

**UERA Event 2024: Building
Urban Transformative
Capacity: Empowering
cities/Urban actors by
experimentation, cooperation
and learning**

Book of Abstracts

For the 22nd of February 2024

Towards a Comprehensive Framework for Evaluating Smart Cities: Lessons from the Sustainable Development Experience of Masdar City in Abu Dhabi

Content

This article aims to show the characteristics and conditions that should be available to say that it is a smart city by showing it as a combination of integrated elements: a sustainable environmental city, a digital city, smart networks, and buildings. Smart cities take into account the application of the principles of sustainable development to the sustainable management of waste and energy, including intelligence in transport and movement, smart housing development strategy, and the relationship between different actors in the smart city.

We have followed the descriptive and inductive method and through the experience of Masdar City in the Emirate of Abu Dhabi in the Arab Emirates United , we have tried to highlight the strengths and weaknesses of the city and highlighted the challenges that have taken place in the project, and we divided the objectives of the project in accordance with the principles of sustainable development and the three aspects: economic, social and environmental aspects and explained the various points And the results obtained since the beginning of the project in 2006, and we used the graphs to illustrate the steps and how to prepare the project according to the strategy of Abu Dhabi 2030, and we have come out that the results obtained through the experience of Masdar City from a socio-economic and ecological point of view is positive evidence obtained by The Several awards from 2006 to 2018 by getting Sustainable Union Complex, "Green Building Award" at the Middle East and North Africa Green Building Awards2018.

Key Words

Smart city sustainable development Masdar

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Contribution Type : Paper

Designing long-term systemic transformation frameworks towards climate neutrality: the approach of Transition Super Lab in Western Macedonia region

Content

To tackle climate change, the Paris Agreement and the European Green Deal set out very ambitious goals that require an urgent and radical transformation of the EU economy. Reaching the goal of net-zero emissions by 2050 needs immediate action going beyond the level of fostering innovation and digitalisation in societal niches. It calls for an innovation path which sets out to design carbon neutral societal systems and focus investments in zero-carbon solutions. The Transition Super-Lab (TSL) is a new approach that considers entire regions as living laboratories organized to accelerate the transformation towards climate neutrality through innovation and cross sectorial synergies on a regional scale. It benefits from a collaborative governance, operates in accordance to systemic transformation principles and utilizes transition enabling methods and tools in order to create added value to cross-sectorial initiatives for economic transformation and to provide feasible solutions to complex regional transformation challenges. The current paper aims to present a high-level understanding of the transition process explaining how the TSL approach is being implemented in the region of Western Macedonia in Greece. Based on the transition model that has been developed as a conceptual framework that defines the overall approach and the guiding principles for managing the transition, the region of Western Macedonia follows a structured path that encompasses various steps. The definition of the vision and goals of change, the coalition building of the stakeholders involved and the development of an action plan for achieving climate neutrality through pilot actions are some of the steps followed by the region for a successful transition. Along with Western Macedonia, 3 European regions (Emilia Romagna in Italy, Ruhr Area in Germany and Lower Silesia in Poland) are also implementing the TSL approach following the transition model that acts as a reference point for decision-making throughout the transition.

Key Words

TransitionSuperLab, cross-sectorialcollaboration, systemic transformation

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Contribution Type : Paper

From social acceptability to stakeholder and citizen participation and learning in local sustainability issues

Content

Local ecological, energy and social transition can be seen as a set of expected and organized changes in the ways of producing and consuming in our daily life as well as of thinking sustainability and society-nature relations. Sociologically speaking, it depends on a permanent interplay of stakeholders dealing with the changing relations between « the possible degree of mobilisation of new actors and new knowledge – i.e. the degree of inclusion – and the importance of technological concepts or institutional arrangements, i.e. the degree of closure » (Valkenburg, Cotella, 2016).

Our presentation underlines the issues of shifting paradigm between the quite usual 'social acceptability' framework assigned to sociologists in urban or territorial projects and a deeper and broader stakeholder and citizen participation and learning challenge.

(I) We'll start from four main approaches in the social sciences, centered on (i) the relations between human beings and non-human entities, (ii) socio-environmental inequalities, (iii) local territories and social acceptability, and (iv) the 3Govs: government-governance-governmentality. (II) Then, to go deeper, we'll discuss acceptabilities and participation frameworks from a social transaction perspective, based on some concrete recent urban and territorial projects conducted especially in the French Grand Est region, with a dimension of participatory science and/or partnership research as well as an empirical field study through observation and interviews.

The case studies selected will deal with citizen energy cooperatives in the Upper Rhine region and what is meant by financial and/or day to day and/or militant participation in the energy transition in relation to local authorities; post-covid urban mobilities through a participatory process initiated in the city of Mulhouse and confronted with a singular crisis situation managed with a repertoire of 'transitional' urbanism; territorial development in the face of the issue of ticks and tick-borne diseases, which particularly affect groups such as foresters and hunters, as well as hikers and tourists in forests and nature areas, raising the question of risk perception and the tension between prevention and public health, and local attractiveness; as well as multi-scales issues regarding energy transition embodied in the case of (agricultural) methanization, which involve local interactions around the site of a methanizer (and the social groups directly concerned), but not only: if we think of the possible pollution of groundwater by the digestate, wider territorial and urban areas may be affected, which can extend the question of participation to that of awareness.

Key Words

Sociology, social transactions, acceptability, participation

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Contribution Type : Paper

Designing the future of Vallecas Bridge's surroundings in Madrid. How to shape knowledge into action for creating more livable built environment?

Content

This work shows the outputs of the university-funded learning-service project entitled "Building bridges between Polytechnic University of Madrid and the local socio-spatial fabric. Analyzing and designing sustainable interventions for Vallecas Bridge's surroundings." This pilot project was carried out during the 2022-23 "City and Urbanism" (second-year students pursuing a B.A. in Architecture at the Polytechnic University of Madrid). Its goal was to develop a large variety of planning strategies and procedures to minimize and potentially resolve conflicts related to the elevated M-30 motorway bridge, known as the "Vallecas Bridge."

Inaugurated in 1976, this large infrastructure separates two bordering Madrid neighborhoods: Adelfas and San Diego-Numancia, respectively 120,000 and 240,000 inhabitants, the second wealthiest and the most deprived neighborhoods of Madrid. This infrastructure constitutes a proper fracture within the city center of the Spanish capital, but poor attempts tried to sort this situation out. In 2004, a feasibility project suggested relocating a 500-meter section of the highway underground to reduce pollution (35,000 tons of greenhouse gases per year), create new public spaces, decrease socio-spatial segregation, reduce travel time (708 million travel hours in three decades), allow drivers to save money (3,915 million euros), and reduce accident rates. However, the cost could exceed 1 billion euros, which has triggered two decades of debate, but the situation remains unresolved.

Building on this complex situation and expensive solution, the work's basic hypothesis is that the decision-making process for large-scale infrastructure projects extends beyond mere concrete and steel. These projects are interconnected with political ideologies, often defined by left and right parties, which can either worsen or alleviate socio-spatial disparities, reinforce or weaken local identities, and create either obstacles or opportunities for sustainability. By examining the local political, public policy, and class geographies surrounding the M-30 motorway bridge, this study explores the ways different social, economic, and ecological interests can be integrated in spatial planning for a major infrastructure project.

