Stakeholders of participatory planning: a comparison between Megacities and Cities in Europe

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Abstract

Participatory planning is regarded as an accelerator of sustainable development. However, it comes with its own set of challenges. In this paper, we study the challenges that are explicit in the case of Megacities. As they are more prominent in our current years, megacities form a large portion of their countries' population, not to mention they constitute an issue when combatting climate change. In the context of megacities, the analysis of the participation process requires a breakdown of the one factor which constitutes the biggest difference between its application in cities and megacities: the stakeholders and their extrapolation. Following this method, a solution for its implementation in megacities is proposed highlighting the use of digital tools and following the learnings from the city of "Vinnytsia" and applying them to the case of the megacity of "London".

Keywords: *Participatory Planning – Megacities – City Development – Planning Stakeholders*

Introduction:

As urban areas are rapidly growing, with more than 4 billion people, representing more than 50% of the world's population currently living in urban areas (Ritchie et al., 2018), handling each type of urban space individually is necessary for sustainable planning. This is to allow the shaping of processes tailor-made to fit the type of communities living in it and most importantly to keep up with its rate of expansion. An extraordinary phenomenon of urbanization is the formation of Megacities. Megacities are defined by their population size, which crosses the threshold of 10 million inhabitants (World Urbanization Prospects The 2018 Revision, 2018). Other than their defining aspect, the unique characteristics of megacities include their expansive size, intricate infrastructure, rapid growth, and socio-economic diversity ((Wenzel et al., 2007) and (Buehler, 2003.)). These necessitate a re-evaluation of traditional planning methods including participatory planning approaches. As megacities form a complex eco-system, their development elements are usually differentiated between one another during the planning process. This is already true in other types of cities and leads to the shift of power structures between the different stakeholders depending on the objective of the development. This division of elements shows, nevertheless, a higher level of disconnect in megacities due to their high level of complexity, which results in most cases in a top-down approach in decision making. Megacities are furthermore characterised by two attributes: their high population density and the speed in which they expand. Currently, there are 33 megacities worldwide, a number expected to rise to 44 in the next 10 years, as projected by the United Nations Department of

Economics and Social Affairs (United Nations, 2018). A megacity forms a complex organism where the race between sustainability and growth is fierce. With high speed expansion, pollution becomes just as fast on the rise. This is then worsened by the difficulty of controlling and maintaining sustainable development with the high number of stakeholders involved. A common trend to overcome this obstacle in recent years, has been to regard megacities as agglomeration of neighbourhoods. Planners breakdown the megacity into neighbourhood islands, where development could be controlled and to an extent monitored. This method has proven however ineffective in recent studies, as the case in the research conducted in a selection of Eastern megacities such as Hong Kong (Edermann et al., 2023). Such methods tackle the centres of neighbourhoods and fail at their border. In their attempts to remedy such failures, the authorities create new masterplans with overarching policies. These in turn suffer under the magnitude of the challenge and resolve into one of two faults: failing to account for the individuality of established communities in each neighbourhood or expanding the city more to cater for the residents' needs, an endless loop as the megacity becomes even more difficult to contain and manage. On the other side of the spectrum, small cities have mastered the art of maintaining an identity whilst creating their overarching masterplans. As planning methods were created with cities of medium and small scale in mind, their application proves more effective. Adaptations are in any case needed to match with socio-economic and administrative contexts, nevertheless, the tools themselves do not need to be altered. A good witness is reflected in the use of participatory planning as a sustainable development method.

In this research, we discuss the use of small cities as a blueprint for the translation of urban planning processes into megacities. The focus point in this method is to tackle the division and boiling-down of stakeholders in small cities and allocating their counterparts in a megacity as a whole. As part of the SURPRISE project[1] we will investigate the research question at hand by dissecting the processes taking place in the Ukrainian city of Vinnytsia and translating the learnings into the European Megacity of London.

To tackle this challenge, we will start by understanding participatory planning and the stakeholders that are involved. We will then move on to studying the two cities in question, mapping out their stakeholders and comparing them to one another. At the end, we will be deriving conclusions, highlighting what solutions megacities could adopt and what could be enhanced in small cities' planning.

2. Participatory Planning:

2.1 – Its definition and principles

Participatory planning signifies the involvement of all stakeholders and end-users of an area in its development plan. This method has been commonly used since the 1960s and has been referred to as a tool for sustainable development. In itself, participatory planning was the result of the shift from urban planning to strategic planning development. The main pillar of this method is the inclusion of different stakeholders in the decision-making process while urban planners play the role of mediators between the different stakeholders (Steinberg, 2005).

[1] The Sustainable Urban Planning and Resilient Reconstruction In Ukraine with Spatial Data Science (SURPRISE) project is conducted by HafenCity University in Hamburg, Germany. It focuses on creating a pathway for sustainable planning in Ukrainian cities.

