customers' feedback to identify opportunities. She introduces the concept of functionalities, which represent the purposes products can provide for customers. By connecting general-purpose technology with the demand environment, she proposes that firms navigate nascent markets as an uncertain and evolving functionality landscape. Broadly, Amy is interested in digital and cultural industries, she approaches teaching and research in entrepreneurship through the lens of organization theory.

Amy joined TUM School of Management as Assistant Professor of Entrepreneurial Management in October 2020. She holds a bachelor's degree in Economics and Finance at Peking University in China and a master's degree in Global Political Economy at Chinese University of Hong Kong. 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. She was a Strategy Research Foundation (SRF) Dissertation Scholar in the 2018-2020 cohort.

PUBLICATIONS

Innovation & Entrepreneurship

2019-2021, peer-reviewed journals and books

Ann, C. 2019. Vertraulichkeitsvereinbarungen (Kurz). Mitteilungen der deutschen Patentanwälte. 528.

Breugst, N.; Patzelt, H.; Shepherd, D. 2020. When is effort contagious in new venture management teams? Understanding the contingencies of social motivation theory. *Journal of Management Studies*

Criscuolo, P.; Alexy, O.r; Sharapov, D.; Salter, A. 2019. Lifting the veil: Using a quasi-replication approach to assess sample selection bias in patent-based studies. *Strategic Management Journal.* 40(2): 230-252.

Doblinger, C.; Surana, K.; Diaz Anadon, L. 2019. Governments as partners: The role of alliances in U.S. cleantech startup innovation. *Research Policy*. 1458-1475.

Domurath, A.; Coviello, N.; Patzelt, H.; Ganal, B. 2020. New venture adaptation in international markets: A goal orientation theory perspective. *Journal of World Business*. 55(1): 101019.

Domurath, A.; Patzelt, H. 2019. Founder non-international experience and venture internationalization. Journal of International Entrepreneurship. 17: 494-519.

Domurath, A.; Patzelt, H.; Liebl,A. 2020. Does negative feedback impact new ventures organizational identity? The role of founding teams human capital and feedback source. *Journal of Business Venturing*. 35: 105987.

Engels, F.; Wentland, A.; Pfotenhauer, S. M. 2019. Testing future societies? Developing a framework for test beds and living labs as instruments of innovation governance. *Research Policy*. 48(9): 103826.

Foerderer, J. 2020. Interfirm exchange and innovation in platform ecosystems: Evidence from Apple's world wide developers conference. Management Science

Fromberger, M.; Haffke, L.; Zimmermann, P. 2019. Kryptowährungen und Geldwäsche – Analyse und Umsetzung zur 5. Geldwäscherichtlinie. Zeitschrift für Bank- und Kapitalmarktrecht (BKR). 8: 377-386.

Fuchs, C.; Sting, F. J.; Schlickel, M.; Alexy, O. 2019. The Ideator's Bias: How identity-induced self-efficacy drives overestimation in employee-driven process innovation. Academy of Management Journal. 62(5): 1498-1522.

Goldstein, A.; Doblinger, C.; Baker, E.; Anadon, L.D. 2020. Patenting and business outcomes for cleantech startups funded by ARPA-E. Nature Energy

Goldstein, A.; Doblinger, C.; Baker, E.; Anadon, L.D. 2020. Startups supported by ARPA-E were more innovative than others but an investment gap may remain. *Nature Energy*

Hanson, J. D.; Henkel, J. 2020. Collaborative innovation: Weak commitments and unenforceable contracts. International Journal of Procurement Management. 13(1): 63-82.

Hartmann, P.; Henkel, J. 2020. The rise of corporate science in Al: Data as a strategic resource. Academy of Management Discoveries

Henkel, J.; Zischka, H. 2019. How many patents are truly valid? Extent, causes, and remedies for latent patent invalidity. *European Journal of Law and Economics*. 48(2): 195–239.

Kammerlander, N.; Breugst, N. 2019. Construals matter: Painting the big picture or drawing the brushstrokes of the family firm. Family Business Review.

Kammerlander, N.; Patzelt, H.; Behrens, J.; Röhm, C. 2020. Organizational ambidexterity in family-managed firms: The role of family involvement in top management. Family Business Review. 33 (4): 393-423.

Lude, M.; Prügl, R. 2020. Experimental studies in family business research. Journal of Family Business Strategy. 100361.

Lude, M.; Prügl, R. 2019. Risky decisions and the family firm bias: An experimental study based on prospect theory. *Entrepreneurship Theory and Practice*. 43(2): 386-408.

Lude, M. J.; Rauschendorfer, N.; Spitzley, D. I. 2019. All we need is love. do we? How and why a family firm background affects consumer's perception. Academy of Management Proceedings. 2019(1): 17097.

Patzelt, H.; Behrens, J.; Wolfe, M.; Shepherd, D. 2020. Perceived project transition support and employees assessments of entrepreneurial project performance. *Journal of Business Venturing*. 35(1): 1-25.

Patzelt, H.; Preller, R.; Breugst, N. 2020. Understanding the life cycles of entrepreneurial teams and their ventures: An agenda for future research entrepreneurship theory and practice.

Pertuze J., Guridi J.A., Pfotenhauer, S.M. 2020. Natural laboratories as policy instruments for technological learning and institutional capacity building: the case of chile's astronomy cluster. *Research Policy.* 49(2).

Preller, R.; Patzelt, H.; Breugst, N. 2020. Entrepreneurial visions in founding teams: Conceptualization, emergence, and effects on opportunity development. *Journal of Business Venturing.* 35(2): 105914.

Querbach, S., Bird, M., Kraft, P.S. & Kammerlander, N. 2020. When the former CEO stays on board: The role of the predecessor's board retention for product innovation in family firms. *Journal of Product Innovation Management*. 37(2): 184-207.

Schregle, R.; 2019. Neue Maßnahmen zum Geheimnisschutz in Geschäftsgeheimnisstreitsachen. GRUR. 912-917.

Shepherd, Dean A.; Patzelt, Holger; Berry, Christopher M. 2019. Why didn't you tell me? Voicing concerns over objective information about a project's flaws. *Journal of Management*. 45(3): 1087-1113.

Shepherd, D.; Sattari, R.; Patzelt, H. 2020. A social model of opportunity development: Building and engaging communities of inquiry. Journal of Business Venturing. Forthcoming

PUBLICATIONS

Innovation & Entrepreneurship

2019-2021, peer-reviewed journals and books

Steinhauser, S.; Doblinger, C.; Hüsig, S. 2020. The relative role of digital complementary assets and regulation in discontinuous telemedicine innovation in european hospitals. *Journal of Management Information Systems*

Surana, K.; Doblinger, C.; Anadon, L.D.; Hultman, N. 2020. Effects of technology complexity on the emergence and evolution of wind industry manufacturing locations along global value chains. *Nature Energy*

Zaggl, Michael A.; Schweisfurth, Tim G.; Herstatt, Cornelius. 2019. The dynamics of openness and the role of user communities: A case study in the ecosystem of open source gaming handhelds. *IEEE Transactions on Engineering Management*. 1-12.

Zimmermann, P. 2019. Bitcoin versus Bargeld – Die geldwäscherechtliche Verpflichtung von Güterhändlern bei Zahlungen mit Kryptowährungen. Corporate Compliance Zeitschrift

Zimmermann, P. 2019. Kryptowerte und Geldwäsche. Eine Analyse der 5. Geldwäscherichtlinie sowie des Gesetzesentwurfs der Bundesregierung. Zeitschrift für Bank-und Kapitalmarktrecht

Zimmermann, P. 2020. Cryptocurrencies and anti-money laundering – the shortcomings of the 5th AML directive (EU) and how to address them. Journal of Banking Regulation

EDITORSHIPS

Innovation & Entrepreneurship 2019 - 2021



Prof. Dr. Oliver Alexy

Associate Editor

- Journal of Product Innovation Management (2019-) Editorial Review Board
- Strategic Management Journal (2019-)
- Strategic Organization (2019-)

Prof. Dr. Christoph Ann

- Series of publications "Geistiges Eigentum und Wettbewerb (GEW)", published by Carl Heymanns, Cologne (with Prof. Dr. Anja Steinbeck)
- Series of publications of the Munich Intellectual Property Law Center (MIPLC), publishing company Nomos, Baden-Baden (with Prof. Dr. Robert Brauneis, Josef Drexl, Thomas Möllers and Joseph Straus)

Prof. Dr. Miriam Bird

- Journal of Business Venturing, Member of the Editorial Review Board
- Academy of Management Discoveries, Member of the Editorial Review Board

Prof. Dr. Nicola Breugst

- Field Editor for Journal of Business Venturing
- Entrepreneurship Theory and Practice, Member of the Editorial Review Board
- Small Business Economics, Member of the Editorial Review Board

Prof. Dr. Joachim Henkel

- Associate Editor, Academy of Management Discoveries
- 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. Maximilian Lude

 Member of the Editorial Board Journal of Family Business Research

Prof. Hana Milanov, Ph.D

- Journal of Business Venturing, Member of the Editorial Review Board
- Academy of Management Discoveries, Member of the Editorial Review Board
- Academy of Management Entrepreneurship Division-Teaching Committee (2019-present)

Prof. Dr. Dr. Holger Patzelt

• Associate Editor, Entrepreneurship Theory and Practice

Prof. Siddharth Vedula, Ph.D.

 New England Journal of Entrepreneurship Editorial Board (2020-present)

VISITORS



Innovation & Entrepreneurship 2019 - 2021

Prof. Markus Bär Research Talk (TUM SoM Seminar) March 2019, Olin Business School at Washington University in St. Louis

Prof. Denis Grégoire

Visiting scholar, doctoral seminar (Cognition in Entrepreneurship) May 2019, Syracuse University

Prof. Kathleen Eisenhardt

Research Talk (TUM SoM Seminar) February 2021, Stanford University

Prof. Wouter Stam

Research Talk (TUM SoM Seminar) February 2021, Vrije Universitaet Amsterdam



TUM School of Management Academic Department: Operations & Technology



OPERATIONS & TECHNOLOGY

Who we are

Management and optimization of production or service operations are central tasks in any organization. The goal is to provide results of the expected quality at the right time and lowest possible cost. New technological developments and increasingly dynamic processes lead to exciting research questions. To be most successful in this context, the efficient use of technical and human resources within an organization and coordination along the supply chain are ever more critical.

The TUM Operations & Technology Department is engaged in research and education related to the analysis, configuration, and optimization of processes within and between businesses/non-profit entities. This involves the use of quantitative methods and software systems. The department's research has many connections with other disciplines. It maintains close ties with industrial partners, for instance, from the automotive, healthcare, and retail sectors. This interdisciplinary and practical focus ensures that its research addresses the most relevant real-world challenges.

The department's teaching activities offer students the necessary theoretical foundations. Also, they include more advanced courses, focused, for instance, on the application areas mentioned above. The department's research results are published in renowned international peer-reviewed journals.

Organization and Professors

٠	Prof. Dr. Klaus Bengler*	Ergonomics
٠	Prof. Dr. Martin Bichler*	Decision Sciences & Systems
٠	Prof. Dr. Magnus Fröhling*	Circular Economy
٠	Prof. Dr. Martin Grunow	Production and Supply Chain Management
٠	Prof. Dr. Alexander Hübner*	Supply and Value Chain Management
٠	Prof. Dr. Gudrun Kiesmüller	Operations Management
٠	Prof. Dr. Rainer Kolisch	Operations Management
٠	Prof. Dr. Helmut Krcmar*	Information Systems
٠	Prof. Dr. Stefan Minner	Logistics and Supply Chain Management
٠	Prof. Dr. Maximilian Schiffer	Operations and Supply Chain Management
٠	Prof. Dr. Andreas Schulz	Operations Research
٠	Prof. Dr. David Wuttke	Supply Chain Management
٠	Prof. Dr. Jingui Xie, Ph.D.	Business Analytics

*Affiliate Member





Prof. Dr. phil. Klaus Bengler Professor of Ergonomics

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Selected current research projects

The focus of the Chair of Ergonomics is to investigate cooperative interaction concepts between human and vehicle or human and robots. National and international funded project proposals are the basis for the research at the institute.

Further research activities on digital human modeling and automated driving were intensified. Regarding this, the research in digital human modeling examined research questions about future vehicle concepts. In addition, further funded projects investigated automated driving and its impacts on humans and the interaction between automated vehicles and pedestrians. The driving simulators at the Chair of Ergonomics helped to answer these questions. Within the scope of national and international projects, the interaction of vehicles and pedestrians is examined in virtual reality.

Areas of interest

- | Digital human modeling for ergonomic anthropometric workplace layout, products and cars
- Biomechanics modeling of forces and motions
 Investigation and design of human[1] machine-interaction
- Investigation of concepts for interaction with cooperative technical systems

Curriculum vitae

Klaus Bengler graduated in psychology at the University of Regensburg in 1991 and received his PhD in 1995 in cooperation with BMW at the Institute of Psychology (Prof. Dr. Zimmer). After his PhD he was active on topics of software ergonomics and evaluation of human-machine interfaces. He investigated the influence of additional tasks on driving performance in several studies within EMMIS EU project and in contract with BMW. Multifunctional steering wheels, touch screens and ACC-functionality are examples for the topics of these investigations. In 1997 he joined BMW. From several projects he is experienced with experimental knowledge and experience with different kind of driving simulators and field trials. At BMW he was responsible for the HMI project of the MOTIV program, a national follow on the program of PRO-METHEUS. Within BMW Research and Technology he was responsible for projects on HMI research and leader of the usability lab. Since May 2009 he is head of the Institute of Ergonomics at Technische Universität München which is active in research areas such as digital human modeling, human robot cooperation, driver assistance HMI and human reliability. He is leading the German Standardization Group (FAKRA) AK-10 "Mensch als Fahrzeugführer" and is active member of ISO TC22 SC13 WG8 "Road vehicles - Ergonomic aspects of transport information and control systems" as well as member of VDI working group "Menschliche Zuverlässigkeit". He is member of the working group Research of the Round Table Automated Driving (BMVI) and is project leader of the project column Human Factors in Traffic in the German Research Initiative UR:BAN funded by BMWi.





Prof. Dr. Martin Bichler

Professor of Decision Sciences & Systems

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Selected current research projects

DNMC (DFG Koselleck): Market design describes a recent stream in the literature aiming to design specific types of markets and reflect important features of the respective allocation problems. These features can typically be described as constraints in the allocation and pricing problems. These constraints turn the allocation problem into a non-convex optimisation problem. The project aims at new theory to analyze and design non-convex markets.

SynErgie (BMBF): The increasing level of renewable energy sources requires changes in the European electricity market design. The project proposes new market designs and optimization models for efficient dispatch and pricing on future electricity markets.

Areas of interest

Market Design

- Competitive Equilibrium Theory
- | Equilibrium Computation

Curriculum vitae

Martin Bichler received his MSc degree from the Technical University of Vienna, and his Ph. D. as well as his Habilitation from the Vienna University of Economics and Business. He was working as a research fellow at UC Berkeley, and as research staff member at the IBM T. J. Watson Research Center, Yorktown Heights, New York. Since 2003 he is full Professor at the Department of Informatics of the Technical University of Munich (TUM), and also a faculty member at the TUM School of Management. He was a visiting scholar at the University of Cambridge (2008), at HP Labs Palo Alto(2008), Department of Economics at Yale University (2016), 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 received the EURO Excellence in Practice Award, the INFORMS Daniel H. Wagner prize (runner-up), the HP Labs eAward, the IBM Faculty Award, the INFORMS ISS Design Science Award (twice), and he won the Siemens SCM Olympics. In 2019, he won one of the prestigious DFG Koselleck projects by the German National Science Foundation. In 2020 Martin war ranked in the top 0.5% out of 3346 scholars in the management sciences in Europe (5-year ranking) and in the top 1% in the lifetime ranking by the Wirtschaftswoche magazin. In 2018 Martin was ranked 3rd in publications overall in the 5-year ranking by the Wirtschaftswoche in the same ranking.

Martin is president of the INFORMS Section on Auctions and Market Design, past editor-in-chief of the BISE journal, and a fellow of the Agora Group on Market Design at the University of New South Wales, Australia. He is also a principal investigator of the DFG-funded research training group AdONE, which is at the intersection of Computer Science, Management Science, and Mathematics.

He is currently the Associate Dean at the Department of Informatics of the TU Munich, and Advisory Board member of the TUM Institute for Advanced Study, and a member of the collaboration board between TUM and SAP.





Prof. Dr. Magnus Fröhling Professor of Circular Economy

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Selected current research projects

Biotenside Alliance: In a consortium with partners from industry and academia new biotenside value chains are developed. In this project, we cover the techno-economic assessment and optimization of selected selected novel production processes for biotensides.

Biomass Resource Strategies: We develop jointly with the Wood Research at TUM and the Technology and Support Centre in Straubing recommendations towards sustainable utilization strategies for biomass in Bavaria. Our part focuses on the utilization of organic residues and consequential assessments for the implementation of the utilisation strategies.

r+TeTra: Together with the Fraunhofer Institute for Systems and Innovation Research (ISI) we evaluate in the funding scheme r+Impuls of the German Federal Ministry of Education and Research the achievable positive impacts of projects and the impacts of the scheme as a whole.

Areas of interest

- A Material Cycles and Circular Economy Concepts
- Biorefineries and
- Bioeconomy Concepts
- Industrial Symbiosis
- Techno-economic and Sustainability Assessments

Curriculum vitae

Professor Magnus Fröhling works on quantitative approaches for the analysis, assessment and planning of 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. Current working fields are e-waste, plastics and the circular economy in cities.

Magnus 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 post-doctoral teaching qualification ("Habilitation") in 2011 at the Karlsruhe Institute of Technology (KIT). In his habilitation thesis, he worked on resource and energy efficiency in industrial value chains. In 2013 a stay as visiting scholar at Queensland University of Technology (QUT), Brisbane followed. It was in 2015 when Magnus was appointed as Professor of Business Administration, esp. 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 has co-authored more than 25 peer reviewed journal articles in international journals of multiple disciplines. Among others, this covers Applied Energy, European Journal of Operational Research, Resources Conservation and Recycling, Journal of Industrial Ecology, International Journal of Production Research, Journal of Business Economics, Journal of Cleaner Production, Fuel Processing Technology, and World of Metallurgy. At all of his positions, he has acquired, lead and worked on numerous third-party funding projects with other research institutions and industry. He frequently serves as reviewer for journals, publishing companies, research organizations and government. Magnus was and is involved in projects and initiatives such as the biorefineries roadmap of the German Federal Government, VDI guideline committees and the Circular Economy Initiative Germany.





Prof. Dr. Martin Grunow

Professor of Production and Supply Chain Management

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Selected current research projects

Production and Supply Chain Management of Biopharmaceuticals The primary biological production process is structured into two main stages: The upstream process (USP) contains all production steps related to the cultivation of the living organisms, while the down-stream process (DSP) comprises the separation and purification of the target molecule. We maximize the productivity of the whole system by integrating non-linear production kinetics and operational uncertainties.

