Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

Are you interested in creating solutions for a more sustainable energy future? This project aims to build a replicable framework that supports circular economy strategies in the solar sector. By identifying regions where photovoltaic (PV) module reuse has high social return and where recycling is logistically efficient, the model supports both environmental and equity goals in energy transitions. The work will be carried out in cooperation with the team "High Throughput Characterization and Modelling for PV" at Helmholtz-Institute Erlangen-Nürnberg (HIERN) in Erlangen, enabling you to build an interdisciplinary network for your professional career.

We offer you an exciting challenge with immediate effect for a

Master Thesis - Spatial and Predictive Modeling for PV Module Waste Management: Optimal Strategies for Reuse and Recycling in Brazil and/or Germany

Your Job:
This thesis seeks to apply geospatial modeling, waste volume forecasting, and logistic optimization to determine the ideal locations for large-scale PV waste treatment facilities. It also classifies regions according to the urgency of waste management needs by applying data-driven techniques to model PV module waste flows and propose optimized strategies for both recycling and reuse, considering social, economic, and technical dimensions, in Brazil and/or Germany. The project goal is to develop a spatial and predictive data science model.

You are part of the Spatial Economics team, which conducts research in the field of economics and social sciences on the transformation of the energy system, and support the research assistants in the following activities:

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our **Online-Recruitment-System!**

Questions about the vacancy?
Get in touch with us by using **our contact form.**
Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de

- You carry out literature research and summarize it orally and in writing
- You research, describe, and analyze regional (economic) data
- You design optimization models/regional econometric models with our support
- You present your results to the team
- You take part in team meetings and project meetings

Your Profile:

- You are completing a Master`s degree in the field of economics, data science, or in a related field
- Interest in the challenges of the energy transition and its economic consequences
- You have a quick grasp and the ability to analyze and creatively implement complex issues
- You are proficient in the use of statistical and geoinformation software (e.g., Python, R, QGIS)
- You have a high degree of team spirit
- Excellent knowledge of English (German is a plus but not mandatory)

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- We work on cutting-edge, innovative topics and offer you the opportunity to play an active role in shaping change. We offer you:
- An interesting and socially relevant topic in an interdisciplinary, well-networked project team
- Ideal conditions for practical experience alongside your studies
- An international, committed, and collegial working environment
- Excellent scientific equipment and the latest technology
- Qualified supervision by academic colleagues
- The opportunity to work flexibly (in terms of location), e.g. in a home office
- Flexible working hours and appropriate remuneration

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: https://go.fzj.de/benefits

The position is for a fixed term of 6 months.

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: https://go.fzj.de/equality