



As part of the project "**Urban Footprints** - Towards Greater Accountability in the Governance of Cities' Carbon and Material Flows", the [junior professorship Transformation towards Sustainable Energy Systems](#) has a vacancy for a

**Research Associate (m/f/d),
50%, limited to three years**

to be filled.

The central task of the position holder is research and collaboration in the interdisciplinary research project "Urban Footprints". The subject of the research is the role of cities in climate and resource protection at the interface of law, urban planning and environmental sciences. A doctorate within the framework of the research project is desired.

Project description: „Urban Footprints – Towards Greater Accountability in the Governance of Cities’ Carbon and Material Flows“:

The Urban Footprints project focuses on the current as well as the potential future role of cities in combating climate change and resource depletion. It explores accountable modes of governance of cities' carbon and material footprints in order to activate the transformative forces within cities. The envisaged accountability analysis focuses on key strategic urban development plans such as the respective cities' climate action and sustainability plans and comprises four key pillars: responsibility, assessment, transparency and participation. Bridging the disciplines of legal sciences, urban planning and environmental sciences, the project will develop a knowledge base, an analysis of opportunities and challenges, as well as recommendations for enhanced accountable governance of urban carbon and material footprints for eight international cities and their respective national jurisdictions: China (Shenzhen), India (New Delhi), United States (New York), Brazil (São Paulo), Nigeria (Lagos), Germany (Hamburg), Egypt (Cairo), Canada (Toronto).

The focus of research can be *either* the reappraisal and critical analysis of urban planning and development in the fields of climate and resource protection *or* the reappraisal and critical analysis of urban material flows (especially energy, (building) materials, waste, food) and greenhouse gas emissions in the above-mentioned cities and regional contexts.

If the research is oriented towards *urban planning*, previous knowledge in the following subject areas is an advantage:

- Urban planning and development,
- Strategic planning of sustainable urban development, especially in the fields of climate and resource protection,
- Instruments, procedures and institutions of urban governance,
- Strategic and sectoral governance and planning of specific urban material flows, such as energy, building materials, waste or food,
- Urban metabolism and industrial ecology with reference to urban development,

Albert-Ludwigs-Universität
Freiburg

Faculty for Environment and
Natural Resources

Institute for Environmental
Social Sciences and Geography

Junior professorship
Transformation towards
Sustainable Energy Systems

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- Cities as actors in multi-level systems and city networks,
- Accounting of urban greenhouse gas emissions, concepts of ecological, carbon and material footprints,
- Comparative urban research,
- Participation in urban development and planning.

If the research has an *environmental or engineering orientation*, prior knowledge of the following topics is an advantage:

- Methods of energy and material flow analysis (e.g. input-output analysis, material flow analysis, life cycle assessment, greenhouse gas accounting), if possible also for the urban system,
- Application of energy and material flow analyses for decision making and evaluation,
- Environmental impact of (building) materials and substances,
- Basics of quantitative system analysis,
- Basics of environmental policy, environmental planning and environmental economics,
- Strategic management and planning of specific urban material flows, such as energy, building materials, waste or food,
- Urban metabolism and industrial ecology with reference to urban development,
- Accounting of urban greenhouse gas emissions, concepts of ecological, carbon and material footprints.

We offer a committed, open, international and interdisciplinary working environment with a wide range of opportunities for further scientific qualification and profiling, including within the framework of the [Graduate School Environment, Society and Global Change](#) of the Faculty of Environment and Natural Resources. In particular, we support you in the implementation of your PhD project and your international profiling through a variety of international contacts to recognized cooperation partners, participation in conferences and the financing of research stays in the cities that are the subject of the "Urban Footprints" project.

Requirement profile:

- Above-average academic university degree (Master's degree or university diploma) in urban planning, geography, architecture, environmental science, environmental engineering, (civil) engineering, environmental planning, Resource Efficiency in Architecture and Planning (REAP) or related disciplines,
- Ability and motivation to work in a team as well as independently, interdisciplinary and conceptually,
- communication skills,
- very good command of written and spoken English,
- if applicable, professional experience (in practice or research, incl. language skills and, if applicable, contacts to local partners) in the field of sustainable urban planning and development, if possible in one or more of the cities or countries that are the object of investigation of the research project "Urban Footprints",
- if applicable, experience in theoretical and empirical urban research,

- computer skills in the common office programs, if necessary GIS, Sankey Diagram, Adobe or R software.

Please submit the following documents in English as part of your application:

- Cover letter outlining your motivation for applying and your interest in the position as well as your fulfilment of the requirements of the position,
- Curriculum vitae, including a list of publications, conference attendance and relevant practical experience (if applicable),
- Project outline for the intended doctorate within the framework of the research project "Urban Footprints" (max. three pages in total),
- a copy of your diploma(s) and your academic record
- Names and contact details of two potential references
- Sample of your previous scientific work (if applicable, max. 15 pages).

Please compile all documents into a single PDF file and apply electronically only.

Application deadline: 15.03.2021

The interviews are expected to take place in calendar week 12 (March 22-26, 2021) in Freiburg or via video conference.

The position is limited to three years. The salary will be determined in accordance with TV-L E13.

We are particularly pleased to receive applications from women for the position advertised here.

Please send your application in electronic form to the following address:

Albert-Ludwigs-Universität Freiburg
Fakultät für Umwelt und Natürliche Ressourcen
Juniorprofessur Transformation zu nachhaltigen Energiesystemen
Tennenbacher Str. 4
79106 Freiburg
Germany
E-Mail: sekretariat@enlaw.uni-freiburg.de

If you need further information about the advertised position, please contact Jun.-Prof. Dr. Cathrin Zengerling at cathrin.zengerling@enlaw.uni-freiburg.de.

We look forward to receiving your application!

Freiburg, 15.02.2021

signed. Jun.-Prof. Dr. Cathrin Zengerling