

## Highlighting the relationship between smart city and quality of life. An analysis of the municipality of Iasi, Romania

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### Abstract

*The Smart City concept is essential for urban areas to develop the city through sustainable strategies. This paper assesses how the citizens of Iași, a dynamic city that quickly implemented this concept, perceive the impact of the initiatives on their quality of life, achieved mainly through the digital component. Iași is the second city in Romania in the Smart Cities ranking, especially in the smart mobility category. The results show a smart strategy mainly focused on transport, especially public transport networks and facilities. These initiatives are the most popular and recognized by citizens. Still, the results also highlighted several oversights between the vision of public actors and the population's needs. These oversights are common to initiatives related to paying taxes, registering complaints, and promoting points of interest for locals and tourists. So we can say that the course of this place and the progress made are obvious but insufficient.*

*Keywords:* smart cities, urban development, quality of life, digital inclusion

### Introduction

As smart strategies become widespread worldwide, their impact on citizens' lives is becoming increasingly visible. Today, many cities are developing smart plans aimed at incorporating initiatives into society that serve the daily activities of citizens and increase the quality of life, usually associated with their well-being. While the smart city trend emerged in North America, Western Europe, and Southeast Asia, it also slowly captured the attention of policymakers from other regions. In Romania, an increasingly dynamic sector has developed during the past decades, although inadvertencies and minor errors partially mark it due to the late and hasty implementation (Ibănescu et al., 2020, 2022). Their impact manifested upon various important aspects of the urban communities, such as the resilience capacity and resilience performance of cities to various shocks (Bănică et al., 2020;

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Pascariu et al., 2023; Sandu et al., 2021), the quality of life (Serbanica and Constantin, 2017), or the sustainable transformation of urban tourism (Bourdin et al., 2023; Pascariu and Ibanescu, 2018), among others.

Nevertheless, most of the research that scrutinized the various impacts of smart initiatives used a rather national or regional approach, most of the results being based on microlocal data. Few grassroots approaches, such as semi-structured questionnaires or interviews, can be identified. Our study tries to fill this gap by capturing how smart initiatives from one of the most dynamic Romanian urban areas are perceived and accepted by society. The paper's main objective is to give an overview of how the inhabitants of Iasi, and especially the younger generation, the most technologically connected, understand and relate to this development approach, mainly through the digital component. Furthermore, several possible issues are identified based on in-depth analyses, and solutions are suggested to improve the current situation.

The paper is structured as follows: the first chapter covers a thorough literature review on the smart city concept, both at the global and Romanian level, while trying to identify the relation between smart city and quality of life; the second chapter describes the methodological approach; while the last part details the results and the implications.

## 1. Literature Review

### 1.1. The evolution of the smart city concept from innovation to mandatory urban strategy

Given the global population dynamics and the trend towards a generalized *urban sprawl* (Brueckner, 2000), there is a growing need for models to organize urban areas better, strategies to guide them towards sustainability, energy efficiency, an environmentally friendly framework, as well as a safe and protective place (Bourdin et al., 2024). Urban areas are the main inhabited spaces, and the number of urban citizens is expected to increase in the near future (Eremia, 2017; Ritchie et al., 2023). This fact has led, over time, to the implementation of increasingly complex urban management systems and the need for continuous development of services, industries, housing, etc., with the idea of building communities that are more adaptable to the daily dynamics of life and various natural or artificial hazards.

As urban living spaces become more complex due to increasing population density, reduction of living space, the need for more green space, more parking, office and commercial space, etc., they require more attention and in-depth strategical approaches. Thus, smart city initiatives have emerged due to the need to facilitate coexistence in an increasingly complex environment and improve quality

of life (Gracias et al., 2023; Paskaleva and Cooper, 2022; Toli and Murtagh, 2020). Over time, the smart city concept has been included in many urban development strategies, and currently, there is a general trend for cities to become smart(er). In addition to the emergence of the concept, the term itself has become fashionable, used in various administrative and social contexts, in development strategies, or the public speeches of political leaders (Granath, 2016; Söderström et al., 2021). However, further investigation of the operationalization of the concept by urban policymakers raises an important question: do the policymakers fully understand what a smart initiative means and how it should be integrated within the urban strategies, or does it just look smart because it contains the word “smart”?

Eremia (2017) listed a series of terms that have been used over time to describe the cities of the future and the geographical areas where they have been mainly used. The author also mentions the various periods of popularity for each of these terms, and “smart city” is noted as being popular only since 2009, after the “digital city” was outpacing in popularity. Therefore, one can deduce that everchanging trends also influence the “smartness” of a locality, as the core concept is based on the continuous evolution of society and updated to the present-day necessities, which means considering sustainability, connectivity, or social balance.

