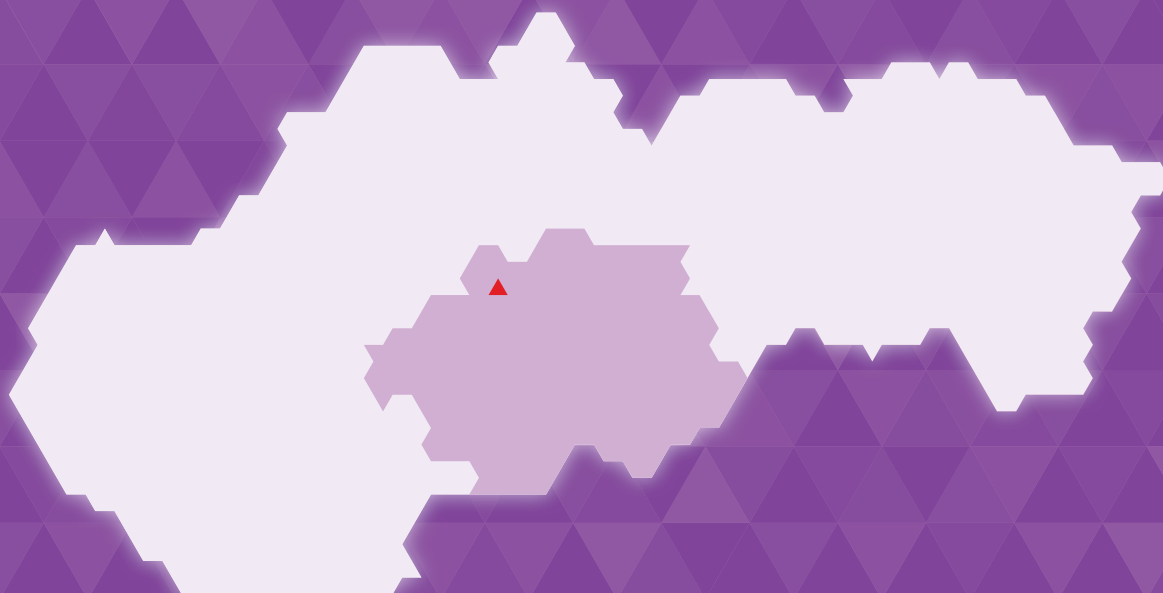


SLOVAKIA CATCHING-UP REGIONS 3

RESEARCH AND DEVELOPMENT
COMPONENT
(OCTOBER 2022)



BANSKÁ BYSTRICA
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MINISTRY
OF INVESTMENTS, REGIONAL DEVELOPMENT
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OF THE SLOVAK REPUBLIC

SLOVAKIA CATCHING-UP REGIONS 3

RESEARCH AND DEVELOPMENT COMPONENT

(OCTOBER 2022)



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ABBREVIATIONS AND ACRONYMS

AMO	Antimonopoly Office
BBSK	Banská Bystrica Self-governing Region (Banskobystrický samosprávny kraj)
CVTI	Slovak Centre of Scientific and Technical Information
CuRI	Catching-up Regions Initiative
DG REGIO	Directorate-general for Regional and Urban Policy
EC	European Commission
ESIF	European Structural and Investment Funds
EU	European Union
IPR	Intellectual Property Rights
JTF	Just Transition Fund
KSK	Košice self-governing Region
MIRDI	Ministry of Investment, Regional Development and Informatization
MoEdu	Ministry of Education, Science, Research, and Sport
MoEcon	Ministry of the Economy
MSME	Micro, Small, and Medium Enterprises
R&D	Research and Development
R&D&I	Research, Development, and Innovation
RIC	Regional Innovation Center
RIS	Regional Innovation Strategy
RIV	Regional Innovation Voucher
RO	Research Organization
ROI	Return on Investment
RRP	Recovery and Resilience Plan
SAS	Slovak Academy of Science
SBA	Slovak Business Agency
SCCI	Slovak Chamber of Commerce and Industry
SIEA	Slovak Innovation and Energy Agency
SME	Small and Medium Enterprises
TFEU	Treaty on the Functioning of the European Union
TRL	Technology Readiness Level
TTC	Technology Transfer Center
VET	Vocational Education and Training
WB	World Bank

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1. EXECUTIVE SUMMARY

This report summarizes results of the second year of the Research and Development (R&D) component of the Catching-up Regions Initiative (CuRI) carried out in Banská Bystrica Self-Governing Region (BBSK). The Initiative was initiated by the European Commission's (EC) DG Regio and carried out in collaboration with the Slovak regional and national authorities, and the World Bank (WB). The report describes the third year of this initiative (CuRI3) that lasted from November 2020 to December 2021.¹ Key engaged national entities were: Ministry of Investment, Regional Development and Informatization of the Slovak Republic (MIRDI), Ministry of Economy (MoEcon), Ministry of Education (MoEdu), Antimonopoly Office (AMO), Slovak Innovation and Energy Agency (SIEA).

The objective of the R&D component was to continue support pertaining to enhancing the collaboration between regional businesses (R&D demand) and the research sector (R&D supply). Two sub-components were: i) supporting the BBSK in establishing regional unit that will support and enhance collaboration between industry, research organizations and students, and ii) supporting the BBSK in preparation of the Regional Innovation Voucher scheme. These objectives emerged from the CuRI2 recommendations, which suggested i) setting up a regional innovation unit, ii) piloting a regional innovation voucher, and iii) establishing a prototyping space, the *innolabb*.² The component did not attempt to tackle a broader topic of enhancing the BBSK's innovation ecosystem, though certain aspects of this work have implications for the innovation ecosystem and they cannot be always easily separated.

The first sub-component supported BBSK in conceptualizing its Regional Innovation Center (RIC) and implementing the *innolabb*. CuRI helped BBSK analyze various options for setting up the RIC as an entity enhancing R&D collaboration and develop a vision of the region's innovation ecosystem. Currently, RIC is not established as a specific entity or a unit, its role is being performed by a team of BBSK employees from different departments and organizations, including the Regional Development Agency. In this report, this team is being referred to as BBSK's RIC. The WB also provided just-in-time support in shaping activities of the *innolabb*, a prototyping space that was established by BBSK as a result of CuRI2. This work included facilitation of communication with the national level.

The second sub-component focused on designing a regional innovation voucher, a novel instrument tailored for BBSK to promote R&D collaboration. The voucher was designed and implemented in collaboration with MoEcon, SIEA, MIRDI and AMO. The regional innovation voucher scheme was launched in June 2021 and its planned budget was EUR 2 million. Eventually almost EUR 1 million was distributed, 193 companies applied and 52 vouchers were awarded.³

The CuRI R&D component also contributed to strengthened collaboration between the regional and national level in the area of innovation policy. CuRI2 and CuRI3 provided ample opportunities for deepening the dialogue between both levels and working hand in hand on joint solutions. The convening power of WB and EC brought different stakeholders together to stimulate the sharing of good practices from other countries. This relatively intangible result is an important element of the development process enabled by CuRI and the Initiative's stakeholders value it highly.

2. REGIONAL INNOVATION VOUCHER (RIV) FOR BBSK

2.1. VOUCHER FUNDAMENTALS AND KEY RESULTS IN BBSK

This chapter describes the design and implementation processes of Regional Innovation Voucher (RIV) scheme in BBSK. Key focus of the CuR13 R&D component was on designing and piloting a RIV scheme for companies in BBSK. RIV was one of the key recommendations from the CuR12 R&D component. Its aim was to i) initiate collaboration between regional companies and service providers in the area of research, development and innovation (RD&I) by providing grants in the form of an innovation voucher, ii) simplify application and settlement procedures on the voucher operator's side, i.e. SIEA, iii) build capacity at the regional level in designing and implementing such support measures, and iv) draw conclusions for the national level to allow potential scale up of activities. RIV design, conducted in close collaboration with key national and regional stakeholders, was based on a review of existing and past voucher schemes implemented in other countries, e.g. Ireland, Netherlands, Czechia and Poland; Slovak experience with other type of vouchers; and interviews and a rapid survey with potential beneficiaries and providers in BBSK. The preparatory phase took considerable amount of time, because it required aligning three processes, i.e. i) obtaining an agreement from the Antimonopoly Office to use innovation vouchers within the framework of a national project that was managed by SIEA that was to be used to finance this pilot, ii) amending a national project which required MoEcon's consent and adjustments of technical documentation of that national project, iii) preparing a call for proposal for BBSK.

In essence, an innovation voucher is a grant (usually of a small value) that allows a company to cover costs related to an innovation-oriented activity. A voucher scheme usually includes at least three parties, a voucher provider (manager), voucher recipient (beneficiary), and a service/knowledge provider (provider). The general voucher mechanism is the following: a company commissions a service/good with a provider, provider delivers the service/good, voucher is used to pay for that service/good. Different modalities of financial flows and contractual arrangements between the engaged parties are possible. One of the common goals of innovation vouchers is to stimulate first-time contact between companies (recipients) and knowledge providers, to enable their collaboration and thereby to motivate an innovation culture in their companies.

A characteristic feature of vouchers is a simplified application and assessment procedure that is justified by a relatively small value and low risk associated with them. These procedures do not require the collection of large amounts of documents and evidence for the sake of reporting, such as time sheets. Often, these are based on invoices related to outputs or results only. This is contrary to typical grant schemes that offer support of higher value and require more bureaucracy, e.g. specific accounting rules, close attention to eligible expenditures and activities. These complex monitoring and reporting requirements that are often coupled with restrictions related to the scope and size of eligible activities tend to discourage companies from applying for such funds. Hence a simple voucher is often perceived as a measure that works as a door opener or an invitation for a company to start utilizing public funds. Often a single company is eligible for a limited number of voucher (e.g. two or three) to encourage its future use of other (larger) instruments or own funds for further collaboration with providers.

SIEA launched RIV for BBSK companies in June 2021 and dedicated a budget of EUR 2 million.

The call was planned to be opened for three months with an option to extend it, if demand was not high. In essence, this budget allowed 133 vouchers to be granted, if all applicants were to request the full value of the voucher, i.e. EUR 15,000. The scheme envisaged low administrative burden for companies and quick processing times of voucher application and result assessments.

Within one month, 193 BBSK companies applied for RIV and SIEA suspended the call for proposal, since the dedicated budget was already exceeded. This is considered a success that such high interest was expressed by BBSK companies in such a short period of time, and moreover it coincided with the beginning of summer holiday. In fact, such scenario was unexpected, since at the planning stage exact demand was unknown. By March 2022 some 52 vouchers were awarded, 95 applications were rejected or withdrawn and 46 applications were still being processed. The latter number results from the fact that SIEA encountered problems in verifying the legal status of some companies (i.e. whether they are SMR or not – please see further part of this chapter for more details) and their de minimis limit, and asked the Antimonopoly Office for opinion.

The BBSK pilot project also paved the way for SIEA's launching a national innovation voucher support scheme in October 2021 – the first national call excluded BBSK companies.⁴ This national program builds on experience gained in BBSK, and is considered a direct result of CuRI's work.