Master production scheduling for crop protection products

Agrochemical companies manage complex world-wide supply chains with long production lead times. Since the use of crop protection products follows the growth cycle of crops, the product demand exhibits strong seasonality. Forecasting accuracy is limited by unpredictable influences such as weather conditions. We develop stochastic programming strategies for master production scheduling and methodologies for reducing nervousness in raw-material demand and production.

Areas of interest

Supply chain management
Integration of product and process design with supply network design
Sales and operations planning and advanced planning systems (APS)
Production planning and scheduling
New product introduction and ramp up

Curriculum vitae

Martin Grunow is Professor of Production and Supply Chain Management. 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 in the R&D Department of Degussa.

His research interests are in production and logistics management, with a focus on the process, electronics and automotive industries. He teaches courses on designing and scheduling manufacturing systems, advanced planning with SAP IBP, MOOCs on quality engineering and lean with more than 350,000 participants from all over the world.

Martin has co-authored more than 50 research publications that appeared in journals such as 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. For FSMJ and OR Spectrum, he also acts as an editor. He has been on the program committee of more than 50 international conferences and has organized numerous special tracks.



Prof. Dr. Alexander Hübner

Supply and Value Chain Management

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Selected current research projects

Healthy and sustainable production and retailing of food and consumer goods Supply with sustainable and healthy food represents an essential factor in health, wellbeing and lifestyle in industrialized countries. The German Bioeconomy Council recommends that research strategies should include "not only product innovations but also appropriate incentives and accompanying measures for sustainable and healthy eating habits. "This requires dealing with logistics issues such as replenishment processes, order sizes, sourcing options, as well as questions of customer behavior such as the acceptance of sustainable products and substitutions.

Distribution and network planning with advanced warehousing and

transport technologies This research domain deals with technological advances in warehousing and transportation and their impact on network design and distribution options. The main goal is to consider environmental aspects by bundling transport flows.

Optimization of resource productivity and enabling biobased, circular value chains

Bioeconomy targets a more efficient use of biological resources by producing ideally more output with lower resource input required. This productivity gain is important across all industries, but particularly in sectors with limited availability of input resources.

Sustainable operations management in the age of digitization

Our society is increasingly shaped by the expanding use of mobile and online technologies in daily life. The combination of information and communication technologies with Life Sciences offers opportunities to inform consumers about biotechnological advances and steer customers through the purchasing and consumption processes.

Curriculum vitae

Prof. Dr. Alexander Hübner is a tenured Full Professor of Supply and Value Chain Management at the Technical University Munich (TUM) in Germany. Prof. Hübner holds a Ph.D. (2011) and a Diploma in Business Administration from the Catholic University of Eichstätt-Ingolstadt, where he also completed his Assistant Professorship. He then moved to the Massachusetts Institute of Technology (MIT), where he was Associate Professor of Logistics and Supply Chain Management at the Luxembourg Centre of Logistics. Before joining the TUM, he headed the Institute for Supply Chain Management at the European Business School in Oestrich-Winkel. He also worked as a Project Manager at McKinsey&Company serving retail and consumer goods clients (2005 - 2012). His research was funded by the German Ministry of Research and by the German Academic Exchange Service. His latest research has been published in multiple journals such as the European Journal of Operational Research, Transportation Science, Omega, Production and Operations Managements. His research focuses on decision support systems in service industry. He is founder and leader of the EURO Working Group "Retail Operations" and served as stream organizer at INFORMS, POMS and EURO conferences. He was privileged to act as guest Editor for the European Journal of Operational Research, Journal of Operations Management and OR Spectrum on special issues related to retail operations. He is Editor-in-Chief of Logistics Research.

Areas of interest

- Inventory and assortment management
- Transportation planningSustainable supply chains
- Service operations
- Service operationsOperations research
- and business analytics





Prof. Dr. Gudrun P. Kiesmüller Professor of Operations Management

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Selected current research projects

Impact of Sensor Technology on Repair Kit Planning: We develop a decision support tool, which helps to decide which spare parts a technician should have in his kit when he is visiting customers to repair a failed installed base. In particular, we consider components equipped with sensor technology such that failure diagnosis can take place before the visit of the technician.

Design and Analysis of Manufacturing Systems: To reduce downtimes and increase throughput of advanced technical manufacturing systems, spare parts can be kept in stock. We develop methods such that spare parts and maintenance planning can be integrated in the design of a manufacturing system.

Areas of interest

- Inventory Management
- After Sales Service
- Design and Analysis of Manufacturing System
- Operations Research and Business Analytic

Curriculum vitae

Gudrun Kiesmüller has been a Full Professor of Operations Management at the TUM School of Management, TUM Campus Heilbronn, Technical University Munich since 2019. She has studied Mathematics at the Julius Maximilians University Würzburg where she also obtained her doctoral degree. Afterwards she joined the Technical University Eindhoven in the Netherlands as a PostDoc and later as an Assistent Professor. At the Christian Albrechts Universität zu Kiel she was appointed as a full professor of Supply Chain Management and at the Otto-von-Guericke University Magdeburg for Operations Management.

Her primary research interests are supply chain management, inventory management, and in particular the management of spare parts inventories. Recent projects also included the planning of maintenance processes and the design of manufacturing systems. In her work also optimization approaches are developed for decision support.

Together with different co-authors she has published in leading international journals such as European Journal of Operational Research, IISE Transactions, Production and Operations Management among others.





Prof. Dr. Rainer Kolisch Professor of Operations Management

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Selected current research projects

Impact of Agile Project Management on Project Performance: Employing behavioural experiments, we investigate how SCRUM, being the most popular agile approach, impacts the project performance.

Flexibility in Engineer-to-Order Production Planning: We propose a new planning approach for Engineer-to-Order planning with processing flexibility and resource flexibility. This project is undertaken with an Engineer-to-Order manufacturer of special-purpose packaging machines.

Team Formation and Routing of Worker Teams with Hierarchical Skills: We develop a planning approach for forming teams of workers with different skills and routing the teams to perform tasks at different locations. This problem is prevalent in providing technical services such as in the telecommunication industry or ground handling at airports. The project is undertaken with a ground handling company.

Timing the Introduction of New Products: We develop a multi-criteria approach to schedule the introduction of new platform-based products using standard modules. Objectives are, amongst others, CO2-emissions, sales and plant overtime. The project is undertaken jointly with a major automotive manufacturing company.

Areas of interest

Project management and scheduling
Service operations
Airport operations
Health care operations

Curriculum vitae

Rainer Kolisch is a Full Professor of Operations Management at TUM School of Management since 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 University Kiel. Before joining TUM, Rainer held faculty positions at the Technical University of Darmstadt and the Technical University of Dresden. From 2015 to 2016 and in 2019, he was Visiting Professor at the Department of Systems and Industrial Engineering of North Carolina State University. Rainer's primary research interests are project management and scheduling as well as service operations, particularly in airports and healthcare. Rainer has published in leading international journals, such as Management Science, Journal of Operations Management, Production and Operational Research. He has served as Editor-in-Chief for OR Spectrum and as Associate Editor of several journals, including Omega and Journal of Scheduling. He is currently Editor of the European Journal of Decision Processes and a member of the Editorial Boards of several journals, including Operations Research for Health Care.



Operations & Technology



Prof. Dr. Helmut Krcmar

Professor of Information Systems

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Representative of the President for the Development of the TUM Campus Heilbronn

Curriculum vitae

Prof. 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 healthcare and e-government. He 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.





Prof. Dr. Stefan Minner

Professor of Logistics and Supply Chain Management

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Selected current research projects

Digital Logistics Laboratory: The use of Artificial Intelligence algorithms is a major acceleration in logistics optimization. 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.

Data-driven Collaboration for Industrial Supply Chains and Transportation Services: 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.

Areas of interest

- Digital Logistics
- | Global supply chain design
- Inventory management and transportation optimization
- | Operations research and business analytics

Curriculum vitae

Stefan Minner has been a Full Professor of Logistics and Supply Chain Management at TUM School of Management, Technical University of Munich, since 2012. He studied Business Administration, majoring in Operations Research at the University of Bielefeld and obtained his doctoral degree and "habilitation" from the Otto-von-Guericke-University of Magdeburg. From 2000-2001 he was a postdoctoral researcher at the University of Calgary. Before joining TUM, he held faculty positions at the Universities of Paderborn, Mannheim and Vienna.

Stefan was President of the International Society for Inventory Research (ISIR). He is also Vice-Chairman of the Advisory Board of the German Logistics Association (BVL) and a Member the Research Committee of the European Logistics Association (ELA).

Stefan has published in leading international journals such as Management Science, Operations Research, Manufacturing & Service Operations Management, Production and Operations Management and Transportation Science. He received the Service Award of the International Society for Inventory Research (ISIR) and is a Fellow of the Society since 2016.





Prof. Dr. Maximilian Schiffer

Professor of Operations and Supply Chain Management

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Selected current research projects

Autonomous Mobility on Demand Systems: We study the impact of autonomous mobility on demand (AMoD) systems on city logistics and passenger transportation. Herein, 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.

Warehouse Operations: The importance of efficiently operating a warehouse became increasingly important in recent years, especially with the rise of e-commerce. We develop the first generic exact algorithms for picker routing in warehouses that can be operated in real- world warehouses of online retailers and show computational times of only a few seconds. Further we develop similar algorithms for robotized warehouses and analyze design aspects in warehouses in general.

Spatio-Temporal Forecasting: We enhance neural networks usually used for pattern re- cognition to be suitable for spatio-temporal forecasts in every kind if system. Doing so, we succeed in capturing a new information density in modern forecasting techniques.

Value-based Production Planning: We develop value-based endto-end production planning systems to maximize a companie's profit which is not necessarily correlated with its throughput. Our models and algorithms are applied in practice in the copper industry.

Curriculum vitae

Maximilian Schiffer is a tenure track Assistant Professor of Operations and Supply Chain Management 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. Dr. Schiffer is an associate member of the GERAD. He received a Ph.D. degree in operations research from RWTH Aachen University in 2017. Max's 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 is currently serving on the editorial board of OR Spectrum.

Areas of interest

- Mobility Systems
- AI & Machine Learning
- Supply Chain Management
- Transportation
- Production Planning
- Power networks



Prof. Dr. Andreas S. Schulz Professor of Operations Research

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Selected current research projects

Re-ranking of search results

Typical web search engines display their search results for a specific keyword in an ordered list. Since relevance is context-dependent, different users might not necessarily be interested in the same subset of search results. Instead, one can define user types, where all users of the same type are interested in the same subset of search results. We study theoretical frameworks for re-ranking search results in a web search and design new algorithms for solving the resulting mathematical problems.

Coflow scheduling

To benefit from the extensive amount of data available today, storing and transferring data efficiently is essential. Often data is distributed over server systems, and tasks are processed in parallel. We study mathematical abstractions of parallel scheduling tasks, called coflow scheduling. Since in real-world applications, tasks arrive over time and might not be known in advance, we also develop online algorithms to help speed up the processing of large data sets in practice.

Curriculum vitae

Andreas S. Schulz joined TUM in 2015, after 17 years at the Massachusetts Institute of Technology (MIT). At MIT, he was the Patrick J. McGovern Chair of Management and Professor of Mathematics of Operations Research. At TUM, he holds a joint appointment in the School of Management and the Department of Mathematics. He currently is Head of the Operations & Technology Department. Earlier, he was Head of the Operations Research & Statistics Group at MIT's Sloan School. Prof. Schulz has held visiting research professorships at ETH Zurich, Maastricht University, TU Berlin, and the University of British Columbia. He obtained his Ph.D. in Mathematics from TU Berlin in 1996. In 2014 the Alexander von Humboldt Foundation bestowed the Alexander von Humboldt Professorship upon him. Previously he had already received the Humboldt Research Award in recognition of his lifetime achievements. In 2000, the German Academy of Sciences and Humanities named him one of 20 founding members of "Die Junge Akademie." Other honors include the Best Paper Award of the Transportation Science & Logistics Society of INFORMS, the Glover-Klingman Prize, and the Carl-Ramsauer-Prize. Prof. Schulz has been on the editorial boards of ACM Transactions on Algorithms, Discrete Optimization, INFORMS Journal on Computing, Journal of Scheduling, and Operations Research.

Areas of interest

- Healthcare
- Humanitarian operations
- Network design and analysis
- Project planning and scheduling
- Systems optimization
- Machine learning





Prof. Dr. Dr. h.c. mult. Horst Wildemann Professor of Corporate Management, Logistics and Production

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Selected current research projects

Modeling a demand and gap analysis process to increase the productivity in SMEs with "Industrie 4.0: Small companies require support with the selection and implementation of Industry 4.0 solutions. We are developing an IT tool to identify productivity gaps. A model classifies SMEs regarding relevant KPIs, characteristics and actual degree of implementation of Industry 4.0 solutions and technologies, and delivers individual hints for improvement.

Gamification for manufacturing and assembly: Manufacturing and assembly workspaces are characterized by monotonous activities and demotivating environments for employees. This research project investigates opportunities for solving this problem by implementing gamification contents in this setting. The goal of the project is to raise workers' motivation and attention in order to increase productivity and product quality, as well as employee satisfaction.

Data Science: Based on Data Science, concepts for analysis for predictions and preventive decisions are developed and tested for the areas of purchasing, logistics, production, maintenance and sales.

Münchner Management Kolloquium: An annual colloquium with over 80 speakers on current management topics is held at the TU Munich.

Curriculum vitae

Horst Wildemann studied Mechanical Engineering (Master of Engineering) and Business Administration (Master of Commerce) in Aachen and Cologne. In 1974, after several years working as an engineer in the automotive industry, he gained a Ph.D. (Dr. rer. pol.) in Economics. He then attended the International Management Institute in Brussels and gained experience at several American universities. In 1980 he qualified as a University Lecturer (Dr. hab.) at the University in Cologne. Since 1980 he has been lecturing as a Full Professor for Business Administration in the Universities of Bayreuth, Passau and since 1989 at the Technical University of Munich. He has written 40 books and more than 700 essays, in which he shows new ways for the profitable creation of a successful company. He acts as a consultant, Member of the Board of Directors and Member of the Advisory Board of leading industrial enterprises. He was awarded the "Staatsmedaille" of the Bavarian State and the Federal Cross of Merit, First Class, of the Federal Republic of Germany. He has received honorary doctorates from the Universities of Klagenfurt, Passau and Cottbus. He was admitted to the Logistics Hall of Fame in 2004. In addition, he was awarded the "Bayerischer Verdienstorden" in 2006 and the Badge of Honor "Bundesververeinigung Logistik" in 2008.

Areas of interest

Corporate managementLogisticsProduction





Prof. Dr. David Wuttke

Assistant Professor of Supply Chain Management

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Selected current research projects

- Wuttke, D.A., Upadhyay, A., Siemsen, E., & Wuttke-Linnemann, A. (2020) Seeing the Bigger Picture? Ramping-up Production with the Use of Augmented Reality. We examine the impact of augmented reality (AR) devices on the fundamental productivity dilemma in production ramp-ups. We find that AR helps workers to produce faster but impedes their potential to improve new processes.
- Gernert, A., Wuttke, D. A., & Heese, H. S. (2020). Sourcing and Pricing Decisions with a Financially Distressed Supplier and Endogenous Bankruptcy Risk. We identify equilibria that arise when a buying firm considers its impact on its supplier's bankruptcy risk and identify novel, seamless, and pro-active risk mitigation strategies.
- Wuttke, D.A. (2020) Empirical evidence about payment term extensions in the supply chain finance context. We test theoretical predictions on the adoption of supply chain finance. We find that not all profit-maximizing predictions of extant models are consistent with industry practice indicating novel adoption motives.

Areas of interest

Supply Chain FinanceSupply Chain Risk ManagementDigital Transformation

Curriculum vitae

Prof. Wuttke holds the professorship in Supply Chain Management at TUM Campus Heilbronn. After completing his diploma studies at the University of Paderborn and Dublin City University in 2009, Prof. Wuttke received his doctorate at EBS University for Business and Law 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, Prof. Wuttke studied mathematics (Bachelor) at FernUniversität in Hagen. Prof. Wuttke was Assistant Professor at EBS University from 2016 to 2019 before being appointed Assistant Professor at the TUM School of Management at Heilbronn Campus in 2020.

In his research, Prof. Wuttke focuses on supply chain management, especially supply chain finance, supply chain risk management, and digital transformation. In doing so, Prof. Wuttke applies both empirical and quantitative methods.





Prof. Dr. Jingui Xie Professor of Business Analysis

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Selected current research projects

COVID-19 Data Analytics

The Coronavirus (COVID-19) has become a severe public health problem globally. This research project aims to determine whether the temperature, air pollution, social mobility etc. are essential factors in the infection caused by this novel coronavirus. The goal is to efficiently allocate limited medical resource even when the prediction with data and model is highly inaccurate.

ICU Data Analytics

This research project is to develop a sequential and dynamic decision process with predictions to support decisions on medical treatment continuation and apply the model to the mechanical ventilator extubation problem in an intensive care unit (ICU). Using patient-level data, we compare the performance of different policies and demonstrate that incorporating predictive information can reduce ICU length-of-stay and decrease failure rate of ventilated patients, especially for patients with poor initial conditions.

Joint Estimation and Optimization

Many real-world optimization problems have input parameters estimated from data whose inherent imprecision can lead to fragile solutions that may impede desired objectives and/or render constraints infeasible. We aim to propose a joint estimation and robustness optimization framework to mitigate estimation uncertainty in optimization problems by seamlessly incorporating both the parameter estimation procedure and the optimization problem.

Curriculum vitae

Prof. Dr. Jingui Xie is associate professor of Business Analytics since 2020 at the TUM School of Management, TUM Campus Heilbronn. Data availability and advancement in machine learning techniques make accurate predictions of the future a foreseeable reality. Prof. Xie's research aims to efficiently incorporate the predictive information into the decision making though a joint estimation and optimization framework. In particular, he is interested in using big data and analytics to improve healthcare worldwide.

Areas of interest

Business AnalyticsHealthcare Data AnalyticsPrediction and Optimization



Operations & Technology

2019-2021, peer-reviewed journals and books

Albers, D.; Radlmayr, J.; Loew, A.; Hergeth, S.; Naujoks, F.; Keinath, A.; Bengler, K. 2020. Usability evaluation - advances in experimental design in the context of automated driving human-machine interfaces. *Information*. 240.

Bengler, K.; Rettenmaier, M.; Fritz, N.; Feierle, A. 2020. From HMI to HMIs: Towards an HMI framework for automated driving. Information. 61.