The planning proposals are based on a review of two primary sources and the ideas coming up from them. The first source consists of official documentation released by public authorities since the 1970s. The second source comprises the contrasting positions and demands made by stakeholders involved since the 2004 feasibility proposal. This research offers various scenarios, ranging from bridge maintenance to demolition, including the gradual reduction of traffic lanes. Each scenario is accompanied by appropriate participatory and cooperative planning mechanisms.

Key Words

service-learning, sustainability, regeneration, infrastructure

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Contribution Type : Paper

Municipal crisis management as a transformative competence?

Content

Municipal administrations are not only critical infrastructures but also important for every aspect of urban governance from everyday operations to major structural changes. The COVID-19-pandemic presented cities the world over with a temporally and geographically delimited, multidimensional crisis that disrupted municipal activities from the minute to the transformational. From a resilience perspective, however, such „stress tests“ (Kötter et al. 2018) may also function as experimental learning environments for organizations that facilitate structural and procedural adaptations.

The research project “Enhancing urban resilience by the example of pandemics: spaces of reflection for municipal crisis management (PanReflex)” analyses how municipalities may become or remain resilient under the conditions of a long-term crisis. PanReflex triangulates systematic large-scale agency-level survey data (n=232) from German municipalities as well as qualitative interviews (n=28) with local and regional public administrators and experts with a series of participatory workshops with local crisis management actors in North Rhine-Westphalia, Germany. We find that the transboundary nature of the pandemic (Boin & Lodge 2016) gave rise to interdisciplinary networking between departments and has opened spaces of horizontal cooperation in German municipal administrations. This new cooperation reduced silo thinking and has enabled cross-sectoral cooperation in fields not directly related to crisis management – such as sustainable long-term transformation, thereby increasing municipal resilience.

However, we find that there is little crisis management skill, training and knowledge among administrative staff, which decreases organizational efficacy and efficiency under crisis conditions and thereby impedes the realization of short-term and long-term goals. Crisis competence enables municipal administrations to focus fewer of their limited resources on a crisis and retain more personnel and capacities for other long-term transformational activities. Crisis management should therefore be seen as a resilient municipal administration’s way of ensuring agency into the future.

Sources:

Boin, Arjen; Lodge, Martin (2016): Designing resilient institutions for transboundary crisis management: A time for Public Administration. *Public Administration* 94/2, p. 289-298.

Kötter, Theo; Weiß, Dominik; Heyn, Timo; Grade, Jan; Lennartz, Gottfried (2018): Stresstest Stadt - wie resilient sind unsere Städte? Unsicherheiten der Stadtentwicklung identifizieren, analysieren und bewerten. Hg. v. Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR). Bonn. Available online: <https://www.bbsr.bund.de/BBSR/DE/veroeffentlichungen/sonderveroeffentlichungen/2018/stresstest-stadt.html>.

Key Words

resilience; transformation; administration; crisis competence

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Contribution Type : Paper

Sustainability assessment of climate protection measures

Content

In Karlsruhe, a climate protection concept has been adopted in 2020. The systematic and broad involvement of experts and citizens in the development of the Karlsruhe Climate Protection Concept 2030 means that there is a high probability that the proposed measures will be a) effective, b) accepted and c) implemented - and thus also make a de facto contribution to climate protection. However, it cannot be ruled out that the planned measures may have side effects that cause or exacerbate problems in other areas. In order to avoid such negative effects, a sustainability assessment of selected measures is carried out. For this purpose, a sustainability assessment tool is being developed and applied in the Karlsruhe Real-World Laboratory. The tool is based on the Integrative Concept of Sustainable Development (ICoS) established at Karlsruhe Institute of Technology (Kopfmüller et al., 2001; Stelzer and Kopfmüller, 2020), which has been used by Institute for Technology Assessment and Systems Analysis (ITAS) in a variety of contexts for sustainability assessment (e.g. Rösch et al., 2018). This enables decision-makers to design the measures to be adopted in such a way that negative impacts are reduced or avoided altogether. The Integrative Concept of Sustainable Development (ICoS) provides a scientifically sound and ethically and politically legitimate frame of reference. Based on the research results and the preliminary work at KIT, the assessment tool "IKoNE-Klima" will be developed. This tool will be used to assess the measures with regard to its impact on sustainability. The identified trade-offs will be analysed and systematised, and proposals for dealing with these trade-offs will be developed with relevant stakeholders. The results will be presented to the public and discussed with stakeholders and citizens. Finally, it will be worked out how the IKoNE-Klima tool can be applied in other neighbourhoods, cities or regions.

Kopfmüller, J. (Ed.), 2001. Nachhaltige Entwicklung integrativ betrachtet: konstitutive Elemente, Regeln, Indikatoren, Global zukunftsfähige Entwicklung - Perspektiven für Deutschland. Ed. Sigma, Berlin.

Rösch, C., Bräutigam, K.-R., Kopfmüller, J., Stelzer, V., Lichtner, P., Fricke, A., 2018. Indicator-based Sustainability Assessment of the German Energy System and its Transition. KIT Scientific Publishing. <https://doi.org/10.5445/KSP/1000082161>

Stelzer, V., Kopfmüller, J., 2020. Sustainability Assessment: Integrative Concept, Methodology and Examples Sustainability Assessment of Urban Systems. Ed.: C. Binder, 161–180, Cambridge University Press (CUP). doi:10.1017/9781108574334.

Key Words

climate protection, sustainability, measures, tool

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Contribution Type : Paper

The social production of transformative urban space

Content

This conceptual contribution proposes to integrate Henri Lefebvre's theory of the production of space into an analysis of technological innovation, green transition and urban transformations. Considering urban space as a product of social relations attests to its historical character – it has been different before and will be after, it has become what it is and is turning into what it will be through a diversity of potentials to be realized, powers that gain concreteness, interests to be negotiated, materiality to be dealt with. Space production proceeds through the mutual influences between three dimensions:

- 1) living transformative space, i.e. creating, making sense of, leaving a mark on and using transformative space on the everyday level;
- 2) moving through transformative space, i.e. perceiving concrete materiality and how it changes, e.g. through innovation of (technological) objects, or changes in urban morphology;
- 3) thinking of and with transformative space, i.e. creating, contesting and accepting urban imaginaries of what a city could and should be.

We filter the above conceptualization through the everyday experiences of urban transformations for the green transition and through the conflicting temporalities that are involved at different levels in transformative social dynamics. Although policies and governance for the green transition, the high order in Lefebvre's words, urge for carbon neutrality by 2050, with specific measures targeting 55% carbon emission reduction already by 2030, the actual implementation of green transition in urban everyday life rather impinges on local dynamics, including vulnerabilities, polarizations, injustices and social claims, i.e. the low order as per Lefebvre. At this level, different temporalities seem to be at work that conflict with those of the high order. To grasp the interplay between different temporalities, power relations, processes and actors that produce urban space for the green transition we shift attention to two interrelated aspects: 1) technological innovation and its creative reception by communities; and 2) the increasing influence of financial logics in urban development. We look at the efforts of climate induced urban renovations in Athens and urban space appropriation for sustainability transition in Montreal. This work in progress further leads us to confront the dilemma of methodology. Do existing qualitative and ethnographical tools suffice to grasp the urban green transition or is there a need to redefine methodological approach for the green transition?

