Action plan for the Growth and Employment in the Banská Bystrica Self-governing Region

With a total area of 9 454 km², the Banská Bystrica Self-governing Region (BBSGR) is the largest region of Slovakia. Its population of 648 thousand inhabitants is the third lowest, which makes the BBSGR least densely populated region with average population density of 68.6 inhabitants per sq. km.

In terms of administrative division, the BBSGR is divided into 13 districts with 514 municipalities, 24 of which are towns and cities.

The population of the BBSGR is in long term decline (about 1 500 inhabitants a year over the past 10 years). The trend has been in equal measure caused by the negative natural population growth and the negative net migration rate (both measured by permanent residence). However, the recent analysis of Slovak Institute for Financial Policy (IFP) suggests that a significant number of BBSGR’s inhabitants stay outside of their permanent residence (having different habitual residence). Therefore, the actual regional population outflow might be much higher.

The average age of population of 41.7 years is slightly above national average. Demographic aging of BBSGR’s population follows national trend. Aging index of 114.7 % is one of the highest of all regions. Index of economic dependency of 46.17 % is at national average.

In terms of composition of the population, 77.1 % of the BBSGR’s population has the Slovak nationality, 10.6 % are Hungarians, other nationalities (Czech, German, Polish etc.) account for remaining 10 % of BBSGR’s population. According to the Atlas of Roma communities (2013), about 12 % of BBSGR’s population belongs to the Roma community.

BBSGR belongs to the economically weakest regions of Slovakia. Five out of thirteen BBSGR’s districts belong to the development programme of Slovak government for the Least-Developed Districts. Regional GDP is only at 8.8 % of the GDP of Slovakia which is the lowest rate of all regions. GDP per capita of 11 509 EUR is the second lowest behind the Prešov Region.

BBSGR’s unemployment rate is 6.95 %, which is 1.9 PP higher than unemployment rate in Slovakia. However, unemployment rate in some of the least-developed districts exceeds 10 %. Long-term unemployment, low working skills and insufficient education are serious issues. Over 42 % of registered job applicants have been unemployed for more than 12 months, 40 % of job applicants are uneducated or have only basic education and 58 % of job applicants are low-skilled with no previous occupation. 4.9 % of BBSGR’s inhabitants receive social assistance benefit in material and social deprivation (national rate is 2.72 %).

The total employment in the BBSGR reached 210 233 persons in 2017. 22 % of all employees worked in manufacturing, 28 % in public sector (public administration, education and health and social services) and 24 % in trade, transport, accommodation and food services. Average nominal monthly wage in BBSGR reached 859 EUR in 2018, which is 15.3 % less than national average and the second lowest when compared to other regions.

In BBSGR, there are more than 19 thousand legal entities – companies and 37 thousand natural persons – entrepreneurs. 24 % of all companies operate in wholesale and retail trade, 10 % in manufacturing and 9 % in construction. Industrial companies in BBSGR reached the sales of 4 795 mil. EUR, which is only 5 % of industry sales in Slovakia. The region has one of the lowest inflows of foreign direct investment (FDI) of all regions. Dominant industry is metallurgy with more than 60 % of all industrial exports. Other important sectors are woodwork, engineering, chemistry, pharmacy and food processing. The biggest industrial companies established in region in terms of revenues are Slovalco, a.s. (aluminium manufacturing), Continental Automotive Systems Slovakia, s.r.o. (automotive
components), Železiarne Podbrezová, a.s. (seamless steel tubes), Nemak Slovakia, s.r.o. (aluminium automotive components), Bučina DDD, spol s r.o. (composite wood panels), SHP Harmanec, a.s. (cellulose-paper). Industry is highly concentrated in the northern part of the region. Food processing and other agriculture-related sectors are concentrated in the southern part of the region.

Road network of BBSGR includes 3 209 km of roads, of which 127.6 km are highways, 640.6 km are the 1-st class roads, 601.9 are 2-nd class roads and 1838.9 km are 3-rd class roads. 49 % of roads under BBSGR’s administration (i.e. 2-nd and 3-rd class roads) are in unsatisfactory or emergency condition. Two main railways connecting Slovakia’s south with north and west with east cross the region. They are integrated into an extensive network of regional railroads.

