Development Agency as Source of Social Innovation in Catching-up Region: Evidence from Slovakia

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Abstract. This article examines the activities of the Development Agency of the Banská Bystrica Self-Governing Region and evaluates their contribution to regional development from a social innovation perspective in Banska Bystrica Self-Governing Region. The paper positions development agency within the wider discussion on social innovation emphasising their ability to create novel institutional structures in response to ongoing socio-economic problems in catching-up regions. These regions often face structural challenges (demographic decline, economy problems, inadequate access to public services). Within this situation, social innovations can serve as a crucial driver in activating local sources, strengthening collaboration among regional actors and implementing innovative approaches to governance and/or service delivery. From a methodological perspective, we used secondary research (qualitative analysis of institutional, internal and strategic documents) combined with empirical evidence gained from unstructured interviews with employees of the development agency. The investigation concentrates on two areas of the agency's activities: support for regional economic development through project preparation, and the support and development of outpatient healthcare facilities. The results point out that the agency's activities are practical examples of social innovation, as they create new ways of cooperation among regional authorities, municipalities, and other relevant actors. These initiatives reinforce local institutional capacities, improve access to external funding opportunities, and support the enhancement of healthcare services delivery. The findings further imply that development agency can act as facilitator of socially innovative approaches capable of mitigating regional inequalities and promoting sustainable development.

Keywords: catching-up region · regional development · social innovation · development agency · Banska Bystrica Self-governing Region

1 Introduction

Innovations have been recognised as an integral part of modern society and crucial condition for the achievement of countries striving to maintain competitiveness and resilience. They are a central mechanism of development, as they generate new ideas, practices and processes that improve the functioning and effectiveness of economies

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and societies. In the era of fast development of artificial intelligence and ongoing digital transformation, the scope of innovation has broadened beyond strictly technological or economic domains. That's why is increasing emphasis placed on forms of innovation that address societal challenges and try to respond to the needs of municipalities, regions and whole society.

Within this wider conceptual framework, social innovation has attracted growing attention. It encompasses novel or enhanced approaches aimed at tackling societal issues e.g. unemployment, inequalities, social exclusion and insufficient access to public services. Its primary purpose is to foster positive social change, encourage collaboration among public actors, private sector representatives and civil society with the aim to improve the quality of life of local communities. The significance of social innovation is particularly evident in the context of regional development, because it represents an important tool for addressing place-specific challenges and for promoting novel forms of collaboration, entrepreneurial activities and bottom-up based initiatives.

This is markedly relevant in less developed or catching-up regions, which frequently face structural constraints including population outflows (mostly among younger people), elevated unemployment, a high share of long – term unemployed persons, and comparatively lower levels of economic activity. In such situation, social innovation could support the activation of local potential, create new opportunities for sustainable development, strengthen social cohesion.

By adopting socially innovative approaches, we can react more effectively to the needs of local communities while simultaneously supporting long-term development. In this regard, social innovation can offer a way how to reduce regional inequalities and identify suitable and novel solutions for advancement of catching-up regions.

The paper is structured as follows. In the literature review, we present the concept of innovation, with particular attention paid to social innovation and to development agencies as supporting institutions that contribute to creating favourable conditions for the economic and social development of regions. The following part deals with the research design, including the analytical framework employed and the data sources underpinning in the paper. The third section provides an analysis and discussion of the empirical results concerning the activities of the Development Agency of the Banská Bystrica Self-Governing Region. In the final section we conclude the key results and emphasize selected positive contributions of the Agency's activities to the development of the Banská Bystrica Self-Governing Region.

2 Literature Review

Innovations are generally regarded as an essential source of sustainable development in modern countries. Traditionally, they have been understood in connection with creation of new knowledge and its application in economic and social practice (Skokan [1]). A seminal contribution to the theory of innovation was created by Schumpeter. He defined innovation as the introduction of new combinations of production factors and emphasized its pivotal role in the evolution of capitalism. In Schumpeter's view [2], innovation includes, for instance, the development of new products, the adoption of novel production techniques, the exploration of new markets, and the emergence of new form of industrial organization.

According to OECD [3] we can adopt a broader interpretation of innovation, describing it as a process, which involves a development and implementation of new or substantially improved products, services, processes, or organizational changes that create economic or social value. Innovation is not limited to technological advancement but also encompasses organizational and social changes that transform the functioning of companies, institutions and society as a whole.

We can classify innovation from several perspectives. One of the most widely used typologies is based on the methodology of the Oslo Manual (2018), which distinguishes four principal categories of innovation:

- Product innovations refer to introduction of a new or substantially enhances goods or services. These innovations contain improvements in technical characteristics, components, or functional properties of a product.
- Process innovations involve the adoption of new or significantly improved delivery techniques or production which increases efficiency or enhance the quality of output.
- Organizational innovations encompass the implementation of new methods in business practices, workplace arrangements, or external interactions.
- Marketing innovations include the application of novel marketing approaches, distribution channels for goods and services, or business models [3].

