

# URBAN GOVERNANCE AS A FOUNDATION OF SUSTAINABLE TOURISM DEVELOPMENT: THE CASE OF WIENER NEUSTADT

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This paper analyses sustainability-driven digital transformation in medium-sized European cities through a case study of Wiener Neustadt, applying the SMART TOUR (Interreg Europe) framework. Based on a structured review of sustainable tourism, smart cities, and destination governance literature, digital transformation is conceptualised as a governance-led strategic process rather than a purely technological shift. The study employs qualitative policy and strategic document analysis, focusing on the STEP WN 2030 urban development strategy and the Klimaneutral 2040 climate strategy. It examines how these frameworks integrate digitalisation, sustainability, and tourism objectives, and how digital tools support resource efficiency, performance monitoring, and stakeholder engagement. The paper contributes to the discussion on smart tourism and sustainable urban development by suggesting how smart tourism models may be applied beyond mass tourism contexts and highlighting secondary cities as key arenas for sustainability-oriented digital transformation, offering context-specific insights with potential relevance for policymakers.

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## 1 Introduction

In the 21st century, tourism faces new challenges and opportunities shaped by rapid technological change and growing demand for sustainability. The rise of smart destinations reflects not only innovation, but also the need for cities to coordinate environmental responsibility, digital infrastructure, and visitor experience within coherent policy frameworks. The key question is therefore not whether cities adopt digital tools, but how these tools are embedded in governance structures that ensure long-term sustainability.

Digital transformation in tourism cannot be understood solely as a technological upgrade or marketing instrument. Rather, it represents a governance challenge requiring alignment between urban development, climate policy, economic positioning, and destination management. Particularly in medium-sized cities, where institutional capacities differ from metropolitan areas, the effectiveness of smart tourism initiatives often depends on cross-sectoral coordination, data-driven decision-making, and integrated planning.

Wiener Neustadt provides a relevant case for examining this governance dimension. With its industrial and historical heritage, the city positions itself as a regional technological and educational hub while also developing as an emerging tourism destination. Its urban development strategy (STEP WN 2030+) and climate roadmap (Klimaneutral 2040) treat digitalisation and sustainability as interconnected components of long-term urban governance.

Despite growing literature on smart tourism, sustainable destinations, and smart cities, several research gaps remain. First, studies mainly focus on large metropolitan areas or internationally recognised destinations, while medium-sized and secondary cities remain underexplored. Second, although governance is often acknowledged, fewer studies examine how tourism development is shaped through the institutional capacities of secondary cities. Third, limited attention has been devoted to how urban development strategies and climate roadmaps jointly influence tourism attractiveness and local development.

The aim of this study is to explore, through the strategic documents of Wiener Neustadt, how a medium-sized city can strengthen its attractiveness as a sustainable tourism destination through governance-led digital transformation while maintaining livability and social cohesion. The research examines how digital infrastructure, monitoring systems, and cross-sectoral coordination contribute to sustainability outcomes and create opportunities for tourism management. The study argues that in secondary cities digital transformation in tourism emerges primarily as a function of institutional capacity and policy coherence rather than as a purely technology-driven process.

## **2 Sustainability in Tourism: Concepts, Challenges and Development Approaches**

The concept of sustainability is most widely associated with the Brundtland Commission, which defined it as development that meets present needs without compromising future generations (Brundtland, 1987). This definition highlights intergenerational responsibility and remains a foundational reference in sustainability research.

In tourism, the World Tourism Organization defines sustainable tourism as development that satisfies the needs of visitors and host regions while preserving future opportunities, balancing economic, social, cultural, and environmental considerations (WTO, 1998).

Sustainability is best understood as a systems-oriented approach integrating environmental, social, and economic dimensions. Rather than treating these domains separately, it emphasizes their interdependence and the need for coordinated governance. Ostrom's framework reinforces this perspective by highlighting multi-level governance, stakeholder interdependence, and context-sensitive resource management. Related concepts—such as environmental justice, community economic development, and ecolocalism—stress long-term resilience and local responsibility.

In urban contexts, sustainable tourism intersects with paradigms such as the green city, eco-city, low-carbon city, and smart city, linking environmental responsibility with governance and technological innovation (Kanuri, 2016).

Although sustainability appears as a contemporary concept, earlier societies often relied on resource-use practices that maintained ecological balance. Modern industrial systems, however, are characterized by high consumption, linear production patterns, and intensive resource extraction.

Despite increasing environmental awareness—such as energy efficiency, recycling, and low-emission mobility—these measures have not fully offset structural pressures. Since the early 1970s, humanity’s ecological footprint has exceeded the Earth’s regenerative capacity. The Ecological Footprint indicator developed by Wackernagel and Rees (1996) demonstrates the gap between available natural capital and actual consumption, underlining the need for systemic integration of sustainability into long-term strategies.

Tourism has expanded significantly due to globalization, economic growth, and technological development. According to UNWTO (2023), tourism is sustainable when it accounts for its present and future economic, social, and environmental impacts while meeting the needs of visitors, host communities, and service providers.

Sustainable tourism aims to generate long-term economic benefits—such as employment and income stability—while preserving cultural heritage, strengthening local identity, and protecting ecological systems. Its central objective is to balance visitor experience quality with environmental and social responsibility. In this context, resource productivity links economic performance with environmental efficiency.

### **3 The Scientific Approaches to Sustainable Tourism Development**

Research distinguishes four dominant models of sustainable tourism development (Buckley, 2012):

#### **A) Product-Driven Approach**

Economic objectives dominate, and environmental considerations are secondary. This model is typical in destinations heavily dependent on tourism revenues (Szabó, 2016).

## **B) Environment-Driven Approach**

Environmental protection is central to tourism planning. Economic development is aligned with ecological sustainability, reflecting a strong long-term orientation (Szabó, 2016).