**Strengths of the BBSGR:**

- Sound industrial base in metallurgy, engineering, woodwork
- Strong potential for the development of tourism
- High educational level in regional centres
- Growth of research and development infrastructure

**Weaknesses of the BBSGR:**

- Low share of high value-added production
- Underinvestment in roads and insufficient highway infrastructure capacity
- Mismatch between supply/quality of learning disciplines and needs of the labour market
- High share of low-skilled and low-educated unemployed
- Ineffective cooperation between enterprises and R&D institutions
1. Challenges for Banská Bystrica Region

1.1 Challenge: Strategic plan for digitalization and development of public transport in the BBSGR

BBSGR is a buyer of public transport services for regular suburban bus transport in the region. The steady decline in both passengers and fare revenue results in an increase in public transport funding from public budgets. Transfers between trains and buses are not defined, bus connections do not wait, and passengers do not have a guaranteed transfer between connections. Therefore, in the absence of public transport digitization, public transport is currently an unreliable public service.

When designing the solution for digitalization and development of public transport, it is necessary to take into account:

- The passenger information system in vehicles, at stops and at stations is missing
- There are no mobile or web applications available for the passengers to be used
- There is no up-to-date on-line information on connection delays or other in-service emergencies
- There is a lack of a central public transport dispatch that would actually drive the traffic
- There is no guaranteed connection between buses or between buses and trains
- Nodes are not defined and missing
- There is no integrated transport system
- There are no time or transfer tickets in suburban bus services
- There is no integrated regional public transport tariff

1.2 Challenge: Harmonization of the offer of study fields reflecting the needs of the labour market

The region struggles with high unemployment rate of the secondary vocational schools’ graduates, inefficient interconnection between relevant stakeholders and authorities, insufficient international cooperation and promotion of the region. Even though the regional educational system offers a broad spectrum of subject fields, quality harmonization of study fields is missing; we also notice a discrepancy between the demand by the employers and existing unemployment within several counties at the same time.

The employers in the BBSGR are mostly interested in engineering and engineering production education development, as well as education of qualified workers and craftsmen in other economic branches. Biggest engineering companies are located in Brezno, in Detva, in Zvolen and Žiar nad Hronom. We are also aware of a significant interest by the employers in the fields of business and services.

The following factors should be taken into account when aligning the offer of study fields with the needs of the labour market:

- Unfavourable demographic development and yearly drop in numbers of students
- Decrease of pupils’ interest in study at technical schools and technical departments
- Insufficient cooperation and interconnection between elementary schools, parents, education counsellors, secondary schools and employers
- Absence of career counsellors; personal, moral, time and financial under-dimensioning of educational counsellors at primary schools
- Insufficient material and technical equipment of schools
- Disappearance of large enterprises and traditional employers, emergence of sole traders and arrival of foreign investors
1.3 Challenge: Strengthening the region’s innovative environment through creating voucher system for R&D activities of companies and creating innovative platform that will support innovation ecosystem in cooperation with universities and existing innovation centres in the region

Today, dozens of centres of excellence, competence centres, science parks, and research centres are located in the Banská Bystrica Region, as well as centres of the Slovak Academy of Sciences and two universities. The Faculty of Forestry and Wood Technology at the Technical University in Zvolen is the only one of its kind in Slovakia. In practice, these existing innovation centres are often not linked to the businesses in the region.

The intention of the BBSGR is, in cooperation with universities and existing innovation centres in the region, to create an innovative platform that will support and co-create innovation ecosystem in the region. It will provide non-discriminatory first-time contact and guidance for innovative services for different business types to all companies:

- For start-ups with an idea
- For established businesses that need to develop and innovate their products

The platform will be a liaison and networking point for companies in the region, where they will recommend direct cooperation with existing innovation centres and research centres in the region or outside the region, or institutions that provide intellectual property, standardization, and testing services. The platform will also provide advice on the use of financial resources for innovation. Also, in later stages, it can connect start-ups with potential investors.

The intention will also be to establish, in cooperation with the state institutions, a workable financial mechanism to support R&D in SMEs, which the platform can promote and put into practice.

1.4 Challenge: Developing social services for seniors

Slovakia will rank among the fastest aging countries of the European Union with the biggest impact of population aging on the age structure of the population over several years. The region of Banská Bystrica is one of the fastest aging regions in the Slovak Republic, with the least developed network of social services for seniors. The average age of the population will increase in the coming years.

Existing national legislation gives local and regional authorities different competences in providing social services to citizens. In order to make this system more effective, it is necessary to link regional self-government (BBSGR) with local governments (municipalities). A cooperation between public sector bodies has to take into account following factors:

- Social services, expenses compensations and health services exist as fragmented systems
- Availability of services for seniors is insufficient especially at the municipal level, one of the reasons being the large fragmentation of municipalities. BBSGR partially solves the problem beyond its original competencies.
- There is a lack of personnel, material, financial and professional capacity at the municipal level to deal with the situation
2. Activities in Banská Bystrica Region

I. Obstacle: Lacking integrated, smart and sustainable transport system responsive to scarcely populated areas.

1.1 Activity: Travel behaviour and digital literacy analysis of residents and visitors/tourists

The aim of the activity is to better understand travel behaviour and needs of residents and visitors of the region and their technical skills related to use of mobile technologies and the internet. These information are crucial for subsequent activities related to the Transport component.