Researchers such as Jane Jacobs (Jacobs, 1961) and Sillak et al (Sillak et al., 2021) have studied how the involvement of citizens is related to the durability of the development. Jacobs has discussed this topic from the perspective of ownership. She explains in her book how citizens who are involved in the planning phase tend to protect said developments, e.g. against vandalizers in the case of small developments, and maintain the developments as a community. Sillak et al, amongst other researchers, have perceived the question of sustainability from a knowledge perspective. They have investigated participatory planning in topics such as energy planning and perceived the citizens as holders of first-hand experience on the place, and therefore, having communicated to them any missing knowledge and through working with the experts, they are guaranteed to communicate a development masterplan that will correspond to the needs of the place. This helps prevent the repetition of work through the modification and readaptation of development plans during the operational phase.

2.2. - Obstacles in participatory planning:

Whether in megacities or small towns, participatory planning forms consistently a challenge for modern-day planners. From the start of the process, the challenge rises in managing and engaging stakeholders into the conversation (Cohen et al., 2015). The risk is this challenge resulting in only having a small sample of the society joining the decision-making process. More often than not, if this issue is not resolved, the sample in itself is then over-dominated by city officials and authoritative figures (Innes and Booher, 2004).
The second challenge is apparent when discussing more technical sectors related to planning, such as energy topics, governance, and economic issues among others. In this scenario, it is the case that there is a gap between the knowledge required for an effective debate, and that which the general public possesses. In energy topics for example, this problem is caused due to the discrete nature of the field. From complicated energy bills, lack of available open-data on the topic, to the complex theories behind its planning process, many energy topics present a black box for the normal citizen (Crippa et al., 2021). This is to say that such lack of knowledge is not the citizen's fault. Therefore, the role of the mediator (i.e. urban planner) in the participatory process is to ensure a levelling of all involved stakeholders in terms of knowledge. This solution adds in turn to the timespan of the planning process as a whole. The latter issue of time, with its different scales is one of the challenges in every planning process as they are viewed by experts as lengthy add-ons to the development process. To tackle this issue, developers resolve to the inclusion of citizens in the last phase which is the reviewing of the resulting plan, leading to frustration from the citizens and lack of enthusiasm in joining the conversation for future projects. The cycle continues leading to disinterested citizens and an inactive citizenry. The last common challenge of participatory planning is the translation of plans made by citizens into effective plans that could be used on site. This issue related and adds to two of the previously mentioned challenges: the lengthening of the process due to reformation of the plans, and the overruling of some of the citizens additions resulting once again in their frustration.

2.3- Breakdown of participatory planning stakeholders in megacities vs cities:

Finding the solution to the first obstacle of the subsection above, starts with understanding the stakeholders necessary for participatory planning. In its essence and as presented by Jacobs in her book (Jacobs, 1961), participatory planning is only effective if all samples of the community take part, arguing that minorities are often overlooked although they bring a unique perspective to issues at hand. Other researchers, such as Siliak et al (Sillak et al., 2021) and Voorberg (Voorberg et al., 2015) have expanded on the need for experts to join the conversation in the technical development areas such as energy and traffic. Since our research is discussing the overarching concept of city developments, we have also taken into the work of researchers tackling large-scale issues of development, such as the work of Arlati et al in discussing the CLEVER Corridor project in Hamburg, Germany (Arlati et al., 2021). From merging the literature, we can divide the stakeholders into 4 different categories: Experts, planners, stakeholders with economic interest, Authorities.

- Experts:
  Needed especially in complex technical issues, such as sustainability, water management, energy, traffic, among others. This category of holds deeper knowledge on the topic in question. Their presence helps with asking and answering case-specific questions which then bridges the gap between the resulting masterplan and what can be realized on site.
- Planners:
  Planners are first and foremost mediators of the conversation. Equipped with the right tools, they guide the different stakeholders to reach the wanted results. They are sometimes hired by the city directly or are part of development consultancy and planning offices that are responsible for the project.
- Authorities:
  Comprised of government representatives and city offices, the level of authoritative figures involved on a project depends to its scale and its implication on local politics
- Economic-Interest Stakeholders:
  This last category is for private entities including, among others, funding agencies, energy companies and real estate developers. Despite them not being present in all types of projects, their involvement provides a challenge as the ideals they are reflecting has economic interest in their centres instead of general-interest questions such as sustainable development. Their contribution, however, provides a good inside on the feasibility of suggested plans.

The citizens, despite being at the centre of the process, constitute several intersections with each of the 4 mentioned categories, as they are workers, experts, city officers as well as citizens. They are therefore encompassing all the categories, as shown in Figure 1 below.

