

Project Summary for presentation during 38th ERSA Summer School

I, Mr. Steffen Bauerochse, am a research associate and PhD Student in the international research project *“Pathways to Sustainability Based on Advanced Frugal Innovation: Innovation Generation and Innovation Scaling under Resource Constraints”* (acronym: AFRIN), working in close collaboration with Mr. Leon Worbs and under supervision of Prof. Ingo Liefner. The project is a joint effort between the Institute of Economic and Cultural Geography of the Leibniz University Hannover (Prof. Ingo Liefner), the Indian Institute of Technology Madras (Prof. Balkrishna C. Rao), India, and the Stellenbosch University (Prof. Sara Grobbelaar), South Africa. It is funded by the DFG (532215595) for a three-year period from April 2024 until April 2027.

AFRIN aims to investigate the extent to which local context-bound knowledge from regions with limited resources influences the emergence of Advanced Frugal Innovation (AFI) and which factors enable their scaling and associated transregional diffusion. AFI are innovations that have both environmental and social benefits due to their specific design, reduced use of materials and significant price advantages over established products with similar core functions. Due to these characteristics, they can significantly contribute to accelerating the necessary transition of the economy towards sustainability. AFIs are predominantly created in areas characterized by resource scarcity and, as an efficient, cost-effective and sustainable solution, remain predominantly limited to their local domestic market. It remains unclear under which specific conditions the emergence of AFIs and their subsequent scaling is conducive to cross-regional diffusion. Using an innovation-centered approach, AFRIN targets the South Indian province Tamil Nadu and the South African Western Cape region as study regions, where a comparably high number of AFIs originated.

The potential presentation during the 38th ERSA Summer School in Dresden is going to center on the results of the first survey phase from Tamil Nadu, that was carried out in February and March 2025 in and around Chennai. The joint approach between the data collection in Tamil Nadu and Western Cape, South Africa, offers great potential for data analysis between the two regions. For the purpose of this Summer School, a joint presentation could also be considered, as Mr. Leon Worbs and I have collaborated closely in the development of the approach. As mentioned in his submitted project description, the methodological mix of qualitative social network analysis and Event History Analysis (EHA) to reconstruct an innovation's history from an egocentric point of view could be of greater interest for the participants and should fit well into this year's school's methodological focus on sequence analysis methods and cross-case analysis.

Together with Mr. Leon Worbs, who conducted his first case interviews in South Africa during the same time period, it would be possible to present early-stage comparisons between the two regions, especially focussing on differences and commonalities in network configurations and event patterns during the generation and scaling phases of selected AFIs.