Key Words

production of space; green transition

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Contribution Type : Paper

Walkable area around Shanghai metro station

Content

The development of rail transit has brought new urban places to the city, forming an intensive, mixed, and diverse urban space around rail stations. Through relevant literature research, this article distinguishes the two concepts of rail station influence area and rail station walkable area to distinguish the scope of the station service area and the walkable area based on the road network to analyze passenger flow, we use AutoNavi API to identify walkable area based on road networks from each entrance to a station in Shanghai, the characteristics and spatial distribution of the station walkable areas were analyzed using indicators such as the size of the walkable area, coverage rate, and overlap rate of the station's influence area and the area, void rate, eccentricity, and compactness. Finally, the walking coverage rate was used to measure the walking accessibility level of each station, it can be found that there are still many stations their walkable area rates are small, this indicates that the coordination of land development and rail transit construction is still weak which will impede the transit-oriented development and lower the possibility to attract larger passenger. The importance of walkable areas for station area planning was discussed in the paper.

Key Words

metro, walkability, Shanghai, TOD

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Contribution Type : Poster

The Local Token Economy: towards a new paradigm for Smart Energy Communities.

Content

Abstract: Inspired by the concept of the token economy as a strategic discipline to reward good sustainable behaviour, a new socio-economic model is about to be developed in Italy as the experimentation of local energy sharing. It is a process that involves both the development of a technology that facilitates the establishment of RECs (Renewable Energy Communities) and a strategy to have not only economic sustainability targets, but above all, social and environmental returns to those who exchange and share local energy in proximity area. The flywheel is the token that is used as a community current currency and remunerates the local energy sharing, boosting the "socialization" of other local resources. Furthermore, this model works to activate a change in civic behaviours by increasing both reciprocity in responding to basic needs and increasing common goods and services. Technology concerns a blockchain platform with the possibility of certification of transactions and to manage specific Smart Contracts trusting a method, that of tokenization, that is still not experimented enough in Italy. The aim is to facilitate and motivate the development of RECs, through a tool that can activate the governance of local resources while ensuring also costs lower than those of the current market. The challenge predisposes to greater cooperation between citizens, businesses and institutions, in the attendance of the reconnection between people, resources and services focusing through the priority of social and environmental targets.

Key Words

LTE, REC, Smart Contracts, blockchain.

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Contribution Type : Paper

Tolls That Work: The acceptability of city tolls with cashbacks in Vienna and Riga

Content

City tolls are widely recognized as an effective policy measure that can substantially improve urban accessibility by fighting congestion, while also decreasing the negative environmental impacts of car traffic in cities and hence improving the quality of life. However, there are only a handful of cities which have successfully implemented city tolls, namely London, Stockholm and Singapore. This is largely due to the strong public backlash city tolls face, mainly attributable to the negative distributional effects, where the poor and disadvantaged are over-proportionally negatively affected. Lack of progress in the introduction of city tolls in European cities over the past decade motivates us to look for innovative solutions. In our survey, we introduce a novel pricing scheme with a cash-back option, in which collected toll returns directly back to drivers in the form of accumulative public transport vouchers. We believe that this toll scheme would have (i) a large positive welfare effect in terms of improved urban accessibility and quality of life increase and (ii) a solid public acceptance that would allow them to be implemented in a typical modern city in Europe. The survey is implemented both in Vienna and Riga, with 1000 participants in each city to encompass a representative sample of the distinct socio-demographic characteristics of local car drivers. We analyze the survey results using a discrete choice model.

Key Words

Congestion Tolls Cashback Survey

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Contribution Type : Poster

Art interventions in decision-making processes to stimulate sustainable transformations; the scenario sessions

Content

Peter Scholten & Thijmen Sietsma

As we plunge into an era of enormous environmental and societal challenges and crises, that will particularly have their effects on urbanized areas, there is a need for transformative efficacy. Nevertheless, our economies and policy processes are still characterized by persistent path dependencies and solution are either limited or focused on reducing effects than on actual changing our course of action.

As we urgently need to transform and transition our societies, we need alternative input to reshape our path dependent routines and remodel our narratives. This input may be found through exploring a potential intelligence, other than the rational and cognitive, and on how to use these inspirations to develop innovation and creativity that helps steer our societies toward sustainability.

As a part of a larger research project into the role of Arts in stimulating transformations toward a more sustainable future, researchers from Radboud University, theatre makers, a social design studio, Arthouse LUX and the Municipality of Nijmegen, are collaborating in developing the scenario sessions, a transdisciplinary research project into the role of theatre and theatrical methods in governance and decision-making processes. Stakeholder interactions become a pre-enactment of possible futures in which participants take up various and interchanging roles in a theatre setting. Important ingredients in this research are the role of embodiment, non-verbal information, and more-than-human roles.

By counterbalancing the cognitive and verbal with a more embodied and emotional understanding of the issues at hand and the various (interchangeable) roles at play, we aim to uncover new insights that can stimulate sustainable and inclusive solutions, making sure all citizens (including the more-than-human) participate in the process of policy creation.

Key Words

Art, transformations, governance, more-than-human

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Contribution Type : Paper

Digital enablers and boosting participative transformation of cities with urban public transport and shared mobility services

Content

By engaging in critical experimentations and continuous learning, cities can develop tailored strategies for achieving climate neutrality, addressing the unique challenges and opportunities within their specific contexts. The iterative process of experimentation, adaptation, and knowledge sharing is of paramount importance to create sustainable, resilient, and climate-neutral urban environments.

Public transport (PT) and shared mobility services as backbone of sustainable urban mobility play a vital role for augmentation of the climate change mitigation efforts. Co-design, development and deployment of new urban mobility solutions for strengthening existing PT offerings and their integration with new smart mobility services will boost participative transformation of cities, increase users' satisfaction and will eventually contribute to the achievement of the modal shift and decarbonization target. The co-designed technological mobility solutions and non-technological measures in the cities' Living Labs (LLs) set the basis for the transportation systems to become resilient and able to deal with exceptional situations such as pandemics and environmental crises. The Horizon Europe SPINE "Smart Public transport Initiatives for Climate-Neutral cities in Europe" Innovation Action project develops and utilizes new co-creation and co-management methods and approaches based on an equity centered design thinking to ensure a better engagement of citizens and relevant stakeholders. It will create a collaborative network of LLs where the citizens from different social groups and various stakeholders collaborate digitally and physically towards the co-design of innovative solutions and measures for tackling the mutual problems, capacity building and upskilling of public authorities, local actors, civil societies and communities through catalyzing transferability and replicability of the gained knowledge and experience across SPINE lead and twinning cities.