Bianchi-Aguiar, T.; Hübner, A.; Carravilla, M. A. & J. F. Oliveira. 2021. Retail shelf space planning problems: A comprehensive review and classification framework. *European Journal of Operational Research*

Bichler, M.; Hao, Z.; Littmann, R.; Waldherr, S. 2020. Strategy proof auction mechanisms for network procurement. OR Spectrum. 1

Bichler, M.; Fichtl, M.; Schwarz, G. 2020. Walrasian equilibria from an optimization perspective: A guide to the literature. Naval Research Logistics

Bichler, M.; Fux, V.; Goeree, J. 2019. Designing environmental markets for trading catch shares. INFORMS Journal on Applied Analytics

Bichler, M.; Grimm, V.; Kretschmer, S.; Sutterer, P. 2020. Market design for renewable energy auctions: An analysis of alternative auction formats. *Energy Economics*

Bichler, M.; Morrill, T.; Waldherr, S. 2020. How to assign scarce resources without money: Designing information systems that are efficient, truthful, and (pretty) fair. *INFORMS Information Systems Research*

Bichler, M.; Waldherr, S. 2019. Competitive equilibria in combinatorial exchanges with financially constrained buyers: Computational hardness and algorithmic solutions. ACM Conference on Economics and Computation

Billmann, M.; Böhm, M.; Krcmar, H. 2020. Use of workplace health promotion apps: Analysis of employee log data. Health Policy and Technology. 285-293.

Borgwardt, S.; Happach, F. 2019. Good clusterings have large volume. Operations Research. 67(1): 215-231.

Brech, C.-H.; Ernst, A.; Kolisch, R. 2019. Scheduling medical residents training at university hospitals. European Journal of Operational Research. 274(1): 253-266.

Brugger, M. 2019. Limitations of the hyperplane separation technique for bounding the extension complexity of polytopes. CoRR

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EDITORSHIPS

Operatios & Technology 2019 - 2021



Prof. Dr. Klaus Bengler

• Zeitschrift für Arbeitswissenschaft (Springer)

Prof. Dr. Martin Bichler

- Editor-in-Chief, Business and Information Systems Engineering, Springer (2012-2019)
- Associate Editor, INFORMS Information Systems Research (2017-2020)
- Associate Editor, INFORMS Journal on Computing (2019-2022)
- Associate Editor, Naval Research Logistics (2019-2022)
- Associate Editor, Group Decision and Negotiation, Springer
- Editorial Board, Review of Managerial Science, Springer

Prof. Dr. Martin Grunow

OR Spectrum

- Flexible Services and Manufacturing Journal
- Business Research (-2020)

Prof. Dr. Alexander Hübner

• Research (2018-20) und Journal of Operations Management (2019-21)

Prof. Dr. Stefan Minner

- Service Science, Associate Editor, since 2019
- Sustainable Manufacturing and Service Economics, Editor-in-Chief, since 2020
- European Journal of Operational Research, International Journal of Production Research, Review of Managerial Science, Member of Editorial Board

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Operatios & Technology 2019 - 2021

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TUM School of Management Academic Department: Finance & Accounting



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.

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- . Prof. Dr. Jürgen Ernstberger
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Selected current research projects

Equipment as a service (EaaS): The transition towards usagebased business models (with Isabella Stojkovski and Thomas Lange): EaaS is perhaps one of the most drastic examples of usage-based business model innovation in the field today. To date, a systematic analysis of this phenomenon is lacking. We analyze drivers and inhibitors of this phenomenon and show which business model innovations are associated with different EaaS models.

Entrepreneurial Orientation in German Foundations' Investment Behavior: An empirical analysis (with Maximilian Kremer): Germany benefits from a lively philanthropic sector with over twenty thousand charitable foundations. One of the main avenues for financing their activities is through yields on their investment portfolio. So far, a comprehensive empirical assessment of the portfolio preferences of German foundations is lacking. Our investigation reveals fundamental intragroup differences in the approach which foundations take to their strategic asset allocation.

Areas of interest

- Private equity
- Venture capital
- Family firms
- Financing of innovations
- Impact of ownership structures

Curriculum vitae

Ann-Kristin Achleitner is a Distinguished Affiliated Professor at TUM and Scientific Co-Director of the Center for Entreprenurial and Financial Studies (CEFS). She held the Chair of Entrepreneurial Finance from 2001 till 2020. From 1995 to 2001 she was Full Professor of Banking and Finance at the European Business School (ebs), Oestrich Winkel. She earned her degrees and her Ph.D. in both Law and Business Administration from the University of St. Gallen (HSG). In 2017 she was awarded an honorary doctorate from the Leuphana University of Lüneburg. She has published and edited more than 30 books and published papers in leading journals. Several of her former research assistants hold professorships at universities.

She is a member of the board of trustees of the Institute for Advanced Studies (Princeton), the board of acatech (National Academy of Science and Engineering) and the supervisory board of UnternehmerTUM. Having served on the boards of Deutsche Börse SE, Engie SA, Metro AG and Vontobel AG she is currently a member of the boards of MunichRe AG and Linde.

Achleitner has advised the European Union, the German and Swiss governments and the Bavarian State. She earned several awards for both her research and her teaching, including the Officer's Cross of the Order of Merit of the Federal Republic of Germany in 2014 and the Bavarian Order of Merit in 2019.





Prof. Dr. Reiner Braun Professor of Entrepreneurial Finance

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Selected current research projects

Whom to follow: Individual Manager Performance and Persistence in Private Equity Investments (with Nils Dorau, Tim Jenkinson and Daniel Urban): We investigate individual manager performance and its persistence. We find evidence for deal-level gross PME performance persistence. In explaining the cross-section of deal returns, the individual is around four times more important than the PE organization. Interestingly, none of the typical human capital variables (age, gender, MBA, PE tenure) has explanatory power in the cross-section of deal returns.

Follow the Money: How Venture Capital Facilitates Emigration of Firms and Entrepreneurs in Europe (with Stefan Weik and Ann-Kristin Achleitner): Increasingly global venture capital (VC) raises the question whether the activity of foreign VCs pulls economic wealth away from domestic economies. We analyze whether involvement of foreign VCs impacts firms' and entrepreneurs' migration patterns. Exploiting shocks to the availability of domestic capital, we provide evidence that foreign VC causally increases the likelihood of foreign exits.

Predicting Private Equity Performance with Natural Language Processing (NLP) Algorithms (with Borja F. Tamayo, Florencio Lopez-de-Silanes and Ludovic Phalippou): We examine whether the language used in documents that PE firms present to their investors have information value to predict subsequent investment behavior and success. We are the first to exploit previously inaccessible documents to create established NLP scores like sentiment, readability, uncertainty etc.

Areas of interest

- Private equity
- Venture capital
- Behavioral entrepreneurial finance
- Innovation funding
- Startup financing

Curriculum vitae

Reiner Braun is Professor of Entrepreneurial Finance at TUM School of Management, the Technical University of Munich (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 TUM since 2015. He is Academic Program Director of the International Master in Industrial Management at TUM School of Management. From 2013 to 2015 he was Professor of Entrepreneurial Finance at Friedrich-Alexander University Erlangen-Nürnberg (FAU).

Reiner conducts research in the area of entrepreneurial finance with a focus on private equity, venture capital and behavioral entrepreneurial finance. 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. In addition, he is active in the TU München Alumni Business Angel Network and was a Member of the Advisory Board of Wirtschaftswoche Best of Consulting.





Prof. Dr. Jürgen Ernstberger Professor of Financial Accounting

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Selected current research projects

Does practitioner research help auditors to provide higher audit quality and generate higher audit fees? (J. Ernstberger, B. Downar, M. Prott and C. Koch): Many criticize the widening gap between academic research and practice. In this study we explore the benefits of bridging this gap by examining how an engagement in practice-oriented research influences the dayto-day work of auditors..

Regulatory Approaches to Corporate Social Responsibility Disclosure: International Evidence on the Economic Consequences (J. Ernstberger and J. Maniora): In recent years, firms worldwide have increasingly disclosed information on corporate social responsibility (CSR), and several regulators have recently issued regulations on this disclosure. This study examines the capital market effects of different regulatory approaches on CSR disclosure around the world.

Areas of interest

- Auditing and external assurance
- Corporate social responsibility (CSR)
- Blockchain use cases and blockchain governance

Curriculum vitae

Jürgen Ernstberger is Full Professor of Financial Accounting at the Technical University of Munich and Research Fellow at the Ruhr University Bochum. He has been visiting scholar/visiting professor at University of Graz, Peter the Great St. Petersburg Polytechnic University, University of Toronto, and at the Aston Business School.

Professor Ernstberger teaches courses at bachelor, master, Ph.D., and executive level in financial accounting, auditing, and technology-enhanced accounting and auditing. At the TUM School of Management he is Vice Dean of Academic Affairs and member of the Faculty Council. He is also national coordinator of Germany at the European Accounting Association. Professor Ernstberger earned his doctoral degree and Habilitation at the University of Regensburg. Prior to this position, he was Full Professor of Accounting and Auditing at the Ruhr University Bochum and interim professor at the University of Göttingen.



Prof. Dr. Gunther Friedl Professor of Management Accounting

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Selected current research projects

Future car ownership: In cooperation with Santander consumer bank, we analyze how car ownership will change in the future due to regulations, innovations and new business models. We identify how stakeholder react to the megatrends in the automotive and mobility sector, which new opportunities arise and what promising new business models might develop.

Integration of ESG risks into Banking regulation: The research project with FIRM e.V. firstly identifies possible options for anchoring ESG risks as a risk driver instead of a new type of risk in the existing capital requirement regulation (CRR) and provides an overview of the current research on the empirical relationship between sustainability (ESG-compliance) and corporate financial performance. Secondly, we suggest how long-term effects of climate-related, transitory risks could be integrated into short- to medium-term planning horizons of banks by using a combination of stress tests and scenario analyzes.

Areas of interest

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Management accounting Corporate governance Management compensation Performance measurement Corporate valuation Public regulation Patent valuation

Curriculum vitae

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. Gunther holds both a M.Sc. in Business Administration from the University of Munich and a M.Sc. in Physics from the Technical University of Munich. He received his PhD and the Habilitation in business administration from the University of Munich.

Before joining the Technical University of Munich, Gunther has been full professor at the University of Mainz. He has been visiting scholar at Stanford University and guest professor at Warsaw School of Economics.

His teaching focuses on topics such as management accounting, financial accounting, value-based management and corporate valuation at the undergraduate and graduate level as well as at executive programs. For his teaching, Gunther received several rewards, including a Best Teaching Award of the TUM Executive MBA. In 2012, he has been named as the German "Professor of the Year".

Gunther 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 measurement, and valuation. His work has been published in journals such as European Journal of Operational Research, OR Spectrum, Research Policy, and Schmalenbach Business Review.

His research on executive compensation is frequently portrayed in media such as Handelsblatt, Financial Times, Frankfurter Allgemeine Zeitung, The Huffington Post, ARD, and ZDF.





Prof. Dr. Christoph Kaserer

Professor of Financial Management and Capital Markets

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Selected current research projects

Implied Cost of Capital: There is a new strand of literature that aims at extracting the expected return of stocks and other asset classes from current market prices. In a large research project, the Institute is working on refinements of this methodology and on extending it into new fields of application. For instance, the method can be applied to improve traditional asset pricing models, such as the Fama-French-Model, to overcome the shortcomings of the Markowitz-Model of portfolio selection, as well as improving the understanding of corporate financial decisions. The Chair also manages the website www. marktrisikoprämie.de where worldwide cost of capital estimations are presented on a continuous basis.

Risk free rate and convenience yield: Due to the current low interest rates there is a debate whether the Government bond yield is additionally depressed by a convenience yield. There might be reasons (regulation, liquidity, psychology) why investor prefer a Government bond over other risk-free instruments. In a current research project we try to isolate this conveniency yield by extracting the risk-free rate from EUREX index options. First results indicate that there is an economically non-negligible convenience yield. Moreover, this research also contributes to the discussion about monetary policy channels as well as the EURIBOR reform.

Areas of interest

Capital market researchCorporate financeAsset managementFinancial market regulation

Curriculum vitae

Christoph Kaserer is Full Professor of Finance at the Technical University of Munich (TUM). 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 and also public and private institutions. He is currently an economic advisor to the European Securities Markets Authority (ESMA). He is also regularly invited to parliamentary hearings and court trials as an expert witness.

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





Prof. Dr. Benjamin Loos Professor of Digital Finance

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Selected current research projects

- Robo-advisers and investor behavior (with A. Previtero, S. Scheurle and A. Hackethal) (solicited by the Review of Financial Studies)
- Smart(phone) investing? (with A. Previtero, A. Kalda and A. Hackethal)
- Getting Burned by Frictionless Financial Markets (with A. Dhawan, M. Navone and T. Putnins)

Areas of interest

Behavioral FinanceHousehold Finance.

Curriculum vitae

Professor Loos studies behavioral and household finance with a particular focus on financial advice, (digital) product innovations like ETFs, fintech and individual investor behavior in general. To address new fundamental questions his research is mostly based on big proprietary datasets stemming from collaborations with banks and fintechs as well as from fieldand laboratory experiments.

Before joining TUM School of Management in June 2020, Professor Loos held positions as Associate Professor at the University of Technology Sydney, and as Assistant Professor at Mannheim Business School and Goethe University Frankfurt. He completed his PhD in 2015 at Goethe University Frankfurt with his thesis titled "Potential Solutions to Individual Investors' Investment Mistakes". Prior to his Ph.D., Professor Loos worked in the investment banking departments of Bank of America and HSBC.



Prof. Dr. Philipp Maume, S.J.D. Assistant Professor of Corporate Governance and Capital Markets Law

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Selected current research projects

The interplay between capital markets regulation and competition law: 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 regulation of technology in the financial markets (fintech): The finance industry is facing enormous challenges caused by digitization. Among other things, algorithm-based software provides financial advice to clients and makes independent investments decisions ("robo-advisory"). Established tech companies are entering the financial markets and starting to offer their own financial services ("techfin"). Regulators are wondering how to adjust their approaches to supervision in order to ensure market participant compliance in digitized environments ("regtech"). All these developments raise one question: Is our existing set of capital market regulation able to address these changes properly?

Areas of interest

German and European corporate governanceIntellectual property in corporate finance

- Digitisation and the finance industry
- The overlap of securities regulation and competition law

Curriculum vitae

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 Doctor of Philosophy (Ph.D.) 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 October 2013 he was appointed Assistant Professor for Corporate Governance and Capital Markets Law at TUM School of Management.



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Prof. Dr. Alwine Mohnen Professor of Corporate Management

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Selected current research projects

- Incentivesfor energy-efficient behavior at the workplace: A natural field experiment on eco-driving in a company fleet.
- Non-monetary versus monetary incentives an experimental investigation
- **Incentives for creativity:** Subjective vs. objective measurement of creative performance
- **EU-InnovatE:** (i) Crowdfunding: Impact of sustainability (ii) Selected policy instruments: Do certain types of incentives "crowd-out" intrinsic motivation regarding (user) sustainable innovations and projects

Areas of interest

- Corporate management
- Personnel economics
- Behavioral and experimental economics
- Compensation: monetary and non- monetary incentives
- Sustainability

Curriculum vitae

Alwine Mohnen is Full Professor of Corporate Management at TUM School of Management since 2011. She studied Economics at the Rheinische Friedrich-Wilhelms-University of Bonn. After her diploma she worked as Research Assistant at the University of Vienna/Austria and received her Ph.D. (with distinction) from the University of Cologne. As a Post-doc she was a Visiting Scholar at Stanford University financed by a DFG Grant for one year and worked as Adjunct Professor at the CEU Business School of the Central European University at Budapest/Hungary. In 2008 she earned her "habilitation" from the University of Cologne. After that, she started as a Full Professor at the School of Business and Economics, RWTH Aachen. After several offers (University of Tübingen, Karlsruhe Institute of Technology KIT, University of Basel) she accepted an offer from TUM in 2011. She built up and is now Head of the experimental laboratory at TUM School of Management, designed for research in Behavioral Economics and Experimental Economics. Furthermore, she is Speaker of the Faculty Graduate Center, building up a doctoral program for Ph.D. candidates of the school. Since 2009 she has been Research Affiliate at the Institute for the Study of Labor IZA, Bonn.

Alwine has published in the Journal of Labor Economics, Journal of Economic Psychology, Review of Accounting Studies, Zeit- schrift für Betriebswirtschaft, Applied Energy and elsewhere. For her dissertation entitled "Investment decisions, motivation and performance measurement", supervised by Herbert Hax, she received the dissertation award of the University of Cologne. Her research interests include behavioral economics, experimental economics, performance measurement, personnel economics, and incentives and sustainability.





Prof. Dr. Sebastian Müller Professor of Finance

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Selected current research projects

Market Efficiency in the era of unstructured data: Are investors able to efficiently price text? We apply state of the art pre-trained language models to firm reports, news and social media activity to detect market relevant information. By focusing on a large sample of international firms, we investigate how efficiently investors price textual data in different markets.

Anomalies and market states: We investigate the behavior of anomalies in different market states and assess the implications for the explanations of the anomaly puzzle (mispricing, unmeasured risk, and data mining).

Anomalies in international corporate bond markets: In the research project, we examine if international bond markets are subject to the same anomalous return patterns as international stock markets. Our results help us to better understand the overall price efficiency of global fixed income markets.

Curriculum vitae

Professor Müller studied Business at the University of Mannheim and the University of Wales, Swansea. In 2011 he received his PhD from the University of Mannheim. In 2012 and 2013 he was a visiting researcher at the University of California at Berkeley, USA. In 2016, he was appointed as Professor of Corporate Finance at the German Graduate School of Management and Law (GGS) Heilbronn. Since September 2019, he serves as Professor of Finance at the TUM School of Management, TUM Campus Heilbronn.

The major research fields of Professor Müller are Empirical Capital Market Research, Asset Management, and Behavioral Finance. He is particularly interested in the price discovery process in financial markets, the investment behavior of institutional and individual investors, and the digitalization of the financial industry. Mr. Müller received several awards for his research which has been published in leading finance journals such as The Journal of Financial Economics and The Review of Financial Studies.

Areas of interest

- Asset pricing Asset Management
- Investor Behavior
- Digital Finance
- Sustainable Finance





Prof. Dr. Michael Stich Professor of Accounting

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Selected current research projects

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

Earnings management around the 'Tax Cuts and Jobs Act' of 2017 (D. Lynch, M. Pflitsch, and M. Stich): The paper illustrates corporate 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 billions for the US Government.

Integrated reporting, analyst forecast accuracy, and integrated reporting expertise (M. Stich and M. 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 competences.

Curriculum vitae

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 the 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 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

Accounting enforcement
Integrated and sustainability reporting
Investor impatience and managerial myopia
Real effects of accounting regulation
Sustainability assurance
Sustainability





Prof. Dr. Rudi Zagst

Professor of Mathematical Finance

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Selected current research projects

- Portfolio Optimization: Not Necessarily Concave Utility and Constraints on Wealth and Allocation
- Using general affine GARCH models in discrete-time . dynamic optimization
- Optimal dynamic investment-reinsurance for insurance products with partial guarantee
- Optimal investment strategies for pension funds with regulationconform dynamic pension payment management in the absence of guarantees
- Securitization of Solar Power Purchase Agreements
- Tactical Asset Allocation using Machine Learning

Curriculum vitae

Rudi Zagst studied business mathematics at the University of Ulm. After his dissertation in the field of stochastic dynamic optimization, he started his professional career at HypoVereinsbank AG. There, he worked as Head of Product Development in the Institutional Investment Management before transferring to Allfonds International Asset Management GmbH as Head of Consulting and finally becoming Managing Director of RiskLab GmbH - Private Research Institute for Financial Studies in 1997. Since 1992, Prof. Zagst has held various teaching assignments at the Universities of Augsburg, St. Gallen, Munich, Toronto, Ulm and Singapore. After completing his habilitation in 2000 at the University of Ulm, Prof. Zagst accepted a call to the Technical University of Munich as Professor of Mathematical Finance in 2001, where he holds the Chair of Mathematical Finance and is Head of the ERGO Center of Excellence in Insurance.

