

PROF. DR. BETTINA PETERS

CURRICULUM VITAE

AFFILIATION

ZEW – Leibniz Centre for European Economic Research Mannheim

Department: Innovation Economics and Industrial Dynamics

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URL: <https://www.zew.de/en/team/bpe>

EDUCATION

- 10/2004-7/2006 **Doctor of Economics**, University of Würzburg, Germany
Thesis: *Innovation and Firm Performance: An Empirical Investigation for German Firms*
Advisors:
Prof. Dr. Martin Kukuk, Professor for Statistics and Econometrics, Würzburg
Prof. Norbert Schulz, PhD, Professor for Industrial Organization, Würzburg
- 10/1991-7/1997 **Diploma in Quantitative Economics** (with majors in econometrics and statistics),
University of Kiel, Germany
Thesis: *Das Dividendenverhalten deutscher Kapitalgesellschaften – Eine Panel-datenanalyse* (translation: The Dividend Behaviour of German Stock Companies. A Panel Data Analysis)

WORK EXPERIENCE

- 9/2016-present **Honorary Professor in Innovation**, University of Luxembourg, Faculty of Law, Economics and Finance, Department of Economics and Management
- 1/2013-present **Deputy Head of the Department of Innovation and Industrial Dynamics** (formerly: Industrial Economics and International Management), ZEW – Leibniz Centre for European Economic Research, Mannheim
- 10/2007-present **Lecturer**, Pforzheim University, Faculty of Economics and Law
- 03/2010-6/2021 Lecturer, University of Zurich, Institute for Strategy and Business Economics
- 10/2014-1/2016 Lecturer at Heidelberg University, Alfred-Weber-Institute (Department of Economics)
- 3/2008-12/2012 Senior researcher, ZEW – Leibniz Centre for European Economic Research, Mannheim, Department of Industrial Economics and International Management
- 4/2000-2/2008 Research fellow, ZEW – Leibniz Centre for European Economic Research, Mannheim, Department of Industrial Economics and International Management
- 8/1997-3/2000 Research and teaching assistant, University of Kiel, Chair of Microeconomics and International Trade

ACADEMIC OFFERS

- 2012 Full professor for Quantitative Methods in Economics (W3), Pforzheim University, Germany, 2012 (declined)

RESEARCH INTERESTS

Economics of innovation, in particular the

- Effects of innovation on employment and productivity,
- Evaluation of R&D policies
- Dynamics of innovation activities
- Innovation and Economic Crises
- Financing of innovation

Applied Microeconometrics

PUBLICATIONS

Refereed Journals

- Trunschke, M., B. Peters, D. Czarnitzki and C. Rammer, Pandemic Effects: Do Innovation Activities of Firms Suffer from Long-COVID?, *forthcoming*.
- Holl, A., B. Peters and C. Rammer (2023), Local Knowledge Spillovers and Innovation Persistence of Firms, *Economics of Innovation and New Technology* 32(6), 826-850, <https://doi.org/10.1080/10438599.2022.2036609>.
- Peters, B., M. Roberts and V.A. Vuong (2022), Firm R&D Investment and Export Market Exposure, *Research Policy* 51(10), <https://doi.org/10.1016/j.respol.2022.104601>.
- Peters, B., B. Dachs, M. Hud and C. Köhler (2022), Employment and Innovation in Recessions: Firm-Level Evidence from European Countries Employment, *Industrial and Corporate Change* 31(6), 1460-1493. <https://doi.org/10.1093/icc/dtac040>.
- Hou, J., C. Huang, G. Licht, J. Mairesse, B. Mulkay, P. Mohnen, B. Peters, Y. Wu, Y. Zhao and F. Zhen (2019), Does innovation stimulate employment? Evidence from China France, Germany, and the Netherlands, *Industrial and Corporate Change* 28(1), 109–121.
- Peters, B., R. Riley, I. Siedschlag, P. Vahter and J. McQuinn (2018), Internationalisation, Innovation and Productivity in Services: Evidence from Germany, Ireland and the United Kingdom, *Review of World Economics* 154(3), 585-615.
- Peters, B., M. Roberts, V.A. Vuong and H. Fryges (2017), Estimating Dynamic R&D Demand: An Analysis of Costs and Long-Run Benefits, *RAND Journal of Economics* 48(2), 409-437.
- Dachs, B., M. Hud, C. Köhler and B. Peters (2017), Innovation, Creative Destruction and Structural Change: Firm-level Evidence from European Countries, *Industry and Innovation* 2(4), 346-381.
- Peters, B., M. Roberts and V.A. Vuong, Dynamic R&D Choice and the Impact of the Firm's Financial Strength (2017), *Economics of Innovation and New Technology*, 26(1-2), 134–149.
- Rammer, C. and B. Peters (2016), Investitionsschwäche oder Strukturverschiebung der