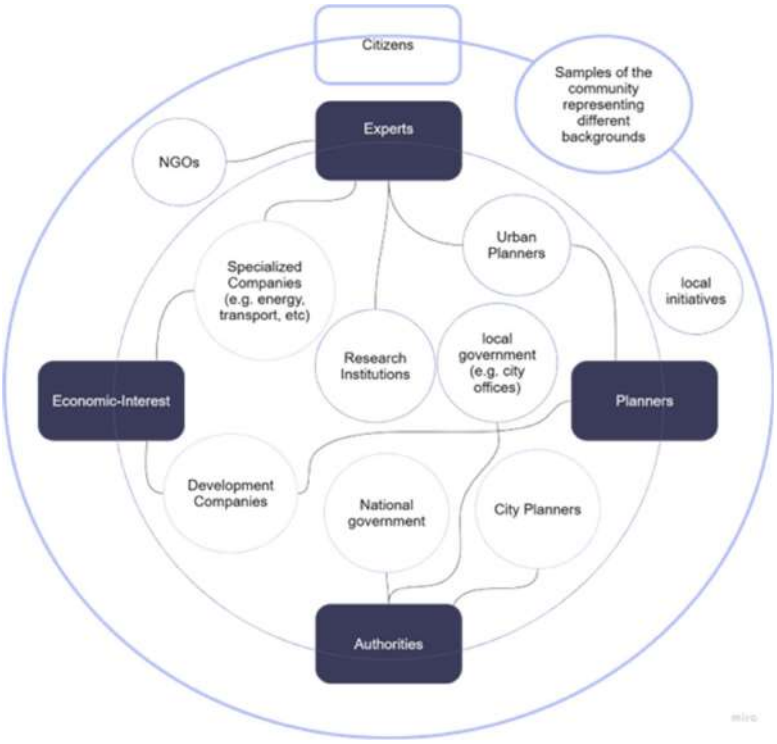

Figure 1: Categories of stakeholders in participatory planning

3 – Stakeholders distinction between cities and megacities

This stakeholder's breakdown, has been made in studying participatory planning in cities. The question rising here, is whether this categorization could be applicable to megacities in their large-scale development processes. In this section, we will study the 2 examples of Vinnytsia, Ukraine, and London, England to view what the above-mentioned categories translate into in the small city and how such learnings can be applied into the megacity.

3.1- Vinnytsia, Ukraine as a city example:

The first city of our study, is the city of Vinnytsia located in west-centre Ukraine. As Ukrainian administrative boundaries follow the hierarchy adopted from the traditional Soviet planning, the name Vinnytsia is given to both the Oblast and the Hromada as shown in Figure 2. With a population of over 350000 in the Hromada and 1.5M in the Oblast, the general population density of Vinnytsia amounts to 56.98/km² (City Population, 2022). As is the case in most post-Soviet cities, Vinnytsia currently faces a shift in identity where the current population is inclined to a more European image and development trends. A change is also obvious in its economy, where traditional industries are fading and their sources of income are shifting. Previously known as

"Small Kyiv", the actors in Vinnytsia are conducting big movements to reassign the city's urban identity. It is currently regarded as a power-player in its local region and in Ukraine (Melnychuk and Gnatiuk, 2019)

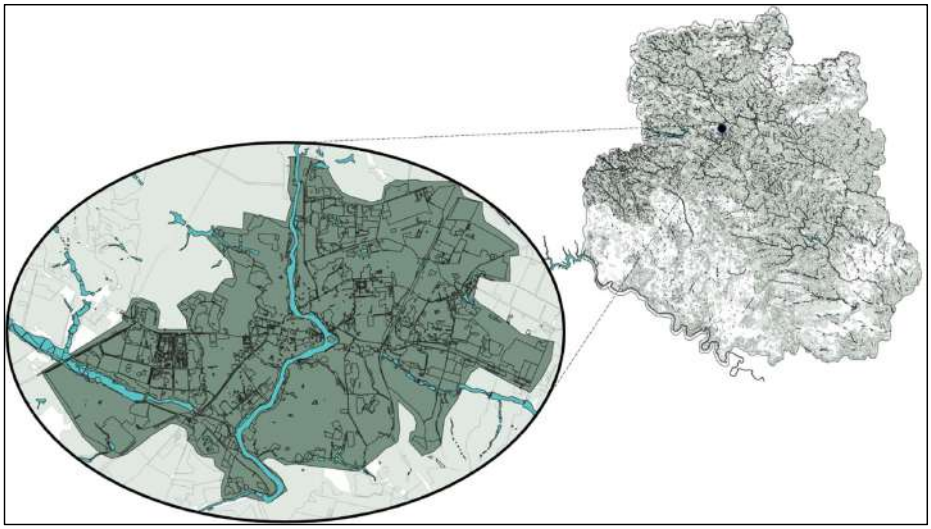

Figure 2 Map showing the position of the Hromada Vinnytsia in the Oblast of Vinnytsia using OpenStreetMap data

3.2 – Stakeholders in Vinnytsia, Ukraine

Currently in a wake of development, the Ukrainian city is following a plan to derive a more sustainable development path for its citizens. One of the pillars of which is the planned increased involvement of citizens in decision-making. To carry this task, and in the frame of work of the SURPRISE project, the degree of involvement of different stakeholders has been identified through conversations held with the local representatives. As explained in Figure 3 below, some stakeholders in Ukraine contribute only at the Oblast level. Translated into Western European planning definition, an Oblast could signify a municipality while the Hromada is the city. In the context of Vinnytsia, it could be regarded as an Oblast encompassing a town, prompting two different layers of intervention depending on the project. One main learning from this division, is the stakeholders' categories themselves do not differ based on the development scale, but rather stakeholders themselves are distributed throughout the different scales. For example, authorities are needed at both scales, however the level of jurisdiction needed is the variable.

