Open Local Governance

The Case of District Cities in Slovakia

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Abstract. The concept of open governance is a renewing approach that became more actual due to the progressive development of modern technologies, that makes it easier to access, work with and use information to make smart decisions and implement smart solutions. Open governance is a culture of governance based on innovative and sustainable public policies and practices inspired by the principles of transparency, accountability and participation that promote democracy and inclusive growth. Moreover, from the theoretical point of view, the paper highlights and explains also the link between the open governance and concept of smart governance. Subsequently, the paper presents the partial research results of the questionnaire survey among the representatives of the Slovak district cities realized in 2024 focused on identifying the level of open governance that they implement. The results showed that there is a significant gap between the theoretical and practical level of implementation of open governance in Slovak district cities, especially in participation of stakeholders. The cities prefer to use the obligatory and offline tools for the stakeholders´ engagement into policy making, what is not in line with the international trends as well as with trends in local policy and development. The limited attention is paid to the ethical aspects of open governance, digitalization and education of municipal employees involved. Based on the comparison of research results with the recommendations of OECD, EU and OGP, the paper proposes the potential recommendations on how to develop further this concept and overcome the identified barriers with support of smart solutions.

Keywords: Open local governance · cities · principles · barriers

1 Introduction

Advancements in digital technologies profoundly reshape urban interactions and governance networks, significantly transforming the nature and dynamics of local governance [1]. Increasingly, local governance activities migrate into digital spaces, enabling the emergence of innovative collaborative structures and novel methods and tools for policy formulation [2, 3]. This digital transition places local governments in a fundamentally different, often less visible but increasingly facilitative role. Smart city initiatives

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that leverage information and communication technologies (ICTs) offer unprecedented opportunities to engage diverse stakeholders directly in the policy-making process [4]. Critical to their success is the effective utilization of data analytics to support tailored policy decisions responsive to the evolving needs of urban environments and their inhabitants [5]. Smart governance, therefore, intensifies the drive toward greater openness in local government operations, typically manifested across three core dimensions: accessibility, transparency, and public participation [6–8]. Such openness ensures policy development grounded in transparent dialogue, active citizen participation, and unrestricted information flows, consequently enhancing governmental accountability, trust, and stakeholder collaboration. Ultimately, smart governance substantially contributes to fostering municipal openness, efficiency, and responsiveness through digital innovation, data-driven decision-making, and inclusive participatory processes, thereby reinforcing democratic governance at the local level [2, 9].

Our previous research in the Slovak cities conduced in 2021 showed that 76% of the cities[1] have the ambition to be smart governed [10], even there is a lot of obstacles that should be overcame. Because of our presumption that smart governance leads to open governance, we have focused our next continuous research on the investigating the openness of local municipalities. In the paper, we specifically focus on the selected first results oriented on the implementation of open governance principles in practice of the cities and identification of implementation barrier on the examples of Slovak district cities.

This issue was already partially researched on the examples of famous smart cities, as Chicago, Vienna, Madrid or based on the comparative approach among selected cities [11, 12, 47]. However, our research is oriented on the Slovak cities, which belong by their size to small cities. Just two district cities have more than 100 000 inhabitants, and the rest of cities (98,58%) have less than 100 000 inhabitants. So, the originality of the research in open governance is focused on small cities. These cities are often limited in the financial or human resources, and the smart and open governance tools could help them cover this gap and integrate the innovations to become more effective, accountable and responsive.

The paper aims to analyze and evaluate critically the implementation of the open governance approach in district cities in the Slovakia with focus on its priorities, key activities that they realize with aim to implement the principles of open governance and identification of the barriers to develop this concept more systematically. The paper is specifically focused on Slovak district cities.

The remainder of the papers is organized as follows. Section 2 is theoretically oriented on the definition of open governance and its overlap with a smart approach to governance, its specifics, principles and tools in cities. Section 3 details the methodology of realized research and characterizes the data used. The third section is devoted to the presentation of the research results and their critical analysis. To conclude the paper, we summarize the main research findings and formulate recommendations for fostering open governance in the cities.

[1] The research sample consists of 67 cities from 141 all Slovak cities. The respondents were the mayors, their deputies or head of municipal authority.