This research paper focuses on the case study of the city of Žilina as one of the twinning cities in the SPINE project. It addresses the SPINE methodology for participative mobility transitions in EU cities by leveraging digital solutions to enhance the quality of urban public transport and shared mobility services and making them more user-friendly, sustainable and inclusive. The experimental outcomes are also expected to contribute to fostering active participation from the community in shaping the sustainable urban transportation landscape and nudging citizens travel pattern towards more use of sustainable and green mobility systems.

Key Words

Co-creation, Participative mobility transitions, Cross-pollination

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Contribution Type : Paper

Experimenting with Urban Ecologies: Urban Heat and Air Pollution as Multiple Processes of Signification of Climate Change

Content

Recently, there has been a significant focus on scientific research related to climate change, particularly on the correlation between air pollution, urban heat islands, and their impact on urban ecologies. As the effects of climate change continue to increase in urban areas, it is essential to study the relationship between urban heat islands and air pollution. This can help develop policies and strategies tailored to urban regions' unique needs. Scientists often use models to present evidence-based data that demonstrates the urgency of these challenges and provides potential solutions for society to adopt to mitigate the adverse effects. It is widely believed that disseminating scientific findings is crucial in preventing future implications and ensuring sustainability for future generations. Understanding the challenges can identify potential solutions, and appropriate behaviour can be adopted to mitigate negative effects.

Based on the recent work of anthropologists working with planning as a social practice, this paper explores two experiments with heat islands and air pollution in two diverse urban contexts. These experiments use action research to engage citizens and urban officials to gather data and perceptions related to these phenomena. The experiments highlight ways of questioning and interconnections and sensibilities in processes involved in creating signs, ideas, minds, and selves in the forms of the impact of urban heat and air pollution.

The conclusions drawn from these experiments emphasise the necessity of considering the various forms of signification that underlie climate change. This can help move beyond a narrow view of knowledge as a monolithic issue and address how multiple ways of knowing can enable scientific approaches. This can help reimagine the forms, categories, and potential counter-geometries that guide societal responses to climate change's present implications. The relational nuances of understanding the challenges and the sensitivities needed to consider knowledge of climate change as a collective entity co-production in the face of future generations are also highlighted.

Key Words

engagement, knowing, planning, humanizing knowledge

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Contribution Type : Paper

Colouring Dresden - A citizen science platform for the collection of building knowledge

Content

The citizen science initiative “Baukultur und klimagerechte Architektur in Dresden” intends to showcase its project at UERA 2024 through a poster presentation. The project’s primary objective is to gather information about Dresden’s buildings using the “Colouring Dresden” platform, an integral component of the international research network Colouring Cities Research Programme (CCRP). Through collaborative efforts with stakeholders from administration, research, practice, and civil society, the project identified research questions, developed and adapted platforms, prioritized relevant features, and established various event formats and communication channels for knowledge transfer.

Participation in the Colouring Dresden map is diverse, enabling individuals to input building information via computers, laptops, tablets, or smartphones, both indoors and outdoors. Utilizing digital archives, historical maps, and online map services is encouraged for obtaining information. Additionally, contributors can provide data from geodata, archives, or other sources. Citizens are encouraged to actively engage in the project, attend educational events, or even plan their own colouring projects.

This citizen science project plays a central role as it is the first time such an approach is employed in Germany to collect information about the built environment. It surpasses mere data collection by actively involving the public in the scientific process. The project particularly focuses on assessing the resilience of buildings to environmental risks such as flooding, heavy rainfall, and heat stress. The consideration of climate adaptation measures and monument protection requirements offers practical insights for future developments.

Evaluation of various action formats in Citizen Science demonstrates clear differences in response quantity and data quality. The sustainable digital infrastructure guarantees open access to project-related documents and establishes a framework for open citizen science. The project adds value to science, society, and participants by fostering increased diversity of ideas, acceptance, transparency, contributions to knowledge, and participation.

The project’s results contribute to the advancement of Citizen Science in Germany by identifying suitable action formats and evaluation methods, thereby enhancing motivation, evaluation, and trust in science for future projects.

Key Words

Citizen Science, platform, building information

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Presenter(s) : DANKE, Tabea

Contribution Type : Poster

Visioning and the Amathos linear park proposal; multi-stakeholder challenges and opportunities for co-creation

Content

The proposed paper aims to examine the challenges and opportunities involved in a multi-stakeholder co-creation process in the service of a common vision for the development of a linear park along the Amathos river in the Germasogeia municipality in Cyprus.

The paper proposal will outline relevant case studies in support of a participatory framework of collaborative design with the ultimate aim of arriving at a consensus roadmap for the creation of said linear park.

This will conform to all aspects satisfying health, safety and welfare requirements as set forth by local planning codes, while at the same time offering a platform for discussion and argumentation amongst all agencies having a stake in this imaginary.

The paper will set forth the various tools used in this co-creative process in search of a common language for equitable participation by both professionals and lay people.

It will outline ways and means utilized as confidence building measures in the initial stages of the process to the framing of a proposal that is both binding and also flexible enough to accept revisions in the course of time for incremental project phasing and realization.

The paper will conclude with a retrospective evaluation of the effectiveness of the participatory tools that have been used and criticism of the various stages of project proposal development.

Key Words

Transdisciplinarity, participation, collaboration, visioning

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Contribution Type : Paper

Second-Order Learning in Positive Energy Districts: Making Space for Reflection

Content

Positive Energy Districts (PEDs) are a highly ambitious socio-technical vision to drive the energy transition in urban contexts. The EU has set a target of 100 PEDs by 2025, which has led to a number of new projects. The concept of PEDs is still in its infancy and there are wide variations in how PEDs are conceptualised by stakeholders and how they are implemented in practice. In all cases, it is important to ensure that PED innovation is done responsibly to avoid unintended social and environmental side-effects and associated risks. In this paper we present an approach to inform responsible PED innovation through the development of second-order learning processes. Building on the approach of moments of reflection, we developed and tested the method of second-order learning conversations involving insiders, outsiders and facilitators in five emerging PEDs in Austria, Belgium and Sweden. Participants identified challenges and alternative socio-technical solutions to inform learning about each PED. In the paper, we summarise examples of second-order learning from three PEDs to illustrate the potential of second-order learning conversations to support the responsible development of current and future PEDs.

Key Words

second-order learning, urban transformations

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Contribution Type : Paper

Research-based Education (Lehre hoch Forschung) as a transformative research approach for the education of “Competence in Transformation” - The university as an Urban Actor in designing urban transformation.

Content

The comprehensive, overlapping crises and their manifestation in the global climate crisis show that we are at a turning point, a “Zeitenwende”. The world after will no longer be the same as the world before.

A generation of grandchildren, young people and students will become “Zeitenwendekinder”, children of a turning point, experiencing and living through the process of transition from one system into a new one. In addition to cooperation as a global community and binding sustainability strategies, designing this upheaval as a successful “great transformation” requires, above all, new knowledge and people with the skills to understand these complex interrelationships and to develop, design, shape and communicate new structures for a just society.

Teaching, research and education therefore have a special role to play, as the WBGU identified in 2011 in its main report “World in Transition - A Social Contract for Sustainability”.