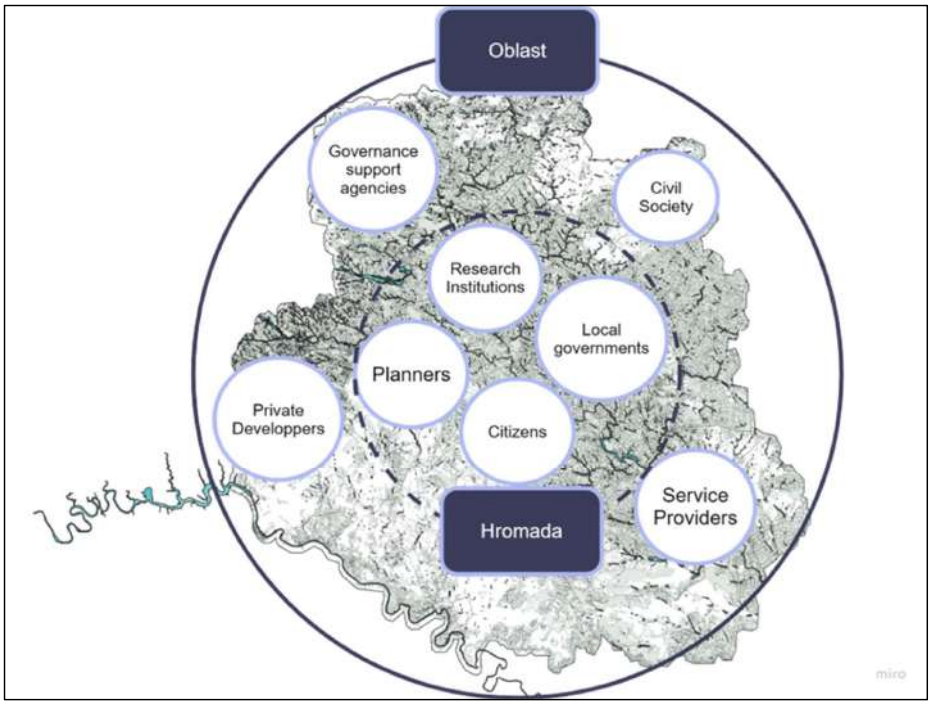

Figure 3 Distribution of participatory planning stakeholders between the Oblast and the Hromadas based on conversations with local actors in the frame of the SURPRISE Project

3.3- The Greater London area as an example of Megacity:

England's London is one of the two megacities of Western Europe, the other one being Paris, France. In 2024, London is house to a population of 9.7 million. The megacity encompasses the greater London area which has the city of London at its centre, forming only 2.9 sq.KM out of the 1569 sq.Km of the Greater London Area. London (referring to the greater London area in this research) has a population density of 5596 residents per sq.Km. (World Population Review, 2024). It encompasses an exceedingly diverse population, with 41% of its population formed by immigrants. With a very rich history, London is currently a global economic hub. As a megacity, London faces challenges such as traffic congestion, housing affordability, air pollution, and income inequality (Wenzel et al., 2007). Urban planning and sustainability initiatives are being implemented to address these issues. Although London is technically not a coastal city, it is often studied as a coastal megacity thanks to the Thames river crossing the city, connecting it to the North Sea, and its very close proximity to the coast.

3.4 – Comparison between stakeholders of Vinnytsia and London:

To understand the development of megacities, researchers have distinguished between the megacities in the western and eastern parts of the world. The development of the megacity of London has been studied as shown in Figure 4 (Li et al., 2019). A trend that has been spotted amongst them, is the tackling of problems through construction of satellite cities to fulfil the needs of the residents. The question we are investigating however is focused on a process encompassing the megacity as a whole.
Following the blueprint of the city of Vinnytsia, the inclusion of all stakeholders' categories remains a defying aspect to achieving effective participatory planning. To understand the difference between the two different city types, we resolve to extracting the stakeholder examples from Vinnytsia and assigning their counterparts in London as seen in Table 1.

