




Contemporary concepts of small town development

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Abstract

Motivation: The paradigms of sustainable development and knowledge and innovation-based economy (smart growth) are among the most important signposts for the development of contemporary towns, cities and regions. The growing competitiveness of cities and the high variation and complexity of the urban environment necessitate the search for such a model of a city that will enable its dynamic development in the economic, social and spatial spheres. The implemented development model determines the town's ability to face the current challenges, such as population changes, increasing and diverse needs of the city's users, limited natural resources which therefore require protection, a shift in the paradigm of local economy towards circular economy, thereby improving the town's ability to deal with crisis (urban resilience). As a consequence, there is a growing number of smart cities as well as cities which have adopted another dominant development concept, such as green cities, slow cities.

Aim: Purpose of the article is to discuss and compare some of these concepts, namely smart city, slow city, green city (and selected hybrid models), which can be applied in designing a policy for the development of small towns in Poland.

Results: The diverse and increasingly varied conditions underlying the development of small towns mean that a local development policy should have a more reactive and scenario-like character. The process of evolution of the existing approaches can be observed, resulting in the hybridization of the development models, where new concepts arise by combining the assumptions of several approaches, for example a smart green city, etc. This process can be seen as the manifestation of improving the level of urban resilience to crises, which increases the chance of small towns to adapt to new conditions.



Keywords: small town; city development concept; smart city; slow city; green city
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1. Introduction

Small towns are different from big cities or medium-sized towns in social, economic and cultural aspects. They are a significant element in the regional settlement structure, often acting as centres for the development of rural areas as well as sites for the supply and localization of basic services. They also play a vital role as a hub for links between larger urban centres and rural areas. In addition, they often perform some functions in relation to big cities and metropolitan areas.

Considering the diversity of types and functions of small towns, it needs to be highlighted that the development models they implement determine a given town's ability to face the contemporary challenges, such as changes in its population, growing and increasingly diverse expectations of town users, the need to protect local resources, directing the local economy towards circular economy and building urban resilience.

Over the past years, the multitude of research perspectives has given rise to a number of concepts and models of the development of towns, followed by efforts to have them implemented with a view of a permanent, sustainable, fair and inclusive development of urban centres. In the recent years, there has been a growing interest among scholars as well as town authorities and users in such concepts as: sustainable city, smart city, green city, eco city, compact city, resilient city, slow city, and even the so-called 15-minute city.

The purpose of this article is to discuss and compare some of these concepts, namely smart city, slow city, green city (and selected hybrid models), which can be applied in designing a policy for the development of small towns in Poland.

The following research methods were employed: a critical analysis of the literature and an analysis of the source documents (national, regional strategies and the EU agendas), which were carried out by inductive reasoning. The paper comprises the following parts: literature review, methods, results and conclusion. The literature review section describes fundamentals of the smart city, slow city and green city concepts. The next section, dedicated to methodology, discusses the research methods applied to compare the chosen development concepts. Next, the results of the study on the applicability of these development concepts in small towns in Poland are presented. The article ends with conclusions, including suggestions for further research.

2. Literature review

Small towns are units of human settlement with certain characteristics of spatial management (with the prevalence of compact development), socio-economic functions, non-agricultural functions, which offer the so-called urban lifestyle, have a municipal charter or the status of a town granted according to specific

legal regulations, and with a certain (although not very large) number of inhabitants. The population size brackets for identification of small towns vary from country to country. They usually range from 5 to 25 thousand people (and in the EU, sometimes up to 50,000) (Dijkstra & Poelman, 2012, pp. 4–6). In Poland, a small town is a town with a population of fewer than 20,000 inhabitants (ESPON, 2013, pp. 5–7).

The subject literature draws attention to functions of small towns, such as their role in administration, decision making, transport, education, tourism, industry and trade, services addressed to the agricultural sector, etc. As for the localization criterion, the following are distinguished: small towns at the fringe of a large agglomeration, small towns' network, isolated small towns (ESPON, 2006). Small towns can also be classified as: subregional centres, anchor towns, island towns, doughnut towns, satellite towns, niche towns (Wales Rural Observatory, 2007, pp. 90–92).

