

STATEMENT OF FUTURE RESEARCH INTERESTS

The Paris Climate Agreement aims to limit global warming to 2°C - preferably 1.5°C - above preindustrial levels. The latest IPCC Assessment Report indicates that global emissions must be drastically reduced within a short time. The German Energiewende has focused on improving energy efficiency and expanding the supply of renewable energy. Besides the decarbonisation of the energy system, the direct use of renewable energy in other sectors through electrification will be needed. In addition, the use of synthetic (electricity-based) regenerative fuels is becoming important, for example to avoid process emissions by using green hydrogen. Moreover, social and behavioural change processes are needed, both from citizens, politicians and firm executives.

However, it will most likely not be possible to transform or energy systems and reduce emissions fast enough. Climate change mitigation is a global public good and there is a strong freerider incentive, which makes an international cooperative solution to climate change difficult. If the carbon budget is exceeded, it will be necessary to remove CO₂ from the atmosphere by using so-called negative emission technologies. Examples include bioenergy in combination with CO₂ capture and sequestration or, as a simpler option, the use of forests as carbon sinks. Besides this thorough understanding of the supply side and technology developments, the analyses of preferences of individuals in the energy transition, the demand for energy services and consumer behaviour in dilemma situations are of crucial importance for climate change policy. To accelerate the transition to a low-carbon economy, it requires enterprises seriously investing in the green transition and governments that strive to make "financial flows consistent with a pathway towards low greenhouse gas emissions" (Paris Agreement, Article 2).

My research focuses on energy, climate and environmental regulation. In particular, I investigate the macroeconomic and sectoral effects of policy interventions and their impact on consumers and producers. Moreover, I analyse decisions of individuals and firms in real decision situations with a behavioural focus. I am approaching research questions empirically, often with experimental methods or quantitative impact analyses. Based on microeconomic theory, I develop experiments and numerical simulation models that allow for a quantitative assessment of the effects of energy and climate policy interventions on real markets or for a welfare-economic evaluation. Throughout my research, I strive for an interdisciplinary research perspective building on insights from psychology, sociology, science and engineering.

I would like to make use of the excellent disciplinary and interdisciplinary research environment at Oxford University to expand my position in the applied analysis of sustainability, energy and climate policies. In the following, my main research plans in the areas of behavioral change processes, digitalization and breakthrough technologies are briefly outlined:

CHANGE PROCESSES AND THE ROLE OF CO-BENEFITS

Individuals are more willing to cooperate in sustainable development and combating climate change than standard economic theory predicts. Various reasons are given in the literature for this (prosocial behavior, environmentally friendly behavior, social norms, reciprocity, conditional cooperation, communication, trust, punishment). To understand and further change processes in business, society, and ecology, my recent research focuses on (regional) preferences and additional benefits of climate protection as drivers of climate protection measures.

Co-benefits are positive effects of climate protection measures on other objectives, such as the impact on ecosystems, air pollution, health, resource efficiency, economic activity, energy security or technological development and innovation. These additional benefits sometimes offer private, internalizable benefits that can explain higher contributions to climate protection. In a broader perspective, private climate change benefits may also arise from moral motives associated with the emission reduction itself, such as a warm glow of giving, moral satisfaction or a positive self-image. In addition, some of the additional benefits of climate protection are clearly locally limited, such as air quality. There is also empirical evidence that local social norms are an important driver for local climate protection activities. These local social norms are a largely untapped potential for achieving ambitious climate protection goals.

Initial studies show that people are indeed more willing to provide regional (local) public goods or to support emission reductions locally.

Finally, I am interested in the assessment of potential trade offs arising. Currently, I started to look into preference to balance environmental, social and economic benefits of climate mitigation projects. I am convinced that this perspective will gain importance in the implementation of the sustainable development goals.

POLICY PACKAGES AND THE ROLE OF DIGITALIZATION

Political interventions in the energy and climate sector are characterized by a complex policy mix. For example, in addition to the European emissions trading system, there are a number of complementary policy instruments such as the promotion of renewable energies and energy efficiency, the taxation of CO₂ emissions, innovation policy measures or trade policy interventions. These interactions are still poorly understood. The investigation of these interactions, taking into account real market imperfections and practical barriers to implementation, is both a fundamental research question and highly relevant to the current energy and climate debate. Another example for inefficiencies are the often uncoordinated approaches to achieve economic and environmental policy goals, like air pollution control and climate change mitigation.

These pose important challenges that are tackled not only in the international arena but also on a national and regional level. Both aims can be approached with a number of interacting policy options that may contradict or complement each other. Only a well-coordinated set of policy instruments can avoid inconsistencies while leveraging synergies. What are synergies and trade-offs and what are adequate policy instruments to address interrelationships between different economic policy goals?

Of special interest in this context is the increased availability of data and the potentials of digitalisation, e.g. in the mobility sector. New apps make it easier to find and use public transport, to share vehicles, but also to prevent traffic jams by optimising traffic flow and finding parking spaces. Better information about one's own emissions and ways to reduce them can also increasingly be made available on one's smartphone, enabling people to make better-informed decisions about their own consumption. Alternative mobility based on electricity and hydrogen also promises to substantially reduce traffic emissions. Besides research on preferences and the role of digitalization in the electricity sector, I would like to focus more on mobility as a hard to defossilize sector.

BREAKTHROUGH TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT

Three-quarters of the emission reductions for climate neutrality must come from technologies that are currently only available as prototypes or in the demonstration stage. Breakthrough technologies in climate protection and radical innovations are therefore needed. However, the development of a hydrogen economy, CO₂ capture and storage or use, and negative emissions have so far been discussed primarily from a technological perspective. The bioeconomy is another example for a potential radical socio-technical change.

However, the successful introduction of these technologies and their diffusion requires substantial changes in consumer behaviour and will also lead to a considerable adaptation of the current industrial and production structure. The political-economic framework conditions, the social prerequisites and consequences, and the role of human capital and labor markets are crucial to the success of this transformation, but have been treated at best in a rudimentary fashion. What is the right regulatory framework to efficiently accelerate the growth, development and use of breakthrough technologies in climate protection? What welfare effects arise and what are the distributive consequences. Do citizens accept a sustainable development strategy that focuses on breakthrough technologies in climate protection?

My current research compares the willingness to pay for climate mitigation with preferences for natural carbon sinks, like forests. What are the determinants for demand for sinks and how does it translate to technical sinks like direct air capture and CCS. In my future research I would like to explore new technologies, social practices, and business models to develop roadmaps for the implementation of breakthrough technologies for sustainable development.



CURRICULUM VITAE

PERSONAL DATA

Date/Place of Birth: 7. September 1971, Rothenburg ob der Tauber, Germany, Nationality: German
Marital status: married w Claudia Löschel, children: Tilman (1999), Benno (2001), Ida (2004), Martha (2009)
Address: Luisenstr. 31, 68723 Schwetzingen, Tel.: ++49 160-4345092, andreas@loeschel.eu

CURRENT POSITIONS

since 2021 Professor of Environmental/Resource Economics and Sustainability, **Ruhr-Universität Bochum**
since 2024 Chairman of the Board of Directors of the "Energy Systems of the Future" (ESYS) initiative of the **German National Academy of Sciences Leopoldina, National Academy of Science and Engineering acatech** and the **Union of the German Academies**
since 2011 Chairman of the German Government's **Expert Commission to Monitor the Energy Transition**
since 2017 Head of the Virtual Institut **Smart Energy North Rhine-Westphalia**
since 2021 Researcher at **RWI – Leibniz Institut for Economic Research**
since 2021 Senior Faculty Member of the **Ruhr Graduate School in Economics (RGS Econ)**

PROFESSIONAL EXPERIENCE

7/14-8/21 Professor of Economics (W3), esp. Energy & Resource Economics and Director of the Centre of Applied Economic Research Münster (CAWM), **University of Münster**
11/10-6/14 Professor of Economics (W3), esp. Environmental & Resource Economics, **University of Heidelberg**
8/07-6/2014 Head of the Research Department "Environmental and Resource Economics, Environmental Management" at **ZEW – Leibniz Centre for European Economic Research**
10/05–7/07 Scientific Officer, **European Commission**, DG Joint Research Centre, Institute for Prospective Technological Studies (IPTS), Seville, Spain
12/99–08/05 Senior Researcher (since 2005 with tenure) at **ZEW**

RESEARCH INTERESTS AND ACADEMIC IMPACT

Energy economics and policy, climate change economics, international environmental agreements, behavioural economics, economic simulation modelling

Google Scholar: 10.468 citations, h-Index = 53 (22.07.2024)

Scopus: 4.077 citations, h-Index = 37, 126 papers (22.07.2024)

More than 100 articles in (Social) Sciences Citation Index Journals, e.g., Canadian Journal of Economics, Ecological Economics (6), Economica (2), Economics Letters, Energy Research and Social Sciences (2), Energy Economics (18), Energy Policy (13), Environmental and Resource Economics (4), Environmental Research Letters (4), European Economic Review (2), Journal of Environmental Economics and Management (3), Journal of Economic Dynamics and Control, Journal of Economic Behavior and Organisation, Journal of the European Economic Association, Journal of Public Economics, Land Economics (2), Nature Climate Change (2), Nature Energy, Nature Geoscience, npj Climate Action, Proceedings of the National Academy of Sciences (PNAS), Resource and Energy Economics (5)

Editorial board memberships: Climate Policy, Energy and Climate Change, Energy Journal, Frontiers of Engineering Management, Perspektiven der Wirtschaftspolitik, Resource and Energy Economics

Editor of Special Issues: Applied Energy, China Economic Review, Climate Change Economics, Economica, Economics of Energy & Environmental Policy, Energy and Buildings, Energy Economics, Energy Policy, Frontiers of Engineering Management, Resources, Conservation & Recycling, Resource and Energy Economics

EDUCATION

6/2009	Habilitation (Dr. rer. pol. habil.), Oldenburg University , university teaching credential for economics (Habilitation Title: Sustainability Impact Assessment with CGE Models)
2003	Dissertation (Dr. rer. pol.), Department of Economics, University of Mannheim , Germany (Dissertation Title: Economic Impacts of Climate Change Policy, summa cum laude)
9/03–12/03	Studies in the “Program on Negotiation” at Harvard University , Massachusetts Institute of Technology (MIT) and Fletcher School of Diplomacy, Tufts University , Cambridge (Mass.), USA
11/92–10/98	Diploma in Economics (Diplom-Volkswirt), University of Erlangen-Nuremberg , Germany
9/94–5/95	M.A., Economics, Wayne State University , Detroit, USA
8/93–9/93	Studies in Economics, University of California, Los Angeles (UCLA), USA

