INVESTMENTS IN LATVIA'S REGIONS AND PUBLIC PARTICIPATION IN ELECTIONS

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The role of public engagement is emphasized at the international, European Union, and national levels to promote sustainable development, including the search for new environmentally friendly and climate neutral growth models. Although the current system in Latvia provides for public participation at various levels, income inequality persists, affecting residents' willingness and ability to engage. The aim of the study is to investigate the influence of economic development factors on public participation within Latvia's regions through an analysis of territorial economic indicators and technological accessibility, with the number of non-governmental organizations and voter turnout in parliamentary (Saeima) elections serving as primary indicators. This approach integrates quantitative measures to elucidate the complex relationship between socio-economic contexts and civic engagement, thereby contributing to a nuanced understanding of participation dynamics in regional development.

Keywords: public, involvement, civic participation, territorial development, Latvia

INTRODUCTION

Public engagement at all levels is a fundamental principle of the United Nations Sustainable Development Goals, emphasizing that sustainable development of a country's territory is impossible without flexible and inclusive decision-making processes at both national and local levels. It is essential for implementing nature-based solutions that tackle social, economic, and environmental challenges and for fostering resilient communities aligned with European Union policies and global sustainability targets. Achieving effective public engagement relies on innovative "science-policy-society" mechanisms, as well as consultations and platforms that facilitate knowledge exchange (Faivre et al., 2017).

The concept of regional economic resilience has seen rapidly growing academic interest, especially since 2008, but debate and inconsistency in how resilience is defined and measured is ongoing. While early literature emphasized economic output metrics, more recent studies have broadened to include sociodemographic metrics. The need for future research to dynamically measure and better understand resilience drivers is still actual (Crawley et al., 2024.).

Regional resilience should be considered as a multi-dimensional, participatory, and systemic concept where community dynamics are embedded in regional governance. The interconnection of individual, social, governance, and economic dimensions underlines the relational nature of resilience at the regional scale. The resilience of communities is influenced by their connection to broader regional and systemic factors, particularly through the ways local communities engage with governance, economic systems, and social networks. (Kirby, 2025). Globalization has facilitated the transfer of capital among business entities, which often allocate a portion of their profits to non-governmental organizations. However, the process of democratization in Eastern European countries has frequently proceeded without adequate emphasis on mitigating poverty and social inequality (Lazin, 2018).

The Latvian National Development Plan of Latvia for 2021–2027 highlights the need for advancements in technology, public administration, and public engagement, underscoring the critical role of citizen involvement and civic participation in driving the country's economic growth (State Chancellery, 2024). Despite these efforts, Latvia faces the significant challenge of rising social inequality, as reported by 59% of survey respondents in the country (Special Eurobarometer 500, 2020).

Civic participation refers to an individual's motivated engagement, based on available resources, in political, socioeconomic, and cultural processes at local, regional, national, and international levels. Its purpose is to address shared societal challenges, influence ongoing social processes, and enhance the overall quality of life (Jurs, Samuseviča, 2020). Ravazzoli et al. (2021), in their examination of public participation, highlight the importance of distinguishing between the concepts of "community" and "society." They define a community as a group of individuals who either share a common territory or are united by shared interests, whereas society typically refers to a larger, more heterogeneous group of people acting in an organized manner. Furthermore, civil society is emphasized as a vital factor in a country's economic development, as it generates social capital and fosters more effective public administration, transparency, and

accountability both toward citizens and the state (Lazin, 2018). Organized civil society, particularly non-governmental organizations, contributes significantly by supporting public administration and nurturing a sense of community cohesion.

Researchers have emphasized the need to consider the importance of social capital, trust, cooperation and communication within communities. Trust in the public sector underlies and supports participatory governance, serving as an enabling factor for resilient communities (Kirby, 2025). In the author's opinion, an individual's involvement in political and socio-economic processes, including territorial development, depends not only on motivation and willingness to work for the common good - shaped by subjective factors such as a sense of belonging, patriotism, and solidarity, which are difficult to quantify - but also on accessible resources like income and job availability. The aim of the study is to investigate the influence of economic development factors on public participation within Latvia's regions through an analysis of territorial economic indicators and technological accessibility, with the number of non-governmental organizations and voter turnout in parliamentary (Saeima) elections serving as primary indicators. This approach integrates quantitative measures to elucidate the complex relationship between socio-economic contexts and civic engagement, thereby contributing to a nuanced understanding of participation dynamics in regional development.