Considering the economic structure, localization and relations of a town with its environment, eight classes of small towns can be distinguished: local centres enjoying good accessibility and a multi-branch economic structure; local centres enjoying good accessibility and a specialised economic structure; peripheral local centres characterised by a multi-branch economic structure; peripheral local centres characterised by a specialised economic structure; supra-local centres enjoying good accessibility and a multi-branch economic structure; supra-local centres enjoying good accessibility and a specialised economic structure; peripheral supra-local centres characterised by a multi-branch economic structure; peripheral supra-local centres characterised by a specialised economic structure (Bański, 2022, p. 212).

The type, socio-economic potential and functional characteristics of a small town determine its developmental possibilities and, at the same time, help to identify barriers to its development. The problems and barriers to the development of small town that are most often identified are: in the social sphere — depopulation and ageing society, outflow of the population (especially young people), the mismatching between the education system, including higher education, and the local job market; the supply and demand structural mismatching of work places, unemployment, poverty zones, disproportions in the level of wealth, low level of social participation, digital exclusion of senior citizens or poor people, low availability of services in the smallest localities, often lying in peripheral areas; in the economic sphere — the town's economic sphere represented mainly by traditional branches; low level of entrepreneurship and innovativeness of the local economy and dispersion of business enterprises, growing disproportion between the endogenous potential (human, infrastructural and production capital) in the most developed centers and the remaining nodes in the settlement system, disproportions in the financial potential of local government units, low competitiveness of regional urban systems as a whole, stemming from such issues as the lack of an adequate transportation network; in the environmental and spatial sphere — neglected areas and dilap-

dated historic buildings, often in need of revitalization (e.g. centers of towns, post-industrial areas, former military facilities, low-quality housing developments composed of blocks of flats), low attractiveness of public areas for recreation and leisure, environmental pollution, waste management, maintaining cleanliness in public places, the problem of uncontrolled urban sprawl, tendency for dispersed building developments and disorderly settlements around small towns, lack of spatial order and poor aesthetic value of space (Farelnik, 2022, pp. 104–105; compare: Knox & Mayer, 2013; Mayer, 2022, pp. 73–88; Walmsley & Kading, 2018).

First and foremost, in order to determine the optimal model of development for a small town, it is necessary to refer to the paradigm of sustainable development. And sustainable development is such “a socio-economic development which integrates political, economic and social actions, while preserving the natural equilibrium and the sustainability of basic natural processes, with the aim of guaranteeing the ability of individual communities or citizens, of both the present and future generations, to satisfy their basic needs” (Environmental Protection Law, 2001, art. 3, p. 50). *The Europe 2020 strategy* is also worth mentioning, as it specifies three priorities: smart development, sustainable development, and development promoting social inclusiveness (European Commission, 2010, pp. 10–19). Another signpost indicating directions in development and measures undertaken in towns is *The 2030 Agenda for sustainable development* (United Nations, 2015, p. 18), which identifies 17 sustainable development goals, such as: making cities safe, stable and sustainable, resilient to natural disasters, promoting social inclusion; promoting stable, inclusive, sustainable model of economic growth, with full and productive employment; ensuring sustainable consumption and production patterns. This vision of sustainable cities of the 21st century is further supported by the *European Green Deal*, whose implementation will bring many benefits to both residents and users of future cities, for example fresh air, clean water, healthy soils, biodiversity, refurbished and energy-saving buildings, wholesome and affordable food, better public transport, cleaner energy and the latest green technologies, more durable products that can be repaired, recycles and reused, future-oriented jobs and skills necessary to achieve transformation, as well as resilient and globally competitive industry (European Commission, 2023). The direction in the development of small towns in Poland is defined in the provisions of the *National Urban Policy 2030* (Ministry of Development Funds and Regional Policy, 2022, pp. 19–20), which implicate that a town of the future is:

- a compact city — the pursuit of urban development in a sustainable and responsible manner and the rational use of space and available resources;
- a green city — combating the deepening of a climate crisis, counteracting the effects of climate change, reducing air pollution emissions and restoring ecosystems in urban areas (increasing green areas and continuity of ecosystems intertwining with urban areas);