AFFILIATIONS AND RESEARCH VISITS

4/24-7/24	Visiting Researcher, Institute of Economics, Universität Barcelona
since 10/2021	Research Associate, RWI - Leibniz Institute for Economic Research
since 2021	Invited Researcher, J-PAL King Climate Action Initiative, MIT
since 2019	Research Associate, Institute of Economics, University of Barcelona
since 2018	Advisor to Fraunhofer Society , Munich, Germany
since 2017	Visiting Chair Professor, University of International Business and Economics (UIBE) , Beijing (Foreign Scholar, 111 Innovation Centre for Global Value Chains, SAFEA)
since 2016	CESifo Research Network Fellow, CESifo , Munich
since 2015	Advisor to Aurora Energy Research Limited, Oxford, UK
since 2013	Guest Professor, University of International Business and Economics (UIBE) , Beijing
since 2010	Research Associate, CCEP, Australian National University (ANU) , Canberra, Australia
7/21-9/22	Senior Fellow, University of Greifswald and Alfried-Krupp Wissenschaftskolleg (IAS)
2014-2021	Research Associate, ZEW , Mannheim
2017-2021	Co-Director, Australia-Germany Energy Transition Research Hub
2015-2017	Excellency Professor (High-End Foreign Expert of the State Administration of Foreign Experts Affairs SAFEA , State Council, PR China), P.R. China (Guest Professor since 2013)
6/19-8/19	Visiting Fellow, Australian National University (ANU) , Canberra, Australia
4/17-7/17	Oxford Martin Visiting Fellow, Oxford University
4/13	Senior Visiting Scholar, Tsinghua University , Beijing, China
9/15, 10/11	Visiting Researcher, Crawford School of Economics & Government,
10–11/2010	Australian National University (ANU) , Canberra, Australia
09/2010	Economist Visitors Programme, European Commission (DG Enterprise & Industry)
9/06–8/07	Visiting Professor in Economics, University Pablo de Olavide , Seville, Spain
5/05–7/05	Visiting Scholar, Department of Economics, Stanford University , Stanford, CA, USA
5/2004	Visiting Scholar, Joint Program on the Science and Policy of Global Change,
8–12/2003	Massachusetts Institute of Technology (MIT) , Cambridge (Mass.), USA

AWARDS AND HONOURS

since 2016	Elected Member of the National Academy of Science and Engineering (acatech)
since 2011	Chairman of the German Government’s Expert Commission to Monitor the Energy Transition
2022	German Prize for Economics of the Joachim Herz Stiftung for significant contributions to the further development of economic research (the highest endowed research prize in economics in Germany)
2021	Prize for Science Communication “wissen.kommuniziert”, Münster University Society
2021 - 2022	Senior Fellowship, Alfried Krupp Institute of Advanced Studies (IAS)/ Alfried-Krupp Wissenschaftskolleg , Greifswald
2013 - 2020	Among the 50 most influential economists in Germany in the Frankfurter Allgemeine Zeitung
(continually)	(F.A.Z.) Ranking of Economists
2019	ACT-ANU Energy Expert-in-Residence , Australian Capital Territory (ACT) and Australian National University (ANU), Canberra
2017	Oxford Martin Visiting Fellowship, University of Oxford
2017	Handelsblatt ranking of German-speaking economists Top-100 Economists (current research), Top-100 Economists under 40 (2011, 2010, 2008, 2007)
2010, 2011	Scholarship of the German Academic Exchange Service (DAAD) for a research visit at ANU
2005	Scholarship of Fritz Thyssen Foundation for a research visit at Stanford University
2004	Award of the Karin Islinger Foundation for doctoral thesis, University of Mannheim

2000	German Student Research Prize (First Prize) of the Körber Foundation for diploma thesis on privatizing old age security
1998–2001	Scholarship of the German Science Foundation (DFG) for doctoral studies in the graduate programme “Environmental and Resource Economics” at University of Heidelberg and University of Mannheim
1998	Award for best diploma examination, Wiso-Fakultätsbund Nuremberg
1995–1998	Scholarship of the Friedrich Naumann Foundation

OTHER ACADEMIC ACTIVITIES

since 2024	Chairman of the Board of Directors of the "Energy Systems of the Future" (ESYS) initiative of acatech, Leopoldina and the Union of the German Academies of Sciences and Humanities
since 2023	Chair of the Scientific Advisory Board, Institute of Energy Economics (EWI), University of Cologne
since 2023	Member of the Scientific Advisory Board, Institute for Advanced Studies (IHS), Vienna
since 2023	Founding Member of the World Society of Carbon Neutrality, Tsinghua University and China Association for Science and Technology (CAST), P.R. China.
since 2023	Member of the Board of Trustees, Max Planck Institut für Kohlenforschung, Mühlheim an der Ruhr
since 2023	Member of the Scientific Steering Committee “Future Transmission Lab”, Amprion
since 2022	Member of the Advisory Board, Consumer Association NRW
since 2021	Member of the Scientific Advisory & Project Board (SAPB), 50Hertz Transmission
since 2021	Member of Advisory Board, EPICO - Energy and Climate Policy and Innovation Council e.V.
since 2021	Vice Chair of the Academic Committee, International School of Low Carbon Studies, Shandong University of Finance and Economics
since 2020	Member of the Scientific Advisory Board, Institute of Energy Economics (EWI), University of Cologne
since 2019	Member of the Advisory Board, Agora Energiewende
since 2019	Member of the Scientific Advisory Board, Deutsches Institut für Wirtschaftsforschung (DIW)
since 2019	Member of the International Advisory Board, Wuppertal Institut
since 2018	Member of the German-Japanese Energy Transition Council (GJETC) supported e.g. by the Japan Ministry of Economy, Trade and Industry (METI), German Federal Foreign Office, Federal Ministry for Economic Affairs and Energy, Federal Environment Ministry
since 2017	Member of the Scientific Commission of the State of Lower Saxony
since 2013	Member of the Board of Trustees of the Academy Project "Energy systems of the future“, German Academies of Sciences (Leopoldina, Union, acatech)
since 2013	Member of the Working Group for Ecological Affairs of the German Bishops' Conference
2018-2023	Lead author (Ch 6 Energy Systems) and Autor (Ch 13 National and sub-national policies & institutions), Working group III, 6th Assessment Report, Intergovernmental Panel on Climate Change (IPCC)
2021	Member of the Working Group “A systemic approach to the energy transition in Europe“, Science Advice for Policy by European Academies , informs the Scientific Opinion of the European Commission Group of Chief Scientific Advisors (https://www.sapea.info/wp-content/uploads/energy-transition-report.pdf)
2020	Member of the Working Group “Energy transition 2030: Europe's path to carbon neutrality“, German National Academy of Sciences Leopoldina, acatech and the Union of the German Academies
2020	Member of the advisory board, “Feasibility study on a German-Australian hydrogen supply chain based on renewable energies (HySupply)“, acatech - German Academy of Science and Engineering and the Federation of German Industries (BDI)
2014-2017	Member of the External Advisory Board of the DFG Excellency Cluster “Integrated Climate System Analysis and Prediction" (CliSAP) at the Universität Hamburg
2014-2016	Lead Author, Global Environment Outlook (GEO-6) of the UN Environment Programme (UNEP) (Regional Assessment: Climate and Energy in Europe)
2012	Member of the German delegation at the International Maritime Organisation MEPC 64 meeting in London, UK
2010-2014	Lead author, Fifth assessment report, Working group III (Chapter 6 Assessing Transformation Pathways), Intergovernmental Panel on Climate Change (IPCC)
2007	Member of the Delegation of the European Commission at the UNFCCC Climate Conference in Bali, Indonesia, Presentation at climate change conferences at Poznan (2008), Barcelona (2009), Copenhagen (2009), Durban (2011), Warsaw (2013), Lima (2014)
since 2006	Member of the Standing Research Committee on Environmental and Resource Economics , German Economic Association
2002-2009	Participation in studies on “Multi-Gas Mitigation and Climate Change” (EMF 21) (2002-2004), “Climate Change Scenarios: U.S. Domestic and International Policy Architectures” (EMF 22) (2004-2009) Energy Modeling Forum (EMF) , Stanford University

RESPONSIBILITIES AT RUHR-UNIVERSITY BOCHUM (RUB) & UNIVERSITY OF MÜNSTER (WWU)

- starting 2025 **Director of the Executive MBA Programme “Energy Economics”** (degree from Ruhr-University Bochum at the EUREF Campus in Düsseldorf), RUB
- 2022 **Representative for Sustainability, Ruhr Universität Bochum**
- 2022 Board of Directors, **Institute for Mining and Energy Law, Ruhr Universität Bochum**
- 2022 Board of Directors, **Research Department: Closed Carbon Cycle Economy, Ruhr Universität Bochum**
- 2021 Board Member, **Center of Interdisciplinary Sustainability Research (ZIN), WWU**
- 2019-2021 Principal Investigator, **“Excellence Start-up Center.NRW”, WWU**, commissioned by Ministry of Economics, Innovation, Digitisation and Energy of the State of North Rhine-Westphalia
- 2018-2021 Member of the **Senate of the University of Münster**
- 2016-2021 **Speaker of the Section Economics**, School of Business and Economics, **University of Münster**
- 2016-2021 Member of the Advisory Board MEET Batterieforschungszentrum (**Münster Electrochemical Energy Technology**) at the University of Münster
- 2016-2021 Director of the Zentralinstitut für Raumplanung (**Central Institute for Spatial Planning**), WWU
- 2019/2020 **Chairman of the selection committee** “Professor of Economics (W3 level) with a focus on microeconomics / industrial organization”, WWU
- 2019/2020 **Chairman of the selection committee** “Professor of Economics (W3 level) with a focus on economic cooperation research”, WWU
- 2016-2019 **Chairman of the examination board** of the Master's Program in Energy Economics (double degree from the University of Münster and RWTH Aachen at the Haus der Technik in Essen), WWU
- 2015-2019 **Director of the dual degree Master Programme “Energy Economics”, RWTH Aachen/WWU**

