

PERSONAL INFORMATION

Family name, First name: Schipfer, Fabian

Researcher unique identifier(s): <https://orcid.org/0000-0001-6732-6919>

Homepage: www.schipfer.eu

Date of birth: 22.03.1987

Nationality: Austria

• EDUCATION

- 2017 Doctor technicae / PhD
Technische Universität Wien, Institute of Power Systems and Energy Economics, Energy Economics Group. Supervisors: Prof. Reinhard Haas, Dr. Lukas Kranzl, Prof. Daniela Thrän, Prof. Anton Friedl
“Densification and conversion technologies for bioenergy and advanced biobased material supply chains – a European case study”
- 2012 Magister rerum naturalium / Master of Science
Vienna University, physics department. Austria
Erasmus program: Two semesters at Universidad de Sevilla, Spain

• CURRENT POSITIONS

since 2025 Principal Investigator at International Institute of Applied Systems Analysis (IIASA)

• PREVIOUS POSITIONS

- 2022 – 2024 PostDoc. Institute of Chemical, Environmental and Bioscience Engineering, Faculty of Technical Chemistry, TU Wien
- 2021 – 2022 Visiting scholar at Lawrence Berkeley National Laboratory
- 2017 - 2021 PostDoc at Energy Economics Group, TU Wien
- 2019 - 2020 PostDoc at Unitelma Sapienza, Bioeconomy in Transition Group, Department of Political Economy, Rome
- 2016 - 2019 Head of Research
Ponix Systems GmbH – hydroponic technology and solution providing startup (like Infarm GmbH but for B2C)
- 2012 – 2017 Research Associate and PhD candidate
Technische Universität Wien, Institute of Power Systems and Energy Economics, Energy Economics Group
- 2011 – 2012 High school science teacher
Evangelisches Realgymnasium Donaustadt, Vienna, Austria

• ACADEMIC AGE

- 2012 – 2017 PhD candidate at 75% employment → 50 full-time equivalent months
- 2017 – 2025 Post-Doc mixed at 75% and 100% employment → 84 full-time equivalent months

• INSTITUTIONAL RESPONSIBILITIES

- 2023-2025 Deputy chairman of the Scientists 4 Future Austria (Climate protest movement)
- 2020-2024 Member of the TU Wien Green Team improving sustainability impact of the organization.
- 2018-2024 Member of the Committee on Life Cycle Assessments & Environment; Technische Universität Wien, Austria
- 2017-2024 Founding Member of the TU Wien interfaculty excellence community on Circular Bioeconomy Engineering (CBE@TU-Wien) and the Committee on the collaboration with the Biobased Industry Consortium (BBI JU)

• REVIEWING ACTIVITIES

- since 2022 Guest editor in Springer Nature BMC Energy, Sustainability and Society
<https://energysustainsoc.biomedcentral.com/circularbioeconomy>

since 2020 Expert reviewer for the European Commission R&D-funding program on energy and biotechnologies (Horizon 2020 – European Agency for SMEs & Biobased Industries Joint Undertaking)

since 2012 Several peer-reviewing activities for Elsevier & Springer Journals (e.g., Biomass & Bioenergy, Ecology & Society, BioFPR, Applied Energy) and others

• MEMBERSHIPS OF SCIENTIFIC SOCIETIES

since 2017 Member of the “Netzwerk sozialökologische Transformation“

since 2017 Member of the Climate Change Centre Austria

since 2016 Member of the TU Wien Spin-off E-think Energy Research e.V.

since 2014 Member of the International Association for Energy Economics (IAEE)

• MAJOR INTERNATIONAL COLLABORATIONS

since 2019 Austrian representative in the International Energy Agency (IEA) Bioenergy Technology Collaboration Programme (TCP), Task 44 on flexible bioenergy and system integration – International lead since 2025

since 2015 Austrian representative in the International Energy Agency (IEA) Bioenergy Technology Collaboration Programme (TCP), Task 40 on the deployment of biobased value chains

• TEACHING & SUPERVISION

since 2023 Seminar Introduction to Technology Assessment and Sustainable Development Goals – MSc Chemical, Environmental and Bioscience Engineering

since 2017 Several guest lectures on technology assessment, innovation management, inter- & transdisciplinarity, international organisations & proposal writing

since 2019 Co-supervision and writing support for several doctorate students

2017 – 2022 Lecture Basics of Energy and Power – MSc Program Renewable Energy Systems, TU Wien <https://www.tuwien.at/index.php?id=7684&L=1>