- Investitionstätigkeit? Zur Rolle immaterieller Investitionen für die Wettbewerbsfähigkeit von Unternehmen, *Wirtschaftspolitische Blätter* 1/2016, 67-86.
- Bartelsman, E., S. Dobbeleare and B. Peters (2015), Allocation of Human Capital and Innovation at the Frontier: Firm-level Evidence on Germany and the Netherlands, *Industrial and Corporate Change* 24(5), 875-949.
- Rammer, C. and B. Peters (2015), Innovation als Erfolgsfaktor der deutschen Industrie? Der Beitrag von Produkt- und Prozessinnovationen zu Beschäftigung und Exporten, *Vierteljahresheft zur Wirtschaftsforschung* 1/2015, 13-35.
- Dobbelaere, S., R. Luttens and B. Peters (2015), Demand Lotteries, Abandonment Options and the Decision to Start R&D and Process Innovation, *Management Revue*, 26(1), 25-51.
- Harrison, R., J. Jaumandreu, J. Mairesse and B. Peters (2014), Does Innovation Stimulate Employment? A Firm-level Analysis Using Comparable Micro Data From Four European Countries, *International Journal of Industrial Organization* 35, 29-43.
- Dachs, B. and B. Peters (2014), Innovation, Employment Growth, and Foreign Ownership of Firms - A European Perspective, *Research Policy* 43(1), 214–232.
- Classen, N., M. Carree, A. van Gils and B. Peters (2014), Innovation in Family and Non-Family SMEs: An Explorative Analysis, *Small Business Economics* 42(3), 595-609.
- Hottenrott, H. and B. Peters (2012), Innovative Capabilities and Financing Constraints for Innovation – More Money, more Innovation?, *Review of Economics and Statistics* 94(4), 1126-1142.
- Peters, B. (2009), Persistence of Innovation: Stylised Facts and Panel Data Evidence, *Journal of Technology Transfer*, 34/2, 226-243.
- Griffith, R., E. Huergo, J. Mairesse and B. Peters (2006), Innovation and Productivity Across Four European Countries, *Oxford Review of Economic Policy* 22 (4), 483-498.
- Janz, N., H. Lööf and B. Peters (2004), Firm Level Innovation and Productivity – Is there A Common Story Across Countries?, *Problems and Perspectives in Management* 2, 184-204.

Non-Refereed Journals	Janz, N., G. Ebbling, S. Gottschalk and B. Peters (2002), Die Mannheimer Innovationspanels, <i>Allgemeines Statistisches Archiv</i> , 86 (2002) 2, 189-201.
Books	Peters, B. (2008), <i>Innovation and Firm Performance – An Empirical Investigation for German Firms</i> , ZEW Economic Studies 38, Heidelberg, New York. Rammer, C., B. Peters, T. Schmidt, B. Aschhoff, T. Doherr and H. Niggemann (2005), <i>Innovationen in Deutschland</i> , ZEW Wirtschaftsanalysen 78, Baden-Baden.
Book chapters	Peters, B. and C. Rammer (2023), Innovation Panel Surveys in Germany: The Mannheim Innovation Panel, in: Gault, F., A. Arundel, E. Kraemer-Mbula (eds), <i>Handbook of Innovation Indicators and Measurement</i> , 2 nd Ed., Edward Elgar Publishing, Cheltenham, Northampton, 54-87. Peters, B. and M. Trunschke (2022), Productivity Impact of the Fourth Industrial Revolution, in Dutta, S., B. Lanvin, L. Rivera León and S. Wunsch-Vincent (eds), <i>Global Innovation Index 2022: What is the future of innovation-driven growth?</i> , 15 th ed., Geneva: WIPO World Intellectual Property Office.

- Dachs, B., M. Hud and B. Peters (2020), Innovation, Employment and the Business Cycle, in: Zimmermann K. (Eds.), *Handbook of Labor, Human Resources and Population Economics*, Cham.
- Peters, B. (2016), Innovation, Skills, and Job Creation, in: European Commission *Science, Research and Innovation Performance of the EU*, Brussels, 276-318.
- Crass, D., G. Licht and B. Peters (2015), Intangible Assets and Investments at the Sector Level – Empirical Evidence for Germany, in: A. Bounfour and T. Miyagawa, *Intangibles, Market Failure and Innovation Performance*, 57-111.
- Peters, B. and C. Rammer (2013), Innovation Panel Surveys in Germany, in: Gault, F. (ed), *Handbook of Innovation Indicators and Measurement*, Edward Elgar, Cheltenham and Northampton, 135-177.
- Peters, B. and P. Westerheide (2010), Finanzierung und Finanzierungsprobleme von Familienunternehmen, in: Schröder, M. and P. Westerheide (eds), *Wirtschaftliche und gesellschaftliche Bedeutung von Familienunternehmen*, ZEW Wirtschaftsanalysen, Bd. 97, Baden-Baden, 101-131.
- Peters, B. (2006), Innovationen und ihre Wirkungen auf die Beschäftigung in KMU, in: Abel, R., H. Bass and E. Ernst-Siebert (eds), *Kleine und mittelgroße Unternehmen im globalen Innovationswettbewerb*, München und Mering, 124-153.
- Peters, B., C. Rammer and H. Binz (2006), Innovationsfinanzierung: Stand, Hindernisse, Perspektiven, in: KfW (Hrsg.), *Innovationen im Mittelstand*, Mittelstands- und Strukturpolitik, Bd. 37, Frankfurt am Main, 91-144.
- Rammer, C., B. Aschhoff, B. Peters and T. Schmidt (2005), Innovation Activities of German Enterprises – New Results from the Annual Survey by ZEW, in: Leal Filho, W. and M. Weresa, M. (eds), *Economic and Technological Dimensions of National Innovation Systems*, Frankfurt am Main, 42-70.
- Peters, B. (2003), Innovation und Beschäftigung, in: Janz, N. and G. Licht (eds): *Innovationsforschung heute - Die Mannheimer Innovationspanels*, ZEW Wirtschaftsanalysen 63, Baden-Baden, 113-148.
- Janz, N., G. Ebling, S. Gottschalk, B. Peters and T. Schmidt (2003), Die Mannheimer Innovationspanels: Datenerhebung und -nutzung, in: Janz, N. and G. Licht (eds): *Innovationsforschung heute - Die Mannheimer Innovationspanels*, ZEW Wirtschaftsanalysen / Schriftenreihe des ZEW 63, Baden-Baden, 9-16.