RESEARCH METHODS

The study employed descriptive and quantitative research methods, utilizing statistical data that were graphically presented and subjected to content analysis. The study design includes a literature review, data selection, data analysis, interpretation of results, and drawing conclusions. Secondary data were sourced from the Central Election Commission, the Regional Development Indicators Module, and the Eurostat website. Data on registered associations and foundations were obtained from unpublished records provided by SIA "Lursoft IT" through a special data request. The literature reviewed includes scientific publications, monographs, studies and articles from international organizations, EU and Latvian policy planning documents, reports, commissioned studies from Latvian institutions, and relevant Latvian regulatory enactments. This research paper was supported using artificial intelligence (AI) tools. ChatGPT (Mar 14 version) [large language model], developed by OpenAI, 2024, was used exclusively for language editing, translation, and improvement of linguistic quality. The artificial intelligence tool Julius AI (Caesar Labs, Inc., 2025) was employed to facilitate the visualization and analysis of the authors' computational results. The scientific content, research design, conceptual development, and critical analyses were entirely created, structured, and validated by the project authors. No generative AI tools were used for the creation of scientific content, formulation of research ideas, or development of research approaches presented in this paper.

RESEARCH RESULTS AND DISCUSSION

The development of the information society is closely linked to technological advancement, which in turn influences societal involvement at various levels in political and social processes. Technology and the available digital infrastructure provide opportunities not only for communication with public administration institutions but also for active participation in civil society and civic engagement, as exemplified by platforms such as Manabalss.lv and the Legal Acts Portal.

Analysing the proportion of households with an internet connection at home (%) in Latvia, Lithuania, and Estonia, and comparing it with the European Union average (Figure 1), it is evident that from 2019 to 2023, Latvia's indicator has steadily increased, reaching the EU average of 93%. This demonstrates that Latvian residents now have widespread access to the country's digital infrastructure, enabling them to utilize digital services and actively participate in public engagement processes such as consultations and providing feedback on draft regulatory enactments.
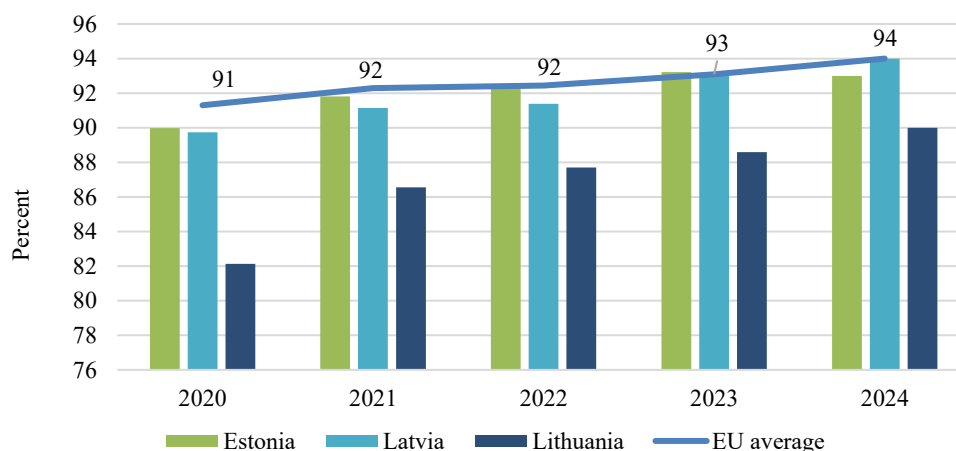

Figure 1. Proportion of households with Internet connection at home in Baltic states, % (compiled by the author based on EUROSTAT data).

In the first half of the twentieth century, economist John Maynard Keynes proposed a growth model in which national income increases in response to rising aggregate demand (Boldeanu, 2018). Keynesian economics emphasizes the role of aggregate demand as the primary driver of economic output, positing that during periods of low demand,

government intervention may be necessary to stimulate growth and restore stability. Building on this, post-Keynesian theory focuses on demand side factors, issues of income distribution, and highlights the potential need for active government policies to promote regional economic growth and stability (Alexiadis, 2012). It should be acknowledged that the Keynesian approach has faced criticism, particularly concerning the export base theory, which is often deemed overly simplistic for assuming the export sector as the sole driver of regional growth (Pike et al., 2016). Nevertheless, the Keynesian and post-Keynesian frameworks have significantly shaped contemporary understandings of local and regional development policy, emphasizing the importance of local specificities and resources, including human capital.