Although there is no universal framework that defines what a smart city is (O’Grady and O’Hare, 2012), several studies have identified six key dimensions that capture the necessary aspects of a city to be considered smart (Caragliu, Del Bo, and Nijkamp, 2011; Samih, 2019; Kozłowski and Suwar, 2021; Ruohomaa, Salminen, and Kuntu, 2019; Monzon, 2015; Ghosh and Mahesh, 2015). The six smart dimensions are based on traditional regional and neoclassical theories of urban development and include economy, people, governance, mobility, environment, and living (housing). Moreover, the six dimensions are “on theories of regional competitiveness, transport, and ICT economics, natural resources, human and social capital, quality of life, and the participation of society members in cities” (Caragliu et al., 2011, p.70). The same authors underline that a city is considered “smart” if it has continuous economic growth, a high quality of life, and natural resources managed coherently. According to Ghosh and Manhesh (2015) all of this “smartness” is based on good investment in social capital, human capital, and communications infrastructure. To a certain extent, this shared vision combines the directions pursued by the six dimensions mentioned above and provides the main guidelines a city needs to follow to become smart. It is also accepted and emphasized that smart cities combine technology and the human element to ensure sustainable development that supports a high quality of life for residents (Ghosh and Mahesh, 2015).

## 1.2. The apparition and insertion of the concept in the Romanian literature and urban strategies

At the European level, there is generally a visible gap between Western European countries and the rest of Europe (Ibanescu et al., 2022). Central and Eastern European cities do not focus on long-term development strategies but rather apply short-term solutions, which are often not correctly integrated (Ibanescu et al., 2022). In the European Union, several actions have been initiated for metropolitan areas aiming at urban development through smart city projects (Caragliu et al., 2011). However, the concept remains relatively new for CEE countries, such as Romania. Nevertheless, an accelerated catching-up process has been observed during the past decade, especially during the first pandemic wave (Pascariu et al., 2023; Sandu et al., 2021). Furthermore, one can observe a broader diversification of smart initiatives and the emergence of original, territorial-based smart projects.

In Romania, the literature focusing directly or adjacently on the smart city concept originated in the technical (Eremia et al., 2017), economic, and administrative fields (Alpopi, 2016). The geographical, spatial-based approach appears later, and it still encounters difficulties in being fully induced in urban policies (Bănică et al., 2020; Ibănescu et al., 2022; Pascariu et al., 2023; Sandu et al., 2021), thus, creating imbalances in terms of prioritized interventions. Besides the discrepancies in field representation, the Romanian urban smart development encountered additional issues related to unreliable inventories of smart initiatives. To date, besides various reports generated by the company Vegacomp<sup>5</sup> and smart city platforms generating databases with self-reported smart initiatives, there is little to no information regarding smart city implementation. Furthermore, the existing reports present contrasting data sets and lack in-depth analysis and local mapping of initiatives. Therefore, the overall image of smart city development is still unclear.

In the Romanian map of smart development, as unclear as it may be, Iasi city stands as a reference, both in national reports and the scientific literature (Baltac, 2019; Ibănescu et al., 2022; Ivan et al., 2020; Pop and Proștean, 2018). The intensity and dynamics of smart initiatives place the city among the national frontrunners and ensure a decent ranking at the European level (Misinciuc, 2019). However, the leading position of Iasi is often based on quantitative approaches that focus almost exclusively on the number and budget of smart initiatives and less on their impact. Very few studies scrutinize smart initiatives' impact on citizens' well-being and quality of life. Most likely due to the excessive technological and economic approach that dominated the "smart" discourse, the policy implementation omitted aspects related to the perceived effects by the inhabitants.

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<sup>5</sup> <https://vegacomp.ro/category/smart-city/>

The transportation sector is the most popular (by far) of all Romanian smart strategies. For example, in Iasi, this sector dominates the smart discourse, primarily due to the numerous smart initiatives it encompasses: from safety measures (such as surveillance cameras) to the electric fleet of vehicles (trams and buses), the provision of information to citizens about public transport through apps and station panels, and the purchase/payment options for tickets and subscriptions, both physically and online.

### 1.3. The place of the quality of life in urban smart strategies

Over time, the concept of quality of life has been intensively studied and has received various definitions. Most of them refer to the relationship between the physical space and its inhabitants and the way a person perceives everything that this relationship implies: material, emotional, social, and human (Banica and Muntele, 2020). There are also several additional terms associated with this concept, namely happiness, well-being, and satisfaction (Marans and Stimson, 2011; Gheorghiu and Ibanescu, 2023). Attempts have been made to measure the quality of life or to find objective standards, but the degree of subjectivity involved is relatively high and difficult to manage methodologically. Over the years, several studies have been undertaken to provide an “objective” analysis based on official, statistical data (Gheorghiu and Ibanescu, 2023) or a subjective analysis based on surveys that analyze people’s perceptions (Senlier et al., 2008).