EXPERT REVIEWS, EVALUATION COMMITTEES AND JURY PARTICIPATION

- 2019, 2023 Scientific Expert, Hearings of the **State Parliament of North Rhine-Westphalia**, Committee on homeland and community issues “Solar photovoltaics and municipal building codes” (2023), Committee on Europe and International Affairs, “European Climate Policy: Giving CO₂ a prize” (2019)
- 2014-19, 2022 Scientific Expert, Hearings of the **German Parliament**, Committee on the Economy, Energy and Climate, “Legislative proposal on price breaks for gas and heat” (2022), Committee on Economics and Energy, annual briefing on “Status of the Energy Transformation” (2014-2019), Committee on Financial Issues, briefing on “Energy and Electricity Tax Reform” (2017)
- 2020 Member of the Evaluation Committee of the **German Science Council** (Wissenschaftsrat) for the evaluation of the Institute for Advances Sustainability Studies (IASS), Potsdam
- 2018 Scientific Expert, **German Governments'** committee on “Growth, Structural Change and Employment” (Coal Exit Commission), briefing on “Impacts of a coal phase-out”
- 2013 Member of the Evaluation Committee of the DFG Priority Program „Climate Engineering“ for the **German Science Foundation** (DFG)
- 2011 Member of the Evaluation Committee of the **German Science Council** (Wissenschaftsrat) for the evaluation of the Wuppertal Institute
- 2008 Scientific Expert, **European Parliament's** Committee on Industry, research and energy, briefing on “RES Trading as an Option” for the EU directive on renewable energy
- 2008 Member of the Evaluation Committee of the **Wegener Center for Climate and Global Change**, Graz University
- 2005-2007 Expert reviewer for 4th Assessment Report (AR4), Working Group II (Impacts, Adaptation and Vulnerability) and Working Group III (Mitigation), **IPCC**

REPRESENTATIVE PROJECTS

- EU Marie Curie-Slodowska Doctoral Training Network integrating knowledge of engineering and social sciences „Consumer Energy Demand Flexibility in Electricity Use“, Ruhr University Bochum / TU Dortmund, European Commission, 2025-2027, budget appr. 260 tEUR, PI of the project “Determinants of flexibility in the household energy use”
- “Future Transmission Hub“, Doctoral research network funded by Amprion GmbH, 2025-2034, overall budget appr. 10.000 tEUR, Bochum budget appr. 800 tEUR, project coordinator Bochum
- DFG Collaborative Research Centre (CRC)/Transregio (TRR) “Spatio-temporal Statistics for the Transition of Energy and Transport” (TRR 391), Ruhr University Bochum / TU Dortmund, German Science Foundation DFG, 2024– 2028, budget appr. 220 tEUR, PI of the project “Targeting energy conservation”
- “Transition labels in climate finance: An empirical and experimental investigation (ClimLabels)“, Federal Ministry of Education and Research, 8/2022-7/2025, overall-budget appr. 750 tEUR, Bochum budget: appr. 220 tEUR, overall project coordinator
- DFG Research Group “Smart mid-sized cities” (FOR 5393), Ruhr University Bochum / University of Münster, German Science Foundation DFG, 2022– 2025, overall budget appr. 2.100 tEUR, Bochum budget: appr. 300 tEUR, project coordinator Bochum
- “Global H2 Potentials (Hypat)“, Ruhr University Bochum, Federal Ministry of Education and Research, 3/2021-8/2024, Bochum budget: appr. 315 tEUR, Project coordinator Bochum
- “Transfer projekt H2 Sandboxes” (Trans4Real) , Ruhr University Bochum, Federal Ministry of Education and Research, 4/2021-3/2026, Münster budget: appr. 350 tEUR, Project coordinator Bochum
- “Monitoring Process ‘Energy of the Future’ – Independent Commission of the German Government on the Energiewende“, Ruhr University Bochum, commissioned by Federal Ministry of Economic Affairs and Energy, 10/2011 – ongoing, RUB/Münster/ZEW budget: 1000 tEUR, Chair of Expert Commission.
- “Virtual Institut Smart Energy“ (VISE I and VISE II), University of Münster / University of Bochum, commissioned by European Commission - European Regional Development Fund, 7/2017 – 3/2021 and Ministry of Economic Affairs, Innovation, Digitalization and Energy (MWIDE), 1/2022 – 12/2024, overall-budget appr. 4.500 tEUR, Münster budget: appr. 750 tEUR, Overall project coordinator
- “Integrated economic analysis of climate change protection and local air pollution“ (INTEGRATE), University of Münster, commissioned by Federal Ministry of Education and Research, 12/2019 – 11/2022, Overall-budget appr. 1.400 tEUR, Münster budget: appr. 525 tEUR, Overall project coordinator
- “Strategic Scenario Analysis (START) - A first German-Australian focus project“, University of Münster, commissioned by Federal Ministry of Education and Research, 10/2017 – 12/2020, Overall-budget 2.130 tEUR, Münster budget: 560 tEUR, Co-director of HUB
- “Determinants of energy-relevant decisions and energy-relevant behaviour in the industrial sector“ (ENERGY TRANS – Projekt D2), ZEW, University of Münster, commissioned by Helmholtz-Gemeinschaft Deutscher Forschungszentren, 07/2011 - 08/2016; Total budget project: 8.250 tEUR, own budget: approx. 1.560 tEUR, Project management ZEW, then Münster.

TEN REPRESENTATIVE JOURNAL ARTICLES

- Information Nudges, Subsidies, and Crowding Out of Attention: Field Evidence from Energy Efficiency Investments (with M. Rodemeier), **Journal of the European Academic Association (JEEA)**, forthcoming, 2024
- What if? The macroeconomic and distributional effects for Germany of a stop of energy imports from Russia (with R. Bachmann, D. Baqaee, C. Bayer, M. Kuhn, B. Moll, A. Peichl, K. Pittel, M. Schularick), **Economica**, forthcoming, 2024.
- Can self-set goals encourage resource conservation? Field experimental evidence from a smartphone app (with M. Rodemeier and M. Werthschulte), **European Economic Review**, 160, 104612, 2023.
- A multi-country meta-analysis on the role of behavioral change in reducing energy consumption and CO₂ emissions in residential buildings (with T. Khanna, and eleven co-authors), **Nature Energy** , 6, 925–932, 2021.
- On the role of present bias and biased price beliefs in household energy consumption (with M. Werthschulte), **Journal of Environmental Economics and Management (JEEM)**, 109, 102500, 2021.
- On the Effects of Unilateral Environmental Policy on Offshoring in Multi-Stage Production Processes (with O. Schenker and S. Koesler), **Canadian Journal of Economics**, 51(4), 2018.
- The long-term impact of matching and rebate subsidies when public goods are impure: Field experimental evidence from the carbon offsetting market (with M. Kesternich & D. Römer), **Journal of Public Economics**, 137, 70-78, 2016.
- Inequality, communication, and the avoidance of disastrous climate change in a public goods game (with A. Tavoni, A. Dannenberg and G. Kallis), **Proceedings of the National Academy of Sciences (PNAS)**, 108(29), 11825-11829, 2011.
- On the Self-interested Use of Equity in International Climate Negotiations (with A. Lange, C. Vogt and A. Ziegler), **European Economic Review**, 54(3), 359-375, 2010.
- Decomposing Integrated Assessment of Climate Change: Methodology and Sample Application (with C. Böhringer and T. F. Rutherford), **Journal of Economic Dynamics and Control**, 31(2), 683-702, 2007

SELECTED POLICY DOCUMENTS

- Statement of the Expert Commission "Energy of the Future" on "Electricity market design and its further development", scoping paper for the consultation on climate neutral electricity system (Plattform Klimaneutrales Stromsystem) of the German Government, 2023
- Publication of Sixth Assessment Report, Working group III (Chapter 6 Energy Systems), Intergovernmental Panel on Climate Change (IPCC) (lead author), 2022
- Statement of the Expert Commission "Energy of the Future" on the Monitoring of the Energy Transition for the German Government, 2012, 2014, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
- Publication of the Working Group "A systemic approach to the energy transition in Europe", Science Advice for Policy by European Academies, informs the Scientific Opinion of the European Commission Group of Chief Scientific Advisors, 2021 (<https://www.sapea.info/wp-content/uploads/energy-transition-report.pdf>)
- Publication of the Working Group "Energy transition 2030: Europe's path to carbon neutrality", German National Academy of Sciences Leopoldina, acatech and the Union of the German Academies, 2020
- Coordination of G20 Insights Policy Brief "Establishing an expert advisory commission to assist the G20's energy transformation processes" (https://www.g20-insights.org/policy_briefs/establishing-expert-advisory-commission-assist-g20s-energy-transformation-processes/) with authors from German Expert Commission on the Monitoring Process "Energy of the future", UK Committee on Climate Change, Australian Academy of Technology and Engineering, acatech – German National Academy of Science and Engineering, Chinese Academy of Engineering, World Energy Council, France, India, Japan, 2017.
- Publication of the Regional Assessment: Climate and Energy in Europe, Global Environment Outlook (GEO-6) of the UN Environment Programme (UNEP) (Lead Author), 2016
- Publication of the Fifth Assessment Report, Working group III (Chapter 6 Assessing Transformation Pathways), Intergovernmental Panel on Climate Change (IPCC) (Lead author), 2014.
- Issue Note (with Peter Heindl) for the Green Growth and Sustainable Development Forum of the OECD on Energy sector reform and its impact on households", November 2014
- Communications from the Commission "Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage" {COM(2010)260} and the "Background information and analysis" {COM(2010)265 final}; information and analysis provided by me have been extensively used and recognised
- Submission of Germany to the "Marine Environmental Protection Committee" (MEPC) of the International Maritime Organisation (IMO) on "Possible uses of revenues generated by an Emissions Trading System" (MEPC 62/5/15) is based on a study directed by me at ZEW
- European Parliament's committee on Industry, research and energy, Briefing papers on „Opportunities for renewable energy development in Europe“, briefing on "RES Trading as an Option", IP/A/ITRE/WS/2008-02
- Impact Assessment accompanying the „Package of Implementation measures for the EU's objectives on climate change and renewable energy for 2020“ of the European Commission {SEC(2008)85/3}; information and analysis provided by me have been extensively used and recognised
- Communications from the Commission "Biofuels Progress Report" COM(2006)845 and "Renewable Energy Road Map" COM(2006)848 and the accompanying Impact Assessments {SEC(2006) 1721} {SEC(2006) 1720}; information and analysis provided by me have been extensively used and recognised

