



BOOK OF PROCEEDINGS

INTERNATIONAL CONFERENCE
13th - 14th October 2023

ISSUES OF HOUSING,
PLANNING, AND
RESILIENT DEVELOPMENT OF
THE TERRITORY

**Towards Euro-Mediterranean
Perspectives**

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Issues of Housing, Planning, and Resilient Development of the Territory Towards Euro-Mediterranean Perspectives

Conference Theme and Rationale

Albania, along with other Western Balkan countries, has undergone significant economic, social, and political changes in recent years. As a result, housing, planning, and the resilient management of territorial development have emerged as critical issues. This is because these regions face significant challenges in providing affordable housing, addressing the impact of urbanization on the environment, fostering evidence-based decision-making on the territory, and bringing forth the commitments towards climate neutrality.

The organizers use the term “multi-modality” to define complex situations (in matters of territorial planning, management, architecture, housing, public space, technology, etc.) that have historically encompassed Western Balkans and Mediterranean cities in a logic of coexistence and value co-creation. A combination of knowledge and heritage that throughout time and history have given life to civilization in this region of Europe. The active involvement of Albania in the existing network of the Mediterranean Basin and the EU, through a joint action plan with UN / UNECE, and the Albanian and regional authorities, including reputable scientific bodies such as the Academy of Sciences of Albania, makes this conference even more intriguing to explore fascinating areas of research. The conclusions, to be considered as a stage for open innovation, will include recommendations for further scientific and applied research, projects, and events.

The geographical focus of the conference covers three dimensions: i) Albania; ii) the Western Balkans; iii) Euro-Mediterranean countries. POLIS University aims to focus on the above-mentioned research areas that are of common interest to both Western Balkans and Mediterranean cities, including, but not limited to: housing policies, urban history and architecture typology, innovation and digitalization in urbanism, energy efficiency, resilience and environmental sustainability, governance and smart technologies for city management, education and gender aspects in urban planning research.

In this regard the main aim of this international conference is to bring together scholars, policy-makers, and practitioners to examine the pressing issues of housing, planning, and land development in these regions, in a context of transition fatigue, climate challenges and post-pandemic realities.

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Conference Aim

The main aim of this international conference is to bring together researchers, policy makers and practitioners to examine the urgent issues of housing, planning and land development in these regions, in a context of transition, climate challenges and post-pandemic realities.

Objective

- Consolidation of the cooperation network between Albanian and non-Albanian researchers, lecturers, managers, with the aim of participating in joint research projects at the regional and international level;
- Support of local authorities with contemporary data, on the state of housing issues, planning and sustainable urban and environmental management, as well as representatives of public and private institutions operating in this field.

The conference is organized by POLIS University (U_POLIS) in cooperation with the Academy of Science of Albania, and supported by other local and international partners.

In the framework of resilience, the main conference theme is devoted to Issues of Housing, Planning, and Resilient Development of the Territory from a Euro-Mediterranean Perspective, including Albania, Western Balkans and the Mediterranean Basin. This event aims to bring together academics, policymakers, researchers, experts, practitioners, and stakeholders from diverse backgrounds to discuss and address critical challenges related to housing, urban planning, and the development of resilient territories.

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Innovative Soft Planning Tools and the Concept of Positive Energy Districts. Experience from Slovakia

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Abstract

The concept of positive energy districts, as one of the tools to reach the objectives of European Strategic Energy Technology Plan, is one of the most broadly discussed energy transition instruments for European territories. Besides its technical aspects, there is an increased focus on the governance of the energy transition and more soft elements of the concept which are focusing on adoption of the new approaches to energy consumption by citizens and other stakeholders. We argue that one part of this transition is anchored in the planning culture of the respective countries/regions and that all the transition schemes must be sensibly tailored to the specific needs of a given place, locality and community. This contribution is focusing on soft planning tools as the inherent part of the positive energy district concept and the innovations that can support the energy transformation processes. Reflecting on the results of H2020 Making City Project and the experience from Slovakia, we are discussing the requirements of successful PED projects focusing on successful energy transition and adoption of new technologies by communities. We conclude with a set of observations of the factors contributing to successful adoption of positive energy district implementations.