2 From Smart to Open Governance in Cities

The increasing digitalization of urban governance has given rise to smart governance, a concept that leverages information and communication technologies to enhance decision-making, service delivery, and citizen engagement in cities. Smart governance emphasizes efficiency, data-driven policymaking, and participatory mechanisms that enable more responsive and transparent urban administration. It contributes to the governance at the local level in fostering transparency, inclusivity, and citizen empowerment by ensuring that government data, decision-making processes, and policy outcomes are accessible to the public [13]. The intersection of these two governance models is shaping a new paradigm of urban administration, where technology-driven solutions facilitate open and democratic governance at the local level.

Smart governance serves as an enabler of local open governance by providing digital tools and platforms that enhance citizen participation and accountability. Open data portals, e-government services, and digital feedback mechanisms allow for greater accessibility to public information, thereby reducing information asymmetry and strengthening trust between local governments and citizens [14]. Moreover, smart governance fosters connected intelligence, wherein data analytics, artificial intelligence, and real-time monitoring support more informed and decentralized decision-making, aligning with the principles of openness, accountability and citizen involvement [10, 15].

At the same time, local open governance reinforces the democratic legitimacy of smart governance initiatives by ensuring that technological advancements do not merely serve efficiency-driven objectives but also contribute to public value creation. The implementation of participatory budgeting platforms, crowdsourced policy deliberation, and collaborative urban planning initiatives exemplifies how smart governance tools can be integrated into an open governance framework [16]. However, the effectiveness of this relationship depends on the extent to which digital governance solutions are designed to be inclusive and accessible, preventing the exclusion of marginalized groups due to digital divides or technological barriers [17].

The open governance paradigm examines the evolving dynamics of stakeholder cooperation, with a particular emphasis on citizen engagement and emerging collaborative models such as citizen science, large-scale co-production, and crowdsourced deliberation. These developments are largely driven by advancements in information technology.

The convergence of smart governance and local open governance represents a transformative shift in urban city management, where technology is harnessed not only to optimize governance processes but also to enhance democratic participation, transparency, and public accountability. As cities increasingly adopt smart governance strategies, ensuring their alignment with open governance principles remains crucial in fostering more inclusive and citizen-centric urban development.

Open governance is based on three principles: transparency, participation and accessibility [8]. Transparency refers to making government data, processes, and decisions available to the public. By Florini [18] the transparency refers to the degree to which information is available to outsiders that enables them to have informed voice in decisions and/or to assess the decisions made by insiders, especially politicians, political advisers or bureaucrats. Roberts [19] adds that even it is a project of scrutiny by outsiders, it is

also a project of publicity by insiders. It gives to insiders more discretion in deciding when and how to release information. The great progress in information and communication technologies introduces also the new level of transparency known as radical transparency linked with the radical openness [20]. The radical transparency includes open data, interactive communication with citizens, and a culture of transparency [16, 21].

Participation allows citizens, stakeholders, and experts to contribute to policy making. In open governance, citizens are engaged by various forms of citizen-to-citizen (C2C) interaction, unofficial democratic practices, and citizen science initiatives [22]. It is closely connected with fostering the community engagement as a process of cooperation with the various stakeholders from community to contribute to address the issues of public policy and create positive change. It is a source of connected intelligence, which is distinguished by decentralized decision-making, the absence of traditional hierarchical leadership, and the strategic use of big data. Due to the impact of IT progress there can be identified also the new forms of community engagement as digital altruism or crowdsourced deliberation. It fosters the co-creation of public value, the development of shared public resources, and the formation of data-sharing communities [23]. Crowdsourced deliberation serves as an open call for participation in online public policy tasks by submitting information, knowledge or talent, a foundational element in promoting inclusive, equitable, and participatory decision-making. Enabled by advanced digital technologies, these open and asynchronous discussions contribute to greater collective engagement and enriched democratic discourse [24, 25].

The last principle – accessibility ensures that information, government services are and decision-making processes easy to understand and reach diverse populations.

OECD [26, 27] adds to these principles also integrity and accountability. Integrity of the public sector includes the ethical values, principles and standards that promote implementations of other principles of open governance including anti-corruption measures [28]. From the perspective of governance, accountability refers to division of tasks and responsibility to all involved partners. Moreover, the partners, including managers of public sector must be prepared to account to other stakeholders for the overall performance of the partnerships [29]. Public accountability includes mainly strengthening complaint mechanisms, independent oversight bodies and ombudsmen institutions, while identifying incentives for government to provide feedback to citizens and civil society organisations [30].

Within the realm of public policy, the open governance approach is instrumental in fostering increased trust in institutions, although it is not without its challenges [31–35]. By empowering citizens, this model seeks to enhance democratic processes and inclusivity within governance structures.