At a global level, the World Health Organisation has also defined the project WHOQOL (World Health Organisation Quality of Life), which aims to find a universally valid method for assessment. The definition emphasizes the idea that quality of life is a subjective assessment related to the cultural and social components of each individual: “WHO defines quality of life as an individual’s perception of his or her position in life in the context of the culture and value systems in which he or she lives and in relation to his or her goals, expectations, standards and concerns”.<sup>6</sup>

The concept of quality of life presents many facets. Therefore, research is no longer concerned with establishing a lasting definition but rather with identifying practical tools for measuring and analyzing it. As a result, most research in this area in the past three decades has focused on identifying and developing new and innovative ways to measure the quality of life in its various forms and derivations. Given the complexity of the concept, objective, subjective, and integrated approaches have been used to examine it from different angles and at different scales (McCrea et al., 2006), demonstrating the importance of the findings for academics and policymakers. Despite this, scholars

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<sup>6</sup> <https://www.who.int/tools/whoqol>

conclude that there is no direct correlation between the results obtained through objective and subjective methods, demonstrating the difficulty of providing a unique and unified measurement (Schwarz and Strack, 1999). The European Commission has reignited the interest in measuring the quality of life through the Urban Audit tool by measuring perceptions of various parameters of urban quality of life in 79 European cities and metropolitan areas since 2007. The questionnaire, carried out every 5 years in each of these cities, reveals the inhabitants' general perception of the different sub-domains of quality of life. The results show a clear spatial pattern in the perception of quality of life, with large Mediterranean and Eastern European cities having the lowest quality of life scores. In contrast, small and medium-sized cities in Nordic and Western countries show the highest scores (Roşu, Corodescu and Blăgeanu, 2015).

The interest in adequately measuring the quality of life overlaps with the increasing sprawl of urban smart initiatives, which is unsurprising given the declared core objectives of smart strategies. While smart city initiatives aim to improve the quality of urban life, little is known about how and if they manage to achieve it. Currently, numerous national and international hierarchies address the concepts of smart city and quality of life. However, most of the time, this is made individually for each of them such as IESE Cities in Motion Index (CIMI) for smart city and for quality of life an important ranking is Eurobarometer. The various existing hierarchies are generally produced by organizations, local authorities, or institutions (Toh, 2022) to assess the level of development and observe the strengths and weaknesses of different areas of development. Among the most popular rankings for the smart city segment are the Smart City Index (IESE Business School) and Global Smart City Index (Quantum), while for QoL are Monocle and Numbeo and Urban Audit (instrument of European Commission for monitoring cities across Europe).

These rankings are important for several reasons. They help decision-makers to identify key areas for development, identify critical issues that need to be addressed, and provide a set of "best practices" that can be later adopted by other urban areas (Giffinger et al., 2007). At the same time, it should be mentioned that the same rankings do not stand as an integrated evaluation measure, sometimes being nothing more than the result of local government marketing strategies (Giffinger and Haindl, 2009). Each city has its contexts of development, legislation, implementation, and acceptance of proposed initiatives; therefore, the rankings' analysis may not truly capture the entire progress of an area.

While rankings are necessary as a point of reference, they do not fully reflect the level of acceptance of smart projects, nor the entire impacts upon inhabitants' quality of life, sometimes potentiating increasing inequalities between individuals or between center and periphery within cities

(Borruso and Balletto, 2022). As defined by Caragliu et al. (2011), there are six main directions in constructing the smart city concept, each of which improves citizens' quality of life while reducing social inequalities.

In recent years, there has been significant interest in identifying the link between smart initiatives and quality of life, with some studies aiming to highlight how they manage to improve the improvement overall quality of life in urban environments (Macke et al., 2018; Rodríguez Bolívar, 2021). Smart cities use technology to improve urban life, including transportation, energy consumption, public safety, healthcare, and education. In addition to these benefits, smart cities can also improve the overall quality of life for residents by providing better access to information and services, improving communication and social interaction, and creating more opportunities for growth and economic development (Gracias et al., 2023; Zhu et al., 2022).

However, it is difficult for policymakers to apply the smart initiatives uniformly across the city, and certain drawbacks may appear, such as widening gaps that result from unequal access to the internet or specific digital devices, major differences regarding the distance to the nearest bus stop, etc (Nijholt, 2020). To implement the concept for the benefit of the whole community, a range of services covering the entire urban area is needed so that the whole community has similar high accessibility to the services offered by the city. The level of education of the population in the use of digital technology must also be brought into the discussion. It is necessary to take into account the education of citizens in promotional campaigns or to involve them when they are new users.