Keywords

Spatial planning, positive energy districts, planning culture, soft planning tools, public participation

Introduction

The current state of European political and spatial development is signalling significant challenges to democratic systems that are rooted in civil and democratic values, such as transparency and participatory decision-making. These systems are facing immense pressure due to negative meg-trends and a highly volatile international environment. These complex challenges, unlike any seen before, are raising doubts about the principles of democratic decision-making and the inclusion of diverse stakeholders and societal segments. This shift is driven by the rise of nationalism, populism, and unilateral politics, creating ambiguity and uncertainty in all aspects of spatial development and planning. As a result, it is greatly impacting regional competition and cooperation. Old normative tools are no longer sufficient to ensure balanced and sustainable spatial development. Scholars, researchers, and decision-makers are increasingly turning to softer tools that offer greater flexibility in dealing with the unstable and volatile external environment.

Values like respect for human dignity, freedom, democracy, equality, the rule of law, and human rights must be emphasized and promoted in innovative ways to address both external and internal threats and instabilities. The declining trust in political institutions is contributing to decreased social and territorial cohesion, revealing long-standing structural weaknesses and underestimated challenges in rapid spatial development. Democratic governance requires fresh impetus to respond flexibly to threats and generate innovative solutions for society. To achieve the primary goals of European spatial development, research should focus not only on innovative management and effective planning tools but also on informal and soft approaches to spatial development within specific countries and regions. Planning culture, deeply ingrained in the broader cultural and social context of European countries, is characterized by democratic, participatory, and transparent decision-making processes typical of civil society and open governance.

The discussion around planning culture has intensified in recent years, recognizing its significance in dealing with complex, dynamic, and multi-faceted problems. Hierarchical planning cultures with authoritarian decision-making have proven ineffective in achieving acceptance and sustainability of decisions. Incrementalism-based planning cultures have also struggled to manage spatial conflicts and controversies. Participatory planning culture is essential for addressing contemporary challenges like the transition to renewable energy sources. Democratic planning culture is a unique set of approaches based on democratic values, deeply influencing spatial development processes through broad and transparent participation of all stakeholders. It superimposes the principles of democratic governance onto territorial, spatial, and social levels, shaping various aspects of spatial development. Effective management of conflicts, whether spatial, social, or economic, is crucial for sustainable development and competitiveness of cities and regions. These conflicts must be transformed into mutually beneficial networks of common assets. Integrating different values and beliefs into a coherent spatial concept is a fundamental challenge for spatial planners. Consensus-oriented planning cultures depend on trust and tolerance, making democratic and transparent planning culture a significant contributor to democratic decision-making and overall governance in Europe.

The paper is structured as follows. The introduction is followed by literature review with particular focus on energy efficiency and the motivations that are bringing energy planning to the foreground of the spatial planning discussion on trend and demands on contemporary spatial planning. The third part, tools and methods, is linking the research to the Making City Horizon 2020 Project that is being developed and implemented in Europe including Slovakia, specifically in the city of Trencin in the west part of the country. This research is building on the project's results acknowledging it is lacking the soft planning approaches that go to be background in the light of

the technical aspects of PED projects and their implementation in practice. Based on this premise, we argue for the need for innovative planning approaches within the spatial planning culture as an addition to the usual approach. In our understanding, deliberating these soft approaches can significantly improve the delivery of such projects and city development strategies not only for PED implementation but for other focuses, too. The final part is discussing the benefits of such an approach and is concluding the research paper.

Literature review

In recent years, energy efficiency has been one of the key planning topics in connection with sustainable development, resilience as well as climate change. There are many technological approaches aimed at efficient use of energy, innovative technologies and renewable energy sources, but what is often missing is their relationship to the spatial planning system, the legal aspects of spatial planning and its position within the overall culture and ways of how public administration and decision-making is working. The understanding of PED in the context of this paper is following the implementation of the Horizon 2020 Making City Project that seeks to support PED planning and methodology aimed at developing new integrated strategies to address the transformation of the urban energy system towards low-carbon cities with the PED approach as the core of the urban energy transformation journey. It is implemented at the level of cities and districts, which have two types of areas - two lighthouse cities and six follower cities. The city of Trenčín (Slovakia) is one of the following cities where several urban areas were selected to replicate the PED concept developed by the project consortium. The PED replication includes a wider area of the city center including several municipal buildings (schools and sports infrastructure) and residential buildings (individual housing and apartments). PED provides a holistic approach to energy harmonization and energy planning. It has evolved from simple, non-integrated, simple “building” based interventions to PED concepts that look forward to achieving energy and climate goals that will lead to integrated energy planning.