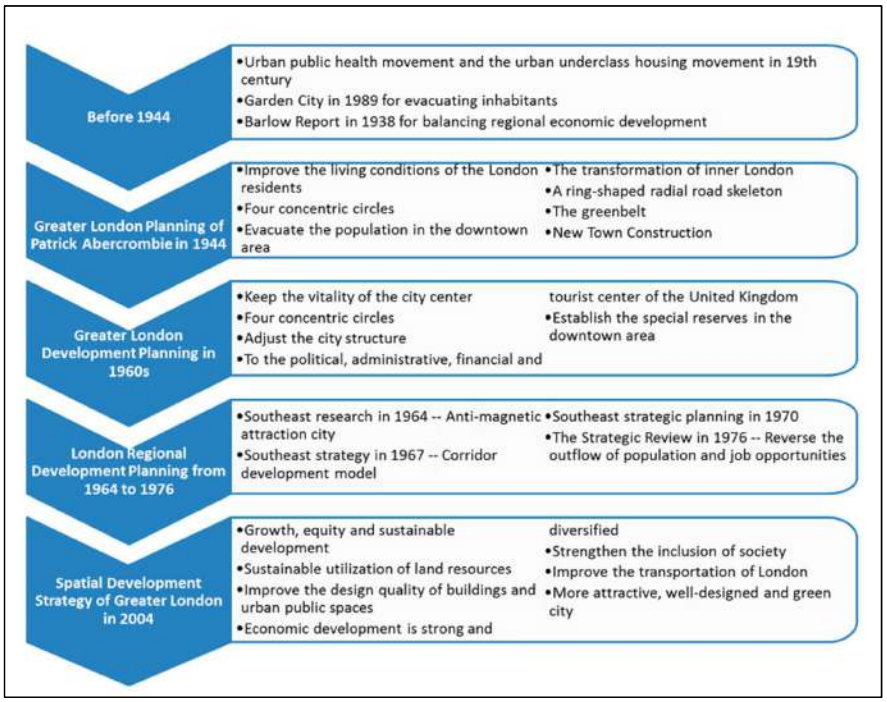

Figure 4 Development history of the Greater London area - Extract from Li et al (2019)

One stakeholder category that stands out as differing greatly between the megacity London and the city of Vinnytsia, is the "Authorities" category. In the example of Vinnytsia, Ukraine, the authorities are divided into local authorities and central government (Vinnytsia City Council, 2024). Their bodies are divided such as:

- Local authorities:
    - Mayor's office

  - City Council: includes several deputy mayors responsible for the different sectors, such as the deputy mayor of urban mobility and transport.
  - Executive bodies of the city council: working under control of the city council

- Central government:
  The central government in Ukraine is divided into several ministries that are involved to different degrees in urban planning development. Some ministries such as Ministry of Restoration and the Ministry of Infrastructure, are conducting more fast-paced work in the domain of sustainable development. The involvement of ministries in participatory planning can only happen at the oblast level.

In the city of London, and as the case in metropoles and large cities, the city is divided into several boroughs, signifying the different neighbourhoods with their different uses. The division of authorities and their inclusion in planning processes in London are as follow (London Councils, 2022):

- The boroughs: they manage the neighbourhoods, and are in charge of planning applications, maintain the roads and deliver environmental and leisure services. They can be regarded as a union of the different neighbourhoods.
- The city of London: works on a smaller scale than the boroughs but is responsible for the communication of the image of London to the outside world.
- Greater London Authority: includes the mayor and is the authority responsible for the overall development vision of the megacity. We can understand from there their indispensability in the participatory planning process.
- Local government association: representing the council on the national level. As it deals with issues concerning England as a whole, its presence in the development process can be referred to at the later phases.

3.5 – Process differences between cities and megacities:

Taking the case of Vinnytsia as an example, we can see how the Hromada involved less stakeholders in its process than the Oblast. This is however justified by the character of these two different spatial contexts, where each Hromada comprises one centre, specific communal characteristics, and specific challenges. This scenario is different when breaking a megacity like London into boroughs. Despite the different boroughs facing different sets of challenges, their impacts on one another are inevitable. The points elaborated upon provide examples of the aspects that result in the difference of the processes between the cities and megacities.

(a) Financial centres:

A city centre is easily allocated on the map of a small city. In the case of Vinnytsia, tackling issues regarding the centre of the city can be done individually by each Hromada, meaning the participatory process can be divided by Hromada, with a bigger set of contributions to tackle the Oblast as a whole. The city of London, however, not estranged to other megacities around the world, comprises of several financial centres (Roberts, 2008). Such centres are visited daily by inter-city

commuters. These are residents of the city of London, who live in a residential borough but work in one of the many financial centres. The further development of London's industrial district for example cannot be carried without the inclusion of neighbouring citizens that are not part of this specific district but are influenced by its impact on pollution and on the traffic condition among others.

(b) Environmental issues:

Environmental sustainability is a subject controlled first and foremost by local developments. In the megacity, the degree of contributions of different neighbourhoods to the issue at hand varies. As explained in previous sections, such issues are mostly tackled by further development of the megacity with minimum contributions to existing constructions.

(c) Energy issues:

In Europe, and with the provided legislations for energy communities, small cities residents have proven to have more ownership over the energy discourse in their cities. Energy communities, defined as stakeholders of energy in the urban setting, are more prominent in cities where ownerships of houses are more common than apartment buildings. This provides cities with the characteristic of having residents with more knowledge and involvement in such a technical topic than a megacity. This solves, to a certain degree, the knowledge issue prominent in participatory planning.

