TATuP
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Call for Abstracts

Call for Abstracts: "Climate-Neutral and Smart Cities in Europe": Mission Statements, Paths, Risks

TATuP special topic in issue 1/2021

Deadline for submitting your abstract: 20 May 2020

In the European Union, the urbanization rate is already over 75% and, with its further increase, the possibilities for action, but also risks of action accumulate in dense areas. In political and economic planning for climate-neutral cities, intelligent (smart) technologies play a particularly prominent role in achieving climate neutrality in terms of net zero CO_2 emissions in a data-based and efficient way. Information and communication technologies for data collection and processing are also central elements of structural and organizational adaptation measures, for example for mobility transitions and other infrastructure projects. At the same time, it is emphasized that urban transformation must be accompanied by social innovations.

While cities have long been regarded as fields of action for innovative and transformative responses to global "great challenges", the technical complexity of smart cities and the specific "peculiarities" of urban geographies and culture also complicate ambitious approaches to a socio-material urban transformation toward climate neutrality. In European cities, transformative and innovative dynamics do not encounter a *tabula rasa* but existing building structures and also social and cultural traditions.

Mission statements, paths, risks

From the perspective of technology assessment (TA) this call for abstracts puts emphasis on three relevant issues in the development of climate-neutral and smart cities. 1) In urban planning, *mission statements for urban transformation* conceptualize, amongst other things, the role of technologies in urban futures. In this they need to pay attention to challenges of necessary specification and required openness, e.g. through path dependencies of technical innovation and the need to adapt to changing conditions. 2) *Paths* refer to actor-related transformation paths, implementation strategies, and concrete fields of application of technical and social innovations that are negotiated on different levels – from the district project to the local administration to the EU level. 3) With a view to the long-term nature of urban transformation processes, *risks* and uncertainties that emerge in the processes of urban transformation cannot be defined in technical and quantifiable terms alone and

cannot be reduced to already known risks. One of the challenges of climate-neutral and intelligent cities is dealing with urban diversity from specific user groups, e. g. those who are particularly vulnerable. Also, new socio-technical risks arise, which have to be negotiated in view of limited resources and in the context of changing priorities and acceptabilities.

Rather, new socio-technical risks will also emerge, which will have to be renegotiated in view of limited resources and in the context of changing priorities and acceptabilities.

Expected contributions and possible questions

We welcome submissions, initially of abstracts, from all disciplines that explore mission statements for urban transformation, paths, and risks of future climate-neutral and smart cities in Europe, either conceptually or with regard to case studies of specific technologies and cities, and that address or extend the following questions in a problem-oriented manner and with reference to TA:

Mission statements

- How are new technologies, socio-technical innovations, and conflicting goals between different stakeholders presented and negotiated in mission statements for urban transformation?
- What role do urban forces of inertia (e.g., existing buildings, cultural traditions) play in transformation-oriented concepts for urban development?
- How can mission statements for urban transformation and urban development projects remain open to new challenges and risks that may arise in the future?

Paths

- What role do participation and co-design play in transformation processes for the successful adaptation of new urban technologies?
- What is the interaction between technical and socio-cultural transformations in cities?
- How does the “peculiarity” of urban geographies influence local innovation potentials and possibilities of innovation transfer from local model studies, real-world laboratories, or innovation districts?

Risks and uncertainties

- How do increasing complexity, socio-technical integration, and uncertain future conditions change established mission statements for urban transformation and methods of urban risk and resilience research with regard to the sustainable integration and use of new urban technologies?
- To what extent is urban diversity taken into account in measures to reduce risk or strengthen resilience? And what new risks and weakening of resilience are associated with current mission statements for urban transformation and with new urban technologies, for example ubiquitous data collection?
- How do spatiality and urban densification influence the chances of new urban technologies?

Guest editors of this TATuP special topic

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Submissions

Please send your abstract by email to redaktion@tatup.de by **20 May 2020** at the very latest. Please note the following:

- max. 3.000 characters incl. blanks;
- the editorial office will correspond with the author submitting the abstract;
- name all authors with full names, email addresses, and institutional affiliations.

Schedule

20 May 2020: deadline for submitting your abstract
Mid-June 2020: decision on inviting authors to submit a full manuscript
Mid-September 2020: deadline for submitting your full manuscript, followed by a double non-blind review process
Mid-November 2020: feedback from the reviewers, followed by authors' revisions by mid-December
Mid-January 2021: feedback on revisions
Beginning of February 2021: editorial deadline
March 2021: publication (print and online)