- a productive city — fostering urban development through economic diversification that provides jobs for residents and creates solid investment basis for sustainable urban development;
- a digital city — using digital transformation processes to strengthen the interaction among urban stakeholders: city leaders, inhabitants, NGOs and entrepreneurs to effectively manage urban development;
- an accessible city — not only does it involve eliminating barriers through sound organisational and functional improvements, but also ensures equal opportunities for all inhabitants to fully engage in what a city has to offer and allows access to public services, regardless of size or location of the city in the settlement structure;
- an efficient city — means the ability for effective management, effective use of own resources, but also for all actors of urban development processes to be able to cooperate (partnership cooperation between institutions, social and economic organisations, inhabitants and others — not only within cities, but also their functional areas).

The implementation of the development policy of a small town, based on the chosen concept (e.g. smart city, slow city and green city), conducted in a thoughtful and consistent way, can contribute to the strengthening the town's features promoted in the *National Urban Policy 2030*. The new challenges facing small cities were the reason for the acceleration of the smart transformation process, which involves the introduction of new technological solutions in every aspect of the urban environment, in order to offer a better quality of life for residents and stakeholders (Tregua, 2021, p. 29).

The cycle of generating urban creativity consists of the following stages: helping people generate ideas or project; turning ideas into reality; networking, circulating and marketing ideas and projects; delivery mechanisms such as cheap spaces for rent, incubator units or exhibition and showcasing opportunities; disseminating results to the city, building markets and audiences and discussing these so that new ideas are generated. In this process, the city's resources should be defined broadly, as the urban assets and resources can be: material, and tangible, or soft, immaterial and intangible, real and visible, or symbolic and invisible, countable, quantifiable and calculable, or concerning with perceptions and images (Landry, 2008, pp. 224–225). This approach to generating innovation can apply to both, large cities and small towns.

The smart city is a territory with a high capacity for learning innovations, built on the creativity of its citizens, their knowledge development, with digital infrastructure for communication and management of the city. The key areas of the smart city concept (Giffinger et al., 2007, pp. 11–12) are:

- smart economy includes factors all around economic competitiveness as innovation, entrepreneurship, trademarks, productivity and flexibility of the labour market as well as the integration in the (inter-)national market, ability to transform;

- smart people is described by the level of qualification or education of the citizens, by the quality of social interactions regarding integration and participation in public life and the openness towards the “outer” world;
- smart governance comprises aspects of political participation, services for citizens as well as the functioning of the administration (political strategies and perspectives);
- smart mobility as well as the availability of information and communication technologies and modern and sustainable, innovative and safe transport systems;
- smart environment is described by attractive natural conditions (climate, green space etc.), pollution, sustainable resource management and also by efforts towards environmental protection;
- smart living (quality of life) comprises culture, health, safety, housing, tourism and social cohesion.

Levels of development of smart cities (Makiela et al., 2022, p. 2):

- smart city 1.0 — cities inspired by technologies;
- smart city 2.0 — cities with a decisive role of public administration in initiation of innovation;
- smart city 3.0 — cities based on the creative involvement of their residents;
- smart city 4.0 — cities that take advantage of the opportunities provided by sustainable development.

The researchers analyse the smart city concept and its application by decomposing its components in different ways. They emphasise four main pillars of the smart city: skills (institutional infrastructure), employment (social infrastructure), investments (economic infrastructure), quality of life (physical infrastructure), four characteristics of a smart city: sustainability, technology, compatibility and flexibility (Singh et al., 2022, p. 68323). The smart city concept can be applied and useful in development planning by both, large cities (Masik et al., 2021, pp. 1–9; Sikora-Fernandez, 2018, pp. 52–59) and smaller cities (Lopes & Oliveira, 2017, pp. 617–624).

To outline the main assumptions of the slow city concept, it is helpful to refer to the Cittaslow — the International Network of Slow Cities, which originates from the slow food movement and the initiative of mayors of four small Italian cities: Bra, Greve in Chianti, Orvieto and Positano. The term Cittaslow was coined from the Italian word città — a city, and the English word slow. The Cittaslow — the International Network of Cities Where Living is Good was founded in the Italian city Orvieto, in 1999.

