

# Dr. Sibel Eker

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[Google Scholar](#) [LinkedIn](#)

## EXPERIENCE

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- Aug 2021 – Present*     **Nijmegen School of Management, Radboud University, Netherlands**  
**Assistant Professor of System Dynamics**  
Tenured since August 2022, teaching system dynamics and leading research projects on the role of social systems in climate change mitigation and sustainable development
- Jul 2017 – Present*     **International Institute for Applied Systems Analysis (IIASA), Austria**  
*Jan 2024 –*             *Senior Research Scholar*  
*Jul 2019 – Dec 2023*   *Research Scholar*  
*Jul 2017 – Jun 2019*   *Postdoctoral Research Fellow*  
Leading external projects on analyzing the drivers and extent of low-carbon behaviors using empirical and model-based approaches; empirical and model-based research to support long-term planning on sustainable lifestyles and negative emission technologies, particularly using the global climate-economy-environment model FeliX; training stakeholders and researchers on participatory system dynamics modeling
- Aug 2020 – Jul 2021*     **Senior Researcher**  
*Climate Interactive, Washington DC, USA*  
Research and model development on economic impacts of climate change and land use change and terrestrial carbon cycle for the extension of global system dynamics models of climate economy and environment (integrated assessment models). Public engagement using interactive online simulators.
- Jan 2017 – July 2017*     **Postdoctoral Researcher**  
*Faculty of Technology, Policy and Management, Delft University of Technology, Netherlands*  
Developing a decision support tool for the World Bank using network modelling methods for the Bangladesh's multi-modal transport network; software and scenario development, methodological development for decision-making under deep uncertainty, geospatial data analysis
- Feb 2016 – Nov 2016*     **Research Associate**  
*UCL Institute for Environmental Design and Engineering, University College London, UK*  
Participatory system dynamics modelling for integrated decision-making about housing, energy and well-being; stakeholder engagement; facilitation of a systems mapping workshop at UK DBEIS

## EDUCATION

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- Sep 2011-Mar 2016*     **PhD in Policy Analysis**  
*Faculty of Technology, Policy and Management, Delft University of Technology, Netherlands*
- Jun – Jul 2013*         **Visiting student**  
*Engineering Systems Division, Massachusetts Institute of Technology (MIT), USA*
- 2009 – 2011*           **MSc in Systems Engineering, Policy Analysis and Management**  
*Faculty of Technology, Policy and Management, Delft University of Technology, Netherlands*
- 2004 – 2009*           **BSc in Industrial Engineering**  
*Faculty of Engineering, Bogazici University, Turkey*
- Jan – July 2008*       **Exchange student**  
*Industrial Eng. and Innovation Sciences (formerly Operations Management), Eindhoven University of Technology, Netherlands*

## GRANTS AND FELLOWSHIPS

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2024	Research fellow at <i>Institute for Advanced Studies (IAS)</i> at University of Amsterdam
2023-2026	PI and task leader in <i>CHOICE</i> funded by HORIZON-CL5-2022-D1-02-03: Improvement of Integrated Assessment Models in support of climate policies ( <i>EUR 386K</i> of the total project budget <i>EUR 4.9M</i> )
2023-2025	PI of <i>Data-driven Understanding of Low-Carbon Lifestyles (LOW-AI)</i> funded by Office of Naval Research Global ( <i>USD 350K</i> )
2022-2026	PI and work package leader in <i>WorldTrans</i> funded by HORIZON-CL5-2022-D1-02-03: Improvement of Integrated Assessment Models in support of climate policies ( <i>EUR 650K</i> of the total project budget <i>EUR 4.6M</i> )
2017-2019	IIASA Postdoctoral Fellowship for the research proposal titled “Validation of uncertainty-oriented systems models” ( <i>EUR 85K</i> )
2016	Policy Engagement Grant by UCL Public Policy ( <i>GBP 10K</i> )
2016	Career Development Fund by UCL Bartlett School ( <i>GBP 1K</i> )
2011	Travel grant by TU Delft ( <i>EUR 1K</i> )