This activity includes:

- Analysis of existing national and regional-level data related to transport
- Representative survey focused on travel behaviour and digital literacy of residents and visitors of the region (sample size and methodology will be determined with specific research questions in mind, depending on the granularity of comparisons that will be needed)
- Analysis of travel needs related to tourism development
- Analysis of mobile phone data from mobile operators related to transport of people within region
- REGIO TAIEX Peer2Peer study visit

**Output:** Report on Travel Behaviour and Needs of the Region's Residents and Visitors and Digital Literacy Analysis of the Population in Banská Bystrica Region

**Duration:** 6 months (September 2019 - February 2020)

1.2 Activity: Public transport digitalization strategy

The aim is to create a strategy for digitalizing public transport in the BBSGR with a goal to achieve significant progress in the quality and reliability of this public service in a short period of time.

This activity includes:

- Description of the current state of public transport in terms of information systems and passenger check-in
- Analysis of current technological solutions and developments in telematics and dispatching systems
- Models of publishing public transport information to passengers
- Model of interconnection of individual components of the whole public-transport digitization in the region (live public transport dispatching, information departure boards at stops, digital screens in vehicles, mobile or web applications, including current departures and delay information, on-line movement of vehicles on a map, fares, ticket purchase - eshop, etc.)

**Outcome:** Strategic material on the possibilities of public transport development in the BBSGR in the area of telematics and information systems, including the timeline of implementation of individual subprojects, and an estimate of the need for financial resources.

**Timetable:** 7 months (February 2020 – August 2020)
II. Obstacle: Mismatch between demand and supply on the labor market; the inconsistency of the existing offer of study and learning disciplines with labor market needs - including dual learning

2.1 Activity: Analysis of labor market needs and offer of schools

The aim of this activity is to better understand what small and medium enterprises as well as bigger employers look for when recruiting new graduates, with a particular focus on VET schools, and how are these needs reflected in skills of the graduates and in the content of study programmes offered by the region’s vocational schools.

This activity includes:

- Labor market needs analysis: In-depth interview with a sample of 50 - 70 employers / firms in the BBSGR, taking into account sub-regions, size of the company, sector etc. The research sample will consist of selected companies with a real potential to employ secondary school graduates.

- VET school study: an analysis of the existing offer of study and learning disciplines at the Secondary Technical School in BBSGR. The analysis, realized in cooperation with the Department of Education of the BBSGR, will cover 25 VET schools, 5 joint schools and 4 industrial schools established by the Region, with a goal to reach also private founders and include their schools as well. The analysis will focus on management of schools, their curricula, technical and physical infrastructure, knowledge of and potential for cooperation with businesses, as well as their human and professional capital.

**Output:** Employer study report and Secondary VET school study report, including a proposal of changes in study and learning programmes based on analysis results.

**Duration:** 7 months (September 2019 – March 2020)

2.2 Activity: Investment needs analysis and investment package development

The aim of this activity is to identify investment needs of five selected secondary vocational schools, including training of teachers and staff, study programs development, development of cooperation with business sector, as well as equipment and infrastructure improvement. The goal is to attract more students by making the schools environment more enjoyable and give them an opportunity to work with modern technology reflecting current requirements.

The schools will be selected using multiple criteria, such as location of the school, its curriculum, number of vacancies in respective sectors, field of specialisation, readiness of schools to prepare and implement project concepts, etc. Selection of the schools will also be informed by results of Activity 2.1, prioritising schools that have a potential to meet demands of employers.

**Output:** Overview of investment needs of five selected schools and strategy for financing and operationalizing integrated investment projects; networking - linking secondary schools and employers

**Duration:** 7 months (February 2020 - August 2020)
III. Obstacle: Absence of links between industry and R&D&I workplaces in the region’s public and public sectors; lack of appropriate professional advice

The goal of activities under this component is to explore possibilities for strengthening the region’s innovative environment via a voucher system for R&D activities of companies and creating an innovative platform that will foster cooperation between businesses, universities and existing innovation centres in the region.