Schwetzingen, July 2024

COURSES

Summer 22	Ruhr Universität Bochum , „Climate Economics“ (English), Lecture, MA (2 SWS)
Summer 22	Ruhr Universität Bochum , „Energy Economics“ (German), Lecture, BA (2 SWS)
Summer 22	Ruhr Universität Bochum , „Topics in Resource Economics“, (English) Seminar, MA (2 SWS)
Summer 22	Ruhr Universität Bochum , „Topics in Environmental Economics“ (English), Seminar, BA (2 SWS)
Summer 22	Universität Greifswald , „Topics in Environmental Economics“ (English), Seminar, MA (2 SWS)
Summer 2020	University of International Business and Economics (UIBE) and Shandong University of Finance and Economics , „Climate Economics“ (English), Lecture, MA (2 SWS)
Summer 15-21	Universität Münster , „Climate Economics“ (English), Lecture, MA (2 SWS)
Summer 15-21	Universität Münster , „Energy Economics“ (German), Lecture, BA (2 SWS)
Summer 15-21	Universität Münster , „Topics in Resource Economics“, (English) Seminar, MA (2 SWS)
Summer 15-21	Universität Münster , „Topics in Environmental Economics“ (English), Seminar, BA (2 SWS)
Summer 2015	Universität Münster , „Microeconomics“ (German), Lecture, BA (4 SWS)
Winter 14-20	Universität Münster , „Environmental Economics“ (English), Lecture, MA (2 SWS)
Winter 14-20	Universität Münster , „Resource Economics“, (German) Lecture, BA (2 SWS)
Winter 14-20	Universität Münster , „Energy Economics“ (German), Seminar, MA (2 SWS)
Winter 14-20	Universität Münster , „Climate Economics“ (English), Seminar, BA (2 SWS)
Summer 2014	University of Mannheim , „The Energy Transition – Economic Dimension and Ethical Justification“ (2 hours per week)
Summer 2014	University of Heidelberg , „Managing the Global Commons“ (2 hours per week)
Summer 2014	Wroclaw University of Economics , „Emissions Trading Schemes“ (1 hour per week)
Winter 2013	University of Heidelberg , „Economic Problems of the Energy Transition“ (2 hours per week)
Winter 2012	University of Heidelberg , „Climate Change and Development“ (2 hours per week)
Summer 2012	University of Heidelberg , „Introduction to CGE Modeling“ (2 hours per week)
Winter 2011	University of Heidelberg , „Introduction to CGE Modeling“ (2 hours per week)
Winter 2011	University of Heidelberg , „International Technology Transfer“ (2 hours per week)
Summer 2011	University of Heidelberg , „Climate and Justice“ (2 hours per week)
Winter 2010	University of Heidelberg , „Transition towards a Green Economy“ (2 hours per week)
2010	University College London (UCL) , School of Energy and Resources, Adelaide, Australia, „The EU Emissions Trading Scheme“, MSc Course Climate Change: Modelling & Policy
2010	University of Mannheim , Mannheim Business School, „Sustainability - Macroeconomic and Company Perspectives on Climate Change“, Executive MBA Class
2010	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) , „Environmental Economics“
Winter 2008	University of Heidelberg , „Climate Change and the Economics of Adaptation“ (2 hours)
Summer 2008	Tübingen University , Forum Scientiarum Sommerakademie „Climate Change – Natural Science and Policy in Dialogue“ (1 hour per week)
Summer 2008	Darmstadt University , „Economic Aspects of Environmental Politics“ (english) (1 hour per week)
Summer 2007	Universidad Pablo de Olavide , Seville, „Principles of Macroeconomics“ (english) (3 hours per week)
Winter 2006	Universidad Pablo de Olavide , Seville, „Principles of Microeconomics“ (english) (3 hours per week)
2006, 2007	Secretary General of the European Commission , „Impact Assessment Advanced Workshop“
Summer 2005	Pforzheim University of Applied Sciences , „Theory and Policy of Pension Systems“ (2 hours)
Winter 2004	Pforzheim Univ. of Applied Sciences , „International Environmental Economics“ (2 hours)
Winter 2004	University of Heidelberg , „Sustainable Development“ (2 hours per week)
Summer 2004	University of Heidelberg , „Political Economy of Environmental Policy“ (2 hours per week)

Schwetzingen, June 2022

PUBLICATIONS

RESEARCH INTERESTS AND ACADEMIC IMPACT

Energy economics and policy, climate change economics, international environmental agreements, behavioural economics, economic simulation modelling

Google Scholar: 10.468 citations, h-Index = 53 (22.07.2024)

Scopus: 4.077 citations, h-Index = 37, 126 papers (22.07.2024)

More than 100 articles in (Social) Sciences Citation Index Journals, e.g., Canadian Journal of Economics, Ecological Economics (6), *Economica* (2), Economics Letters, Energy Research and Social Sciences (2), Energy Economics (18), Energy Policy (13), Environmental and Resource Economics (4), Environmental Research Letters (4), European Economic Review (2), Journal of Environmental Economics and Management (3), Journal of Economic Dynamics and Control, Journal of Economic Behavior and Organisation, Journal of the European Economic Association, Journal of Public Economics, Land Economics (2), Nature Climate Change (2), Nature Energy, Nature Geoscience, npj Climate Action, Proceedings of the National Academy of Sciences (PNAS), Resource and Energy Economics (5)

Editorial board memberships: Climate Policy, Energy and Climate Change, Energy Journal, Frontiers of Engineering Management, Perspektiven der Wirtschaftspolitik, Resource and Energy Economics

Editor of Special Issues: Applied Energy, China Economic Review, Climate Change Economics, *Economica*, Economics of Energy & Environmental Policy, Energy and Buildings, Energy Economics, Energy Policy, Frontiers of Engineering Management, Resources, Conservation & Recycling, Resource and Energy Economics

EDITORSHIPS OF JOURNALS

since 2022 Member of the Editorial Board "**Frontiers of Engineering Management**" published by the China Academy of Engineering (2022 IF 7,4)

since 2019 Member of the Editorial Board "**Energy and Climate Change**" (2022 IF 1,2)

since 2019 Member of the Editorial Board "**Perspektiven der Wirtschaftspolitik**" published by the Association of German Economists (2022 IF 0,5)

since 2018 Associate Editor of the Journal "**Resource and Energy Economics**" (2022 IF 3.6)

since 2017 Member of the Editorial Board of the Journal "**The Energy Journal**" (2022 IF: 3.5), Zeitschrift der IAEE - International Association for Energy Economics

since 2016 Member of the Editorial Board of the Journal "**Climate Policy**" (2022 IF: 7.1)

Editor of Special Issues of the Journals: **Resource and Energy Economics** (2024), **Frontiers of Engineering Management** (2022), **Applied Energy** (2021), **Resources, Conservation & Recycling** (2021), **Energy and Buildings** (2021), **Applied Energy** (2020), **China Economic Review** (2020), **Climate Change Economics** (2024), **Resource and Energy Economics** (2019), **Energy Economics** (2019), **Economics of Energy & Environmental Policy** (2019), **Energy Economics** (2017), **Energy Economics** (2015), **Energy Policy** (2014), *Economica* (2014), **Energy Policy** (2010)

TEN REPRESENTATIVE JOURNAL ARTICLES

Information Nudges, Subsidies, and Crowding Out of Attention: Field Evidence from Energy Efficiency Investments (with M. Rodemeier), **Journal of the European Academic Association (JEEA)**, forthcoming, 2024

What if? The macroeconomic and distributional effects for Germany of a stop of energy imports from Russia (with R. Bachmann, D. Baqaee, C. Bayer, M. Kuhn, B. Moll, A. Peichl, K. Pittel, M. Schularick), **Economica**, forthcoming, 2024.

Can self-set goals encourage resource conservation? Field experimental evidence from a smartphone app (with M. Rodemeier and M. Werthschulte), **European Economic Review**, 160, 104612, 2023.

A multi-country meta-analysis on the role of behavioral change in reducing energy consumption and CO₂ emissions in residential buildings (with T. Khanna, and eleven co-authors), **Nature Energy**, 6, 925–932, 2021.

On the role of present bias and biased price beliefs in household energy consumption (with M. Werthschulte), **Journal of Environmental Economics and Management (JEEM)**, 109, 102500, 2021.

On the Effects of Unilateral Environmental Policy on Offshoring in Multi-Stage Production Processes (with O. Schenker and S. Koesler), **Canadian Journal of Economics**, 51(4), 2018.

The long-term impact of matching and rebate subsidies when public goods are impure: Field experimental evidence from the carbon offsetting market (with M. Kesternich & D. Römer), **Journal of Public Economics**, 137, 70-78, 2016.

Inequality, communication, and the avoidance of disastrous climate change in a public goods game (with A. Tavoni, A. Dannenberg and G. Kallis), **Proceedings of the National Academy of Sciences (PNAS)**, 108(29), 11825-11829, 2011.

On the Self-interested Use of Equity in International Climate Negotiations (with A. Lange, C. Vogt and A. Ziegler), **European Economic Review**, 54(3), 359-375, 2010.

Decomposing Integrated Assessment of Climate Change: Methodology and Sample Application (with C. Böhringer and T. F. Rutherford), **Journal of Economic Dynamics and Control**, 31(2), 683-702, 2007

ARTICLES IN JOURNALS OF THE (SOCIAL) SCIENCES CITATION INDEX (SSCI) IN SUBMISSION / IN PREPARATION

Trust in scientists and their role in society: a global assessment (with V. Cologna, N. Mede, ... A. Löschel, more than 100 author as a multi-lab study , *Nature Human Behaviour*, revise and resubmit

Balancing Climate Change Mitigation and National Adaptation: Experimental Evidence on the Influence of Risk Perceptions and Information Construal Levels (with J. Heckenhahn and C. Feldhaus), submitted

The role of co-benefits in motivating climate change mitigation (with C. Feldhaus, M. Gleue, P. Werner), submitted

Employment effects of coal mine openings in China (with Y. Xu and T. Zhu), submitted

Targeted Policies to Address Adverse Effects of Phasing Out Coal (with M. de Pinto, J. Lingens, G. Zunker), submitted

IS-enabled downstream ETS (with J. Strüker, M. Körner, C. Feldhaus, D. Leinauer and D. Schulze), in preparation

The Hidden Costs of Infrastructure Investments: Changes in Daily Commute Patterns Trigger Stress and Impact Preferences (with M. Price, L. Razzolini, M. Werthschulte), in preparation

What Drives Energy Curtailment? COVID-19 as a Natural Experiment to Disentangle the Relative Importance of Attention and Income Shocks (with M. Price, L. Razzolini, M. Werthschulte), in preparation

Charitable Giving und Covid (with M. Price, L. Razzolini, M. Werthschulte), in preparation

Who Will Provide Effort to Protect the Climate? (with C. Feldhaus, M. Gleue, S. Harris and D. Schulze), in preparation.