## SCIENTIFIC SERVICE

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2023-2026	Advisory Board member of the Horizon Europe project KNOWING
2023-2026	Lead Author for the <i>Global Environment Outlook (GEO-7)</i> by UN Environment Program
2023 - present	Senior Associate Editor of <i>Mitigation and Adaptation Strategies for Global Change</i>
2023	PhD examiner of Zahra Janipour, Faculty of Science, Radboud University
2023	Reviewer of grant applications to the Dutch Research Council’s (NWO) <i>Open Competition SSH</i>
2022 - present	Letten Prize Committee Member, given by Letten Foundation and Young Academy of Norway
2022 - present	Chapter Lead in the <i>Global State of Tipping Points</i> report led by University of Exeter
2022	Expert reviewer, <i>Global Sustainable Development Report 2023</i> , UN DESA
2022	Special issue co-editor for the journal <i>Frontiers in Sustainability</i>
2022 - 2027	Selected member of Global Young Academy, co-leading the Scientific Excellence Working Group
2021 - present	Scientific Advisory Committee reviewer, Nijmegen School of Management/ Netherlands
2021	Expert reviewer for the fellowships of the H2020 SEAS project
2021	Outstanding reviewer award by <i>Environmental Research Letters (IOP Publishing)</i>
2021	Topic editor of <i>Sustainability</i> (MDPI)
2021	Contributor to IMAGE Sustainable Lifestyles project co-coordinated by Utrecht University and One Earth
2020 – Present	Associate Editor of <i>Humanities and Social Sciences Communications</i> by Springer Nature
2020	Reviewer for ERC Consolidator Grant Panel SSH2
2017 - 2018	Contributor to and reviewer of a global foresight study by Institute for Global Environmental Strategies (IGES) and UN Environment, titled “Society and Lifestyles in 2050: Insights from a Global Survey of Experts”
2016 - Present	Reviewer for the journals <i>Nature Climate Change</i> , <i>Nature Sustainability</i> , <i>Nature Food</i> , <i>One Earth</i> , <i>Interface Focus (Royal Society)</i> , <i>Journal of Cleaner Production</i> , <i>Palgrave Communications</i> , <i>Mitigation and Adaptation Strategies for Global Change</i> , <i>Environmental Research Letters</i> , <i>Global Environmental Change</i> , <i>Appetite</i> , <i>Energy Policy</i> , <i>Science of the Total Environment</i> , <i>Sustainability</i> ,

2014 - Present Reviewer for the annual International System Dynamics Conference

## TEACHING & SUPERVISION

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- 2024 - Sandeep Chowdhary, Research Scholar at IIASA
- 2023 - Quanliang Ye, Post-doctoral Researcher at Radboud University
- 2023 - Deepthi Swamy, Research Scholar at IIASA and PhD candidate at RU
- 2023-2024 Anna di Natale, Postdoctoral Research Scholar at IIASA
- 2020 -2023 Qi Liu, PhD candidate at Sichuan University, Guest Researcher at IIASA
- 2021 - Teaching MSc and BSc courses at *Radboud University* on systems thinking (Business Analysis for Responsible Organizations), system dynamics modelling (Systems Thinking for Systemic Change) and research methods (Methods for Research and Intervention); supervising masters students
- 2020 -2021 Co-supervising PhD student *Gloria Crabolu* from University of Surrey
- 2018 -2022 Co-supervising PhD student *Phyllis Kwenda* from University of Kwazulu-Natal
- 2019 Training professionals and academics on participatory systems modelling, EIT Climate-KIC
- 2019 *Institute for Management Research; Radboud University*, Guest lecturer on agent-based modelling
- 2018 *Institute for Social Ecology; University of Natural Resources and Life Sciences (BOKU)*  
Guest lecturer on systems modelling to investigate sustainable consumption dynamics
- 2010-2017 *Faculty of Technology, Policy and Management; TU Delft*  
Teaching MSc and BSc courses, and a MOOC for professionals, on model-based decision making and deep uncertainty, text-mining, systems engineering, system dynamics modelling and mathematical modelling (linear optimization, multi-criteria decision analysis, network modelling)
- 2016 *University College London*, Evaluation of MSc theses