Working Papers

- Böing, P. and B. Peters (2021), *Misappropriation of R&D Subsidies: Estimating Treatment Effects with One-Sided Noncompliance*, ZEW Discussion Paper 21-081 (also IZA DP 14852, China Center for Economic Research Working Paper E2021007, DEM Discussion Paper 2021-23). (*under review*)
- Peters, B. and M. Trunschke (2021), Benefits of Investing into the Development of 4IR-Related Technologies, GROWINPRO Working Paper 2021/15. (*under revision*)
- Behrens, V., F. Blandinières and B. Peters (2021), Generation, Diffusion and Productivity Effects of Industry 4.0 Technologies, GROWINPRO Working Paper 2021/16. (*under revision*)
- Lubczyk, M. and B. Peters (2020), Incumbents and Entrants as Carriers of Innovation and Productivity Growth, GROWINPRO Working Paper 11/2020. (*under revision*)

- Pellens, M., B. Peters, M. Hud, C. Rammer and G. Licht (2020), *Public R&D Investment in Economic Crises*, ZEW Discussion Paper 20-088 (also DEM Discussion Paper 2021-25). (*R&R Research Policy*)
- Köhler, M. and B. Peters, *Subsidized and non-subsidized R&D projects: Do they differ?*, ZEW Discussion Paper No. 17-042, Mannheim (also CREA Discussion Paper 2017-21). (*R&R Industry and Innovation*)
- Crass, D. and B. Peters (2014), *Intangible Assets and Firm-Level Productivity*, ZEW Discussion Paper 14-120.
- Licht, G. and B. Peters (2014), *Do Green Innovations Stimulate Employment - Firm-level Evidence From Germany*, WWW for Europe Working Paper 53, Mannheim.
- Licht, G. and B. Peters (2013), *The Impact of Green Innovation on Employment Growth in Europe*, WWW for Europe Working Paper 50, Mannheim.
- Peters, B., R. Riley, and I. Siedschlag (2013), *The Influence of Technological and Non-Technological Innovation on Employment Growth in European Service Firms*, Servicegap Discussion Paper No. 40.
- Peters, B. and A. Schmiele (2011), *The Contribution of International R&D to Firm Profitability*, ZEW Discussion Paper 11-002, Mannheim.
- Peters, B. and A. Schmiele (2010), *The Influence of International Dispersed vs. Home-based R&D on Innovation Performance*, ZEW Discussion Paper 10-102, Mannheim.
- B. Peters and P. Westerheide (2011), *Short-term Borrowing for Long-term Projects: Are Family Businesses More Susceptible to "Irrational" Financing Choices?*, ZEW Discussion Paper 11-011, Mannheim.
- Müller, K. and B. Peters (2010), *Churning of R&D Personnel and Innovation*, ZEW Discussion Paper 10-032, Mannheim.
- Peters, B. (2004), *Employment Effects of Different Innovation Activities: Microeconometric Evidence*, ZEW Discussion Paper 04-73, Mannheim.

Ongoing Work

- The Anatomy of Chinese Innovation: Insights from Patent Quality and Ownership* (with Philipp Böing, Loren Brandt, Rouchen Dai and Kevin Lim)
- Firm Dynamic Investment in R&D and Skills in Service Industries* (with M. Roberts and V.A. Vuong)
- Benefits of Investing into the Development of 4IR-Related Technologies* (with M. Trunschke)
- A.I. Adoption and Employment Growth* (with D. Czarnitzki and G. Fernandez)
- A.I. Adoption and Intangible Assets in the Productivity Puzzle* (with Alexander Ehrlich)
- Incumbents and Entrants as Carriers of Innovation and Productivity Growth* (with M. Lubczyk)
- Financing Constraints of Innovation* (with D. Czarnitzki and M. Giebel)
- If Two Argue, the Third is Happy? Causal Evidence on Export Gains of Third Country Firms from US-China Trade War* (with J. Dieckhof, L. Palladini and J.L. Iacovone)

