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THE USE OF THE *SMART VILLAGE* CONCEPT IN SHAPING LOCAL DEVELOPMENT. EVALUATION AND RECOMMENDATIONS BASED ON THE EXPERIENCES FROM THE ELBLĄG CANAL REGION

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ABSTRACT: In this paper, the authors aim to present their evaluation of the potential of a Smart Village concept as a tool for the integration of local communities and participatory local development planning, based on 15 projects of strategies of villages, localities and municipalities in the Elbląg Canal Land. One of the significant distinguishing features of the developed concepts was the focus on goals, combining both the needs and the well-being of rural communities. Another shared characteristic of the analysed concepts is that they envisage the creation and development of tourist products related to the Elbląg Canal, a unique historic landmark of hydrotechnical engineering. Important objectives of the concepts developed with the participation of residents of each locality were to build partnerships and to identify avenues for cooperation, whilst creating local products and tourist services or solving local problems. The article compares the program's priorities with the solutions presented in the strategies. It also provides recommendations related to the strategy development process and the potential for their implementation within the Smart Village program. Among the key points is the need to thoroughly familiarise local communities with the program's objectives and possibilities, as well as to offer both substantive and organisational support to these communities during the strategy development process, for example, by collaborating with the academic sector.

KEYWORDS: Smart Village, the Elbląg Canal Land, local action group LAG, development of rural areas

The aim of the article and the research methods

The aim of this article is to analyse the outcomes of the developed Smart Village concepts, and to evaluate the potential of this solution as a tool for the integration of local communities and participatory local development planning. The research subject consisted of concepts developed between June and October 2023 for 15 grant recipients from the area called the Elbląg Canal Land. The grant holders were rural communities, local non-government organisations, local government units and local activists. The following questions were put forth to reach the research aims:

1. What are the basic assumptions, objectives and directions of the development of a Smart Village concept?
2. How did the research organisation and the process of developing the Smart Village concept proceed?
3. What is the relationship between the Smart Village program's priorities and the aims and actions defined in the particular concepts?
4. How can the aims, measures and actions defined in any of the analysed concepts contribute to the integration of local communities in the regional dimension?
5. What conclusions, based on the developed Smart Village concepts, can contribute to improving its effectiveness in terms of activating and integrating local stakeholders in the process of planning rural development?

The authors of the article actively participated in the process of strategy development by local communities. A detailed schedule of the work of local communities in the Elbląg Canal Area is presented in Table 1, included later in the paper. Assuming that the individual communities are responsible for the substantive aspects of the future concepts, the authors play the role of experts in the process of development of the local Smart Village strategies. The authors were both the creators of the strategy development process concept as well as the organisers and moderators of the stages of its creation.

Due to the bottom-up nature of the strategy development, the involvement of the authors had a dual character and proceeded along two parallel tracks. First, the preparation of the concept required the collection and contextual processing of essential demographic, social, economic, environmental, and tourism-related information regarding the development of particular communities and areas. In this regard, desk research was applied to available data, including statistical, source, and historical data, as well as existing and ongoing strategies and development plans for municipalities and particular localities. The experts gathered and contextually analysed resources from institutions and local organisations to create a comprehensive and coherent description of the current state and ongoing processes. The experts conducted systematic consultations with the representatives of the grantor, the "Łączy Nas Kanał Elbląski" Local Action Group, and its representatives participated in all workshops as consultants and supervisors.

Secondly, the nature of the Smart Village concept justifies the use of qualitative methods for data collection, preparation, and utilisation (Creswell, 2013). In collaboration with the grantor representatives, the authors of the article developed a methodology for the workshops and communication with local communities. A three-stage process was designed, appropriate work methods were selected, and the necessary tools for its implementation were developed. The process and methods were aligned with the goal of enabling local communities to self-diagnose their problems and needs, assess their development potential and limitations, and subsequently define the development goals and the tasks arising from them. During the first diagnostic stage, the method of focused group interviews was used with participants representing local communities (Olejnik et al., 2019). Additionally, surveys were prepared and conducted among the communities to determine the importance of various Smart Village program priorities. The survey was carried out using an original electronic questionnaire (Babbie, 2003), the results of which were used in the subsequent stage of developing the concepts, during which the local community representatives formulated the vision, mission, goals, and tasks to be achieved. Depending on the local context, either the group interview method or in-depth interview method was employed (Denzin & Lincoln, 2009). The tools and techniques facilitating the identification, formulation, and selection of mission, vision, goals, and tasks for implementation within the local Smart Village strategy were also utilised. These included trend cards, roadmaps, and related tools (Roadmap Toolbox), as well as creative thinking techniques (Rural Trends,

2024; Kjaer, 2014). At the final stage, public consultations were conducted. Their aim was to prioritise the goals and tasks, develop a timeline for their implementation, and define ways to engage the local community in these processes. The final versions of the individual Smart Village strategies were then verified by the grantor, the Local Action Group, for consistency with the already existing local development strategy.

Achieving the objectives of the article required the authors to choose and apply various research methods. The concept of Smart Villages and the program for its progressive implementation were presented based on a critical review of the relevant literature and an analysis of network data coming from the websites of organisations and institutions involved in the implementation of this initiative. The process of strategy development was described through a retrospective analysis, using primary data collected during workshops and consultations with local communities. Comparative analyses were conducted using document analysis, focusing on particular strategies and the examination of the assumptions and priorities of the Smart Village program.

The achieved outcomes should be considered as a result of the awareness of the existing problems and needs within the local communities. The role of the experts was to support the communities in the process of self-diagnosis, self-assessment of strengths and weaknesses, as well as opportunities and threats identified by the workshop participants. The final decisions regarding the selection of goals and tasks, which form the content of the individual strategies, reflect the choices made by local community representatives. The authors' participation in the organised workshops provided an opportunity for participant observation. This enabled the formulation of conclusions regarding the degree of familiarity with the program's assumptions, as well as the assessment of its value and usefulness in solving problems for local communities. During the workshops held in the individual localities, systematic field observations were also conducted. The results of these observations served as the basis for drawing conclusions about the level of community integration around the goals and tasks. The analysis of 15 strategies, conducted later in the article, which combines cognitive goals and optimisation goals, provides the basis for recommendations that could improve the Smart Village strategy development process.

Assumptions and evolution of the Smart Village concept – a review of the subject literature and the state of research

In recent years, the question of a versatile development of rural areas has grown to be one of the most important issues in international political debates (OECD, 2016). In the past, it was mainly urban centres that were considered to be 'locomotives of economic competitiveness, pulling the rural 'carriages' passively along behind them' (Shucksmith, 2008). Such a mindset has reinforced the strong and progressive megatrend of urbanisation, along with its social, economic and technological rationale and consequences (Rose, 2016; Sydney Business Insights, 2023). The rethinking of the role of rural areas in the socio-economic development of regions has stimulated more intensive actions for the sake of sustainable and regenerative development of the countryside. Currently, rural areas demonstrate their own dynamics of changes, and are a source and place of many significant social, economic, technological and environmental innovations. (Nazarko & Bokun, 2024; Torrecillas Caro et al., 2024; Goodwin-Hawkins et al., 2023; Jungsberg et al., 2020; Pyburn & Woodhill, 2014). Until recently, it was assumed that maintaining sustainable development requires a different approach for rural areas than for urban ones, chiefly because of the differences in demographic, economic, social, cultural and environmental factors (Bryant & Granjon, 2009). At present, expectations regarding the outcomes of Smart Village strategies are a response to the challenges of rural regeneration, preventing depopulation of rural areas or fading appeal of the countryside as a place of living or investment. This is also evidenced by system policies at the European level undertaken to restore natural resources (Regulation, 2022).