From another perspective, we can classify innovation according to their degree of novelty and impact. In this regard, a distinction is drawn between incremental innovations, which represent gradual enhancements of existing products/processes and radical innovations, which introduce significant organizational or technological shifts and may lead to transformation across entire industries or societal systems [4].

Dabard and Mann [5] introduce in their work the notion of sustainability innovations. They conceptualize those innovations as multi-level and multi-actor processes that generate novel ways of answering societal needs while simultaneously promoting social and ecological balance and equity. Unlike conventional innovations, which are often primarily oriented toward technological or economic performance, sustainability innovations adopt a systemic approach which integrates technological, organizational, behavioural and social dimensions. Their overarching objectives is to enhance resilience of socio-economic systems, improve overall well-being and promote collaboration within diverse stakeholders in specific institutional and territorial conditions.

A related, though conceptually distinct, approach is reflected in the work of such authors such as Phills et al. [6] and Mulgan [7] who focused on the concept of social innovation. This concept has attracted growing scholarly attention in recent decades. According to these authors, we understand social innovation as the development of new solutions to social challenges that are more effective, sustainable, or equitable than existing alternatives, while also creating new forms of social interaction and cooperation. It involves novel configurations of social practices that contribute to addressing societal problems and reshaping existing social relations and institutional frameworks. Social innovations often emerge in situations where traditional public policies or market mechanisms prove insufficient in responding to evolving societal needs [8].

Polačková [9] speaks about following characteristics of social innovations. First feature is their interdisciplinary nature, as complex societal challenges are approached from multiple fields, enabling a more comprehensive understanding of the issues. Another key

attribute is cross-sectoral involvement, since both the design and implementation of solutions typically require the participation of actors from all sectors of the society. Social innovations are also inherently multi-layered, with problem-solving processes unfolding across different stages and levels of intervention [9]. In addition, they demonstrate a capacity for scalability, meaning that their effect can extend beyond the initial context and contribute to broader systemic change. A further important aspect is the transformation of relationships among stakeholders, which may involve changes in established power structures as well as the development of new collaborative models.

In general, social innovations seek to provide more effective responses to societal problems than previously utilized approaches while adhering to core principles of ethics and social cohesion. An important characteristic of social innovation is also its participatory nature, as it frequently develops through collaboration among public institutions, private organizations, non-governmental organizations, and local communities [10] and thereby generating new governance arrangements and collective capacities [11].

In recent years, social innovation has also become an important topic in the fields of regional studies and regional development. According to Moulaert et al. [12]., social innovations represent a significant instrument for addressing social and economic challenges in regions, particularly in less developed or peripheral areas.

In the regional context, social innovations may contribute, for example, to:

- improving access to public services (e.g., healthcare or social services),
- strengthening social inclusion and the integration of marginalized groups,
- supporting local economic development,
- fostering community initiatives and civic participation, and
- enhancing the overall quality of life of regional populations.

A key characteristic of social innovation lies in its capacity to mobilize local resources and actors while generating new forms of collaboration among public institutions, the private sector, and civil society [11]. In many cases, social innovations therefore represent an effective mechanism for addressing regional disparities and promoting sustainable regional development [12].

Within the context of public policy, social innovations are increasingly perceived as an important instrument for the modernization of public administration and the improvement of public service delivery. Their importance becomes apparent in contexts where public actors operate under financial constraints and face increasing societal expectations concerning higher quality of public services.

In recent years, increasing attention has also been paid to the role intermediary organisations in facilitating socially innovative processes. Socially innovative initiatives typically emerge through the collaboration of diverse actors who mobilise resources and develop novel solutions to locally perceived challenges [13]; however, their effectiveness often depends on the presence of actors capable of coordinating these interactions and providing institutional support. From this point of view, development agencies can be considered as key intermediatory actors that operate at the intersection of public administration, local communities and external funding structures. They can create platforms for cooperation among public institutions, private sector actors, non-governmental organisations, and local communities, thereby contributing to the search for new solutions to regional socio-economic challenges [12]. Moreover, such organisations may

enhance local capacities and support "pathways to impact" by enabling the realisation of specific development goal, including increasing employment opportunities, improved infrastructure or supporting local tourism [13].

Development agencies may be established by regional self-governments and other public administration bodies. They may also operate as non-profit organisations or public-law associations formed through the cooperation of actors from the private, public, and non-profit sectors. In this sense, development agencies can be understood as catalysts of social innovation, fostering initiatives aimed at improving quality of life, strengthening social inclusion, and supporting sustainable regional development.

Regional development agencies or development agencies emerged as instrument for implementing regional policy and promoting socio-economic development at regional level. Their primary role is to initiate and coordinate development activities, support the business environment, prepare and implement regional development projects, and enhance the ability of regions to access external financial resources, such as those provided by national or European programmes [14]. In this context, development agencies may function as institutional facilitators of regional development.