Social capital enhances regional growth by fostering trust, cooperation, and knowledge exchange, as described by Putnam's theory of networks and norms. Education, civic engagement, and institutional quality reinforce social capital's positive economic effects requiring specific policy approaches for sustained development. The Solow growth model explains regional growth by emphasizing capital accumulation, labour force growth, and technological progress as key drivers. It highlights that sustained growth relies on continuous technological innovation, which social capital can facilitate through knowledge exchange and cooperation (Iyer et al, 2005).

However, it is important to recognize that economic objectives in territorial development planning may diverge from those of civil society. Moreover, public participation can prolong the planning process, potentially reducing anticipated profits. To address this, various democratic engagement methods such as liberatory, participatory, deliberative, and radical democratic approaches are employed to facilitate public involvement, as decisions regarding land and territorial use fundamentally require democratic legitimacy. The selection of the most suitable form of public engagement depends closely on contextual factors, including the project scale and the range of stakeholders involved (Knudtzon, 2018).

Evaluating foreign direct investment (FDI) in Latvian planning regions from 2019 to 2023 (Table 1), it is evident that the Riga planning region continues to attract the majority of FDI, accounting for approximately 88% of the total investments. This concentration reflects Riga's status as the country's economic and administrative hub, benefiting from a strategic location, developed infrastructure, and favourable business conditions that draw the greatest share of foreign investment. In some years, the amount of investment has been increased in the Kurzeme, Vidzeme, and Zemgale planning regions. The lowest level of investment is in Latgale, accounting for only 1.5%.

Table 1. Total amount of foreign direct investment in Latvia planning regions 2019-2023, million EUR (compiled by the author based on RAIM, 2024)

Planning region	2019	2020	2021	2022	2023	Total	% of total investments
Kurzeme	27.3	108.6	74.5	62.1	105.5	378.0	3.7
Latgale	25.4	20.5	42.6	18.3	52.3	159.1	1.5
Riga	1530.0	1544.0	2101.8	1956.3	1956.0	9088.1	88.0
Vidzeme	47.4	101.8	23.0	211.7	18.5	402.4	3.9
Zemgale	31.6	100.9	35.7	83.4	48.2	299.8	2.9
Total investments	1661.7	1875.8	2277.6	2331.8	2180.5	10327.4	100.0

Analysing the growth rate of the foreign investment base compared to 2019, it can be observed that in the Riga planning region it remains positive, ranging from 37% to 28% during the period 2021-2023. In the Latgale planning region, the growth rate of the investment base may reach a positive 106% in 2023 compared to 2019. However, the regional growth rates in Vidzeme, Kurzeme, and Zemgale planning regions are showing a declining trend (Figure 2).
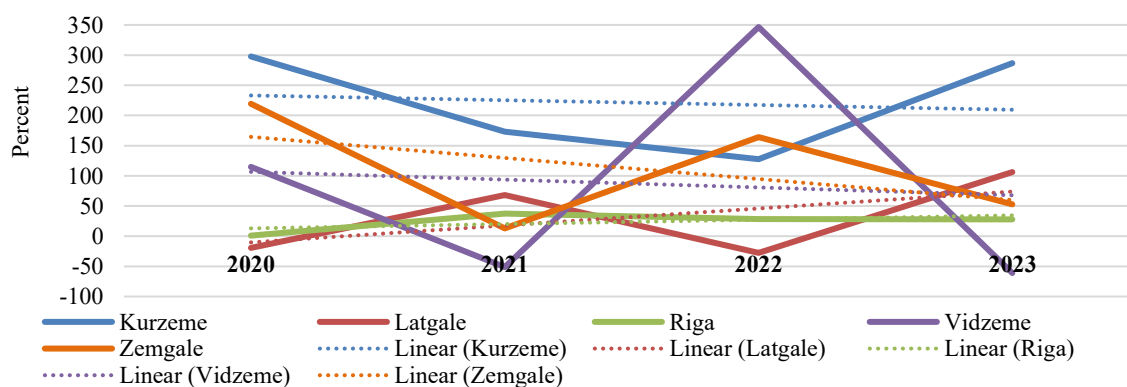

Figure 2. Base growth rate of total foreign direct investment in Latvia planning regions 2019-2023, % (compiled by the author based on RAIM, 2024).