## **C) Coercive Approach**

Tourism growth is prioritized to compensate for economic decline, often neglecting environmental concerns (Szabó, 2016).

## **D) Neotenous Approach**

Tourism expansion is deliberately limited to preserve environmental quality. Infrastructure development is restricted, representing a high level of sustainability (Macbeth, 2005).

In practice, an environment-driven model often provides a balanced pathway, integrating economic and ecological considerations within destination governance (Szabó, 2016).

## **4 Key Elements and Structure of Smart Governance**

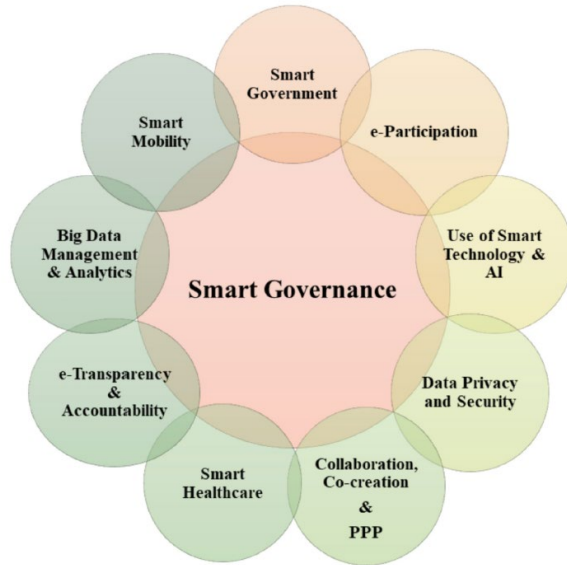
Information and communication technologies (ICTs) underpin modern public administration and support the development of e-government and smart governance systems (Estevez and Janowski, 2013). Smart governance refers to integrated, data-driven, and participatory forms of administration supported by technologies such as AI, data analytics, blockchain, and IoT.

These technologies enhance decision-making quality, service delivery, and administrative efficiency (Jiang, 2021; Kim et al., 2022). Smart governance also emphasizes responsiveness to citizen expectations and operational effectiveness (MacLean and Titah, 2022; Charalabidis and Koussouris, 2012).

Beyond technological integration, smart governance incorporates ethical and legal principles such as transparency, accountability, and inclusivity (Tay et al., 2018). ICT-supported policymaking can strengthen citizen participation and institutional responsiveness (Scholl and AlAwadhi, 2016).

However, challenges include data security, privacy risks, digital inequality, cybersecurity threats, and high implementation costs (Pansera et al., 2022; Przeybilovicz et al., 2022; Popova and Popovs, 2023). Overreliance on complex technologies may reduce accessibility, underscoring the need to balance digital tools with participatory governance mechanisms.

Before presenting the analytical model, it is useful to summarise the main components of smart governance discussed in previous literature. Figure 1 illustrates the institutional and technological dimensions that support governance-oriented urban transformation.



**Figure 1: Components of smart governance**  
Source: (Abdullah Kaiser, 2024)

#### **4.1 Conceptual Model of Smart Governance**

The smart governance model applied in this study was developed by Abdullah Kaiser (2024), building on the work of Bolívar and Meijer (2016), Mergel et al. (2019), and Meijer and Bolívar (2016). Inputs refer to policy adjustments, legislative reforms, and resource allocation. Outputs represent tangible achievements, such as open data practices, ICT implementation, collaborative mechanisms, and citizen engagement initiatives. Outcomes capture broader impacts, including improved public services, administrative performance, institutional coordination, and policy effectiveness.

This structure enables the assessment of governance preparedness, implementation dynamics, and relational consequences.

### **5 Green Branding as a Competitive Advantage**

Branding principles extend beyond products to organizations, individuals, and places (Papp-Váry, 2007; 2009; Anholt, 2007). In recent years, sustainability has become a defining element of city branding strategies.

Urban communication addresses both tourists and residents, as both shape long-term competitiveness (Piskóti & Papp-Váry, 2018). Integrating sustainability into branding enhances reputation and strengthens regional positioning (Lukács et al., 2022).

The POE model distinguishes paid, owned, and earned media (Papp-Váry & Farkas, 2018). In urban branding, earned media—especially user-generated content—has gained credibility, while owned media channels remain central for communicating sustainability (Papp-Váry, 2018; Papp-Váry & Szűcs-Kis, 2021).

Research shows that sustainability-oriented branding enhances attractiveness and perceived livability (Garanti et al., 2024; Rehan, 2014). Targeting younger generations is particularly important, as sustainability is a core value for Generation Z (Papp-Váry et al., 2023).

## 6 Definitions and Pillars of the Smart City

The smart city concept emerged in response to urbanization and governance challenges. While initially focused on ICT infrastructure, it increasingly encompasses integrated urban management (Árvai, 2022).

Hall (2000) emphasizes intelligent integration of transport, utilities, and communication systems. Harrison et al. (2010) define the smart city as collective intelligence emerging from interconnected physical, digital, and social systems. Dobos (2015) highlight coordinated urban functions supported by innovative organizational methods and technology.

At EU level, smart city initiatives prioritize energy efficiency, resource management, and emission reduction (Dobos, 2015). Giffinger et al. (2007) identify six pillars: Smart Governance, Smart Economy, Smart Environment, Smart People, Smart Living, and Smart Mobility. Effective smart cities integrate these dimensions to enhance quality of life and operational efficiency.

## 7 Technological Transformation of Tourism Destinations

Tourism destinations can be understood as market-oriented systems where tourists and providers co-create experiences (Reinhold et al., 2015). Contemporary destinations rely increasingly on ICT, IoT, smartphones, and data-driven solutions (Xiang et al., 2015).

Smart destinations integrate advanced technological infrastructure to enhance sustainability, resident well-being, and visitor experiences. They enable personalized services and real-time information exchange.