For over a decade now, a growing interest in the slow philosophy and the slow city development model has been observed in Poland (as well as in other countries), which is reflected in the dynamic growth of the Polish Cittaslow Network. The International Cittaslow Network now (February 2023) associates 287 cities from 33 countries. There are already 20 national networks under its umbrella. Most member cities are situated in such countries as Italy (88), Poland (36), Germany (23), Turkey (21), South Korea (17), China (13), France



(13) and Spain (11). The Polish National Cittaslow Network was started in 2007. The founding cities were: Reszel, Bisztynek, Biskupiec and Lidzbark Warmiński. At present, the Polish National Cittaslow Network associates as many as 36 cities: 27 from the warmińsko-mazurskie province (Biskupiec, Bisztynek, Lidzbark Warmiński, Reszel, Barczewo, Bartoszyce, Braniewo, Dobre Miasto, Działdowo, Gołdap, Górowo Iławeckie, Jeziorany, Kisielice, Lidzbark, Lubawa, Morąg, Nidzica, Nowe Miasto Lubawskie, Olecko, Olsztynek, Orneta, Pasym, Ryn, Sępólno, Szczytno, Węgorzewo, Wydminy); 2 from the opolskie province (Głubczyce, Prudnik); one from each province pomorskie (Nowy Dwór Gdański), lubelskie (Rejowiec Fabryczny), łódzkie (Rzgów), mazowieckie (Sierpc), śląskie (Kalety), wielkopolskie (Murowana Goślina) and zachodniopomorskie (Sianów) (Cittaslow, 2022b, pp. 7–8).

The association can be joined by ordinary members (towns with a population of no more than 50,000) and supporters of Cittaslow (e.g. provinces, municipalities, metropolitan areas, associations of communes). In order to become an ordinary member of the Cittaslow network, a town needs to pass through a certification procedure based on 73 criteria and fulfil at least 50% plus one of these criteria, divided into seven key areas: energy and environmental policies; infrastructure policies; quality of life policies; agricultural, tourism and artisan policies; policies for hospitality, awareness and education; social integration; partnership (Cittaslow, 2022a, pp. 25–28).

In line with the association's assumptions (Cittaslow, 2022a, p. 22) in Cittaslow member cities:

- an environmental policy is implemented aimed at maintaining and developing the characteristics of the area and urban fabric, appreciating in first place the techniques of recovery and recycle;
- an infrastructure policy is implemented functional to the appreciations of the territory and not to its occupation;
- the use of technologies aimed at improving quality of the environment and urban fabric is promoted;
- is stimulated the production and use of food products obtained through natural techniques and compatible with the environment, excluding transgenic products, and whereby deemed necessary, to the set-up of facilities for the safeguard and development of typical productions in difficulties;
- the autochthonal production rooted in the culture and traditions is safeguarded and contribute to the standardisation of the area, maintaining the places and methods, promoting privileged events and spaces for the direct contact between consumers and producers of quality;
- quality of hospitality is promoted as a real moment of connection with the community and its features, removing physical and cultural obstacles that may prejudice the full and widespread use of city resources;
- amongst the citizens, and not just among the operators, is promoted the awareness of living in a Cittaslow, with special attention paid to the world of youth and school through systematic introduction of taste education.

The Cittaslow network is based on 5 pillars (Cittaslow, 2019, pp. 5–6):

- the positive side of slowness — life in accord with one’s own natural rhythm, thoughtful production, consumption, taking care of cultural heritage and social relationships;
- circular economy — the concept of economy in a closed circuit, taking care of natural resources, lower consumption, recycling, cooperation with entrepreneurs, farmers, small businesses in this scope;
- resilience — adoption of shared aims in the development of Cittaslow cities, concerning their current and future growth, which is pivotal to what their social and economic development will be like in the future;
- social justice — the right of a community to use local resources and the principles of social justice;
- sustainability and culture — responsible use of natural resources, taking care of cultural heritage and nurturing tradition.