The dissertation BIOSPHERE + CITY, presented at the KIT, Faculty of Architecture, this January, deals with this complex of topics. The researcher, Susanne Gerstberger, develops an innovative teaching-research format that, as an architectural science experiment, as a research approach and contribution to the establishment of the transformation perspective of transformation research, imparts system knowledge, generates transformation knowledge and action knowledge in order to enable students to transform the city into an ecologically, economically and socio-culturally sustainable living space and to develop the necessary “competence in transformation”: independence, systemic thinking, multi-perspectivity, adaptability and reflection.

In the context of the creative design disciplines, urban planning and landscape architecture, this competence unfolds a double potential: the design of the city, both in its process and in its urban development, planning and repair, are fields of transformation with great leverage.

In this context, as well as in the context of university teaching and education, research-based education becomes a process-, an interaction- and a communication platform: it enters into a dialog between science, politics and society, theory and practice, present and future – to design and to manage Urban Transformation.

Key Words

Urban Transformation, planning, research-based education

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Contribution Type : Paper

Ecoclub as a form of real-world labs?

Content

The lifestyle and consumption habits of citizens are crucial in the question of ecological sustainability in urban environments. Current consumption patterns need to be changed, which requires wide-scale social transformation. Communities can play an important role in impacting individuals' behaviour when promoting sustainable lifestyles (Middlemiss 2010, 2011, Neulinger et al., 2023, Veress et al., 2023, Kiss et al., 2018). According to the community-based approach, individuals in communities can be more successful when it comes to changing consumption habits and lifestyles. Communities can be created with the intention to change members' everyday practices and support each other in adopting more sustainable lifestyles. Small communities can be created and nurtured – among many other institutions – in schools or higher education institutions with the aim to provide space for sustainability-oriented non-formal education. At the core of our research project stand the ecoclubs, which are small communities of higher education students who are set to support each other in developing sustainable lifestyles. Ecoclubs are democratically structured, project-like groups with regular meetings. Following a non-formal learning and research model, these clubs employ a participatory approach, integrating university-level groups into transformative learning and action research. Aligned with the principles of cooperative inquiry, ecoclubs are organised as joint learning sessions, in which every participant equally takes part in the process of knowledge creation and implementation of change. Participants all become co-researchers of sustainable consumption during the process. We organised five ecoclubs between 2021 and 2023 at the Corvinus University of Budapest. These groups can serve as real-world labs for students according to Parodi et al, 2023 (p 288) as (1) they act with a clear participatory research orientation, (2) directly contribute to sustainability transformation, (3) members share a common goal of altering their daily routines to adopt more sustainable practices, (4) participation and transdisciplinarity are basic organisation norms, (5) democratisation of science is the underlying concept of the participatory research itself, (6) this model seem to be transferable to the local community context or in a corporate environment, (7) the organisation of ecoclubs started 3 years ago and is still an ongoing process, (8) all the participants experimenting with sustainable lifestyle practices during their projects, (9) it creates a reflective learning environment through transformative learning for the co-researchers. In our research, we discovered that the ecoclub concept can ensure efficient learning and sustainability transformation in the participants' lifestyle practices.

Key Words

transformative learning, cooperative inquiry, sustainable-lifestyles

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Contribution Type : Paper

Energy transition as a local social innovation

Content

Energy governance and first of all just and sustainable energy governance require a broad partnership and innovation at local urban level. Speaking about the issue of energy transition as a method and tool for mitigating the disadvantageous effects of climate change it is worth to consider technological, social and economic factors of this systemic change. Energy production (sources) and supply, consumption, waste of energy as well distribution and storage are the main elements which should be underlined. These elements are subject of transdisciplinary scientific research. However, the concept of a transformative science (Schneidewind et al. 2016) requires - and this is explicitly the case of energy transition/governance) - that in the process not only the research itself (innovative findings), but education and learning and institutional structures would be taken into account. In this case we don't only describe and model energy transition (and the related societal transition), but rather initiate and catalyze it. In this way we improve our understanding of this transformations and simultaneously we increase societal capacity to reflect on them. This paper would like to introduce and analyze a good practice project planned (co-designed) and implemented (tested) as an innovative (local) energy governance project based on alternative energy supply methods, learning communities, public private citizen partnership (governance) and retrofitting of buildings. The project outcomes tested in Viladecans (Spain) and transferred to additional 3 EU cities will establish and scale up social innovation (sustainable energy community) and prevent a grave energy poverty of the most vulnerable citizens whilst fostering a societal reflection through its learning communities.

Key Words

innovative local energy governance

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Contribution Type : Paper

Connectivity: Moruzzi Road's Narrative of Transformation

Content

The paper presents 'Moruzzi Road', an urban space transformation project in Pavia (Italy), employing co-design and participatory approach. The research started by addressing the questions of 'How' and 'By whom' the public spaces should be shaped, emphasising the need for a greater diversity of perspectives and partners. This project is an institutional collaboration between the 'Moruzzi Road' association, AUDe research lab (University of Pavia), and the Municipality of Pavia. However, the stakeholder mapping exercise unveiled a much wider network of people and organisations, that transformed the area into an experimental learning environment, intersecting the knowledge, creativity, and care of different groups in a specific context.

This research is qualitative with a combination of methods, adopting the 'Say-Do-Make' model (Sanders, 2002) ensuring an in-depth exploration within a 'real life' context (Simons, 2009). The narrative unfolds through the transformation process between April 2021 and September 2023, highlighting five key actions shaped in participatory workshops, to explore the new possibilities, by focusing on the themes of resilience, agency, connectivity, and relationships.

'Participatory workshop' is the primary research method in this study that led to co-design and/or co-production of the space in various phases. However, it is complemented with reflexivity, drawing on the principles of Schön (1992), visual ethnography-inspired methods (Pink, 2020), questionnaires and semi-structured interviews. This multidimensional methodology ensures a comprehensive understanding through the perspectives of researchers and participants, as well as the influence of the context and the researchers' position.

The study identifies the challenges encountered in the process, navigating them through self-reflexive exercises at the local scale and within the situated context. It reveals that the impact of the participatory approach goes beyond the tangible project outputs, contributing to significant social outcomes.

Key Words

narrative, participatory workshop, reflexivity, connectivity

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Contribution Type : Paper

Urban Transformative Capacities: Digital Environment for collaborative Alliances to Regenerate urban Ecosystems

Content

Ravenna hosts just passed the inner district, the city docks, namely "Darsena". It used to be the city business and lively pole, until the Port has developed outside the city. Moreover, the railway has divided the historical city center and the suburbs. These factors made Darsena an abandoned industrial area (as large as the city center, with 32 private owners) side to side with a densely populated residential area (20.284 people, 16% non-nationals, 23% over 65 y.o., low incomes). Environmental situation, security, cohesion are challenging, as well as developing new functions and assets for the district, where no major business investment was recorded in the last 30 years.

DARE projects moved from such complex context engage a powerful Urban Regeneration Process enhanced by digital transition. On one side, we dare to make our city go digital starting from the most critical district and urban policy. On the other, we believe a data & digital based regeneration process will enhance and support a new citizens-centred perspective and implementation.