## ORGANIZATIONAL ROLES

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- 2022 – 2023 Board Member of Halkes Women in Science network, Radboud University
- 2022 Session organizer at Scenarios Forum 2022
- 2022 – 2023 Local organizer of the global student competition *Map the System* at Radboud University
- 2016-2021 Organizer of seven *stakeholder and expert workshops* at UCL, EIT Climate KIC and IIASA (12-30 participants)/ UK, France and Austria
- 2021 Mentor within the IIASA Women in Science Club Mentorship Program
- 2020 Organizing committee member of the *Annual Meeting of the Society for Decision Making under Deep Uncertainty* (~200 participants)
- 2020 Member of the IIASA Staff Social and Cultural Association
- 2019 Organizing the IIASA lecture by Prof. Katharine Hayhoe, *Barriers to Public Acceptance of Climate Science, Impacts, and Solutions* (~60 participants)
- 2019 Facilitator at the International Symposium on Global Sustainable Development Goals in a Mediatized World, organized by Austrian Academy of Sciences
- 2018 – 2020 Sustainability representative at the IIASA Staff Association Committee
- 2014 Organization of the *International System Dynamics Summer School*
- 2014 – 2015 *Vice President of the Student Chapter of the System Dynamics Society*, organization chair of the 15<sup>th</sup> (2014) and 16<sup>th</sup> (2015) PhD Colloquium
- 2013 - Present Member of the *System Dynamics Society, Society for Decision Making under Deep Uncertainty*
- 2012 – 2015 Organizer of the Policy Analysis Lunch Lectures at Delft University of Technology

# PUBLICATIONS

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## Journal articles

- Eker S, Lenton T M, Powell T, Scheffran J, Smith SR, Swamy D, Zimm C (preprint) [Cross-system interactions for positive tipping cascades](https://doi.org/10.5194/egusphere-2023-2544), EGUsphere, <https://doi.org/10.5194/egusphere-2023-2544>.
- Eker S, Wilson C, Hohne N, McCaffrey M, Monaterelo I, Niamir L, Zimm C. (preprint) [A dynamic systems approach to harness the potential of social tipping](https://doi.org/10.48550/arXiv.2309.14964). <https://doi.org/10.48550/arXiv.2309.14964>
- Liu Q, Yang J, Gao L, Dong Y, Guo Z, Moallemi E, Eker S & Obersteiner M. (2023). [Robust sensitivity analysis to uncertainties in environmental and socio-economic scenarios: A perspective from a global socio-ecological system model](#). *Journal of Cleaner Production* 410, 137244.
- Eker S, Mastrucci A, Pachauri S, van Ruijven B. (2023). [Social media data shed light on air-conditioning interest of heat-vulnerable regions and sociodemographic groups](#). *One Earth* 6(4) 428-440.
- da Silva CFA, Virguez E, Eker S, Zdenek CN, et al. (2023) [The future of scientific societies](#). *Science* 380, 30-32 (Letter)
- Crabolu G, Font X, Eker S. (2023) [Evaluating Policy Instrument Complexity With Causal Loop Diagrams](#). *Annals of Tourism Research*, 100.
- Liu Q, Gao L, Guo Z, Moallemi E, Eker S, Yang J, Obersteiner M, Bryan B (2023). [Robust strategies to end global poverty and reduce environmental pressures](#). *One Earth* 6(4) 392-408.
- Kwenda PR, Lagerwall G, Eker S, & van Ruijven B (2022). [A Mini-Review on the Causes of Poor Household Solid Waste Management in Low-income Developing Countries: a Case Study of Urban Harare City, Zimbabwe](#) *The Journal of Solid Waste Technology and Management*, 48(3), pp. 375-388.
- Kwenda PR, Lagerwall G, Eker S, & van Ruijven B (2022). [Identifying the Leverage Points in the Household Solid Waste Management System for Harare, Zimbabwe, Using Network Analysis Techniques](#) *Sustainability*, 14(19), 12405.