The concept of Smart Villages is a relatively novel approach to the shaping of the European Union's policy. It has become a sub-theme in the broader thematic work called 'Smart and Competitive Rural Areas', carried out by the European Network for Rural Development (ENRD). One of the earliest presentations of the assumptions underlying the concept of Smart Villages was delivered by Holmes and Thomas (2015). These authors linked the Smart Village idea to technology leapfrogging,

which could result in rapid improvements in healthcare, food safety, education and an economic boost among rural communities. The Smart Village concept was initially implemented as a few-year-long projects in Tanzania. Such projects are continued today (Smart Villages Research Group). The idea of Smart Villages was further developed by Somwanshi et al. (2016). Their approach concentrated on activities carried out in rural communities with the focus on social integration and improvement of the qualifications of rural residents, later followed by systematic, adaptive, and responsive development of solutions which would raise the standard of living and help implement technologies. The concept of Smart Villages rests on the premise that technological progress creates conditions for increasing revenues, providing services and strengthening the community, which significantly improves the quality of life in the countryside (van Gevelt & Holmes, 2015). This calls for more intensive development of rural areas with a significant contribution of social innovations, which are a catalyst for the growth of human and social capital, and a more effective implementation of technological innovations in rural areas (Zwolińska-Ligaj et al., 2018).

According to the ENRD's assumptions, Smart Villages are communities creating practical solutions to the existing challenges and a way to take advantage of perceived opportunities for rural development, arising from available digital technologies. Their manifestation can be seen as activities undertaken to open rural communities, build local partnerships between villages, as well as villages and towns. New forms of collaboration and partnerships are also considered to be Smart. They are formed between farmers and other rural actors, between municipalities, the private sector and NGOs. According to the above assumptions, independent thinking, which creates local innovations with the participation of residents and available assets rather than replicating existing solutions or patterns of actions, is also considered Smart. Smart Villages are not scale-adjusted Smart cities. Smart Villages develop as initiatives of local communities in a way that employs available technologies. In line with the Cork 2.0 Declaration, it is essential to create unique solutions, adjusted to local capabilities and needs (Hess et al., 2018). In other words, it is crucial to discover and strengthen the local potential of a community, environment, business and cultural activities.

The Smart Village program serves to provide comprehensive support to rural communities and areas. In 2017, the European Commission launched a coherent action in that direction. It has been described synthetically by Ocsko (2019). In September 2017, the European Parliament and European Commission implemented the Smart Villages program. At that time, a Thematic Group for Smart Villages was created, which continued its work through several stages until July 2020. This has resulted in several initiatives aiming to develop effective methods for building sustainable, socially and economically attractive rural areas (ENRD, 2021). Synthetic presentation of the main steps in the action plan for the benefit of Smart Villages in the European Union member states can be found in *Smart Villages. Concepts, issues and prospects for EU rural areas* (Juan et al., 2021). The Smart Village concept is an element of the Europe 2020 Strategy and an outcome of the aforementioned Cork 2.0 Declaration issued in 2016. One of its goals was to implement the concept of sustainable development in the face of increasingly deepening issues of rural territories and challenges associated with climate change (Guzal-Dec, 2018). In line with the definition proposed in 2017 by the ENRD, Smart Villages are 'rural areas or communities which use digital technologies and innovations in everyday life, thereby improving the quality of life as well as of public services, and using local resources more effectively' (ENRD, 2017a). Smart Villages are developed by taking advantage of their strengths, local assets and new opportunities (Hess et al., 2018). A village's local potential is composed of rare goods. They can be natural resources, which are fundamental to the functioning of economic branches and businesses rooted in the economic structure of the local market. The LEADER (fr. *Liaison Entre Actions de Développement de l'Économie Rurale*) approach, which is also part of the Rural Development Programme, is one of the available pathways. This programme is funded by the European Agricultural Fund for Rural Development (EAFRD), which aims at assisting local development led by local communities, i.e. Community-Led Local Development (CLLD) (Wolski et al., 2016). Local Action Groups, working under the umbrella of the LEADER programme, play an important role in the creation and implementation of social innovations (Guzal-Dec, 2018).

The definition of Smart Villages evolves as the programme's assumptions are further developed (Renukappa et al., 2022). The definition of Smart Villages created by the European Commission states that they are 'communities in rural areas which use innovative solutions to improve their resilience, building on local strengths and opportunities' (European Commission, 2020). The participatory

development and implementation of a strategy for the improvement of economic conditions, social life and natural environment are also of great importance in this approach. Smart Villages cooperate and enter into partnerships with other rural and urban communities and actors. They can base their actions on existing initiatives or new ones in the process of implementation, financed from either public or private funds. The development of Smart Villages does not depend on the administrative division system or demographic indicators. What is of greater importance is the commitment of local communities to recognising challenges and needs, and subsequently to identifying goals and actions necessary to deal with the former and to satisfy the latter. Digital technologies serve to collect and manage data illustrating local events and processes, and to create or improve flexibility and resilience, and ultimately to improve the attractiveness of rural areas and the quality of life for rural populations. The use of technologies is not an aim in itself, but one of the means to achieve planned and implemented changes. As the authors of this document put it, 'Smart Village strategies respond to the challenges and needs of their territory by building on their local strengths and assets' (European Commission, 2020). Their aim may be to improve access to social services, e.g. transportation, health-care, education, stimulation of local entrepreneurship, creation of new jobs, creation of short supply chains of food and other goods, support to RES facilities, circular economy, optimisation of the use of natural resources, protection and regeneration of the natural environment and biodiversity, as well as building resilience to adverse effects of climate change.

In 2018-2019, the European Commission launched a pilot project to create eco-social Smart Villages. It redefined Smart Villages and promoted good practice. The description of this project, including an analysis of its outcomes, can be found in Ocsko (2019). The conditions under which Smart Villages were created at that time were the subject of several legal acts and political initiatives. Among others, the following seem to be most important:

- EU Action for Smart Villages, by the European Commission, of 12 April 2017,
- 'A Smart and sustainable digital future for European agriculture and rural areas' Declaration of 5 April 2019,
- Smart eco-social villages | Pilot Project | European Commission (2017-2019).

The pilot project on eco-social Smart Villages, initiated by the European Parliament, was carried out by a consortium composed of Ecorys, Origin for Sustainability and R.E.D. from January 2018 to April 2019. The pilot project demonstrated the opportunities and challenges associated with the implemented program. 15 examples of good practice and 6 case studies illustrate local experiences. They include agriculture, natural environment, energy, mobility, health, education, culture and tourism. Despite some differences, many Smart Villages share certain common characteristics. Citizen participation, adequate management, and the use of an anchoring project in the implementation of a purpose-driven strategy are of key importance. Examples show that the Smart Village concept needs to be supported by the EU, national and regional institutions. Stages in the development of Smart Village concepts are shown in Figure 1.