2.2. RIV RATIONALE

Current level of R&D collaboration between public ROs and industry in BBSK (and Slovakia in general) is low. This is true, despite large funds having been invested in R&D infrastructure during two previous EU programming periods. The CuRI2 reports provides a broader overview of this situation and its causes. One of the reasons is that companies and researchers do not know each other and do not understand each other's needs and offer. This lack of communication goes hand in hand with a low track record in R&D collaboration, insufficient opportunities (and capacity) for networking, and the lack of experience in organizing such collaboration. Other causes pertain to systemic issues, such as the regulatory framework related to the commercial use of R&D infrastructure, complex innovation support system, incentive system for researchers biased towards publication and not R&D collaboration – these, however, need to be tackled at the national level. CuRI3 work concentrated on initiating contacts between companies and ROs in BBSK as this was recognized to be a feasible measure that could be tackled at the regional level in the Slovak Republic.

BBSK small- and medium-sized enterprises (SMEs)' significant potential for the development of innovation, especially based on knowledge transfer and R&D, is not fully optimized. SMEs face challenges that limit their innovation and research and development activities. In principle, they do not have their own research facilities, or their scale is limited, lack contacts and experience in cooperating with the researchers at public ROs, do not have a good overview of R&D offer that is available at ROs, hence their tendency to develop their innovative ideas in-house. Compared to large companies, SMEs are less likely to engage in collaborative innovation projects with academia (research sector). SMEs also tend to have more limited access to the latest technologies, research infrastructure and current knowledge that could inspire development of innovative solutions.

Public research organizations are more interested in collaborating with large enterprises than with SMEs. This stems from the fact that big companies have larger and longer-term budgets for such collaboration, which is attractive to ROs. Such long-term collaboration allows ROs to establish more stable and bigger research agendas that require less organizational agility than research projects with smaller companies with smaller budgets. Hence, though the vast majority of universities declare broad cooperation with business, companies from the SME sector are rarely among their partners and clients. Instead, ROs and scientists prefer to collaborate with large companies.

To promote R&D&I collaboration between SMEs and public ROs, the team proposed testing a novel instrument in BBSK, the Regional Innovation Voucher (RIV). This approach was innovative in two ways. First, it introduced new elements to the voucher design, compared to previously used vouchers (scope, procedures). Second, it promoted piloting the voucher in a single region in the Slovak Republic, an approach that had not been used before. These innovations required engaging various stakeholders in the decision-making process to obtain their approval and significant flexibility on SIEA's side.

The CuR12 Report recommended experimenting with two kinds of vouchers – small and large, under CuR13 the former was tested. The objective of the small voucher was to initiate collaboration between companies and academia. The end result was to be an outlined research agenda for potential longer-term collaboration. The large voucher intends to encourage actual R&D collaboration between industry and public ROs and to stimulate innovation development and implementation. Eventually, during CuR13, the small voucher was designed and piloted. Two main reasons for that solution were i) limited time remaining under the 2014-2020 perspective to utilize the funds, which would likely not be sufficient to implement the large voucher, and ii) an extended period required to prepare the small voucher.

Prior uses of a voucher mechanism in the Slovak Republic received positive feedback. Such a scheme was successfully used for programs supporting energy transformation and the creative industries. The former supported companies and individuals to enhance the energy efficiency. The main purpose of the latter was to support the development of the creative industries in Slovakia. The voucher value was between EUR 1,000 and EUR 10,000 with the public aid intensity at 50%. The total allocation for creative vouchers was EUR 6,765,000 and the planned duration was May 2023. However, the interest was so great that this pool of funds was already exhausted in the first call and it was closed. The average value of the voucher requested was ca. EUR 4,500 per company and the number of granted vouchers was approximately 1,500. This form of support was positively assessed by entrepreneurs. Creative industries are currently supported with a new voucher program (vytvor. me) and companies can obtain up to EUR 3,500 support (up to EUR 2,400 in the Bratislava region).

RIV was to address some of BBSK's companies expectations and concerns related to innovation support measures. During the interviews conducted during CuR12 and a rapid survey carried out during CuR13, companies indicated that they expected support measures that are transparent, easy to understand, and quick to process, access and disburse. In other words, when applying for funding, companies would like to be confident that they can finance activities they actually need for further development (i.e. flexibility that is not too narrowly defined by a call for proposals) and their risk of losing own money is limited (e.g. in case of rejecting the final results by the operator and consequent not reimbursing company's expense).

RIV also planned to strengthen cooperation between national and regional administration. The baseline assessment carried out in BBSK in CuR12 identified that an important barrier that discourages and sometimes even prevents the active participation of regional companies in EU support programs, is the latter's insufficient regional dimension. Companies emphasized that EU-funded projects were not easy to access since the support system and procedures were complex; companies indicated, they also faced difficulties with implementing and accounting such projects; finally, territorial dimension of such support was deemed insufficient.⁵ For this reason, a targeted allocation of funds was proposed to establish direct cooperation between the national agency SIEA and the BBSK self-government, where the latter would become a regional partner in informing companies about the RIV and supporting them with the application process. An idea behind RIV was to pilot new and simpler solutions that would be tailored to the needs of local entrepreneurs.

The active participation of the BBSK team in RIV preparation and implementation was also to enhance the capacity at the regional level. Such competences and experience in direct cooperation with companies, ROs and other stakeholders gain unique skills that are needed for fostering innovation in the region and stimulating the regional innovation ecosystem.

2.3. BBSK RIV'S GOALS, ASSUMPTIONS AND KEY FEATURES

In BBSK the main objective of the RIV scheme was to initiate direct relationships between companies and ROs. It was expected, the small voucher (up to EUR 15,000) implemented through RIV could deliver various results, e.g. trainings in areas related to innovation and innovation management, preparing a research agenda for a larger project, preparing and/or implementing a relatively small innovation in company, preparing an innovation-related analysis, developing a concept of a new product or service or business/marketing model.

Implementing novel elements to simplify administrative procedures was another important aspect. Previous CuRI work concluded that companies perceive innovation support instruments in Slovakia as too complex and cumbersome. Hence designing a simple and easily accessible measure was an important goal for CuRI3. These applied to different stages of the support cycle, such as application assessment, monitoring and reporting during implementation, and settlement of support. Since the value of the small voucher was relatively small (EUR 15,000) it was concluded that benefits from simplification of these procedures outweigh risks related to less stringent monitoring of activities financed by vouchers.

BBSK's participation in preparing and implementing RIV was to enhanced region's capacity in managing its regional innovation policy. In fact, it was considered as important value added of the planned scheme. SIEA has an extensive experience in managing various support measures for companies, including vouchers, and was deemed as a suitable partner-mentor for a region. Hence co-management of or shared responsibility for the scheme by SIEA and BBSK was assumed during the preparatory stage. The regional administration hadn't managed similar instruments prior to CuRI and such experience would bring unique knowledge to the BBSK team, and would help the region shape and implement future support measures. Strengthening BBSK's capacities could also help maintain future stability and continuity of similar efforts aiming at supporting partnerships between industry and research sector. Last but not least, BBSK's engagement in RIV delivery would not only help reinforce its position among local companies as regional coordinator and supporter, but also give BBSK an opportunity to identify service providers, and better understand areas where potential future collaboration could take place.

All in all, such collaboration did not materialize to the extent expected. Indeed, BBSK participated in planning the RIV scheme (including the preparation of marketing materials), however, during the implementation stage its collaboration with SIEA became much more limited. SIEA operated the pilot project with its own team. Engaging its own resources (mostly time staff but), the BBSK team was only involved during the marketing phase of the initiative. This allowed reaching a large number of companies and encouraging them to prepare applications. BBSK also supported companies in applying for vouchers, but collaboration with SIEA was limited. The latter, offered own support services, such as an information phone line and online support and managed the application assessment process. It was not possible to work out a model that would involve the regional staff in assessing the applications and in the provision of systematic, demand-based support needed by companies during the application process. Such an arrangement did not create opportunities for BBSK to reinforce its collaboration with regional companies. A recommended solution would be to develop procedures for a joint implementation model. Through such an arrangement national and regional entities could share responsibilities that best fit the applicants' needs. RIV pilot in BBSK showed that engagement of a regional partner is crucial for ensuring the success and high responsiveness of companies and other stakeholders.

Finally, CURI aims to develop solutions that have a scale up potential as in the case of the pilot in BBSK. RIV was designed for a single region in BBSK and, according to the wB team's knowledge, this was the first such attempt in business and innovation support field. Designing and testing RIV in BBSK had several advantages. First, although a RIV's budget was relatively small (planned EUR 2 million), it offered a suitable incentive for the regional administration to engage and for companies to apply. Such mobilization would have been more difficult, had the pilot of this size been

country-wide. On the other hand, a pilot with a larger budget would have been more risky. Hence testing a solution in a single region helps contain financial risks. Second, intensive collaboration between SIEA and BBSK team was developed during the RIV preparatory phase with the facilitation of the MoEcon and wB team. During that time, BBSK used its proximity to companies to verify specific solutions that were considered for application in RIV, e.g. BBSK prepared a rapid survey for companies to obtain feedback that was then incorporated into the RIV design. Third, marketing this innovative scheme was easier within a limited territory, rather than across the whole country. Here also BBSK's proximity to companies played a role. Fourth, technical discussions related to RIV design could be efficiently coordinated, since the number of stakeholders was limited. Despite these efficiency measures, the design of the scheme took almost a year to develop. The voucher was eventually launched in mid-2021. After the RIV scheme gathered a high interest among BBSK companies (as demonstrated by a number of applications), its design was reused in the national voucher scheme launched by SIEA in late 2021. At the time this report was finalized, it can be said that the RIV assessment procedures will require further simplification, as a considerable share of applications was still under the assessment five months after companies' submission (more details in Box 1).

Key RIV features are presented in Box 1. The following sections describe the design of and specific considerations pertaining to BBSK's RIV in greater detail. Table 1 provides a comparison of RIV's key elements with two other types of vouchers that have been popular in Slovakia and implemented at the national level during recent years.

BOX 1. RIV's key features

The BBSK pilot project offered up to EUR 15,000 voucher (with 85% intensity) to BBSK-based companies to purchase R&D&I services from registered service providers. Including company's own contribution the full value was up to EUR 17,650. Any additional costs had to be covered by a beneficiary, e.g. if a value of a contracted service was higher than covered by voucher.

Voucher had to be completed within six months from the award date. Initially, longer duration periods were considered, such as 12 and 18 months. However, due to the pilot character of the RIV and short time remaining until the end of the expenditure eligibility period within the 2014-2020 programming period it was decided that longer periods were too risky and could lead to non-disbursement.

RIV allowed financing activities related to R&D&I divided into three groups i) trainings, ii) innovation, and iii) R&D-related activities.

In total, 193 BBSK companies applied, 52 vouchers were granted, 46 applications are pending decision, 95 applications were rejected or withdrawn. Out of these, 126 applications requested support in the innovation field category, 62 for trainings, and 5 for R&D-related activities

Application procedures and prerequisites were limited to a minimum and SIEA prepared a number of templates with necessary clauses that companies could use. The application could be submitted online and on paper and the pilot call was opened for three months (rolling basis). The application form was short and simple, though the application assessment time in some cases was long.