Investments are essential for promoting regional development, as the size of investments directly influences growth in specific areas (Āzena, 2022). In Latvia, the government plays a key role by approving operational programs and strategic plans for European Union funds, thereby shaping the scale of investments in the country's planning regions.

Table 2. Amount of European Union fund project funding per capita in Latvia planning regions 2019-2023, EUR (compiled by the author based on data from RAIM, 2024)

Planning region	2019	2020	2021	2022	2023	Total 2019- 2023
Kurzeme	6231	6171	5088	5155	4690	27336
Latgale	7123	6869	5765	6248	5828	31833
Riga	2221	3171	1703	1435	1795	10326
Vidzeme	8747	8149	6416	7588	6638	37538
Zemgale	4722	3760	3299	3317	2840	17938

Analysing the financing of European Union funds projects per capita reveals that the Riga planning region consistently has the lowest indicator throughout the reviewed period, while Vidzeme has the highest (Table 2). This suggests that the government is actively implementing measures to stimulate investments in regional areas, aiming to promote more balanced and even development across Latvia's regions. The growth rate of the European Union investment base in Latvia shows a downward trend in the Riga planning region when compared to 2019, while other regions maintain a positive growth trend (Figure 3). This decline in investment volume and growth rate in all planning regions in 2023 may be linked to delays in the commencement of the new European Union funds programming period.
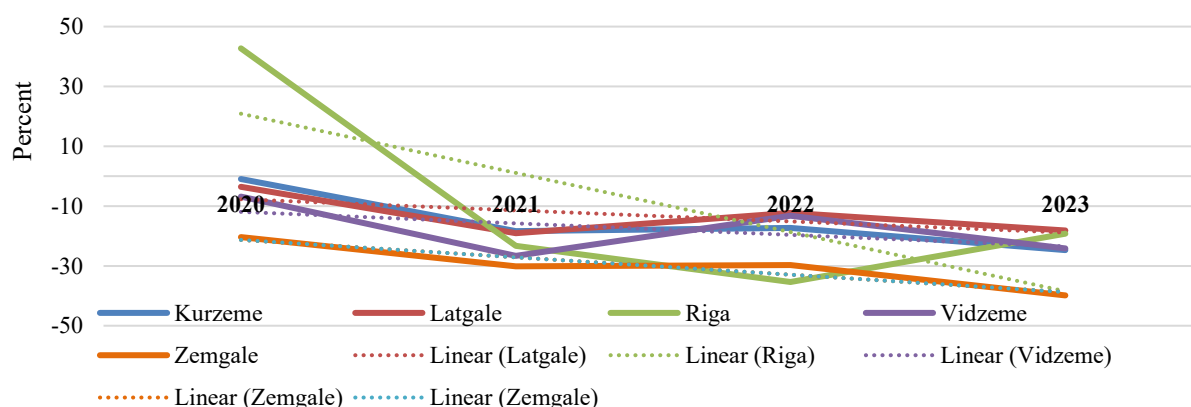

Figure 3. Growth rate of European Union funds project funding amount per capita in Latvia planning regions 2019-2023, % (compiled by the author based on RAIM, 2024).

Based on post-Keynesian theory, promoting regional development involves increasing the share of wages in regional economies to reduce income disparities (Goda, 2016). In Latvia, personal income tax payments are an important source of municipal budget revenue and reflect residents' income levels in different territories. Analysis of municipal personal income tax revenue reveals that the Riga planning region consistently has the highest revenues throughout the period under review, reaching 10,533 euros per resident in 2023. In contrast, the Latgale and Zemgale planning regions show much lower revenues, with 4,583 euros and 4,518 euros per resident respectively in 2023 (Table 2). This data indicates that income inequality among residents persists in the regional context of Latvia.