User-generated content (UGC) plays a key role in smart tourism. Big Data analytics allow destinations to incorporate visitor feedback into experience design and service improvement (Marine-Roig and Anton Clavé, 2015).

## **8 Methodology**

### **8.1 Research Design**

This study applies a qualitative research design based on strategic document analysis to examine how sustainability-driven digital transformation is embedded in the governance frameworks of a medium-sized European city. The research adopts an interpretive policy-analysis approach, focusing on how digitalisation, sustainability, inclusivity, culture, and integrated planning are conceptualised, operationalised, and institutionally anchored in formal strategic documents.

Wiener Neustadt represents a theoretically relevant case because it is a medium-sized European city with formally adopted urban development and climate strategies, while simultaneously positioning itself as an emerging destination. The selection was further supported by strong contextual accessibility, enabling more nuanced interpretation of local governance and development processes.

The case study method was selected as an appropriate design due to the exploratory nature of the research and the aim of generating transferable insights from a secondary city context. Wiener Neustadt represents a theoretically relevant case, as it combines (1) a comprehensive urban development strategy and (2) a dedicated climate-neutrality roadmap, both formally adopted and legally anchored at municipal level.

The empirical material consists of two core strategic documents:

- STEP WN 2030+ – Stadtentwicklungsplan Wiener Neustadt
- Wiener Neustadt Klimaneutral 2040 – Klimafahrplan

Together, these documents provide a structural (urban planning) and operational (climate implementation) perspective on the city's sustainability-oriented transformation.

## 8.2 Analytical Framework

The analysis is guided by a conceptual framework derived from smart tourism and sustainable urban governance literature, complemented by the European smart tourism policy discourse.

Smart Tour is a European collaboration helping destinations deliver travel that is seamless, sustainable and welcoming. Under the title Smart Tourism–Smart Destinations: Accessibility, Sustainability, Digitalisation, Cultural Heritage & Creativity, the project supports cities and regions to develop practical policies and tools that connect these themes. The aim is to align visitor services with community needs, using clear data and shared governance (a shared dashboard and quarterly forum) to guide decisions. Partners learn from each other, test solutions, and turn plans into steady improvements that last.

Smart Tour responds to rapidly changing traveller needs through five core pillars, which were defined a priori as the study's analytical dimensions:

1. Digital empowerment – user-friendly digital tools, services, infrastructure, real-time information systems, and managerial analytics.
2. Accessibility for all – inclusive design, barrier reduction, training, and equal access for diverse social groups.
3. Sustainability – low-impact mobility, resource efficiency, climate mitigation and adaptation, and protection of natural and cultural assets.
4. Culture & creativity – support for local creative industries, cultural heritage preservation, and authentic place-based narratives.
5. Holistic planning – cross-sectoral integration of technology, innovation, governance, and inclusivity across the full visitor and resident journey.

These dimensions function as structured coding categories and allow systematic comparison between the two strategies.

## 8.3 Data Collection

The study relies exclusively on officially published municipal strategic documents. Both documents are publicly accessible and legally adopted policy instruments.

- The STEP WN 2030+ functions as the city’s statutory urban development concept under the Lower Austrian spatial planning framework.
- The Klimaneutral 2040 roadmap represents the city’s climate neutrality strategy aligned with national and EU climate targets.

No interviews or primary survey data were collected for this phase of the research, as the objective was to examine formal governance intentions and institutionalised planning narratives.

#### **8.4 Analytical Procedure**

The document analysis followed a four-step procedure:

##### *Step 1: Structural reading*

Both documents were first examined to identify their institutional status, planning horizon, legal embeddedness, and governance structure.

##### *Step 2: Thematic coding*

Using the five predefined analytical dimensions, relevant passages were coded manually. Coding focused on:

- Explicit policy objectives
- Stated measures and action plans
- Monitoring and evaluation mechanisms
- Governance and stakeholder engagement structures

##### *Step 3: Cross-document comparison*

The structural urban development strategy (STEP WN 2030+) and the operational climate roadmap (Klimaneutral 2040) were compared to identify complementarities, overlaps, and functional differentiation between strategic vision and implementation instruments.

*Step 4: Interpretive synthesis*

Findings were synthesised to assess the degree to which Wiener Neustadt's strategies reflect a governance-led model of digital and sustainability transformation rather than a purely technological or marketing-driven smart city approach.

The main strength of strategic document analysis lies in its ability to systematically identify formal policy priorities, institutional commitments, and overarching governance narratives. Because the analysed documents are legally adopted and embedded in official planning frameworks, they represent formal development directions rather than informal or speculative visions.

At the same time, certain limitations must be considered. The analysis examines planned strategies rather than their actual implementation outcomes. It does not include stakeholder interviews, and therefore does not capture individual perceptions, informal practices, or everyday operational realities. In addition, tourism-related measures are not always explicitly identified as such in urban strategy documents, which requires careful interpretation to connect broader policy objectives with their tourism-related implications.

Despite these constraints, the methodological approach provides conceptual clarity and allows for analytical comparability. For this reason, it is particularly well suited to conference presentations and academic journal publications focusing on governance, policy design, and strategic planning.

By combining structured policy document analysis with a smart tourism-oriented analytical framework, the study aims to contribute methodologically to the literature in two ways. First, it broadens the scope of smart tourism research beyond its traditional focus on destination marketing and ICT adoption, shifting attention toward governance-embedded digital transformation processes. Second, it seeks to explore how secondary cities can be systematically examined through their integrated urban development and climate strategies in order to assess their readiness for sustainability-oriented tourism development.

## **9 STEP WN 2030+ – Urban Development Strategy**

### **9.1 Digital Empowerment**

The STEP WN 2030+ Urban Development Strategy explicitly identifies digitalisation as a structural global trend shaping contemporary urban development (Section A.1).