The process of application assessment and awarding a voucher was fully managed by SIEA, who in some cases requested support from AMO.

To apply for RIV, an applicant had to define the scope of voucher and agree on the scope with a potential provider (that had to register to the database of providers at MoEcon).

Prior to selecting a provider, the applicant was obliged to conduct a market analysis by obtaining three bids from different providers. Only the bid with the lowest price could be selected.

The RIV results were assessed by SIEA on the basis of a short report; payment was provided upon submission of a final invoice by the provider.

A company carried the financial risk of a voucher, it first paid a provider, then it was reimbursed by SIEA after a positive assessment of voucher results.

Source: Authors. 2022

TABLE 1. Comparison of three voucher programs in Slovakia

Type of Voucher	Innovation Voucher (2017-2020)	Creative Voucher	Regional Innovation Voucher in BBSK (2021)
Goal/ Specific target	Support for the first-time collaboration of business entities and scientific research entities (R&D, non-R&D, business support)	increasing SME's competitiveness and innovation potential through the use of outputs from cooperation with entities from designated sectors of the creative industry activities aimed at supporting the creation of new business models and networking of KP enterprises and activities aimed at stimulating the innovation process using KP outputs, Support creative entities to improve their business skills,	Supporting BBSK companies in introducing innovations in their own products, services, processes or streamlining their business model. Developing plans and strategies for implementing innovative solutions Applying knowledge and technologies into practice and providing assistance to improve the transfer of the outputs of the consultancy provided by the ROs
Voucher amount	3.500 - 5,000 EUR Last call 2020 up to 10,000 EUR 5K – for SMEs 10K – large	1,000 EUR to maximum 10,000 EUR for architecture, for other branches the maximum is 5,000 EUR each.	2,000 – 15,000 EUR
Aid intensity	100%	50%	85%
Public aid scheme	De minimis	De minimis	De minimis
Eligible beneficiaries	SMEs engineering and automation food industry and biochemistry social innovations construction and transport chemistry and agrochemistry electrical engineering/electronics and ICT energy and ecology innovative technologies	SMEs based in the Slovak Republic from creative area defined by the following industries advertising and marketing architecture ICT - programming design	Physical or legal persons operating in Banská Bystrica region They have been in business for at least 12 months on the date of submission of the application for the Innovation Voucher
Eligible activities	It's a fixed price. Staff time, materials, etc. The goal is to support a kick-off cooperation - clear purpose justification is required and why it is useful for companies / RO	Support for the creation of new business models and networking enterprises Stimulation of the innovation process using creative industry outputs Services to improve business skills Establishing new partnerships to network among small and medium-sized enterprises from the creative industry.	Analysis and mapping for the needs of evaluating the innovative potential of the company Direct financial assistance, necessary for access to professional skills, services or knowledge, which will enable the promotion of an idea or product, either on the domestic market or on the market outside Slovakia Assistance in developing new or improving existing products Applying knowledge and technologies into practice and providing assistance to improve the transfer of the outputs of the consultancy provided by the ROs
Service Provider	Universities or researchers via University –a list of authorized eligible research institutions	Service providers authorized by SIEA as notified entities registered in the Registry of Providers entitled to provide services under the Creative Voucher project . Registration on the basis of an application evaluated by the Agency Applicant chooses an authorized solver from the list of solvers published on the website provider, according to affiliation to the industry and activity of the solver of the given issue on the basis of the most favorable price offer.	Physical or legal persons authorized to supply the given service/work
Duration	5-7 months (but some years only 3-4 due to some delays)		12 months

Type of Voucher	Innovation Voucher (2017-2020)	Creative Voucher	Regional Innovation Voucher in BBSK (2021)
Evaluation process	Formal check is done then contacts applicants and providers and then contacts evaluators (ca. 8 external evaluators) Duration – ca. 130 days		Simplified evaluation to accelerate the approval process – overall assessment of the scope of activities and in-depth assessment based on random sample after submission of the request for payment by applicant Application assessment by SIEA staff
Model of payment	Payment goes only to provider at the end of the project. There are two agreements - one with MoEcon and SMEs. and a second agreement between MoE and service provider specifying the scope of work to be performed All payments must be finalized and accounted within a calendar year when the voucher was awarded	Reimbursement based on the final report and documentation confirming the implementation of agreed activities that include invoices - documents such as accounting documents, statements from invoice accounts, etc. Entrepreneurs have to pay the entire order and after submitting complete documentation the voucher will be reimbursed.	Reimbursement based on the final report and documentation confirming the implementation work including invoices - documents such as accounting documents, statements from invoice accounts, etc.
Allocation amount	150,000 – 300,000 EUR According to annual plan	Total amount of eligible expenses allocated for the project Almost 13 million EUR	Dedicated 2,000,000 EUR (total allocation for Banská Bystrica)
Source of funding	State budget	ERDF, OP Integrated infrastructure 2014 – 2020 <i>Project: Support for the development of the creative industry in Slovakia</i>	ERDF, OP Integrated infrastructure 2014-2020 via <i>National Project Let's Innovate !</i>
Managing Authority/ Implementing Body	The Ministry of Economy of the Slovak Republic	The Ministry of Economy of the Slovak Republic/ SIEA	The Ministry of Economy of the Slovak Republic / SIEA
Number of calls	Once a year	Calls are announced regularly for each group of creative industries	An open call till depletion of allocation (first come – first serve)

Source: Authors.

2.4. ELIGIBLE BENEFICIARIES

Eligible beneficiaries are individuals and companies from the SME sector as well as large companies, that are at least 12 months old. The reason behind was to support existing companies that operate in the region. Initially the minimum age of 18 months was considered. wb team proposed to lower the age of eligible companies to 12 months to allow support for younger companies, that could experience difficulties during COVID-19 pandemics.

Eligible entities must be registered in the BBSK region. Company's 'residence' or location was long discussed during the RIV preparation. It seems important that RIV support is available to those entities that operate their production or services ('branches') in BBSK region, though their headquarters or registration may be located elsewhere. Entities that operate in BBSK but are not registered there have an impact on the economic situation in the region; they influence job creation, have new technologies and potential for the development of innovation. Most often it concerned companies registered in Bratislava. Many entities choose the capital as the place of their headquarters of registration, even though they may have permanent operational presence in other regions, e.g. in BBSK. The elimination of companies with non-BBSK headquarters would limit RIV's scope and potential impact on the creation of innovation in the region. However, the issue of credible verification of companies' actual direct links to the region remained a challenge. In the case of commercial law entities, where the location of the activity is usually indicated, the decision is simple. The situation of the self-employed, who were not obliged to do so, turned out to be more problematic.

As the co-financing is granted in the de minimis scheme, an additional requirement for the company is to have an unused de minimis amount. In accordance with the Commission Regulation (EU) Nr 1407/2013 - The total value of de minimis aid for one beneficiary may not exceed its equivalent EUR 200,000 gross over a period of three calendar years, and in the case of the economic activity in the road freight transport sector – EUR 100,000. Verification of the de minimis limits was conferred to SIEA and proved difficult, since companies are often members of holdings or company groups. Verification of these links and their implications for de minimis limits was time consuming and led to extended processing of applications.

2.5. SERVICE PROVIDERS

Service providers can be entities that are included in the MoEcon's registry of providers. While RIV was prepared, two main options were considered. First, service providers did not need to pre-register and applicants could select any entity they want to collaborate with. Second, service providers must be listed in national registries. The trade off here was between ensuring a sufficiently large pool of service providers, ensuring the quality of providers, lengthening the application process with an additional step of provider's mandatory registration. Since the time for implementing RIV was limited, the risk of an extended registration process of potential providers could limit the uptake of a voucher. Eventually, option one was dismissed due to a too high risk and too little control over providers. In the Slovak Republic there are two key registries of innovation entities, one managed by MoEcon⁷ and second by MoEdu. The World Bank proposed to use both of them. The MoEdu registry included some 1,500 entities. The MoEcon registry was smaller and included less than 80 providers. The final decision was to use only the MoEcon's registry. Following the RIV launch, the number of registered entities grew – from its original 80 to 148 currently registered entities.⁸ The option with registration prevailed because it provides a degree of control over the quality of potential service providers and because the registration process is simple and quick. Potential providers were obliged to fill in a one-page application.⁹ Registration seems to be a good solution, since it provides voucher applicants with an additional assurance about the quality and reliability of its counterpart, i.e. service provider.

To ensure a broad base of providers, services can be delivered by RO and non-RO entities that are registered in Slovakia. The main RIV premise was to support BBSK companies, hence the criterion of BBSK registration was not extended to providers, however, non-Slovak providers were not eligible. Initially it was considered to limit the providers only to ROs, however, since RIV encompasses also trainings, the spectrum of potential entities was kept broad.

2.6. ELIGIBLE ACTIVITIES

WB team initially proposed three types vouchers to be implemented through RIV. These were small training vouchers 'alpha' (up to EUR 5,000 solely dedicated for R&D&I trainings), small R&D&I vouchers 'beta' (up to EUR 10,000 dedicated to initiating RD&I collaboration), and large RD&I vouchers 'gamma' (up to EUR 50,000 for conducting RD&I collaboration). Based on existing literature, training was suggested to be included in the scope of the vouchers as it is often a lacking link that stops companies from innovating.

Subsequent to the survey with BBSK companies and discussions with SIEA and MoEcon, it was decided to merge two small vouchers (alpha and beta) into a single voucher up to EUR 15,000. BBSK companies preferred such a solution, since it provided them with more flexibility. Eventually, it was decided that companies could apply for up to two vouchers up to a combined amount of EUR 15,000. The large voucher, gamma, was to be designed and implemented at a later stage after the launch of the small voucher.

Under RIV the eligible activities were divided into three groups that provided specific activities. These are presented in Box 2. The first group is dedicated to enhancing the capacity of companies' management and employees through various trainings. The second group relates to analyzing

companies' potential for implementing innovation, exploring commercial potential of planned innovations in e.g. products and services, preparing for innovation implementation. The third group focuses on R&D collaboration and includes both preparatory activities for such collaboration with researchers, as well as actual R&D collaboration that could be implemented within the budget of the small voucher. Alternative scenario was also considered, but was eventually rejected as too risky. To simplify the assessment procedure, wB suggested that during the application assessment, SIEA does not verify eligible activities. Instead, SIEA could focus its efforts on a narrative description presented in the application and a linked log frame that was to show expected results. A list with ineligible activities was also proposed to prohibit specific uses of the voucher.