- Li Q, Guo Z, Gao L, Dong Y, Moallemi E, Eker S, Yang J, Li X, Obersteiner M & Bryan B. (2022). [A review of model-based scenario analysis of poverty for informing sustainability](#). *Environmental Science & Policy* 137:336-348.
- Moallemi EA, Hosseini SH, Eker S, Gao L, Bertone E, Szetey K, Taylor N, & Bryan BA. (2022). [Eight Archetypes of Sustainable Development Goal \(SDG\) Synergies and Trade-Offs](#) *Earth's Future*, 10, e2022EF002873.
- Moallemi EA, Eker S, Gao L, Hadjikakou M, Liu Q, Kwakkel J, Reed P, Obersteiner M, Guo Z, Bryan B. (2022). [Early systems change necessary for catalyzing long-term sustainability in a post-2030 agenda](#) *One Earth*.
- Moallemi E.A., Gao L., Eker S & Bryan B.A. (2022). [Diversifying models for analysing global change scenarios and sustainability pathways](#). *Global Sustainability*, 5 (e7).
- Moallemi EA, Bertone E, Eker S, Gao L, Szetey K, Taylor N, & Bryan BA. (2021). [A review of systems modelling for local sustainability](#). *Environmental Research Letters* 16, 11.
- Goll D, Ciais P, Amann T, Buermann W, Chang J, Eker S, Hartmann J, Li W, Oliveira Garcia W, Strefler J, Tanaka K, Vicca S. (2021) [Potential CO2 removal from enhanced weathering by ecosystem responses to powdered rock](#). *Nature Geoscience* 14, 545–549.
- Eker S, Garcia D, van Ruijven B, Valin H. (2021). [Using social media audience data to analyse the drivers of low-carbon diets](#). *Environmental Research Letters* 16, 074001.
- Eker S (2021). [Drivers of photovoltaic uncertainty](#). *Nature Climate Change* 11, 184–185.
- Kwenda P, Lagerwall G, Eker S, van Ruijven B. (2021) [A mini-review on household solid waste management systems in low-income developing countries: A case study of urban Harare City, Zimbabwe](#). *Waste Management & Research*, 40 (2), 139-153.
- Eker S. (2020). [Validity and usefulness of COVID-19 models](#). *Humanities and Social Sciences Communications* 7, 54.
- Eker S, Ilmola-Sheppard, L. (2020). [Systems Thinking to Understand National Well-Being from a Human Capital Perspective](#). *Sustainability* 12 (5): 1931.
- Eker S, Reese G, Obersteiner M (2019). [Modelling the drivers of a widespread shift to sustainable diets](#). *Nature Sustainability* 2: 725-735.
- Eker S, Rovenskaya E, Langan S, & Obersteiner M (2019). [Model validation: A bibliometric analysis of the literature](#). *Environmental Modelling & Software* 117: 43-54.
- Eker S, Rovenskaya E, Obersteiner M, Langan S (2018). [Practice and perspectives in the validation of resource management models](#). *Nature Communications*. 9 (1): 5359.
- Eker S, Kwakkel J (2018). [Including robustness considerations in the search phase of Many-Objective Robust Decision Making](#). *Environmental Modelling and Software* 105: 201-216.
- Eker S, Zimmermann N, Carnohan S, Davies M (2017). [Participatory system dynamics modelling for housing, energy and wellbeing interactions](#). *Building Research & Information* 46 (7):738-754.
- Eker S, van Daalen E, Thissen W (2017). [Incorporating stakeholder perspectives into model-based scenarios: Exploring the futures of the Dutch gas sector](#). *Futures* 93: 27-43.
- Eker S, Zimmermann N (2016). [Using Textual Data in System Dynamics Model Conceptualization](#). *Systems* 4 (3):28.
- Eker S, van Daalen E (2015). [A model-based analysis of biomethane production in the Netherlands and the effectiveness of the subsidization policy under uncertainty](#). *Energy Policy* 82:178-196.
- Eker S, Slinger J, van Daalen E, Yücel G (2014). [Sensitivity analysis of graphical functions](#). *System Dynamics Review* 30 (3):186-205.
- Eker S, van Daalen E (2013). [Investigating the effects of uncertainties in the upstream gas sector](#). *International Journal of System of Systems Engineering* 4 (2):99-139.