In this context, digital transformation is not treated merely as a technological upgrade but as a governance-related shift toward data-driven and knowledge-based decision-making.

Urban development is interpreted as an integrated process supported by digital infrastructure and analytical tools. The strategy promotes the development of intelligent mobility systems and digitally supported transport planning. This may provide a basis for more efficient coordination of urban flows. Although tourism-specific digital tools are not explicitly detailed, these structural interventions may create the conditions for future real-time information systems and integrated service platforms. Furthermore, the document emphasises the role of integrated urban planning databases, including land-use mapping and environmental monitoring systems.

The document refers to planning databases and monitoring systems. This may strengthen evidence-based planning capacity and allow continuous evaluation of spatial and environmental developments. Transparency is also a key element: planning materials and strategic documents are publicly accessible online, reinforcing participatory governance and open access to information.

Overall, digital empowerment in the STEP WN 2030+ strategy appears primarily at the infrastructural and governance levels rather than as direct tourism service innovation. The document establishes the institutional and digital foundations necessary for a knowledge-driven and potentially smart destination-oriented urban development model.

## 9.2 Accessibility for All

The STEP WN 2030+ Urban Development Strategy emphasises the importance of social infrastructure, intergenerational balance, and a liveable residential environment (Section B.6). Accessibility is framed as a core principle of inclusive urban development, aiming to ensure that the city remains functional and supportive for residents of all ages and social groups.

A central element of this approach is the promotion of barrier-free public spaces and accessible transport systems. By reducing physical obstacles and improving mobility conditions, the strategy addresses the needs of people with disabilities, older adults, families with children, and other vulnerable groups. In addition, the encouragement of a denser, mixed-use urban structure enhances everyday accessibility by bringing housing, services, and workplaces closer together, thereby reducing car dependency and strengthening local cohesion.

The preservation and development of green and open spaces further contribute to inclusive urban quality. Public parks and recreational areas are treated as essential shared assets accessible to all residents, supporting both well-being and social interaction. Accessibility is therefore understood not only in physical terms but also in relation to equal access to urban amenities.

Importantly, the participatory planning process—through public consultations and citizen involvement—reflects an inclusive governance philosophy.

Overall, accessibility and inclusivity in the STEP WN 2030+ are interpreted within the full urban life cycle, extending beyond tourism considerations and positioning equitable access as a structural objective of long-term city development.

## 9.3 Sustainability

Sustainability constitutes a central and integrative principle within the STEP WN 2030+ Urban Development Strategy. The document addresses both climate mitigation and climate adaptation in a coordinated manner (Section A.5), positioning environmental responsibility as a fundamental task of long-term urban governance rather than as a separate policy domain.

A key priority is the controlled management of settlement development in order to limit urban sprawl. By guiding spatial growth and promoting more compact urban structures, the strategy seeks to reduce land consumption, protect surrounding natural areas, and optimise infrastructure efficiency. This spatial approach directly supports climate objectives by minimising transport demand and preserving ecological balance.

Environmentally friendly mobility is another major pillar of the sustainability framework. The promotion of sustainable transport solutions aims to decrease greenhouse gas emissions while improving urban quality of life. In parallel, the protection and expansion of green spaces are emphasised as essential elements of climate adaptation, helping to mitigate heat island effects and enhance urban resilience. Energy-efficient spatial use and planning further contribute to reducing environmental impacts at the systemic level.

Overall, sustainability in the STEP WN 2030+ is not treated as a thematic add-on but as a horizontal guiding principle that permeates the entire strategic framework. Climate protection, resource efficiency, and environmental resilience are embedded across planning objectives and measures, shaping the long-term development trajectory of the city.

#### **9.4 Culture and Creativity**

The STEP WN 2030+ Urban Development Strategy positions Wiener Neustadt as an economic, educational, and cultural centre within its regional context. Culture is not treated as an isolated sector but as an integral component of urban identity and long-term competitiveness. In this sense, cultural assets and creative potential are embedded within broader spatial and development objectives.

A central element of this orientation is the concept of a “Lebendige Innenstadt” (vibrant city centre), which aims to strengthen the multifunctional character of the historic core. The strategy promotes the integration of residential, commercial, cultural, and social functions in order to maintain urban vitality. This approach supports everyday use by residents while simultaneously enhancing the experiential quality of the city for visitors.

The integration of historical heritage into urban development planning further reinforces the cultural dimension. Built heritage and historically significant urban structures are regarded as valuable resources that contribute to place identity and spatial continuity. In addition, the revitalisation of community spaces and public areas fosters social interaction and cultural expression, strengthening the city's role as a living cultural environment rather than a static heritage site.

Creative industries appear more indirectly within the economic development sections of the strategy, where innovation, knowledge-based activities, and research institutions are emphasised.

Overall, cultural heritage and a vibrant urban core provide a strong foundation for tourism narratives; however, the document adopts primarily a spatial and structural perspective rather than a marketing-oriented approach. Culture is framed as a driver of urban quality and identity, with tourism emerging as a potential, but not exclusive, outcome.

## **9.5 Holistic Planning**

The STEP WN 2030+ Urban Development Strategy explicitly defines itself as an integrative planning concept (Section A.4). Rather than addressing urban challenges in isolated policy segments, the document establishes a comprehensive framework that connects spatial development, environmental protection, mobility, social infrastructure, and economic competitiveness within a unified strategic vision.

One of the core instruments supporting this holistic approach is the inclusion of a Strategic Environmental Assessment (SUP), which evaluates the environmental implications of planned measures. This mechanism ensures that sustainability considerations are systematically integrated into decision-making processes. By embedding environmental evaluation into the planning cycle, the strategy strengthens coherence between long-term objectives and operational actions.