3.1 Activity: Assessment of the region’s innovative environment with focus on SMEs

The aim of this activity is to analyse needs of institutions with R&D&I capabilities in the region and businesses that could use these capabilities to develop and innovate their products, as well as potential for their mutual cooperation. This activity includes:

3.1.1 Qualitative survey of region’s innovation centres and innovation capacity of universities

- The survey will focus on obstacles for a deeper cooperation between innovation centres, research and excellence centres, universities and businesses in the region and how to remove the obstacles (e.g. are there any specific services offered to SMEs? What are legislative and practical barriers for further commercial cooperation with SMEs in R&D&I?)

Output: Report on possibilities and barriers for deeper cooperation between R&D&I centres and businesses in the region

Duration: 7 months (September 2019 – March 2020)

3.1.2. Qualitative survey of needs of local SMEs in terms of R&D&I

- Overview of R&D&I activities and needs of businesses in the region. For inactive SMEs in D&I examine reasons why SMEs are not interested in innovations and identify eventual bottlenecks, obstacles or lacking capabilities (infrastructure, human of other resources). The analysis also includes needs of firms in the field of intellectual property, standardization, quality control, testing etc.

Output: Report on needs of SMEs in the Banská Bystrica region in terms of R&D&I

Duration: 7 months (September 2019 – March 2020)

3.1.3 Exchange of experience with functioning technology centres and universities in Europe with the participation of companies, innovation centres and universities

Output: Presentation of good practices from successful regions in Europe

Duration: REGIO TAIEX Peer2Peer study visit and a business trip (August 2019 – December 2019)

3. 2 Activity: Removing legal barriers to financial support to the SMEs and other companies

The aim of this activity is to explore ways how existing research infrastructure could be used by businesses in development and innovation of their products.

Output\(^1\): Analysis of legal possibilities, limitations and obstacles for the development of a voucher scheme for R&D&I activities of SMEs

Duration: 6 months (January 2020 – June 2020)

\(^{1}\) To be implemented in synergy with similar type of activities planned within the Prešov region action plan.
IV. Obstacle: Long-term care is not an integrated system, it is departmental and competitively fragmented

4.1 Activity: Micro-region identification for a pilot testing of integrated service model for seniors

- The BBSGR will propose 3 to 4 micro-regions from which one micro-region will be selected based on defined criteria, focusing mainly on the need for services for seniors in the micro-region. Today, the social services network is least developed in regions belonging to Revúca, Veľký Krtiš and Rimavská Sobota districts.
- Further criteria for selection include: Appropriate buildings / land to provide community social services owned by BBSGR, local government and others; Infrastructure (other public services, roads, transport, associations, etc.); Social services (existing and necessary); Willingness and ability of self-governments to cooperate

Output: Definition and selection of a "micro-region"; establishing cooperation with the local government, formalising a partnership between the BBSGR and municipalities about cooperation - Cooperation Agreement with detailed description of activities and services

Duration: 4 months (September 2019 - December 2019)

4.2 Activity: Creation of an integrated services network model for seniors

The main objective of this activity is integration of social services in the selected micro-region in the competence of local government and regional self-government, strengthening preventive activities (in terms of promoting active aging, screening of lonely seniors, etc.) and linking them to health services.

The model will be inspired by best practices from abroad and adapted to the specific BBSGR environment. Our goal is to come up with a model that is efficient, financially sustainable, and defines the minimum facilities of the territory by different services and their interconnection.

Creating a model integrating social and health services in the region includes:

- Creation of a Joint Office/Social Services Centre
  - The joint office will be established by a contract between municipalities and the region as a part of Centre of Social Services, a non-profit organization providing social and health services to citizens.
  - The BBSGR will coordinate the project, provide methodological support to associated communities, and provide links to a wider network of specialized services and other socio-health services.
  - The pilot phase will need to examine the economic and functional sustainability of the Joint Office.

- Creation of a model of a functioning Common Office
  - Beyond the basic administrative duties of municipalities resulting from the Social Services Act, it will coordinate social services at community level, such as nursing services, transport services, outpatient forms of social services for seniors and so on.

- Participatory community planning
  - Provided by external experts, community planning will be carried out in cooperation between the “micro-region”, self-governing region and non-public sector.
  - The basis for community planning will be the existing Community Plans (CP) and the Social Services Development Concept in the BBSGR (SSDC). This step gives the prospect of thinking about investment projects before finalizing the community planning
process. The results from the analysis of the existing CP and SSDC are verified in a participative way in the local community for the acquisition of social consensus.

- Developing funding applications
  - Identifying suitable operational programs and calls within structural funds in cooperation with CCA and support for development of applications
- REGIO TAIEX Peer2Peer study visit

**Output:** A sustainable model of integrated services for seniors; a model and pilot testing of a Common Office in a micro-region; Participative community plan for micro-region

**Duration:** from September 2019