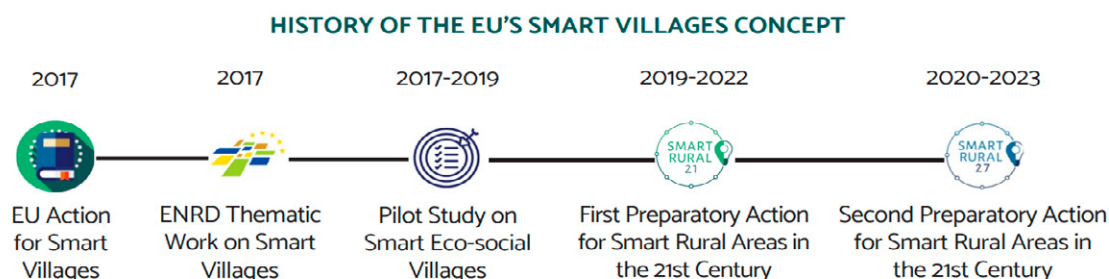


Figure 1. Stages in the development of the Smart Village concept

Source: Ocsko (2019).

The Smart Rural 27 Project was initiated by the European Commission in December 2020. Its aim is to 'prepare Member States and rural communities for the implementation of the Common Agricultural Policy (CAP) post-2020 as well as other EU policies and initiatives, which could potentially sup-

port the emergence of additional Smart Villages across the European Union' (The Smart Rural 21 Project, 2022).

The Smart Village concept combines three mutually complementing elements: infrastructure, institutions and society (Komorowski et al., 2023). The Smart Village concept consists of: 'Smart initiatives', that is local actions aiming at satisfying local residents' needs, 'Smart infrastructure', mainly roads and means of transport to improve the mobility of local residents, 'Smart institutions', enabling the acquisition of digital skills, public and social 'Smart services', supported by technological solutions, and 'Smart community', that is local leaders and active residents (Komorowski & Stanny, 2020; Żytka, 2023; Rural Trends, 2024).

To recapitulate, Smart Village is a concept with a global reach, treated as a trend and an approach to the implementation of technologies, platform solutions, the Internet of Things, autonomous mobility and remote forms of care (Park & Cha, 2019; Nagabhushan Rao et al., 2018). In the EU, the Smart Village concept is implemented mainly in the scope of cohesion and strengthening of rural areas, and in Poland it is inscribed in the foundations of the Strategy for Sustainable Development of Rural Areas, Agriculture and Fisheries 2030 (Uchwała, 2019), which is an instrument of the Polish agricultural and rural development strategy. The main objective of this strategy is to achieve the economic growth of the countryside, which will ensure a permanent increase in incomes of the rural population while minimising economic, social and territorial disparities, and to improve the condition of the natural environment. Financing initiatives and actions connected to Smart Villages is envisaged in two interventions described in the Strategic Plan for the Common Agricultural Policy for years 2023-2027 (SP CAP 2023-2027). The implementation of the Smart Village concept will require, first and foremost, the activation of local communities to elaborate shared action strategies in groups of neighbouring villages (*sołectwo*) or municipalities (*gmina*) (Komorowski et al., 2023).

The achievement of the Smart Village objectives can contribute to positive transformations of rural areas and communities. Smart solutions enable an increase in the efficiency of management and provision of services, and the improvement of the competitiveness of rural territories, at the same time respecting the economic, social and environmental needs of the present and future generations. It can be assumed that the role of Smart Villages in the socio-economic development of regions will be gaining importance, and therefore, studies dealing with the implementation of the Smart Village concept seem to be fully justified.

Organisation of the research

During the development of the Smart Village concepts in the Elbląg Canal Land, the following Smart Village program's priorities were considered:

- focus on problems and needs of disfavoured social groups – young people and senior citizens – to counteract negative consequences of the ageing of society and the depopulation of the countryside,
- forming open societies, building local partnerships and cooperation networks,
- promoting solutions counteracting negative consequences of climate change, aiming at reducing emissions of greenhouse gases, reducing energy consumption, saving natural resources, especially water,
- undertaking actions aimed at protecting the natural environment, reducing anthropopressure, and supporting biodiversity and regeneration of nature, using new technologies to improve the quality of life of rural populations (Kalinowski et al., 2021).

All the Smart Village concepts submitted to our study were developed in collaboration between the residents of individual localities and a team of experts. The collaboration plan was prepared by each team in consultation with the grantor, the Elbląg Canal Local Action Group. The process of concept development was divided into five stages. Table 1 shows the timetable of the team's work with local communities in the Elbląg Canal Land and the aims of the research.

Table 1. Timetable of the work carried out by the team and local communities in the Elbląg canal Land

Stage	Time	Research work, actions	Objectives of the research
I	June – July 2023	15 field workshops, meetings and study visits, field observations, meetings with communities, processing of collected information, research and collection of existing data, in-depth interviews, and consultations	<ul style="list-style-type: none"> • Presentation of the Smart Village program's assumptions • Conducting the diagnostic studies, SWOT analysis about the communities and localities, analysis of the needs of residents • Diagnosis of the socio-economic situation and the way the existing infrastructure in the villages and their surroundings is used • Plotting a map of stakeholders active in the environment of the villages
II	July – August 2023	Development of the methodology and performance of the CAWI survey study, processing available results on an ongoing basis, development of templates and preliminary versions of the strategy	<ul style="list-style-type: none"> • Making a broad-scale analysis of the problems and needs of local communities in the context of the Smart Village program's priorities • Obtaining opinions of residents on their needs in the social, cultural, tourist, climate, environmental and technological spheres • Identifying preferences in the scope of needs and goals associated with the Smart Village program's priorities
III	August – September 2023	15 online workshops (the virtual white-board Miro/the Google Meet platform), consultations, in-depth interviews	<ul style="list-style-type: none"> • Analysis of changes in the economic activity in the villages, in tourism and in preferences and needs of residents • Determination of the mission and vision, general and detailed aims of the strategy, and tasks including indicators to measure the achievement of the aims • Presentation of the results and conclusions from the SWOT analysis and survey study • Making a contextualized analysis of socio-demographic, technological, economic, environmental and tourism-related trends • Identifying the underlying conditions and possible directions of the future development
IV	September – October 2023	In collaboration with the communities, specification and prioritization of tasks, development of indicators, and identification of possible sources of funds for the tasks, finishing the work on the concepts	<ul style="list-style-type: none"> • Identifying the priorities among the goals and tasks, considering the assumptions of the Smart Village program • Defining the timetable of tasks • Defining the indicators and ways of monitoring the accomplishment of the tasks • Creating a plan to involve local communities in the implementation of the tasks
V	27 October 2023	Transfer of the final versions of the strategy. A workshop on the formula of partnerships with the participation of local communities	<ul style="list-style-type: none"> • Transferring the final Smart Village concepts to grantees • Discussing the future shape of partnerships and further work tasks

Workshops were carried out as on-site meetings in all 15 localities, mostly in villages. They were attended by representatives of local communities, the grantor and the team of experts. The second series of workshops with the residents was organised as online meetings on the Google Meet platform. The research and the shared analysis of trends and changes occurring in the environment enabled the determination of desired directions in development, taking into account the actual needs and problems of the rural communities. The aims defined in the concepts, as well as proposed solutions, are rooted in the definition of Smart Villages. What was of key importance was the use of existing strengths and opportunities, where traditional and new networks and services are improved through knowledge, innovation and information and communication technologies (ICT).