Table 3. Municipal budget personal income tax revenue per capita in Latvia 2019-2023, EUR (compiled by the author based on RAIM, 2024)

Planning region	2019	2020	2021	2022	2023
Kurzeme	4 696	4 366	4 288	5 197	5 509
Latgale	3 922	3 516	3 518	4 234	4 583
Riga	8 378	8 269	8 385	9 566	10 533
Vidzeme	6 381	5 981	6 135	7 515	7 887
Zemgale	3 731	3 458	3 484	4 220	4 518

Latvia has established a comprehensive regulatory framework for public involvement and participation at both national and local levels, including the introduction of a new Law on Local Governments aimed at enhancing citizen engagement. However, it has been concluded that the existing system mainly engages educated and majority residents, often failing to reach groups with lower incomes, skills, or specific needs (SIA "Civitta", 2023). The number of non-governmental organizations (NGO) can serve as a valuable indicator of civic engagement within society. However, it is important to acknowledge that associations and foundations operate with dual objectives: they advance the interests of their members while simultaneously contributing to the broader public good. This dual function reflects the complex role

of NGOs in fostering both particularistic and collective benefits in civic life, thus underscoring the multifaceted nature of civil society participation.

Table 4. Number of NGOs in Latvia planning regions 2019-2023 (compiled by the author based on data from SIA "Lursoft IT" special request data, 2025)

Planning region	2019	2020	2021	2022	2023
Kurzeme	3582	3689	3771	3873	3996
Latgale	2073	2096	2124	2166	2196
Riga	13062	13461	13818	14160	14590
Vidzeme	3289	3408	3532	3592	3714
Zemgale	2036	2102	2163	2166	2232

Analysis of the number of non-liquidated associations and foundations at the end of each year from 2019 to 2023 across Latvia's planning regions (Table 4) reveals that the Riga planning region consistently hosts the largest share of NGOs, accounting for approximately 54% of all registered entities annually during the study period. In contrast, the Latgale and Zemgale planning regions have the smallest representation, each constituting roughly 8% of the total non-governmental organisations each year. Meanwhile, the Vidzeme and Kurzeme regions account for 13% and 14%, respectively, of registered non-governmental organisations throughout the period under review.

To analyse the data on changes in personal income tax revenue, European Union funding, and the number of non-governmental organisations between 2019 and 2023, the authors conducted a correlation analysis using the Julius AI tool. A very strong positive correlation (0.91) was identified between changes in personal income tax revenue and the number of non-governmental organisations, suggesting that increases in personal income tax revenue tend to coincide with growth in the non-governmental organisations sector within regions. Additionally, a strong positive correlation (0.80) was observed between changes in European Union funding and the number of non-governmental organisations. These findings indicate a general trend wherein financial factors, such as personal income tax revenue and European Union fund allocations, are associated with non-governmental organisations development. However, further in-depth analysis is necessary to draw comprehensive and objective conclusions.

Table 5. Correlation results between changes in EU funding, personal income tax (PIT) revenue, and the number of NGOs in 2019 and 2023 (compiled by the author based on data from RAIM, 2024, SIA "Lursoft IT" special request data, 2025)

Indicators	Coefficient of Determination (R²)	Significance (p-value)
Changes in EU funding and PIT	0,2991	0,3402
Changes in EU funding and number of NGOs	0,6341	0,1069
Changes in PIT and number of NGOs	0,8361	0,0297

Using the R^2 (coefficient of determination) and p-value metrics provided by the Julius AI tool (Table 5), the authors examined the relationships among the variables under consideration. A statistically significant linear relationship was identified between changes in personal income tax revenue and the number of non-governmental organisations, with an R^2 value of 0.8361 and a p-value of 0.0297. This indicates that fluctuations in personal income tax revenue may influence the public's willingness to engage in community-beneficial activities, as reflected by corresponding increases or decreases in the number of non-governmental organisations. Conversely, while a relationship was observed between changes in European Union fund financing and non-governmental organisations numbers ($R^2 = 0.6341$), the associated p-value exceeded the conventional threshold for significance ($p > 0.05$), suggesting that this relationship is less certain and warrants further investigation.

One important form of civic participation shaping the country's future is voter activity in Saeima elections.

Table 6. Voters activity in the 13th (2018) and 14th (2022) Saeima elections in Latvia, % (compiled by the author based on data from the Central Election Commission of Latvia, 2024a; 2024b)

Planning region	2018	2022	Change (percentage points)
Kurzeme	56	64	8
Latgale	43	57	14
Rīga	56	53	-3
Vidzeme	61	66	5
Zemgale	55	63	8

Considering the low public trust indicators, which may be attributed to income and opportunity inequalities—including technological and skills gaps—as well as the impact of administrative-territorial reforms, changes in voter activity (Table 6) and the growth of personal income tax revenue per capita in local government budgets were analysed by comparing data from 2018 and 2022 (Table 3).