Fredericks (2020) presents the importance of collaboration and interaction between policymakers and citizens to properly develop urban environments and achieve innovation or new skills to meet the latest needs of cities. However, the few existing studies (Vázquez et al., 2018; Wang and Zhou, 2023) that examine the extent of the link between quality of life and smart cities fail to address the strength of this link, despite the growing evidence of smart initiatives presence in citizens daily life. Furthermore, a study based on a questionnaire and t-tests addressed to students in Spain obtained results according to which there are differences and discrepancies between the expected results of smart initiatives and their actual, perceived effects (Vázquez et al., 2018). This study also argues that residents' experiences are critical in creating urban planning, as they directly impact their quality of life. Moreover, the technological dimension, which should be a mediator of interaction between citizens and urban components, is differently perceived by policymakers and citizens. As per the investigation conducted by Wang and Zhou in 2023, a discernible negative correlation was identified between sentiments of happiness and ICT. Furthermore, contingent on one's educational

attainment and age cohort, divergent perspectives were discerned concerning the influence of investments in smart city infrastructure on the quality of occupational endeavors.

## **2. Methodology**

In order to investigate this complex relationship between smart initiatives and quality of life we decided to apply a representative questionnaire in the study area (Iasi city, Romania). The instrument was developed after a thorough consultation and in-depth analysis of all smart initiatives implemented in Iasi during the past decade. Each initiative was assessed based on their type and dimension, as established by the literature. The instrument also included elements from the European-wide Urban Audit which analyses the quality of life in 79 European cities every few years, looking at various, such as transport, culture, public administration, etc.. Afterwards, the instrument was pre-tested within a representative group of 30 participants, and following several corrections, the research team started data collection.

The data collection implied both online and physical forms of the questionnaire to ensure the widest possible coverage of the local population. Through this approach, we aimed to obtain a detailed and representative picture of citizens' perceptions. The use of online platforms allowed us quick and efficient sampling especially for the younger population, while the physical application of the questionnaire in different locations in the city of Iasi ensured the participation and feedback of age and occupational groups with limited access to an online environment. Our survey is structured to cover several relevant aspects of urban life, as well as the perceived impact of smart city projects. It includes questions on transportation, environment, public services, access to technology and security, all taking into account the basic principles of smart cities. The data analysis step included both advanced statistical techniques and qualitative interpretation of the open responses.

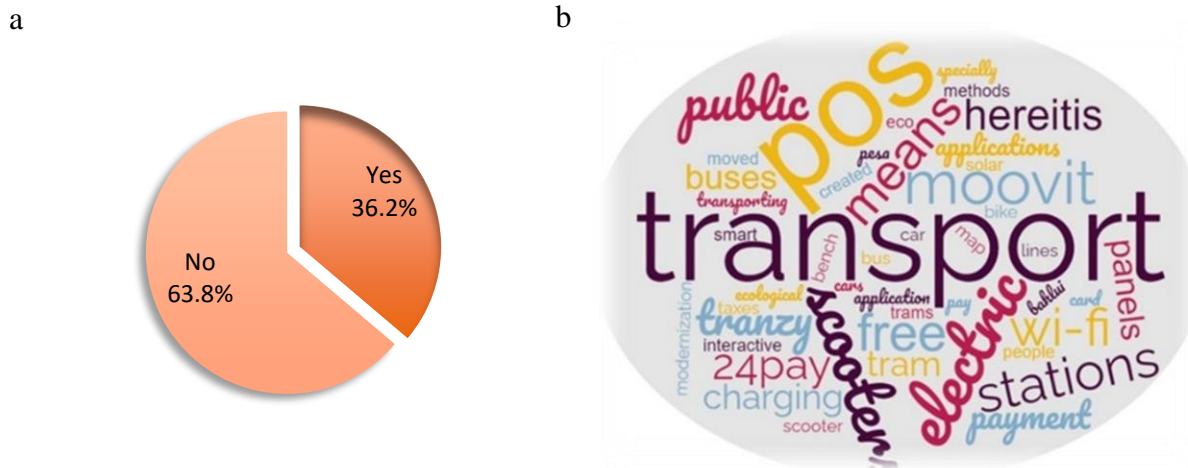
## **3. Results**

### **3.1. Awareness of smart initiatives**

The results show that the citizens are only partially aware of the existing smart initiatives in the city. Specifically, a majority of "NO" (not aware of smart initiatives in the city) appears, 63.8% weight of the total, while the "YES" (aware of smart initiatives in the city) was the choice for 36.2% of the total (Figure 1).