Open governance embodies emerging models of collective engagement aimed at addressing complex public policy challenges, enhancing societal knowledge, and transforming traditional public service delivery. Innovative open and collaborative organizational forms in cities point not only to a wide range of digitally connected actors, but also to a fundamentally different and less visible role for government in these relationships.

Millard [36] posits that the open governance framework comprises three fundamental pillars: open data, open services, and open processes. Open data constitutes a crucial

asset within the public sector, facilitating collaboration, co-creation, and evidence-based policymaking. The availability and accessibility of such data are integral to fostering transparency and participatory governance.

Open services, within this framework, are distinguished by a high degree of personalization, incorporating behavioural insights and design thinking at every stage of service delivery. This user-centred approach enhances adaptability and responsiveness in the provision of public services.

Open processes emphasize the active engagement of all legitimate stakeholders in policy formulation, decision-making, and public sector governance. This participatory approach strengthens public value by ensuring inclusivity and deliberative engagement. Within this paradigm, the government functions as a platform that fosters innovation, supports societal progress, and addresses complex societal challenges.

Furthermore, information and communication technologies (ICTs) are conceptualized as essential enablers, enhancing the capacity of the public sector to operate with greater efficiency, innovation, and responsiveness. By leveraging ICTs, governments can more effectively fulfil their mandates while aligning service delivery with evolving societal needs.

The practical implementation of open governance principles necessitates the engagement of skilled and competent public sector employees. Given the rapid evolution of new technologies, which are increasingly integrated into participatory and co-production tools, continuous education and training should be prioritized by public administration management.

3 Material and Methodology

This paper aims to critically analyze and evaluate the implementation of the open governance approach in Slovakia. It specifically addresses the priorities and key activities these cities undertake to apply open governance principles. Furthermore, the study identifies and examines barriers hindering the more systematic development and integration of this concept, focusing explicitly on the case of Slovak district cities.

Our central research question is "How are the principles of open governance in Slovak district cities implemented?". We address this question through a comparative analysis, discussing the theoretical framework of open local governance with empirical evidence obtained from primary research into governance practices within Slovak district cities.

In the first step of our research, we defined the theoretical framework of open governance at the local level and its linkage with the smart local governance. It helped us to define from the theoretical point of view as well as based on our previous research results (see reference 10) the basic principles, areas and tools of open local governance as well as most common barriers to implement this concept. Subsequently, we realised the primary research. We focused specifically on the case of Slovak district cities. The district is the lowest administrative unite with wider statistical indicators collected by the Slovak Statical Office (what is very important for the further research and comparison of selected results) and by this selection we excluded also very small cities (with less than 5000 inhabitants). The basic sample includes 71 cities form 141 cities of the Slovak Republic with the size from 5000 inhabitants (Table 1).

Table 1. Composition of the research sample by size category

Number of citizens	Research sample of district cities	%	All district cities in Slovakia	%
5000–9999	7	12,07%	11	15,49%
1000–19 999	20	34,48%	24	33,80%
2000–49999	23	39,66%	27	38,03%
More as 50000	8	13,79%	9	12,68%
	58	100,00%	71	100,00%

The return rated of questionnaire survey as a main research method was 81,69%, what includes the responses of 58 cities. According to the Chi-square test result (& = 0,05), the research sample is representative in terms of the size category.

The primary research was realised from March to October 2024. The questionnaire survey was prepared by Qualtrics distributed by e-mails in three rounds to increase the level of responsiveness. The survey consists of 26 questions including the set of identification questions, open questions as well as closed or semi-closed questions with the Likert scale. To meet the aim of the paper, we present the selected research results. The respondents were mayors (13,79%, 8 respondents), mayors deputies (10,34%, 6 respondents), heads of the municipal authority (34,48%, 20 respondents) and other employees of the municipal authority (39,66%, 23 respondents). The other employees of the municipal authority belong the coordinators for participation, managers of project activities, layers of municipal authority, referents from the municipal authorities dealing with the issues of open governance and PR managers of local municipalities. The composition of respondents presents Fig. 1. The most of respondents were university educated (94,83%, 55 respondents), just 2 respondents have secondary education with high school diploma