Effects of the research

The mission, vision, goals and tasks are the four key elements of the strategic management of a region's development, which set out the main directions and the pace of the development of a local community and locality. This research consisted of making a complex diagnosis of the current socio-economic situation of a given locality. The concepts aimed to implement solutions for the sustainable and circular development of rural areas and local communities. Table 2 presents the formulated missions and visions of the future, as well as the key objectives of the development contained in the 15 Smart Village concepts. Table 3 provides data on the estimated costs of the execution of the priorities defined in these concepts.

Table 2. Missions, visions and key development goals of the villages comprised in the Smart Village concepts

No	Grantee	Villages	Mission * Vision	Development goals
1.	Association for Development of the village Aniołowo	Aniołowo, Marianka, Nowe Kusy, Rzecznica, Zielony Grąd, Kwitajny	With tradition into the future: ecologically, jointly and smartly * Engaged and integrated residents effectively using owned resources for future generations, by creating theme villages	<ul style="list-style-type: none"> • Creating an image of an attractive locality and life prospects • Integrating and stimulating the activity of local communities • Increasing the wealth of local communities by creating and using local resources and skills
2.	The <i>Lisie Bagno</i> Foundation	Bagieńsko, Miłomłyn	<p>Miłomłyn and Bagieńsko – are the villages friendly to residents and the environment, meeting the needs of the community, supporting local activity, caring for cultural heritage, open to tourists and investors</p> <p>* Miłomłyn and Bagieńsko – attractive tourist destinations, with high quality of life for both residents and visitors, using up-to-date technologies to promote the two villages in the broadly understood web (online cameras, air monitoring, activity in social media)</p>	<ul style="list-style-type: none"> • Promoting the local territory (the commune) as an attractive location for residents and tourists • Improving the standard of living of residents • Increasing the tourist appeal of the commune
3.	The <i>Dwie Wsie</i> Association	Dłużyna, Drużno, Wężina	<p>Dłużyna, Drużno and Wężina – this is an internally integrated community, striving for sustainable development of their villages, open to tourists and investors</p> <p>* Dłużyna, Drużno and Wężina: the Pearls of the Elbląg Land – villages which are a safe haven for everyone (adults, children, teenagers), places where different generations can meet. Residents work for the common good and for the development of tourism</p>	<ul style="list-style-type: none"> • Improving tourist appeal • Increasing the degree of integration and social activity
4.	Volunteer Fire Department in Jelonki	Jelonki	<p>Integrated and active local community focused on creating conditions for the sustainable development of the village, pursuing activities which improve the quality of life for residents and the village's tourist appeal</p> <p>* The village friendly to inhabitants and tourists, with favourable conditions for life, work and development of entrepreneurship, making the best use of its historical, tourist, infrastructural and social potential</p>	<ul style="list-style-type: none"> • Raising the activity and strengthening the integration of the Jelonki village community • Improving the tourist appeal of the village Jelonki
5.	The <i>Arka</i> Association for the Local Community in the Town and Commune of Susz	Różnowo, Kamieniec, Lubnowy Wielkie, Lubnowy Małe	<p>We create a rural space for intergenerational exchange of skills, we activate senior citizens, and use their unique skills. We build a local network of cooperation, facilitating education, integrating residents and promoting local artists</p> <p>* The villages integrated in this strategy are becoming recognizable, open to tourists, with a high social capital and level of integration of the village inhabitants. They will become a space with outstanding aesthetic values, full public infrastructure, attractive to both senior citizens and young people</p>	<ul style="list-style-type: none"> • Local cooperation network – creating a cohesive and attractive offer of local products, and integrating local communities around shared tasks • The Susz Bicycle Trails – improving the tourist appeal of every village, community and the whole region • The villages as friendly places of life and activity for their residents (senior citizens and young people) • Get to know us. People – Flavours – Places. A network project
6.	The Zicherka Association	Kazimierzowo, Adamowo	<p>Wisely, that is ecologically and working together, we are heading to the future</p> <p>* Together we support pro-ecological actions, educate for ecology, promote zero waste and prudent use of the Earth's resources</p>	<ul style="list-style-type: none"> • Sharing the history of the region, and creating a new image of Żuławy, getting to know the unique irrigation system in the region – creating a place to promote ecofriendly activities, and disseminating sustainable development goals

No	Grantee	Villages	Mission * Vision	Development goals
7.	Volunteer Fire Department in Kisielice	Kisielice	Kisielice is a sustainable locality, friendly to residents and tourists * The locality with preserved and promoted local traditions, responsible for the environment, using its cultural and tourist potential, integrated internally, and undertaking activities for the benefit of residents and tourists	<ul style="list-style-type: none"> Enhancing the tourist appeal of the village Building a local community with a high level of activity and social integration Creating a space and a community friendly to the environment and resistant to climate change
8.	The Wieś z Pomysłem Association of Residents of the village Oleśno	Oleśno, Fiszewo	Oleśno and Fiszewo are villages with ideas, inspiring, initiating, integrating and attracting people * Our Oleśno and Fiszewo are intergenerationally integrated and vibrant Villages, keeping traditions, organising local events, employing the potential of the multinational melting pot, and undertaking activities friendly to residents and tourists	<ul style="list-style-type: none"> Creating an integrated local culinary offer Increasing the level of social (intergenerational) integration
9.	Volunteer Fire Department in Redaki	Redaki, Jakubowo Kisielickie, Babięty Wielkie	Initiator of actions for resilience and sustainable development * Traditional contemporaneity – a village with awareness, focused on an ecological future	<ul style="list-style-type: none"> Engaging the local community around shared activities Enhancing the attractiveness of the villages Creating an ecological and integrated community and villages
10.	The Rudzienicka Ziemia Association	Rudzienice, Gromoty, Ławice, Kałduny, Tynwałd	Rudzienice as a village of ambitious people and active senior citizens, open to new residents, friendly to tourists, implementing ecological solutions * Rudzienice is an enclave of peace, sport and recreation, and a wellspring of historical knowledge	<ul style="list-style-type: none"> Building an image of the Rudzienicka Land's partnership as an ecofriendly and liveable place Creating a local network of theme events Creating a tourist image of the Rudzienicka Land's partnership in connection with the slow tourism trend
11.	Association of Social Initiatives and Occupational Promotion	Rychliki, Rejsyty	We build the tourist appeal of our villages, we make and promote local organic food, integrate the local community through arts and residents' unique skills * Rychliki and Rejsyty are visually pleasant villages, known regionally and in Poland as places of amateur theatre, active tourism, healthy local food and well-kept natural environment	<ul style="list-style-type: none"> Rychliki and Rejsyty as active villages, close to art – an integrated and activated local community Rychliki and Rejsyty like Copenhagen – a friendly and renowned place on the map of cycling tourism Attractive and renowned in tourism and culture – integrated local community focused on shared tourist goals The rural theatre stage „Prosenion” – Rychlik as a theme theatrical village Get to know us. People – Flavours – Places. A network project
12.	Local activist (a natural person)	Święty Gaj	We improve the tourist appeal of the village, produce eco-food, create a space for integration and for displaying unique skills by the inhabitants of Święty Gaj * Święty Gaj is a place with residents' well-managed potential, developed sustainable tourism, products and cuisine of many cultures, well-kept natural environment	<ul style="list-style-type: none"> Ecumenical and multicultural Święty Gaj – created places for the co-existence of communities representing three cultures and religious denominations as well as different history; developed ecumenical and multigenerational community Food with a soul – food produced and promoted in a clean natural On the border of two lands – an integrated local community focused on shared tourist goals Get to know us. People – Flavours – Places. A network project