Reducing overall energy consumption in the EU has been on the political agenda for decades in connection with the fight against climate change and beyond. In cities, after transport, buildings consume the most energy, which is why the majority of national and international policies focus mainly on increasing the energy efficiency of buildings and urban districts. The subject of energy efficiency policy is slowly shifting from individual buildings using renewable energy sources to considering entire districts and neighbourhoods in order to better calibrate solutions and increase the potential for innovative energy solutions.

Buildings account for 40% of total energy consumption in the EU [1] and 35% of greenhouse gas (GHG) emissions from energy use [2]. Increasing the energy efficiency of buildings has been at the top of the list of climate change adaptation and mitigation priorities for the past two decades. Until recent years, the focus has been mainly on individual buildings (concepts such as zero-energy buildings), especially publicly owned buildings that have been renovated with public funds. These solutions very often focus on streamlining renewable energy solutions for individual buildings [3,4]. In the EU, more than 220 million buildings with generally low energy efficiency were built before 2001, of which only 0.2% undergo renovation every year. This means that there is a huge potential to reduce energy consumption in the building stock. Regulations and building codes have evolved and continue to evolve towards more efficient or near-zero energy buildings, with EU Directives 2010/31/EU and 2018/844/UE being clear examples of a strong commitment to improving the energy efficiency of the building stock [4]. In an effort to improve the flexibility of decentralized energy production, individual buildings and energy systems should be able to

interact with each other and achieve this quality, the PED concept emphasizes the importance of active interaction between energy production systems, energy consumers and energy storage within the district [3]. The literature on concepts and solutions for zero energy balance and energy positivity at the district or neighbourhood level is relatively sparse, as it is a relatively new idea and is mostly in the conceptual phase [3]. However, the introduction of these concepts is supported by the European Clean Energy Package, which calls for so-called “energy communities” for all European energy consumers and a number of small energy suppliers [5]. The advantages of PED compared to the individual focus of buildings include the ability to use more of the available energy production and storage potential of the community, i.e. the neighbourhood, and that the focus is on accelerating the decarbonization of the city, especially in terms of its scalability potential. A key concept of PED is that of a neighbourhood that produces more energy from renewable sources than is needed in another part, which is able to export energy to another part of the neighbourhood, balancing the overall demand and supply [4]. PEDs increase the quality of life in European cities, contribute to the achievement of COP21 goals and strengthen European capacities and knowledge to become a global role model [6]. PEDs and concepts such as Positive Energy Neighborhoods are now seen as strategic keys to decarbonising Europe’s built environment [7]. There is no single universally accepted definition of PED. The Horizon 2020 Making City project, which aims to promote the PED approach, defines a PED as an urban area with clear boundaries, consisting of buildings of different typologies that actively manage the energy flow between them and the larger energy system to achieve an annual positive energy balance [8].

One of the most important global trends is the dynamic growth of cities and the concentration of socio-economic functions in metropolitan areas. According to UN forecasts, the world’s population will increase to 8.9 billion by 2050, two-thirds of which will live in cities. The average population of the world’s thirty most populous cities will triple between 1965 and 2025 [9]. The 2015 Paris Agreement boosted international efforts to reduce CO₂ emissions, with urban areas playing a key role, accounting for 70% of emissions. The 11th UN Sustainable Development Goal is a sustainable cities and communities to support the transition to low-carbon cities. Thus, the development of cities in the coming years will determine progress in solving key environmental, economic and social challenges. So far, smart cities have been evaluated in the areas of energy, mobility and ICT, while integrated sustainable urban planning, spatial planning and urban planning are also very important for the design and implementation of smart cities. Sustainable urbanization is planned so that there is no commuting to cities and that the created neighbourhoods provide as many services as possible with an integrated approach, taking into account environmental, social, economic and spatial impacts. The challenge is that aspects of the smart city, such as decentralization and digitization of the energy sector, were not previously part of integrated planning and urbanism. Along these lines, PEDs can be seen as the basis of a highly effective and sustainable path to progress beyond current urban transformation plans, as PEDs are integrated mixed-use areas that have a positive impact within and beyond the district.