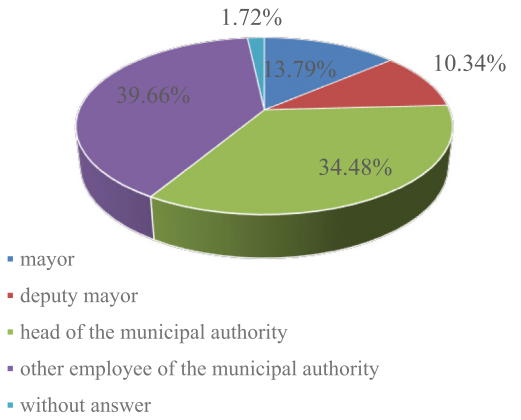

Fig. 1. Respondents of the questionnaire survey by positions

and one respondent without. By the age, 41,38% of respondents belong to the age category 40–49 years old, 23,31% respondents to 50–59 years old, 17,24% respondents to 60 years and more, 12,07% to the category 30–39 years old.

To process the collected date, we use the MS Excel, methods of descriptive statistics and to verify the composition of the research samples we use Chi-square test and for selected correlations we applied the analysis of variance (ANOVA).

The research can be considered as a pilot one, because there is no evidence about the similar studies conducted in the conditions of the Slovak Republic, which means that we do not consider the spatial distribution of the cities within presented research results.

4 Research Findings and Discussion

The focus of the research within the paper is on general knowledge of open governance in district cities, on priorities of its implementation, key activities that cities realize in implementing the principles of open governance and identifying the barriers to develop.

On the general knowledge of open governance in cites, we asked by open question. 81,03% of respondents know the term "open governance, and 13,79% respondents do now know. 3 respondents did not respond the answer.

In the next question, the respondents should identify the most important principles of open governance. They evaluated each area on the scale from 1 to 5, where 1 was the most important and 5 the least important. The average evaluation of each aspect of open local governance presents Table 2.

Table 2. Importance of open local governance principles

Participation and partnership	Participation in local policy-making	1,78
	Civic participation	2,24
	Participation in the drafting of general binding regulations	2,40
	Participatory processes in project implementation	2,70
	Networking of cooperating stakeholders	3,19
	Digital tools for participation	3,56
	Co-creation of public services	3,67
Accessibility	Access to information and its publication according to Act No 211/2000 Coll. on free access to information	2,71
Transparency	Transparency of processes	2,72
	Publication of open data	3,53
Accountability	Building trust	2,68
	Methods and techniques for building public awareness of open governance	3,17
	Monitoring and evaluation of local policies	4,10
Integrity	Integrity and ethics in open governance	4,29

By the respondents the most important principle of open governance is a participation. It is confirmed by the highest evaluation of traditional types of participation including participation in local policymaking; civic participation; participation in the drafting of general binding regulations and participatory processes in project implementation. The weakness is the low recognition of importance of new digital tools and participation in a form of co-creation of public service by respondents. The transparency and availability are closely interconnected and their evaluation is on the similar level in the area of transparency of process and access to the information. However, the respondents evaluated the publication of open data as less important, it contradicts with the theory [10, 14] and recent development which led to the radical transparency [20]. Serious problem as also the least importance given to the monitoring and evaluation of local policies and integrity and ethics in open governance, which should be a transversal dimension of the open governance.

In the next step, we asked respondents to evaluate the real implementation of principles of open local governance in practice of Slovak cities. They evaluated them on the scale from 1 – very well implemented to 5 – very bad implemented. The average evaluation of each aspect of open local governance presents Table 3.

Table 3. Quality of implementation of open local governance principles

Accessibility	Access to and disclosure of information (according to 211/2000 Coll.)	1,58
Transparency	Transparency of processes	1,70
	Publishing open data	1,85
	Use of open data	2,14
Integrity	Integrity and ethics in open governance	2,37
Accountability	Building trust	2,47
	Methods and techniques for building public awareness of open governance	2,86
	Staff training in open governance	2,91
Participation and partnership	Participatory processes in project implementation	2,48
	Information applications for citizens	2,53
	Co-creation of public services	2,57
	Participation in local policy-making	2,64
	Citizen participation	2,66
	Participatory budgeting	2,71
	Networking of cooperating stakeholders	2,71
	Digital tools for participation	2,87

(*continued*)

Table 3. (*continued*)

	Monitoring and evaluation of local policies	2,93
	Participation in the drafting of general binding regulations	2,96
	E-forums for discussion	3,00
	Crowdsourcing	3,10
	Hackathons	3,50

Table 3 shows that by the practice of Slovak district cities the best implemented activities are thus oriented on accessibility and transparency. All other activities are evaluated on the range from 2,37 to 3,5 points, so it means that their level of implementation is average or worse in practice.