## Reports & Book Chapters

Eker S et al. (2023) "[Positive Tipping Cascades](#)". In Lenton T (Eds.) [Global Tipping Points Report](#).

Eker S, Liu Q, Reiter C, Kuhn M. (2023) [Documentation of global wellbeing dynamics in the Felix model](#). IIASA Report, August 2023.

Kuhn M, Eker S, Reiter C, & Liu Q. (2023). "Global systems analysis for understanding the drivers of sustainable wellbeing". In Lutz W & Pachauri S (Eds.), [Systems Analysis for Sustainable Wellbeing. 50 years of IIASA research, 40 years after the Brundtland Commission, contributing to the post-2030 Global Agenda](#) (pp. 61-76). IIASA.

Eker S, Wilson C. (2022) [System Dynamics of Social Tipping Processes](#). IIASA Report, March 2022.

Kwakkel J, Eker S, Pruyt E (2016). "How robust is a robust policy? Comparing alternative robustness metrics for robust decision-making." In *Robustness Analysis in Decision Aiding, Optimization, and Analytics*, edited by Michael Doumpos, Constantin Zopounidis and Evangelos Grigoroudis. Springer.

## Peer-reviewed conference papers

Eker S, Wilson C. (2022). "Social tipping mechanisms for rapid decarbonization". The 40th *International Conference of the System Dynamics Society*. July 2022, Frankfurt, Germany.

Eker S (2021). "Societal dynamics of low-carbon lifestyles". The 39th *International Conference of the System Dynamics Society*, Chicago, US.

Eker S, Reese G, Obersteiner M (2018). "Meat or vegetarian? - A model-based analysis of the global diet change dynamics." The 36th *International Conference of the System Dynamics Society*, Reykjavik, Iceland.

Eker S, Zimmermann N (2016). "Understanding the Mechanisms behind Fragmentation in the Housing Construction and Retrofit." The 34th *International Conference of the System Dynamics Society*, Delft, Netherlands.

Eker S, Leston D, Djong J (2014). "Modeling the Dynamics of Canine Rabies and Policy Analysis under Uncertainty." The 32nd *International Conference of the System Dynamics Society*, Delft, Netherlands.

Eker S, van Daalen E (2014). "Analyzing the Dynamics of the Bio-methane Production Chain and the Effectiveness of Subsidization Schemes under Uncertainty." The 32nd *International Conference of the System Dynamics Society*, Delft, Netherlands.

Eker S, van Daalen E (2013). "A Supply Demand Model for Exploration of the Future of the Dutch Gas Sector." The 31st *International Conference of the System Dynamics Society*, Cambridge, MA USA.

Eker S, van Daalen E (2012). "Investigating the Effects of Uncertainties Associated with the Unconventional Gas Development in the Netherlands." Third *International Engineering Systems Symposium*, CESUN 2012, Delft, The Netherlands, 18-20 June 2012.

Eker S, van Daalen E (2012). "Uncertainties in the development of unconventional gas production in Europe." 9th *International Conference on the European Energy Market (EEM)*, Florence, Italy.

Eker S, van Daalen E (2012). "Uncertainties in the Development of Unconventional Gas in the Netherlands" The 30th *International Conference of the System Dynamics Society*, St. Gallen, Switzerland.

Eker S, Slinger J, Yucl G (2011). "Investigating an Automated Method for the Sensitivity Analysis of Functions " The 29th *International Conference of the System Dynamics Society*, Washington, D. C.

## Theses

Eker S (2016). [Dealing with Uncertainties in the Dutch Gas Sector: An exploratory modeling and analysis approach](#). PhD Thesis, Delft University of Technology.

Eker S (2011). [A Sensitivity Analysis Method for System Dynamics Table Functions](#). MSc Thesis, Delft University of Technology.

## Blog posts & outreach

2023 – Some of the [media coverage](#) of my work

2023 - [Using archetypes as a systemic lens to understand the complexity of sustainable development](#). Integration and Implementation Insights.

2021 - En-ROADS Climate Action Simulation role-play game (in Turkish). <https://sosyaliklim.org/>.

2021 - [Social Cost of Carbon in En-ROADS](#). Climate Interactive blog post.

2021 - [En-ROADS Climate Workshop \(in Turkish\)](#) Ashoka Turkey Social Entrepreneurship Day (with Pinar Oncel, Tuna Ozcuahdar, and others).

2021 - [Exploring the Economic Impacts of Climate Change in En-ROADS](#). Webinar by Climate Interactive (with Andrew Jones).

2021 - [Testing the Economic Impact of Climate Change in En-ROADS](#). Climate Interactive blog post.

2021 - [En-ROADS Climate Workshop](#). Webinar by Climate Interactive (with Adem Delibas).

2020 - [DMDU and Critical Infrastructure Systems](#). Decision Making under Deep Uncertainty Society blog post.

2020 - [What did we learn from COVID-19 models?](#). IIASA Nexus Blog.

2019 - [Behind the paper: Modeling the drivers of a widespread shift to sustainable diets](#). Nature Sustainability Community blog post.

2019 - [This is not reality](#). IIASA Nexus Blog.

2018 - [Systems thinking to better understand the scientific process](#). Project Open Up Hub blog post.

## TALKS

### Invited talks and workshops

2024 – How to have humans in climate policy models. [Institute for Advanced Study, University of Amsterdam](#). February 2024.