Tools and methodology

The PED research around which this research paper is revolving around is based on the results of Making City Project that was aimed at developing PED methodology for fostering green and energy efficient transition for European cities. It is based on creating PED strategies for 2 lighthouse cities and 6 follower cities (one of the follower cities is located in Slovakia, the city of Trencin). These strategies are focused, on the one hand, on the modelling of PED districts in selected parts on the cities, reflecting on the positive experience from the follower cities that have been front-

runners in PED implementation and provide valuable lessons to be learned from the PED strategy creation and its implementation in practice.

On the other hand, the limited focus is on the soft side of the implementation of PED concept which includes understanding of citizens' motivation to be a part of the PED and green energy transformation that goes far beyond the economic aspects and is working with people's motivations to change their patterns of consumption and behavioural aspects of their energy use.

In this context, we are advocating for innovative participatory planning as a supporting factor in creating PED transition strategies. Including these aspects can deliver better results in the long-term horizon as it supports people's adoption of technologies and including them in their daily lives as a natural part of daily functioning as inhabitants of their homes, users of transportation and consumers of goods and energy.

We are using the term innovative participatory planning where innovation is understood as introducing a series of soft tools sensibly tailored to the specific needs of a given place, locality, community or regional context. For PED implementation this is a crucial aspect of implementation as the success of the operating a functioning technological solution is frequently context dependent, reflecting the local specifics including how the planning is done. This includes thinking about the plan making, the legal system in which planning is positioned and also aspects of people's involvement in plan preparation and plan implementation. Innovative planning is focusing on building active communities at the local and regional level, helping people shape better lives through participation, education, information, and the effective use of technologies. Sustainability of the community is directly linked to the sustainable territorial development and the development of local economies that are socially responsible, economically viable and environmentally sound. Multifocal process requiring practical cooperation and participation of many actors - public authorities, the private sector and inhabitants as a way to identify community needs and potentials, find appropriate interventions, and implement innovative solutions.

When discussing innovative participatory planning, it is important to differentiate between people's attitudes and public opinions. The most renowned definition states that attitudes are learnt predisposition to favouring or refusing reaction toward given object, person or event [10]. Generally, the attitudes are learnt, mutually consistent, stable in time and space and are concerning the positive or negative reactions. Each attitude has cognitive (opinion based on rationalities), emotional (feelings and emotions) and behavioural (willingness to act) dimension. Regarding the events related to increased risk, we can assume overproportional representation of emotional dimension. Ajzen and Fishbein formulated in 1980 the theory of reasoned action. Theory of Reasoned Action is based on the supposition that individual behaviour is based upon the intention to perform the behaviour and that intention is a function of individual set of attitudes. Expressed behaviour is always based on the intention which might be unconscious. Intention is thus the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. Attitudes are more difficult to research, because they might be hidden and invisible, they are stable in space and time, deeper anchored and usually are modified continuously. They are more consistent within each other and resistant to arguments. On the other hand, opinions are more rational and civil, more focused on external, non-personal issues (e.g. the right approach toward technical difficulties conducting the revitalization of urban area...) and more sensible toward contra-arguments.

We assume that the attitudes, opinions and leanings of actors are influenced mainly by the patterns and factors such as professional experience and background, situational context (whether the respondent/actor is now working on projects regarding the green energy transition, the po-

litical situation, previous experiences from similar projects etc.), personality of respondent (his/her personal values, characteristics, interests, hobbies), social desirability (tendency to answer in expected way, especially when the researcher is somebody who is personally known/respected by the respondent) and individual motivation and engagement of the actor.

In this context, one of the leading ideas of 21st century European spatial planning, just green transition, including technical aspects of energy production and consumption, as well as the element of justice understood as striving for fair distribution of cost and benefits among actors and communities, needs to be understood as a part of overall societal transformation. It is one of the major processes going beyond sectoral division and it involves all the relevant societal fields and all the actors. Just green transition and its results are dependent not only on technological and managerial maturity of selected approaches but nevertheless on commitment of communities and broader public. The attitudes and positive mindset of the public is one of the underlying preconditions of successful and smooth green transition.