(d) Community engagement:

The sense of community in the megacity is far from non-existent. It is however more obvious on small scales, such as a sense of community in the neighbourhoods themselves. Small city communities possess feelings of ownership over the city as a whole. This makes the inclusion of citizens an easier task.

Stakeholder	Vinnytsia (Hromada)	London
Governments	- City offices - Local governments for Oblast - Central government ministries	- Wards - The boroughs - The city of London - Greater London Authority - Local government association - Transport for London
Private Entities	- Private businesses	- Private businesses
Research Institutes	- Research Institutes in the Hromada - Research Institutes in the Oblast - International Partners - Institute of development studies as a main player	- Research Institutes and university all over the Megacity act independent of their location - International experts
City Planners	- Government assigned planners (Oblast) - Private planning offices	- The mayor's planning consultants (London.gov.uk) - Private planning offices
NGOs	- Working together with research institutes on development topics - Shift in focus into post-war and post-soviet developments - International NGOs with presence Vinnytsia	- A big focus of NGOs is the raising of the voice of minorities - A focus on human rights issues on the local and international level

Table 1: assigning the stakeholders to the contexts of Vinnytsia and London

4 - Proposed Stakeholders involvement strategy in megacities

The challenge at hand is understanding how megacities can conduct an effective participation process on its large scale. Studying the two examples at hand, it can be seen how the involvement of all stakeholders' categories is easier to be achieved in smaller cities than in megacities. To achieve the up-scaling of the process without losing its integrity, a proposed solution can be the division of the process through the timeline rather than spatially as shown in the figure 5 below. This solution is proposed to tackled the obstacles elaborated upon in section 3.
As opposed to the usual spatial division of stakeholders, the timeline division attempts the inclusion of all categories of stakeholders concerned with the megacity. It solves the issue of the enlarged scale by dividing the process into 2 phases. In the first phase, directly-impacted stakeholders are included to have a first-hand discussion of the needs and problems of the development location. The first phase would include the definition of the problem at hand, the co-creation of a solution through collaborative work with the stakeholders, and the reduction of the knowledge gap on the topic which is easier to achieve with the smaller group.

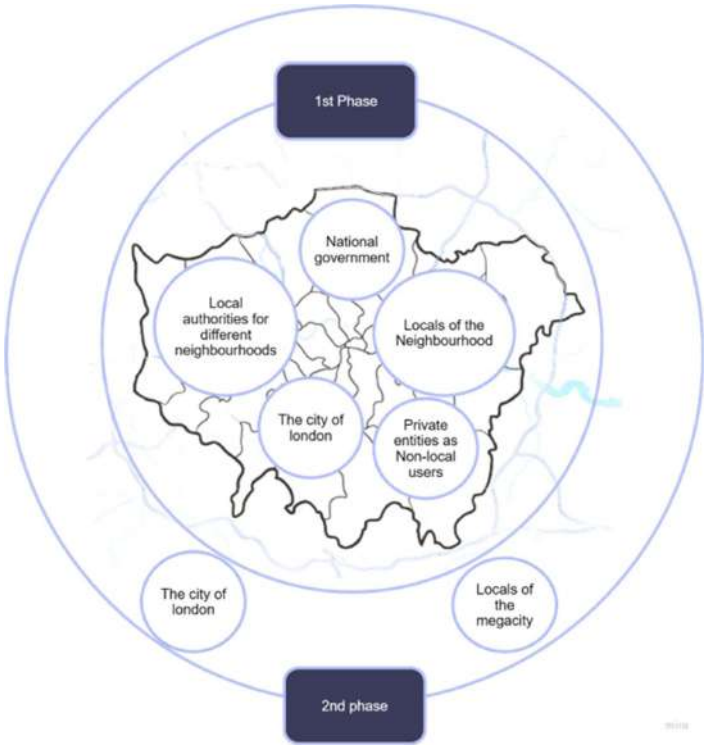

Figure 5 Proposed division of stakeholders through the development timeline of the megacity of London

Whereas the second phase involves larger contributors to the decision-making. It assures the acknowledgement of the impact of the development on a larger scale, be it a larger radius of neighbourhoods or the megacity as a whole. The involvement of larger-scale authorities in the second phase ensures the feasibility assessment of the development and prevents the overshadowing of the voices of local communities that are more involved during the first phase.

5 - Digital tools as a future solution

Smart cities have been an expanding concept in cities regardless of their scale. They are regarded as a solution to a big part of the sustainability question. One of the areas in which this is achieved is the introduction of digital tools for sustainable planning, including digital tools for participatory planning. Democracies around the world are facing increasing demands from citizens to be included in decision-making processes, thus, many political systems have responded by opening up to the public by incorporation more participatory elements. In the context of the deliberative democracy becoming a focal point in political science, a communicative turn in planning has emerged that emphasises more intensive and widespread citizen participation

(Friedman 1987; Healey 1992; Healey 1997; Peric´ and Miljuš 2017 in Timotijevic, et al. 2024). The application of technical tools has to be analysed in the context of the different participatory procedures and the respective institutional contexts (Silva, Carlos Nunes, Herbert Kubicek, 2010).