It can be concluded that all regions experienced a negative growth rate in municipal personal income tax revenues between 2018 and 2022, except for the Riga planning region, which showed a marginal increase of 0.01%. This decline can be attributed to the economic crisis caused by the Covid-19 pandemic, which impacted economic activity, incomes,

and tax revenues. The most significant decreases were observed in Latgale, with a decline of 10%, and in Kurzeme, with a 9% reduction. Analysing the data on voter activity reveals that voter activity increased notably in the regions experiencing the largest decreases in personal income tax revenues during the 14th Saeima elections in 2022, rising by 14% in Latgale and 8% in Kurzeme.
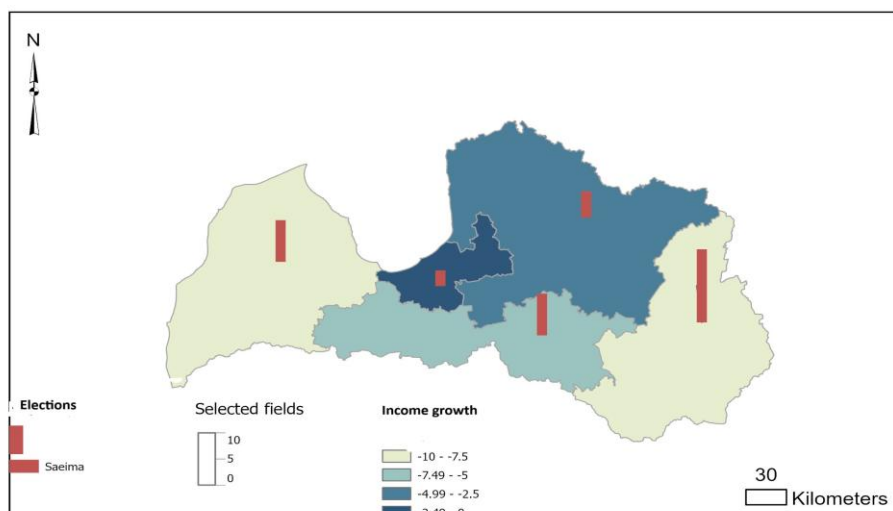

Figure 4. Growth rate of personal income tax revenue of local government budgets and changes in voter activity in 2018-2022, % (compiled by the authors in *ArcGIS* based on data from the Central Election Commission of Latvia 2024a, 2024b and RAIM, 2024).

The Riga electoral district had the lowest voter turnout in the 14th Saeima elections, despite the Riga planning region maintaining a growth trend in municipal budget personal income tax revenue per capita. Additionally, an 8% increase in voter turnout was observed in the Vidzeme region, which experienced a negative growth rate of -7% in personal income tax revenue.

CONCLUSIONS

1. In Latvia, foreign investors continue to show a strong preference for investing in the Riga planning region. The government endorses European Union funds operational programs and strategic development plans while implementing measures aimed at promoting more balanced regional growth. The observed decline in investment volume and growth rates across all planning regions during 2022–2023 may be attributed to delays in the commencement of a new European Union funding programming period. Despite these efforts, income inequality among residents persists at the regional level, which also impacts access to essential services such as education and healthcare, etc.

2. Overall, the analysis reveals a discernible trend indicating that financial factors specifically changes in European Union funding and personal income tax revenue are associated with the development of non-governmental organisations. Notably, a significant linear relationship was identified between fluctuations in personal income tax revenue and the number of non-governmental organisations, suggesting that increases or decreases in personal income tax revenue may respectively encourage or deter public engagement and community oriented activities. Nevertheless, further research is needed to substantiate these findings and draw more definitive conclusions.

3. Regional economic development indicators influence societal willingness to engage in the state's territorial development process, but it is important to recognize that motivation is also shaped by subjective factors. A relatively stable income level or its decline can either reduce public involvement or, conversely, increase participation. Therefore, trends in public involvement should be actively harnessed to promote the development of regional territories in a manner that is responsive to society's needs and fosters balanced growth.

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