Holistic planning is further reinforced through multi-actor governance structures. The development of the strategy involved political representatives, experts, administrative units, and citizens, reflecting a collaborative and participatory planning model. Such an approach enhances policy legitimacy and facilitates cross-sectoral coordination among stakeholders responsible for implementation.

Importantly, the STEP WN 2030+ is not merely a visionary document but a legally binding municipal regulation adopted under spatial planning law. This formal status strengthens its integrative capacity by aligning diverse policy domains under a single regulatory framework. Overall, the strategy provides a strongly holistic, cross-sectoral development model that connects governance, sustainability, and spatial planning within a coherent long-term urban trajectory.

## **9.6 Integrated Summary of Analytical Findings**

The STEP WN 2030+ Urban Development Strategy presents a coherent and structurally integrated approach to long-term urban development. Across the dimensions of digital empowerment, accessibility, sustainability, culture and creativity, and holistic planning, the document consistently treats urban transformation as a governance-driven and cross-sectoral process. Rather than focusing on isolated projects, the strategy establishes a comprehensive framework that connects spatial planning, environmental responsibility, mobility, and social inclusion. From a scholarly perspective, this reflects a mature understanding of sustainability-oriented urban governance. At the same time, certain strategic and operational limitations become visible.

Digital empowerment is primarily interpreted as strengthening administrative capacity and improving evidence-based planning. The emphasis on data systems, intelligent mobility, environmental monitoring, and transparency indicates a shift toward more analytical and knowledge-based decision-making. However, digitalisation remains largely internal and infrastructural. The strategy does not clearly articulate how digital tools could enhance user experience, visitor management, or destination competitiveness. In this sense, digital transformation is embedded in governance structures but is not yet fully mobilised as a strategic driver of innovation or external positioning.

The accessibility and sustainability dimensions are strongly embedded within the overall framework. Accessibility is understood broadly, including spatial proximity, mixed-use urban form, green space availability, and participatory governance. Sustainability functions as a horizontal principle shaping land use, mobility policy, and climate adaptation. This integrated approach can strengthen the long-term resilience of the city. Nevertheless, the strategy remains largely normative in tone.

While objectives are clearly formulated, there is limited emphasis on measurable indicators, benchmarking, or concrete evaluation mechanisms. From an academic standpoint, stronger alignment between strategic goals and performance measurement would enhance analytical clarity and implementation transparency.

Culture and creativity are positioned as elements of urban identity and quality of life rather than as explicitly market-oriented tools. The focus on a vibrant city centre and heritage integration supports place-based development and reinforces local cohesion. Tourism is treated as a possible outcome of spatial and cultural vitality rather than as a central strategic objective. This resident-centred approach enhances sustainability but may limit the city's ability to compete actively within regional tourism markets. Overall, STEP WN 2030+ can be interpreted as a promising governance template for sustainability-driven development in a secondary city context. Its main strengths lie in institutional integration and climate mainstreaming, while its main challenges relate to operationalisation, measurable outcomes, and clearer strategic positioning in digital and tourism-related innovation.

## **10 Wiener Neustadt Climate Neutral 2040 - Climate Roadmap of the Climate Pioneer City of Wiener Neustadt**

### **10.1 Digital Empowerment**

The Wiener Neustadt Klimaneutral 2040 strategy adopts a data-driven approach to climate governance, positioning digitalisation primarily as a tool for monitoring and management. The strategy is built upon a greenhouse gas inventory prepared according to the Global Protocol for Community-Scale Greenhouse Gas Emissions (GPC), using 2022 as the baseline year. This methodological foundation signals a commitment to internationally recognised standards and enhances the comparability and credibility of local climate policy.

A central component of the strategy is the establishment of a structured monitoring and evaluation system. The document outlines mechanisms for tracking emissions, assessing progress, and adjusting measures over time. The development of an emissions database enables systematic data collection and continuous performance assessment. In this sense, digital empowerment is operationalised through analytical capacity rather than through service-oriented digital innovation.

Stakeholder governance is also supported by data transparency and workshop-based consultation processes. More than 30 stakeholders were involved in the development and prioritisation of measures, reflecting a collaborative governance model grounded in shared information and evidence-based dialogue. Digital tools thus facilitate coordination, accountability, and adaptive policy learning.

Overall, in the Klimaneutral 2040 strategy, digitalisation serves primarily managerial and monitoring functions. Rather than focusing on user-facing technological solutions, the strategy strengthens institutional capacity for data-driven climate governance. This approach reinforces administrative effectiveness and long-term accountability, positioning digital empowerment as an enabling mechanism for structured and measurable climate transition.

## **10.2 Accessibility for All**

The Wiener Neustadt Klimaneutral 2040 strategy distinguishes clearly between ecological, social, and economic dimensions of sustainability. Within this tripartite framework, accessibility is primarily embedded in the social dimension, where the climate transition is framed not only as an environmental necessity but also as a societal transformation that must remain equitable and inclusive.

A central principle in this regard is the concept of a “just transition.” The strategy acknowledges that climate mitigation measures may generate unequal burdens across social groups and therefore emphasises the need to ensure fairness in implementation. This perspective extends accessibility beyond physical infrastructure, addressing distributional effects and social resilience within the energy and mobility transition.

Citizen involvement also plays a significant role in reinforcing inclusivity. The development and prioritisation of measures involved stakeholder workshops and participatory processes, allowing diverse actors to contribute to climate planning. Such engagement mechanisms enhance procedural accessibility by integrating community perspectives into decision-making.

Inclusivity further emerges indirectly through the expansion of sustainable mobility alternatives and energy transition measures. By promoting environmentally friendly transport options and supporting systemic energy transformation, the strategy aims to provide accessible low-carbon choices for residents. Overall, accessibility in the Klimaneutral 2040 strategy is not addressed as a standalone spatial issue but is embedded within broader social justice and transition governance considerations.