BOX 2. Eligible activities under RIV

1. Building innovation capacity, training and seminars on:

- 1.1. implementation and management of innovation
- 1.2. business development management, business transformation (organizational, management, cultural, digital), and risk management
- 1.3. team building, creativity and analytical thinking, development of new ideas
- 1.4. project management, lean management, process optimization
- 1.5. education and development of technical skills and competences

2. Consulting services aimed at accelerating innovation:

- 2.1. evaluation of the company's research, development and innovation potential and its priorities in the field of research, development and innovation
 - 2.1.1. mapping of key company processes related to the implementation of innovations, including their modification, optimization and digitization
 - 2.1.2. analysis of the potential for the transformation of business models based on innovations - new business models, new markets or new applications of products / services
 - 2.1.3. analysis and identification of products, services and technologies suitable for transformation for the implementation of the innovation plan (e.g. innovation audit)
- 2.2. exploring the commercial potential of an innovative product / service business and / or marketing model
 - 2.2.1. market analysis for a specific innovation
 - 2.2.2. developing a market entry strategy and verifying financial forecasts
- 2.3. preparation and implementation of new solutions
 - 2.3.1. examination of the scientific or technical feasibility of a new idea (proof of concept / feasibility study) in order to develop an innovative project
 - 2.3.2. preparation of a technology plan (technology scouting) for innovation
 - 2.3.3. preparation of the company's digitization plan and digitization specifications
 - 2.3.4. preparation of an action plan for the implementation of innovation
- 2.4. management of intellectual property rights (IPR), including protection and advice on intellectual property rights, analysis of the current state of knowledge / research and patent purity

3. Research and development services:

- 3.1. preparation of a research plan tailored to the needs of society, which is focused on the preparation or implementation of the required innovation
- 3.2. preparation of a plan for the construction / development of research and development facilities in the company
- 3.3. purchase of research and development services focused on the preparation and / or implementation of innovative solutions (3D modeling and printing, rapid prototypes)
- 3.4. carrying out experimental work (pre-implementation analysis and diagnostics, beta testing, stress testing, usability)
- 3.5. development of new or improved solutions, designs, prototypes, demonstration models (rapid prototypes, model production, software testing)
- 3.6. elaboration of functional specification and / or technical documentation necessary for implementation of innovation for new solution or production process

Source: SIEA, RIV application manual, 2022

2.7. RIV PROCESSES AND PROCEDURES

2.7.1. Application, three bids and two agreements

In general, RIV value is considered not very high, hence it was vital to design procedures in a way that would encourage companies' applications. This was especially important in light of feedback received from BBSK companies regarding other innovation support instruments that were deemed too complex and cumbersome. SIEA, MoEcon, MIRDI, BBSK and wB spent significant time on discussing possible simplifications applicable to the Slovak institutional and regulatory context. These simplifications had to strike a balance between ascertaining a proper use of funds (which implies procedures and monitoring), ease of access and implementation/accounting, and protecting companies' interest and minimizing their financial risk, after a voucher is granted. A special attention was paid to situation that could lead to non-reimbursement of companies' expenses, e.g. related to discrepancies in the final assessment of expected results described in the application and actual final results.

RIV required a company signs two agreements, one with SIEA and one with a provider. The voucher's architecture applied the financial flow based on SIEA's reimbursing company's expenditures at the end of the process.¹⁰ In such an arrangement, a company was signing an agreement with SIEA that specified activities, results and voucher amount. Separately, the company (beneficiary) was signing an agreement with a provider for delivering specific activities within an indicated budget and timeframe. This arrangement looks workable, especially, when a standardized agreement template is provided. It could be further simplified, from the beneficiary viewpoint by introducing a conditional agreement. Such agreement could be signed between the applicant and potential provider and it could be used as an application element to SIEA. After a positive assessment by SIEA the agreement would become binding. This option would still have two separate agreements, but they would be standardized and their signing optimized. An option with a single tripartite agreement could also be considered, though such arrangements tend to be administratively more complex.

To obtain a RIV, a company had to submit a short application to SIEA. The application was a simple form focused on intended results and envisaged activities, it also included details related to company's status as an SME. The project description contained a narrative description of how the planned service will affect the transfer of knowledge, technology and implementation of an innovative solution, product or service for the applicant. The potential beneficiary was to indicate what inputs, outputs and expected results or changes will happen at the company level, which will contribute to innovation. wB team recommended using a simple log frame model to clearly describe linkages between inputs, outputs and results. It would also help SIEA staff to assess the logic of applications. The application also had to indicate the selected service provider, a price agreed for the service provision, information about the market analysis (three bids), and a de minimis aid declaration.

Prior to defining the scope of application, an applicant had to consult potential providers about the feasibility of service delivery within specified time and budget. The RIV manual obliged an applicant to conduct a market analysis and to obtain at least three offers from different providers and on their basis prepare a voucher application. This process had to be documented and the applicant had to select the lowest bid. The selected provider had to register, unless it was already registered, in the MoEcon's registry. Such a sequencing of activities extended the preparation process and put the burden on an applicant. At the same time, it helped protect the applicant's interest. By frontloading the communication with a potential provider and consulting the scope and price via a formalized process of market analysis, the applicant obtained a binding offer that could use for preparing a voucher application to SIEA. wB team recommended that prior to applying for a voucher, an applicant should sign a conditional agreement with a potential provider that would be attached to the application and, in fact, become a core part of the application. The agreement would describe the scope of services to be financed via voucher and expected results agreed by both parties. Such a solution would provide the company with a strong 'promise' to obtain funds from the voucher at the end of the process and would further protect applicant's interest. Since if SIEA would accept such an application, then it would have limited ability to reject final results and hence not provide full financing. This solution was not adopted.

2.7.2. Assessment of voucher applications and results

Assessment procedures can make or break support instruments. They need to balance the analytical rigor that ascertains correct and reliable results with smoothness and speed of the processes. Again, in cases of relatively small support instruments, such as small vouchers, rigor and strictness do not need to be prioritized. Some places, for instance, resigned from a technical assessment and implemented a random selection (a lottery) of applications (after a formal check). Two most important assessment procedures pertain to a voucher application and voucher assessment. Discussions during the RIV preparatory stage assumed that both assessment processes will be swift and will last well below one month. However, this did not fully materialize and needs further finetuning.

The CuRI BBSK and WB team proposed to simplify the application and result assessments. Since the main purpose of the voucher is to encourage first time contact between companies and service providers to overcome initial communication and collaboration barriers, it is argued, that actual results of voucher-financed collaboration are secondary. This is because innovation is inherently risky and difficult to foresee. First attempts to innovate have a high chance of failure. For that reason, holding a company responsible for exact achievement of planned results should not be the primary focus of the assessment process. Furthermore, vouchers are to introduce companies and providers to utilizing support instruments, that is why they should be quick and smooth to apply, without too much procedural hassle. Hence wb team recommended focusing assessment procedures on formal aspects. Leaning towards formalities has several advantages. First, formal aspects often allow a zero-one assessment, which is simple and quick. Second, criteria tend to be very transparent. Third, formal assessment does not need hiring thematic expert(s), contrary to a substantive assessment. Such experts tend to be expensive, busy and often need to be mobilized from abroad which generates costs, e.g. translation of applications. In case of small vouchers, such costs seem excessive. Fourth, a small team, even a single person, can handle a large number of formal assessments, while substantive assessments need to be split among various experts. Bank also suggested simplifications related to the eligible activities (see the above section on Eligible activities).

SIEA decided to apply a mixture of formal and substantive criteria during the application assessment stage. Formal aspects related to e.g. registration of company in BBSK, company's age, its size and de minimis limits, conducting of market analysis. Qualitative (substantive) aspects related to eligible activities, the degree of application innovation, and elements of the market analysis conducted by an applicant. In the Slovak context two aspects related to the formal assessment appear time consuming. First, verification of the SME status seems complex, especially in the case of companies that belong to holdings or are connected to other entities or groups (a subsidiary of a large company). Not only capital, but also personal dependencies do matter, which makes the final decision about qualifying in the SME category more difficult. Second, de minimis limits are difficult to judge, also because of the same reason as in the case of the SME status. SIEA team mentioned that assessing these two elements took a lot of time and led to long processing times. Some of these applications, where violation of economic competition was suspected, had to be consulted with the Antimonopoly Office, which added months to the assessment time. The substantive assessment concentrated on the sufficient degree of innovation indicated in the application. This is a relatively ambiguous area, and it was proposed to mitigate it with a description of eligible activities and an inclusion of a logical framework in the application. The CuRI team also suggested that instead of hiring external experts, SIEA could use a three person team (ideally also including a representative of BBSK administration) to assess the substantive aspects of voucher applications to minimize potential biases. This was not implemented during the pilot in BBSK.

The application assessment process revealed that some service providers tried to game the application process. There were instances of several applications that included an identical description of service provision and all of them were to be delivered by a single provider. SIEA had to carefully filter out such applications and deal with them. In such cases, the system of registering providers is useful, since the ones that tried to abuse the system could be excluded from the provider list.

The assessment procedure of voucher results was simple. After the voucher implementation, a beneficiary was submitting to SIEA: i) a short report, ii) a protocol confirming the handing over of final results by a provider and their acceptance by the beneficiary, and iii) an invoice paid by the beneficiary. The beneficiary prepares this short report in collaboration with the provider, and it describes conducted activities and achieved results. Based on this report and invoice, SIEA reimburses the beneficiary with voucher amount (using 85% intensity rule and up to the voucher limit).

2.8. RIV'S FINANCING MECHANISM

Company-friendly design of voucher financial arrangements is essential for its uptake among companies and providers. In fact, next to an administrative burden (i.e. bureaucracy linked to applying for and implementing the voucher), this is the decisive condition for its success. During the preparatory work, considerations were given to various aspects of financial solutions in terms of the finance flow, distribution of risks, incentives for beneficiaries etc.

2.8.1. State aid intensity at 85%

The first aspect was related to the intensity of State aid. In essence, it is usually set between 50% and 100%. The first one is attractive from the program management perspective, since it minimizes risk of abuses by applicants and providers and could allow less stringent assessment procedures. However, it offer a limited incentive for engagement to potential beneficiaries, since they are required to contribute 50%. If companies are not familiar with implementing innovation and collaboration with providers, and perceive them as a too risky endeavor, then they may not be interested in using a voucher scheme. Thus the 50% intensity was not recommended for RIV as its primary goal was to ignite collaboration between beneficiaries and providers. The 100% intensity constitutes a large incentive for a beneficiary, and to simplifications introduced by the EC after the COVID-19 pandemics break out, such a high support intensity could be allowed. However, it also poses a risk for a scheme operator, as abuses are more likely than in scenarios with lower support. Moreover, it does not incentivize an applicant to thoroughly analyze its application, since a company does not have a skin in the game and loses nothing in case of failure. For that reason, this option was discouraged by the WB team.

Eventually, SIEA selected the intensity of 85%, which was also advocated by BBSK. This seems rational, because it obliges a company to financially contribute to the voucher, thus think twice about the purpose and usefulness of an application. Originally, the wb team suggested the 80% threshold, however, since RIV is a pilot project, a higher threshold was justified and its fine-tuning could take place during next iterations of the program. Also in the future, a sliding scale of support could be considered. Assuming that a company can obtain maximum three vouchers, every subsequent voucher could have a lower intensity level, e.g. 80%, 75%, 70%. In RIV, a company can apply for maximum EUR 15,000 that could be divided into two vouchers.