When we compare the evaluation of importance and real implementation in practice, it shows the significant differences. Even the respondents evaluated participation and partnerships as the most important principle, in practice of Slovak cities it is the biggest weakness in implementation of open governance approach. The weakness is also the real usage of new modern tools of participation and involving stakeholders into the participative processes.

To better understand the process of open governance implementation we explored also what are the key obstacles in its implementation. The respondents could mark three greatest barriers by their opinion from the set of options or add their own answer. The summary of their answers presents Fig. 2.

The greatest barrier is the burdensome administration connected with the bureaucracy by 37,33% of respondents. The second greatest barrier is the reluctance of citizens and other stakeholders to participate in local governance (36,21% of respondents.). Thirdly, the lack of qualified staff was evaluated by 34,48% of respondents. 1/3 of respondents identified as a barrier in implementation also the financial difficulty. The category of other answers includes the time-consuming, unfamiliarity of the issue, ignorance of the issue by members of local parliament.

To analyze deeply the evaluation of principles of open governance in Slovak cities, we research the relationship between the evaluation of the principles of open governance in cities and the size of the city, and between the evaluation of the principles of open governance in cities and the function of respondents, we used ANOVA analysis. But we do not identify the significant differences between the observed variables.

The identification of barriers in implementation of open governance in cities and its solution with proper measures could contribute to more successful implementation of open local governance. The results pointed out that the management of city is still heavily based on bureaucracy, what consume the time of city managers and employees as well as their will to implement new approach in governance. The problem is also the lower interest of citizens and other stakeholders in participation what is confirmed in Slovak cities also by our previous research [10, 37].

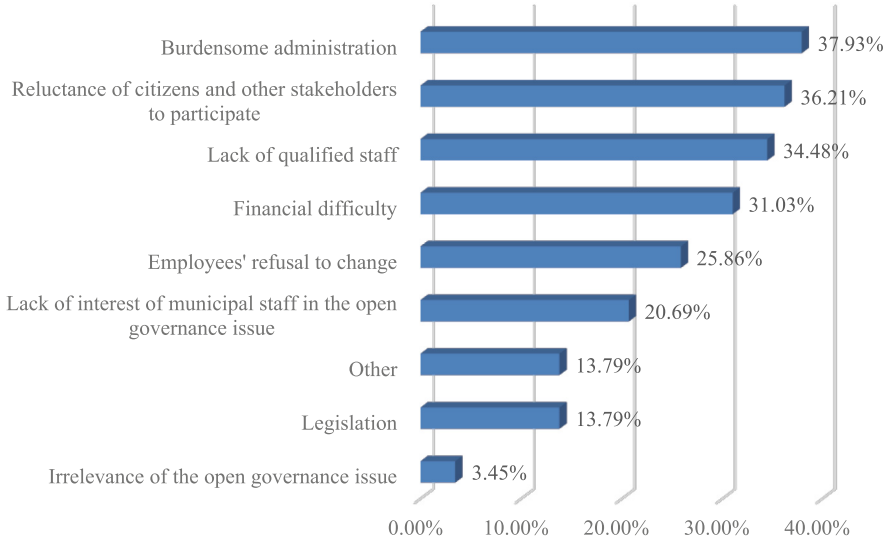

Fig. 2. Barriers in implementation of open governance in district cities

The open governance is not a new phenomenon. This concept has developed very progressively during last 20 years thanks to the great possibilities brought by new information and communication technologies. They make easier to publish and access the information, as well as to engage stakeholders in the public policy decision making. However, it opens also the new threats connected to the radical openness, cyber security or violation of ethics.

The city is governed openly if it implements the principles as transparency, participation, accessibility, integrity and accountability into the public policy and management processes [8, 26, 27]. The main research question of the paper was how are implemented the principles of open governance in Slovak district cities. Based on the research results as well as the theoretical framework, we can answer that there is identifiable gap between the theory and practice. Even the representatives of Slovak district cites are aware of the open governance concept, the real implementation is more oriented on the mandatory activities given by law (e. g. publishing specific set of data (usually they are not real open data) defined by the publication minimum of local municipalities or access to information by law 211/2000 Call as amended), and not on the establishing the relevant framework of open governance based on its main principles. As one of the key weaknesses in Slovak district cities, the participation of stakeholders in public policy can be identified. Even the city representatives identified the participation as the most important principle of the open governance, the real implementation was evaluated relatively weak. However, the citizens and other stakeholders should be an integral part of governance, engaged into the delivering and co-creation public services as well as public policy issues [38]. Moreover, thanks to development of new modern tools, the government can use for this purpose the mix of tools to make the participation available for different types of stakeholders in offline or online space [39–41]. In case of Slovak cities, just a few