Many authors point to positive effects that can be achieved from the implementation of the slow city concept, owing to the town’s membership in the Cittaslow network (Brodziński & Kurowska, 2021, pp. 1–15; Çiçek et al., 2019, pp. 400–414; Farelnek, 2020a, pp. 267–287; Farelnek et al., 2021, pp. 139–167; Jaszczak et al., 2019, pp. 35–46; Senetra & Szarek-Iwaniuk, 2020, pp. 1–15; Wierzbička, 2021, pp. 903–920; Zaděcka, 2018, pp. 95–96; Zagroba et al., 2020, pp. 1–20), for example:

- in the sphere of economy: development of local entrepreneurship, especially in catering, management of accommodation facilities, services in the hospitality business, sports and leisure activities, cultural events, etc.; economic activation of a city in order to build the economic potential of an urban centre with a high quality of life and a rich variety of facilities, services etc. on offer; creating new jobs; halting the outflow of young people from the local labour market; development of creativity and greater innovation in the local economy oriented towards the improved quality of life in the city; improved investment attractiveness of the city;
- in the social and cultural sphere: improved quality of life; protection of non-material heritage; building the sense of local identity; promoting and celebrating local and regional traditions, including traditional cuisine, customs and hospitality; a change of the lifestyle into a calmer one (slow life);
- in the spatial and environmental sphere: restoration of the architectural resources of cultural heritage; revitalization of degraded areas in a town, oriented towards the improvement of the quality of public space, accessibility and safety of people with disabilities, and a better access to housing; creating sites for the activation of the local community; creating a unique urban landscape, expressing the town’s *genius loci*; enhanced aesthetic quality of the town; conservation of valuable resources of the natural environment and cultural landscape of small towns; development of low-emission public transport; higher ecological awareness of the town’s inhabitants; preservation of the resources of flora and fauna; protection of biodiversity;

- in the sphere of the town’s management and marketing: creating the town’s high quality product based on its endogenous potential; creating a positive image of the town; promotion of a Cittaslow member town on the national and international scale; possibility of using the Cittaslow logo (in such areas as tourism, culture, promotion of the town, sports and leisure); possibility of using supralocal instruments for the planning of the development of Cittaslow network towns; transition from competition to co-competition of towns which are members of the Cittaslow network, that is possibilities to collaborate and cooperate, for example in the acquisition of external funds for investment projects; sharing the know-how and good practice among Cittaslow member towns; the town’s management that engages the local communities (development of social participation); higher urban resilience to crises; the prestige derived from belonging to an international network of cities.

Moreover, it is emphasized that the sustainable development of the Polish Cittaslow towns should be based on modern technologies and innovative ways of organizing life in a town so that the slow lifestyle does not negate its constant and well-planned development (Cittaslow, 2021, pp. 5–6).

The slow city concept has many points in common with the green city concept. “A green city is a city which shows high environmental performance relative to established benchmarks in terms of (I) quality of environmental assets (air, water, land/soil and biodiversity), (II) efficient use of resources (water, energy, land and materials) and (III) mitigating, and adapting to, risks deriving from climate change, while maximising the economic and social co-benefits and considering its context (population size, socio-economic structure and geographical and climate characteristics) (...) A green city approach is an integrated, multi-sector process whereby a city’s environmental challenges are periodically identified, prioritised and addressed through targeted investments and services, regulations and other relevant policy instruments with the aim to enhance the city’s environmental performance in a cost-efficient and financially sustainable manner, while at the same time seeking to maximise the economic and social co-benefits (EBRD, 2006, pp. 14–15)”.

It is worth highlighting the following possible results from the implementation of such approach (EBRD, 2006, p. 16; Javidroozi et al., 2023, p. 23):

- development of green city sectors contributes to GDP output and employment;
- innovation in green city sectors contributes to GDP output;
- resilience to the impacts of climate change improves economic resilience;
- green infrastructure and services provision, financial incentives, charges and taxes to promote green cities generate expenditures and revenues for a municipality;
- improvements in water and air quality reduce public health issues;
- enhancement of the efficiency and coverage of low-emission electricity and heat supply network;
- sustainable models of transport;

- carbon neutral target;
- ecological recovery and increase of biodiversity;
- enhancement of the efficiency and coverage solid waste collection system increases access of such services for the urban population;
- enhancement of the quantity of green spaces increases access of such services for all the urban population and generate well-being;
- involving citizens in city planning processes helps to achieve public participation objectives and buy-in of the population;
- social resilience — tackling the vulnerability of communities to natural disaster risk.