Key Words

Urban Regeneration Process, digital transition,

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Contribution Type: Paper

The Human Scale of City Design: Navigating the Interplay of Body, Form, and Res Publica in the 21st Century”

Content

This abstract explores the contemporary challenges faced by urban environments and their potential solutions through the lens of the Human Scale concept. The Human Scale, encompassing human, architectural, and political dimensions, offers a comprehensive framework for addressing critical issues such as overpopulation, climate change, poverty, justice, social equity, and health that intricately affect the human habitat and the production of urban spaces.

The inquiry begins by questioning the transformative potential of architecture in elucidating new values and lifestyles of the 21st century. As posed by Sejima (2010), can architecture play a pivotal role in shaping this era’s cultural and societal shifts? Additionally, it delves into the conditions defining a city and architecture as Human Scale in the contemporary context.

The material value of architectural projects, particularly at medium and large scales, is scrutinized about their social purpose. Does the physical manifestation of architecture still hold significance, and is its value directly proportional to its contribution to societal well-being? The criticality of today’s urban landscape is addressed, highlighting the widespread inability to transform public spaces into meaningful sites of collective experience and the detachment of architecture from everyday reality, leading to a loss of its ‘social purpose’ (Chipperfield, 2018).

Amidst these challenges, the research aims to identify the potential of the Human Scale concept to respond to contemporary urban issues. The Human Scale is approached from three interconnected perspectives: the individual’s perception of space in terms of measurement, dimension, and movement; architectural form, emphasizing porosity, continuity, and accessibility; and finally, interpreting Human Scale as *res publica*, a collective entity that embodies both public space and public policy, serving as “something for everyone.”

In conclusion, this research seeks to critically examine the role of architecture and urban planning as crucial players in the production of spaces at the service of society in the 21st century. By delving into the Human Scale concept, it aspires to offer insights into creating more responsive, equitable, and socially purposeful urban environments in the face of the multifaceted challenges of our time.

Key Words

human-scale, res-publica, public-policy, city-design

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Contribution Type : Paper

Comments:

This paper comes from my PhD research (2016-2020)

Introducing the PPrototypEs For addressINg the housing-enerGy-nExus

Content

European societies are confronted with an interlinked housing and energy crisis that is challenging urban sustainability transformations. As access to affordable housing becomes limited, inflation and accelerating energy prices pinpoint that energy poverty and housing inequalities mutually reinforce. Within this context, the deep renovation of the existing housing stock is promoted as key policy action. However, despite policy efforts from the EU to the local state, there are growing concerns that housing market arrangements for retrofits may further aggravate existing housing inequalities.

To offer alternative, more equitable pathways to the green transition, the Horizon Europe project PREFIGURE puts the spotlight on existing and emerging collective efforts of policy, market, technical and social innovation. The pioneering approach of the project aims at identifying, tracing, analysing and networking emerging and active 'prototypes of change' with regard to the housing-energy efficiency/energy poverty nexus. Research objectives are to: (i) offer nuanced understanding of how social, political and economic practices of innovation contribute to affordable housing renovation schemes that disrupt existing housing inequalities and energy poverty; (ii) identify how multi-scalar housing policies trigger sustainable housing and energy transitions, and how different user groups perceive sustainable housing and energy transitions, with a particular focus on income polarisation consequences on vulnerable groups; and (iii) mobilise knowledge about innovative practices for sustainable housing and energy transitions and co-create evidence-based policy solutions. Method innovation relies on fusing transformative qualitative and quantitative with technological and real-laboratory research to co-create and up-scale knowledge and practices that signal the green transition. Therefore, PREFIGURE will develop the housing/energy nexus as a novel conceptual approach for housing inequalities; evidence new practices of social, technical, market and policy innovation; and corroborate policy actions that secure affordable, accessible and energy efficient housing for all.

Key Words

housing energy nexus, transformative research

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Presenter(s) : ALEXANDRI, Georgia (Postdoctoral researcher); Ms. MATOGA, Agnes (Postdoctoral researcher)

Contribution Type : Paper

Learning ecosystems for urban transformations? TRANS-LEARN and the role of intermediaries in systemic knowledge practices

Content

The paper explores what systemic learning vis-a-vis experimental governance and urban living labs is, could, and perhaps should be. A common issue among various kinds of experimental governance actions (placemaking urban acupuncture, city street experiments, urban living labs, Reallaboren, etc) is how the findings can be used to inform urban transformations. The underpinning theory of change involves 'learning' by different actors but this is often black-boxed or simply assumed to happen automatically in the context of experimental actions and projects. This paper opens up the black box of experimental learning by examining the roles of intermediaries who facilitate learning exchanges among a wide range of urban stakeholders. This work investigates the emergence of learning ecosystems that embody deliberate and explicit modes of knowledge production, translation and transfer. The findings highlight the opportunities and challenges of using learning to catalyse urban sustainable transformations.

Key Words

learning; transformations; intermediaries; culture; infrastructure

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Contribution Type : Paper

How effective are neighborhood talks to ensure the uptake of climate neutrality? On the challenges to ensure transformative capacity for PEDs

Content

Positive Energy Districts (PED) aim for districts to apply tailor-made integrated energy systems and, therefore, positively impact neighboring energy systems (IEA & EBC, 2023). For enhancing an urban sustainability transformation, not only integrated communal heat planning by professionals but also a cultural turn on the collaboration between citizens, municipality, and specialized staff is required. Transdisciplinary research on the PED Waldsee aimed to accelerate collaboration, capacity building, and co-creation through an iterative and participatory approach, one primary measure being energy district talks. The talk series has been fruitful in communicating and increasing understanding of citizen needs and urban planning practices but could only identify and initiate limited societal sponsorship (Kucknat et al. 2023). To genuinely assess the transformative potential of those interventions for implementing a PED and a climate-neutral district by 2045, the case study is evaluated against the criteria for urban transformative capacity derived by Wolfram et al. (2019). The analysis of qualitative and quantitative empirical data results that while the project tackled empowerment, intermediation, urban planning, and reflexivity, it still needs to overcome critical levels of those indicators. Learnings and recommendations are derived. The study critically assesses current research and practice approaches for urban energy transformation. Next to evaluating the case study, it reflects on the criteria for transformative capacity (Wolfram et al. 2019), commenting on the kind of capacity required, the role of intermediaries, and the transferability of co-created knowledge.

IEA & EBC. 2023. Annex 83 - Positive Energy Districts. International Energy Agency (IEA). <https://annex83.iea-ebc.org/>

Kucknat, J., Götz, S. Shapira, O. 2023. How to accelerate the local heating transition although the vision is blurry? Insights on participative neighborhood talks in Waldsee-Freiburg. BEHAVE2023. Maastricht, Netherlands. Fraunhofer ISE.