### **10.3 Sustainability**

Sustainability constitutes the central axis of the Wiener Neustadt Klimaneutral 2040 strategy. Unlike broader urban development frameworks, this document focuses explicitly on achieving climate neutrality by 2040 and translates sustainability objectives into concrete operational measures. The strategy moves beyond normative commitments and defines a structured pathway for emission reduction and systemic transformation.

A key feature of the document is the development of a comprehensive action plan comprising more than 200 measures. These measures are organised across major policy domains, including mobility, stationary energy, waste management, and governance. This sectoral structure ensures that sustainability is addressed as a multi-dimensional challenge requiring coordinated intervention across urban systems rather than isolated environmental projects.

Specific actions include the expansion of photovoltaic (PV) capacity, the electrification of the municipal vehicle fleet, and the promotion of low-emission mobility alternatives. These measures indicate a strong focus on energy transition and transport decarbonisation as primary levers for reducing greenhouse gas emissions. Waste reduction and resource efficiency initiatives further complement the mitigation agenda, reinforcing circular economy principles.

Importantly, sustainability is embedded within a structured monitoring framework that enables ongoing evaluation of progress. Through measurable targets and continuous performance assessment, the strategy operationalises sustainability at an implementation level. In this sense, climate neutrality is not presented as a symbolic ambition but as a measurable and institutionally managed transformation process.

## **10.4 Culture and Creativity**

In contrast to the urban development strategy, the Wiener Neustadt Klimaneutral 2040 roadmap places less explicit emphasis on cultural and creative dimensions. Its primary focus lies on climate mitigation, energy transition, and systemic decarbonisation. Culture is not addressed as a standalone policy field within the climate framework.

However, elements of cultural sustainability appear implicitly through the strategy's commitment to improving urban quality of life and strengthening social cohesion. Measures aimed at enhancing public spaces, promoting sustainable mobility, and reducing environmental stress contribute indirectly to the preservation of liveable and socially vibrant urban environments. These conditions are fundamental for maintaining local identity and everyday cultural practices.

The emphasis on participatory governance and stakeholder engagement also supports cultural sustainability in procedural terms. By involving diverse actors in workshops and decision-making processes, the strategy fosters collective ownership of the climate transition. Such inclusive processes can strengthen community bonds and shared urban narratives, which are core components of cultural resilience.

Overall, while culture and creativity are not foregrounded in the Klimaneutral 2040 strategy, the enhancement of urban well-being, community interaction, and social stability indirectly reinforces the cultural foundations of the city. In this sense, cultural sustainability emerges as a supportive outcome of environmental transformation rather than as a direct policy objective.

## **10.5 Holistic Planning**

The Wiener Neustadt Klimaneutral 2040 document can be interpreted as an integrated climate action plan rather than a narrow sectoral policy. It connects energy transition, mobility transformation, spatial planning, and governance mechanisms within a single strategic framework aimed at achieving climate neutrality by 2040. This integrated design reflects an understanding that decarbonisation cannot be achieved through isolated measures but requires coordinated systemic change.

The strategy explicitly links interventions across key domains, including stationary energy systems, transport, land use, and waste management. By aligning energy policy with mobility reform and spatial development, the document promotes cross-sectoral coherence. Climate mitigation and adaptation are therefore embedded within broader urban transformation processes rather than confined to environmental regulation alone.

Holistic planning is further reinforced through the establishment of structured monitoring mechanisms and stakeholder involvement. The strategy combines measurable targets, data-driven evaluation, and workshop-based governance processes. This approach strengthens accountability and adaptive capacity, ensuring that climate actions remain aligned with long-term objectives while allowing for policy adjustment over time.

Importantly, the Klimaneutral 2040 roadmap builds upon and complements the broader STEP WN 2030+ urban development strategy. It functions as the operational climate pillar of the city's overall development concept rather than as an independent policy document. In this sense, the climate strategy institutionalises environmental transformation within the existing urban governance framework, reinforcing vertical and horizontal policy integration.

## **10.6 Integrated Summary of Analytical Findings**

The Wiener Neustadt Klimaneutral 2040 roadmap represents a structured and operationally oriented climate governance framework that translates sustainability objectives into measurable and institutionally anchored actions. Its strongest contribution lies in shifting climate neutrality from a symbolic ambition to a managed transformation process supported by data, monitoring, and cross-sectoral coordination. By grounding its greenhouse gas inventory in the internationally recognised GPC standard and establishing a structured monitoring system, the strategy enhances methodological credibility and comparability. From a governance perspective, digital empowerment functions primarily as an analytical and managerial tool, strengthening institutional capacity rather than generating user-facing technological innovation. This inward-oriented digitalisation reinforces administrative effectiveness but does not yet position climate governance as a driver of broader digital service transformation or destination competitiveness.

The accessibility dimension is embedded within a broader “just transition” framework, reflecting awareness of the distributive impacts of decarbonisation. By integrating social, ecological, and economic sustainability, the strategy recognises that climate action must remain socially legitimate and inclusive. Participatory workshops and stakeholder engagement processes support procedural accessibility and collective ownership. However, inclusivity is addressed primarily at the level of principle and governance process. While the expansion of low-carbon mobility and energy alternatives enhances access to sustainable options, the strategy could benefit from clearer articulation of how vulnerable groups are systematically protected or supported in the transition. Thus, social justice is acknowledged conceptually but operational mechanisms for redistribution or targeted support remain less visible.

Sustainability is the document’s central pillar and is operationalised through more than 200 measures spanning mobility, energy, waste, and governance. This comprehensive action plan reflects systemic thinking and recognises that decarbonisation requires coordinated interventions across urban subsystems. The focus on photovoltaic expansion, fleet electrification, and mobility reform indicates strategic prioritisation of high-impact emission sectors. The inclusion of continuous monitoring further strengthens accountability and adaptive learning. Nevertheless, the breadth of measures raises questions about prioritisation, resource allocation, and implementation sequencing.