2.8.2. Flow of funds

How the money flows in the voucher scheme is equally important to the voucher size and its intensity limits. The money flow decides about two aspects that are critical for SMEs and the latter's potential interest in the scheme. These two are company's financial liquidity and financial risk. Small and/or young companies are more likely to have a less stable financial situation than more mature companies, thus support instruments should be designed in a way that does not exacerbate SMEs' position.

For an SME, even a relatively small amount involved in financing the costs associated with consulting or training services can be a challenge. Moreover, the Covid-19 pandemic only precipitated challenges for companies' financial liquidity. For that reason, much attention has been paid to the

development of a model that ensures a quick and smooth transfer of the grant, so as to reduce the risk related to voucher activities. Various solutions were discussed, taking into account procedural limitations and the legal framework in place that govern EU funds disbursement.

In general, three payment models are possible i) advance payment to a beneficiary, ii) direct payment to a provider, and iii) reimbursement to a beneficiary after voucher implementation. In case of large vouchers a partial payment is recommendable and it could be implemented as a sub-option of these three main categories. First two solutions minimize beneficiary's financial risk and do not strain its financial liquidity and were recommended by the WB team. In the advance payment option, SIEA would pre-pay a beneficiary, and these funds would be used to pay a provider (with company's 15% contribution). In the direct payment model, SIEA would directly pay a provider (85%) after a successful assessment of the voucher results and a beneficiary would provide its share (15%). The third option (reimbursement) requires a beneficiary to first fully cover an invoice value with own resources (i.e. to pay a provider), only after a successful assessment by a scheme operator a beneficiary obtains reimbursement. This might be risky for a company for two main reasons. First the results may be rejected by the scheme operator and a beneficiary risk bearing the whole costs of the service (instead of envisaged 15%). Second, a positive assessment by an operator may be delayed (as in case of RIV where AMO was asked for opinion), which delays the reimbursement and puts a financial risk on a beneficiary.

The reimbursement model was chosen for RIV. The main reason for that was the lack of experience with other payment methods on the side of SIEA and MoEcon. Implementing either of the two first options (the advance payment or a direct payment from SIEA to a provider) would require additional consultation and decisions from the MoFinance. Since time period for implementing RIV was limited, such option was considered potentially too time consuming and risky, and was not pursued. The partial payment, in case of RIV, was not a recommendable solution due to its small size. For a potential large voucher in the future, a partial payment is recommendable after reaching a specific milestone described in the voucher agreement.

2.9. ELIGIBLE COSTS

The use of a list of eligible costs is to ensure that public money transferred through a support mechanism are spent in a way envisaged by a specific support instrument. This approach is prudent and helps both beneficiaries and scheme managers better utilize and control, respectively, the funds. On the other hand, it also introduces a requirement of detailed monitoring and reporting of all activities and expenses. Eligible costs decide what kind activities can be financed and what share of the support can be used for various cost categories, e.g. staff time, materials, travel, subcontracting. Such reporting can include hourly time sheets, driven kilometers, exact amount of materials used for carrying out activities by a service provider etc. That, in turn, increases an administrative burden of a support instrument (voucher) on the side of a beneficiary (reporting) and a scheme manager (control).

In case of a small voucher, like RIV, where risks are low, a list of eligible costs was recommended to be supplemented with a fairly detailed contract between a beneficiary and provider, a final invoice, and a negative list of eligible costs. It was argued that such an arrangement is more user friendly and involves less bureaucracy. A detailed specification of activities, expected results and costs in the voucher agreement would ensure that these are acceptable by the scheme operator at the stage of agreement signing. How costs are distributed between specific activities is less important, since the engaged amounts are low. Then, at the stage of result assessment only an invoice and a description of results would be sufficient. The negative list of eligible activities would inform an applicant and a provider about a set of specific costs/activities that cannot be financed via the voucher and it would be their responsibility to avoid these, under a threat of no-payment (e.g. fixed assets, rents, payment of interest). This arrangement would also be much easier and faster to assess for the scheme manager compared to a situation where it needs to review detailed reports with eligible costs. It would also be more flexible for a beneficiary. Eventually, the negative list of eligible costs was not applied in RIV. In case of the large voucher, such a list of eligible expenses could be considered.

2.10. INTERIM RESULTS OF AND CONCLUSIONS ABOUT RIV IN BBSK

Piloting RIV in BBSK is a success story, it showed benefits of national-regional collaboration, proved companies' demand, and became the basis of the country-wide voucher program. The process of RIV design was not always easy and required flexibility, commitment and persistence of all engaged parties. SIEA and BBSK's technical teams demonstrated a high degree of flexibility during this high frequency and intensity work. The results were well received by companies, which is vindicated by strong demand among BBSK companies. The inclusion of trainings in the voucher scope also seems a good decision, since this was a popular category among applicants, though it might need further fine-tuning since this category was also prone to verification by AMO. SIEA also positively assessed RIV and used it as a canvas for a country-wide innovation support program.

Further fine-tuning of and experimentation with RIV design is recommended. Two most important aspects relate to the flow of funds and application assessments. The reimbursement mechanism could be replaced with either the advance payment, or direct payment model to minimize risks on the applicant side. The application assessment process would benefit from shortening its duration, to allow faster disbursement of the whole instrument. This second aspect is evident in case of BBSK pilot. SIEA's initial plan was to use EUR 2 million to support companies in BBSK. When SIEA received a large number of applications (193) just after the launch of the call for proposals, which exceeded the planned total budget, it suspended the call. Eventually, till March 2022, only 52 companies were awarded vouchers. Assuming a maximum voucher value per company, this amounts to EUR 780,000, which is almost 40% of the planned budget. There are still 46 applications pending a final decision (potential EUR 690,000 or 35% of total budget). SIEA has not reopened the call, and at this stage it is unlikely this will happen. In turn, the planned EUR 2 million will not be disbursed and BBSK companies will not have a chance to access the remaining EUR 1 million. Moreover BBSK companies were excluded from the first national innovation voucher call operated by SIEA that was designed on the basis of RIV and launched in October 2021.

RIV was less successful in engaging the regional administration in the co-management of the voucher scheme and in building the region's competencies in that area. As previously discussed, enhanced regional-national collaboration in implementing innovation support instruments could be beneficial to all engaged parties. Preparing procedures that allow engaging the regional level in the co-management of instruments managed by national-level agencies is worth considering. Other possible option is to outsource the implementation of such instruments to regional stakeholders. Here the trade-off between the economy of scale and knowledge of the regional context and stakeholders needs to be considered.

Several good practices emerge from the RIV design, one of them is preparation of document templates or clauses to be used by beneficiaries and contractors. SIEA prepared some of them that applicants could use during the market analysis stage. Such templates were recommended by WB team and SIEA had a prior track record of using them. It's a good practice to make them available, because thanks to standardization, they lower transaction costs for involved parties. In case of support instruments with a low value, such as voucher, it is not feasible for an applicant to consult every document it prepares with specialists, e.g. lawyers, because costs and administrative burden related to such consultation could easily exceed the voucher benefit. Templates could apply to whole agreements or their parts. For instance, they could include minimum standards that, for example, protect applicants' interests. It often happens that SMEs have a much weaker position when negotiating with public ROs, especially when the former do not have much experience in innovation. One of recommended minimum standards is an obligation towards a service provider to transfer all intellectual property rights developed during the voucher contract to an applicant. This creates a clear framework of cooperation, empowers the beneficiary, and avoids its future lock-in with an initial service provider. In RIV, the agreement template was not provided, because services that could be financed through the voucher were deemed too diverse. Instead, SIEA prepared template documents to be used by potential applicants for at the market analysis stage.

Solutions that support potential applicants and ensure speed of disbursement are recommended.

A good practice is to designate a team that would be responsible for supporting companies in preparing applications. This is especially important in case of small enterprises. Such a support should not help with writing an application (to avoid conflict of interest), but should provide technical guidance in the preparation of an application. The BBSK team fulfilled such a role and tried to be an intermediary between potential applicants and SIEA. Preparing a detailed manual, as SIEA did, and organizing an information session about the call for potential applicants is another recommended good practice. To ensure quick implementation of the support program, it is recommended to fix a specific time period, for example, three months, when a company and a provider need to sign an agreement after a positive the award of a voucher.

3. REGIONAL INNOVATION CENTER (RIC)

3.1. ALIGNMENT WITH BBSK'S INNOVATION POLICY

Conceptualization of the Regional Innovation Center (RIC) and creation of the innolabb was based on the two (out of three) key recommendations provided in the final report of the CuR12 R&D component in BBSK.¹¹ RIC and innolabb are squarely in line with the region's vision of innovation development, quoted by its deputy governor, Mr. Ondrej Lunter:

Our mission is to make the Banská Bystrica region a place where people can live, work, and raise their children. A thriving community in a healthy competitive environment that supports continuous creation and development of innovations. A place where people do not leave from, but instead new ones come in. We consider the long-term support of science, research and education in schools and the support of new unconventional solutions in various areas of life to be a key means of fulfilling this mission.¹²

Both of the listed measures address identified bottlenecks in the region and cater to the needs of different stakeholders. In a nutshell, the innolabb aims at (mostly young) regional talent and intends to shape innovative and entrepreneurial attitudes among creative individuals; it is also to help reinforce relationship formation between these talented individuals and local companies as well as attract talent to the region. Such functions and related activities were not being delivered by other entities in the region and an initial feedback about the innolabb from young people and companies was positive. RIC, on the other hand, focuses on two aspects i) coordinating and connecting regional stakeholders and their activities, since trust and communication are low, and ii) providing support to regional innovation stakeholders to enhance their appetite for innovation and ability to collaborate. The regional authorities decided to implement both of them. The innolabb was established in December 2020 with region's own funds. Work on RIC has evolved and BBSK considers options how to implement the Center. This chapter provides an overview of both of these topics.

3.2. RIC AS A NEW INSTRUMENT OF REGIONAL INNOVATION POLICY

The RIC concept is not broadly applied in the Slovak context and its definition and modus operandi have been often discussed during CuR13 and still require further clarification.¹³ As presented in the CuR12 report, in the Slovak Republic, the innovation policy and programs are mostly implemented by the national level stakeholders. Mostly MoEcon and MoEdu and their agencies, such as SBA, SIEA, SARIO, CVTI, APVV. The innovation-oriented support programs financed by (mostly) EU funds as well as own budgetary resources have been managed and implemented by these national entities and their regional branches. Regional administrations have not been strongly included in these programs. Regions did not manage financial envelopes dedicated to innovation development hence they didn't have a specific budget to develop their competencies in that area (e.g. staff, skills). During 2014-2020 there were no specific support programs for regional administration to promote developing regional innovation policies. Thus regions' experience in formulating and implementing regional innovation policies is limited. The lack of such instruments did not support regional administrations in developing a broad base of contacts with local entrepreneurs and knowledge of their specific

needs. Regional authorities in BBSK perceived this lacking capacity as an important developmental gap which is why BBSK decided to establish the RIC to more actively pursue regional innovation policy. However, it is not clear, whether and how such regional entities will be systematically supported throughout the 2021-2027 financial perspective, mainly related to policy objective 1 on Smarter Europe.