Vox Columns	Peters, B., M.J. Roberts and V.A. Vuong (2019), <i>Firm R&D investment, export market exposure, and trade policy</i> , VOX CEPR Policy Portal, https://voxeu.org/article/rd-investment-export-market-exposure-and-trade-policy
	Peters, B., M.J. Roberts and V.A. Vuong (2016), <i>Firms' financial strength and differences in the return to research and development</i> , VOX CEPR Policy Portal, https://voxeu.org/article/firms-financial-strength-and-return-rd
Policy Briefs	Böing, P. and B. Peters (2021), A New China Shock?, The Untold Story of China's R&D Subsidies, ZEW-Kurzexpertise Nr. 21-10, Mannheim.
	Dachs, B. and B. Peters (2020), Covid-19-Krise und die erwarteten Auswirkungen auf F&E in Unternehmen, ZEW policy brief Nr. 20-02, Mannheim.
	Dachs, B. and B. Peters (2020), Covid-19 und seine erwarteten Auswirkungen auf F&E in Unternehmen, Ökonomensteinme.
	Licht, G., B. Peters and C. Rammer (2019), Steuerliche Forschungsförderung in Deutschland, Eine Bewertung des Vorschlags des Bundesfinanzministeriums für ein neues Forschungszulagengesetz, ZEW-Kurzexpertise Nr. 19-02, Mannheim.
	Diekhof, J., V. Eckl, B. Krieger, G. Licht, T. Nguyen, B. Peters, C. Rammer and G. Stenke (2019), Knowledge Flows between Science and Industry and How to Measure Them, ZEW policy brief Nr. 19-09, Mannheim.
Podcasts	B.Peters and C. Rammer (2023), Mit Innovationskraft durch die Krise und 30 Jahre MIP, #ZEWPodcast No. 40, https://wirtschaft-forschung-debatten.podigee.io/40-mit-innovationskraft-durch-die-krise-und-30-jahre-mip
	Böing, P. and B. Peters (2021), Zweckentfremdung von F&E-Subventionen in China, #ZEWPodcast No. 14, https://www.zew.de/publikationen/folge-14-mit-prof-dr-bettina-peters-und-drphilipp-boeing-zweckentfremdung-von-fe-subventionen-in-china

AWARDS

2021	Best Paper Award, 11 th Asia Pacific Innovation Conference, Paper: <i>Misappropriation of R&D Subsidies: Estimating Treatment Effects with One-Sided Noncompliance</i> (together with P. Böing)
2021	Dean's Teaching Award for Distinguished Lecturers, Business School Pforzheim.
2006	Young Scholar Best Paper Award, DRUID Sommer Conference 2006, Copenhagen, Paper: <i>Persistence of Innovation: Stylised Facts and Panel Data Evidence</i>
2004	Best Paper Award, PhD Conference „Innovation, Entrepreneurship and Growth“ 2004, Royal Institute of Technology (KTH), Stockholm, Paper: <i>Employment Effects of Innovation Activities: Microeconometric Evidence</i>

RESEARCH IMPACT

Repec	https://ideas.repec.org/e/ppe99.html#more
	Citations (as of 13.02.2024): 1600 h-index: 15

Wu-index: 6

Among top 5% according to these criteria (1) # of works, (2) # of distinct works, (3) # of citations, (4) # of citations discounted by citation age, (5) # of citations, weighted by simple impact factor, discounted by citation age, (6) # of citations weighted by # of authors, (7) # of citations, weighted by # of authors, discounted by citation age, (8) # of registered citing authors, (9) # of registered citing authors, weighted by rank, (10) # of abstract views in past 12 months, (11) Euclidian citation score, (12) closeness measure in co-authorship network, (13) betweenness measure in co-authorship network, (14) breadth of citation across fields, (15) Wu-index.

Ranking – research field innovation: top 7% (# 7 of female researchers)

Ranking – Germany: top 5%

Ranking – European Union: top 5%

Google Scholar <https://scholar.google.de/citations?user=9zXMofcAAAAJ&hl=de>
 Citations (as of 13.02.2022): 6851 (since 2019: 2868)
 h-index: 32 (since 2019: 24)
 i10-index: 60 (since 2019: 35)

Scopus <https://www.scopus.com/authid/detail.uri?authorId=7201781685>
 Citations (as of 13.02.2024): 1746
 h-index: 14

PROFESSIONAL ACTIVITIES

PhD Supervision Dirk Crass, Maastricht University, NL, 2014 (co-supervisor) [now: *Helaba Frankfurt*]
 Bastian Krieger, University of Luxembourg, LU, 2022 (co-supervisor) [now: *ZEW Mannheim*]

PhD Committee Pardis Navabis, KTH Royal Institute of Technology, Stockholm, SE, 2015 [now: *Ministry of Finance, Sweden*]
 Martin Hud, University of Maastricht, NL, 2017 [now: *Deutsche Telekom*]
 Ni Zhen, University of Luxembourg, LU and Maastricht, NL, 2018 [now: *Ministry of Finance, Luxembourg*]
 Christoph van Crieckingen, KU Leuven, BE, 2018 [now: *Aarhus University, EU Commission*]
 Nima Moshgbar, KU Leuven, BE, 2018 [now: *AlixPartner*]
 Charlotte Keijser, Maastricht University, NL, 2019 [now: *IDH Utrecht*]
 Jorge Andrés Vélez-Ospina, University Autonoma de Barcelona, ES, 2019 [now: *University of Sussex*]
 Helena Kreuter, KU Leuven, BE, and University of Lucca, IT, 2019 [now: *University of Cologne*]
 Basheer Kalash, University of Luxembourg, LU, 2020 [now: *Université Côte d'Azur*]
 Enrico de Monte, University of Strasbourg, FR, 2021 [now: *ZEW Mannheim*]
 Cem Ermagan, KU Leuven, BE, 2023 [now: *KU Leuven*]
 Ana Cristina Fernandes Pedro Soares, VU Amsterdam, 2023 [now: *Banco de Portugal*]
 Ingrid Viklund, KTH Stockholm, Sweden, 2023
 Markus Trunschke, KU Leuven, BE, 2023 [from April 2024: *Hoover Institute, Stanford*]
 Lorenzo Palladini, University of Luxembourg, LU, ongoing

Visiting Scholar

- 2010 KU Leuven, BE (invited by Prof. Dirk Czarnitzki)
 2006 Boston University, US (invited by Prof. Iain Cockburn)