No	Grantee	Villages	Mission * Vision	Development goals
13.	Municipal Office of Gronowo Elbląskie	Wikrowo, Wiktorowo	With care for the Earth and young generations * Consciously and responsibly, we care for the Earth's resources and the education of young generations in harmony and respect for the Earth's resources	<ul style="list-style-type: none"> • Deeper integration and activation/mobilisation of the residents • Improved attractiveness of the villages to tourists and residents • Wikrowo/Wiktorowo as a place for the promotion of healthy food
14.	Association for the Development of the village Wola Kamieńska	Wola Kamieńska, Kamień Duży, Kamień Mały, Kwiry, Windyki	Residents for Residents: friendly, aesthetically and ecologically * Wola Kamieńska – a village of integrated residents, a village resistant to climate change	<ul style="list-style-type: none"> • Creating the background for building good neighbourly relations • A community living close to nature, but within the reach of civilisation • Creating conditions for safe and ecological transport between nearby villages
15.	Association for the Development of Ząbrowo	Ząbrowo, Starzykowo, Szymbark, Laseczno	Solidarity of residents, safe cyclists, ecological tourists * Place is important – people are important. The four villages – one shared path towards ecological development	<ul style="list-style-type: none"> • Integration and greater engagement of residents • Identifying and strengthening the unique character, creating a showcase of each village • Creating conditions supporting micromobility

Table 3. Costs of the implementation of the Smart Village concepts

No	Grantee	The priorities of the Smart Village program implemented in the strategies	Synthetic description of the goal/ tasks	Estimated costs of implementation in years 2024-2029 in PLN
1.	Association for Development of the village Aniołowo	<ul style="list-style-type: none"> • Building local partnerships • Supporting disfavoured social groups • Counteracting consequences of the ageing of society and depopulation of the countryside • Increasing the attractiveness of rural areas • Implementing and using digital technologies 	<ul style="list-style-type: none"> • Creating an image of an attractive place with prospects to live – creating and promoting the village as an attractive place for new and young residents to settle down, creating the Village as a senior-friendly blue zone • Opening the village residents to changes, trends and new solutions – hands-on education and co-creation of events, creating an offer in accordance with the know-how and skills, activation of every generation and their involvement • Increasing the wealth of local communities by creating and managing local resources and capacities – integrating the village and the society around shared goals, tasks and activities; building a local brand of the place and profitable partnership; acting towards the betterment of the economic resilience and condition of all communities 	22 639 000
2.	The Lisie Bagno Foundation	<ul style="list-style-type: none"> • Increasing the attractiveness of rural areas • Supporting disfavoured social groups • Counteracting consequences of the ageing of society and depopulation of the countryside • Building local partnerships 	<ul style="list-style-type: none"> • Promoting the community as an attractive place for residents and tourists: creating a concept of integrated marketing communication; creating a local brand of traditional food; creating a positive image and the distribution network of local products • Increasing the living standard of residents: halting the outflow of competent and creative young people; increasing the degree of integration of senior citizens; improving the quality and accessibility of public infrastructure • Increasing the tourist attractiveness of the municipality: raising the quality of the hospitality industry facilities; promoting the municipality as a tourist destination; building an offer addressed to tourists 	2 094 500

No	Grantee	The priorities of the Smart Village program implemented in the strategies	Synthetic description of the goal/ tasks	Estimated costs of implementation in years 2024-2029 in PLN
3.	The Dwie Wsie Association	<ul style="list-style-type: none"> • Building local partnerships and social capital • Counteracting consequences of the ageing of society and depopulation of the countryside • Increasing the attractiveness of rural areas • Social, cultural and economic integration of generations 	<ul style="list-style-type: none"> • Increasing the tourist attractiveness: building a brand of twin villages and brands of local products; developing a programme of integrated marketing communication; building infrastructure for tourism; acquiring funds for starting and developing businesses, diversification of agricultural activities and other initiatives • Increasing the level of social integration and activity: developing an up-to-date educational offer; organisation of integration and study trips; improvement of municipal, road and Internet infrastructure; creating a safe and friendly place for children and their carers 	2 358 000
4.	Volunteer Fire Department in Jelonki	<ul style="list-style-type: none"> • Increasing the attractiveness of rural areas • Counteracting consequences of the ageing of society and depopulation of the countryside • Social, cultural and economic integration of generations • Building social capital by connecting local communities 	<ul style="list-style-type: none"> • Increasing the activity and integration of the local community in the village Jelonki: building facilities for integration meetings; creating an integrated offer related to the activation of the local community; preparing a system of internal communication for residents • Increasing the tourist attractiveness of the village Jelonki: creating a brand for the village, expanding the accommodation, catering and tourism offer; creating a programme of integrated transport and promotion 	9 980 000
5.	The Arka Association for the Local Community in the Town and Commune of Susz	<ul style="list-style-type: none"> • Counteracting consequences of the ageing of society and depopulation of the countryside • Social, cultural and economic integration of generations • Building social capital by connecting local communities • Activities aiming to limit consequences of climate change, promoting ecological transport • Increasing the attractiveness of rural areas 	<ul style="list-style-type: none"> • Local network of cooperation – working out a coherent and attractive offer of local products, and integrating local communities around shared tasks: creating original local products • The Suska Bicycle Trails – improving the tourist appeal of each of the commune's and region's village: creating an image and promoting the history of the commune and each locality • Villages as friendly place to live and be active (for both senior citizens and young residents): building social capital by connecting local communities; popularising the culture and potential of local communities by engaging and supporting local artists and promoting local crafts • Get to know us: people – flavours – places – a network project known local products in the commune of Susz, in the network called the Elbląg Canal Land 	8 510 000
6.	The Zicherka Association	<ul style="list-style-type: none"> • Increasing the attractiveness of rural areas • Building social capital by connecting local communities, integration of generations • Counteracting consequences of the ageing of society and depopulation of the countryside • Activities aiming to limit consequences of climate change, promoting ecological transport and activities for resilience 	<ul style="list-style-type: none"> • Showing the region's history and creating a new image of Żuławy: getting to know the new, unique system of irrigation – creating a place that will promote eco-friendly activities and popularisation of sustainable development (building a civic centre building from ecological materials, zero-waste educational activities, promoting regional kitchen and handicrafts) • Promoting the village as the first-choice place of residence – creating an eco-village and proper circumstances for ecological activities pursued together by resident (e.g. live history, frame houses from straw and clay, a basket of ecological products) • Improving the attractiveness of the village as a place of residence – identifying the needs of residents, different social and age groups, should enable us to develop an appropriate strategy, which should satisfy the key needs of residents (activation of senior citizens, creating a place for meetings, organisation of collaboration of the residents with the environment) 	2 465 000

