

Spatial energy planning and municipal heat planning - Experiences and developments in Austria

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Abstract Austria has seen dynamic developments in the integration of spatial energy planning (SEP) and municipal heat planning (MHP) as strategic tools to accelerate the decarbonisation of its heating sector. This contribution presents current experiences, methodological approaches, and policy frameworks that support the integration of these planning instruments at regional and local levels.

Drawing on research and applied projects, this presentation analyses the synergies and differences between SEP and MHP and their roles in shaping decarbonisation pathways for urban and rural areas. Best practice examples from Austrian municipalities illustrate how spatial data, renewable potential and waste heat mapping, stakeholder engagement, and scenario modelling tools / GIS-based heat atlases support evidence-based decision-making. This approach cannot only fundamentally support and enable Sustainable Energy and Climate Action Plans (SECAPs), but also allow for clear boundary conditions for urban development and for long-term infrastructure planning (e.g., district heating and cooling, decentralized heating and cooling grids, development of natural gas grids).

Furthermore, the presentation explores the challenges related to governance, data availability, cross-sectoral coordination, and institutional capacity, and outlines ongoing efforts to embed SEP and MHP in regulatory and planning frameworks, in line with national and European climate goals.

Finally, the presentation provides an outlook on how Austria's experience can inform the scaling and replication of integrated heat and energy planning in other European contexts and which role the IEA Cities Task 2 "Data for Urban Energy Planning" can disseminate this information on global scale.