Small towns and a solar municipality may play an important role in the energy transformation locally while creating global benefits (Batyk et al., 2022, p. 12; Poggi et al., 2021, pp. 174–187). One of the factors that facilitates citizens' engagement in green policies is if citizens feel bonded with their local environment (Hadjichambis et al., 2022, p. 25).

Examples of analyses that combine two areas (two development concepts) can be found in selected publications about: smart and slow city (Farelnik & Stanowicka, 2016, pp. 359–370), slow and green city (Batyk et al., 2022, pp. 1–17; Wierzbicka, 2022, pp. 1–6), smart, sustainable and green city (Javidroozi et al., 2023, pp. 1–28), smart, slow and compact city (Rysz & Mazurek, 2015, pp. 39–46).

3. Methods

The review of the literature has verified the assertion that small towns take advantage of different concepts and patterns of development in their development policies. The choice of a particular approach is in concord with the paradigm of sustainable development, and additionally takes into account the type and specificity of a small urban center (its location, the functions it plays and its links with the environment).

The aim of this paper has been to discuss and compare some of these concepts, namely smart city, slow city, green city (and selected hybrid models), which can be applied in designing a policy for the development of small towns in Poland. These concepts are among the best known and most widely used by cities around the world, so it was decided to carry out a comparative analysis of their usefulness for small cities.

A critical perusal of the subject literature as well as an analysis of original sources (national, regional, local strategies and the EU agendas). The inductive reasoning method was applied.

The critical review of the scientific literature covered papers in the Polish and in the English language, which discussed the assumptions, the course of implementation and the effects of the implantation of different urban development concepts (especially smart city, slow city and green city). To analyze the slow city concept, the Polish National Cittaslow Network was used as an example. It

has existed for 15 years now and is one of the biggest national networks within the International Cittaslow Network, which develops its assumptions on the basis of the broadly understood slow philosophy. The inductive reasoning method and a comparative analysis of the selected small town development concepts were employed to draw conclusions from the literature review.

The limitation to the above research approach was the restricted territorial area included in the analysis — hence, the conclusions drawn from this study relate mainly to the specific characteristics of the development of small towns in Poland, and the author could only refer to some of the references concerning the urban development models and concepts, despite the wealth of publications, especially regarding the smart city concept.

4. Results

Based on the literature perusal, a comparison was made between the three development concepts: smart city, slow city and green city, according to 15 criteria. It turned out that the three concepts share certain characteristics, for example they all focus on the conscious use of resources, sustainable transport, social participation in the management of the city, and improvement of the quality of life. Also, they all adhere to the paradigm of sustainable development, allow the achievement of benefits from the networking of cities (smart city network, green cities network, Cittaslow), and can be used in local policies of development of small towns, although the actual development pathway depends on a given town's unique potential and development conditions. This is particularly true about the smart city concept, which is implemented differently in big cities and metropolitan areas. Similarities between slow city and green city can also be seen in the spheres of environmental protection and development of ecological agriculture, and in the care given to the development of local social capital. Development based on the cultural capital, local values and traditions, hospitality, openness and genius loci of the place is an approach characteristic for slow city. Smart city draws from the potential of modern technologies to the highest degree. Sustainable water economy is what distinguishes green city, although it is also in agreement with the circular economy paradigm and seems to be an objective that all the above types of cities will pursue in the nearest future (Table 1).