pioneers can be identified whose go beyond the traditional tools of stakeholders' participation (Table 3) and use also the electronic participation or other innovative forms (e. g hackathons, crowdsourcing). Some examples include Banská Bystrica, a district and regional city, which use the Decidim platform for the participatory budgeting, public consultation of the strategic city documents. A few cities (Bratislava, Žilina, Košice) use the citizen's account that provide similar possibilities of citizen participation as well as support the transparency by publishing individual information about the paying local taxes or other public services (e. g. parking fees) which citizen use. We can expect that there will be a pressure to other cities to enhance this area not only because of the open governance but also because its integrity and connectivity to other IT systems within the public administration. It is already demonstrated in cities as Vienna, Brno, Prague, Lodz, Warsaw which are more advanced in the issue of open governance but are also close to Slovak cities by the economic and social conditions, partially also by the system of public administration.

Furthermore, the crucial issue is and will be to accept and keep the ethical rules, principles and standards in implementation of all smart and open innovations (which are also the principles of open governance). Digital ethics cannot be just and addendum, the building critical awareness is important. Even more, it is only one of the four roles of a proper ethical approach to the design and management of digital technologies. The other three are signaling those ethical issues matter, engaging stakeholders affected by these ethical issues, and, above all, providing shareable solutions. Ethics must therefore be a part of strategies for developing and using digital technologies from the very beginning, when it is easier and less costly in terms of resources and reach to change course [42]. That is why the ethics, and integrity will be very important challenge in next development of Slovak cities, due to fact that the Slovak cities do not pay to this issue adequate attention (see Table 2). The inspirative example in this field is Warsaw City with Guidelines for Responsible Use of Generative Artificial Intelligence in the Warsaw City Hall.

The identified obstacles to implementing open governance in Slovak cities partially confirmed that the representatives do not know the benefits of open governance in management with support of IT (e. g. interoperability, changes in organizational structures, efficiency of public policy) [43, 44], that can contribute to reduction of burdensome administration. The research results confirmed the long-term problem of missing educational systems of municipal employees in Slovakia presented by the inadequate qualification of employees and their resistance to the changes. The examples of good practice in this area is a system of continuous training within the public administration, including cities, in Czech Republic.

5 Conclusions

The implementation of open governance in Slovak district cities demonstrates gradual progress but also important challenges. While local municipalities acknowledge the importance of open governance principles, their practical application remains inconsistent. The study highlights a significant gap between theory and practice, with many cities focusing on legally mandated transparency measures rather than actively fostering citizen participation and collaborative policymaking. Key barriers to open governance

include bureaucratic burdens, limited public engagement, and insufficient financial and human resources.

We acknowledge the limitations of our research results in their generalization and possible conclusions because they are based on responses of selected representatives of cities in Slovakia. But we assume that the situation can be similar in countries with the similar system of local administration as well as with the similar economic and social background (e. g. Poland, Czech Republic, Baltic countries). In our next research, to verify the results of primary research (especially in transparency and participation) we will focus on the comparison with the results of secondary research based on the analysis of websites of district cities and their strategic documents, what should bring more complex and objective view.

Based on the critical evaluation of primary research results and guidelines of OECD [27], Open Government in the EU [45] and OGP [46] in open governance we recommend to management of Slovak cities to start with the comprehensive open government strategy that will be developed based on collaboration with the relevant stakeholders and foster commitment from the politicians and managers and employees of local municipality. As the second step, it is necessary to form a legal and regulatory framework (the areas which are in the hands of local government) including the oversight mechanisms to ensure compliance with an emphasis on integrity and ethics of processes. To be successful, it is necessary to give a mandate to the employees (managers) and to allocate responsibilities in the implementation of the open government strategy. Effective monitoring and evaluation mechanisms should be developed by designating responsible institutional actors, creating measurable indicators, and fostering a culture of assessment among public officials. Clear and proactive communication is necessary to increase awareness and stakeholder engagement. Stakeholders must have equal opportunities for involvement in policymaking, with special attention given to marginalized groups. Innovative engagement methods, including digital tools and open data, should be utilized to foster collaboration and co-creation. Lastly, governments should explore transitioning from open government to an open state model, ensuring broader institutional openness and participation.

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