Conclusions and recommendations

In this paper we were discussing the current challenges facing European political and spatial development, highlighting the strain on democratic systems that are built on principles such as transparency and participatory decision-making. These challenges are attributed to negative megatrends and a volatile international environment, resulting in doubts about the efficacy of democratic decision-making in the face of rising nationalism, populism, and unilateral politics. This shift towards uncertainty and ambiguity affects various aspects of spatial development and planning, impacting regional competition and cooperation. Traditional normative tools are deemed inadequate in ensuring balanced and sustainable spatial development, prompting a shift towards softer tools that offer greater flexibility. To address these challenges, we argue for focusing on innovative planning and planning tools, including informal and soft approaches, within specific countries and regions. Emphasis is on the significance of planning culture, deeply rooted in European society, as a hallmark of democratic, participatory, and transparent decision-making processes.

Participatory planning culture is underscored as essential, especially in addressing contemporary challenges such as the transition to renewable energy sources. Open, democratic planning culture is a unique approach that superimposes democratic principles onto spatial development, influencing various aspects of the process.

We were presenting a comprehensive examination of the challenges and opportunities in European political and spatial development, particularly in the context of democratic values and participatory decision-making. Several key conclusions can be drawn from the discussion. The challenges to democratic systems - European democratic systems are facing significant challenges due to negative megatrends and a volatile international environment. The rise of nationalism, populism, and unilateral politics has led to doubts about the effectiveness of democratic decision-making processes. There is an overall shift towards soft tools in planning needed, not as a replacement of traditional approaches, but rather as an innovative addition aimed at improving the deficiencies of spatial planning - traditional normative tools are no longer sufficient to ensure balanced and sustainable spatial development. As a response to the unstable external environment, there is a growing shift towards softer tools that offer greater flexibility and adaptability.

Planning culture, deeply rooted in European society, is identified as a critical factor in shaping democratic, participatory, and transparent decision-making processes. Participatory planning culture is deemed essential in addressing contemporary challenges, including the transition to renewable energy sources. Effective conflict management is essential for regional competitiveness.

Transforming conflicts into mutually beneficial networks of common assets is key to success in regional competitions and partnerships. Consensus-oriented planning cultures rely on trust and tolerance among stakeholders. Democratic and transparent planning culture is recognized as a significant contributor to democratic decision-making and overall governance in Europe.

There is a need for Europe to adapt to the changing political and spatial landscape by embracing innovative and participatory approaches, while upholding democratic values. This approach is seen as essential for addressing complex challenges, promoting sustainability, and fostering social and territorial cohesion in the region.

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References

- [1] Energy Performance of Buildings Directive (EPBD) Recast (2010). Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast). Off. J. Eur. Union 2010, 18, 2010.
- [2] European Commission. (2020). Questions and Answers on the Renovation Wave. [Online] 14 October 2020. Available at: https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1836 (accessed on 30 October 2020).
- [3] Lindholm, O. and Reda, F. (2021). Positioning Positive Energy Districts in European Cities. *Buildings*, 11(1), 19, 2021.
- [4] Gabaldón Moreno, A., Vélez, F., Alpagut, B., Hernández, P. and Sanz Montalvillo, C. (2021). How to Achieve Positive Energy Districts for Sustainable Cities: A Proposed Calculation Methodology. *Sustainability* 2021, 13, 710. <https://doi.org/10.3390/su13020710>.
- [5] Clean Energy for All Europeans Package (2020). [Online] Available at: https://ec.europa.eu/energy/topics/energy-strategy/clean-energy/all-europeans_en#documents (accessed on 4 June 2020).
- [6] European Commission (2018). European Commission's Directorates-General for Research and Innovation, Joint Research Centre. Set-Plan Action N°3.2 Implementation Plan; European Commission: Brussels, Belgium, 2018.
- [7] European Commission (2020). Questions and Answers on the Renovation Wave. [Online] 14 October 2020. Available at: https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1836 (accessed on 30 October 2020).
- [8] Alpagut, B., Akyürek, Ö. and Mitre, E.M. (2019). Positive Energy Districts Methodology and Its Replication Potential. In *Multidisciplinary Digital Publishing Institute Proceedings* (Vol. 20, No. 1, p. 8).
- [9] Wołek, M., & Wyszomirski, O. (2013). The trolleybus as an urban means of transport in the light of the Trolley project. *Wydawnictwo Uniwersytetu Gdańskiego*, Gdańsk.
- [10] Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261.



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