Thus, the concepts of smart city, slow city and green city reveal certain similarities in specific spheres and components of the development models. Such similarities can also be observed by making a more detailed analysis of the list of certification criteria applied to evaluate the International Cittaslow Network applicant cities, whose aim was to verify whether these criteria are compliant with or contradictory to the assumptions underlying the concepts of smart city and green city. The criteria relate to important areas in which a city or a town must function, e.g. energy and environmental policy, infrastructure policies, quality of urban life policies, agricultural, touristic and artisan policies, policies for hospitality, awareness and training, social cohesion, and partnerships. Us-

ing the solutions, instruments and development policies typical of the smart city or green city concept may contribute to cities being able to satisfy better (both quantitatively and qualitatively) the assumptions of the Cittaslow Network (especially since the assessment of Cittaslow member cities is repeated every 5 years). It may therefore be significant in this context to combine different approaches, which results in the creation of so-called hybrid concepts. Thus, the following hybrid approaches can be identified (Scheme 1):

- smart slow city — combining smart city and slow city;
- green slow city — combining slow city and green city;
- green smart city — combining smart city and green city;
- smart green slow city — a slow city distinguished by presenting some features of smart and green development.

This innovative approach to directing a local development policy and building the vision of a town can become a remedy for the problems small towns may struggle with as well as a response to the specific and dynamically changing conditions which determine their development. Towns are subjected to continual changes and exposed to the influences of many endo- and exogenous conditions, therefore any search for or formation of new concepts for the development of small towns arise from a given town's current situation and prospective needs. An example of a future need is the necessity to build a town's resilience, that is the capability of dealing with crises and building a new equilibrium of the urban system after a crisis. In this context, as regards small towns, it is justifiable to mention such notions as the organizational resilience, community resilience, urban resilience, liveability or even vitality (Carp, 2012; Lazzeroni, 2022; Rogers, 2016, pp. 142–149; Ruszczyk, et al., 2023, pp. 1–12).

While the concept of smart city is often implemented in big cities, its assumptions are also taken advantage of in smaller urban centers (Ruohomaa et al., 2019, pp. 5–11). Among research papers dealing with the notion of smart city, there are ones which have a critical character, mainly because of some methodological differences and problems (different definitions of basic terms of key resources or potentials of a smart city, or the problem of selecting and measuring indicators which serve to analyze such potentials) (Lazaroiu & Roscia, 2012, pp. 326–332). Some researchers pose fundamental questions about the future functioning of smart cities, pointing to certain limitations of this approach. Will the participation of residents increase? Will more decisions be made collaboratively by the city authorities and residents? How will a smart city avoid technocratic, dominant, top-down governance? Will technological devices be designed based on people's needs rather than on corporate or infrastructure interests? (Calzada & Cobo, 2015, p. 38). The implementation of the smart city concept in a small town can be difficult due to: concentration on investing in advanced technologies without the real perception of problems of the city; the deployment of smart technologies in cities with complex social problems can exacerbate social inequalities through technical improvements; the lack of a comprehensive view of cities considering the needs in all areas; changes related to the introduc-

tion of the smart city concept, mainly including the technological aspect, may negatively affect the loss of the existing character and unique charm of some towns, especially those valued due to their traditional character; the majority of investments in the development of the smart city concept focuses on creating new facilities instead of modernising the old ones; the development of smart city infrastructure requires huge investments, which are indirectly made by citizens, by the tax; managing cities is a huge challenge and requires, above all, intelligence, responsibility, and reasonableness (Winkowska et al., 2019, p. 73). The key barrier to the development of smart cities in Poland is the unsatisfactory level of prosperity of the residents and the difficult financial situation of cities, which means that the vast majority of the surveyed areas are not able to attempt to get closer to the Smart City 1.0 generation (Jonek-Kowalska & Wolniak, 2021, pp. 1–16).

The risks associated with the implementation of the slow city concept arise from the local population's insufficient knowledge of the idea of Cittaslow, low level of social engagement, transient terms of office for local authorities and the inherent risk of changing the direction of a local policy (towards a model other than slow city), the literal understanding of the protection of a town's cultural heritage and the associated risk of turning a city into a Skansen-like site, which entails its stagnation, and limited investment resources in the budgets of small municipalities (Farelnik, 2020b, p. 29).