We consider development agencies as an essential component of the institutional infrastructure of regions, because they contribute to the mobilisation of regional resources, the promotion of innovation processes, and the enhancement of the competitiveness of regional economies [15].

3 Material and Methodology

The objective of this paper is to identify, drawing on the results of an analysis of selected areas of activity of the Development Agency of the Banská Bystrica Self-Governing Region (hereafter DABBSK), its contribution to social innovation. The paper further examines how the outcomes of the Agency's activities may support the development of a catching-up region.

The research is predominantly based on secondary data sources covering the period from the establishment of DABBSK in 2018 to 2025. The secondary research focused primarily on official documents, including annual reports, the statute of DABBSK, financial statements, internal documents as well as other information published on the official website of the DABBSK (https://dobrykraj.sk). Furthermore, we analysed strategic development documents of the Banská Bystrica Self-Governing Region (hereafter BBSK) and relevant documents submitted to the Assembly of the BBSK. This analysis made it possible to assess the institutional setting, operational focus, and principal activities carried out by DABBSK.

To complement the secondary research, primary research was conducted to provide a more comprehensive picture of the activities of DABBSK and its role in the development of BBSK. We carried out primary research through qualitative inquiry, specifically via unstructured interviews with selected representatives of DABBSK (the Director of DABBSK, Project specialist from the Regional economic development department, and the Head of the Outpatient care support department) between May and July 2025. These interviews yielded additional insights into the practical implementation of development activities and DABBSK's engagement with relevant stakeholders. The findings derived

from primary and secondary research were subsequently compared with the results of the author's previous research.

Empirical research and qualitative document analysis were combined in this paper. We employed methods of analyses and synthesis to identify key patterns, institutional practices, and development effects associated with the activities of the DABBSK. The concluding section builds on the results of this comparative analysis and synthesis to highlight key findings suggesting that development agency can function as important catalyst of social innovation. Such innovations may contribute to new approaches to regional governance and development and may also be transferable to other lagging or structurally disadvantaged regions.

The paper deliberately focuses on social innovation and the institutional context of regional development, while technical dimension (e. g. IoT or Big Data) does not form part of its research framework.

4 The Development Agency of the Banská Bystrica Self-Governing Region

The DABBSK was established pursuant to resolution no. 38/2018 of the Council of the BBSK, adopted on 26 April 2018. Its activities are generally focused on the provision of services of public interest aimed at supporting regional development and employment, as specified in detail in its Statute. The founder of DABBSK is the Banská Bystrica Self-Governing Region, which accordingly defined the scope of its activities in Article III of the Statute [16].

Any assessment of DABBSK's activities should consider the broader regional context. The Slovak Republic is divided into 8 self-governing regions. The BBSK covers an area of 9 454 km^2. In the long term, BBSK has ranked among the least developed regions of the Slovak Republic, with only the Prešov Self-Governing Region exhibiting less favourable indicators. The developmental lag of BBSK is particularly evident in the field of human resources, as reflected in the region's declining population, high risk of social exclusion rate, higher unemployment rates in its southern districts compared to the national average, and a persistently high proportion of long-term unemployed persons (Table 1).

Table 1. Selected characteristics of the BBSK

Indicator	2024	2010
Number of inhabitants	613,356	653,186
Unemployment rate	6.73%	18.86%
GDP per capita (in EUR)	18,082	9,258
At-risk-of-poverty or social exclusion rate	23.1%	20.3%*

Source: Own elaboration based on [17].
Note: * Data for 2015.

These trends have resulted in a deteriorating standard of living and an expansion of poverty-affected areas, particularly in the southern and eastern parts of the region. Five of the thirteen districts of the BBSK – Lučenec, Poltár, Revúca, Rimavská Sobota, and Veľký Krtíš have been classified as "least developed districts" pursuant to Act No. 336/2015 Coll. On the Support of Least Developed Districts [18].

For these reasons, a stronger involvement of the representatives of the BBSK appears necessary in order to address these negative trends and to stimulate positive developmental changes in the region. During the analysed period, the activities of the DABBSK were oriented toward several key areas: tourism and rural development; support for the regional economy; support for and development of outpatient healthcare facilities; employment support; the social economy; and the promotion of entrepreneurship and innovation.

In line with the objective of the paper, the following section focuses on presenting the research findings related to support for the regional economy and the support and development of outpatient healthcare facilities.

4.1 Support for Regional Economic Development

During its initial years of operation, DABBSK primarily focused on the preparation of strategic development documents aimed at strengthening regional economic development and improving the effectiveness of regional policy interventions. One of the key outputs of this phase was the Action Plan for the Brezno District. In close cooperation with BBSK, the DABBSK also played an important role in initiating and coordinating activities aimed at addressing structural disparities in the least developed districts of the Slovak Republic located within the territory of BBSK, including Rimavská Sobota, Poltár, and Lučenec.