**Figure 1. Awareness of initiatives within respondents: a) Pie chart of response percentage; b) Wordcloud of known initiatives by respondents**



Source: own representation

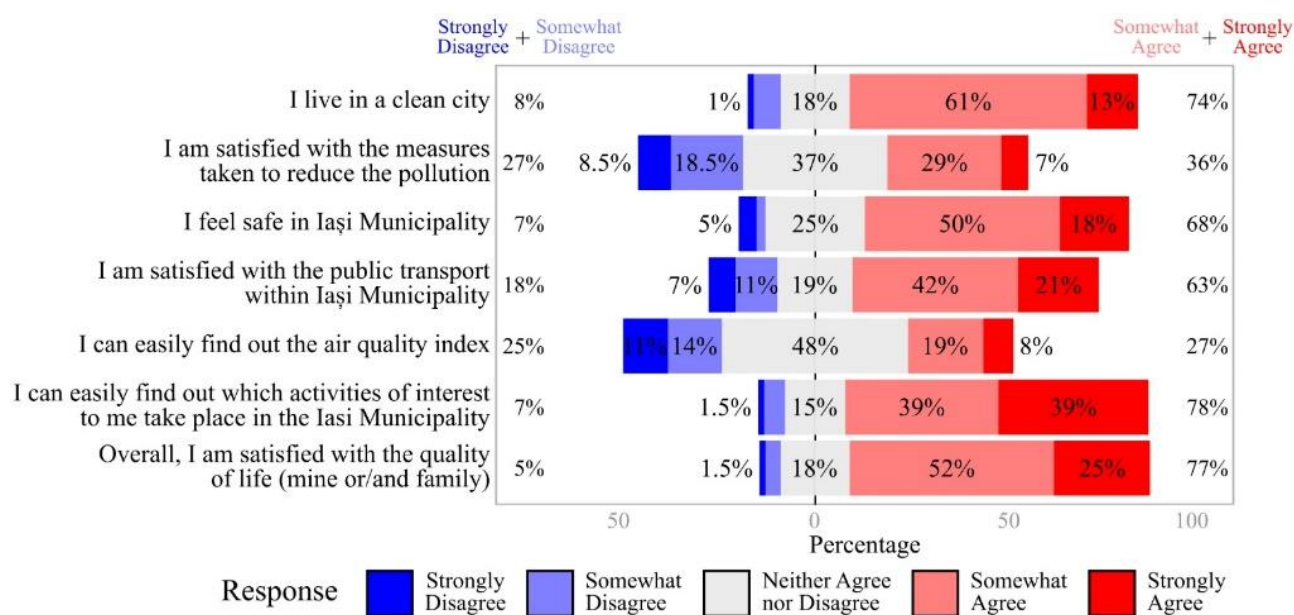
Among the most frequently mentioned initiatives or elements associated with the concept, those related to public transport stand out, also highlighted in the wordcloud graph (Figure 1). Among the most frequently mentioned words are: hereitis, electric, transport, public, POS, scooter, moovit. Currently, transport is a very active development direction in Iasi, and this may explain the fact that citizens are aware of the applications, functions, etc. in this field. This question was answered by less than half of the respondents, which underlines the fact that the population does not know the concept or does not associate it with the existing initiatives in Iasi. However, it is possible that among those who did not answer, there are people who use the initiatives all the time, but do not know that they are part of a recently launched concept, or perhaps do not know exactly what they are called. This means that there is also a problem of communication, insufficient promotion. There is a need for accurate and continuous information that keeps pace with developments.

This observation raises important questions about the effectiveness of communication and awareness strategies regarding new urban initiatives in Iasi. It suggests a potential gap between the implementation of sustainable transport solutions and the population’s understanding or recognition of them. The lack of awareness could impede the full social and environmental benefits of these initiatives, as community engagement and active participation are crucial for their success. Furthermore, the findings indicate a need for more targeted information campaigns that not only promote the use of these services but also clearly explain their connection to broader sustainability goals.

### 3.2. The aspects related to the quality of life

Starting from the fact that one of the basic objectives of a smart city is to improve the quality of life of its inhabitants, the aim was to understand the perception of the inhabitants about their quality of life and how they relate to it, depending on certain general aspects that also result from the presence, application and use of smart initiatives. It was found that most of the respondents perceived the positive impact of smart initiatives on their quality of life. The statements in the section on people’s satisfaction with their lives, public transport, safety and cleanliness in the city had the following response options (Figure 2): strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, strongly disagree. The answers to all 4 questions are mostly uncertain, with no statements receiving the options “strongly agree” or “strongly disagree”. Most of the responses are to the “somewhat agree” option, which can be interpreted as a satisfactory stage in the city’s long development path. This response may indicate that there are higher expectations from the initiatives, as well and that they fail to fully meet citizens’ needs.