• 10 MAJOR PUBLICATIONS

1. Schipfer, F.; Harasek, M.; Tiwari, S.; Kraxner, F.; Schmidt, J.; Wehrle, S.; Asasian Kolar, N.; Thrän, D.; Esmaeili Aliabadi, D.; Breunig, H. 3D Integration Gaps in Energy System Planning – a Meta-Review of Austrian Practices. Zenodo April 24, 2025. Major revision of the second version is currently under review in Energy Research & Social Science. <https://doi.org/10.5281/ZENODO.15276174>.
2. Schipfer, F.; Burli, P.; Fritsche, U.; Hennig, C.; Stricker, F.; Wirth, M.; Proskurina, S.; Serna-Loaiza, S. The Circular Bioeconomy: A Driver for System Integration. Energy Sustain Soc 2024, 14 (1), 34. <https://doi.org/10.1186/s13705-024-00461-4>.
3. Schipfer F, Mäki E, Schmieder U, Lange N, Schildhauer T, Hennig C, et al. Status of and expectations for flexible bioenergy to support resource efficiency and to accelerate the energy transition. Renewable and Sustainable Energy Reviews 2022;158:112094. <https://doi.org/10.1016/j.rser.2022.112094>.
4. Akhatova A, Kranzl L, Schipfer F, Heendeniya CB. Agent-Based Modelling of Urban District Energy System Decarbonisation—A Systematic Literature Review. Energies 2022;15:554. <https://doi.org/10.3390/en15020554>.
5. Schipfer F, Pfeiffer A, Hoefnagels R. Strategies for the Mobilization and Deployment of Local Low-Value, Heterogeneous Biomass Resources for a Circular Bioeconomy. Energies 2022;15:433. <https://doi.org/10.3390/en15020433>.
6. Schipfer F, Kranzl L, Olsson O, Lamers P. The European wood pellets for heating market - Price developments, trade and market efficiency. Energy 2020;212:118636. <https://doi.org/10.1016/j.energy.2020.118636>.
7. Schipfer F, Kranzl L. Techno-economic evaluation of biomass-to-end-use chains based on densified bioenergy carriers (dBECs). Applied Energy 2019;239:715–24. <https://doi.org/10.1016/j.apenergy.2019.01.219>.

Firtst-author publication gap between 2017 - 2019 due to a Head of Research position at a Bioeconomy start-up, acquiring and managing seven national (from AWS, FFG, WKO) and European (EASME) research and development projects.

8. Proskurina S, Heinimö J, Schipfer F, Vakkilainen E. Biomass for industrial applications: The role of torrefaction. *Renewable Energy* 2017;111:265–74. <https://doi.org/10.1016/j.renene.2017.04.015>.
9. Schipfer F, Kranzl L, Leclère D, Sylvain L, Forsell N, Valin H. Advanced biomaterials scenarios for the EU28 up to 2050 and their respective biomass demand. *Biomass and Bioenergy* 2017;96:19–27. <https://doi.org/10.1016/j.biombioe.2016.11.002>.
10. Kalt G, Baumann M, Lauk C, Kastner T, Kranzl L, Schipfer F, et al. Transformation scenarios towards a low-carbon bioeconomy in Austria. *Energy Strategy Reviews* 2016;13–14:125–33. <https://doi.org/10.1016/j.esr.2016.09.004>.

- **10 MAJOR ADDITIONAL RESEARCH ACHIEVEMENTS**

1. Active national coordination team member of the Scientists for Future Austria, fostering interdisciplinary collaboration between Austrian research institutes to communicate transformation research to a broader audience and flexibly react to burning societal topics. Austrian Sustainability Award 2024 (silver) by the Federal Ministry of Education, Science and Research and the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology.
<https://www.scientists4future.at/>
2. Transformation science communication workshop at the 2024 Climate Change Center Austria Conference at TU Wien on how to communicate transformation topics to the public, but also how we must adapt how we communicate within science and between disciplines.
<https://ccca.ac.at/dialogformate/oesterreichischer-klimatag/klimatag-2024/programm#c10835>
3. F. Schipfer: "Inter-and trans-disciplinarity risks in energy system transformation research"; Keynote Lecture: Lectures for Future, University of Veterinary Medicine Vienna (invited); 2022-06-21.
4. Founding Member of the TU Wien interfaculty excellence community on Circular Bioeconomy Engineering (CBE@TU-Wien) and the Committee on the collaboration with the Biobased Industry Consortium (BBI JU)
5. Fulbright Schuman Visiting Scholar in 2022 at the Lawrence Berkeley National Laboratory, US.
6. European Innovation Council and Small and Medium Enterprises Executive Agency (EIC EASME) grant holder for the project "A new dynamic precision LED-lighting system for hydro- and aquaponic indoor farming." in our Bioeconomy start-up Ponix Systems GmbH. 2018-2019
7. Scientific publishing supervision, methodological support, gender and equality. Joint paper publication. Scientific fields include energy district modelling, building stock transition, district heating networks. Support for 6 PhDs and 2 Master students 2017-2022. Vienna University of Technology, Institute of Power Systems and Energy Economics, Energy Economics Group
8. T. Schinko, E. Borgomeo, M. Dufva, L. Figge, F. Schipfer: "Re-shaping Sustainability Science for the 21st Century: Young Scientists' Perspectives"; IIASA report; 2017; 17 S.
https://publik.tuwien.ac.at/files/publik_266667.pdf
9. Student award for the best presentation at the 24th European Biomass Conference 2016
10. OEAW Grant for the Young Scientists Summer Programme (YSSP) at IIASA in 2014