His research focuses on financial engineering, risk and asset management. In 2003, Prof. Zagst was appointed a second member of the Faculty of Economics. Since 2004 he has been Deputy Chairman of the joint elite degree program "Finance & Information Management" of the University of Augsburg and the Technical University of Munich. Prof. Zagst works on a voluntary basis in the Munich Financial Center Initiative (FPMI) of the Bavarian State Ministry of Economic Affairs, Regional Development and Energy, in the Advisory Board of the Bavarian Research Foundation and as the Executive Board member of Ecuadorhilfe Stuttgart e.V. In 2007, Prof. Zagst was honored by the magazine Unicum Profession with the award "Professor of the Year 2007" for his commitment to a practical education of his students.

Areas of interest

Financial engineering, Risk management, Asset management

Finance & Accounting

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Finance & Accounting 2019-2021, peer-reviewed journals and books

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EDITORSHIPS

Finance & Accounting

2019 - 2021

ТЛП

Prof. Dr. Reiner Braun

• Stiftungsunternehmen: Theorie und Praxis. 2018, 2019

Prof. Dr. Jürgen Ernstberger

- The International Journal of Accounting, since 2011
- International Journal of Accounting, Auditing and Performance Evaluation, since 2011

Prof. Dr. Philipp Maume

- Zeitschrift für Bank- und Kapitalmarktrecht (BKR), Managing Editor
- Book series "Münchener Schriften zum Wirtschaftsund Technikrecht", Nomos Publishing House, Baden-Baden, with Prof. Stefanie Jung

Prof. Dr. Michael Stich

 The International Journal of Accounting, Editorial Board Member

Prof. Dr. Rudi Zagst

• Associate Editor: Journal of Banking and Finance (JBF)

VISITORS

Finance & Accounting 2019 - 2021

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Prof. Cameron Peng London School of Economics

Prof. Konrad Raff Norwegian School of Economics

Prof. Stefan Ruenzi University of Mannheim

Prof. Markus Schmid University St. Gallen

VISITORS

Finance & Accounting 2019 - 2021



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Prof. Per Strömberg Stockholm School of Economics

Prof. Laurens Swinkels Erasmus School of Economics

Prof. Jacob Thomas Yale University

Prof. Mathijs van Dijk Erasmus University of Rotterdam

Prof. Alexander Wagner University of Zurich

Prof. Hannes Wagner Bocconi

Prof. Michael Weber University of Chicago, Booth School of Business

Prof. Florian Weigert HSG St. Gallen

Prof. David Yermack New York University

Prof. Miguel Sousa University of Porto



TUM School of Management Academic Department: Marketing, Strategy & Leadership



MARKETING, STRATEGY & LEADERSHIP

Who we are

The Academic Department of Marketing, Strategy & Leadership conducts research on business models, value chains, market(ing) strategies and leadership as well as the strategic and organizational impact of digital transformation on marketing, strategy and leadership. Its primary interest is the empirical investigation of the antecedents and consequences of the behaviors of employees, leaders, managers, customers and consumers.

Organization and Professors

- Prof. Dr. Vera Bitsch
- Prof. Dr. Christoph Fuchs
- Prof. Dr. Thomas Hutzschenreuter
- Prof. Dr. Hugo Kehr
- Prof. Dr. Jörg Königstorfer*
- Prof. Dr. Christoph Lütge*
- Prof. Dr. Klaus Menrad*
- Prof. Dr. Claudia Peus
- Prof. Dr. Jutta Roosen
- Prof. Dr. Christoph Ungemach
- Prof. Dr. Isabell M. Welpe

- Economics of Horticulture and Landscaping
- Marketing
- Strategic and International Management
- Psychology
- Sport and Health Management
- **Business Ethics**
- Marketing and Management of Biogenic Resources
- Research and Science Management
- Marketing and Consumer Research
- Marketing
- Strategy and Organization





Prof. Dr. Dr. Vera Bitsch

Chair of Economics of Horticulture and Landscaping

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Selected current research projects

- Solidarity Agriculture: Innovation, cooperation, institution building, polycentricity, and change
- Measuring sustainability in global value chains: The case of ornamental plants
- Cooperation across regional value chains for sustainable food
- Training and specialization in apprenticeships in agriculture, horticulture and landscaping
- Succession in agricultural family businesses: Opportunities and challenges

Curriculum vitae

Prof. Bitsch conducts research in the fields of agricultural economics and agribusiness management. Her main interest is sustainability in agricultural value chains. In her research, she prefers working with qualitative approaches, where she also contributes to methodological development and the inter-university Doctoral Certificate Program in Agricultural Economics. She is the current President of the German Society for Horticultural Science and a member of the German Commission for the Future of Agriculture.

Prof. Bitsch studied horticultural science at Leibniz University of Hannover. For her doctorate, she analyzed performance ratios based on annual financial statements in horticultural companies. During her time as assistant professor at Hannover, she researched management skills, strategic management, and management of personnel, including job satisfaction and motivation. Her research and book on qualitative research in applied economics made an essential contribution to the further development the methodological discussion in the field. In 2000, Prof. Bitsch accepted a position at Michigan State University. Her roles there involved research, teaching, and extension in the area of human resource management in agriculture. In 2008, her extension & outreach program received a prestigious national award by the Agricultural & Applied Economics Association (AAEA) in the United States. Prof. Bitsch joined TUM in 2010 as full professor and ordinaria for the Chair of Economics of Horticulture and Landscaping. In 2018, she received an honorary doctoral degree from the Swedish University of Agricultural Sciences for her work on sustainability and in 2020, the Fellow Award of the International Food and Agribusiness Management Association.

Areas of interest

- Sustainability, its measurement and evaluation across the agricultural value chain
- | Human resource management
- Strategic management and institutional development
- Management competencies and organization
- Qualitative research approaches and case studies



ТШ

Prof. Dr. Christoph Fuchs Professor of Marketing

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Selected current research projects

The Power of Personal: Since the time of the Industrial Revolution, technology has improved the wellbeing of both producers and consumers. However, this has come at the cost of a distancing between consumers and producers (and between consumers and production in general). This research program investigates the effects of reducing this distance – for example, by identifying producers to consumers and vice versa.

Areas of interest

- Customer empowerment
- | New roles of consumers
- New product development
- Consumer behavior
- Product and process innovation

Curriculum vitae

Christoph Fuchs is Professor of Marketing at TUM School of Management and Visiting Professor at the Rotterdam School of Management, Erasmus University. His research interests include customer empowerment and integration, process and production innovation, and consumer response to novel marketing strategies and tactics. His research has appeared in premier marketing and management journals such as the Journal of Marketing, Journal of Marketing Research, and Management Science, and received prestigious awards including the Thomas P. Hustad Award for the best paper published in the Journal of Product Innovation Management in 2011.

Christoph serves on the editorial review boards of the International Journal of Research in Marketing and the Journal of Product Innovation Management. He regularly serves as reviewer for other leading journals, including the Journal of Marketing, the Journal of Marketing Research, and the Journal of Consumer Research.

Prior to joining TUM School of Management, he was Associate Professor of Marketing (tenured) at Erasmus University. He also taught at Aarhus University and the University of Vienna, where he earned his Ph.D. (with distinction). He has collaborated with several large-scale and small-scale firms across a variety of industries.





Prof. Dr. Thomas Hutzschenreuter

Professor of Strategic and International Management

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Selected current research projects

- Internationalization of New Product Areas
- Growth versus Efficiency Increase
- Internationalization of Emerging Market MNEs
- Ownership, governance, and strategy
- Fundamental uncertainty

Areas of interest

- Competitive and corporate strategies
- Growth and corporate transformation
- Ownership and governance
- Offshoring, business process outsourcing, and mergers & acquisitions

Curriculum vitae

Professor Hutzschenreuter holds the Chair of Strategic and International Management at Technical University of Munich (TUM). Before joining TUM, Professor Hutzschenreuter taught at Handelshochschule Leipzig, Boston University, and WHU – Otto Beisheim School of Management. He has held visiting positions among others at Duke University, Bucerius Law School, and University of Calgary and has been invited for keynotes and guest speeches by multiple international universities and institutions. Professor Hutzschenreuter has extensive experience in designing strategies and governance structures. He worked for leading large and medium sized enterprises from different industries and conducted multiple research cooperation projects with renowned organizations. At TUM School of Management he serves as the Vice Dean for International Affairs and Alliances as well as the Academic Director of the "Master in Management and Innovation", a double degree program of TUM and HEC Paris.

Professor Hutzschenreuter publishes in leading international journals, such as Strategic Management Journal, Journal of International Business Studies, Journal of Management Studies, Journal of Management, Leadership Quarterly, and Strategic Organization. His research received multiple national and international awards, such as the "Best Annual Paper Award" by the Verband der Hochschullehrer für Betriebswirtschaft, the "Haynes Prize for the Most Promising Scholar in International Business" by the Academy of International Business, and the "Best Annual Paper Award" by the Journal of Management Studies. For his teaching he received the "Best Teacher Award" by the Bucerius Law School and WHU and the "Executive Education Award for Teaching Excellence" by TUM School of Management.



ТШ

Prof. Dr. Hugo M. Kehr Professor of Psychology

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Selected current research projects

Effects of personal and corporate visions: Effects of personal and corporate visions: Visions are mental images of a desirable future. Their motivating potential is based on their ability to arouse implicit (,unconscious') motives. We explore the effects of personal and corporate visions on goal pursuit, performance and subjective wellbeing.

Motivational integration: In cooperation with the Munich University of Philosophy, we pursue an interdisciplinary approach to understanding human integration based on the 3C-Model of Motivation and the Organismic Model of the Self.

Motivation assessment: We are developing and testing efficient assessment tools for motivation and volition in basic and applied (research) settings.

Curriculum vitae

Hugo teaches Basic Psychology and Organizational Behavior at undergraduate level and Leadership by Motivation and also Sex and Gender in the Office at graduate level. His current research, both basic and applied, is focused on motivational phenomena such as volitional depletion, intrinsic motivation and flow experience, the motivating potential of visions, and the impact of the sex motive in workplace settings. He serves on the Editorial Boards of Motivation Science, the German Journal of Human Resource Management, and the Zeitschrift für Arbeits- und Organisationspsychologie. He has also edited a special issue of Motivation and Emotion on "Implicit motives: Measures, mechanisms, management".

- Motivation and volition, basic and appliedUnconscious motivation
- Intrinsic motivation and flow experience
- Visions and goals





Prof. Dr. Jörg Königstorfer

Professor of Sport and Health Management

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Selected current research projects

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

The 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, 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 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.

Licensing effects when consuming food and being physically active

The project seeks to identify when, and how, consumers make healthful and sustainable decisions when purchasing and consuming food and when they want to be, or are, physically active. Furthermore, interaction effects between marketing food and physical activity are explored. The project derives public policy and marketing implications as to how food products and sport services should be marketed to not mislead consumers and provide them with an appropriate feedback regarding their goal-commitment and goal-achievement progresses.

Areas of interest

- Corporate social responsibility in sport and health
- Food marketing and consumer behavior
- Healthful consumer decision-making
- Sustainability in sport and health
- Sponsorship-linked marketing

Curriculum vitae

Since 2012, Jörg Königstorfer holds the Chair of Sport and Health Management. He is member of the TUM School of Medicine and Health and the TUM School of Management. He received his PhD from Saarland University and has been a postdoc at Pennsylvania State University. Jörg currently serves as an Associate Editor for European Sport Management Quarterly and is member of several Editorial Boards.

In his research, Jörg investigates managerial decisions of 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 the studies were published in scientific journals and were cited by various mass media outlets (e.g., NBC, USA Today, Boston Globe, Washington Post, Men's Health, ZDF, Handelsblatt, Bayerischer Rundfunk, Apothekenumschau).





Prof. Dr. Christoph Lütge Professor of Business Ethics

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Selected current research projects

Ethics of Competition

We approach economic ethics as "order ethics" and consider rules and institutions (both formal and informal) to be the decisive elements in business ethics, corroborated by competition. While competition is mostly seen in economics as a mechanism for solving problems, it is often ignored in ethics, if not altogether rejected. Economic ethics therefore analyses how institutions can play a role in realizing ethical principles in competitive settings. Here, we aim to foster the development of a contractarian ethics in order to offer an alternative basis for traditional approaches in business ethics.

Business Ethics and Digitization

In ethics, discussions of risk are often dominated by the problem of how to prevent harm - less by the question of how to make use of opportunities. However, we argue that these two aspects belong together. In a number of projects, we pursue the development of an ethics of rational risk calculation. This includes in specific the implications of risk management in connection to digitization.

Curriculum vitae

In his research, Prof. Lütge explores the conditions for ethical behavior in a globalized and pluralistic world. This includes the analysis of incentives, as well as the examination of ethical categories which fit into our contemporary world. The aim of his research is to develop institutional design recommendations and give orientation to actors in business, politics and society who face ethical challenges.

After studying business informatics and philosophy (doctorate in 1999), Prof. Lütge was a research assistant at the Department of Philosophy and Economics at LMU Munich, where he also completed his habilitation (2005). Research stays took him to Pittsburgh, San Diego and Venice. From 2004, Lütge was assistant professor at the department of philosophy of Ludwig Maximilian University of Munich, from which he also received his habilitation in 2005. Christoph Lütge was acting professor at Witten/Herdecke University from 2007 to 2008 and at Braunschweig University of Technology from 2008 to 2010. Since August 2010, he holds the Peter Löscher Endowed Chair of Business Ethics at Technical University of Munich. In 2019, Lütge became director of the new Institute for Ethics in Artificial Intelligence (IEAI) at Technical University of Munich.

Areas of interest

Business Ethics and Globalization
Ethics of Artificial Intelligence
Corporate Social Responsibility
Ethics and Risks



Prof. Dr. Klaus Menrad Professor of Marketing

and Management of Biogenic Resources

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Selected current research projects

VerPlaPos: This inter- and transdisciplinary cluster aims to reduce plastic packaging of food products and apparel through consumer interventions at the Point of sale that are tested in a real world laboratory in several shops in Straubing. This project is funded in FONA Social-Ecological Research of BMBF.

ENABLE: Funded by BMBF, the interdisciplinary cluster of ENAB-LE aims at developing healthier food products for people of all age groups. The professorship analyses the effects of individualized price promotions for healthier food choices.

Bio-based adhesives: Consumer reactions to bio-based adhesives in more sustainable packaging are analysed in this project funded by the Bavarian Ministry of Agriculture.

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

Curriculum vitae

Klaus Menrad holds a PhD in agricultural economics of the University of Hohenheim and finalized 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 Fraunhofer Institute for Systems and Innovation Research (ISI) (Karlsruhe) in innovation research. Since 2003, he is 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 is active in research activities related to food systems, innovations in the agro-food area and bioeconomy, consumer aspects in food and nutrition, sustainable development and bio-based products.





Prof. Dr. Claudia Peus

Professor of Research and Science Management

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Selected current research projects

FührMINT: Funded by the German Ministry of Education and Research, this project investigates individual and organizational success factors of leaders in academic STEM fields.

Team Unbound: Together with colleagues from INSEAD and LMU we investigate how the demands of multiple team membership can be managed effectively.

Personal Development at Work: This project, which is funded by the German Research Foundation (DFG), investigates the influence of the work environment – in particular, the work climate and leadership – on developmental trajectories of employees in organizations. In the process, combining qualitative and quantitative methods, we strongly focus on the prosocial and moral development of employees over time.

FührMINT I & II: Funded by the Federal Ministry of Education and Research (BMBF), the FührMINT project investigates success factors for women in academic STEM fields. We analyze requirements across career stages, how gender influences recruitment and career advancement to leadership positions, and which leadership styles are most effective for male and female academic leaders. The follow-up project FührMINT II, also funded by the Federal Ministry of Education and Research, focuses on gender-specific differences in the perception and evaluation of destructive leadership.

Leaderprofile: Funded by the European Union (Marie Skłodowska Curie Actions) this project develops novel avenues to study the neurocognitive mechanisms underlying (destructive) leadership behavior and its perception in a laboratory setting (utilizing electroencephalogram, eye-tracking, and physiology). Furthermore, the project explores the potential of technologies such as social robotics and virtual reality for leadership research.

Curriculum vitae

Claudia Peus has been Professor of Research and Science Management at 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 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, Prof. Peus focuses on leadership and leadership development in the digital age, the management of research organizations and diversity in organizations.

- Leadership
- Research and science management
- HR excellence
- Digital transformation





Prof. Dr. Jutta Roosen Professor of Marketing and Consumer Research

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Selected current research projects

Practicing Evidence – Evidencing Practice: Evidence is continually growing in importance for political, societal and individual decisions. It is based on scientific data, but is also a social phenomenon. Interdisciplinary Research Group 2248 addresses the question: How and by whom is evidence created and used, and what impact does this have? Within Subproject 4, the Chair of Marketing and Consumer Research examines the field of tension between risk analysis and intuition in food safety. The objective of the project is the examination of different forms of evidence in the debate on food safety, considering evidence practices of the consumer public and the scientific public and their interaction and dynamics, as well as their role in the description of food safety.

ENABLE: ENABLE is an interdisciplinary cluster of several universities, research institutes and food companies that develop new strategies to promote healthier food choices in all stages of life. The Chair assesses the acceptance of new food products and the use of behavioral economics insights to improve food choices.

Areas of interest

- Consumers' perception of food products
- Visual attention, eyetracking and consumer choice
- Willingness-to-pay studies
- Food marketing
- Efficient consumer policy

Curriculum vitae

Jutta Roosen studied Agricultural Economics at the University of Bonn and Washington State University (USA) and received her Ph.D. in Economics from Iowa State University (USA) in 1999. Before joining the Technical University of Munich she served as Faculty Member at the Université cath. de Louvain (Belgium) and the University of Kiel. In her research, she focuses on questions of consumers' perception, in particular regarding food products, and analyzes the consequences for food markets. Her research allows for conclusions regarding marketing and an efficient consumer policy. She is a Member of the ADAC Test Council.





Prof. Dr. Christoph Ungemach Professor of Marketing

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Selected current research projects

Research areas: Choice architecture, consumer behavior, judgment and decision-making, decisions under conditions of 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 re- search has shown that, unlike traditional nudges, decision signposts can facilitate choices in line with both individual preferences and societal goals. This work has proved 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 conditions of risk and uncertainty. He has shown in his research 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.

Areas of interest

- Choice architecture
- Consumer behavior
- | Judgment and decision making
- Decisions under conditions of risk and uncertainty
- Consumer analytics

Curriculum vitae

Christoph Ungemach is a professor of Marketing at Technische Universität München. His research focuses on the behavioural science of decision making. Working on the intersection of Economics and Psychology, he tries 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 making decisions that are better aligned with both their own preferences and societal goals. The findings of his research have been published in leading international journals, including Management Science, Psychological Science and Judgment and Decision Making.