- 2023 - Improving the representation of social systems in climate policy models. *Eindhoven University of Technology, Department of Industrial Engineering and Innovation*. October 2023.
- 2023 - System dynamics modelling to explore climate, economy, environment and society interactions. *UK Department for Environment, Food and Rural Affairs (DEFRA) Systems Thinking Seminar*, 14 June 2023
- 2023 – Using simple integrated assessment models to explore human and earth system feedbacks. *Joint Oslo Seminar* (MET Norway, CICERO, University of Oslo), 24 May 2023, Oslo, Norway.
- 2023 – Using system dynamics to explore behavior change in integrated assessment context. LOOPS-5 Workshop, Conceptualizing and Navigating Earth Resilience in the Anthropocene. 27-29 March, *Stockholm Resilience Center*, Stockholm, Sweden.
- 2022 - Climate Change and Sustainability: Global Issues in Development. Advanced Modules in International Development (*AMID, Radboud University*)
- 2022 – Acting on Sustainable Development Goal (SDG) synergies and trade-offs requires policy-focused systems tools. Keynote speech at the *5th International Research Workshop on Archetypes in Sustainability Research, University of Greifswald, Germany*.
- 2022 – Social dynamics of low-carbon lifestyles. *Radboud Interfaculty Complexity Hub*.
- 2021 - Social dynamics of demand-side mitigation. *Integrated Decision Making Hotspot of Nijmegen School of Management*.
- 2021 - Interactive simulation environments and role playing games to explore climate solutions. *Koc University, Turkey*.
- 2021 - Career Development Panel. Webinar series of the Society for [Decision-making under Deep Uncertainty](#).
- 2021 - Global Modeling for Climate Change Research and Action. [System Dynamics Society Webinar](#)
- 2021 - Drivers of solar photovoltaic uncertainty. June 2021, [NAVIGATE webinar](#) organized by *Euro-Mediterranean Center on Climate Change (CMCC)*.
- 2021 - EU Agricultural Outlook Spring workshop. June 2021, *European Commission DG Agriculture and Rural Development*.
- 2021 - Using online social media data to estimate energy demand. May 2021, ENERGYA Workshop, *Euro-Mediterranean Center on Climate Change (CMCC)*, Italy.
- 2021 - Societal Dynamics in Global Change Modeling. February 2021, *Copernicus Institute of Sustainability, Utrecht University*, Netherlands.
- 2019 - Introduction to agent-based modelling for MSc Business Administration. October 2019, *Institute for Management Research, Radboud University*, Netherlands.
- 2019 - Network modelling for resilience. February 2019, *Faculty of Technology, Policy and Management, Delft University of Technology*, Netherlands.
- 2019 - Modelling human behaviour behind global diet shifts. May 2019, *Complexity Science Hub, Vienna*, Austria.
- 2018 - Systems modelling to investigate sustainable consumption dynamics. Lecture series on "Delivering on the Sustainable Development Goals: Systems analytical perspectives on strategies and trade-offs", October 2018, *Institute for Social Ecology, Vienna*, Austria.
- 2018 - System dynamics modelling for sustainable production and consumption. *IASA-University of Tokyo Workshop* on "How can advanced mathematical modeling tools be useful to address sustainability challenges?", March 2018, Laxenburg, Austria.
- 2016 - Dealing with Uncertainties in the Dutch Gas Sector: An exploratory modeling and analysis approach. Seminar at Industrial Engineering Department, *Bogazici University*, Turkey.