Wolfram, M., Borgström, S. & Farrelly, M. Urban transformative capacity: From concept to practice. *Ambio* 48, 437–448 (2019). <https://doi.org/10.1007/s13280-019-01169-y>

Key Words

PED, Transformative Capacity, Citizen Needs

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Contribution Type : Paper

Training the next generation in real-world experimentation: “Gemeinsam Stadt_Machen” as a novel teaching approach

Content

The role of universities in unlocking the potential of transformative and participatory research is crucial. They can close the gap which many intermediaries still struggle to fill, by becoming ambassadors of the urban poor or create new formats that actually connect actors across different disciplines, levels or professions, thus foster transdisciplinary collaboration. “Gemeinsam Stadt_Machen” (engl. Co-creating city) is a teaching project at Karlsruher Institute for Technology (KIT) led by the Institute of Regional Science (IfR) aiming at connecting the training in participatory research methods and real-life experience by applying a real-world lab methodology. In this paper, the authors reflect critically on the teaching course that took place with a group of students of the M.Sc. in Regional Science and Spatial Planning and the B.Sc. in Geography at KIT. The authors believe that fostering the experimental turn in social sciences must find its way in the teaching and training of the next generation of spatial planners and critical urban researchers. We did so by providing a methodological training, and facilitating a co-creative phase to develop participatory methods jointly with students. Within a one-week event, utilizing the MobiLab, a mobile urban laboratory for sustainable innovation in the form of a tiny house, built by KIT, this research action took place on a public square in Südstadt, Karlsruhe. While we managed to generate important data and achieved a truly transdisciplinary research approach by including a multitude of different actors, such as citizens, the cultural sector, academics, civil society as well as some small businesses, the participatory research aspect has not been sufficiently satisfactorily resolved. We argue that implementing transformative and participatory research is a long-term action that starts with developing research topics together with society, difficult to achieve in a seminar-context. This means that a prolonged experimental phase for network-building and awareness-raising is significant for a successful start to a long-term “Reallabor”.

Key Words

teaching; real-world experimentation; participatory research;

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Contribution Type : Paper

Urban experiments' struggle for transformative policy impact: an evaluation of four experiments in Maastricht to find successfactors

Content

Cities around Europe struggle to create more sustainable urban practices and robust and resilient infrastructures. Despite the promise of urban experiments to provide wider impact across the city with potential transformative effects towards sustainability and resilience, both the practical impact on mainstream urban practices and scientific understandings of it are still limited (Turnheim et al., 2018; Dijk et al., 2018; von Wirth et al., 2019). This paper deals with a key deficiency of current urban planning: the rather context-specific lessons of urban experiments are poorly translated into citywide, integrated, transformative policy, leaving them with limited impact. Based on a retrospective analysis of four experiments in Maastricht, it answers the question: how to reorient experiments to inform broader transdisciplinary policy learning processes, so as to enable transformation? The experiments focus on public space and mobility infrastructure, two key dimension of urban sustainability.

Analyzing the experiments, we offer a preliminary answer to the overall RQ: how to orient labs and experiments to inform broader transdisciplinary policy learning processes, to enable transformation? First of all, effective, impactful experiments have (a) civil servant champions who have been exempted from policymaking duties, in order to have ample time and mental space for both doing experiments & for sharing lessons learned with non-involved colleagues. Second, effective, impactful experiments take place in a government organization in which experimentation is supported of higher level policy managers or officials (and through the from aldermen, city council). Fourth and finally, transdisciplinary policy learning will only take place in any 'recordable' way in the first place, when this has been explicit learning questions defined for the project. Defining an explicit purpose in terms of what is to be learned, is key.

Key Words

urban experiments, impact, learning

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Presenter(s) : DIJK, Marc

Contribution Type : Paper

Retail Gentrification and Chances in the Sustainable Transition of Urban Consumption Space

Content

Urban public spaces are increasingly dominated by retail and commercial activities. In many cases, the expansion of retail activities, driven by the pursuit of economies of scale but also the creation and extraction of novel exchange values, pose threats to sustainable city futures. For example, the redevelopment of run-down shopping centres and the attraction of new clientele is developed in distance to sustainability principles and in accordance to the norms of retail gentrification. Many evicted business and stores form a hinterland around new-built commercial areas against the displacement. Following Malcolm's suggestion regarding the structure of urban retail, this article explores urban consumption spaces into five types: (1) the central business district; (2) the outlying business centre; (3) the principal business thoroughfare; (4) the neighbourhood business street; and (5) the isolated store cluster. Based on the different forms responding to retail gentrification, this study investigates the sustainable transition of urban retail structure, the characters of the initial place of retail gentrification and its hinterland in terms of their landscape, functions and actors, and the mechanism of the consumption spatial shifting. This article further discusses the challenges that retail gentrification has posed for urban sustainable transitions and the inclusive way to improving urban sustainability.

Key Words

Retail gentrification; Urban consumption space

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Contribution Type : Paper

Sequencing Urban Transformations: Lessons from Malmö

Content

Policies aimed at sustainability transformations have emerged at the local level in the last decade, accelerating as the need to solve wicked problems have resulted in local action and experimentation. This paper seeks to develop an approach that captures the various elements that impact system change at the local level and crucially, identify the turning points that helps realize this change. Building on a previous framework established using Urban Studies and Innovation Policy, this paper focuses on conceptually developing the reflexive processes that leads to turning points. The framework uses five layers (Guiding Visions, Policy Logics, Implementation Structures, Experimental Spaces and Generalization Processes) to distinguish policies that aim to optimize the current system, from those policies and actions that foster systems change. The role of this paper is to make the framework more dynamic, from describing and ordering empirical processes, to conceptually advancing our understanding of how turning points arise as a consequence of reflexive processes in various sequences. This dynamic addition to our framework will discipline and sharpen its analytical potential and take into account adaptation capabilities that are fundamental to transformation. We thus apply our five-layer framework to the city of Malmö's thirty-year journey from industrial powerhouse to sustainability frontrunner and deduct the mechanism of turning points in a sequential analysis.

Key Words

Cities, sustainability, Transformative Innovation Policy

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Contribution Type : Paper

Supporting Climate Neutrality in Cities: testing the NEB Impact Model and Story-Building

Content

The presentation will illustrate two experiments held in the Italian cities of Rome and Rimini in implementing the NEB Impact Model (IM) and Story-building approach to support cities in the development of their projects for climate neutrality.

CrAFt's NEB Impact Model is an assessment and guidance tool geared at a whole systems approach for use in complex urban interventions. It incorporates and expands the New European Bauhaus values of sustainability, beauty, and inclusion as well as principles of multi-level engagement, participation and transdisciplinarity.

Story-building is the process used for recognizing the relevance and consistency of the urban sustainability projects and to disseminate them as positive examples in pursuing climate neutrality. The integration of story-building emerges as a dynamic and transformative approach, transcending traditional methodologies. Unlike mere storytelling, the concept of story-building represents a comprehensive process that invites multiple stakeholders to actively participate in co-developing the story of their urban landscape.

These approaches are developed and tested within the CrAFt and Re-Value projects, both funded by Horizon Europe under the EU Mission on Climate-Neutral and Smart Cities, bridging towards the New European Bauhaus initiative. Both projects are coordinated by NTNU.