No	Grantee	The priorities of the Smart Village program implemented in the strategies	Synthetic description of the goal/ tasks	Estimated costs of implementation in years 2024-2029 in PLN
7.	Volunteer Fire Department in Kisielice	<ul style="list-style-type: none"> • Building local partnerships • Increasing the attractiveness of rural areas • Building social capital by connecting local communities • Activities aiming to limit consequences of climate change, promoting ecological transport and activities for resilience 	<ul style="list-style-type: none"> • Increasing the tourist attractiveness of the locality: creating the village's tourist brand; improving the quality of tourist, catering and culinary services; integrating communication and promotional activities • Creating a local community with a high level of social activity and integration: development of infrastructure conducive to social integration; increasing the activation and integration of the local community • Creating a town and community friendly to the environment and resistant to climate change: developing an ecological system of heating homes; creating infrastructure for storing rainwater; reducing the consumption of energy resources 	6 942 000
8.	The Wieś z Pomysłem Association of Residents of the village Oleśno	<ul style="list-style-type: none"> • Building local partnerships • Supporting disfavoured social groups • Counteracting consequences of the ageing of society and depopulation of the countryside • Counteracting consequences of the ageing of society and depopulation of the countryside • Increasing the attractiveness of rural areas 	<ul style="list-style-type: none"> • Creating an integrated local culinary offer and promotional activities: creating technological facilities, developing a visual identification book, plan for promotional activities, promotional materials, networking of producers and distributors, certification of products, timetable and offer of culinary workshops • Development of an integrated cultural offer (infrastructure, refurbishment of the existing culture club, revitalisation of other buildings in the village, product: a tourist offers of the village, opening new agritourism farms, creating local tourist routes, promotion of the tourist offers, creating a culture product) • Increasing the level of social integration (intergenerational integration): integration meetings, solutions for the sake of inclusiveness and accessibility to senior citizens and people with disabilities: infrastructural solutions, reopening of the rural cultural and civic centre 	4.733.000
9.	Volunteer Fire Department in Redaki	<ul style="list-style-type: none"> • Supporting disfavoured social groups • Increasing the attractiveness of rural areas • Activities aiming to limit consequences of climate change, promoting ecological transport and activities for resilience 	<ul style="list-style-type: none"> • Engaging the local community around activities undertaken together: cultivating tradition and social integration; creating a culinary offer of the village; promoting traditional cooking methods, without food preservatives • Increasing the village's attractiveness: preparing information materials as part of the branding initiative "Get to know us – people – flavours – places"; building the image of the villages as a village friendly to tourists; opening the village and the community to tourism and tourists; promoting ecotourism and sensory experiences • Creating an ecological, integrated community and village: social integration and greater engagement of the residents in pro-social initiatives; increased ecological awareness of the residents; promoting pro-ecological, circular solutions 	3 990 000
10.	The Rudzienicka Land Association	<ul style="list-style-type: none"> • Counteracting consequences of the ageing of society and depopulation of the countryside • Creating an offer activating young people and senior citizens • Counteracting digital exclusion • Activities aiming to limit consequences of climate change • Activation of local communities through the joint organisation of local events 	<ul style="list-style-type: none"> • Creating a social service in the form of home delivery of pharmaceutical and transport of senior citizens being in a difficult living situation and in poor health • Developing a concept for a place for handicraft workshops for young people, including a timetable of activation meetings, workshops supporting young people's passions • Technical investments in Internet connections in the village's civic centre and the surrounding area, adding more IT equipment in the civic centre, a photographic studio, writing guidebooks about cultural heritage • Establishment of an energy power cooperative, concluding contracts with external energy suppliers for energy distribution and complex energy supply, and internal ones (selling energy – energy recipients, and energy purchase – energy producers), building photovoltaic installations on public facilities 	6 529 000

No	Grantee	The priorities of the Smart Village program implemented in the strategies	Synthetic description of the goal/ tasks	Estimated costs of implementation in years 2024-2029 in PLN
			<ul style="list-style-type: none"> Creating ecological areas that will enable good use of natural, historical and tourist resources Organisation of family picnics, other cultural events for the whole municipality, setting up a Country Housewives' Club, preparing a catalogue of local foods, a menu of "Flavours of Rudzienicka Land" 	
11.	Association of Social Initiatives and Occupational Promotion	<ul style="list-style-type: none"> Activation of local communities through the joint organisation of local events Building small infrastructure for tourists Supporting disfavoured social groups Increasing the attractiveness of rural areas Activities aiming to limit consequences of climate change: implementation of solutions increasing the resilience and sustainability of the village Creating conditions favouring micromobility 	<ul style="list-style-type: none"> Rychliki and Rejsyty active and close to art – an integrated and activated local community: a forum of dialogue and cooperation – a space created for the young and the elderly through the activation and directing young people to valuable forms of activity and to the development of a space that will be friendly for them, which they will be able to manage and develop on their own; an intergenerational dialogue; active senior citizens – a rural university and theatre of the third age as an offer of activities engaging senior citizens and lonely people Rychliki and Rejsyty like Copenhagen – created friendly and recognizable places on a bicycle tourism map: created conditions to promote bicycles as a local means of communication and local tourism; resilience of Rychlik and Rejsyt – solutions increasing the climatic and social resistance Attractive and well-known in tourism and culture – a local community integrated around shared tourism-related goals: development of local tourism infrastructure; becoming recognisable on a map of bicycle tourism The rural theatre stage „Prosenion” – Rychliki as a theme theatre village: creating a seat for the theatre, rehearsal and stage facilities, a programme of theatrical shows by the 'Prosenion' theatre group Get to know us. People – flavours – places – a network project: a known local product of Rychliki and Rejsyty in the Elbląg Canal Land network 	3 930 000
12.	Local activist (a natural person)	<ul style="list-style-type: none"> Activation of local communities, supporting disfavoured social groups Increasing attractiveness of rural areas Activities aiming to limit consequences of climate change 	<ul style="list-style-type: none"> Ecumenical and multicultural Święty Gaj – creating places for the coexistence of a community representing three cultures and different history Food with a soul – food produced in a clean natural environment, promoting such food products On the border of two lands – a local community integrated around shared tourist goals Get to know us – people – flavours – places. A network project 	3 350 000
13.	Municipal Office of Gronowo Elbląskie	<ul style="list-style-type: none"> Deeper integration and activation Raising the attractiveness of the village for tourists and residents Increasing attractiveness of rural areas 	<ul style="list-style-type: none"> Mobilisation of residents: identifying needs and skills of all groups, generations: creating an offer of meetings and shared activities Training and teaching skills for educational and social animation activities; building an image of the village, creating its appeal; walking trails in Żuławy, slow tourism Wikrowo and Wiktorowo as places promoting healthy food: opening a local marketplace; promoting healthy food; educating children and adolescents about healthy food 	2 265 000