Admittedly, the evolution of the smart city concept has gone hand in hand with the growing concern for the protection of the environment, the development of renewable energy sources and with the necessity of increasing the overall quality of urban landscapes including a dynamic social and cultural environment, capable of attracting a well-educated and skilled workforce. However, it is important to be aware that every city, aspiring to be a smart city, is different, has a different physical landscapes, distinctive urban residential cultures, a divergent morphology of infrastructures, contrasting norms, traditions and habits at local level (Ferrara, 2015, pp. 4732–4733).

The proposed hybrid approach drawing on the three development concepts discussed in this article is justified by the findings presented in earlier articles dealing with various combinations of different approaches to urban development (Farelnik & Stanowicka, 2016, pp. 359–370; Tocci, 2018, pp. 110–128), although it is more common to find solutions with one dominant concept of a city inclusive of certain elements selected from another concept or specialization.

5. Conclusion

The above study shows that small towns, which are a very important element of the country's settlement structure, can draw from different theoretical concepts in order to shape their local development policy. It is important that these concepts should not be mutually contradictory. As demonstrated by the study, the notions of smart city, slow city and green city are not only concordant with

the paradigm of sustainable development but are also able to complement each other in the so-called dual development model.

The diverse and increasingly varied conditions underlying the development of small towns mean that a local development policy should have a more reactive and scenario-like character. The process of evolution of the existing approaches can be observed, resulting in the hybridization of the development models, where new concepts arise by combining the assumptions of several approaches, for example a smart green city, smart slow city, green slow city. This process can be seen as the manifestation of improving the level of urban resilience to crises, which increases the chance of small towns to adapt to new environmental conditions.

It is also advisable to consider the fact that every town is different and its development pathway depends on the endogenous potential as well as external conditions from its nearer and further environments. The adopted development concept (either a homogenous or hybrid approach) is implemented in an adaptive manner, that is as far as possible and in relation to the needs. It is therefore impossible to make an assertion that one approach is superior to another one because an approach that works well in one town does not guarantee obtaining the same results in another town, even if they are similar in some structural respect. The process of hybridization (drawing from and combining different approaches) seems inevitable because of the multitude of challenges that small towns face in the globalized and competitive world. Hence, the hybrid models discussed in this article, including the smart green slow city, may evolve to a new, well-established concept, which will be a compilation of three component parts, adjusted to the needs of a small town of the 21st century. The author intends to continue her studies in this areas, enlarging the catalogue of applied research methods by adding qualitative studies conducted in selected small towns in Poland. Also worthy of further research is the identification of the most effective local development policy tools that give the best results in implementing the development concept adopted by a small town, including hybrid models.

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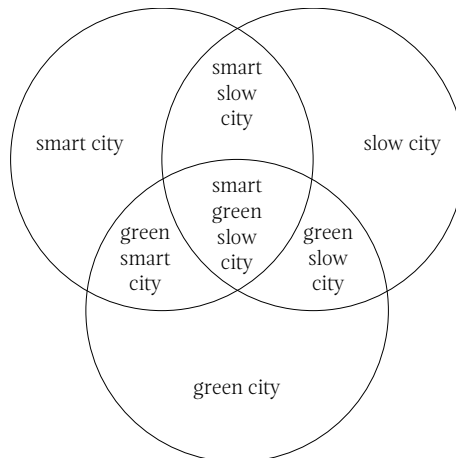
Appendix

Table 1.
Comparison of the features of smart city, slow city and green city concepts

Criterion	Smart city	Slow city	Green city
potential of new technologies	+		
cultural capital, local values and traditions		+	
care for the environment		+	+
conscious use of resources	+	+	+
ecological agriculture		+	+
sustainable water economy			+
sustainable transport	+	+	+
social capital		+	+
social participation in the management of the city	+	+	+
hospitality, openness and genius loci of the place		+	
improving the quality of life	+	+	+
compatibility with the sustainable development paradigm	+	+	+
possibility of hybridisation of development concepts	+	+	+
possibility to network cities with the same type of development model	+	+	+
possibility of implementation in a small town	+/-	+	+

Source: Own preparation based on Farelnek & Stanowicka (2016, pp. 366–369), Rysz and Mazurek (2015, p. 44).

Scheme 1.
Hybridization of the smart city, slow city and green city concepts at the level of a small town



Source: Own preparation.