Research Stays

- 2023, 2022 Toronto University, CA US (invited by Prof. Loren Brandt)
 2023 Maastricht University (invited by Prof. Van Anh Vuong)
 2022, 2019, Pennsylvania State University, US (invited by Prof. Mark Roberts)
 2018, 2017,
 2014, 2013, 2012
 2018, 2017, CREST Paris, FR (invited by Prof. Jacques Mairesse)
 2007, 2006, 2004
 2018 Peking University, Beijing (invited by Prof. Philipp Böing)
 2016 KOF Konjunkturforschungsstelle, ETH Zurich, CH (invited by PD Martin Wörter)
 2015 KTH Royal Institute of Technology, Stockholm, SE (invited by Prof. Hans Lööf)
 2012, 2011, 2010 Free University Amsterdam, NL (invited by Prof. Eric Bartelsman and Prof. Sabien Dobbelaere)
 2010, 2009 UNU-MERIT Maastricht, NL (invited by Prof. Pierre Mohnen)
 2009 Friedrich-Schiller-Universität Jena, DE (invited by Prof. Uwe Cantner)
 2022, 2014, KU Leuven, BE (invited by Prof. Dirk Czarnitzki)
 2012, 2009, 2006
 2007 Gent University, BE (invited by Dr. Sabien Dobbelaere)
 2004 University of Southern Denmark, Odense, DK (invited by Prof. Ulrich Kaiser)

Refereeing Industrial and Corporate Change, Empirical Economics, Research Policy, Journal of Industrial Economics, Journal of Economics and Statistics, Industry and Innovation, Technovation, The Manchester School, Small Business Economics, European Journal of Development Research, Jahrbücher für Nationalökonomie und Statistik

Expert/Reviewer Member of the international review panel of the Danish Council for Independent Research | Social Sciences, 2016-2018
 Thyssen Foundation, 2016
 Research Foundation Flanders FWO, 2017
 EU expert on H2020 project IRIMA II, 2018
 University of Applied Sciences Pforzheim, 2019
 Insee - Institut national de la statistique et des études économiques, 2019
 University of Jena, 2020
 BMBF, Förderrichtlinie Wissenstransfer, 2021

Scientific DRUID Summer Conference: 2007-present

Committee	ZEW/MaCCI Conference on the Economics of Innovation and Patenting: 2013-present International Industrial Organization Conference IIOC: 2014-2019 Verein für Socialpolitik 2018 CDM 15 years after: 2013 Academy of International Business AIB: 2011, 2013, 2014
Conference Organization	ZEW Conference on Economics of Innovation and Patenting, ZEW Mannheim, DE, 2008, 2011, 2013, 2015, 2017, 2019, 2022, 2024 PhD Workshop on "Innovation, Entrepreneurship and Competition" (jointly organized with KU Leuven, CBS Copenhagen, TUM School of Management, Ghent University, EPFL, University of Luxemburg and ZEW), ZEW Mannheim, DE, 2020 (virtual) Joint University of Luxemburg /ZEW PhD Workshop, Luxembourg, LU, 2021 (virtual)

TEACHING ACTIVITIES

Courses

2019-present	<i>Economics and Management of Innovation</i> , bachelor, University of Luxembourg, LU
2007-present	<i>Statistics II</i> , bachelor, Pforzheim University, DE
2010-2020	<i>Empirical Economics of Innovation and Patenting</i> , master, University of Zurich, CH
2018	<i>Economics of Innovation and Intellectual Property</i> , master, University of Mannheim, DE (together with Achim Wambach and Maikel Pellens)
2017	<i>Research Topics in Intellectual Property and Patents</i> , PhD course, University of Luxembourg, LU
2014, 2015	<i>Empirical Analysis of Panel Data</i> , lecture and seminar, master, University of Heidelberg, DE
2014	<i>Panel Data Methods</i> , lecture including tutorial, Jena Summer Academy on "Innovation and Uncertainty", PhD course, Jena, DE
2011, 2012	<i>Applied Econometrics: An Application to Panel Data</i> , PhD course, University of Passau, DE
2010	<i>Applied Econometrics: An Application to Panel Data</i> , PhD course, LMU Munich, DE
2008, 2007	<i>Panel Data Econometrics</i> , part of PhD course "Econometrics III", Center for Doctoral Studies in Economics (CDSE) of the University of Mannheim, DE
1997-2000	<i>Introduction to Economics</i> , tutorial, bachelor, University of Kiel, DE
1997-2000	<i>Introduction to Microeconomics</i> , tutorial, bachelor, University of Kiel, DE

Guest Lectures

2018	<i>R&D, Innovation and Productivity (Slowdown?)</i> , Jena Summer Academy on "Innovation and Uncertainty", Jena, DE
2018-2019, 2023	<i>Estimating Dynamic Linear and Non-Linear Panel Data Models</i> , Competition and Innovation Summer School CISS, Ulicinj, Montenegro.