Those activities were embedded within a broader national policy framework aimed at addressing catching-up or disadvantaged regions. The data-analytical centre of DABBSK contributed to the evidence-based development or regional policy by preparing socio-economic analyses at the district level and by producing analytical and strategic background materials for project in which the regional government was involved [19].

Between 2018 and 2019, DABBSK developed a complex and diversified position within the regional development framework. Notably, it functioned as an applicant under the Action Plan for the least developed districts, while currently preparing project proposals for a range of external funding schemes on behalf of entities established by BBSK, as well as regional tourism organisations. Alongside their intermediary roles, DABBSK also acted as a direct beneficiary and project promoter, submitting own initiatives within multiple funding schemes.

From 2019 onwards, the DABBSK progressively broadened the scope of its project activities to include targeted assistance for small municipalities with fewer than 1,000 inhabitants which typically face constrains in administrative and technical capacity when accessing external financial sources. This activity was later expanded to municipalities with populations of up to 5,000 inhabitants. Consequently, project preparation and implementation have become the central pillar of the DABBSK activities within the wider complex of regional development policy.

Next part of the paper focuses on the preparation and implementation of projects for municipalities located within BBSK as well as for other legal entities established by BBSK and for projects in which DABBSK serves as an eligible applicant. The preparation of project proposals and the submission of applications for non-repayable financial contributions was and is fee-based service.

Table 2 presents selected indicators related to project preparation activities for the period 2021–2024 [20–24]. In particular, the table reports the total amount of eligible expenditures (hereinafter "TEE") associated with approved projects, as well as the amount of non-repayable financial contributions (hereinafter "NFC") that these projects have attracted to the territory of BBSK. From an analytical perspective, NFC represents a more precise indicator than TEE, as it reflects the net inflow of external financial resources after accounting for project co-financing.

Table 2. Indicators of Support for regional economic development

Indicator	2021	2022	2023	2024
Expenditure on regional economic development support	153,676	128,898	180,577	192,255
Revenue from project preparation services	12,421	18,507	22,283	26,498
TEE of approved projects	5,300,573	1,692,419	3,421,401	13,196,639
NFC of approved projects	3,895,029	1,448,439	2,803,240	12,197,482
External funding (TEE)/1 EUR expenditure	34.49	13.13	18.95	68.64
Leverage ratio	25.35	11.24	15.52	63.44

Source: Own elaboration based on [20–24].

The leverage ratio indicates the extent to which public expenditures allocated to regional economic development support generate additional external financial resources. As presented in Table 2, one euro of expenditure generated between EUR 11.24 (EUR 13.13) in 2022 and EUR 63.44 (EUR 68.64) in 2024 in external funding inflows to the territory of BBSK, demonstrating a substantial leverage effect of project preparation activities. The particularly high value recorded in 2024 reflects the successful acquisition of a large-scale externally funded project and highlights the capacity of the regional development agency to mobilise significant external financial resources for regional development, indicating a high level of funding efficiency and demonstrate the capacity of project preparation activities to mobilise external financial resources for regional development.

In 2024, the project SPACE – One-Stop Contact Points for Youth in BBSK was approved, with total eligible expenditures amounting to EUR 12.14 million. The approval of this large-scale project significantly increased the overall volume of both TEE and NFC recorded in 2024. Consequently, the observed increase in financial indicators in that year can be attributed primarily to the successful acquisition of a major external

funding project. The findings of the analysis indicate that the funds allocated to this priority were deployed efficiently and produced a significant multiplier and leverage effect by facilitating the inflow of external development finances into the BBSK.

There is a total of 516 municipalities located within the territory of BBSK, of which only 24 are towns. Only 43 municipalities have population exceeding 2,000 inhabitants, and merely nine surpass the threshold of 5,000 [17]. These data underscore the predominantly rural nature of the BBSK.

In many instances municipalities face constrains in administrative, financial and professional capacities, which limit their ability to engage effectively in external funding schemes. Within this context, the project preparation services delivered by DABBSK represent a key enabling mechanism, supporting the realisation of local as well as regional development initiatives that would otherwise contribute not only to the advancement of individual municipalities but, indirectly, to the overall socio-economic development of the BBSK.

As illustrated in Table 3, in the period 2021–2024 municipalities implemented 65 projects prepared by DABBSK, with a TEE approaching EUR 3.9 million. By June 2025, the cumulative value of all approved projects had exceeded EUR five million [23]. This points to the increasing relevance of institutional project support mechanisms in reinforcing the capacity of small municipalities to access external funding and to implement local development initiatives.

Table 3. Projects prepared for municipalities

Indicator	2021	2022	2023	2024	Total
Number of projects	12	25	19	9	65
TEE	679,726	872,895	1,714,451	629,672	3,896,744
NFC	645,251	802,340	1,616,020	629,472	3,693,083
Average project size	56,644	34,916	69,963	59,950	–

Source: Own elaboration based on [20–24].