**Figure 2. Likert plot of citizens perceptions about their quality of life in Iași city**

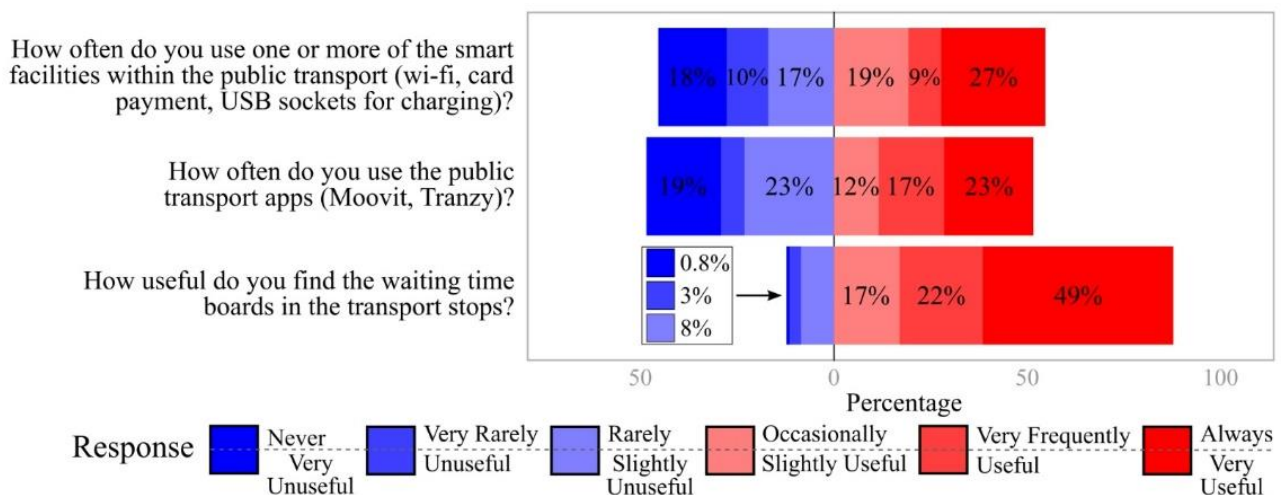


Source: own representation

Regarding transport data, the analysis considered smart features on trams, buses, and the availability of free applications that residents can use to check routes and waiting times. As illustrated in Figure 3, the respondents’ answers do not reveal a clear consensus but instead suggest a diverse and dynamic pattern of responses. The overall trend indicates that the use of these smart transport

facilities is generally widespread, though it reflects a current and evolving practice rather than a uniform or stable adoption. This fluctuating response may be due to dissatisfaction with long waiting times at stations or the price of tickets.

**Figure 3. Likert plot of citizens perceptions about their transport facilities in Iași city**



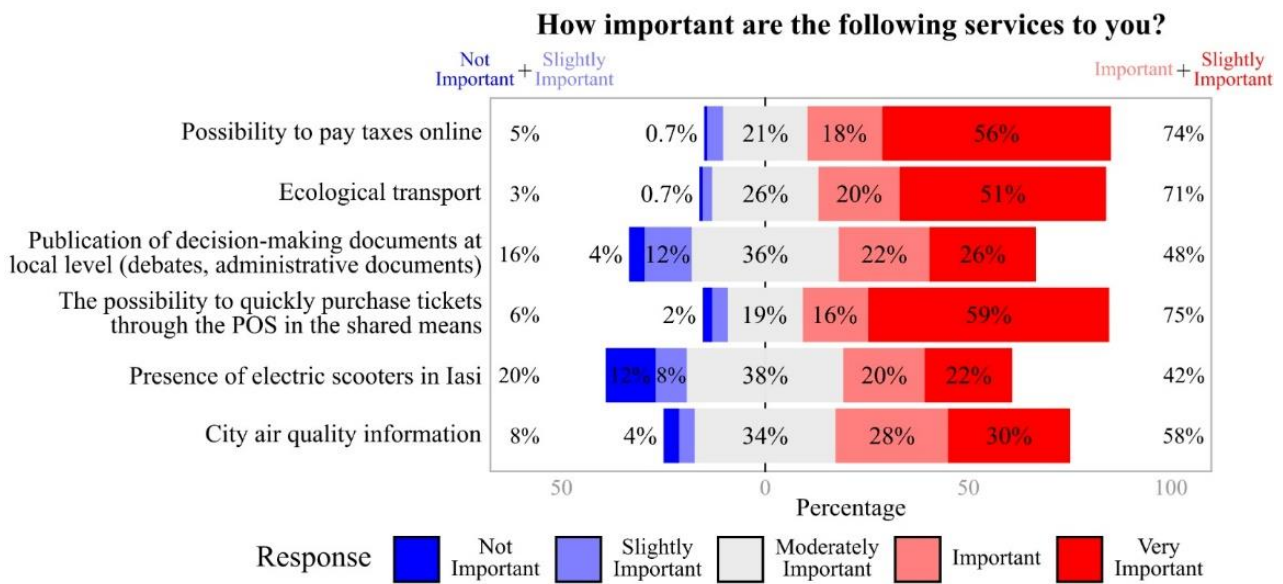
Source: own representation

The fourth section presents the importance of some services in the life of citizens. They aim at improving some aspects related to the quality of life, which make it easier for citizens to carry out their daily activities or to observe how the city of Iasi is managed. The answers are mostly positive, with the options supporting the importance of services being the most chosen. It is clear that online toll payment services, ecological transport and the possibility to buy tickets via POS machines are highly appreciated. There was less interest in the services of publishing decision documents by the administration and electric scooters.