Before he joined TUM School of Management in November 2016, he was an Associate Research Scientist at Columbia University, 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 fellow-ship by the Economic and Social Research Council to conduct his research on decision making under risk and uncertainty. He has also been a visiting scholar at the University of Chicago Booth School of Business.





Prof. Dr. Isabell M. Welpe Professor of Strategy and Organization

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Selected current research projects

Strategy, Business Models, & Economics of Decentralized Finance (DeFi): The main objective of our DeFi research is to shed light on the underlying functioning, players and business models of decentralized finance systems. Within the scope are questions such as: Which economic players are driving trade in decentralized finance? What are typical trade structures in decentralized finance? Which strategies can be identified? Furthermore, practical insights about the dynamics in decentralized finance systems shall be gained.

Match for success! Successful compositions for start-up teams: The goal of this project is the investigation of specific complementary psychological factors in founders and founding startup-teams which influence the viability of entrepreneurial teams. We know from extant research that many start-ups fail not because of a lack of a promising business model or funding but rather a lack of interpersonal fit. To tackle this, we utilize multiple data collection methods in conjunction with financial data on start-up performance to predict interpersonal success factors in start-up teams.

Areas of interest

- Strategy
- Leadership
- Innovation
- Digitalization of business and society

Curriculum vitae

Prof. Dr. Isabell M. Welpe is a full professor at the Technical University of Munich and head of the Chair for Strategy and Organization. Her research focuses on digital transformation and business model innovation, strategic leadership, innovation and the future of work, selection and assessment of leaders and the role of emerging technologies for organizations and society. Prof. Welpe is the Academic Director on behalf of TUM for the Center for Digital Technology & Management (CDTM).

She is a recurring speaker at international technology and innovation conferences such as Digital Life Design (DLD) and has been listed among the Top 40 under 40 of the "digital elite". Her work has received several national and international awards, including Best Paper Awards from the Academy of Management (AOM), the Hawaii International Conference on System Sciences (HICSS), and the German Academic Association for Business Research (VHB).

Isabell M. Welpe studied Management at the Ludwig-Maximilians-University in Munich, Germany and at the Massachusetts Institute of Technology, Boston, USA. She completed an additional MSc at the London School of Economics before finishing her doctorate at the University of Regensburg. She has been a visiting professor at the Keck Graduate Institute, Claremont, USA, a postdoctoral fellow at the Carlson School of Management at the University of Minnesota, a senior researcher at the Max Planck Institute for Economics and is currently a research fellow at the Centre for Blockchain Technologies at the University College London. Her research is covered in the media, such as the Harvard Business Review, Financial Times, Süddeutsche Zeitung, Handelsblatt, ManagerMagazin, Die Welt, BR, and WirtschaftsWoche.

Marketing, Strategy & Leadership

2019-2021, peer-reviewed journals and books

Alleva, J. M.; Tylka, T. L.; van Oorsouw, K.; Montanaro, E.; Perey, I.; Bolle, C.; Webb, J. B. 2020. The effects of yoga on functionality appreciation and additional facets of positive body image. *Body Image.* 34: 184-195.

Arendt, J. F. W.; Pircher Verdorfer, A.; Kugler, K. G. 2019. Mindfulness and leadership: Communication as a behavioral correlate of leader mindfulness and its effect on follower satisfaction. *Frontiers in Psychology*

Bauer, A.; Menrad, K. 2019. Standing up for the Paris agreement: Do global climate targets influence individuals' greenhouse gas emissions? *Environmental Science & Policy*. 99: 72-29.

Bauer, A.; Menrad, K. 2020. The nexus between moral licensing and behavioral consistency: Is organic consumption a door-opener for commitment to climate protection? *The Social Science Journal*

Bauer, A.; Menrad, K. 2020. Beyond risk and return: What motivates environmentally friendly or harmful student fund investments in Germany? *Energy Research & Social Science*. 67: 101509.

Baumhof, R.; Decker, A.; Menrad, K. 2019. A comparative analysis of house owners in need of energy efficiency measures but with different intentions. *Energies*. 12: 2267-2286.

Berki-Kiss, D.; Menrad, K. 2019. Consumer preferences of sustainability labeled cut roses in Germany. Sustainability. 11: 3358-3377.

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EDITORSHIPS



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Prof. Dr. Dr. Vera Bitsch

- Managing Editor Europe: International Food and Agribusiness Management Review (since 2011, ongoing)
- Editorial Board for the German Journal of Agricultural Economics (2013-2019)

Prof. Dr. Christoph Fuchs

- Associate Editor Journal of Marketing (2019-)
- Associate Editor Journal of Consumer Research (2021-)

Prof. Dr. Thomas Hutzschenreuter

- Management and Organization Review, Senior Editor
- Journal of International Business Studies, Editorial Board Member
- Global Strategy Journal, Editorial Board Member
- Journal of International Management, Editorial Board Member
- Management International Review, Editorial Board Member
- Multinational Business Review, Editorial Board Member

Prof. Dr. Hugo Kehr

- Motivation Science, Editorial Board Member
- Zeitschrift für Arbeits- und Organisationspsychologie, Editorial Board Member
- German Journal of Human Resource Management, Editorial Board Member

Prof. Dr. Jörg Königstorfer

- European Sport Management Quarterly
- the Journal of Global Sport Management
- Marketing ZFP Journal of Research and Management
- Associate Editor of the European Sport Management Quarterly

Prof. Dr. Christoph Lütge

- The Praxis of Diversity. Basingstoke: Palgrave Macmillan (with Christiane Lütge and Markus Faltermeier)
- The Honorable Merchant Between Modesty and Risk-Taking. Springer International Publishing. (with Christoph Strosetzki)

- The Idea of Justice in Literature. Springer: Springer International Publishing
- (with Hiroshi Kabashima, Shing-I Liu and Aurelio de Prada García)
- Zwischen Bescheidenheit und Risiko: Der Ehrbare Kaufmann im Fokus der Kulturen
- Springer: Springer International Publishing. (with Christoph Strosetzki)

Prof. Dr. Claudia Peus

- Journal of Applied Social Psychology
- Journal of Theoretical Social Psychology
- Frontiers in Psychology
- Hochschulmanagement
- Organisations Entwicklung

Prof. Dr. Jutta Roosen

Co-editor Food Policy

Prof. Dr. Isabell Welpe

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VISITORS



Marketing, Strategy & Leadership 2019 - 2021

Prof. Gilad Chen 2019, Robert H. Smith School of Business, University of Maryland

Prof. Audrey Korsgaard

2019, University of South Carolina, Darla Moore School of Business

Prof. Tobias Dennerlein 2020, IESE Busiess School of Navarra

Prof. Amir Goldberg 2020, Stanford Graduate School of Business



TUM School of Management Academic Department: Economics & Policy



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 and, therefore, our faculty is involved 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.

Economics of Aging

Economics

International Relations

Economics of Innovation

Resource Economics

Managerial Economics

Science & Technology Policy

Economics of Energy Markets

Forest and Environmental Policy

Corporate Law

Forest Economics

Agricultural and Food Economics

Governance in International Agribusiness

Economics of Renewable Resources

Agricultural Production and Resource Economics

Economics - Public Finance and Industrial Organization

Environmental Policy and Resource Economics

Organization and Professors -

- Prof. Dr. Axel Börsch-Supan
- Prof. Dr. Tim Büthe*
- Prof. Dr. Anja Faße*
- Prof. Dr. Sebastian Goerg*
- Prof. Dr. Stefan Hirsch
- Prof. Dr. Hanna Hottenrott
- Prof. Dr. Svetlana Ikonnikova
- Prof. Dr. Stefanie Jung
- Prof. Dr. Michael Kurschilgen
- Prof. Dr. Luisa Menapace
- Prof. Dr. Martin Moog
- Prof. Dr. Ruth Müller
- Prof. Dr. Hubert Röder*
- Prof. Dr. Sebastian Schwenen
- Prof. Dr. Johannes Sauer
- Prof. Dr. Michael Suda
- Prof. Dr. Robert K. Freiherr von Weizsäcker
- * Affiliate Member





Prof. Dr. h.c. Axel Börsch-Supan, Ph.D. Professor of Economics of Aging

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Selected current research projects

SHARE, the Survey of Health, Ageing and Retirement in Europe, is a multidisciplinary and cross-national panel database of microdata on health, socio-economic status and social and family networks of approximately 140,000 individuals (more than 480,000 interviews) aged 50 or older from 27 European countries plus Switzerland and Israel. The main objective of SHARE is to document the individual and social consequences of demographic change, to improve the understanding of these consequences and to put health and social policy countermeasures on a sound scientific basis.

The SHARE-COVID19 project studies the short and long-run nonintended effects of the epidemic control measures on the health and the economic and social situation of Europeans in order to recommend improved public health and economic policies. The project is funded by the European Commission via Horizon 2020 and the Coronavirus Global Response.

Aging in the Eastern Mediterranean is a joint project of TUM and the American University in Cairo to study aging in Egypt, Jordan and the Lebanon, funded by TUM and DAAD.

Areas of interest

- Economics of demographic change
- Pensions and retirement behavior
- Household savings behavior
- Housing markets
- Panel data and discrete choice econometrics

Curriculum vitae

Axel Börsch-Supan became Full Professor of the Chair for the Economics of Aging at the Technical University of Munich in 2011. He studied Economics and Mathematics in Munich and Bonn and received a doctorate in Economics from MIT (Cambridge, USA) in 1984. After working as an Assistant Professor of Public Policy at Harvard University (1984-1987) and Professor of Economic Theory at the University of Dortmund (1987-1989), he was Professor of Macroeconomics and Economic Policy at the University of Mannheim (1989-2011).

In his role as Director of the Max Planck Institute for Social Law and Social Policy in Munich, Axel has headed the Munich Center for the Economics of Aging (MEA) since 2011. He is a Full Member of the Berlin-Brandenburg Academy of Sciences and the German National Academy of Sciences Leopoldina, and a Corresponding Member of the Austrian Academy of Sciences. He is also Managing Director of the Survey of Health, Ageing and Retirement in Europe (SHARE). He is a Member of the Council of Advisors to the German Economics Ministry (Chair 2004-08), a Member of the German federal governments' Expert Group on Demography, Member of the Pension Commission, and has served as a consultant to the European Commission, the World Bank, the OECD and several foreign governments.





Prof. Dr. Tim Büthe

Professor and Chair for International Relations

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Selected current research projects

Individual-Level Behavioral Responses to the COVID-19 Pandemic in Germany and Europe: Vaccine hesitancy, compliance with governmental and non-governmental measures, etc. (with Prof. Dr. Janina Steinert, HfP/TUM-Professor of Global Health). Part of PERISCOPE, the largest EUfunded social science project on COVID-19 and its consequences, with 31 partners across 15 European countries.

CoronaNet: Comprehensive database of measures adopted by governments in response to COVID-19, built by a network of 600+ contributors at 180+ universities and research institutes covering 195 countries and jurisdictions around the world, led by Dr. Cindy Cheng at the IR Chair. CoronaNet is part of PERISCOPE.

Human Preference-Aware Optimization System (with Prof. Dr. Johannes Fottner, TUM Chair of Logistics): An alternative approach to AI use for the optimization of logistics operations, which utilizes employee-related process data to assign tasks in a way that is respectful of non-invasively measured individual differences, without actually judging an employee, thus safeguarding employee autonomy.

The Global Diffusion of Competition Law and Its Consequences for Innovation: A Cross-National Comparative Perspective (with Dr. Cindy Cheng, TUM, and Prof. Dr. Shahryar Minhas, Michigan State).

Curriculum vitae

Tim Büthe is Professor and Chair for International Relations at the Hochschule für Politik/TUM School of Governance and the TUM School of Management. His research examines the politics of international economic relations, with a current focus on technology governance for product and financial markets, in medicine and health policy, and for consumer safety; as well as a second focus on the causes and consequences of the rapid global diffusion of competition law and policy. He has previously also worked on political risk analysis and foreign direct investment. He studied primarily at Harvard (BA 1995) and Columbia (Ph.D. 2002). Prior to joining TUM in 2016, he was Associate Professor of Political Science and Public Policy (tenured) at Duke University, having previously taught at Stanford and Columbia Universities. He has held postdoctoral research appointments at Harvard and UC Berkeley. His work has appeared in the American Political Science Review, the *American Journal of Political Science, Business & Politics, International Organization, Law & Contemporary Problems, Regulation & Governance, World Politics*, and other leading journals, as well as numerous books and policy reports.

- International Trade & Finance
- Foreign Economic Policy
- Competition Law and Policy
- Innovation Policy
- Standardization
- Health Policy
- Technology Governance



Prof. Dr. Anja Faße Professor of Environmental and Development Economics

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Selected current research projects

International Effects of Local Bioeconomy Measures

The transformation to a sustainable bioeconomy requires multi-layered political measures that are as efficient and cost-effective as possible at the national level. The design of such a portfolio of measures from a German and European perspective is closely linked to the effects on international trade and prosperity in emerging and developing countries, which are both suppliers of important natural raw materials and buyers of bioeconomic products. The assessment of international effects of national action enable a holistic view of the necessity of an international sustainable bioeconomy strategy.

Impact assessment of shocks and innovations on issues such as poverty, food security, inequality, entrepreneurship, satisfaction and migration in developing countries (esp. Tanzania).

So far, life satisfaction has mostly been neglected in development economics. In the future, it will not be enough to develop innovations together with developing countries to combat poverty and food insecurity. The focus is on the question of which development strategies, besides agricultural research, have the greatest potential to sustainably and permanently increase poverty, food security and life satisfaction. Non-farm entrepreneurship (necessity versus opportunity) will play an important role here.

Areas of interest

Poverty, food insecurity, life satisfaction

- Sustainable agricultural economics
- Entrepreneurship in developing countries
- International impact of national political measures (Bioeconomy)
- International trade

Curriculum vitae

Prof. Anja Faße joined the TUM Campus Straubing in 2016 and the TUM School of Management in 2018. She is Senior Fellow at the Institute for Environmental Economics and World Trade at the Leibniz University of Hannover. Since 2018 she has been Vice Rector at the TUM Campus Straubing for Sustainability and Biotechnology.

The research of Anja Faße refers to the field of environmental and developmental economics applying and refining growth theories. More precisely, research questions in the fields of impact assessment of shocks and innovations on poverty, food security, inequality, life satisfaction and related coping strategies (e.g. entrepreneurship, migration) in developing countries are addressed. She runs a long-term panel data survey (10 years) in Tanzania, where the COVID-19 impact on the poorer rural population is currently being surveyed. Furthermore, she analyses topics related to the Bioeconomy and the effects of environmental, agricultural, climate and trade policies on the international competitiveness of national economies.



Prof. Dr. Sebastian Goerg Associate Professor of Economics

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Selected current research projects

Social change and human behavior in the bioeconomy.

The shift from a fossil-based economy to a sustainable bio-based economy requires broad social acceptance. The enormous impact of the public opinion on political processes is well illustrated by the global "Fridays for Future" movement. There are major differences in attitudes and support for various options to shape the bioeconomy. Using representative surveys, we link socio-economic variables of support and attitudes towards issues such as bioeconomy and sustainability at the individual level. Such links enable policy measures to be developed and evaluated in a targeted manner.

Optimistic belief updating

and ego-motivated behavioral mechanisms.

Beliefs about the likelihood of certain events are a crucial part of most economic models at the micro level. The standard framework assumes that individuals update their beliefs according to Bayes' rule and respond neutral to positive and negative signals. We investigate how individuals update their beliefs about their relative performance for different levels of ego-relevance, i.e., how important it is for an individuals' self-image to perform well in the task. We conjecture that belief updating is more optimistic if the perceived level of ego-relevance is high. This would confirm optimistic belief updating as an ego-motivated process and support theoretical models with belief-based utility.

Curriculum vitae

Professor Goerg is a behavioral and experimental economist. He investigates how incentives, information, and (legal) institutions influence actual human behavior. Together with co-authors from the social and natural sciences, he pursues an interdisciplinary research agenda.

Professor Goerg studied economics at the University of Bonn, where he also obtained his PhD under the supervision of Nobel Laureate Professor Reinhard Selten. From 2009 to 2012, he worked at the Max Planck Institute for Research on Collective Goods. After research stays at Shanghai Jiao Tong University and the University of Michigan, he joined Florida State University as an Assistant Professor in 2012 and was granted tenure there in 2018. In 2018, Professor Goerg joined TUM as an Associate Professor. He heads the Professorship of Economics at the TUM Campus Straubing for Biotechnology and Sustainability. Professor Goerg is also a Research Fellow at the IZA – Institute of Labor Economics, and a Research Affiliate at the Max Planck Institute for Research on Collective Goods.

Areas of interest

Behavioral Economics

- Experimental Economics
- | Organizational Economics
- | Personnel Economics





Prof. Dr. Stefan Hirsch

Professor of Agricultural and Food Economics

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Selected current research projects

Competition and Profitability in EU Food Retailing: Investigates the drivers and the persistence of firm profits in EU food retailing thereby generating insights for the derivation of managerial strategies as well as antitrust policies in this highly dynamic sector. Special emphasis is put on evaluating whether profits of food retailing firms are more persistent than in other retail sectors and the potential consequences in form of bargaining power towards processors and entry barriers that lead to less pronounced competition.

Production Flexibility of EU food processors: Focuses on the flexibility of EU food processing firms to adjust production to fluctuating economic conditions and evaluates possible tradeoffs between firms` production flexibility and efficiency.

Areas of interest

- Empirical Industrial Organization of the Food Sector
- | Food- and Agribusiness Economics
- Econometric Methods
- Production Economics
- Consumer Research

Curriculum vitae

Professor Hirsch studied economics at Bonn University where he earned his doctoral degree in agricultural sciences in 2014. Afterwards he worked as postdoc at Bonn University (2014-2016) and the Department of Management, Technology and Economics at ETH Zurich (2016-2018). During his postdoc he was visiting researcher at University of Connecticut and Arizona State University.

His research focuses on the competitiveness and strategic actions of agribusiness firms. This involves investigating the drivers of vertical and horizontal integration, production flexibility, innovation, efficiency, and profitability of firms at different stages of the food supply chain.





Prof. Dr. Hanna Hottenrott Professorship for Economics of Innovation

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Selected current research projects

The project on the Division of Labor in R&D between small and large firms investigates research & development (R&D) investment decisions. Our model predicts higher investments in both activities for larger firms, but it also shows that research intensity declines with firm size. Empirical results show that larger firms invest indeed more in both research and development whereas the relative focus on research decreases with firm size. In addition, the productivity returns to research decline with firm size.

The project on the link between Public Subsidies and the Sources of Venture Capital tests the hypothesis that public subsidies have a positive effect on follow-on financing. This study differentiates between Government VC, Independent VC, Corporate VC, and Business Angel financing and shows that public subsidies are not relevant for all of these sources. When accounting for firm characteristics that drive both selection into public subsidies as well as into VC financing, we find that subsidies are only causality linked to Government VC and Business Angel financing, but not to other sources of VC.