Beyond the cooperation with municipalities DABBSK has also developed project proposals for a diverse set of actors from the territory of BBSK, e.g., secondary schools established by BBSK, registered social enterprises, and organisations active in the tourism. A considerable proportion of approved projects has likewise comprised initiatives implemented directly by DABBSK.

In the period 2021–2024, 16 projects prepared for these entities were approved and subsequently implemented, with overall TEE reaching EUR 19.7 million, of which EUR 16.65 million was covered by NFC. An important milestone was the approval and implementation of the project SPACE – One step contact Points for Youth in BBSK in 2024 representing a large-scale intervention focused on strengthening youth support infrastructure in the region (Table 4).

The findings further suggest that, since its establishment in 2018, DABBSK has facilitated the mobilisation of more than EUR 27 million in external funding into the territory

Table 4. Projects prepared for other entities

Indicator	2021	2022	2023	2024	Total
Number of projects	7	3	3	3	16
TEE (EUR)	4,620,847	819,524	1,706,950	12,566,967	19,714,288
NFC (EUR)	3,249,778	646,099	1,187,220	11,568,010	16,651,107

Source: Own elaboration based on [20–24].

[19–25], thereby making a substantial contribution to the development of BBSK. We consider expenditures allocated to the area of regional economic development support efficiently utilised, further they have generated substantial leverage effect in mobilising external financial resources.

From a broader regional development perspective, the mobilisation of external funding through project preparation activities may also generate a regional development multiplier effect, as investments implemented through externally funded projects stimulate local economic activity, improve public infrastructure, and enhance institutional capacity within the region. Moreover, institutional project-support mechanisms can strengthen the absorptive capacity of regional and local actors, thereby increasing their ability to access and effectively utilise external development funding [26, 27].

Through the activities of DABBSK, BBSK effectively fulfils its statutory responsibility defined in Sect. 4 (1) of Act No. 302/2001 Coll. On Self-Governing Regions [28], which assigns regional governments the task of ensuring the comprehensive development of their territory.

Table 5 presents an overview of successfully implemented projects by DABBSK, classified according to their programme priorities. In terms of TEE, the employment support priority clearly emerges as the predominant category. Within this priority area, DABBSK implemented in examined period five projects with TEE of EUR 16.5 million, while the overall financial allocation for all projects and all programme priorities approached EUR 17 million.

This allocation of financial resources reflects the strategic focus of regional development interventions on labour market support and employment-oriented measures, which represent a central policy objective within both national and regional development strategies and the EU cohesion policy framework.

Table 5. Projects implemented by DABBSK

Programme Priority	TEE (EUR)	Number of projects
Tourism and rural development	231,360	7
Support and development of outpatient clinics	80,000	1
Employment support	16,522,384	5
Support for entrepreneurship and innovation	5,500	2
Total	16,839,244	15

Source: Own elaboration based on [24].

4.2 Support and Development of Outpatient Healthcare Facilities

Since 2019, DABBSK has undertaken a range of activities focused on the support and development of outpatient healthcare services. These efforts have been driven by the declining accessibility of outpatient medical care for the population across the Slovak Republic. DABBSK concentrates on sustaining existing outpatient facilities, especially in districts experiencing a shortage of medical practitioners.

At present, the availability of outpatient healthcare constitutes a nationwide challenge in the Slovak Republic with further deterioration anticipated in the coming years. This trend is documented in analytical reports and datasets published by the Ministry of Health of the Slovak Republic [29–31], which regularly updates the classification of districts based on the accessibility of outpatient healthcare services. These assessments reveal pronounced territorial disparities in healthcare provision and emphasise the increasing importance of interventions from the regional level aimed at preserving access to essential services.

The first pilot clinic operated by DABBSK was a paediatric outpatient clinic established in the Detva district on 1 September 2019, following the termination of practice by two physicians as of 31 December 2018 [32]. As of 30 June 2025, the portfolio of outpatient clinics operated by DABBSK has expanded to twelve facilities. The spatial distribution of these clinics is illustrated in Fig. 1.

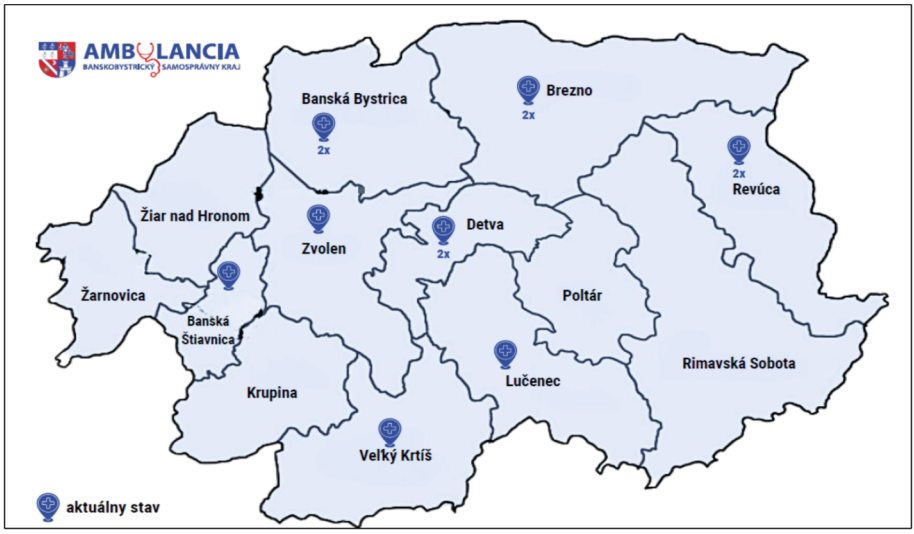

Fig. 1. Outpatient clinics operated by DABBSKSource: DABBSK, based on [32].