Cultural and creative dimensions receive limited explicit attention, appearing mainly as indirect outcomes of improved urban quality of life and strengthened social cohesion. While participatory governance may reinforce cultural resilience, the absence of a clear cultural sustainability narrative suggests that environmental transformation is framed primarily through technical and infrastructural lenses. Finally, the strategy’s holistic character constitutes one of its most robust features. By aligning energy transition, mobility reform, spatial planning, and governance mechanisms—and by explicitly building on the STEP WN 2030+ framework—the roadmap institutionalises climate action within the broader urban development architecture. In conclusion, Klimaneutral 2040 can be interpreted as a credible and governance-driven climate transition model for a secondary city. Its strengths lie in data-based management, systemic integration, and institutional embedding.

11 Summary Table of the Structured Document Analysis

Table 1: Summary Table of the Structured Document Analysis

Dimension	STEP WN 2030+ – Evidence	Klimaneutral 2040 – Evidence	Relational Implication
Digital Empowerment	Emphasis on integrated urban planning databases; land-use mapping; environmental monitoring; publicly accessible planning materials; intelligent mobility systems	GPC-based emissions inventory; structured monitoring system; emissions database; stakeholder workshops supported by shared data	Digital infrastructure strengthens transparency and institutional trust; enhances information symmetry between municipality and stakeholders; supports evidence-based relational coordination
Accessibility for All	Barrier-free public spaces; mixed-use urban form; participatory planning; citizen involvement in strategy development	“Just transition” principle; stakeholder consultation workshops; inclusive mobility alternatives; equitable energy transition framing	Inclusive governance reduces relational asymmetry; promotes perceived fairness; strengthens legitimacy and long-term stakeholder alignment
Sustainability	Horizontal integration of climate mitigation and adaptation; compact urban development; green space protection; sustainable mobility	200+ climate measures; sectoral coordination (energy, mobility, waste); measurable targets; continuous monitoring	Sustainability acts as a shared normative contract between actors; supports intergenerational governance trust; builds long-term relational stability
Culture & Creativity	“Lebendige Innenstadt”; heritage integration; multifunctional city centre; community space revitalisation	Indirect cultural reinforcement via social cohesion and participatory governance	Identity-based governance strengthens symbolic relationship capital; enhances resident–municipality emotional alignment; supports destination narrative coherence
Holistic Planning	Legally binding integrated planning framework; Strategic Environmental Assessment (SUP); multi-actor governance model	Operational climate pillar embedded within urban strategy; cross-sectoral integration; monitoring mechanisms	Institutional alignment reduces fragmentation; improves inter-organisational coordination; strengthens relational governance architecture

Source: Authors’ own compilation based on document analysis.

The table provides a structured comparison of two strategic documents—STEP WN 2030+ and Klimaneutral 2040—across five analytical dimensions: Digital Empowerment, Accessibility for All, Sustainability, Culture and Creativity, and

Holistic Planning. It systematically links concrete policy measures to their broader relational governance implications.

In the dimension of Digital Empowerment, both strategies emphasize data-driven planning tools, monitoring systems, and shared databases. These instruments enhance transparency and support evidence-based decision-making, thereby strengthening institutional trust and coordination between the municipality and stakeholders.

Under Accessibility for All, the documents highlight barrier-free infrastructure, participatory planning, and the principle of a “just transition.” These measures reduce relational asymmetries and promote perceived fairness, contributing to stronger stakeholder alignment and governance legitimacy.

In the Sustainability dimension, both strategies integrate climate mitigation and adaptation measures with measurable targets and cross-sectoral coordination. Sustainability functions here as a shared normative framework, reinforcing long-term commitment and intergenerational responsibility among governance actors.

The Culture and Creativity dimension underscores heritage integration, social cohesion, and participatory processes. These elements enhance symbolic and identity-based relationship capital, fostering emotional alignment between residents and municipal institutions.

Finally, Holistic Planning reflects legally binding frameworks, cross-sectoral integration, and structured monitoring mechanisms. Institutional alignment reduces fragmentation and strengthens relational governance architecture.

Overall, the table demonstrates that governance-led digital transformation does not merely introduce technological solutions; it restructures stakeholder relationships through transparency, inclusion, coordinated planning, and shared strategic direction.

## 12 Governance-Led Digital Transformation in Secondary Cities

### 12.1 Digitalisation as a Governance Instrument

The case of Wiener Neustadt demonstrates that in secondary cities digital transformation can function primarily as a governance instrument rather than as a market-driven technological innovation. In both the STEP WN 2030+ Urban Development Strategy and the Klimaneutral 2040 Climate Roadmap, digitalisation is embedded in data-driven decision-making, monitoring systems, and evidence-based planning. The emphasis lies on analytical capacity, transparency, and institutional coordination rather than on visitor-facing smart applications or tourism-oriented digital services.

This governance-led digitalisation model reflects a structural logic: digital tools are used to strengthen administrative effectiveness, policy coherence, and long-term accountability. The use of GPC-standard greenhouse gas inventories, environmental monitoring databases, and structured evaluation systems positions digital transformation as an enabler of institutional learning and adaptive governance. Digitalisation enhances regulatory and planning capacity but is not yet fully mobilised as a strategic instrument for destination branding, visitor management, or experiential co-creation.

### 12.2 Strategic Coherence Between Urban and Climate Strategy

A defining strength of the Wiener Neustadt case is the strong strategic coherence between the urban development strategy (STEP WN 2030+) and the Klimaneutral 2040 roadmap. The climate strategy does not operate as a separate environmental document but functions as the operational climate pillar of the broader urban development framework. This vertical and horizontal integration reinforces policy consistency and reduces fragmentation—an issue frequently observed in medium-sized cities with limited administrative capacity.