Areas of interest

Economics of innovation

- Economics of science
- Industrial economics
- Technology policy
- Applied econometrics

Curriculum vitae

Hanna Hottenrott joined TUM School of Management in May 2016. Prior to that, she was Assistant Professor at the Düsseldorf Institute for Competition Economics (DICE) of the University of Düsseldorf. She obtained a Ph.D. in Applied Economics from KU Leuven (Belgium) and holds an advanced degree in Economics from the University of Heidelberg. At KU Leuven she worked on topics related to the financing of research and development (R&D). After graduating, she was awarded a fellowship from the Flemish Science Foundation (FWO) and investigated questions in the fields of innovation policy.

In her research, Hanna studies the microeconomics of innovation and the role of public policy for the innovation performance of technology-based firms. Moreover, her research addresses how inter-organizational interactions influence incentives for innovation in the public and the private sectors. Her work provides essential insights for innovation policy and relates to the broader fields of industrial economics and applied micro-economics.

Her work has been published in renowned journals, including the Review of Economics and Statistics, Research Policy, Journal of Economics and Management Strategy, Cambridge Journal of Economics, Studies in Higher Education, Industrial and Corporate Change, Journal of Regional Science, Economics of Innovation and New Technology and the Journal of Product Innovation Management.





Prof. Dr. Svetlana A. Ikonnikova Associate Professor of Resource Economics

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Selected current research projects

H2Global: The emerging hydrogen markets The increasing number of countries turn to hydrogen technologies for power generation, energy storage, transportation, and industrial production. Our research focuses on the competitiveness of various hydrogen technologies, advantages of co-integration with renewable generation technologies, and regulatory incentives. We explore how countries choose in which technologies to invest and how the international markets will develop.

Evolution of the international trade: To incentivize the transition to low carbon technologies and induce producers to invest accordingly, governments introduce policies supporting the development of "clean" energy resources. We analyze countries 'energy production and consumption profiles to develop a model of the international energy trade network and simulate how the transition may occur depending on the resource endowment and new technologies adoption rates focusing on the evolution of the comparative advantage.

Areas of interest

- Energy economics Investment strategies
- New energy technologies

Curriculum vitae

Focusing on the energy transition, Svetlana Ikonnikova researches development of new technologies and evolution of international energy trade, investment strategies, supply and price dynamics. Her work explores: the effect of price and regulatory uncertainty on investments in technologies; inter-fuel competition; and hydrogen markets. In addition to research and teaching, Svetlana leads industry-funded HEC-TUM Climate Alliance for Research and Education (CARE) addressing the challenges of carbon-reduction and sustainable development.

Svetlana joined TUM as the Associate Professor at the Center for Energy Markets in September 2019, moving from the University of Texas at Austin, the Center for Energy Economics. Svetlana holds M.Sc. in Applied Physics and Math from the Moscow Institute for Physics and Technology and Ph.D. in Economics & Management from the Humboldt University of Berlin. Her work has been published in various journals, including the Journal of Industrial Economics, Energy Journal, Environmental Management, Journal of European Economic Association, Economics of Energy and Environmental Policy, SPE Economics and Management, and Energy.



ТЛП

Prof. Dr. jur. Stefanie Jung Professor of Corporate Law

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Selected current research projects

- The relationship between morality, Rechtsgefühl and the law
- Lies in contract negotiations
- European group law

Areas of interest

- (European) company law and corporate governanceComparative law
- Contract negotiations
- Business networks
- Legal methodology
- Law and economics and
- empirical legal studies

Curriculum vitae

Prof. 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, Prof. Jung 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, Prof. Jung completed a research stay at the European Commission devoted to European company law. In 2016, she was appointed Junior Professor of civil law, in particular corporate law, at the University of Siegen. From 2014 to the present day, Prof. Jung also holds a Visiting Fellowship at the Classical Liberal Institute (New York University, USA) upon invitation by Prof. Epstein. Since 2015, Prof. Jung has been a visiting lecturer at Vienna University of Economics and Business each winter semester, lecturing on contract negotiations. From February 2020 onwards, she is Professor of Corporate Law at the Technical University of Munich at the Heilbronn campus.



Prof. Dr. Michael Kurschilgen Assistant Professor of Managerial Economics

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Selected current research projects

Filter Bubbles and Infection Control (with Johannes Müller) investigates the interdependence of information, opinion formation and the spread of infections. In a public health crisis like the current COVID-19 epidemic, citizens need to be able to trust the recommendations of experts. Trusting the expert, however, is complicated by the fact that, in principle, the expert could have (hidden) incentives to not tell the truth. Complex societies are multi-layer networks of individuals, who affect one another by what they do (e.g. wearing a mask or not) and by what they say (e.g. "COVID-19 is serious" or "it is a hoax").

Strategic yet informative – Field and lab evidence on the value of social signals (with Julia Holzmann and Magnus Strobel) provides causal field evidence that applicants with internships in companies with (Tesla, Innogy) rather than without a salient social mission (Porsche, RWE) have a higher likelihood of being invited to a job interview. In the lab, we find that – despite being used strategically to increase one's application chances – previous social commitment remains an informative signal of a candidate's likelihood of being a good team player.

Areas of interest

- Behavioral economics
- Experimental economics
- Organizational behavior
- Law and economics
- Public economics

Curriculum vitae

Michael Kurschilgen works at the intersection of Economics and Management with Social Psychology and Law. He is particularly interested in understanding normativity, that is to say, consensual social judgments of "right" and "wrong" behavior. He studies these questions particularly by means of controlled laboratory experiments.

Michael studied Economics at the Universities of Bonn and Maastricht, and at Sciences Po Paris (2002-2007). After a stint as a consultant for large mining and engineering projects in India and Kazakhstan, he enrolled as a Ph.D. student at the International Max Planck Research School "Uncertainty", graduating in 2013 from the University of Jena. He continued his academic career as a postdoctoral fellow at the Max Planck Institute for Research on Collective Goods in Bonn. He has been a Visiting Researcher at the Stanford University, the University of California Berkeley, the European University Institute Florence, the University of Bologna and the University of Michigan. In November 2015 he was appointed Assistant Professor of Managerial Economics at TUM School of Management.





Prof. Dr. Luisa Menapace

Professor of Governance in International Agribusiness

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Selected current research projects

BATModel (Horizon 2020) We explore the international trade implications of Geographical Indications, building models for policy evaluation.

Herkunftstool (BLE) We assess the effect of origin-based food labels for the German food craft sector and develop a sector-specific information system.

Areas of interest

Food value chain economics

- | Sustainability in food value chains
- Fairness in B2B relationships in food value chains
- Geographical Indications
- | Food labeling and certification
- Stallholders access to high-value food markets

Curriculum vitae

Luisa Menapace is Associate Professor and Head of the Governance in International Agribusiness Group. She joined TUM in 2013 and has a double affiliation to the TUM School of Management and TUM School of Life Sciences. She holds a PhD in Economics from Iowa State University (USA).

Luisa's team conducts research on the economics of agro-food value chains. That means we investigate how farmers, producer groups, food processors, food distributors, consumers, policymakers and society operate, interact and influence each other to determine what people ultimately eat. Our ongoing projects focus on food labels (origin-based labels, animal welfare labels); food quality standards; formal and informal contractual relationships; unfair business practices; smallholder farmers' financial inclusion; smallholder farmers' participation in high-value agro-food markets. We conduct theoretical, and qualitative and quantitative empirical research. Theoretical modelling (microeconomic, international trade and game theory) helps us understand the drivers of decision-making. Behavioral experiments, observational studies, surveys and expert interviews help us test those theoretical models to gain a practical understanding of their managerial and policy-making relevance.



Prof. Dr. Martin Moog Professor of Forest Economics

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Selected current research projects

Forecasting Forest Prices: Forecasts help to recognize and minimize risks in the supply chain management e.g. initiating the adjustment of timber harvesting to fast changing market conditions. Reliable predictions about such changes in the timber market are scarce and mainly based on often very complex models. The statistical technique of time series methods in forest sector research is applied to develop models which combine both as low as possible degree of complexity and reliable predictions of timber quantities and prices.

The Effect of the EU ETS on the Aviation Sector: To regulate the rising environmental impact of flying, the EU integrated aviation into the European Emissions Trading System (EU ETS) in 2012. We conduct an empirical ex-post evaluation on the effect of the EU ETS on passenger numbers using a gravity model approach. The results suggest that the EU ETS has so far had very few reducing and statistically not significant effects on passenger numbers. We control for the impact of the Austrian and German air transportation tax on passenger numbers. This aviation tax brings about statistically significant and robust demand reductions on the affected country-pairs.

Cost-allocation in associations based on game theory: Associations are federations of actors representing common interest and providing (public) services. They are funded through the contributions of the associations' members. As the range of services increases, so does the interest shown by members in obtaining service proof. Therefore, associations should respond with transparency and accountability. Another possibility would be a performance-related "individual" membership fee.

Curriculum vitae

Professor Martin Moog holds the chair of Forest Economics since 1992. After completing his studies in Forest Science at the Georg August University Göttingen, he worked as a research assistant at the Institute for Forest Economics and spent some month at the International Institute for Applied Systems Analysis (IIASA) located at Laxenburg near Vienna, as a participant in a program for young scientists. His interest was then focused on qualitative input-output-analysis and after finishing the dissertation from 1987 to 1989, he conducted a legal internship at the State Forest Service of Hesse and passed the final state examination. After recurrence to the University of Göttingen, his research interest was mainly concentrated on the econometric modelling of supply behavior of forest enterprises. In 1992, he obtained postdoctoral lecture qualification.

- Economic analysis of forest management
- | Environmental economics and management
- Appraisal of forests and business valuation
- | History of economic thought





Prof. Dr. Ruth Müller

Associate Professor of Science & Technology Policy

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Selected current research projects

- **Responsible Robotics (RR-AI)** Tracing Ethical and Social Aspects of AI-Based Transformations in Healthcare Work and Knowledge Environments
- SCALINGS Scaling up Co-Creation: Avenues and Limits for integrating Society in Science and Innovation (EU Horizon 2020)
- **Evidenz für Exzellenz** (TUM Gender & Diversity Incentive Fund; MCTS Lab Engineering Responsibility)
- Genom-Editierung in der Landwirtschaft: Gesellschaftliche und wissenschaftliche Bewertungen (Bayerische Forschungsstiftung)
- Plastics Publics Politics (BMBF)
- Die Umweltepigenetik situiert verstehen. Eine vergleichende, akteurszentrierte Studie der Umweltepigenetik als aufstrebender Forschungsansatz in drei Forschungsfeldern (DFG)

Areas of interest

- Academic Knowledge Cultures in Transformation
- Emergent Knowledge Cultures in the Life Sciences
- Gender, Diversity and Social Justice

Curriculum vitae

Ruth Müller is a researcher in the interdisciplinary research field of Science & Technology studies. She has 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 research 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 the TUM School of Management and the TUM School of Life Sciences.



Prof. Dr. Hubert Röder

Professor of Economics of Renewable Resourcesmics

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Selected current research projects

- Development of an innovative forest-development concept and service concept for the optimization of sustainable forest management in small private forests
- TeFuProt innovation alliance: sustainability assessment of technical proteins from rapeseed cake and rapeseed meal
- TeFuProt II innovation alliance: sustainability assessment of technical proteins from rapeseed cake and rapeseed meal Research of natural substances from blue-green algae as a development model of the cross-border scientific partnership between Bavaria and the Czech Republic - sustainability assessment of products and conversion technologies
- From molecule to material sustainability assessment bio-based adhesives
- New business models for municipal energy suppliers due to bioenergy and load management
- Empirical investigation of the influencing factors for energetic restructuring among private property owners
- Economical modeling and sustainability assessment of an organic-fermentational "Power-to-Gas" process

Curriculum vitae

Prof. Dr. Hubert Röder holds the Chair for Economics of renewable resources at the Technical University Munich – TUM Campus Straubing for biotechnology and sustainability and at the University of Applied Sciences Weihenstephan-Triesdorf. In his current projects, Prof. Dr. Hubert Röder 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 PhD (Dr. rer. silv.) about "Structure Analysis of Forest Economic Data by the Formal Concept Analysis". After that he worked for 12 years as consultant in the forest industry sector. From 2001 until 2007 he held lectures at TUM about international forestry and forest industry markets. Since 2012 he holds lectures at the University of Applied Sciences Wiener Neustadt at the Campus Wieselburg about International Bioenergy Markets.

- Strategy
- Due Diligence
- Sustainability
- Bioeconomy
- (Environmental) Life Cycle Costing





Prof. Dr. Johannes Sauer

Professor of Agricultural Production and Resource Economics

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Selected current research projects

Monitoring the Bioeconomy (BioMonitor)

The overall objective is to establish a statistical/economic modelling framework for the quantification of the EU bioeconomy and its economic, environmental and social impacts (EU funded).

Water-Ecosystem-Food Nexus (Sigma)

SIGMA-Nexus (EU funded) develops pathways for climate resilient water resource management in the Mediterranean region.

Value Chain Financing for Climate-Smart Agriculture / South Asia (VCFCSA)

This project (BMBF funded) identifies viable value chain financing models that strengthen the adoption of CSA technologies.

Network for Impact and Evidence Transfer / China (PuR-China)

This network with excellent Chinese universities/research institutes (BayChina, DAAD funded) focuses on empirical evidence generation as well as management/policy optimisation in agri-food supply-chains and the bio- and circular economy.

Evaluating the Impact of Climate-Smart Agriculture / Latin America (Net-CSA)

This BMBF funded project aims at establishing a long-term research and outreach cooperation in the fields of resource and agricultural economics with leading universities/research institutes.

Curriculum vitae

Johannes (Jo) Sauer joined TUM in 2013 and leads the Chair for Production and Resource Economics located at the TUM campus Weihenstephan. He received a degree from Imperial College London and obtained a PhD (distinction) from the University of Bonn in 2004 while working in parallel as a senior management consultant. Jo worked as associate professor at the University of Copenhagen and as senior lecturer at Imperial College London and the University of Manchester. He held an endowed chair at the University of Kiel and was a visiting professor at Princeton University, UC Berkeley, UC Davis and University of Bergen. Jo Sauer is advisor to the OECD and the Asian Development Bank, member of the UK ESRC Peer Review College and Liaison Professor of the German National Academic Foundation (Studienstiftung des Deutschen Volkes).

He has been awarded a honorary professorship (prof h.c.) by the Australian National University and served as Department Head (2014-2017) and Vice Dean (2016-2018) at the TUM School of Life Sciences. His work has been published in leading applied economic journals as e.g. American Journal of Agricultural Economics or Resource and Energy Economics and he serves on the editorial boards of the Journal for Productivity Analysis and the European Review of Agricultural Economics. Jo is heavily enganged in international outreach and policy advisory with respect to Asia, Latin America and Africa.

- Production, Efficiency and Market Analysis and Policy Evaluation
- Smart Technology Adoption and Sustainable Innovation
- Bioeconomy and Biotechnology
- Economics of Water Resources
- Mathematical and Statistical Modelling
- Applied Microeconometrics



Prof. Dr. Sebastian Schwenen Professor of Center for Energy Markets

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Selected current research projects

Local Power Markets: In current power markets, the bulk of electricity is sold wholesale and transported to consumers via long-distance transmission lines. Recently, decentralized local power markets have evolved, often as isolated networks based on solar generation. We analyze strategic pricing, investment, and welfare in local power markets. We show that local power markets with peer-to-peer trading are competitive and provide efficient investment incentives, even for a small number of participating households. We identify positive network externalities that make larger markets more attractive but lead to inefficiencies where networks compete. Collectively, our findings present a set of positive efficiency results for peer-to-peer electricity markets.

The Impact of Carbon Disclosure Mandates on Emissions and Financial Operating Performance: We examine the impact of a disclosure mandate for greenhouse gas emissions on firms' subsequent emission levels and financial operating performance. For UK-incorporated listed firms a carbon disclosure mandate was adopted in 2013. Our difference-in-differences design shows that firms affected by the mandate reduced their emissions by about 8% relative to a control group of European manufacturing firms. At the same time, our tests indicate that the treated firms experienced no significant change in their gross margins. Taken together, our findings indicate that the disclosure mandate had a real effect in terms of the variable to be disclosed without adversely affecting the financial operating performance of the treated firms.

Curriculum vitae

Sebastian Schwenen researches energy and resource markets, with a focus on the design of low-carbon electricity markets. His fields of specialization are industrial organization, regulation and market design in energy markets. His recent work studies spot and forward markets for electricity, the design of auction and trading mechanisms in energy markets, and the impact of digitalization on consumer behavior and retail markets, as well as efficient regulations to reduce greenhouse gas emissions in the energy and manufacturing sector. In addition to research and teaching, he has provided research-based economic consulting to DG Energy and the German Federal Ministry for Economic Affairs and Energy in various research projects on energy markets. Sebastian is Research Fellow at the German Institute for Economic Research DIW Berlin and at the Mannheim Institute for Sustainable Energy Studies. He obtained a Ph.D. in Economics & Management from Copenhagen Business School and an M.Sc. in Economics (Diploma) from Humboldt University Berlin. He was a visiting Ph.D. 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 as Assistant Professor in September 2015. His work has been published in various journals, including the RAND Journal of Economics, Journal of Economics and Management Strategy, the European Journal of Operational Research, Energy Economics, the Energy Journal, Energy Policy, Utilities Policy, and the Journal of Regulatory Economics.

- Energy economics
- Industrial organization
- Applied microeconomics





Prof. Dr. Michael Suda

Professor of Forest and Environmental Policy

Web: Email: www.professoren.tum.de/suda-michael michael.suda@mytum.de

Selected current research projects

Development of forest owners and private forest owner associations: Structural trans- formation in Germany's rural areas leads to drastic changes with regards to the use of forests by forest owners, which potentially cause supply bottlenecks in the woodworking industry. The scientific focus of this project lies on studying the impact of structural and communicative measures in this context.

Perception of forests and forestry and the influence on forest management: The alienation of people from production and the related decline of its acceptance leads to in- creasing restraints on the utilization of woods in Germany's forests. The emphasis of the research in this project 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: We study the 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.

Curriculum vitae

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

- 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





Prof. Dr. Robert K. Frhr. von Weizsäcker Professor of Economics – Public Finance and Industrial Organization

Web: www.vwl.wi.tum.de Email: weizsaecker@tum.de

Selected current research projects

Limits of national debt: A Politico-Economic analysis

Education Financing and Education Organization

Ratio and Intuition: Decision making under uncertainty on the cognitive ability of economics

Theory and politics of economic inequality The own Goal - Reflections on the future of work

Areas of interest

- Public economics
- Applied microeconomics
- Population economics
- Economics of education
- Decision theory

Curriculum vitae

Robert K. von Weizsäcker, born in 1954, studied Mathematics and Economics at the University of Bonn, received a Ph.D. at the London School of Economics / University of Bonn in 1985 and attained the Habilitation at the University of Bonn in 1990.