5.1 – Implications of digital participation technologies in urban planning

Digital participation technologies have the potential to reshape urban planning and development practice, especially in enabling constructive participation in early pre-design phases thus allowing for changes on a feasible basis (Münster et al., 2017). Some implications of introducing digital participation technologies in urban planning include the possibility to utilise a wider knowledge base through crowdsourcing knowledge compared to conventional design practices and to tap into the creativity and experience of citizen expertise. In addition, design sentiment analysis, interactive and communication-oriented planning process allowing direct exchange between stakeholders and agile processes are all advantages of integration of digital participation technologies (Münster et al., 2017).

5.2 – Challenges of digital participation technologies in urban planning

Some key challenges were identified by Münster et al., 2017 for the introduction of digital participation technologies in urban planning. These challenges, as illustrated in Fig. 6, consist of:

- Few users – It is often a challenge to find a sufficient number of users due to lack of information on the process, barriers in culture or accessibility of issues.
- Wrong users – Due to self-selection biases, participants choosing to take part in an urban planning process may rarely represent a majority of inhabitants
- Communication issues – Prior thoughts, beliefs and feelings may influence participants, including framing effects such as presentation formats, techniques or media channels and the level of presented problem and objectives
- Process deficits – The lack of transparency, inclusion and fairness could result in disagreement as a result of the process leading to poor decisions

Initiatives have been carried out in both of our study cities to accelerate their development into smart cities and their use of digital tools to ensure better inclusion of the public in participatory planning. In this regard, the movement towards such tools depends greatly on the political and economic contexts and needs to consider the challenges of integrating digital participatory tools in planning processes. Nevertheless, the methods to conduct this shift can be learned from set examples.

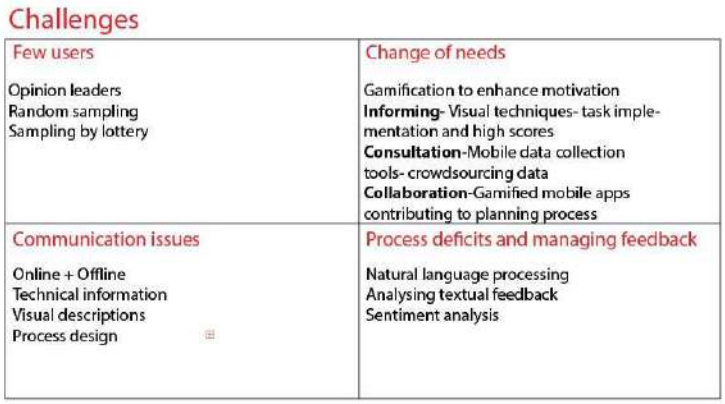

Figure 6 Key challenges and promising approaches adapted from Münster et al.

5 - Conclusion:

This paper has revisited the planning method that is participatory planning from the perspective of megacities, by studying the European city of Vinnytsia and the megacity of London. Through the analysis, differences were extracted between the two cities in respect first and foremost to stakeholders, but also with regard to the general challenges faced by the two cases when it comes to sustainable development. It is important to note that some factors were not considered in this analysis, as is the case that, despite the inclusion of the city governance structures in both scenarios, some political constraints still do exist that could limit the participation of some of the mentioned stakeholders. A number of political and socio-economic differences also exist between the two cities, that affect highly the public perception of such exercises. The goal of the study remains to showcase the possibility to derive learnings from cities and to adapt them into the cases of megacities instead of regarding megacities as islands in urban planning learnings.

In the case of Vinnytsia, it was concluded that the inclusion of stakeholders, namely authoritative figures, is dependent on the scale of the development. This was then explained as a symptom of the scale of the city (mentioned as a Hromada) and its individuality in the municipality (or the Oblast). This individuality is shared by all small cities, and result in the lack of justification for the inclusion of residents and stakeholders from outside the city itself if the development is of small scale. Different actors are then called upon for Oblast development projects. These can share similar categories as those included for Hromada development but are of different specialities and interests.

While studying the city of London, it was noted how the development of satellite cities followed the trend set by western megacities. It also corresponds to the pattern of megacities to fulfil their residents needs through further development. We addressed therefore the challenge of attempting to regard the megacity as a unified entity during the participatory planning process. The blueprint derived from Ukraine was therefore altered to a different concept which is the distribution of stakeholders through the phases of the project, to allow for a more inclusive process. Such alterations allow the carrying of successful processes and their exchange between different cities.

This to say, that although cities cannot copy each other's processes, there is some learning available despite differences in the scale. Understanding the history of city developments and the reasoning behind the methods used in conducting urban planning are a mandatory step to their re-adaptation. This could however only be achieved when transparency exists in the planning process, which allows for a more in-depth look on the conditions in which planning decisions were made.