The following Table 6 provides an overview of the structure of outpatient clinics (as of 30 June 2025) and the districts in which the clinics operated by the DABBSK are located.

Table 6. Outpatient clinics operated by DABBSK

Outpatient clinic type	District
General outpatient clinic (children and adolescents)	Detva, Brezno (2), Zvolen, Banská Štiavnica
General outpatient clinic for adults	Lučenec, Banská Bystrica, Revúca
Pulmonology outpatient clinic	Detva
Cardiology outpatient clinic	Revúca
Cardiology and internal medicine outpatient clinic	Veľký Krtíš
Endocrinology and diabetology outpatient clinic	Banská Bystrica

Source: Own elaboration based on [32].

An important component of ensuring the provision of outpatient medical care is the active recruitment of new physicians for outpatient clinics in the BBSK. DABBSK provides recruited physicians with comprehensive operational support, including material and technical facilities as well as administrative assistance aimed at reducing bureaucratic burden. In addition, a motivation system for employees of DABBSK outpatient clinics has been introduced, incorporating non-financial benefits with the potential to attract new physicians to regional healthcare facilities.

Support measures also include a residency programme implemented by BBSK, within which DABBSK offers enhanced conditions for residents and actively recruits certified physicians for outpatient clinics across the region. Residents participating in the programme may receive a monthly allowance of EUR 1,000 and, upon completion, employment in a regional outpatient clinic with full material, technical, and administrative support. In 2024, DABBSK cooperated with seven physicians—five residents in general practice for children and adolescents and two in general practice for adults [32]. These initiatives contribute to the recruitment of qualified physicians and help maintain the accessibility of outpatient healthcare services for the region's population.

The strategic objective of DABBSK is to ensure the long-term financial sustainability of outpatient clinics operated by the DABBSK, with the aim of achieving balanced financial performance, whereby operating costs are covered by revenues and income equals or exceeds expenditures.

Currently, a considerable proportion of the financing of these outpatient facilities continues to rely on subsidies from the BBSK budget. As the number of operated clinics expands, it can be anticipated that own-source revenues will gradually increase, accompanied by a corresponding reduction in the level of regional budget support.

According to DABBSK projections, financial contributions from BBSK allocated to the operation of outpatient clinics are expected to decline from 2028 onwards [33]. Based on our analysis, this assumption appears plausible and may even be realised at an earlier stage. Nonetheless, a certain level of reliance on subsidies from BBSK budget is likely to remain.

In addition to the financial burden imposed on the BBSK budget, it is essential to acknowledge the wider positive effects associated with the operation of outpatient clinics managed by DABBSK in the region. Enhanced access to outpatient healthcare services contributes to a range of interconnected regional development outcomes.

Enhanced availability of outpatient healthcare contributes to improved health outcomes for the population in the region by increasing access to preventive examinations, strengthening patient education and awareness and enabling earlier detection of illnesses. These elements can help reduce healthcare costs by allowing treatment to begin at earlier stage of disease. Moreover, better access to healthcare services boosts, according to our opinion, the overall attractiveness and competitiveness of a region. In Slovak Republic, where several areas still struggle with insufficient healthcare access, inhabitants tent to prefer living in places where medical services are easily accessible. Such favourable conditions could also encourage the return of skilled professionals – including remote workers – along with their families to regions with available healthcare services.

Environmental gains arise from shorter travel distances for medical consultations leading to reduced greenhouse gas emissions and more positive environmental footprint. The availability of outpatient clinics likewise contributes to retaining qualified human capital within the region, including physicians, healthcare personnel, and potentially related professions such as pharmacists. In addition, the establishment of medical services may encourage the return of young and qualified individuals to the region. This aspect is particularly relevant for the southern districts of BBSK, which have long experienced the outmigration of educated young people; the arrival of healthcare professionals may help stimulate gradual changes in these migration patterns.

Taken together, these effects interact synergistically and contribute to strengthening the overall competitiveness and attractiveness of the BBSK. The activities related to healthcare provision in which DABBSK acts as an operator of outpatient clinics can be evaluated positively, particularly regarding their contribution to ensuring the accessibility of healthcare services for residents of the self-governing region. These activities reflect the fulfilment of one of the core responsibilities of the BBSK, as defined in § 4 of Act No. 302/2001 Coll. on Self-Government of Higher Territorial Units [28], which stipulates that a self-governing region, in the exercise of its competencies, is responsible for the comprehensive development of its territory and for addressing the needs of its inhabitants, including participation in solving problems affecting multiple municipalities within the region.