No	Grantee	The priorities of the Smart Village program implemented in the strategies	Synthetic description of the goal/ tasks	Estimated costs of implementation in years 2024-2029 in PLN
14.	Association for the Development of the village Wola Kamieńska	<ul style="list-style-type: none"> Counteracting consequences of the ageing of society, exclusion and depopulation of the countryside, activation of senior citizens and children, care for their physical fitness Activities aiming to limit consequences of climate change: implementation of solutions increasing the resilience of the village 	<ul style="list-style-type: none"> Organising workshops, courses, thematic trainings, intergenerational meetings, developing social services Conducting training sessions for senior citizens in the field of electronic communication and basic e-services Organising a cycle of trainings raising ecological awareness and serving to work out circular projects for villages, promoting eco-friendly transport Building bicycle paths in and between villages, creating cyclist-friendly places 	5 767 000
15.	Association for the Development of Ząbrowo	<ul style="list-style-type: none"> Social integration, creating places for recreation for residents Activation and greater participation of young residents in the life of the village and co-governance Promoting circular tourism Development of the village's culinary potential 	<ul style="list-style-type: none"> Creating an area for recreational and sports purposes, an outdoor gym, and a playground in the villages: Laseczno Małe, Starzykowo, Szymbark Organising meetings for neighbours in villages, culinary picnics Creating and promoting the brand 'A bouquet of four countryside flavours', organising picnics 'Four seasons of the year' with a seasonal theme 	10 570 000

The representatives of 39 localities participated in the elaboration of the 15 Smart Village concepts. The workshops were intended to be diagnostic and integrative – they enabled communication and collaboration for the sake of diagnosing problems, needs and expectations of the local communities. They led to the diagnosis of the situation in each locality. The opportunities and limitations of development were determined, including social factors (e.g. lack of participation, social capital deficits), technological shortcomings (digital exclusion), economic (absence of cooperation, initiatives, innovative entrepreneurial models) and environmental deficits (insufficient resilience, lack of regenerative solutions, low awareness level). Social capital deficits are reflected in the lack of actions and initiatives undertaken, and integrate whole communities. Low participation of local inhabitants in the co-governance and co-creation of pro-social solutions responding to local needs is another consequence of social capital shortages. Intergenerational disintegration deepens, as demonstrated by the lack of engagement of young people and new inhabitants in the life of their localities. This attitude arises from the shortage of offers addressed to young villagers (workshops, theme activities, sharing unique skills, cultivating traditions, creating 'traditional contemporaneity') as well as the different perception of life by new and old inhabitants of a village (discrepancies in goals and attitudes). There is also a growing scale of the exclusion of senior citizens, mainly due to difficult access to specialist medical care and the lack of effective support for the elderly with health issues. Another problem is the lack of an offer activating senior citizens (e.g. recreational activities, physical rehabilitation, theme activities) while communication barriers and loneliness are growing more severe. Another significant barrier to the development and implementation of Smart solutions is the technological exclusion of rural areas. There is a shortage of fibre optic networks and open wi-fi zones for the villagers. Moreover, the skills in using IT tools are insufficient, and there is no educational support in this field, especially addressed to the elderly.

During the study, inadequate goal-oriented collaboration of residents, local organisations and institutions was demonstrated. In most cases, the villages lacked a coherent offer addressed to tourists, nor did they have an appealing and modern form of promotion of the village and local products. Inadequate acknowledgement of the role of an image of a village and local cooperation for the sake of accomplishing shared goals could be observed. There are not enough innovations in food production (local high quality organic or vegetarian food products). The need to strive towards resilience is contradicted by the low ecological awareness of locals and the lack of education in this field. This is a barrier to the successful and effective implementation of circular solutions, improving the resilience of villages to climate change and to negative outcomes of the degradation of the natural environment.

There is also little knowledge and understanding of the role of initiatives pursued under the Green Deal framework.

To sum up, the elaboration and then implementation of concepts of Smart Villages should be a grassroots process. However, local communities must be supported at the stage of developing local development strategies, and then during their implementation. The ability to perform tasks and achieve aims in line with the Smart Village programme's priorities depends mainly on the initiative and engagement of villagers and on their cooperation with public entities and institutions. This proved to be the key factor influencing the course and outcome of the work on the analysed Smart Village concepts.

Evaluation of the pro-developmental potential of Smart Village strategies as a solution integrating local communities

The subsequent editions of the Smart Village programme and its implementations enable the evolution of this concept into a pro-developmental solution (Renukappa et al., 2022). Both quantitative and qualitative criteria can be taken into consideration to evaluate the achieved results. The former ones – quantitative data – allow us to obtain an objective assessment of such categories as resilience, mobility, social development, availability of digital solutions, and prospects (Komorowski & Stanny, 2020), and they enable complementary comparison of the planned changes and achieved results. The latter ones, that is, qualitative data, enable gaining a deeper understanding of the process of building experience in the scope of developing cooperation among village residents, the extent of their engagement in the co-governance of the change with other stakeholders of this process. A positive aspect of the programme is that it activates local communities to diagnose their own socio-economic situation, to recognise their own needs and problems, and – in a later stage of the process – to search for solutions which will be adequate to the results of the diagnosis. The experience gained so far seems to justify the conclusion that an independent, coherent and adequate assessment of the social and economic situation by a local community is a challenging task which calls for support. While it was relatively easy to pinpoint the problems and limitations, it was the local community's poor awareness of their own strengths and opportunities that was something that recurred during most of the workshops. It was only once that inhabitants of a few villages took active, long-term and effective measures to achieve integration and to create and implement plans for development.

The Smart Village concepts developed for the communities living in the Elbląg Canal Land combined local development goals with the pursuit of tourism transformation in this part of the region. In practice, it required the development of such a form of partnership that would combine the potential and activities for the benefit of the community's wellbeing, with the growth of tourism and the necessary infrastructure. The participatory, grassroots change management made it possible to consider the community's needs, and created an opportunity for dialogue, sometimes even a debate on challenges and key development trends (including circular economy, climate change resilience, actions for the sake of protecting biodiversity and the natural environment, counteracting the ageing and depopulation of villages). The formula of partnership found in the Smart Village strategies submitted to this analysis was elaborated only partially – not extending over the whole area, but only more locally, within individual municipalities or between neighbouring villages. The achievement of this goal, therefore, needs further work and coordination on a higher level, for example, by the grant provider, in this case, the Elbląg Canal Local Action Group. It was common for the local communities not to know the assumptions of the Smart Village model and its priorities. The collaboration of expert teams with communities should be seen as an educational activity as well as one leading to integration and diagnosis. The first aim of the meetings was to present the assumptions of the programme, while the subsequent one was to work together to diagnose problems and needs of the local communities. Another challenge resulted from the different degrees of involvement of the local communities in tourist projects, which were significant for the grantor and which were meant to enhance the tourist appeal and the engagement of the villages and municipalities of the Elbląg Canal Land in the growth of tourism. While there were communities open to cooperation with others, offering developed tourist services and interested in further growth of tourism, there were also such grant recipients who were indifferent or even reluctant to the sphere of tourism. In the strategies they elabo-

rated, the latter groups focused on imminent problems and needs in their strategies, and their solving or satisfying, respectively, was reflected in the goals and activities resulting from this approach.