Lastly, more research needs to be carried out to study the tools used for conducting participatory processes. The introduction of digital tools for participatory planning, which provide a remarkable solution for large-scale citizens inclusion as is the case for megacities. It provided a way to conduct the process in a time-efficient manner and while despite the different circumstances. Digital citizen involvement however should be studied more to overcome its shortcomings, and especially to assure the process being conducted fairly and democratically.

Acknowledgment:

This research was conducted as part of the work of the research project “Sustainable Urban Planning and Resilient Reconstruction in Ukraine with Spatial Data Science” funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). This body of work represents the idea of the researcher alone and does not necessarily reflect the opinion of the funding agency or the project partners.

References:

Arlati, A., Rödl, A., Kanjaria-Christian, S., Knieling, J., 2021. Stakeholder Participation in the Planning and Design of Nature-Based Solutions. Insights from CLEVER Cities Project in Hamburg. Sustainability 13, 2572. https://doi.org/10.3390/su13052572

Buehler, R., n.d. Urban Development in Mega-Cities in Developing Countries.

City Population, 2022. Vinnytsia. Available at: https://www.citypopulation.de/en/ukraine/admin/05__vinnycja/

Cohen, M., Wiek, A., Kay, B., Harlow, J., 2015. Aligning Public Participation to Stakeholders' Sustainability Literacy—A Case Study on Sustainable Urban Development in Phoenix, Arizona. Sustainability 7, 8709–8728. https://doi.org/10.3390/su7078709

Crippa, M., Guizzardi, D., Pisoni, E., Solazzo, E., Guion, A., Muntean, M., Florczyk, A., Schiavina, M., Melchiorri, M., Hutfilter, A.F., 2021. Global anthropogenic emissions in urban areas: patterns, trends, and challenges. Environ. Res. Lett. 16, 074033. https://doi.org/10.1088/1748-9326/ac00e2

Edermann, H., Bruyns, G., Buhering, J., 2023. Compactness as a Condition, Compaction as an Ambition—Potentials and Pitfalls of an Interdisciplinary Global Debate on the Compact City., in: Urban and Transit Planning. Advances in Science, Technology & Innovation.

Innes, J.E., Booher, D.E., 2004. Reframing public participation: strategies for the 21st century. Plan. Theory Pract. 5, 419–436. https://doi.org/10.1080/1464935042000293170

Jacobs, J., 1961. The death and life of great American Cities.

Li, D., Ma, J., Cheng, T., Van Genderen, J.L., Shao, Z., 2019. Challenges and opportunities for the development of MEGACITIES. Int. J. Digit. Earth 12, 1382–1395. https://doi.org/10.1080/17538947.2018.1512662

London Councils, 2022. The essential guide to London local government. URL https://www.londoncouncils.gov.uk/who-runs-london/essential-guide-london-local-government

Melnychuk, A., Gnatiuk, O., 2019. Public perception of urban identity in post-Soviet city: the case of Vinnytsia, Ukraine. Hung. Geogr. Bull. 37–50. https://doi.org/10.15201/hungeobull.68.1.3

Münster, S., Georgi, C., Heijne, K., Klamert, K., Rainer Noennig, J., Pump, M., Stelzle, B., & van der Meer, H. (2017). How to involve inhabitants in urban design planning by using digital tools? an overview on a state of the art, key challenges and promising approaches. Procedia Computer Science, 112, 2391–2405.

Ritchie, H., Samborska, V., Roser, M., 2018. Urbanization. Our World Data.

Roberts, R., 2008. The City: A Guide to London's Global Financial Centre.

Sillak, S., Borch, K., Sperling, K., 2021. Assessing co-creation in strategic planning for urban energy transitions. Energy Res. Soc. Sci. 74, 101952. https://doi.org/10.1016/j.erss.2021.101952

Silva, Carlos Nunes, Herbert Kubicek. (2010). Handbook of research on e-planning: The potential of e-participation in urban planning: A european perspective. Information Science Reference.

Steinberg, F., 2005. Strategic urban planning in Latin America: experiences of building and managing the future. Habitat Int. 29, 69–93. https://doi.org/10.1016/S0197-3975(03)00063-8

Timotijevic, J., Cukic Iva., 2024. Toward the Democratization of Urban Planning. Participatory Democratic Innovations in Southeast Europe. DOI: 10.4324/9781003426103-7

Vinnytsia City Council, 2024. How Vinnytsia City Council works? URL https://www.vmr.gov.ua/en/how-Vinnytsia-City-Council-works

Voorberg, W.H., Bekkers, V.J.J.M., Tummers, L.G., 2015. A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey. Public Manag. Rev. 17, 1333–1357. https://doi.org/10.1080/14719037.2014.930505

Wenzel, F., Bendimerad, F., Sinha, R., 2007. Megacities – megarisks. Nat. Hazards 42, 481–491. https://doi.org/10.1007/s11069-006-9073-2
World Population Review, 2024 London Population 2024.Available at: https://worldpopulationreview.com/world-cities/london-population
World Urbanization Prospects The 2018 Revision, 2018. . United Nations. Available at: https://population.un.org/wup/Publications/