2017	<i>Estimating Dynamic Linear and Non-Linear Panel Data Models</i> , Competition and Innovation Summer School CISS, Olbia, IT.
2011-2015	<i>Estimating Dynamic Linear and Non-Linear Panel Data Models</i> , Competition and Innovation Summer School CISS, Marmaris, Turkey.
2011	<i>Measurement of Innovation</i> , Jena Summer Academy on "Innovation and Uncertainty", Jena, DE.
2011	<i>The Effects of Globalizing R&D: An Empirical Analysis for German Firms</i> , International PhD Workshop on "Innovation and Territory", Varese, IT.
2010	<i>Estimating Private and Social Rates of Return on R&D and Innovation – An Overview</i> , Sino-European Co-Reach Summer School, Suzhou, CN.
2010	<i>Cost-Benefit Approach to Public Support of Private R&D Activity</i> , DIMETIC Doctoral European Summer School, Pecs, HU.
2010	<i>Community Innovation Surveys and the Analysis of Survey Data</i> , Competition and Innovation Summer School CISS 2010, Marmaris, Turkey.
2009	<i>Modelling Innovation Using CIS Cross-Country Data</i> , JERS 2009 Summer Academy on "Innovation and Uncertainty", Jena, DE
2009	<i>Innovation and Productivity I: Estimating Private Returns to R&D and Innovation</i> , JERS 2009 Summer Academy on "Innovation and Uncertainty", Jena, DE
2009	<i>Innovation and Productivity II: Estimating the Social Rate of Return</i> , JERS 2009 Summer Academy on "Innovation and Uncertainty", Jena, Germany
2009	<i>Innovation and Employment</i> , JERS 2009 Summer Academy on "Innovation and Uncertainty", Jena, DE
2008	<i>Estimating the Effects of Spillovers</i> , European Summer School on Industrial Dynamics (ESSID), Monte S'Angelo, IT
2007	<i>Advanced Methods: Dynamic Panel Data Models – Theory and Application</i> , KUL/ZEW Summer School, Valencia, ES <i>Limited Dependent Variables: Random and Fixed Effects Models for Probit, Logit and Tobit</i> , KUL/ZEW Summer School, Valencia, ES
2006	<i>Survey Data Analysis</i> , European Summer School on Industrial Dynamics (ESSID), Institut d'Etudes Scientifique de Cargèse, Cargèse, Corsica

Other Teaching**Experience**

2004-2014	One-day internal training seminars in panel data econometrics, ZEW, Mannheim, DE
2004-2014	One-day expert seminars in panel data econometrics, ZEW, Mannheim, DE

PRESENTATIONS

Keynote Speech	<i>Churning of R&D Personnel and Innovation</i> , 15. Uddevalla Symposium 2012, Faro, Portugal, June 14-16, 2012
Invited Seminars	<ul style="list-style-type: none"> ▪ Prague University of Economics and Business, 2022 ▪ Max Planck Institute for Innovation and Competition, Munich, 2019 ▪ Universita Cattolica del Sacro Cuore, Milan, 2019 ▪ Peking University, NSD Seminar, 2018

- Kassel University, 2018
- KOF/ETH Zurich, 2016
- University of Würzburg, 2015, 2004
- Ifo Munich, 2014
- University of Heidelberg, 2014
- Universitat Autonoma de Barcelona, 2013
- University of Turin, 2013
- Pennsylvania State University, 2013
- University of Kiel, Erich Schneider Seminar, 2012
- KU Leuven, 2010
- DIW, IO-Seminar, 2010
- IMT Lucca, 2009
- Imperial College London, 2009
- University of Jena, 2009
- University of Zurich, 2009
- NBER productivity lunch seminar, Boston, 2007
- Rutgers University, New Brunswick, 2006
- SOOS/MSI Seminar KU Leuven, Leuven, 2006
- University of Duisburg-Essen, 2005
- IAB Nuremberg, 2005
- Centre for European Business Research (CEBR), Copenhagen, 2004
- University of Southern Denmark, Odense, 2004

Conferences

- **EARIE:** Rom 2023, Bergen (online), 2021; Barcelona, 2019; Maastricht, 2017; Lisbon, 2016; Munich, 2015; Milan, 2014; Evora, 2013; Rome, 2012; Stockholm, 2011; Istanbul, 2010; Ljubljana, 2009; Valencia, 2007; Porto, 2005; Berlin, 2004; Helsinki, 2003, Madrid 2002
- **IIOC - International Industrial Organization Conference:** Boston, 2022, 2019, 2017, 2015, 2006; Philadelphia, 2016; Washington, 2012, 2008; Vancouver, 2010; Savannah, 2007; Atlanta/Georgia, 2005
- **DRUID:** Copenhagen, 2021, 2019, 2016, 2010, 2007, 2006; New York, 2017; Rome, 2015;
- **VfS - German Economic Association:** Regensburg (online), 2021; Leipzig, 2019; Vienna, 2017; Magdeburg, 2009; Bayreuth, 2006; Bonn, 2005; Dresden, 2004
- **Eu-SPRI Conference: Science and innovation:** Oslo, 2021 (online)
- **CONCORDi - European Conference on Corporate R&D and Innovation:** Sevilla, 2019
- **Annual Conference of the Statistical Association (Statistische Woche):** Trier, 2019
- **MSI - Munich Summer Institute:** Munich, 2019
- **ZEW Conference on Innovation and Patenting:** Mannheim, 2022, 2019, 2015, 2005, 2003
- **EEA:** Milan 2022, Barcelona, 2009; Amsterdam, 2005
- **ESEM:** Budapest, 2007; Vienna, 2006
- **ISS - International J. A. Schumpeter Society Conference:** Rio de Janeiro, 2008; Nice - Sophia-Antipolis, 2006; Milan, 2004
- **EPIP - European Policy for Intellectual Property:** Oxford, 2016
- **CEAD-Comparative Analysis of Enterprise Data:** London, 2010; London, 2003
- **International Panel Data Conference:** Bonn, 2009; Geneva, 2000
- **Beijing Humboldt Forum (BHF):** Peking, 2018
- **MEIDE:** Moscow, 2016
- **AIEAA Conference on Innovation, productivity and growth:** Ancona, 2015
- **ERSA:** St. Petersburg, 2014
- **MaCCI Annual Conference:** Mannheim, 2014