### 3.3. The distribution of initiatives across the smart axes

The distribution of initiatives across the six main smart axes appears uneven, yet each axis includes representative projects that citizens engage with to varying degrees and levels of accessibility, depending on their awareness. Additionally, it is important to consider that certain initiatives may simultaneously fulfil the criteria of multiple axes. As a result, several initiatives in this study are positioned at the intersection of multiple categories, reflecting these projects' complexity and multifaceted nature.

**Figure 4. Likert plot of citizens perceptions about importance of services in Iași city**



Source: own representation

According to the data collected, **smart governance** has a relatively high level of awareness, but the initiatives, although known, are not used as much or are not considered easy to use (Figure 5). Of the initiatives considered in the study, five fell into this category (Table 1). The most widely known and used initiative was the 24pay app. This application works in several cities in Romania and is not a local product.

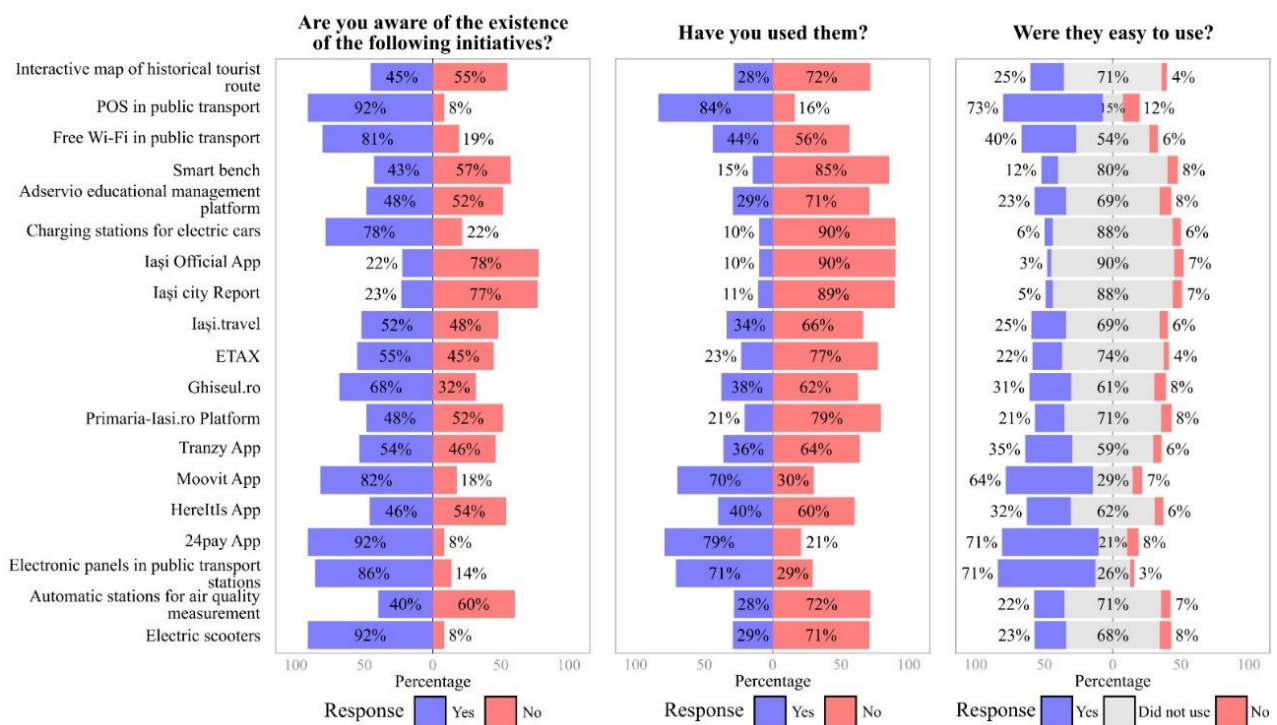
The results for the smart living category show that the initiatives are poorly known, even less used, and not easy to use. Two initiatives have good results for all three questions, namely, free Wi-Fi on transport and the 24pay app. The latter is the most successful and maintains its appreciation, as in the case of the analysis of the smart governance axis.