RIC's design requires analyzing several mutually reinforcing aspects. These include: i) RIC's overarching goals, i.e. areas where it intends to make a difference and where its impact is to be, ii) role in the regional system, for instance, is it designed as a coordinating body, implementing body or a strategic planner, iii) its legal status, iv) membership, v) financing (sources and size of budget), vi) envisaged activities. Since BBSK is only starting to actively manage the innovation policy, some of those aspects are novel and require testing. Furthermore, the national framework is also not set in stone yet, which also introduces uncertainty.

In general, the process of RIC conceptualization is not fully accomplished, because some aspects do not have clear answers at the moment. Ideally, RIC's goals should drive other aspects of its design, though they cannot be disentangled from envisaged resources. It is difficult to disentangle one aspect from the others because they are connected by feedback loops where a modification in one 'dimension' affects the others. For instance, RIC's goals will influence its budget and capacity needs required to reach these goals. On the other hand, the size of an envisaged budget and characteristics of available funds will shape the activities that the RIC will implement, thus having an impact on its potential goals. Therefore, it is important to decide on the framework conditions and assumptions first, since they are essential for the further shaping of RIC's more detailed design. For instance, it is not possible to consider State aid implications of potential business support instruments that the RIC could carry out, if its legal form, membership and funding sources are unknown.

Finally, in general, knowledge of regional companies' needs (for instance in BBSK) is limited in the Slovak Republic, both at the national and regional level. During the CuRI3, it has often been discussed whether conducting a regional demand analysis among entrepreneurs (survey-based) is a prerequisite for starting RIC and defining its scope of action. While the wB team sees the benefits of company surveys, it considers that conducting quick and small scale pilots by RICs would yield better results. First such pilot projects would allow RICs to establish direct contacts with companies and start building their brand, second, they would reveal companies' actual interest (contrary to companies' declared interest presented in surveys or their lack of awareness / knowledge about own needs) – as it was in the case of RIV implementation.

These gaps will be partially filled by the currently prepared BBSK's Regional Innovation Strategy (RIS). This document is expected to outline key goals and programs of the regional innovation policy and RIC's role in attaining them.

3.3. KEY GAPS OF THE INNOVATION ECOSYSTEM

Hitherto CuRI's R&D work indicates that lacking trust and absence of a regional coordinator are major obstacles to stakeholder collaboration. Innovation stakeholders (companies, ROs, individuals, intermediary institutions, public administration) tend to not know each other, nor to communicate thus they do not collaborate. Joint projects and initiatives are rare, and associations or informal entities tend to have a weak membership base. Hence the information flow among stakeholders is not vibrant. Activities of regional stakeholders are not coordinated, which can lead to fragmentation and redundancies, while leaving white spots of unaddressed needs. Mostly companies, but also other stakeholders, do not have a single contact point in the region, which would be a go-to place to obtain information and support on innovation-related aspects. Establishing a platform for such communication and collaboration would be beneficial.

Furthermore, reliable data and information about regional innovation landscape is not easily accessible or does not exist. No entity in BBSK is responsible for monitoring and analyzing the innovation ecosystem. Such data gathering should go beyond statistics related to patent applications

and scientific publications. It should also encompass companies' needs (especially SMEs), number and value of collaboration deals between academia and enterprises, number of startups and innovative companies in the region and their growth over time, available support programs, their impact on regional economy, and so on. Such data is vital for the public and private sector. For the former, it constitutes a foundation for decision making regarding the innovation policy and support instruments, their programming and fine tuning. For the latter, reliable information helps develop corporate innovation and development strategies that direct companies' investments and their willingness to engage in mid- and long-term partnerships with other stakeholders, e.g. other enterprises, schools or ROs. Moreover, data about the region's innovative potential could also be used to promote BBSK among potential investors. Such a marketing tool is currently not available and it could benefit the region.

Finally, innovation support to regional companies that aims to enhance R&D collaboration is not easily accessible and tailored to local needs. BBSK companies, as indicated in the CuR12 Report, signaled difficulties with accessing support programs that are predominantly managed by the national level entities.¹⁴ Several reasons for such a situation were provided including a large number of programs provided by different entities that made it difficult to navigate in the system, lack of clear information about existing support measures, lack of a single contact point to support enterprises, lengthy, complex and untransparent procedures, and especially those related to grant payments and those targeting SMEs. Thus, when designing RIC'S activities, it will be important to manage duplicities by both the national and regional level and to allocate roles and responsibilities properly among involved stakeholders.

These bottlenecks have been partly mitigated thanks to activities initiated during CuR12 and CuR13 such as innovation voucher system that was supported by BBSK's administration and innolabb. These showed that locally stimulated activities yield high interest among local companies and that they value direct contact. As discussed above, RIV was managed by SIEA, yet BBSK ensured its consultations with local companies prior to the scheme's launch, which helped to incorporate their feedback into RIV's final form. Regional administration was responsible for raising the awareness among local entrepreneurs and potential service providers about RIV and helped companies apply for the voucher. On the BBSK side, these activities were performed by a team that is recognized as a RIC team. These BBSK-driven elements, paired with novel procedures that SIEA implemented in RIV, contributed to high companies' demand that exceeded initial expectations. Also the innolabb proved that regional talented individuals are interested in developing their entrepreneurial and creative skills and that companies are interested to contribute to that process.

3.4. RIC'S POTENTIAL VALUE ADDED – POSSIBLE ACTIVITIES

RIC has a potential to create a unique value proposition in the framework of Slovakia's innovation system and to fill in existing gaps. First, it could become a trusted local business navigator, someone who knows local companies and key stakeholders, who understands their needs and who reinforces their communication and collaboration. Second, RIC could deliver important public goods, i.e. reliable data about the innovation ecosystem, which is currently missing. Third, RIC would be well positioned to work with individuals (pupils and students, to-be-entrepreneurs/researchers) to hone their talents and reinforce their innovation and entrepreneurship skills. Fourth, it could create tailored highly localized investor information packages that could attract investors to the region. Fifth, RIC could provide services to regional companies to help address their needs. Finally, the Center could also work with ROs and researchers to support their R&D collaboration with the business sector.

RIC is conceptualized as an entity that could help coordinate the innovation ecosystem in BBSK by reinforcing communication and collaboration between different stakeholders. There is a number of stakeholders operating in the innovation and knowledge transfer sector, however, their actions could benefit from stronger coordination and alignment with each other to provide greater value added to their beneficiaries. In this role, RIC could help to map key regional stakeholders (including their goals, objectives and activities), create and provide information and knowledge about the

innovation ecosystem and available support instruments, organize regular events that bring stakeholders together. The Center could look for potential synergies with other stakeholders and try initiating collaboration with them, e.g. by applying for joint projects.

The Center could reinforce a level playing field by gathering, analyzing and providing high quality data about the innovation ecosystem. Provision of reliable data and analyses about the region's companies and innovation ecosystem, which would contribute to evidence-based decision making, could become one of an important value added of RIC's work. Currently, no entity plays the role of a data curator related to innovation in BBSK. Reliable data is important for both the public sector as well as companies that make investment decisions based on available information. Such activities could be performed directly by RIC, in cooperation with regional stakeholders, or outsourced to other regional stakeholders. Usually qualitative and quantitative data gathering and interpretation requires knowledge of the local context and actors, thus a regionally-based entity would have its edge in that area. One important aspect of having such data would be the ability to promote BBSK's innovation potential outside the region that could attract external investors (public and private) to the region as well as talented individuals.

RIC's third area of potential activity could be service provision to enterprises, individuals and ROs to enhance their innovation, creativity and mutual collaboration. Supporting innovation in existing companies seems an obvious area, where RIC could excel. At the same time, RIC could cater to the needs of individuals (regional talent) and ROs to help them overcome specific identified bottlenecks. Such activities would need to be designed in a way that aligns with other support programs and services that exist on the market to deliver value added. With time and development of its capacity, RIC could become a professional provider of support to companies, which could be delivered directly or indirectly by the Center. This implies development of internal technical and managerial capacity as well as the ability to tap into external resources (projects) to finance such activities.

3.5. LEGAL AND INSTITUTIONAL ARRANGEMENTS

RIC's legal status and institutional structure will shape the framework of its operation. These aspects will define who could become RIC's member and will have implications for its potential funding sources and scope of its future activities.

Four legal arrangements have been considered for BBSK's RIC. Three of them include setting up a separate legal entity and the fourth one places RIC within the structure of regional administration. The three entities are: i) association of legal entities, ii) non-profit organization, and iii) business entity (limited liability company – LLC or joint-stock company – JSC). Their comparison is presented in Table 2.

TABLE 2. Comparison of potential legal structures suitable for RIC

	Association of legal entities	Non-profit organization	Business entity (LLC, JSC)
Purpose	Protection of founders' interests or achievement of another purpose	Provision of public-interest services further specified by Slovak law, whereby one of them are "research, development, scientific and technical services and information services"	Profit generating; however, both business entities can be established for other purposes (this possibility is not used very often)
Scope of activities	Non-profit activities, profit generating activities can be only supplemental	Non-profit activities, profit generating activities can be only supplemental	Profit generating activities, unless the business entity is established for another purpose
Constitutional documents	Foundation agreement, articles of association	Deed of foundation, statute of non-profit organization	Agreement on foundation (JSC), memorandum of association (JSC + LLC)
Establishment process	Two-stage process – (i) conclusion of agreement on the establishment concluded between the founders (alternatively, approval of establishment during founders' meeting), (ii) registration with official register of associations Upon registration the association officially begins to exist and can acquire rights and obligations	Two-stage process – (i) conclusion of deed of foundation by the founder(s), (ii) registration with official register of non-profit organizations Upon registration the non-profit organization officially begins to exist and can acquire rights and obligations	Two-stage process – (i) conclusion of founder's agreement, (ii) registration with applicable commercial register Upon registration the LLC/JSC officially begins to exist and can acquire rights and obligations
Founders	2 or more legal entities, public and/or private sector	1 or more legal entities (public and/or private sector) and/or natural persons	1 or more legal entities and/or natural persons
Corporate governance	Not specifically regulated by Slovak law – the founders/ members have certain flexibility to create various bodies and define their rights and obligations However, in practice, there should be a supreme body, a statutory body and a supervising authority	Management board as the main body, which members are elected by the founders of the non-profit organization, Director as the statutory body, who is elected by the management board, Supervisory board as the supervising body Other bodies, which the founders might decide to establish	General meeting (supreme body consisting of all founders/ shareholders) Managing directors (LLC), board of directors (JSC) (statutory body, consisting of 1 or more directors, acting independently or jointly) Supervisory board (obligatory in case of JSC, voluntary in case of LLC)
Rights and obligations of corporate bodies	Not specifically regulated by Slovak law	The rights and obligations of the bodies (corporate governance) are regulated by Slovak law	Regulated by Slovak law
Registered capital	n/a	n/a	5.000 EUR (LLC); 25.000 EUR (JSC)
Contribution of founders (cash/ in-kind)	Not required by law, but in practice common	Not required by law, but in practice common	Required by law, in case of LLC at least 750 EUR
Participation interest of founders	n/a	n/a	Generally determined by the proportion of the contribution of the shareholder to the registered capital.
Liability	Association liable with its entire assets, founders are not liable	Non-profit organization liable with its entire assets, founders are not liable	Business entity liable with its entire assets. Once the shareholders pay up their contributions, they are basically not liable for the obligations of the LLC/JSC
Profit distribution to members/ shareholders	Not possible ; achieved profit may be used only for the achievement of the association's purpose	Not possible ; achieved profit may be used only for the achievement of the purpose of the non-profit organization	Possible upon approving resolution of general meeting
Membership / Participation	Articles of association define how a third party can become an association's member and due to which reasons and how the membership terminates	n/a	Slovak law clearly defines how a third party can become and cease to be a shareholder of LLC/JSC (e.g. transfer of shares, increase of registered capital)

Source: Authors, 2022.