ARTICLES IN JOURNALS OF THE (SOCIAL) SCIENCES CITATION INDEX (SSCI)

1. Information nudges, subsidies, and crowding out of attention: Field evidence from energy efficiency investments (with M. Rodemeier), **Journal of the European Economic Association**, forthcoming, 2024.
2. What if? The Economic Effects for Germany of a Stop of Energy Imports from Russia (with R. Bachmann, D. Baqaee, C. Bayer, M. Kuhn, B. Moll, A. Peichl, K. Pittel, M. Schularick), **Economica**, forthcoming, 2024.
3. Identity and Voluntary Efforts for Climate Protection (with M. Gleue, S. Harris and C. Feldhaus), **Journal of Economic Behavior and Organisation**, forthcoming, 2024.
4. Economics of cooling and heating (with C. Wei, W. Zhou, X.-B. Zhang), Editorial, **Climate Change Economics**, forthcoming, 2024.
5. The Demand for Voluntary Carbon Dioxide Removal – Experimental Evidence from an Afforestation Project in Germany (with H. Bartels and M. Kesternich), forthcoming, **Land Economics**, 2024.
6. The intrinsic value of decision rights: Field evidence from electricity contract choice automation (with C. Feldhaus, J. Lingens und G. Zunkers), **Resource and Energy Economics**, forthcoming, 2024.
7. Facing the storm: Developing corporate adaptation and resilience action plans amid climate uncertainty (with K. Hennes and D. Bendig), **npj Climate Action**, forthcoming, 2024.
8. Municipal building codes and the adoption of solar photovoltaics (with S. Carattini, B. Figge and Z. Gordon), **Journal of Environmental Economics and Management (JEEM)**, 124 (März), 102937, 2024.
9. Coal transitions – Part 2: Phase-out dynamics in global long-term mitigation scenarios (with J. Minx, J. Hilaire, F. Müller-Hansen et al.), **Environmental Research Letters**, 19, 033002, 2024.
10. Can self-set goals encourage resource conservation? Field experimental evidence from a smartphone app (with M. Rodemeier and M. Werthschulte), **European Economic Review**, 160, 104612, 2023.
11. Oil price crises, gas price crises, climate crises, Editorial, **GAIA** 32/3, 277, 2023.
12. Digital technology and energy sustainability: Recent advances, challenges, and opportunities (with C. Wei, C.-Z. Li, S. Managi and T. Lundgren), **Resources, Conservation and Recycling** 190, 106803, 2023.
13. Can a Catholic Institution Promote Sustainable Behavior? Field Experimental Evidence on Donations for Climate Protection (with M. Gleue and C. Feldhaus), **Journal of Behavioral and Experimental Economics**, 98, 101855, 2022.
14. Encouraging consumer activity through automatic switching of the electricity contract - A field experiment (with C. Feldhaus, J. Lingens, G. Zunker), **Energy Policy**, 164, 112855, 2022.
15. Energy transition toward carbon-neutrality in China: Pathways, implications and uncertainties (with Yong Yang, Hui Wang and Peng Zhou), **Frontiers of Engineering Management** 9(3), 358-372, 2022

16. Patterns and determinants of carbon emission flows along the Belt and Road from 2005 to 2030 (with Y. Yang, H. Wang und P Zhou), **Ecological Economics**, 192, 107260, 2022.
17. What motivates smart meter adoption? Evidence from an experimental advertising campaign in Germany (with S. Berger, F. Ehering, C. Feldhaus and A. Wyss), **Energy Research & Social Science**, 85, 102357, 2022.
18. Recent advances in energy demand for residential space heating (with C. Wei and Y. Huang), **Energy and Buildings**, 261, 111965, 2022.
19. On the role of present bias and biased price beliefs in household energy consumption (with M. Werthschulte), **Journal of Environmental Economics and Management (JEEM)**, 109, 102500, 2021.
20. A multi-country meta-analysis on the role of behavioral change in reducing energy consumption and CO2 emissions in residential buildings (with T. Khanna, G. Baiocchi, M. Callaghan, F. Creutzig, H. Guias, N. Haddaway, L. Hirth, A. Javaid, N. Koch, S. Laukemper, M. Del Mar Zamora and J. Minx), **Nature Energy**, 6, 925–932, 2021.
21. The demand for global and local environmental protection – experimental evidence from climate change mitigation in Beijing (with B. Sturm, J. Pei, W. Ran, W. Buchholz and Z. Zhao), **Land Economics**, 97, 137-154, 2021.
22. Does demand-side flexibility reduce emissions? Exploring the social acceptability of demand management in Germany and Great Britain (with P. Grunewald, M. Gleue and J. Unterberg), **Energy Research & Social Science**, 82, 102290, 2021.
23. The changing role of global value chains in decoupling economic growth from CO2 emissions in 2000-2014 (with D. Zhang, H. Wang and P. Zhou), **Energy Economics**, 93, 105053, 2021.
24. Coal Transitions-Part 1: A systematic map and review of case study learnings from regional, national, and local coal phase-out experiences (with F. Diluiso, P. Walk, N. Manych, N. Cerutti V. Chipiga, A. Workman, C. Ayas, R. Cui, D. Cui, K. Song, L. Banisch, N. Moretti, M. Callaghan, L. Clarke, F. Creutzig, J. Hilaire, F. Jotzo, M. Kalkuhl, W. Lamb, F. Müller-Hansen, G. Nemet, P.-Y. Oei, B. Sovacool, J. Steckel, S. Thomas, J. Wiseman, J. Minx), **Environmental Research Letters**, 16 (11), 1003003, 2021.
25. Managing momentum in climate negotiations (with S Carattini), **Environmental Research Letters**, 16 (5), 051001, 2021.
26. Negotiating Weights for Burden Sharing Rules in International Climate Negotiations: An Empirical Analysis (with M. Kesternich and A. Ziegler), **Environmental Economics and Policy Studies**, 23(4), 309-331, 2021.
27. The future of coal in a carbon-constrained climate (with M. Jakob, C. Steckel, F. Jotzo, B. Sovacool, L. Cornelsen, R. Chandra, O. Edenhofer, C. Holden, T. Nace, N. Robins, J. Suedekum and J. Urpelainen), **Nature Climate Change**, 10, 704–707, 2020.
28. The rebound effect representation in climate and energy models (with G. Colmenares and R. Madlener), **Environmental Research Letters**, 15, 123010, 2020.
29. Emissions trading systems for global low carbon energy and economic transformation – Editorial (with X. Zhang, J. Lewis, D. Zhang and J. Yang), **Applied Energy**, DOI 10.1016/j.apenergy.2020.115858, 2020.
30. Recent advances in energy demand research in China (with C. Wei and S. Managi), **China Economic Review**, 63, 1-6, 2020.
31. Low-carbon Transitions: Economics and Policy– Editorial (with C. de Miguel, M. Filippini, X. Labandeira and J. Labeaga), **Energy Economics**, 84 (Suppl. 1), 1-3 (2019)
32. Conditional cooperation in the case of a global public good - experimental evidence from climate change mitigation in Beijing (with W. Ran, J. Pei, B. Sturm and Z. Zhao), **China Economic Review**, 56, 101308 (2019).
33. Do voluntary environmental programs reduce emissions? EMAS in the German manufacturing sector (with R. Kube, K.v. Graevenitz and P. Massier), **Energy Economics**, 84, 1-12 (2019).
34. Interdisciplinary synthesis report on the coal phaseout. The Kopernikus project ENavi informs the German coal commission (with M. Pahle et al.), **GAIA**, 28(1), 61-62, 2019.
35. Facing the Energy Transition - An Introduction (with M.T. Costa-Campi and E. Trujillo-Baute), **Economics of Energy & Environmental Policy**, 8(2), 1-6, 2019.
36. The European Union energy transition: key priorities for the next five years (with S. Tagliapietra, G. Zachmann, O. Edenhofer, J.M. Glachant and P. Linares), **Energy Policy**, 132, 950-954, 2019.
37. The Impacts of the EU ETS on Efficiency - An Empirical Analyses for German Manufacturing Firms (with B. Lutz and S. Managi), **Resource and Energy Economics**, 56, 71-95, 2019.
38. Recent Advances in Energy Demand Analysis – Insights for Industry and Households (with S. Managi), **Resource and Energy Economics**, 56, 1-5, 2019.
39. Processing trade, foreign outsourcing and carbon emissions in China (with J. Pei, J. Xue, G. Peters, Z. Zhao and Q. Chen), **Structural Change and Economic Dynamics**, 49, 1-12, 2019.
40. The Impact of a Feed-In Tariff on Wind Power Development in Germany (with C. Hitaj), **Resource and Energy Economics**, 57, 18-35, 2019.
41. Research trends in environmental and resource economics: Insights from four decades of JEEM (with R. Kube, H. Mertens and T. Requate), **Journal of Environmental Economics and Management**, 92, 433-464, 2018.

