Community-Driven Innovation for Inclusive Urban Energy Transitions

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Abstract Urban transitions towards sustainability demand transformative changes that are both effective and just. Strategies to achieve a just transition in urban settings must address key dimensions of justice: distributional justice (the equitable allocation of costs and benefits), procedural justice (inclusive and participatory decision-making), and recognitional justice (the respect for and acknowledgment of diverse cultures and perspectives). In cities, realising these principles entails e.g. fostering inclusivity, sharing resources equitably distributing profits and burdens fairly, and encouraging open public dialogue to include and balance diverse interests and needs.

Community-driven innovation that builds on existing resources and engages society in driving transitions is key to success as the energy transition represents a societal challenge that must be widely embedded and broadly supported. This is the starting point of the presentation. It draws upon insights from the transdisciplinary project 'Strengthening and Consolidation of Innovation Communities to Implement the Recommendations of the Climate Citizens' Council of the Freiburg Region' (ICN 2024–2025). Initiated by civil society, this project examines how researchers, civil society organisations, policymakers, and businesses can work together to promote participatory and socially just urban energy transitions. Central to this is the concept of innovation communities—open, self-organising groups in which stakeholders jointly develop solutions (e.g. von Hippel, 2005; Franke & Shah, 2003; O'Mahony & Lakhani, 2011). While these communities have traditionally been applied in business, they are also promising for sustainability transitions by enabling community-led collective commitment, trust-building, and resource mobilization at the local level.

This presentation sets out to address all three dimensions of justice, drawing upon data generated throughout the project via questionnaires, interviews, and workshops. It explores questions such as: How can innovation communities help to activate local actors and resources, thereby embedding the energy transition more deeply and inclusively across society? In what ways can researchers and civil society actively initiate and sustain these communities? What forms of support and interventions do urban innovation communities require in order to thrive?

Based on experiences in the Freiburg region, we argue that innovation communities can act as catalysts for broad public engagement and equitable urban energy transitions. Such bottom-up, community-based approaches help embed sustainability within the local urban fabric, making transitions more inclusive, democratic, and resilient.