These three legal forms allow multi-institutional membership and each of them have different implication for possible activities, funding, profit division, liability and membership modification.

Out of the three, the association of legal entities seems most suitable for activities envisaged by RIC. Its characteristics are similar in many aspects to the NGO form. One of crucial differences pertains to the membership. First NGOs can include natural persons, while the association cannot. Both of them allow public and private sector members. Second, the membership of the association can be modified after its establishing, while NGO cannot change its membership structure. The latter feature results in a rigid structure that would not be recommendable for RIC.

Designing RIC as a multi-stakeholder institution has pros and cons. It paves the way for direct involvement of key regional stakeholders in the Center's operation. It could be envisaged, that key regional research organizations, as well as major city(ies) and representatives of the private sector are included in such an entity. Their membership in RIC would not only directly involve these key stakeholders in the Center's operation, but it would also empower them and make them jointly responsible for its activities (planning, implementing, monitoring). A broader membership structure usually involves membership fees that would contribute to RIC's budget, though initially they tend to be insufficient to fully cover operating costs and the Center requires additional funding sources. On the other hand, establishing such a structure requires time, since prospective members have to agree on a joint vision, activities, budget, governance modality, a management team etc. Furthermore, decision making processes are more complex since they include a larger number of stakeholders.

BBSK is still deciding on the legal status of the Center. Currently, its tasks are assigned to employees from other administrative units of BBSK administration that share these duties with their other tasks. This approach allows BBSK flexibly manage its resources and seems to be a temporary solution, since, in the long term, it does not support building the institutional capacity of such a team. This is because its members do not have dedicated budget, dedicated structure to perform their duties, and their tasks as not focusing on a specific (innovation support) thematic.

RIC formalization is recommended, and commitment from the national and regional level are key to this process. Whether as an internal BBSK's unit or inter-institutional regional entity, RIC would benefit from institutionalizing its status. Such formalization would secure its staff, short- and mid-term budget, and define its goals, responsibilities and indicators. It would also provide clarity to regional stakeholders and allow easier monitoring of its performance. However, securing dedicated staff and budget is a serious commitment with mid- and long-term implications. The CuRI3 partners, including EC, national and regional administration and wB, held multiple discussions about possible financing arrangements for RICs during the current 2021-2027 perspective. Details of such solutions still need to be worked out – see the following section about more details.

3.6. FINANCING SOURCES AND BUSINESS MODEL

Financial options for RICs were a frequent discussion topic during CuRI3. RICs are not strongly embedded in the Slovak innovation system and their funding lines are not yet established. In general, there are five main sources of financing for such centers: i) regional budget (in case where the region is a sole owner), ii) membership fees (when RIC is composed of several members), iii) transfers from the national level dedicated to RICs, iv) project financing, which RICs could use for co-funding of own activities and staff, and v) RICs' own revenues. In BBSK, for now, the team dealing with innovation support ("RIC") is partly supported by the region and partly by EU fund (Operational Programme Effective Public Administration), while other sources are uncertain. Shall RIC's membership include in the future other institutions, their membership fees would contribute to Center's budget. Such revenues, though stable, are usually not too high, and cannot be expected to significantly change the RIC's financial situation.

It is recommended that RIC starts as a small team and gradually expands its capacity. The WB team estimates that once RIC is formally established, during initial first-two years it would require some three to seven full time positions to operate that would constitute the core staff of RIC that would be financed from the RIC's regular budget. Shall additional financing be available (e.g. external projects), RIC would likely need more staff, however, it is recommendable these positions be project-related.

Three main assumptions behind this estimation are the following: First, RIC will be a new entity and needs to accumulate experience, hence it cannot start with too many tasks from the get-go, since this could overburden its team. Second, it is unclear what the uptake of RIC's activities will be among the regional stakeholders, hence RIC need to remain agile in its initial years to adjust to the regional ecosystem. Having too big a team may limit this agility. Third, identifying proper talent and attracting it to RIC will take time.

The initial two years would allow RIC to establish itself in the regional ecosystem, which, in turn, should help it attract candidates with proper skillset. This period, thanks to experimenting with different activities and deepening its knowledge of local stakeholders' needs should also indicate thematic areas which RIC should focus on and where it could further develop its capacity and staff. During its initial years, RIC could focus on building its core team, while outsourcing administrative tasks. Such an approach would help keep its structure lean and flexible. This core team could be further complemented by additional (non-core) project-related staff for instance in cases when RIC acquires an externally-funded project that requires more human resources. RIC could also consider hiring external experts to provide services and fulfil its tasks.

It is unlikely that during its initial years RIC will generate sufficient revenues to ensure its financial independence. Many of the activities envisaged for RIC tend to have a character of public goods and do not generate significant revenue streams, though they are important for the creation of the regional innovation ecosystem. It is thus critical to identify the key activities that RIC's staff will be responsible for. These could be complemented by additional activities to be financed from external sources, e.g. EU funds, national projects, collaboration with national agencies, non-EU funds. RIC will need to be able to identify and tap into these additional funding sources to expand its capacities and scope of activities.

To generate more of its own revenues, RIC will have to offer services that its clients want to pay for. These are usually high-quality specialized services that companies are inclined to pay for, e.g. specialized trainings, targeted advisory services, specialized legal support for instance related to IPR protection. To offer them, RIC will need to establish its brand on the regional market as a highly qualified business advisor, develop a portfolio of services, and create a market for them. Selecting its core areas of competences will be thus important for RIC. The Center could provide such services either by in-house experts or external consultants. Initially, the latter option is more likely, since developing in-house capacity usually takes time. Since RICs in other regions will face similar challenges, establishing a joint pool of external experts is recommendable. In short, building up its capacity and brand will take time and effort, these, in turn, require reliable stream of funds, at least in the mid-term. Another option for generating revenue streams, depending on RIC's legal structure, could be RIC's provision of services that the region would like to pay for, for instance in the area of entrepreneurship education, data generation etc.

If BBSK decides to establish RIC, most likely its initial operation will be financed by a mix of EU funds, regional resources, and possibly membership fees (if it will be established as a multi-stakeholder entity). Other stream of revenues could be linked to potential infrastructure RIC could own or help to co-finance (maintain), for instance an office space. This could be used for incubating companies, delivering trainings and other services. This infrastructure should not have R&D character, since this area of expertise lies with ROs. Delivering quality services to companies requires a decent physical environment, thus rational investment in physical infrastructure could be needed to enhance RIC's financial sustainability.

Additional funding solution could rely on collaboration with the national level related to delivering innovation support programs. This could take a form of systemic projects, where the regional level signs an agreement with the national agencies for delivering specific results. RIV proved that well targeted support programs that are effectively marketed among regional companies and when the latter are supported in the application process by a trusted partner, can be successful. SIEA's call organized for BBSK was oversubscribed despite the fact it was the first time an instrument such as RIV was implemented. Part of this success can be attributed to BBSK, which consulted companies during the process of RIV preparation, thus raised their awareness, and after RIV's launch, both informed and supported potential beneficiaries. Systematizing such national-regional collaboration could be mutually beneficial. The national agencies could rely on RIC contacts and their proximity to beneficiaries, RICs could develop their capacities in implementing and programming support instruments.

Currently, it is not clear, what kind of funding RICs could obtain during the 2021-2027 programming perspective and what the conditions, value and length of such a support could be. This support refers to EU funds that are most likely to contribute to RIC's budget and these could include OP Slovakia 2021-2027, the Resilience and Recovery Plan and/or Just Transition Fund. This lack of clarity is a blocking factor in planning RIC's future activities and role. The negotiations between the EC and the Government of the Slovak Republic about the programmatic documents are ongoing and their final text will shape the framework for potential RIC financing. Discussions during the Steering Committee Meetings indicated that during 2021-2027 period financing for RICs' soft activities will be prioritized and financing for hard infrastructure will be limited and in case of RICs, financing of R&D infrastructure is unlikely. Details of the proposed solutions are still to be presented.

4. INNOLABB

Request for assistance from BBSK and early ideation about innolabb. In April 2020 BBSK requested the WB R&D team to provide support in the design of a regional innolabb. At the time BBSK envisioned innolabb(s) to become an important regional facility and an instrument for promoting entrepreneurship and innovation attitudes among youth. It also sought to link high schools, students and local companies through joint projects. Innolabb(s) refer to physical facilities where young people with interesting or potentially commercially viable ideas can experiment, prototype and test them, and where they could obtain training and knowledge. Such interdisciplinary spaces serve as meeting points for students but also for any creative individuals in the region who are interested to work on their own projects or to collaborate on projects ‘commissioned’ by companies or the public sector. An innolabb provides the equipment such as simple mechanical and electric tools, computer labs, basic 3D printers, 3D scanners, or others with the private sector is also being invited to contribute either equipment, mentorships or commissioned R&D projects. Additionally, each innolabb has dedicated staff to stimulate the talent’s development.

The innolabb concept responds to low entrepreneurship skills among youth, lack of physical spaces for prototyping innovative ideas. It also responds to BBSK companies’ interest to connect with talented students. Yet, companies, especially the smaller ones, often do not have the resources to pro-actively approach students. Hence, having a physical space that would connect creative individuals interested in solving practical problems resonated with companies. BBSK students also responded positively to the prospect of having such a space in the region.¹⁵ Experiences from other countries demonstrate that such solutions can work well with the support of students and companies such as the ProtoLab in Rzeszow, Poland, Aalto Design Factory in Finland, or the network of FabLabs around the world.

World Bank’s advisory role in the design and operationalization of innolabb. Though BBSK had a vision for creating a regional innolabb, as the idea was quite novel for the region, wb R&D team was asked to support the region in the development of:

- Wider conceptual design – What optimal range of services and activities could the innolabb offer?
- Sequenced operational and implementation plan for the innolabb – How can it be rolled out?
- References for international best practices – What precedents for innolabb exist globally?
- Sustainability safeguards, business model and financing options. What safeguards and financing modalities could be put in place to sustain innolabb’s activities over the short-medium-long term?