- **Joint CIIE-WPIA-GROWINPRO Conference**, "Value Creation and Distribution in the Digital Era": Paris, 2021 (online)
- **Conference on Innovation and Entrepreneurship**: Copenhagen, 2014
- **2nd SIMPATIC Annual Conference**: 2014
- **CDM 15 years after**: London, 2013
- **Servicegap Conference**: Brussels, 2013; Mannheim, 2012
- **2. SEEK Conference**: Mannheim, 2012
- **ASIGO Conference**: Nuremberg, 2009
- **Knowledge for Growth: European Strategies in the Global Economy**: Toulouse, 2008
- **IAE - International Atlantic Economic Conference**: Warsaw, 2008
- **AGF CSGE Research Conference**: Berlin, 2007
- **GCBE-Global Conference on Business and Economics**: Harvard, Boston, 2006
- **SMYE - Spring Meeting of Young Economists**: Sevilla, 2006; Geneva, 2005; Warsaw, 2004
- **Conference of the Applied Econometrics Association (AEA) on Innovations and Intellectual Property Values**: Paris, 2005
- **Conference on Industrial Organization and Innovation**: Grenoble, 2005
- **Conference "Innovation, Entrepreneurship and Growth"**, Royal Institute of Technology (KTH): Stockholm, 2004
- **EC2 Conference "Econometrics of Industrial Organization"**: Marseille, 2004
- **European Summer School on Industrial Dynamics (ESSID)**: Cargèse, 2003

Workshops

- Workshop on the Economics of Innovation: Where are we, how did we get here, and where are we heading?, Milan, 2023
- 3rd Workshop ZEW - BETA, Straßburg, 2020 (online)
- OECD Workshop "R&D Intensity", London, 2019
- ZEW-FDZ-Data User Workshop, Mannheim, 2019
- Creativity, Innovation & Entrepreneurship Symposium, Maastricht, 2018
- value2nd Workshop Series on Innovation - IP and Innovation, Luxemburg, 2018
- 2nd Workshop Series on Innovation - Family Firms, Luxemburg, 2018
- 1st Workshop ZEW - BETA, Straßburg, 2018
- RCTI – ZEW Joint Workshop on Recent Research on Innovation and Entrepreneurship in China and Europe, 2017
- Workshop on Intangible Investments, Innovation and Productivity, Valencia, 2013
- Reaping the Benefits of Globalisation: Opportunities and Challenges for Europe and Ireland, Dublin, 2013
- e-Frame "European Framework for Measuring Progress" Workshop on Intangible Assets, ZEW Mannheim, 2013
- Workshop: Innovation, Industrial and Innovation Policy as Drivers of Chance, Mannheim, March 15, 2013
- Workshop Intangibles, Tokyo, 2012
- "Entrepreneurship and Growth of Family Firms", University of Cracow, 2009
- INIR-Workshop "The Global Lab", 2008
- Workshop "Explaining Productivity Growth in Europe, America and Asia" of the Anglo-German Foundation, 2007
- ESF/COST Workshop "Science and Technology Research in a Knowledge based Economy", KU Leuven, 2007
- "Innovation and Employment in European Firms", Universidad Carlos III de Madrid, Madrid, 2004
- Innovation Workshop "Complementarities and Endogeneities", MERIT, Maastricht, 2003

- Workshop of the German Statistical Association on "Microeconometrics", Blaubeuren, 2001

RESEARCH GRANTS

Dynamic Text Data Based Output Indicators as Base of a New Innovation Metric
German Federal Ministry of Education and Research (BMBF), 2021-2024

Public Procurement and Firm Innovation
ZEW research grant (Leibniz Sonderatbestand), 2019-2020

Understanding the Market for Technologies
ZEW research grant (Leibniz Sonderatbestand), 2019-2021

Long-Run Benefits of Firms' Investment in Innovation and Human Capital – A Structural Model Approach
SEEK, 2013-2014

Does the German government distribute direct R&D subsidies efficiently?
SEEK, 2012-2013

Future Infrastructures for Meeting Energy Demands. Towards Sustainability and Social Compatibility
Pakt für Forschung und Innovation von Bund und Ländern, 2011-2016

Interaction Between Innovation and Firm Dynamics and its Impact on Industry Structure and Economic Growth
SEEK, 2010-2012

Explaining Productivity Growth in Europe, America and Asia
Anglo-German Foundation, 2006-2009

Intellectual Property Rights, Innovation and Firm Performance - A Comparative Analysis for OECD Countries Based on Innovation Micro Data, 2007-2009
ZEW research grant

CONTRACT RESEARCH PROJECTS

- EU – Framework Programme** *Growth Innovation and Productivity (GROWINPRO)*
European Commission, DG Research and Innovation, H2020, 2019-2022 (role: WP leader)
- Investigating the Impact of the Innovation Union (I3U)*
European Commission, DG Research and Innovation, H2020, 2015-2017 (role: WP leader)
- Smart Public Intangibles (SPINTAN)*
European Commission, DG Research, FP7, 2013-2016
- Welfare, Wealth and Work for Europe (WWWforEurope)*
European Commission, DG Research, FP7, 2012-2016
- The impact of service sector innovation and internationalisation on growth and productivity (SERVICEGAP)*
European Commission, DG Research, 2010-2013