The **smart mobility** axis is the best represented in terms of the number of initiatives, as is the case in most cities in Romania (Table 1). It has a high level of awareness among the population, the level of use of initiatives is high and it is the most accessible axis in terms of the use of initiatives that are both physical and virtual (apps). In general, public transport is very well represented in the smart strategies of Iasi City Hall.

The initiatives associated with the **smart people** axis appear to be the least popular (Table 1). The number of initiatives within this category is quite limited, and respondent feedback further suggests that these projects have not gained significant traction in the community. They are characterized by low levels of awareness, limited usage, and restricted accessibility. Within this category, the Adservio platform is a notable example, primarily utilized in the education sector by students, teachers, and parents.

The **smart economy** sector is extremely dynamic, especially in terms of payments, with transactional initiatives being the most used. The development and use of payment applications and platforms has been accelerated during the pandemic. For example, ETAX is an application that facilitates the remote payment of taxes, which was very necessary during periods of restrictions. However, Figure 5 shows that it is not widely used by the surveyed population.

**Figure 5. Likert plot of citizens perceptions about the most popular initiatives and how used they are in Iași city**



Source: own representation

Despite being a pressing and widely discussed topic both locally and globally, environmental initiatives remain neither numerous nor diverse. The **smart environment** domain is notably the most underrepresented area in Iasi, as well as in other major Romanian cities, reflecting a clear lack of support for environmental efforts. This scarcity highlights a significant gap in addressing environmental sustainability through smart initiatives.



we want to mention a series of possible solutions and recommendations that would facilitate the use, accessibility and visibility of the initiatives.

Given the state of digitalization in Romania and the observed decline in digital literacy with increasing age, smart initiatives should be designed to be accessible to a broad segment of the population, not just younger or middle-aged individuals. Additionally, these initiatives, often developed as applications, should evolve beyond their current form. For example, real-time updates on air quality, public transport arrivals, traffic conditions, events, and weather forecasts could be displayed in public transport stations or high-traffic areas. While some panels already exist, they are not widespread across the city. Therefore, efforts are needed to ensure this information is accessible to all citizens, regardless of their neighbourhood.

Furthermore, given the current dominance of initiatives in smart mobility, actions must be launched to develop initiatives in other categories in order to reduce the existing gap, to create a coherent environment, to support the development process even more rigorously and, at the same time, to create a framework in which the quality of life is taken in consideration.

For better communication of information between public administration and citizens, attention should also be paid to the direction of participative administration. Real-time communication, coming from both sides, can lead to a quick resolution of any problems, or in this way, complaints, possible solutions and even the creation of a favourable environment for both, through good cooperation based on communication. various ways.

A more extensive promotional campaign is necessary to help citizens understand their role in the development process and the importance of these concepts in creating a better living environment. This would also encourage them to incorporate smart solutions into their daily routines to fully benefit from what is offered. Solutions with positive outcome would be a recognizable image of the smart city, such as a city logo to identify smart components, along with leaflets and colourful stickers, crucial for promoting and highlighting smart initiatives. These elements ensure not only visibility but also a higher familiarity for residents. Future smart projects could extend to areas like healthcare, energy, waste management, government services, street lighting, public safety, and traffic management.

## **Conclusions**

Based on our results, Iasi Municipality can be assessed as in a fully developing process with many and diverse actions related to smart city. These initiatives create multiple partnerships and

attractive environments for new and intelligent ideas, placing them at the national top. The study's results indicate that Iasi is among the cities with comprehensive access to the implementation and optimization of smart resources. The presence of these initiatives has fostered numerous partnerships, even positioning the city among the leaders in terms of the number of smart projects. This has also led to the creation of dynamic and attractive environments that encourage the development of new ideas. Consequently, the concept of smart urban development can no longer be overlooked or treated superficially, as demonstrated by the substantial number of initiatives and their significant societal impact.

Today, the Smart City is becoming indispensable in the efforts of local authorities to develop and create an environment that generates the highest possible level of quality of life, that is sustainable and, at the same time, able to keep pace with changes over time. It is an essential contribution to creating communities and living areas that are resistant to the possible disruptions. The concepts of quality of life and smart city influence each other and have a common denominator: *sustainability*. The initiatives that outline the smart city concept have a direct impact on improving the perception of the level of quality of life.

Currently, as the data analysed indicate, the initiatives in Iasi are primarily centered around transportation, with a particular emphasis on public transit. These transport-related initiatives are the most recognized and popular among citizens. However, there is a noticeable lack of uniformity in their implementation throughout the city. For instance, electric information panels are only present at select transport stations, creating inconsistencies and even fostering negative perceptions of the smart city concept.

Additionally, the concept itself has not been extensively promoted, leading to citizens being aware of the initiatives but not feeling a personal connection to them. This disconnect poses a significant challenge in the effort to expand and better integrate these initiatives into daily life. Furthermore, there are perception issues, as the facilities provided are not always associated with an improved quality of life.

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