42. Reducing CO₂ from Cars in the European Union (with S. Paltsev, Y.-H. Chen, V. Karplus, P. Kishimoto, J. Reilly, K. von Graevenitz and S. Koesler), **Transportation**, 45(2), 573-595, 2018.
43. China's emissions trading takes steps toward big ambitions (with F. Jotzo, V. Karplus, M. Grubb, K. Neuhoff, L. Wu, F. Teng), **Nature Climate Change**, 8(4), 265-267, 2018.
44. On the Effects of Unilateral Environmental Policy on Offshoring in Multi-Stage Production Processes (with O. Schenker and S. Koesler), **Canadian Journal of Economics**, 51(4), 2018.
45. Establishing an expert advisory commission to assist the G20's energy transformation processes (with P. Großkurth et al.), **Economics E-Journal**, 12, 1–12, 2018.
46. Define limits for temperature overshoot targets (with O. Geden), **Nature Geoscience**, 10, 881-882, 2017.
47. The Effect of Globalisation on Energy Footprints: Disentangling the Links of Global Value Chains (with O. Kaltenecker and F. Pothen), **Energy Economics**, 68(S1), 148-168, 2017.
48. Informing the Transitions towards Low-carbon Societies – Editorial, **Energy Economics** (with C. de Miguel, M. Filippini and X. Labandeira), 68 (Suppl. 1), 1-3, 2017.
49. Casting Light on Energy Efficiency — Evidence on Consumer Inattention and Imperfect Information (mit M. Rodemeier and R. Kube), **Applied Economics Letters**, 24(21), 1575–1587, 2017.
50. Improving Voluntary Public Good Provision through a Non-Governmental, Endogenous Matching Mechanism: Experimental Evidence" (with C. Reif and D. Rübbecke), **Environmental and Resource Economics**, 67, 559–589, 2017.
51. Revealed preferences for voluntary climate change mitigation when the purely individual perspective is relaxed – evidence from a framed field experiment (with B. Sturm and R. Uehleke), **Journal of Behavioral and Experimental Economics**, 67, 149-160, 2017.
52. Energy Costs in Germany and Europe: An Assessment Based on a (Total Real Unit) Energy Cost Accounting Framework (with O. Kaltenecker, M. Baikowski and J. Lingens), **Energy Policy**, 104, 419-430, 2017.
53. The long-term impact of matching and rebate subsidies when public goods are impure: Field experimental evidence from carbon offsetting market (with M. Kesternich and D. Römer), **Journal of Public Economics**, 137, 70-78, 2016.
54. Pro-Environmental Households and Energy Efficiency in Spain (with A. Ramos and X. Labandeira), **Environmental and Resource Economics**, 63, 367–393, 2016.
55. Peeling the onion: Analyzing aggregate, national and sectoral energy intensity in the European Union (with F. Pothen and M. Schymura), **Energy Economics** 52 (Suppl. 1), S63-S75, 2015.
56. Frontiers in the economics of energy efficiency (with C. de Miguel and X. Labandeira), **Energy Economics** 52 (Suppl. 1), S1-S4, 2015.
57. Do Chinese individuals believe in climate change and why? An econometric analysis (with J. Dai, M. Kesternich and A. Ziegler), **Ecological Economics** 116, 310-321, 2015.
58. Invention in Energy Technologies: Comparing Energy Efficiency and Renewable Energy Inventions at the Firm Level, (with S. Rexhäuser), **Energy Policy** 83, 206-217, 2015.
59. On the Provision of Public Goods with Probabilistic and Ambiguous Thresholds (with A. Dannenberg, G. Paolacci, C. Reif and A. Tavoni), **Environmental and Resource Economics**, 61(3), 365-383, 2015.
60. Energy-saving and emission-abatement potential of Chinese coal-fired power enterprise: a non-parametric analysis (with C. Wei and B. Liu), **Energy Economics**, 49, 33–43, 2015
61. Emissions trading in China: emerging experiences & international lessons (with F. Jotzo), **Energy Policy**, 2014.
62. Designing an EU Energy and Climate Policy Portfolio for 2030: Implications of Overlapping Regulation under Different Levels of Electricity Demand (with F. Flues, B. Lutz and O. Schenker), **Energy Policy** 75, 91-99, 2014
63. Designing an Emissions Trading Scheme for China - An Up-to-date Climate Policy Assessment (with M. Hübner and S. Voigt), **Energy Policy** 75, 57-72, 2014.
64. The voluntary provision of international public goods – an overview (with D. Rübbecke), **Economica**, 81(322), 195-204, 2014.
65. The New IPCC Scenarios: What Does the Two-Degree Target Cost? - Die neuen Szenarien des IPCC: Was kostet das Zwei-Grad-Ziel?, **GAIA** 23/2, 73, 2014.
66. Incidence and Extent of Co-Authorship in Environmental and Resource Economics: Evidence from the Journal of Environmental Economics and Management (with M. Schymura), **Scientometrics**, 99, 631-661, 2014.
67. Did Fukushima Matter? Empirical Evidence of the Demand for Climate Protection in Germany (with C. Gallier and B. Sturm), **Applied Economics Letters**, 21(12), 846-851, 2014.
68. An empirical analysis of the CO₂ shadow price in Chinese thermal power enterprises (with C. Wei and B. Liu), **Energy Economics**, 40, 22-31, 2013.
69. The Demand for Climate Protection - Empirical Evidence from Germany (with B. Sturm and C. Vogt), **Economics Letters**, 415–418, 2013.
70. The EU decarbonisation roadmap 2050: What way to walk? (with M. Hübner), **Energy Policy**, 55, 190–207, 2013.

71. A new robustness analysis for climate policy evaluations: A CGE Application for the EU 2020 Targets (with C. Hermeling and T. Mennel), **Energy Policy**, 55, 27-35, 2013.
72. The Value-Added of Sectoral Disaggregation: Implications on Competitive Consequences of Climate Change Policies (with V. Alexeeva, C. Böhringer and Sebastian Voigt), **Energy Economics**, S127-S142, 2012.
73. Inequality, Communication and the Avoidance of Disastrous Climate Change (with A. Tavoni, A. Dannenberg and G. Kallis), **Proceedings of the National Academy of Sciences (PNAS)**, 108(29), 11825-11829, 2011.
74. On the Self-interested Use of Equity in International Climate Negotiations (with Andreas Lange, Carsten Vogt and Andreas Ziegler), **European Economic Review**, 54(3), 359-375, 2010
75. Auctioning of CO₂ Emission Allowances in Phase 3 of the EU Emissions Trading Scheme (with E. Benz and B. Sturm), **Climate Policy**, 10 (2010), 705–718.
76. Paying the Piper and Calling the Tune? A Meta-Regression Analysis of the Double-Dividend Hypothesis (with N. Anger and C. Böhringer), **Ecological Economics**, 69(7), 1495-1502, 2010.
77. Indicators of Energy Security in Industrialised Countries (with U. Moslener and D. Rübbelke), **Energy Policy**, 38(4), 1665-1671, 2010.
78. Energy security—concepts and indicators - Editorial (with U. Moslener and D. Rübbelke), **Energy Policy**, 38(4), 1607-1608, 2010.
79. EU Climate Policy Up to 2020: An Economic Impact Assessment (with C. Böhringer, U. Moslener and T. F. Rutherford), **Energy Economics**, 31(S2), 295-305, 2009.
80. Oil and Unemployment in Germany (with U. Oberndorfer), **Jahrbücher für Nationalökonomie und Statistik**, 229(2+3), 146-162, 2009.
81. Technological Uncertainty and Cost-Effectiveness of CO₂ Emission Reduction (with V. Otto), **Energy Economics**, SUPPL 1, 4-17, 2009.
82. A Symmetric Input-Output Table for EU 27: Latest Progress (with J. Rueda-Cantuche, J. Beutel, F. Neuwahl and I. Mongelli), **Economic Systems Research**, 21(1), 59-79, 2009.
83. Environmental Taxation and Induced Structural Change in an Open Economy: The Role of Market Structure (with C. Böhringer and H. Welsch), **German Economic Review**, 9(1), 17-40, 2008.
84. Employment impacts of EU biofuels policy: combining BU technology information and sectoral market simulations in an IO framework (with F. Neuwahl, I. Mongelli, L. Delgado), **Ecological Economics**, 447-460, 2008.
85. Directed technical change and differentiation of climate policy (with V.M. Otto and J. Reilly), **Energy Economics**, 30 (6), 2855-2878, 2008.
86. Extending Working Hours: Why not work 42 Hours rather than 38? – A CGE Analysis for Germany (with K. Conrad and H. Koschel), **Empirica**, 35, 255-266, 2008.
87. Climate Policy Induced Investments in Developing Countries: The Implications of Investment Risks (with C. Böhringer), **The World Economy**, 31(3), 367-392, 2008.
88. Energy Biased Technical Change - A CGE Analysis (with V. Otto and R. Dellink), **Resource and Energy Economics**, 29(2), 137-158, 2007.
89. Decomposing Integrated Assessment of Climate Change: Methodology and Sample Application (with C. Böhringer and T. F. Rutherford), **Journal of Economic Dynamics and Control**, 31(2), 683-702, 2007.
90. Efficiency Gains from “What”-Flexibility in Climate Policy - An Integrated CGE Assessment (with C. Böhringer and T. F. Rutherford), **The Energy Journal**, Multi-Greenhouse Gas Mitigation and Climate Policy, 405-424, 2006.
91. Computable General Equilibrium Models for Sustainability Impact Assessment: Status Quo and Prospects (with C. Böhringer), **Ecological Economics**, 60(1), 49-64, 2006.
92. Promoting Renewable Energy in Europe – A Hybrid CGE Approach (with C. Böhringer), **The Energy Journal**, Hybrid Modelling of Energy-Environment Policies: Reconciling Bottom-up and Top-down, 123 – 138, 2006.
93. Climate Policy Beyond Kyoto: Quo Vadis? A Computable General Equilibrium Analysis based on Expert Judgements (with C. Böhringer), **Kyklos**, 58(4), 467-493, 2005.
94. Recycling of Eco-Taxes, Labor Market Effects and the True Cost of Labor- A CGE Analysis (with K. Conrad), **Journal of Applied Economics**, 8(2), 259-278, 2005.
95. Assessing Emission Allocation in Europe: An Interactive Simulation Approach (with C. Böhringer, T. Hoffmann, A. Lange and U. Moslener), **The Energy Journal**, 26(4), 1-22, 2005.
96. Market Power and Hot Air in International Emission Trading: The Impacts of U.S. Withdrawal from the Kyoto Protocol (with C. Böhringer), **Applied Economics**, 35(6), 651-664, 2003.
97. Carbon Taxes and Joint Implementation - An Applied General Equilibrium Analysis for Germany and India (with C. Böhringer and K. Conrad), **Environmental and Resource Economics**, 24(1), 49-76, 2003.
98. Assessing the Costs of Compliance: The Kyoto Protocol (with C. Böhringer), in: *European Environment (now: Environmental Policy and Governance)*, 12(1), 1-16, 2002.
99. The Economic and Environmental Implications of the US Repudiation of the Kyoto Protocol and the Subsequent Deals in Bonn and Marrakech (with Z.X. Zhang), **Review of World Economics**, 138(4), 711-746, 2002.

100. Technological Change in Economic Models of Environmental Policy: A Survey, **Ecological Economics**, 43(2-3), 105-126, 2002.