In Rome, the IM is being used to advocate for better spatial quality and integration with heritage of a new tramway project that will cross the UNESCO listed city centre. Urban designers from Sapienza University were able to visualise through the IM how their multi-disciplinary design proposal would enhance the positive impact of the project on the city, compared to a basic infrastructural project.

In Rimini, a Story-building approach is being used to reframe the city's strategic planning effort. In the last fifteen years, the implementation of the Piano Strategico has significantly transformed the town, affecting economy, heritage, sustainability, and public space quality.

Building on these two cases, the contribution advocates for a more holistic approach to sustainability and for integrating transformative processes, such as story-building, in sustainable urban transformation projects.

To do this, the IM can help urban actors in better understanding the complex network of impacts that city transformations can generate by providing a consistent yet flexible framework for the assessment of sustainability; on the other hand, Story-building emphasises co-creative story development over fixed narrative, acknowledging the distinction between the overarching process and its constituent steps.

Key Words

Climate Neutrality

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Contribution Type : Paper

KliKa: Real world experimentation for climate friendly canteens

Content

Climate-friendly and sustainable nutrition is a key field for the future of cities. Therefore, climate-friendly canteens (KliKa) is one of four transformation projects of the Karlsruhe Real-World Laboratory for Sustainable Climate Protection (KARLA) of the Karlsruhe Transformation Center (KAT) at the Karlsruhe Institute of Technology (KIT).

Based on an action of the communal Karlsruhe Climate Protection Concept 2030 ("Climate-friendly lunchtime catering in municipal canteens and cafeterias"), the main aim of KliKa was to raise awareness among operators, employees and users of out-of-home catering (canteens and food outlets) in Karlsruhe and to motivate them to make their own businesses more climate-friendly. Six levers were identified in advance that were classified as particularly effective for the project context: Avoiding food waste, a climate plate (CO₂ balancing and communication), regional and seasonal, organic and DGE (German Nutrition Society) certification, vegan and vegetarian, take-away and reusable systems.

The presentation introduces the concept, process and experiences of the transdisciplinary project including the formats used (networking and information events, canteen visits, workshops) and scientific methods (questionnaires).

Through public relations work and the use of various communication channels, a heterogeneous circle of up to 40 different stakeholders was established in Karlsruhe. A constant circle of actors who regularly participated in the "FutureBowls" and canteen visits consisted of around twenty institutions, made up of canteen operators, cooks or kitchen/plant managers from seven municipal institutions, three scientific institutions, three social institutions, two associations, one major supplier and actors from the municipal administration.

Through a survey among the participants, we identified ten different obstacles to the implementation of climate-friendly measures in the respective areas. In addition, a further questionnaire was used to identify changes that took place during the project period among the stakeholders, such as the introduction of a vegetarian day, the carbon footprinting of all dishes and communication about this, the reduction of convenience food, especially in the vegetarian range, the start of a cooperation with a food sharing initiative, the introduction of weighing weeks, increased processing of leftover food, the pursuit of organic certification, the implementation of organic certification of individual product groups, the increase in the vegetarian range or improved communication about this and the introduction of reusable systems.

Even though KliKa had a comparatively short project duration of one year and the question of continuity and institutionalization of successful formats has not yet been satisfactorily resolved, it initiated processes among the stakeholders involved and created impact.

Key Words

sustainable climatefriendly canteens, transformation experiments

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(KIT)

Presenter(s) : FRICKE, Annika (KIT)

Contribution Type : Paper

Citizens' assemblies - a transdisciplinary learning space for urban sustainability

Content

Citizens' assemblies, such as the citizens' assembly on climate in Stuttgart, have emerged as innovative platforms for participatory decision-making in urban sustainability. Based on a citizens' petition, the city of Stuttgart launched a citizens' assembly on climate as a pilot project in 2023. Bringing together city administration, various stakeholders, scientific experts, and of course, the citizens themselves, the goal of the citizens' assembly on climate was to jointly develop recommendations for the city's climate strategy and climate actions. Furthermore, the aim was to strengthen citizen participation and direct democracy on the way to a climate-neutral city.

A large number of different local actors and stakeholders were involved in the implementation of the citizens' assembly—including us as scientists tasked with evaluation and researching questions regarding quality, fairness, learnings, and outcomes of the process. To this end, we decided to use a combination of quantitative and qualitative methods, including standardized questionnaires and participant observations at all citizens' assembly meetings; additionally, we held regular feedback meetings with representatives of the city of Stuttgart.

In our contribution, we reflect on the potential and limitations of the citizens' assembly as a learning environment to foster inclusion and empowerment and contribute to developing urban transformative capacity (Wolfram et al. 2019). The citizens' assembly has enabled participants to improve their skills in dealing with political issues and strengthen their participation in political discourse. Based on the data collected, we will discuss the politically contested nature and challenges of complex stakeholder constellations we witnessed during (and following) the process, as well as learnings for future citizens' assemblies. For the city of Stuttgart, it was important not only to provide recommendations to the city council but also to engage in follow-up activities with civil society in order to disseminate knowledge widely and implement actions at the neighborhood level. This contributes to long-term learning success and initiating urban transformations. As a future outlook, the introduction of citizen cafes as a new format of joint activity to implement practical recommendations, creating a new learning space, will be considered.

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Key Words

citizens' assembly, transformative capacity, learning environment

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Gamification of Early-Stage Planning, Participation and Education in Urban Mobility: the MobileCityGame

Content

Strategic planning in urban mobility is of utmost importance for cities to meet climate targets while maintaining citizen satisfaction. Besides bringing relevant actors and their conflicting views together, profound knowledge on the impacts and mutual implications of investment strategies, policy interventions and incentives are key. Common transportation models are often costly, time consuming, constrained in time steps, scenario variations and in the consideration of soft factors, and are hard to interpret.

Co-funded by BMBF, 2020-2023, a consortium of Fraunhofer, KIT and game developer Takomat have joined forces to create an intuitive smartphone app for urban strategy planning. In MobileCity the models mobiTopp (KIT), ALADIN and ASTRA (Fraunhofer) were downscaled, combined and enriched by further research to obtain a unique coarse but fast and dynamic prediction and assessment model for urban mobility. Most challenging was to grasp the acceptance of mobility conditions and measures through their life time phases by inhabitants. To approach this we conducted a representative survey in the 20 largest German cities (N=2660) asking people on their attitude before and after the introduction of selected measures.

In four workshops and an on-going seminar at KIT we have tested and discussed the app with planners, teaching staff, associations and students. Next, we are about to expand MobileCity to Gothenburg, Oslo and Trollhättan, and to add urban logistics, further measures and functionality in the DUT project CarGoNE-City (2024-2027). Citizen Participation, user feedback and research knowledge transfer are core in this and further endeavors.

The MobileCity demonstrator is available for smartphones and tablets in the app stores of apple and google. In November 2023 the project was awarded the German Mobility Prize in the Category "Digital Transformation & Data Driven Mobility". MobileCity is co-funded by the German Federal Ministry for Education and Research (BMBF) from 2020 to 2023.

Key Words

gamification; mobility; strategy; participation; transfer

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