The process of developing individual strategies frequently entailed confrontation of often divergent or contradictory interests of particular stakeholders, hence, the outcome achieved deserves to be seen because of constructive social dialogue and the search for solutions. The task of becoming engaged, getting to know one another, mediating between the participants of working meetings and co-creating solutions was typically assigned to experts, who simultaneously acted as moderators of the workshops. Finding it difficult to identify problems and needs and to perceive convergence with the Smart Village programme's priorities was not an uncommon challenge. The conclusions from the collaboration of several months show that local communities need constant support in their efforts to achieve the goals and tasks defined in the Smart Village concepts they have produced. Many local activists believe that the developed strategies are a valuable, bottom-up development plan, but if left without formal and material assistance they will never become an effective tool for the transition from the set goals to achieved outcomes. The cases originating from communities living in the Elbląg Canal Land indicate that it is necessary to implement further work leading to creating a wider network of economic, tourist and cultural partnerships, and to integrating existing solutions for the benefit of creating a high-quality tourist product, a coherent formula of partnerships, and an up-to-date marketing communication wherever needed.

A wider-scale effort to evaluate the implementation of the Smart Village model in Poland can be found in the article by Kalinowski et al. (2021). The Lithuanian experience in this area is documented in the paper by Atkočiūnienė and Vazonienė (2019). Their conclusions invariably point to such obstacles as a significant degree of disintegration of rural communities, frequent absence of a collaboration culture and coordination of launched actions, which prevents a possible synergistic effect. The Smart Village programme has always been implemented in a relatively small number of localities and frequently with little involvement of local communities. Thus, it is necessary not only to support the process of elaborating a Smart Village strategy but also to monitor its implementation and achieved effects at later stages. The experience gained from making an analysis of 15 Smart Village concepts proves that assistance is important at the stage of making a diagnosis of problems and needs, which is a prerequisite, and then whilst creating the relevant part of a development strategy, and finally at the phase of preparing for the launch of activities defined in the strategy and during their implementation. The Smart Village programme's priorities must be associated with the actual needs and problems of rural communities, and these arise from the shortage of funds for development, the absence of the concept of sustainable development of villages, a lack of cooperation among stakeholders, and often the lack of local leadership and skills. Other limitations are the absence of an innovation culture and available business models, and the shortcomings of digital infrastructure in rural areas. A growing problem in the countryside is the adverse demographic process, such as the progressive ageing of rural communities and the depopulation of villages.

Recommendations

The goals of the Smart Village programme are to build partnerships for the sake of improving the potential of a village, and to create local networks to achieve the assumed effects more effectively. The Smart Village concepts analysed in this study included an analysis of the current trends. This analysis was embedded in the context and related to the programme's priorities. The detected trends contributed to the justification of proposed and planned changes, while also showing their broader context and possible consequences. To prioritise the goals of changes proposed in rural communities, the focus was placed on disfavoured groups, depopulation of villages, and later on climate change and changes in the natural environment, and on using technology for the sake of the betterment of the quality of life for villagers. Among the trends that have the strongest impact on the achievement of the assumptions underlying the Smart Village concept, the following should be mentioned:

- social and demographic trend: ageing society, development of social services, a village as the place for second home, mediatization of the countryside;
- technological trends: connectivism;

- environmental trends: resilience, measures for biodiversity, care for the natural environment, energy transformation, rural communities for RES;
- economic trends: social economy, economy of care, experience economy;
- political and organisational trends: local cooperatives and partnerships, participatory management, new management and communication models;
- tourist trends: sustainable tourism, green tourism, experience tourism, active tourism, heritage tourism, place identity and branding, storytelling (Ruralization, 2020).

The observation of the processes of strategy formation and the in-depth analysis and evaluation of the developed solutions allow for the formulation of the following recommendations:

1. The concept of the Smart Village program requires promotion and popularization among the target beneficiaries in a way that provides them with a sense of real agency in achieving the desired and expected changes. This can be a task for local action groups or individuals acting on their behalf, preceding the actual work of local communities.
2. Clear and understandable goals and stages of work are crucial in preparing and moderating the strategy formation processes. Therefore, it is worthwhile to plan and agree on the course of the process and its schedule together with the local communities.
3. Involving residents of one or several communities in the strategy formation process carries the risk of pushing individual interests and expectations of specific people or groups, rather than working for the benefit of the whole community. The role of moderators in such situations is to confront individual expectations with the needs of the entire population. The collective work of residents on the strategies requires moderators to have practical negotiation and persuasion skills, enabling them to achieve consensus on important project decisions.
4. The diversity of expectations and the level of integration among particular communities requires moderators to be flexible in their approach to the proposed solutions and team work, as well as ready to apply alternative methods in communication and activation. Practical knowledge of the heuristic approach and the ability to apply it in situations requiring diagnosis, creativity, or conclusiveness is recommended.
5. The quality of the strategy formation processes is a derivative of the quality of communication achieved by the workshop participants and moderators. The general assumptions and priorities of the Smart Village program must be translated into the language of the residents' needs, goals, and actions. The solutions and decisions adopted in Smart Village strategies require evaluation in terms of the alignment between needs and program priorities.
6. Creating acceptable solutions that address the needs of local communities requires the involvement of the academic community, whose role would be to provide objectivity to the adopted goals, tasks, and solutions proposed in the strategies. Joint work on Smart Village strategies can be seen as a way of activating local communities and supporting bottom-up initiatives, as well as a contribution to systematic research on local development factors and an opportunity to implement their results.

The contribution of the authors

Conceptualization, A.K., A.R., W.K. and J.M.; literature review, A.K., A.R., W.K. and J.M.; methodology, A.K., A.R., W.K. and J.M.; discussion, conclusions, and recommendations, A.K., A.R., W.K. and J.M.; writing, A.K., A.R., W.K. and J.M.

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WYKORZYSTANIE KONCEPCJI SMART VILLAGE W PROCESIE KSZTAŁTOWANIA ROZWOJU LOKALNEGO. OCENA I REKOMENDACJE NA PODSTAWIE DOŚWIADCZEŃ Z OBSZARU KRAINY KANAŁU ELBLĄSKIEGO

STRESZCZENIE: W artykule podjęto próbę oceny potencjału koncepcji Smart Village jako narzędzia integracji lokalnych społeczności i partycypacyjnego planowania lokalnego rozwoju na podstawie 15 projektów strategii inteligentnych wiosek, miejscowości i gmin z obszaru Kraju Kanału Elbląskiego. Jednym z istotnych wyróżników opracowanych koncepcji była koncentracja na celach łączących potrzeby i dobrostan społeczności wiejskich oraz tworzenie i rozwój rozwiązań turystycznych powiązanych z Kanałem Elbląskim jako unikalnym zabytkiem hydrotechnicznym. Ważnym celem koncepcji stworzonych z udziałem mieszkańców poszczególnych miejscowości była budowa partnerstw i wskazywanie możliwości kooperacji w zakresie lokalnych produktów, usług turystycznych oraz rozwiązywania lokalnych problemów. W artykule dokonano konfrontacji priorytetów programu z rozwiązaniami zawartymi w strategiach. Ponadto sformułowano rekomendacje, które odnoszą się do procesu tworzenia strategii oraz możliwości ich realizacji w kontekście programu Smart Village. Wskazano m.in. na potrzebę wszechstronnego zaznajomienia lokalnych społeczności z założeniami i możliwościami programu Smart Village oraz merytorycznego i organizacyjnego wspierania społeczności w procesie tworzenia strategii, np. poprzez współpracę ze środowiskiem akademickim.

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