From 2003 to 2020 he had been Professor and Head of the Chair of Economics, Public Finance and Industrial Organization and since 2020 he is Emeritus of Excellence at Technical University of Munich. Previously he had research and teaching positions at the University of Bonn, the Humboldt-University of Berlin, the University of Halle-Wittenberg, and the University of Mannheim. He was a Faculty Member of the Munich Intellectual Property Law Center at the Max Planck Institute for Intellectual Property, Competition and Tax Law, as well as a Visiting Scholar at Cambridge University, Université Catholique de Louvain, London School of Economics, Stanford University, Oxford University, and the International Monetary Fund in Washington D.C. Prof. von Weizsäcker is Research Fellow of the Centre for Economic Policy Research in London, the ifo-Institute in Munich, and the Institute for the Study of Labor in Bonn. He was a Heisenberg Fellow of the German National Science Foundation and a Member of the German Scientific Council. He has published numerous books and articles, particularly in the fields of public economics (public debt, tax reform, and social security financing), microeconomics (income and wealth distribution), population economics, and the economics of education.

Miscellaneous: He is an International Chess Grandmaster and Honorary President of the German Chess Federation.

Economics & Policy 2019-2021, peer-reviewed journals and books

Abel, P.; Datz, B. 2019. Systematic review on the measurement of efficiency in European football via data envelopment analysis. International Journal of Sport Management (IJSM). 20(4): 354-387.

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Alan, J.; Büthe, T.; Arjona, A.; Arriola, L.; Bellin, E.; Bennett, A.; Björkman, L.; Bleich, E.; Elkins, Z.; Fairfield, T.; Gaikwad, N.; Greitens, S. C.; Hawkesworth, M.; Herrera, V.; Herrera, Y.; Johnson, K. S.; Karakoç, E.; Koivu, K.; Kreuzer, M.; Lake, M.; Luke, T.; MacLean, L.; Majic, S.; Maxwell, R.; Mampilly, Z.; Mickey, R.; Morgan, K. J.; Parkinson, S. E.; Parsons, C.; Pearlman, W.; Pollack, M.; Posner, E.; Riedl, R. B.; Schatz, E.; Schneider, C. Q.; Schwedler, J.; Shesterinina, A.; Simmons, E.; Singerman, D.; Soifer, H. D.; Smith, N. R.; Spitzer, S.; Tallberg, J.; Thomson, S.; Vázquez-Arroyo, A. J.; Vis, B.; Wedeen, L.; Williams, J.; Wood, E. J.; Yashar, D.J. 2021. The qualitative transparency deliberations: Insights and implications. *Perspectives on Politics*. 19(1): 171-186.

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Babington, M.; Sebastian J.; Kitchens, C. 2019. Do tournaments with superstars encourage or discourage competition? *Journal of Sports Economics.* 44-63.

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Bazgan, C.; Herzel, A.; Ruzika, S.; Thielen, C.; Vanderpooten, D. One-exact approximate pareto sets. Journal of Global Optimization

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Böhling, K.; Todeschin, F. 2020. The forest sector in the 2030 EU climate policy framework: Looking back to assess its future. *Journal of European Environmental Planning & Law*

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Bussa, M.; Eisen, A.; Zollfrank, C.; Röder, H. 2019. Life cycle assessment of microalgae products: State of the art and their potential for the production of polylactid acid. *Journal of Cleaner Production*

Büthe, T. 2019. Engineers as visionaries? Contribution to the symposium on Yates and Murphy's engineering rules: Global standard setting since 1880 (John-Hopkins UP, 2019). Yale Journal of Regulation

Büthe, T. 2019. Competition law and policy as an emerging IPE issue. In the palgrave handbook of contemporary international political economy, edited by Shaw, T. M.; Mahrenbach, L. C.; Modi, R.; Chong, X. London: Palgrave. 451-467.

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Büthe, T.; Cho, M.; 2021. From rule-taker to rule-promoting regulatory state: South Korea in the nearly-global competition regime. *Regulation and Governance.* (forthcoming)

Büthe, T. 2021. Prospects and challenges for transatlantic relations after Trump and Corona. In new perspectives on transatlantic relations: Multidisciplinary perspectives, edited by Gebhardt, J.; Fröhlich, S. Heidelberg. *Universitätsverlag Winter*. 135-159.

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Hirsch, S.; Koppenberg, M. 2020. Power imbalances in French food retailing: Evidence from a production function approach to estimate market power. *Economics Letters*. 194: 109387

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Hirsch, S.; Mishra, A.; Möhring, N.; Finger, R. 2019. Revisiting firm flexibility and efficiency: Evidence from the EU dairy processing industry. *European Review of Agricultural Economics*. 1-38.

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PUBLICATIONS

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lyer, P.; Bozzola, M.; Hirsch, S.; Meraner, M.; Finger, R. 2019. Measuring farmer risk preferences in Europe: A systematic review. Journal of Agricultural Economics

Jung, S. 2019. Bluffing in business-to-business contract negotiations – The relationship between moral intuition, "Rechtsgefühl", and the law in the United States and Germany. Southern California Law Review 92. 973-1001.

Jung, S. 2020. European legal forms - Underlying systematic and principles. European Company and Financial Law Review. 478-521.

Jung, S. 2020. Systemkrisen und das Institut der Störung der (großen) Geschäftsgrundlage - Eine Betrachtung am Beispiel der Corona-Krise. Juristen-Zeitung (JZ). 715-724.

Khanal Aditya, R.; Mishra, Ashok K.; Mayorga, J.; Hirsch, S.; Mishra, A. K.; Mayorga, J.; Hirsch, S. 2020. Choice of contract farming strategies, productivity, and profits: Evidence from high-value crop production. *Journal of Agricultural and Resource Economics*. 45(3): 589-604.

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Li, F.; Ren, J.; Wimmer, S.; Yin, C.; Li, Z.; Xu, C. 2020. Incentive mechanism for promoting farmers to plant green manure in China. Journal of Cleaner Production. 267: 122197.

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Möhring, N.; Bozzola, M.; Hirsch, S.; Finger, R. 2020. Are pesticides risk decreasing? The relevance of pesticide indicator choice in empirical analysis. Agricultural Economics

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Ola, O.; Benjamin, E. 2019. Preserving biodiversity and ecosystem services in West African forest, watersheds, and wetlands: A review of incentives. *Forests*. 10(6): 479.

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Ola, O.; Menapace, L.; Benjamin, E.; Lang, H. 2019. Determinants of the environmental conservation and poverty alleviation objectives of Payments for Ecosystem Services (PES) programs. *Ecosystem Services*. 35: 52-66.

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PUBLICATIONS



Economics & Policy

2019-2021, peer-reviewed journals and books

Riedl, R.B.; Karakoc, E.; Büthe T. 2021. Power and institutionalization: Final report of QTD working group I.3. *Perspectives on Politics*. 19(1) (March 2021): 189-90.

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von Weizsäcker, R. K.; March, C. 2020. Coordinating intergenerational redistribution and the repayment of public debt: An experimental test of Tabellini (1991). Social Choice and Welfare. 55(2): 301-323.

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EDITORSHIPS

Economics & Policy

2019 - 2021

Prof. Dr. Tim Büthe

- Associate Editor, Business & Politics
- Member of the Editorial Board, Comparative Political Studies
- Member of the Editorial Board, International Studies
 Review
- Founding co-editor-in-chief, Munich Papers in Political Economy

Prof. Dr. Stefan Hirsch

- Co-Editor, Agribusiness an International Journal Co-Editor, German Journal of Agricultural Economnics
- Associate Editor, Agricultural Economics
- Associate Editor, Journal of Agribusiness in Developing and Emerging Economies

Prof. Dr. jur. Stefanie Jung

 Co-Editor, Gesellschaftsrecht in Europa, 2019, 2.370 pages, Nomos, Baden-Baden (together with Peter Krebs and Sascha Stiegler)

Prof. Dr. Hanna Hottenrott

 Founding co-editor-in-chief, Munich Papers in Political Economy

Prof. Dr. Martin Moog

- European Journal for Forest Research (Springer)
- Forest Policy & Economics (Elsevier)
- Journal of Forest Science (JFS)
- Forestry Economics (Springer)

Prof. Dr. Johannes Sauer

- Associate Editor, Journal of Productivity Analysis
- Editorial Board Member, European Review of Agricultural Economics
- Academic Editor; Section Editor, Agriculture
 (open access)



TUTT

Economics & Policy 2019 - 2021

Prof. John Hamman, Ph.D. 2019, Florida State University

Prof. Dr. Sebastian Kube 2019, University of Bonn

Prof. Dr. Björn Vollan 2019, University of Marburg



TUM School of Management Tenure-track Professors & Honorary Professors

TENURE-TRACK PROFESSORS











Prof. Dr. Jens Förderer

- Professor of Innovation and Digitalization
- Research topics: Platform business models, privacy, information systems
- Joined TUM in 2019

Prof. Dr. Stefan Hirsch

- Professor of Agricultural and Food Economics
- Research topics: Empirical industrial organization of the food sector, food and agribusiness economics, econometric methods, production economics, consumer research
- Joined TUM in 2018

Prof. Dr. Hanna Hottenrott

- Professor of Economics of Innovation
- Research topics: Economics of innovation, economics of science, industrial economics, technology policy, applied econometrics
- Joined TUM in May 2016

Prof. Dr. Stefanie Jung

- Professor of 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

TENURE-TRACK PROFESSORS











Prof. Dr. Michael Kurschilgen

- Assistant Professor of Managerial Economics
- Research topics: Behavioral economics, experimental economics, organizational behavior, law and economics, public economics
- Joined TUM in November 2015

Prof. Dr. Maximilian Schiffer

- Professor of Operations and Supply Chain Management
- Research topics: Mobility systems, AI & machine learning, supply chain management, transportation, production planning, power networks
- Joined TUM in 2018

Prof. Dr. Sebastian Schwenen

- Professorship in Economics of Energy Markets
- Research topics: Energy economics, industrial organization, applied micro
- Joined TUM in September 2015

Prof. Dr. Christoph Ungemach

- Professorship of Marketing
- Research topics: Behavioural science of decision-making
- Joined TUM in November 2016

TENURE-TRACK PROFESSORS







Prof. Dr. David Wuttke

- Assistant Professor of supply chain management
- Research topics: Supply chain finance, supply chain risk management, digital transformation
- Joined TUM in 2020

Prof. Amy Zhao-Ding, Ph.D.

- Professor of Entrepreneurship Research
- Research topics: Opportunity identification, market emergence, organizational learning, technology management and ecosystems, entrepreneurial/managerial cognition, demand-side strategy
- Joined TUM in 2020

HONORARY PROFESSORS



Prof. Dr. Florian Bauer Geschäftsführer Vocatus Diagnostics GmbH

Prof. Dr. Florian Bieberbach CEO Stadtwerke München GmbH

Prof. Dr. Andreas Biagosch CEO IMPACTING I GmbH & Co. KG

Alexandra Borchardt, Ph.D.

Senior journalist, journalism professor, media consultant and Senior Research Associate at the Reuters Institute for the Study of Journalism at the University of Oxford

Prof. Dr. Manfred Bruhn

Ordinarius for Business and Economics, in particular for Marketing and Corporate Management, at the University of Basel

Prof. Dr. Franz Doetsch Presiding Judge at the Supreme Tax Court Munich

Prof. Dr. Christoph von Einem Partner in the international Attorneys' Society White & Case LLP

Prof. Dr. h.c. Rudolf Faltermeier Former Vice President, Sparkassenverband Bayern

Prof. Dr. Bernd Grottel

Mitglied des Vorstands der KPMG Bayerische Treuhandgesellschaft AG, München; Member of KPMG Europe LLP

Prof. Manfred Grundke General Partner Knauf Group

Prof. Dr. Stefan Huckemann Partner Deloitte Consulting GmbH

Prof. Dr. jur. Ruediger Kessler Former Chairman of Hydrotec Technologies AG

Prof. Dr. rer. nat. Edward G. Krubasik Former Member of the Central Board of Directors Siemens AG Prof. Dr. Ing. Uwe Loos

Former Chairman of the Board of Directors Dekra AG

Prof. Dr. Gerhard Plasonig

Founder and CEO of GP International S.A. Member of the Supervisory Board of WoodWelding AG

Prof. Dr. Wolfgang Reitzle

former Chairman of the Board of Directors Linde AG and Chairman of the Supervisory Board Continental AG

Prof. Randolf Rodenstock President of the Bavarian business association vbw

Helmut Schönenberger CEO UnternehmerTUM GmbH

Prof. Dr.-Ing. Axel Stepken Chairman of the Board of Management of TÜV Süd AG

Prof. Dr. Michael Süß Chief Chairman of the Board of Management of Georgsmarienhütte-Gruppe

Prof. e.h. Dr. h.c. Horst Teltschik Former Board Member BMW AG

Prof. Dr. Dieter H. Vogel CEO Lindsay Goldberg Vogel GmbH Former Chairman of the Thyssen Group in Duesseldorf

Prof. Dr. Konrad Weckerle Former Chairman of the Board of Directors Rhein-Main-Donau AG, Munich and E.ON Wasserkraft AG in Landshut

Prof. Dr. Mark Woessner

Chairman of the Citigroup Germany and Member of the Supervisory Board of diverse companies Former Chairman of the Board Bertelsmann AG



TUM School of Management From research to practice

Research at TUM School of Management is dedicated equally to excellence in research and practical relevance. TUM Management Insights regularly presents the results of recent studies that will be of interest to a management audience looking to test new strategic approaches or to read about thought-provoking findings. New contributions to TUM Management Insights can regularly be accessed at www.wi.tum.de/faculty-research/tum-management-insights/. Below we present a selection of TUM Management Insights that reflect the wide range of research done at the TUM School of Management.

Prof. Dr. Dr. Holger Patzelt

Do we all see the same future? How entrepreneurial visions in founding teams impact new ventures

Founders are often portrayed as visionary individuals who draw on images of their ventures' future to lead employees through the uncertainties of the entrepreneurial process. However, focusing on entrepreneurial visions as a tool for leading others insufficiently reflects founders' personal and potentially secret desires and needs embedded in these visions, such as acquiring personal wealth or pursuing personal values. In particular in founding teams personal elements of entrepreneurial visions may substantially influence a venture's development. Specifically, team members may hold different visions and pursue different personal desires, which can influence the team's processes and decisions. How do such "incongruent" visions in founding teams impact the progress ventures make in developing their opportunities to market?

A recent article published in the Journal of Business Venturing by TUM School of Management Researchers Dr. Rebecca Preller, Professor Holger Patzelt, and Professor Nicola Breugst addresses this important question. The authors follow eight founding teams and their ventures over more than 30 months, interviewing each individual founding team member multiple times and closely monitoring the venture's development. The study's first key implication for founders is that although heterogeneity in entrepreneurial visions may exist within the team, this is not necessarily a bad thing. Founding teams holding either congruent visions (visions that can be realized simultaneously within the current venture) and incongruent visions (visions that cannot be realized simultaneously within the current venture) can successfully develop opportunities to market, albeit along different paths. The important contingency, however, is how founding team members approach decision making in the development process. Teams holding congruent visions tend to be more focused in their development efforts. For them, it is key to be proactive when facing challenges in the development process; otherwise, there is the danger that the opportunity will never reach market launch. In contrast, teams holding incongruent visions tend to follow a comprehensive development path. These teams need to establish clear internal structures, processes, and routines for both daily business but also when facing unforeseen events emerging internal to the team (e.g., disagreements) or external to the team (e.g., withdrawal of investors). Thus, understanding the entrepreneurial visions of its members and applying respective behaviors in decision making is a crucial success factor for founding teams when developing their venture's opportunity to market.

Prof. Dr. Michael Kurschilgen

Expertise promotes honesty

People are more honest when they can show off highstatus expertise. In a recent article in Games and Economic Behavior, behavioral economists from Munich and Heidelberg show that people lie much less about history and literature than about yellow press gossip. This has important implications for understanding how human behavior is shaped by our image, i.e. by the concern for how we are perceived by others.

Truth is the lubricant of business relationships. As a customer, I want to rely on the salesman informing me correctly about the features of the product I am about to buy. As a manager, I want to have faith in my deputy advising me to the best of her ability before making an important decision. But how can I be confident they are being honest to me? After all, the salesman may just care about getting my money. And the deputy may just care about getting my job.

Can people's concern for their image possibly be a safeguard against temptations to lie? Michael Kurschilgen, Professor of Managerial Economics at the TUM School of Management, and Isabel Marcin from the University of Heidelberg designed a laboratory experiment to test this question. "From interactions with friends, colleagues, family, it was pretty obvious that many people enjoy showing to others that they are knowledgeable in topics like literature, history, and geography. But it was less than clear how that desire for signalling a certain image would hold up against the desire for money," recalls Marcin.

In a pre-study, participants could earn money by guessing the correct answer of a multiple-choice knowledge question. There were 50 "low-status" knowledge questions, about TV-series, commercials, and celebrity gossip. For example: "In which country was Irina Shayk, the ex-girlfriend of football star Cristiano Ronaldo, born? A. Brazil, B. Portugal, C: Ukraine, or D. Russia". And there were 50 "high-status" general knowledge questions, about history, geography, politics, and art. For example: "Julian Assange fled to the embassy of which country? A. Venezuela, B. Ecuador, C. Sweden, D. Russia". From the pre-study, the researchers selected 15 questions from the low-status set, and 15 questions from the high-status set in such a way that the average level of knowledge would be exactly the same for both categories: 63%. In the main experiment, new participants were shown either the 15 low-status or the 15 high-status questions. This time, however, they could earn money by tricking another person into selecting a wrong answer. One player, called the sender, saw the knowledge guestion with the 4 answer options, just as in the first part of the study. His task was to send to another player, the receiver, a message containing just one letter: A, B, C, or D. The receiver saw the question and the message of the sender, but not the 4 answer options. For example: "Which German TV channel broadcasts the program Shopping Queen? A, B, C or D? The other player sends you the message: B." To answer the question correctly, the receiver was thus totally dependent on receiving a correct message from the sender. But the sender had a monetary incentive to lie since he would receive 3 Euros if the receiver chose a wrong answer.

From the pre-study, Kurschilgen and Marcin knew that if all senders were honest, they would send a correct message 63% of the time, irrespective of the question being low-status or high-status. Yet in the experiment, most people did not send an honest message. For low-status questions, the share of correct messages was only 32%. In contrast, when senders could signal being knowledgeable in domains of high social status, they sent a correct message 46% of the time.

"We show that people's concern for their image can indeed overcome material incentives to lie," summarizes Kurschilgen. "To the participants of our experiment, certain types of knowledge clearly had a higher intrinsic value than others". Identifying intrinsic, i.e. non-monetary drivers of behavior has been a strong focus of behavioral economics in recent years. Those non-monetary motives are particularly critical as products and processes become increasingly complex, requiring a lot of expert knowledge, which is difficult to verify.

"What we know is critical to who we are," adds Marcin. "People care about signalling expertise in domains that affect their image." The car dealer for instance may take pride in being an expert on cars, and therefore disclose certain shortcomings that could deter the client from buying. Because people care about their image, we have a reason to trust the salesman and the deputy as well as the scientist and the journalist.