Schwetzingen, May 2024

COMMISSIONED RESEARCH PROJECTS

TEN REPRESENTATIVE PROJECTS

- EU Marie Curie-Slodowska Doctoral Training Network integrating knowledge of engineering and social sciences „Consumer Energy Demand Flexibility in Electricity Use”, Ruhr University Bochum / TU Dortmund, European Commission, 2025-2027, budget appr. 260 tEUR, PI of the project “Determinants of flexibility in the household energy use”
- “Future Transmission Hub”, Doctoral research network funded by Amprion GmbH, 2025-2034, overall budget appr. 10.000 tEUR, Bochum budget appr. 800 tEUR, project coordinator Bochum
- DFG Collaborative Research Centre (CRC)/Transregio (TRR) “Spatio-temporal Statistics for the Transition of Energy and Transport” (TRR 391), Ruhr University Bochum / TU Dortmund, German Science Foundation DFG, 2024– 2028, budget appr. 220 tEUR, PI of the project “Targeting energy conservation”
- “Transition labels in climate finance: An empirical and experimental investigation (ClimLabels)”, Federal Ministry of Education and Research, 8/2022-7/2025, overall-budget appr. 750 tEUR, Bochum budget: appr. 220 tEUR, overall project coordinator
- DFG Research Group “Smart mid-sized cities” (FOR 5393), Ruhr University Bochum / University of Münster, German Science Foundation DFG, 2022– 2025, overall-budget appr. 2.100 tEUR, Bochum budget: appr. 300 tEUR, project coordinator Bochum
- “Global H2 Potentials (Hypat)”, Ruhr University Bochum, Federal Ministry of Education and Research, 3/2021-8/2024, Bochum budget: appr. 315 tEUR, Project coordinator Bochum
- “Transfer projekt H2 Sandboxes” (Trans4Real) , Ruhr University Bochum, Federal Ministry of Education and Research, 4/2021-3/2026, Münster budget: appr. 350 tEUR, Project coordinator Bochum
- “Monitoring Process ‘Energy of the Future’ – Independent Commission of the German Government on the Energiewende”, Ruhr University Bochum, commissioned by Federal Ministry of Economic Affairs and Energy, 10/2011 – ongoing, RUB/Münster/ZEW budget: 1000 tEUR, Chair of Expert Commission.
- “Virtual Institut Smart Energy” (VISE I and VISE II), University of Münster / University of Bochum, commissioned by European Commission - European Regional Development Fund, 7/2017 – 3/2021 and Ministry of Economic Affairs, Innovation, Digitalization and Energy (MWIDE), 1/2022 – 12/2024, overall-budget appr. 4.500 tEUR, Münster budget: appr. 750 tEUR, Overall Project coordinator
- “Integrated economic analysis of climate change protection and local air pollution” (INTEGRATE), University of Münster, commissioned by Federal Ministry of Education and Research, 12/2019 – 11/2022, Overall-budget appr. 1.400 tEUR, Münster budget: appr. 525 tEUR, Overall project coordinator

APPLICATION STAGE

- “Carbon to Chem Phase 3”, Ruhr University Bochum, German Federal Ministry of Education and Research (BMBF), 2024 – 2028, budget approx. 490 tEUR, PI of the project “Economic analysis of the industrial implementations of CCU concepts”
- [Second stage] “Sustainable Transformation Of Rural Communities via Technical, Social and Organizational Innovations”, European Commission (Horizon), 2024 – 2027, budget approx. 640 tEUR, project coordinator Bochum

ONGOING PROJECTS

- EU Marie Curie-Slodowska Doctoral Training Network integrating knowledge of engineering and social sciences „Consumer Energy Demand Flexibility in Electricity Use”, Ruhr University Bochum / TU Dortmund, European Commission, 2025-2027, budget appr. 260 tEUR, PI of the project “Determinants of flexibility in the household energy use”
- “Future Transmission Hub”, Doctoral research network funded by Amprion GmbH, 2025-2034, overall budget appr. 10.000 tEUR, Bochum budget appr. 800 tEUR, project coordinator Bochum

- DFG Collaborative Research Centre (CRC)/Transregio (TRR) "Spatio-temporal Statistics for the Transition of Energy and Transport" (TRR 391), Ruhr University Bochum / TU Dortmund, German Science Foundation DFG, 2024– 2028, budget appr. 220 tEUR, PI of the project "Targeting energy conservation"
- "Transition labels in climate finance: An empirical and experimental investigation (ClimLabels)", Federal Ministry of Education and Research, 8/2022-7/2025, overall-budget appr. 750 tEUR, Bochum budget: appr. 220 tEUR, overall project coordinator
- DFG Research Group "Smart mid-sized cities" (FOR 5393), Ruhr University Bochum / University of Münster, German Science Foundation DFG, 2022– 2025, overall-budget appr. 2.100 tEUR, Bochum budget: appr. 300 tEUR, project coordinator Bochum
- "Global H2 Potentials (Hypat)", Ruhr University Bochum, Federal Ministry of Education and Research, 3/2021-8/2024, Bochum budget: appr. 315 tEUR, Project coordinator Bochum
- "Transfer projekt H2 Sandboxes" (Trans4Real) , Ruhr University Bochum, Federal Ministry of Education and Research, 4/2021-3/2026, Münster budget: appr. 350 tEUR, Project coordinator Bochum
- "Monitoring Process 'Energy of the Future' – Independent Commission of the German Government on the Energiewende", Ruhr University Bochum, commissioned by Federal Ministry of Economic Affairs and Energy, 10/2011 – ongoing, RUB/Münster/ZEW budget: 1000 tEUR, Chair of Expert Commission.
- "Virtual Institut Smart Energy" (VISE I and VISE II), University of Münster / University of Bochum, commissioned by European Commission - European Regional Development Fund, 7/2017 – 3/2021 and Ministry of Economic Affairs, Innovation, Digitalization and Energy (MWIDE), 1/2022 – 12/2024, overall-budget appr. 4.500 tEUR, Münster budget: appr. 750 tEUR, Overall Project coordinator

COMPLETED PROJECTS

- "Feasibility study on a German-Australian hydrogen supply chain based on renewable energies (HySupply)", acatech - German Academy of Science and Engineering and the Federation of German Industries (BDI), commissioned by Federal Ministry of Education and Research, 11/2020 – 10/2022, Expert
- "Integrated economic analysis of climate change protection and local air pollution" (INTEGRATE), University of Münster, commissioned by Federal Ministry of Education and Research, 12/2019 – 11/2022, Overall-budget appr. 1.400 tEUR, Münster budget: appr. 525 tEUR, Overall project coordinator
- "Innovation Center for Global Value Chain Studies" (111 Innovation Center in UIBE), University of International Business and Economics (UIBE), sponsors: State Administration of Foreign Experts Affairs (SAFEA), Ministry of Education, P.R.China. 2018-2022, Leading Oversea Scholar
- "The political economy of a global coal phase out" (PEGASOS), University of Münster, commissioned by Federal Ministry of Education and Research, 12/2018 – 8/2022, Overall-budget appr. 775 tEUR, Münster budget: appr. 150 tEUR, Project coordinator Münster
- "The role of energy taxation and prices for the clean energy transition in the context of sector integration and carbon border mechanisms: Energy system modelling and future scenarios", commissioned by European Commission, DG Energy, 8/2020 – 3/2022, Expert evaluator
- "The relevance of non-state actors for individual climate protection activities and climate policy" (NostaClimate), University of Münster, commissioned by Federal Ministry of Education and Research, 11/2018 – 10/2021, Overall-budget appr. 1.400 tEUR, Münster budget: appr. 100 tEUR, Project coordinator Münster
- "Virtual Institut Smart Energy" (VISE), University of Münster, commissioned by European Commission - European Regional Development Fund, 7/2017 – 3/2021, Overall-budget appr. 3.000 tEUR, Münster budget: appr. 500 tEUR, Overall Project coordinator
- "Strategic Scenario Analysis (START) - A first German-Australian focus project", University of Münster, commissioned by Federal Ministry of Education and Research, 10/2017 – 12/2020, Overall-budget 2.130 tEUR, Münster budget: 560 tEUR, Co-director
- "Enabling the Energy Union through understanding the drivers of individual and collective energy choices in Europe" (ENABLE), University of Münster, commissioned by European Commission, FP7, 11/2016 – 10/2019, Overall-budget 3.337 tEUR, Münster budget: 325 tEUR, Project coordinator Münster
- "Kopernikus-Project for the Energy Transition – Theme 4: System integration of energy supply", University of Münster, commissioned by the Federal Ministry of Education and Research (BMBF), 10/2016 – 09/2019; Overall-budget: 30.000 tEUR, Münster budget: 210 tEUR, Project coordinator Münster
- "Psychological, social and financial barriers to energy efficiency" (PENNY), University of Münster, commissioned by European Commission, FP7, 09/2016 – 08/2019, Overall-budget: 1.502 tEUR, Münster-budget: 426 tEUR, Project coordinator Münster
- "High-end Foreign Expert", University of International Business and Economics (UIBE), sponsors: State Administration of Foreign Experts Affairs (SAFEA), P.R.China, 2015 –2018

“Aspects for the Further Development of Research Topics and Funding Measures in Energy Research after Five Years of the Energy Turnaround Process“ (EnFo-2030), commissioned by Federal Ministry of Economic Affairs and Energy, 10/2017 – 6/2018, budget: 9 tEUR, independent expert.

“Preliminary Study for the Virtual Institute ‘Smart Energy’”, University of Münster, Client: Ministry of Economics, Energy, Industry, SMEs and Crafts (MWEIMH) of the State of North Rhine-Westphalia, 03/2016 - 02/2017; Overall Budget: 125 tEUR, Münster Budget: 63 tEUR, Project coordinator Münster.

“Monitoring of the Swiss Energy Strategy 2050 - Expert Assessment”, commissioned by Swiss Federal Office of Energy, 06/2015 - 10/2016, budget 7 tEUR, independent expert.

“Analysis of the interruptions of the power supply ”, commissioned by Federal Ministry of Economic Affairs and Energy (BMWi), 7/2016 - 9/2016, budget 7 tEUR, independent expert.

“Determinants of energy-relevant decisions and energy-relevant behaviour in the industrial sector“ (ENERGY TRANS – Projekt D2), ZEW, University of Münster, commissioned by Helmholtz-Gemeinschaft Deutscher Forschungszentren, 07/2011 - 08/2016; Total budget project: 8.250 tEUR, own budget: approx. 1.560 tEUR, Project management ZEW, then Münster.

“Economic Evaluation of the Benefits of Environmental Policy Measures in Impact Assessment”, commissioned by Federal Environmental Protection Agency (UBA), 1/2015 - 06/2016, budget 9 tEUR, independent expert.