## International conference talks (excl. the conference papers listed above)

- Eker S (2023). Human wellbeing in relation to climate, economy and environment. In: *Annual meeting of the Integrated Assessment Modelling Consortium*, 14-17 November 2023, Venice, Italy.
- Eker S (2022-invited) *Achieving Resilience in a Complex World* - Guidance for Action from Systems Sciences. Systems Analysis for Reducing Footprints and Enhancing Resilience Conference, Austrian Academy of Sciences, November 2022
- Eker S (2022-invited) Using simple integrated assessment models to explore human and earth system feedbacks. *Scenarios Forum 2022*, 20-22 June 2022.
- Eker S, Mastrucci A, Pachauri S, van Ruijven B (2021). Trends and drivers of air-conditioning adoption: Confidence-building in social media data. In: *Annual meeting of the Integrated Assessment Modelling Consortium*, 29 November-3 December 2021.
- Eker S, Siegel L, Jones C, Sterman J, Kapmeier F, et al. (2021). Public Outreach and Interactive Learning with En-ROADS Global Energy and Climate Simulator. In: *European Geosciences Union General Assembly*, 19–30 April 2021.
- Eker S (2020). Can we use online social media data for modelling lifestyle change?. In: *Annual meeting of the Integrated Assessment Modelling Consortium*, 1-4 December 2020.
- Moallemi E, Eker S, Gao L, Bryan B. (2020) Global pathways to the post-2030 sustainable development. In: *Annual meeting of the Society for Decision-Making under Deep Uncertainty*, 10-12 November 2020.
- Eker S (2020). Using DMDU methods to explore the lifestyle change uncertainty in integrated assessment models. In: *Annual meeting of the Society for Decision-Making under Deep Uncertainty*, 10-12 November 2020.
- Eker S, Reese G, & Obersteiner M (2019). Modelling the drivers of a widespread shift to sustainable diets. In: *World Resources Forum*, 23-24 October 2019, Geneva, Switzerland.
- Eker S, Reese G, & Obersteiner M (2019). A widespread shift to sustainable diets requires rapid risk perception. In: *Global Sustainable Development Goals in a Mediatized World*, 4-5 April 2019, Vienna, Austria.
- Eker S, Rovenskaya E, Obersteiner M, & Langan S (2019). Validation of models used for scenario generation. In: *Scenarios Forum*, March 2019, Denver, Colorado.
- Eker S, Reese G, Gao L, Obersteiner M (2018). Investigating global diet change dynamics by linking models of human behavior to IAMs. *The 11<sup>th</sup> Annual Meeting of the Integrated Assessment Modeling Consortium*, 13-15 November 2018, Seville, Spain.
- Eker S, Rovenskaya E, Obersteiner M, Langan S (2018). A bibliometric analysis of the model validation literature. *The 11<sup>th</sup> Annual Meeting of the Integrated Assessment Modeling Consortium*, 13-15 November 2018, Seville, Spain.

Eker S, Rovenskaya E, Obersteiner M, Langan S (2018). Validation of environmental models: Practice and perspectives. *EGU General Assembly*, April 2018, Vienna, Austria.

Eker S, Rovenskaya E, Obersteiner M, Langan S (2017). Validation of uncertainty-oriented environmental models: A review of the existing approaches. *Fifth Annual Workshop on Decision Making Under Deep Uncertainty*, November 2017, Oxford, UK.

Eker S, van Daalen E (2015). A Multi-Method Approach to Evaluate the Robustness of Policies in the Dutch Gas Sector. *Third Annual Workshop on Decision Making Under Deep Uncertainty*, November 2015, Delft, Netherlands.

Eker S (2014). A systems modelling and exploratory uncertainty analysis of the future of the Dutch gas sector. *Energy Systems Conference*, June 2014, London: Elsevier.

Eker S, Slinger J (2014). Model Analysis Tools and Methods: Multivariate Sensitivity Analysis. *Workshop organized at the 32<sup>nd</sup> International Conference of the System Dynamics Society*, July 2014, Delft, Netherlands.

Eker S (2013). Dealing with uncertainties in the Dutch gas sector. *Technology, Management, and Policy Consortium Meeting*, June 2013, Cambridge, MA: Massachusetts Institute of Technology.

## HONORS AND AWARDS

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2009 - 2011	Scholarship by the Faculty of Technology, Policy and Management, TU Delft (~40K EUR)
2004 - 2009	Scholarship by Bogazici University
2004	Ranked 141 <sup>st</sup> in University Entrance Exam in Turkey (among ~1,5 mil. candidates)
2004	2 <sup>nd</sup> place in the Contest of Research Projects Among High School Students (Chemistry) organized by The Scientific and Technological Research Council of Turkey

## KEY COMPETENCES

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<b>Key expertise</b>	System dynamics modelling, participatory modelling and stakeholder engagement, scenario planning, decision making under deep uncertainty applied in various climate change mitigation and sustainability contexts
<b>Languages</b>	English (fluent), Turkish (native), Dutch (conversational), German (conversational)
<b>Analytical skills</b>	<p>Systems thinking, systems analysis, problem structuring, causal mapping</p> <p><i>Mathematical modelling</i>: System dynamics, network modelling, agent-based modelling, (multi-objective) optimization, multi-criteria decision analysis,</p> <p><i>Programming</i>: Python (various libraries for data analysis, visualization, modelling and software development); used R, Java and C/C++ in the past</p> <p><i>Data analysis</i>: quantitative, text-mining and geospatial data analysis, qualitative data analysis (e.g. text analysis, coding using NVivo)</p>