Prof. Dr. Jürgen Ernstberger

Adverse compensation incentives for auditors: How compensation policies of audit firms influence audit quality

Designing appropriate incentive systems is an important, yet challenging task for organizations. Ill-designed compensation schemes matter even in highly regulated audit firms. For example, high levels of variable compensation at Arthur Andersen might have fueled the Enron scandal and led to the firm's demise. Audit firms are organized as partnerships in which partners are both principals and agents of the firm, who monitor each other. Moreover, company audits are conducted in the public interest, and are thus highly regulated. The goal of these regulations, ensuring higher quality audits, can in some cases be viewed as competing with an audit firm's objectives of growing the business and maximizing profits. Do compensation policies matter in such highly-regulated settings? Which types of compensation influence audit quality? What counter-measures can be taken by audit firms to mitigate these effects?

In a recent article in Contemporary Accounting Research, Professor Greg Trompeter at the University of Central Florida College of Business, Prof. Dr. Christopher Koch at the University of Mainz, as well as Prof. Dr. Jürgen Ernstberger and Dr. Eva Schreiber, both of the TUM School of Management, address these questions. For their analyses, they make use of the detailed mandatory disclosure of the compensation policies in German audit firms. They collect data on the compensation policies of audit firms found in their annual transparency reports. The authors investigate the effects of the ratio of variable to fixed compensation and the size of the basis for profit sharing (i.e., whether partners share profits in a small or large profit pool) on common proxies of audit quality. The study shows that compensation policies vary considerably across audit firms. Profit sharing in a small profit pool and great differences in compensation are associated with lower quality audits. Audit quality is found to be most at risk in cases where partners rely more heavily on variations in compensation to divide a relatively small profit pool. The authors also find that these associations are more pronounced in medium-sized audit firms. Reasons for this last finding might be that these firms are too large for audit partners to directly monitor each other effectively, yet too small to have sophisticated centralized monitoring systems in place. However, integrating partner-specific, non-profit-related performance metrics into the compensation structure could mitigate the adverse effects of small profit pools and high variable compensation.

Overall, the results of the study suggest that, first, compensation policies are an important driver of performance, even in highly regulated settings as audits. Too strong incentives can reduce the quality of auditors' work. Second, internal audit firm characteristics linked to size, like mutual monitoring and centralized internal control systems, may serve to mitigate the adverse effect of variable compensation on audit quality. Hence, if an audit firm decides to increase variable compensation for auditors, appropriate measures to maintain high quality audits should be implemented simultaneously.

Prof. Dr. Frank-Martin Belz

Against all odds: Realizing entrepreneurial solutions for ecological and social problems

Jakob Assmann, a passionate hiker, had a personal awakening while climbing a mountain in the Bavarian Alps. He says:"Climate change is not an abstract problem, which happens somewhere in the Artic. Actually, it is happening here in the South of Munich. You can experience it yourself, and it is really emotional when you see the ice changing and the glaciers retreating ... ". Triggered by this incident, he decided to become active, and make a contribution to the global challenge of climate change by establishing Polarstern, a sustainable energy provider with a global outreach. Realizing social and ecological value while making a profit is a challenging task. Sustainable entrepreneurs, however, seem to have found a way to balance the triple bottom line of ecological, social, and economic goals in a mutually beneficial way. To understand how sustainable enterprises come into existence, Prof. Dr. Frank-Martin Belz and Julia Katharina Binder have investigated how the entrepreneurial process of sustainable enterprises unfolds over time. Based on their process study, they came up with three key findings: First and foremost, ecological and social problems are potential sources of innovation and entrepreneurship. Second, aligning ecological and / or social value with an entrepreneurial opportunity is essential (and far from being an easy proposition). Thus, a key activity in the entrepreneurial journey is the translation of ecological and/or social goals into customer benefit. A case in point is Coffee Circle, an online shop selling fair trade and organic coffee directly from producers to consumers. Despite the motivation to tackle the social problem of unfair wages for coffee farmers, the co-founders of Coffee Circle put the customer at the heart of their business. They write, "In Germany, it is not sufficient to appeal to the bad conscience as a business base. The product has to be right. If the good cause is central, it will not work in the long term." Besides price, the most important buying criterion for food in general and coffee in particular is taste, which is why Coffee Circle emphasizes the great taste of its various coffee blends. Third, the empirical results indicate that ecological, social, and economic goals are not integrated simultaneously. Instead, they tend to be integrated sequentially over time. The progressive order in the development process reduces the complexity of this challenging task, makes the integration and balancing process easier and more manageable. The findings have implications for students, entrepreneurs, managers and policy-makers alike, who are interested in pursuing entrepreneurial opportunities in the realm of sustainable development.



Prof. Dr. Christoph Kaserer

Systemic risk in financial markets: How systematically important are insurers?

We study how insurers contribute to systemic risk in the global financial system. In a modeling framework embracing publicly traded and non-public firms, the financial system is represented by 201 major banks and insurers from 2004 through 2014. In the aggregate, the insurance sector contributes relatively little to systemic losses; during the crisis episodes, its risk share averaged nine percent. Individually, however, several multi-line and life insurers appear systemically risky as the riskiest banks. We discuss several important implications of our results for managing systemic risk in insurance, arguing for a combination of entity-based and activity-based regulation.

Source:

Christoph Kaserer, Christian Klein: Systemic Risk in Financial Markets: How Systematically Important Are Insurers? *Journal of Risk and Insurance* 86 (3), 2019, 729-759

- * Christoph Kaserer, Professor, Head of the Chair of Financial Management and Capital Markets
- ** Christian Klein, former doctoral student at the Chair of Financial Management and Capital Markets and Senior Manager at Bain & Company

Prof. Dr. Hanna Hottenrott

Inter-organizational collaboration and financing constraints for R&D

The role of research and development (R&D) for promoting economic growth has long been emphasized in economic research. In addition, R&D is an important input factor for industrial production, and the impact of R&D on firm-level productivity is substantial. At the same time, capital market imperfections affect lending and the investment decisions of firms. In the case of investments in R&D, uncertainties and information asymmetries are particularly severe. Complexity, specificity and outcome uncertainty of R&D projects make it extraordinarily difficult for outsiders (and not only them) to judge the expected return. The uncertainty is aggravated if firms are reluctant to reveal details of the projects to potential investors, fearing that too much information could leak out to competitors.

Besides outcome inherent uncertainty and information asymmetries, R&D has another feature that distinguishes it from investment in physical assets. The primary output of R&D is new knowledge that is often tacit and naturally intangible. Thus, R&D investments provide very low inside collateral value.

These properties of R&D make raising funds from external parties more costly than for other types of investments. Firms willing to pursue an ambitious R&D agenda may face serious difficulties in attracting external investors or obtaining bank loans. The extent to which firms can pursue R&D projects may therefore strongly depend on the availability of internal funding for their R&D. Firms unable to save-up the required resources may have to constrain their research to currently available funds, or postpone or abandon projects. Underinvestment in R&D due to financing constraints may result in a slowdown of productivity growth and consequently have particularly detrimental effects on technological progress and competitiveness. Understanding how firms encounter such constraints is therefore crucial. While the relevance of financing constraints for R&D in the business sector is well established, little attention has been paid to firms' coping strategies. Inter-organizational collaboration in R&D projects may constitute a way in which constrained firms reduce their own resource requirements and increase the productivity of their R&D efforts.

Hanna Hottenrott (TUM) and Dirk Czarnitzki address this research gap in a study on a panel of more than 900 firms in Belgium. When R&D collaborations attenuate financing constraints, one might expect that those engaged in collaborative R&D projects are less dependent on internal financing for their R&D investments than other firms. Moreover, such benefits may be particularly great when information asymmetries are large because the project is far from observable, marketable outcomes. Hottenrott and Czarnitzki therefore explicitly test whether R&D collaboration has a stronger alleviation effect on firms' research than on development investments.

The results show that collaborative R&D indeed reduces firms' dependency on internal financing for R&D. In particular, collaborating firms rely less on internal funding for research than others, even accounting for firms' selection as collaborators. These results suggest that collaborative R&D may be one way to mitigate the detrimental effects of constrained access to financial resources for their investments in innovation, in particular in (basic) research. These insights are relevant for R&D management in firms as well as for innovation policy as they confirm that encouraging inter-organizational R&D collaboration may be a valuable tool for reducing market failures associated with investments in the creation of new knowledge.

Source: Czarnitzki, Dirk; Hottenrott, Hanna: Inter-Organizational Collaboration and Financing Constraints for R&D. Economics Letters, 2017 (forthcoming)

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Prof. Dr. Nicola Breugst

Conflicts in startup teams – When fighting is destructive and when it is constructive

Members of startup teams need to work interdependently under high levels of pressure and on unfamiliar tasks. In these challenging conditions, conflicts in the team are unavoidable. These conflicts can lead to fundamentally different outcomes. Often, high levels of conflict are experienced as destructive and put team and firm survival at risk. However, conflicts can also lead to an intense exchange of ideas which may, in turn, increase team and firm performance. To take into account these opposing outcomes, team researchers distinguish between relationship conflict (interpersonal incompatibilities in the team) and task conflict (disagreements on task content and viewpoints). While these types of conflict can be differentiated based on content and outcomes, it is unclear when the team members themselves experience conflicts in a negative way, although their immediate emotional reaction would help to better understand the direct impact of conflicts.

They find that relationship conflicts trigger negative emotions in team members, whereas task conflicts can reduce these emotions. Interestingly, the emotional reactions depend heavily on the environment outside the team as well as within it. First, the uncertainty surrounding the team shapes team members' emotional reactions. If uncertainty is running high, team members do not react so intensely: Relationship conflict is seen as less annoying, but task conflict as less helpful. In an uncertain environment, team members are more willing to excuse their teammates' harsh and aggressive communication during a conflict. However, they also consider a lengthy exchange of perspectives a waste of time in comparison to a more certain environment. Second, within the team, the members' satisfaction with the team intensifies the team members' emotional reactions to conflict. In an environment in which positive team interactions are expected, team members resent their teammates for their hostile communication behavior. In contrast, if satisfaction with the team is low, team members are not interested in an exchange of perspective and react with annoyance to task conflict.

In short, startup team members react differently to different types of conflict, shaped by their specific environment. Importantly, uncertainty which is typically seen as something negative has a positive impact because it can reduce team members' negative emotional reactions, whereas team satisfaction which is normally positive and desirable intensifies negative emotional reactions.

These findings are highly relevant for members of startup teams, who need to understand the differences between relationship and task conflict to allow for an inspiring conflict around ideas without a clash of personalities. However, to have a positive effect, task conflict needs to fall on a fertile ground: there must be sufficient time, availability of information and a positive attitude towards teammates. If teams encounter relationship conflict, it can help the members to blame conditions outside of the team in order to cope emotionally with the conflict. Conflicts are a part of life as a startup team, so successful teams need to learn how to deal with them.





TUM School of Management Interdisciplinary research centers

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.





INTERDISCIPLINARY RESEARCH CENTERS

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 the TUM School of Management conducts rigorous analysis of the evolution of the energy industry and offers excellent interdisciplinary training of young professionals in this ever emergent field. The focus of research is 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 lies in the area of electromobility. Research at the CEM has been published, amongst others, in the RAND Journal of Economics, the Journal of the European Economic Association, Operations Research, the European Journal of Operational Research, the Journal of In-



dustrial Economics, Energy Economics, the Energy Journal, Energy Policy, Utilities Policy, Journal of Regulatory Economics. The Center regularly hosts research seminars as well as workshops with policymakers and high-level practitioners from the energy industry.

INTERDISCIPLINARY RESEARCH CENTERS

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 II) 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 highly 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.

CEFS 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 2019 study on listed German family firms commissioned by Stiftung Familienunternehmen should be mentioned.

An exemplary CEFS project was the development of two indices in collaboration with Deutsche Börse: the German



Entrepreneurial Index (GEX, 2005) and the DAXplus® Family (2010). The GEX presents a view of entrepreneurial companies in the prime standard. In 2005 Professor Achleitner and Professor Kaserer received the Initiativpreis of Stiftung Industrieforschung for the development of the GEX. The DAXplus® Family tracks the performance of listed family businesses in the prime standard. In 2010, CEFS received one of the 365 "Orte im Land der Ideen" ("Places in the country of ideas") awards for its achievements in research and teaching with practical relevance. CEFS has a number of freely available publications and research studies. Further information can be found on our 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 digitization 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, like the Internet of Things, social media or sensor networks, have enabled to gather and store a huge amount of data. The massive amount and the different formats and sources of data require new methods to extract insights and information out of the data and to use them for decision-making. Further, to support decision makers, adequate data organization and fast algorithms are necessary for online decision-making under real-time information.

At our 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 which can deal 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 as for example in 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, which – in order to be overcome – requires a profound technical and organizational response. At our 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 to gain traction among users, suppliers as well as consumers, and we investigate the necessary 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 reshape of markets. 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 our Center for Digital Transformation we study the improvement of processes, business models, and business ecosystems by the 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



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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 the team of Miriam Bird (Director GCFE and Professor of Entrepreneurship and Family Enterprise) and the team of Stefanie Jung (Professor of Corporate Law).

The GCFE focuses on the interplay between the "family" and the "enterprise". In particular, its unique research focus lies in creating a deeper understanding of topics related to strategy, innovation, transgenerational entrepreneurship as well as 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.

Further information about the Center can be found at: www.wi.tum.de/gcfe





TUM School of Management Partner research centers

ПΠ

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 1000 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 had taken an active role in the task force for the Zentrum Digitalisierung Bayern (Z.DB) and supports the State Ministry for Digitalization who strive 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 & 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 BMWifunded 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, are leveraging the 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 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 use machine learning to identify long-term climate change impact 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 CDTMs 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 are both holding co-appointments with the School of Management. The research 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 - some of which shall be mentioned here: 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, namely 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 Al innovation and its responsible integration into healthcare.





TUM School of Management Selected funded projects

Biotech Ecosystem Germany

The project "Biotech Ecosystem Germany" was triggered by the notion that there is still a significant discrepancy between the outstanding scientific research in Germany and its unsatisfactory transfer into marketable products that contribute to economic value creation. While limited access to capital is often a first choice explanation, we want to shed light on the wider ecosystem, highlighting the context with pros and cons of the German setting.

On the financial side, we see that only 1.5% of a total of € 6.2 billion in venture capital for German start-ups was invested in biotech companies in 2019 (Start-up Barometer, Jan 2020, Ernst & Young). Of the € 479 million in venture capital invested in German biotech companies in 2019, 61% (€ 290 million) is attributable to one single company – BioNTech (Deutscher Biotechnologie-Report 2020, Ernst & Young). After zero IPOs in 2018, there were two IPOs of German biotech companies in 2019. However, both of which were listed on the NASDAQ of the US stock exchange.

From an educational perspective, we notice that many scientists are not familiar with business concepts, as their studies were primarily focused in the scientific side and didn't cover any business aspects. As the aimed for transfer of science into technologies needs a business perspective, we aim to overcome this hurdle by creating a comprehensive "business for scientists" course. The course is based on cases from the field of biotechnology start-ups to convey the necessary knowledge in a handson manner. Thus, the project strives to promote the transfer of scientific knowledge into economic value creation. It thereby adds to numerous initiatives by the federal government to support the biotech industry and thereby strengthen Germany as a hub for innovation. Its results are twofold and will include an extensive analysis of the strength and weaknesses of the German biotech ecosystem that serves as input for future measures. Additionally, it will provide practical business know-how for natural scientists to assist in the establishment of new biotech businesses and improve their chances of success.

The project team is led by Dr. Svenja Jarchow, who brings in her expertise as a trained molecular biotechnologist and entrepreneurial finance researcher. Stefanie Weniger focusses on the development of the entrepreneurship training program for natural scientists, while Steffen Grebe works primarily on the Study to identify the strengths and weaknesses of the German biotech start-up ecosystem. The three year research project is sponsored by the Federal Ministry of Research and Education (FMER) as part of the national GO-Bio initiative.





TUM Sustainability Hotspot: New TUM SEED Center

TUM SEED is a Center of Excellence in Research and Teaching, selected and supported by DAAD, with funds from the Federal Ministry for Economic Cooperation and Development. SEED stands for "Sustainable Energies, Entrepreneurship and Development in the Global South". It is a long-term initiative that aims at making contributions to one of the grand societal challenges of our time: the fact that one billion people lack access to electricity.

The TUM SEED Center was founded at the beginning of 2020. It conducts interdisciplinary research and offers higher education at the intersection of sustainable energy and entrepreneurship, aimed at tackling Sustainable Development Goal 7 – clean and affordable energy for all by 2030. The core team includes Prof. Dr. Frank-Martin Belz (Director), Johannes Winklmaier (Project Coordinator), Michelle Zombory (Project Coordinator) and Sofia Abid (Communications). The TUM SEED Center collaborates closely with the following organizations:

The partner universities in the Global South will co-create "Living Labs" to conduct research and teaching with impact. The Living Labs provide electricity for people in the rural areas of the Global South in the form of sustainable energy systems, and enable experimental learning for students, international exchange and research beyond borders.



- Bahir Dar University, Ethiopia
- Bandung Institute of Technology, Indonesia
- Indian Institute of Technology Bombay, India
- Jomo Kenyatta University of Agriculture and Technology, Kenya
- Kwame Nkrumah University of Science and Technology, Ghana
- Makerere University, Uganda
- Namibia University of Science and Technology, Namibia
- Pontificia Universidad Católica del Perú, Peru

















DFG Research Training Group "Advanced Optimization in a Networked Economy" (AdONE)

Research Training Groups are established to promote early career researchers. They are funded by the German Research Foundation (DFG) for up to nine years. Their key emphasis is on the qualification of doctoral researchers within the framework of a focused research program and a structured training strategy. The interdisciplinary research agenda of AdONE addresses the consequences of technological paradigm shifts in logistics and transportation systems. Practically relevant challenges that are considered include multiple decision-makers, uncertainty, and large-scale problems.

AdONE contributes to TUM's overall vision of addressing current and future societal challenges and proactively supporting technological change, in our case driven by the digitalization in logistics networks, transportation, and mobility systems. Since its inauguration in 2017, AdONE has become a very active institution for Operations Research and the Management Sciences at TUM and a vibrant platform for research in this field. The group is a joint initiative of researchers at the TUM School of Management, the Department of Informatics, the Department of Mathematics, and, due to its interdisciplinary focus, part of the International Graduate School of Science and Engineering (IGSSE) at the TUM Graduate School. Among the principal investigators, five represent the Operations and Technology Department of the TUM School of Management: Prof. Dr. Martin Grunow (Production and Supply Chain Management), Prof. Dr. Rainer Kolisch (Operations Management), Prof. Dr. Stefan Minner (Logistics and Supply Chain Management), Prof. Dr. Maximilian Schiffer (Operations and Supply Chain Management), and Prof. Dr. Andreas S. Schulz (Operations Research), who also is the current Spokesperson of AdONE.

For further information, please contact the project coordinator Dr. Isabel Koch (isabel.koch@tum.de), or visit the AdONE homepage: http://www.gs.tum.de/adone.



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