5 Discussion and Conclusion

The aim of this paper was to examine selected activities of DABBSK and to identify their contributions within the framework of social innovation. The findings indicate that the agency's primary contribution lies in promoting the public interest, as reflected in the outcomes observed across the analysed areas. The activities, measures and projects implemented within its programme priorities are interconnected and complementary, generating a significant synergistic effect.

Innovation and the capacity to develop innovative products and services represent key components of the productive environment that can stimulate or constrain regional development. In this context DABBSK can be regarded as an example of social innovation

within the institutional conditions of Slovakia. Although the agency has been operating only since 2018, its activities have already produced significant contributions within the public sector and generated tangible benefits for the socio-economic development of the BBSK.

The empirical results further support arguments within the social innovation literature that new institutional arrangements and collaborative practices may provide effective responses to societal challenges that cannot be adequately addressed through conventional market or public policy mechanisms [6, 7]. In the BBSK, characterised by a fragmented settlement structure and limited administrative capacities of many municipalities, the provision of project preparation services by DABBSK significantly strengthens the absorptive capacity of local governments. Since its establishment, DABBSK has secured almost EUR 27 million for the region through projects prepared for municipalities and other entities. In this way, DABBSK has contributed to the development of cooperation, knowledge exchange and the coordination of regional development activities (Cooke [34]).

By facilitating access to external development funding and providing technical expertise, the agency enables municipalities to participate more actively in development programmes and to implement initiatives that would otherwise remain unrealised due to institutional constraints.

The financial outputs of project preparation initiatives reveal that limited public expenditures in DABBSK catalyse significantly higher volumes of external financial resources. Besides the direct financial inflow, these activities strengthen administrative capacities among regional and local stakeholders as well as institutional learning processes. In this regard, DABBSK serves not only as intermediaries for financial resources, but they are facilitators of institutional capacity-building within regional government system.

Our findings align with Moulaert et al. [12] emphasize the importance of social innovation in addressing socio-economic problems in catching-up regions. DABBSK fosters new cooperation forms and governance arrangements and interconnects various stakeholders in the BBSK. Such institutional networks and configurations help redefine relationships among regional actors, creating favourable conditions for socially innovative development processes.

We understand activities of DABBSK aimed at support and development of outpatient healthcare facilities as a highly illustrative example of social innovation. These interventions respond to systemic service deficiencies through innovative institutional arrangements while simultaneously producing wider socio-economic impacts, such as improved quality of life, increased regional attractiveness, and the potential to retain or attract qualified professionals to the region.

Amid declining access to outpatient care in Slovakia, DABBSK's role as outpatient provider will expand across several BBSK districts. These activities constitute a key public-interest intervention to preserve healthcare accessibility as well as an example of socially innovative institutional arrangements addressing gaps in healthcare accessibility. By implementing novel organisational mechanisms to ensure availability of outpatient medical care in the BBSK, DABBSK strengthens the regional service infrastructure.

Research findings highlight the crucial role of the development agency in BBSK, a region facing structural challenges and limited innovation capacity [35]. Although this study examines only one development agency, the results suggest that development agency is vital part of the regional institutional system. Our empirical evidence indicates that DABBSK does not merely support innovation but actively co-produces it by shaping actor networks, fostering collective learning and promoting the integration of diverse stakeholders' interests [11]. In this context, we consider it plausible that the DABBSK model could also be applied in other regions of the Slovak Republic, such as the Prešov and Košice self-governing regions, as they face similar challenges to those encountered in BBSK.

Despite our findings, the study has several limitations. The analysis is based on a single case study of one development agency and primarily relies on qualitative analysis of institutional documents and interviews, limiting the results´ generalizability and possibly not fully capturing the long-term socio-economic impacts of analysed initiatives. We suggest that further examination could therefore focus on comparative analyses of development agencies across different regions to better understand the conditions under which such organisations promote social innovation and regional development. The incorporation of a technological dimensions into the research framework could be a promising direction for future research, particularly with the regard to the interplay between social and technological innovations.