Climate mitigation, spatial planning, mobility reform, and governance mechanisms are systematically aligned. Sustainability is treated as a horizontal principle in the urban strategy and operationalised through more than 200 measures in the climate roadmap. This coherence increases implementation credibility and supports long-

term transformation trajectories. Nevertheless, the breadth of measures raises questions about prioritisation, sequencing, and resource allocation. Without clearly defined performance hierarchies and impact-weighted evaluation, strategic coherence may risk becoming administratively complex rather than strategically focused.

### **12.3 Institutional Capacity of Secondary Cities**

The Wiener Neustadt case seems to challenge the common assumption that only large metropolitan areas can implement structured, data-driven sustainability transitions. The adoption of internationally recognised accounting standards, the establishment of monitoring frameworks, and the inclusion of stakeholder workshops indicate a relatively high level of institutional capacity for a secondary city. Governance structures appear capable of coordinating multi-sectoral interventions across mobility, energy, waste, and spatial planning.

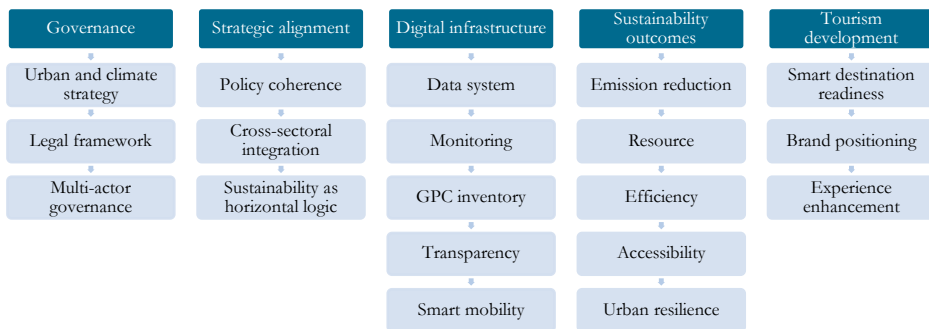
At the same time, the strategies reveal typical structural limitations of secondary cities. Digital transformation is primarily institutional and infrastructural, while innovation ecosystems, creative industries, and tourism competitiveness are less explicitly integrated into the digital governance framework. Cultural sustainability appears as an indirect outcome of improved quality of life rather than as an actively managed strategic dimension. This suggests that institutional maturity in regulatory governance does not automatically translate into competitive positioning in the destination economy.

### **12.4 Implications for Urban Management**

The case illustrates a governance-led model of digital transformation where sustainability and resilience are prioritised over market-driven smart destination branding. This resident-centred logic enhances long-term urban liveability and social legitimacy, which may serve as important preconditions for sustainable tourism development. However, the absence of explicit destination-oriented digital strategies may limit the city's ability to leverage sustainability achievements for competitive advantage in regional tourism markets.

For urban management in secondary cities, the key implication is that digital transformation should not be reduced to technological adoption. Instead, it must be embedded within institutional reform, monitoring capacity, and cross-sectoral integration. At the same time, governance-driven sustainability strategies would benefit from clearer prioritisation mechanisms, measurable performance indicators, and stronger linkage to innovation-based competitiveness. In summary, Wiener Neustadt provides a useful illustrative case of governance-led digital transformation, yet future development could further integrate digitalisation with destination management and economic positioning to enhance both resilience and competitiveness.

Based on the empirical findings, Figure 2 presents a simplified governance-led transformation pathway identified in the Wiener Neustadt case.



**Figure 2: Governance-led model of digital transformation**  
Source: own editing

### 12.5 Short Conceptual Explanation

The model illustrates a governance-led pathway of digital transformation in a secondary city context. Rather than starting from technology or tourism innovation, the process begins with institutional governance structures anchored in legally adopted urban and climate strategies.

Strategic alignment between urban development and climate policy creates cross-sectoral coherence, ensuring that sustainability operates as a horizontal principle rather than a standalone objective. Digital infrastructure then functions as an

enabling mechanism—primarily through data systems, monitoring frameworks, and analytical tools—that strengthens institutional capacity and evidence-based decision-making.

These governance-driven digital capacities generate measurable sustainability outcomes, including resource efficiency, emission reduction, accessibility, and resilience. Tourism development can be interpreted as a downstream effect: a well-managed, sustainable, and data-informed urban environment may enhance smart destination readiness and long-term competitiveness.

The model supports the interpretation that in this case, digital transformation appears to be more governance-led than technology-led, with tourism benefits arising as a structural consequence of sustainability-oriented urban management.

## **12.6 Theoretical, Methodological and Policy Contributions Conceptual contribution**

This study offers a conceptual reinterpretation of digital transformation in urban tourism as a governance-led process rather than a technology-driven innovation trajectory. By positioning sustainability as a horizontal organising principle and tourism development as a downstream outcome of institutional alignment, the paper extends smart tourism literature beyond ICT adoption and destination marketing. It contributes to governance scholarship by suggesting how strategic coherence between urban development and climate policy shapes sustainability-oriented transformation in secondary cities. Methodological contribution. Methodologically, the study advances smart tourism research by combining structured strategic document analysis with a multi-dimensional analytical framework derived from smart governance and European smart tourism policy pillars. By systematically comparing an urban development strategy with a climate neutrality roadmap, the research illustrates how governance alignment can be assessed in secondary cities through formal policy instruments. Policy contribution. From a policy perspective, the findings provide transferable insights for medium-sized cities seeking to embed digitalisation within long-term sustainability governance. The case of Wiener Neustadt illustrates that data-driven monitoring, cross-sectoral integration, and institutional coordination are preconditions for credible climate transition and smart destination readiness. At the same time, the study highlights the need for clearer

prioritisation mechanisms and stronger linkage between governance-driven sustainability and competitive destination positioning.

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