

## **Fully funded PhD position on industrial modernity and Deep Transitions**

**Institution:** Institute of Social Studies, Faculty of Social Sciences, University of Tartu, Estonia

**Deadline for applications:** 15.05.2024

**Expected starting date:** ideally 02.09.2024 (but can be negotiated)

An interdisciplinary team of researchers is seeking to recruit a PhD student to a five-year project titled “[The Crisis and Transformation of Industrial Modernity, 1900-2055](#)”, led by [Laur Kanger](#) and funded by the Estonian Research Council. The project is based on the Deep Transitions framework which theorizes industrialization as a long-term co-evolution of various socio-technical systems (see [here](#), [here](#) and [here](#)). The research builds on the team’s prior work on measuring long-term continuities and ruptures in the foundational ideas, institutions and practices of industrial societies (see [here](#), [here](#) and [here](#)).

### **Project summary**

Contemporary societies are underpinned by industrial modernity: a set of commonly shared ideas, institutions and practices related to the natural environment, science, and technology. Historically, industrial modernity has enabled massive leaps in societal welfare, while increasing environmental degradation. Therefore, many of its dominant traits need to be rethought to address the interlinked crises of climate change, biodiversity loss, and resource depletion. Drawing on and further developing the Deep Transitions framework, the project will 1) chart the rise and crisis of industrial modernity over the 20th century; 2) identify countries where it is most likely to be transformed; 3) apply these insights to sketch various future scenarios for Estonia.

### **PhD topic description**

The PhD study will focus on the identification of long-term trends in industrial modernity in a comparative-historical perspective, combining the text mining of digitalized newspapers with existing databases. You will work closely with the rest on the team on the following tasks:

- Measuring continuities and ruptures in fundamental environmental and technoscientific ideas, institutions and practices in G20 countries from 1900 to 2025
- Contributing to the development of a text mining workflow for measuring long-term ideational change using digitized newspapers
- Developing an industrial modernity index to identify countries currently most likely to enact a deep sustainability turn
- Contributing to the development of a text mining workflow to compare ideational change in newspapers to countries’ World Values Survey scores.

### **Ideal candidate profile**

You are an ideal candidate if you:

- Have a bachelor’s or master’s degree in sustainability transitions studies or adjacent fields (science, technology and innovation studies, environmental studies, sustainability science). Alternatively, a degree in other fields related to the topic (e.g. history, sociology, digital humanities) and a strong proven interest in sustainability issues is also considered a good fit.
- Have proven experience with at least two items from the following list and willingness to expand your skill-set:

- Gathering and maintaining large digital corpora for text mining
- Cultural analytic studies based on large text collections
- Applying Natural Language Processing on historical OCR texts
- Keyword extraction, topic modelling, sentiment analysis
- Automatic content extraction and text classification
- Time series analysis of large text collections
- Large Language Models and zero-shot learning
- Are creative, independent, curious and willing to think big. An ambition to save the world would probably help too.

### **Team and the PI**

The current project will consolidate interdisciplinary and multi-method expertise in Deep Transitions research, initially developed during a previous five-year research project ([see here](#)). The core team is composed of 8 researchers, combining expertise in sustainability transitions studies, digital humanities, political science, history of science and technology, and social practice theory.

[Laur Kanger](#) is an Associate Professor in Technology Research in the Institute of Social Studies, University of Tartu, with research interests in transitions studies, history and theory of technology, and macro-historical sociology. He has contributed to the conceptualization of the Multi-level Perspective on socio-technical transitions, policy intervention points for facilitating transitions, societal embedding of radical innovations, the role of users in transitions, and energy justice. Thematically, Laur's research has covered energy and mobility transitions, mass production and industrial modernity. He is also one of the co-authors of the Deep Transitions framework.

### **Contract terms**

Fully funded temporary employment (junior research fellow) for up to 48 months. The salary is comparable to the Estonian average (in 2024 the minimum salary rate of junior research fellows is 1830 euros per month for full-time work, net salary ca. 1450 euros).

### **Further information**

Candidates must submit an online application with all requested documents. See further information on the [programme website of Social Sciences](#). The candidate is advised to pay attention to the requirements of the doctoral thesis project with a particular emphasis on the operationalization of industrial modernity as the key focus of the PhD topic.

Please contact Maiu Reinhold (Specialist for International Relations, Institute of Social Studies, [maiu.reinhold@ut.ee](mailto:maiu.reinhold@ut.ee)) for any practical matters regarding the application process.

Please contact Laur Kanger ([laur.kanger@ut.ee](mailto:laur.kanger@ut.ee)) for any research-related inquiries.