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References

1. Skokan, K.: Konkurenceschopnost, inovace a klastry v regionálním rozvoji. Repronis (2004)
2. Schumpeter, J.A.: The Theory of Economic Development. Harvard University Press (1934)
3. OECD, Eurostat: Oslo manual 2018: Guidelines for collecting, reporting and using data on innovation, 4th edn. OECD Publishing (2018). https://doi.org/10.1787/9789264304604-en
4. Tidd, J., Bessant, J.: Managing innovation: Integrating technological, market and organizational change, 7th edn. Wiley (2021)
5. Dabard, C.H., Mann, C.: Sustainability innovations: a proposal for an analytical framework and its empirical application in the Schorfheide-Chorin biosphere reserve. Sustain. Sci. **18**, 1085–1098 (2023). https://doi.org/10.1007/s11625-022-01241-9
6. Phills, J.A., Deiglmeier, K., Miller, D.T.: Rediscovering social innovation. Stanf. Soc. Innov. Rev. **6**(4), 34–43 (2008)
7. Mulgan, G.: The process of social innovation. Innovations **1**(2), 145–162 (2006). https://doi.org/10.1162/itgg.2006.1.2.145
8. Howaldt, J., Schwarz, M.: Social Innovation: Concepts, Research Fields and International Trends. TU Dortmund University, Dortmund (2010)

9. Poláčková, Z.: Report on the State of the Social Innovation Ecosystem in Slovakia (2022)
10. OECD: Social economy and social innovation. OECD Publishing (2023)
11. Vercher, N.: The role of actors in social innovation in rural areas. Land **11**(5), 710 (2022). https://doi.org/10.3390/land11050710
12. Moulaert, F., et al.: The International Handbook on Social Innovation: Collective Action, Social Learning and Transdisciplinary Research. Edward Elgar (2013)
13. Christmann, G., Sept, A., Richter, R.: Socially innovative initiatives in deprived rural areas of Germany, Ireland and Portugal: exploring empowerment and impact on community development. Societies **14**(5), 58 (2024). https://doi.org/10.3390/soc14050058
14. Bachtler, J., Yuill, D.: Policies and Strategies for Regional Development: a Shift in Paradigm? University of Strathclyde, Regional and Industrial Policy Research Paper (2001)
15. Asheim, B.T., Coenen, L.: Knowledge bases and regional innovation systems: comparing Nordic clusters. Res. Policy **34**(8), 1173–1190 (2005). https://doi.org/10.1016/j.respol.2005.03.013
16. Rozvojová agentúra Banskobystrického samosprávneho kraja: Statute of the Development Agency of the Banská Bystrica Self-Governing Region (2018). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 30 Jun 2025
17. Statistical Office of the Slovak Republic: DataCube database (2026). https://datacube.statistics.sk. Accessed 2026
18. Banskobystrický samosprávny kraj: Program hospodárskeho a sociálneho rozvoja Banskobystrického samosprávneho kraja na roky 2022–2030 (2022). https://www.bbsk.sk/storage/app/media/dokumenty/phsr/phsr-bbsk-2022-2030-uvod-a-analiticka-cast.pdf. Accessed 3 Mar 2026
19. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2018 (2019). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 2026
20. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2021 (2022). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 2026
21. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2022 (2023). https://dobrykraj.sk/o-nas/dokumenty/ Accessed 2026
22. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2023 (2024). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 2026
23. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2024 (2025). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 2026
24. Regional Development Agency of the Banská Bystrica Self-Governing Region: Internal documents (unpublished), (2025)
25. Regional Development Agency of the Banská Bystrica Self-Governing Region: Annual report for 2019 (2020). https://dobrykraj.sk/o-nas/dokumenty/. Accessed 2026
26. Bachtler, J., Mendez, C., Wishlade, F.: EU cohesion policy and European integration: the dynamics of EU budget and regional policy reform. Ashgate. (2013). https://doi.org/10.4324/9781315857916
27. Crescenzi, R., Giua, M.: One or many cohesion policies of the European Union? On the differential economic impacts of cohesion policy across member states. Reg. Stud. **54**(1), 10–20 (2020). https://doi.org/10.1080/00343404.2019.1665174
28. Act No: 302/2001 Coll. on Self-Government of Higher Territorial Units (2001)
29. Ministry of Health of the Slovak Republic: Strategy for general outpatient care until 2030 (2022). https://health.gov.sk/?vseobecna-ambulantna-starostlivost. Accessed 2026
30. Ministry of Health of the Slovak Republic: Classification of districts (2023). https://health.gov.sk/?Klasifikacia-okresov-2023r. Accessed 2026
31. Ministry of Health of the Slovak Republic: Classification of districts (2024). https://health.gov.sk/?Klasifikacia-okresov-VMS. Accessed 2026

32. Regional Development Agency of the Banská Bystrica Self-Governing Region: BBSK outpatient clinics (2025). https://dobrykraj.sk/podpora-ambulancii/. Accessed 2026
33. Banská Bystrica Self-Governing Region: Informative report: Support and development of outpatient clinics in the BBSK for the period 2019–2030 (2024)
34. Cooke, P.: Regional innovation systems, clusters, and the knowledge economy. Ind. Corp. Chang. **10**(4), 945–974 (2001). https://doi.org/10.1093/icc/10.4.945
35. Rodríguez-Pose, A., Crescenzi, R.: Research and development, spillovers, innovation systems, and the genesis of regional growth in Europe. Reg. Stud. **42**(1), 51–67 (2008). https://doi.org/10.1080/00343400701654186