“Economic instruments to achieve climate targets in Europe – ENTR’ACTE”, ZEW, commissioned by European Commission, FP7, 8/2012–7/2015, overall budget: 3.8 million EUR, ZEW budget: 550 tEUR, Project coordinator

“The future of Europe’s strategy to reduce CO2 emissions from road transport”, commissioned by ZEW for BMW and Opel, 1/2015 - 4/2015, budget 8 tEUR, independent expert.

“Quantitative estimation of the employment effects of a 450MW hydropower plant in India”, commissioned by KfW, 7/2012 - 1/2013, budget 8 tEUR, independent expert.

“The Relevance of Voluntary Efforts and Fairness Preferences for the Success of International Climate Policy”, ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2011-2013, Lead researcher

“Climate Policy and the Growth Pattern of Nations”, ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2011-2013, Lead researcher

„CO2-Reduktion in der Seeschifffahrt – Die Auswirkungen eines regionalen marktbasiereten Instruments für die EU“, ZEW, Auftraggeber: Bundesministerium für Verkehr, Bau und Stadtentwicklung (BMVBS), 10/2011 – 05/2013, Projektakquise und Gesamtprojektleitung

“Economics of an integrated and long-term climate and energy policy“, ZEW, Leibniz project as part of the Pact for Research and Innovation, 2010-2012, overall budget: 800 kEUR, ZEW budget: 500 kEUR, Project coordinator

World Bank Partnership for Market Readiness (PMR) / ICAP, Emissions Trading in Practice: A handbook on design and implementation, Auftraggeber: Weltbank, Motu und Environmental Defense Fund, Kernprojektteam

Sustainable Partners - Partners for Sustainability: Emerging Emission Trading Schemes in PRC, ZEW, Auftraggeber: Robert Bosch Stiftung, 5/2012 – 1/2015, Gesamtprojektleitung

Study on the Impacts on Low-Carbon Actions and Investments of the Installations Falling Under the EU Emission Trading System (EU ETS), ZEW, Auftraggeber: DG Climate Action, 10/2013-6/2014, Projektleitung ZEW.

Assessment of the Impacts of ETS Pilots in China, ZEW, Auftraggeber: DG Climate Action, 11/2012-5/2013, Projektleitung ZEW.

„Understanding the competitiveness implications of future phases of EU ETS, ZEW, Auftraggeber: Department for Business Enterprise and Regulatory Reform, UK, 7/2008-12/2009, Projektakquise und Gesamtprojektleitung

“KfW-ZEW-CO2 Market Barometer, ZEW, 12/2008-12/2012, Project coordinator

ZEW-Energiemarktbarometer, ZEW, 02/2002-12/2012, Project coordinator

World Input Output Database: Construction and Applications (WIOD), ZEW, commissioned by the European Commission, Directorate General Research, 05/2009-04/2012, Lead researcher

Monitoring der energiepolitischen Zielerreichung, ZEW, commissioned by Bundesverband der Deutschen Industrie (BDI), 2011-2012, Project coordinator

Die Bedeutung von Gerechtigkeitsprinzipien für erfolgreiche Kooperation – Eine Analyse der Auswahl und Wirkung von Verteilungsregeln in internationalen Klimaverhandlungen [The role of equity preferences for successful cooperation], ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2010-2012, Project coordinator

Induced Climate-Related Innovations, Crowding Out, and Their Impacts on Competitiveness, ZEW, commissioned under the call Strengthening Efficiency and Competitiveness in the European Knowledge Economies (SEEK), 2010-2012, Lead researcher

A Sectoral Assessment of the EU Decarbonisation Roadmap 2050, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 2010-2011, Lead researcher

Lösungsansätze zur systemeffizienten Ausgestaltung der nationalen Mittelverwendung der Einnahmen aus der Versteigerung von Zertifikaten im Rahmen des EU-ETS, ZEW, commissioned by the Hessian Ministry of Environment, Energy, Agriculture and Consumer Protection, 2010-2011, Project coordinator

A new Environmental Accounting Framework Using Externality Data and Input -Output Tools (EU), ZEW, commissioned by the European Commission, Directorate General Research, 02/2007-02/2011, Lead researcher

Full Costs of Climate Change, ZEW, commissioned by the European Commission, Directorate General Research, 2009-2011, Lead researcher

Design and Implementation of a Maritime Emission Trading Scheme, ZEW, commissioned by the Federal Ministry of Transport, Building and Urban Development (BMVBS), 11/2009-03/2010, Project coordinator

Possible risk of Carbon leakage induced by the third revision of the Emission Trading Scheme on Energy Intensive Industries, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 2009-2010, Project coordinator

Die Entwicklung der Energiemärkte bis 2030 (Energieprognose 2009) [Energy scenarios for Germany up to 2030], ZEW, commissioned by the Bundesministerium für Wirtschaft und Technologie (BMWi), 05/2008-05/2009, Lead researcher

Global Sectoral Approaches: Sectoral Approaches as Part of a Post 2012 Framework, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 05/2008-02/2010, Project coordinator

„The Fiscal Implications of Climate Change Adaptation“, ZEW, Auftraggeber: Generaldirektion Wirtschaft und Finanzen (ECFIN) der Europäischen Kommission, 10/2008 – 6/2010, Projektakquise und Projektleitung

Understanding the competitiveness implications of future phases of EU ETS, ZEW, commissioned by the Department for Business Enterprise and Regulatory Reform (BERR), GB, 07/2008-10/2008, Project coordinator

„Determinants of Innovation in Clean Coal Technologies“, ZEW, Auftraggeber: Organisation for Economic Cooperation and Development (OECD), Paris, 11/2008-12/2008, Projektleitung

Analysing the Economic Impacts of the Renewables and Climate Change Policy Implementation, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 09/2007-02/2008, Project coordinator

Employment Impacts of Biofuels Promotion – An Input-output Analysis, Joint Research Centre - IPTS, commissioned by the European Commission, Directorate General Transport and Energy (TREN), 06/2006-11/2006, Scientific Officer

The Economy-wide Impacts of an Increased Use of Renewable Energy: A Quantitative Assessment with a Hybrid CGE Model, Joint Research Centre - IPTS, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 11/2005-11/2006, Scientific Officer

EU-wide Extended Input-Output Analysis Tools, commissioned by European Commission, DG Joint Research Centre, Institute for Prospective Technology Studies (IPTS), 01/2006 – 03/2007, Scientific Officer

The Development and Detailed Evaluation of a Harmonised “European Hydrogen Energy Roadmap” (HyWays), commissioned by European Commission, DG Research, 5/2004 – 4/2007, Co-researcher (until 08/2005)

Case Study Comparisons and Development of Energy Models for Integrated Technology Systems (Cascade Mints), commissioned by European Commission, DG Research, 1/2004 – 12/2006, Co-researcher (until 08/2005)

Future Use of the Kyoto Mechanisms, commissioned by Federal Environmental Agency (UBA), 12/2004 – 7/2006, Project coordinator (until 08/2005)

Integrated Climate Policy Programme Hesse 2012 (INKLIM), ZEW, commissioned by Hessian Ministry of Environment, Rural Development and Consumer Protection, Wiesbaden, 10/2004 – 12/2005, Project coordinator (until 08/2005)

Innovation and modern energy technologies (Modeling Experiment V of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Economics and Labour (BMWA), 4/2004 – 6/2005, Project coordinator

Indicators and Quantitative Tools for Improving the Process of Sustainability Impact Assessment (IQ Tools), commissioned by European Commission, DG Research, 1/2004 – 6/2006, Co-researcher

„Ökonomische Bewertung von Maßnahmenvorschlägen zur Minderung von Treibhausgasen“, ZEW, Auftraggeber: Ministerium für Umwelt und Verkehr Baden-Württemberg (UVM), Stuttgart, 03/2003 – 02/2004, Projektakquise und Projektbearbeitung

Modelling the Transition to Sustainable Economic Structures (TranSust), commissioned by European Commission, DG Research, 2/2003 – 1/2005, Co-researcher

Climate and Energy Policy Assessment Model (CEPAM), commissioned by European Commission, DG Joint Research Centre, Institute for Prospective Technology Studies (IPTS), 1/2003 – 6/2005, Co-researcher

The Dynamics of Innovation and Investment and its Impact on Policy Design in Energy and Environment for a Sustainable Growth in Europe (DYN-GEM-E3), commissioned by European Commission, DG Research, 11/2002 – 10/2004, Co-researcher

„Geographical Extension of the GEM-E3 General Equilibrium Model Database (DAT-GEM-E3)“, ZEW, Auftraggeber: Generaldirektion Forschung (RTD) der Europäischen Kommission, 11/2002 – 04/2004, Projektakquise und Projektleitung

Methodologies for Integrating Impact Assessment in the Field of Sustainable Development (MINIMA-SUD), commissioned by European Commission, DG Research, 11/2002 – 10/2004, Lead researcher

Long-run Contribution of the German Energy Sector to European Climate Goals (Modeling Experiment IV of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Economics and Technology (BMWi), 1/2003 – 6/2004, Co-researcher

„Klimaschutzoptionen im Verkehrsbereich“, ZEW, Auftraggeber: Volkswagen AG, Wolfsburg, 07/2002 – 06/2003, Projektakquise und Projektleitung

Environmental and Climate Protection in Liberalized Energy Markets (Modeling Experiment III of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Education, Science, Research, and Technology (BMBF), 4/2001 – 3/2002, Co-researcher (from 12/1999)

Climate Change Policy and Global Trade (CCGT), commissioned by European Commission, DG Research, 2/2001 – 7/2002, Co-researcher

Greenhouse Gas Emission Control Strategies (GECS), commissioned by European Commission, DG Research, 9/2000 – 8/2002, Co-researcher

The Role of Innovation and Policy design in Energy and Environment for a Sustainable Growth in Europe (TCH-GEM), commissioned by European Commission, DG Research, 4/2000 – 3/2002, Co-researcher

Abandoning Nuclear Power - Effects of an Immediate or Gradual Renunciation of Electricity from Nuclear Power Stations in Germany (Modeling Experiment II of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Education, Science, Research, and Technology (BMBF), 10/1999 – 6/2000, Co-researcher (from 12/1999)

Environmental Taxes, International Competition and Employment in a Simulation Model with Monopolistic Competition, commissioned by Volkswagen Foundation, 7/1998 – 6/2000 (from 12/1999)

Schwetzingen, July 2024