Competitiveness, Innovation and Intangible Investment in Europe (COINVEST)
 European Commission, DG Research, 2008-2010

Innovation and Employment in European Firms – Microeconometric Evidence,
 European Commission, DG Research, 2001-2004 (role: ZEW project leader)

EU – Others	<p><i>Innovation Union Competitiveness Report 2015 - Expert for chapter on Skills, Innovation and Employment</i> European Commission, DG Research and Innovation, 2015</p> <p><i>European Competitiveness Report 2014: Study on Firm Growth, Innovation and the Business Cycle</i> European Commission, DG Enterprise, 2013-2014 (role: project leader)</p> <p><i>Foreign Corporate R&D and Innovation Activities in the European Union (part of Competitiveness Report 2010)</i> European Commission, DG Enterprise and Industry, 2010 (role: project leader)</p> <p><i>Innovation Watch – Systematic</i> European Commission, DG Enterprise and Industry, 2005-2008</p> <p><i>Study on the Impact of Mergers on Innovation in a Market</i> European Commission, 2005-2006</p> <p><i>The Third Community Innovation Survey (CIS3)</i> European Commission, 2001-2003</p>
Others	<p><i>Mannheim Innovation Panel: Innovation Activities of German Enterprises</i> German Federal Ministry of Education and Research (BMBF), 2000-present (role: deputy project leader)</p> <p><i>Evaluation of the Funding Program Eurostars-2 (2014-2021) – National Part</i> German Federal Ministry of Education and Research (BMBF), 2023-2024 (role: project leader)</p> <p><i>Evaluation of the Federal Government's Corona Economic Assistance Programs</i> Federal Ministry for Economic Affairs and Climate Action (BMWK), 2023-2024 (role: project leader)</p> <p><i>Evaluation of the Central Innovation Programme for SMEs</i> Federal Ministry for Economic Affairs and Climate Action (BMWK), 2023-2024</p> <p><i>Focus Study on the Markets for Technology</i> Expert Commission for Research and Innovation (EFI), 2022 (role: project leader)</p> <p><i>The Effect of Innovation Policy on China's Competitiveness and the Reaction of Firms in Germany</i> German Federal Ministry of Education and Research (BMBF), 2021-2024</p> <p><i>Feasibility Study on the Markets for Technology</i> Expert Commission for Research and Innovation (EFI), 2020-2021 (role: project leader)</p> <p><i>Literature Survey on the Productivity Slowdown and its Relation to Innovation Activities</i> Expert Commission for Research and Innovation (EFI), 2018 (role: project leader)</p> <p><i>Evaluation of BMBF's Research Programme "ICT 2020 - Research for Innovation"</i> German Federal Ministry of Education and Research (BMBF), 2019-2021</p>

- Evaluation of the R&D Programme "Photonics Research Germany"*
German Federal Ministry of Education and Research (BMBF), 2020-2021
- R&D in the Mechanical Engineering Industry and the Planned R&D Tax Incentive*
Verband Deutscher Maschinen- und Anlagenbauer, 2019
- Industry Concentration and Innovation as Driver of the Productivity Slowdown*
Bertelsmann Stiftung, 2019
- Relevance of R&D Tax Incentives for Midrange Companies*
Verband Deutscher Maschinen- und Anlagenbauer, 2018 (role: project leader)
- Subsidy Rates for R&D Tax Incentives*
German Federal Ministry of Education and Research (BMBF), 2017-2018
- R&D Tax Incentives – Study on Design Options and Impacts*
Expert Commission for Research and Innovation (EFI), 2016
- Innovative SMEs 2025 – Challenges, Trends and Recommended Actions for the Business Sector and Economic Policy*
Federal Ministry for Economic Affairs and Energy, 2015-2016
- The Role of Small and Medium-sized Enterprises (SMEs) for Research and Innovation in Germany*
Expert Commission for Research and Innovation (EFI), 2015-2016
- Economic Evaluation of Public Investment in R&D and Innovation*
German Expert Commission on Research and Innovation (EFI), 2011 (role: project leader)
- Employment, Innovation and Welfare: A Comparative Study of Europe and China (CO-Reach)*
German Federal Ministry of Education and Research (BMBF), 2009-2011 (role: project leader)
- Social Returns to R&D Activities in Germany – An Overview and New Empirical Results*
German Federal Ministry of Education and Research (BMBF), 2007-2009 (role: project leader)
- Students in Engineering and Natural Sciences – An Empirical Analysis ("Ingenieurwahlstudie II")*
German Federal Ministry of Economics and Technology (BMBF), 2007-2009
- Economic and Societal Importance of Family Enterprises*,
German Federal Ministry of Economics and Technology, 2007-2008
- Technological Performance of Mechanical Engineering Industry in Germany*
German Federal Ministry of Education and Research (BMBF), 2001-2002
- Innovation Activities in the German Car Manufacturing Industry*
Niedersächsisches Institut für Wirtschaftsforschung e.V. (NIW), Hannover, 2001
- Innovation Behaviour of Firms in the Federal State of Bremen*
Federal State of Bremen, 2004-2005