The wb R&D team endorsed BBSK’s idea to implement a regional innolabb. It recognized it as an important pillar for the sustainable development of BBSK’s regional innovation ecosystem. Based on global practice, innovation labs or hubs, when designed and functioning well, serve not only as incubators for innovative ideas but they also hone the necessary entrepreneurial skills and talent pool that fuel the growth of regional innovation ecosystems. The latter along with R&D-private sector collaboration and local job creation are particularly important for BBSK. Responding to BBSK’s request the wb R&D team proposed a two-phase approach. First to support BBSK in the design of a ‘Proof of Concept’ pilot phase (Year 1 – 2020-2021), followed by the design of a longer-term innolabb model that could be submitted for national and EU funding. The latter would be based on lessons learned from the first phase and on longer-term institutional features.

For starting the innolabb WB recommended to 'start small, test, adjust and then scale up'. During innolabb's first 'Proof of Concept' pilot phase (2020-2021) the World Bank provided the following forms of advisory support to BBSK:

- (March – November 2020) *Phased co-development of innolabb` s operational design* which included:
- **Development of a solid business plan and business model based on the Business Model Canvas methodology** to sustain innolabb in the medium and long-term; the model was novel and well received to the extent that it is now being taught in BBSK's Entrepreneurship classes;
- **Identification of core operational activities:** i) provision of a space for young innovators to meet and to test their ideas; ii) provision of trainings – online webinars for starters (due to the pandemic) - on creativity, problem solving, pitching ideas and business plan development, iii) linking students with companies through mentorships, challenges, internships, iv) creating networking opportunities to people with different fields of specializations.
- **Peer-to-peer learning dialogue** between BBSK R&D team and the ProtoLab at the *Podkarpackie Center for Innovation (PCI)* in Rzeszow was convened by the WB; advisory tips and lessons learned for launch of innolabb were shared.
- (June - September 2020) **Location for a small prototyping space was identified** by the BBSK team in a central location, in already existing co-working space '365.labb' in Banska Bystrica with practical access to all students. The idea was to cost-effectively share a space and to collaborate with an already established 'youth and young professionals community' established by the 365.labb'.
- (June - October 2020) **Synergies with the CuRI VET component** and considerations of embedding innolabb in select high schools and vocational training schools were discussed, full concept to be likely developed in Phase 2.
- (June - October 2020) **Engagement of a wider group of regional stakeholders** – BBSK initiated dialogue with select VET schools and their students to promote the innolabb and to discuss potential synergies in the form of joint projects.
- (September – October 2020) **Financing was secured from BBSK administration for Year 1 - pilot phase** (see next section). BBSK committed regional funds to finance the pilot phase - furnishing and equipping a small space (in a rented facility) with key prototyping equipment such as such as hammers, pliers, screwdrivers, 3D printer and laser, basic CNC machine, tools for creating electric circuits, computers technical software etc. and support students in using them.
- (November 2020) **innolabb website and visual identity (brand) was developed** for innolabb's promotional and informational purposes.
- (3 December 2020) *innolabb was launched.*

FIGURE 1. BBSK innolabb Visual Identity (2020)



Source: <https://innolabb.sk/>


BOX 3. Innolabb`s Budget (2021-2022)

WB`s ESTIMATES - Ca. EUR 160,000

- Depending on the intensity of activities during the initial 9-month period (Jan-Sept 2021) and the full-scale innolabb 15 months (Oct 2021-Dec 2022).
- Continuing innolabb`s activities into 2023 was estimated to add ca. EUR 70,000-150,000.
- This costing did not include capital investments in buildings and establishing smaller platforms across the region.

Source: World Bank (2021), CuRI2 R&D Report.

TABLE 3: Innolabb – Proposed development timeline and budget

Timeline	Expected financing needs
Researching and planning <i>June – September 2020</i> Researching location – finding office Creating the concept of creative zone Researching possible funding options Hiring employee Budgeting and financial modelling	Catching-up Regions Initiative budget 
Establishment <i>October 2020 – November 2020</i> Renting the office Preparing the office – furnishing Procuring the basic technical equipment Creating logotype, web and social sites Researching partner companies, schools	One-off capital expenditure - EUR 15,000 for: Technical equipment and software: EUR 11,600 Basic furniture: EUR 1,000 Website, logo, marketing materials: EUR 2,400
Running the innolabb (1 st year) <i>December 2020 – September 2021</i> Community building Supporting student projects Promoting innolabb's activities Boosting cooperation with partners and companies	Monthly costs: EUR 2,900 Salary 1 FTE, rental Equipment maintenance and insurance Materials for technical equipment Support for students' projects Workshops and marketing
Possible move to SPŠJM school (2 nd year operation) <i>September 2021 – October 2021</i> Moving innolabb to high-tech facility in SPŠJM School Obtaining the equipment	One-off capital expenditure: EUR 36,000 Technical equipment and software: EUR 31,000 Basic furniture: EUR 5,000 Reconstruction of school's facility to host innolabb. Estimated cost EUR 200,000 to be financed as per CuRI VET component's recommendation.
Running the innolabb (2 nd year) <i>October 2021 – December 2022</i> Regular activities of innolabb and their expansion	Monthly costs: EUR 5,600 Salary 2 FTEs Equipment maintenance and insurance Materials for technical equipment Support for students' projects Workshops and marketing One flagship project

Source: World Bank (2021), CuRI2 R&D Report.

In August 2021 innolabb was extended into a project titled “Verification of the model of counselling centres for youth in the Banská Bystrica Region” and obtained national and EU financing. BBSK’s Regional Development Agency proceeded to expand innolabb’s rollout into seven additional locations in BBSK as a part of Youth Centers SPACE. Project started in August 2021 and will last until December 2023 with a total budget of EUR 3.7 million¹⁶ obtained from the REACT-EU program (OP HR) and under investment priority 8.1, which aims to support the post-crisis recovery associated with the COVID-19 pandemic, in particular its social consequences, which will lead to a green, digital and resilient economic recovery. Structurally, 60% of the project’s budget covers personal costs (about 40 FTE) and 40% operational costs (rentals, purchase of equipment etc.).

The aim of the project is to test a model of regional youth work centers. Such centers might serve as a tool for supporting i) the organization of youth work, ii) information and advisory services for youth, iii) activities dedicated for disabled youth; the centers are also to ensure the operation of educational facilities participating in informal education in the field of youth work. Finally, the network of created centers will help obtain and analyze information about youth, who are not in education, employment or training (NEET), and enhance the employability of and employment among young people in the region.

Focal support activities in seven Youth Centers SPACE include personalized counseling, profiling tools, supported employment and social services links as psychological counselling, social counselling, further education, skills and knowledge enhancement - especially in the areas of personality development, digital, green and entrepreneurial skills.¹⁷ The daily activities carried with youth in these centers are primary focused on support job retention, increase employment and employability of young individuals till the age of 30, who are not in education, employment, or training with emphasis on women, marginalized Roma communities, people with disabilities, migrants, other vulnerable and disadvantaged people with a view to the transition to a green and digital economy.

Equipment in the seven new innolabbs will be customized to fit local demand and interests of youth in the local area. Following a regional baseline needs assessment, project team will proceed to purchase the equipment (digital, audiovisual, prototyping, software etc.) to meet the specific needs of prospective innolabb project sites. This is to allow for a bottom-up, needs based rather than a top-down prescriptive approach. Based on the interests of its youth and professional youth workers, each center will be able to develop its 'uniqueness'. For example, some centers have decided to focus on film-making and video editing while others are interested in developing a photography studio or a full-fledged prototyping lab. It is estimated that each center will employ one full-time staff member – professional youth worker – dedicated to innolabb activities, receive approximately EUR 10,000 for equipment as well as funds for workshops and lecturers.

One of the key deliverables for the first two years of the pilot phase (2021-2023) is a tested proof of concept and a catalogue of lessons learned all based on experiences gathered in all seven Youth Centers SPACE. Lessons learned study will be a foundation for the sustainability and expansion of Youth Centers model throughout whole Slovakia

5. NATIONAL – REGIONAL DIALOGUE (AND INTER-REGIONAL DIALOGUE)

A reinforced multi governance dialogue between the EC, national and regional authorities is a positive ‘by product’ of CuRI and is appreciated by stakeholders. This aspect has been often mentioned by CuRI stakeholders as an important value added of the Initiative. Not only, does it work vertically, i.e. linking European, national and regional levels, but also horizontally, by stimulating inter-regional dialogue between two CuRI regions (Banská Bystrica and Kosice) and by linking different stakeholders from the R&D&I communities. The latter is true at the regional level, where CuRI stimulated intensified communication among stakeholders within the regional innovation system, and at the national level where different ministries and agencies joined forces. Thanks to its multi-stakeholder structure and transparent decision-making process, CuRI offers a level playing field among stakeholders, empowers all parties involved, and thereby enhances inclusion.

Slovak regions became active players in the innovation field only recently, hence they haven’t had strongly established communication channels with national and European counterparts. At the same time, the national level entities tend to program and implement innovation support programs via their own organizations and their regional branches that exist in parallel to regional administrations. This created a situation where opportunities for regular and open dialogue were not frequent.

CuRI program also paves the way for reinforcing inter-regional collaboration. Tackling similar problems by administrations in BBSK and KSK creates suitable conditions for information exchange and sharing experience between both regions. While the regions are distinct, they both are at early stages of developing their innovation policies and face similar regulatory and institutional circumstances. This is also evident from the fact that initial work related to the release of R&D infrastructure was started during the CuRI2 in BBSK and was continued under the CuRI3 in KSK.

CuRI’s design squarely fills in this gap by gathering all parties around one table and the WB team plays a role of an honest broker that helps facilitate dialogue among partners. An important feature that is embedded within CuRI is the high frequency and high intensity communication among stakeholders. This was evident when CuRI partners worked hand in hand on RIV design. Frequent technical and high level communication between EC, MoEcon, MIRDI, SIEA, BBSK and WB were crucial for the successful completion of this work. Similarly, the RIC concept elaborated under CuRI, stimulated a debate among partners within regions, horizontally among regions and vertically between regions, national authorities and EC. Such intense, multi-level interactions help focus the discourse on the challenges that usually none of the CuRI stakeholders is able to tackle alone. Here a good example is an ongoing discussion about future financing of RICs that include several possible options. These discussions though not always easy, are appreciated by stakeholders, because they allow analysis of emerging issues from different perspectives, European, national and regional. WB team often convenes and assists in this dialogue with technical expertise.

6. CONCLUSIONS AND RECOMMENDATIONS

This CuRI3 Report builds on conclusions from the previous year assignment (CuRI2) pertaining to R&D collaboration in BBSK. The current work mostly aimed at supporting the region in further shaping the RIC's vision and designing and implementing the RIV in collaboration with SIEA. The WB team also assisted the region in developing initial activities of the innolabb that are actively being pursued and expanded by the BBSK.

BBSK took steps to actively engage in the regional innovation policy and implemented recommendations from the CuRI2 Report. The three main recommendations related to the implementation of the Regional Innovation Voucher, establishing a Regional Innovation Center, and launching the innolabb. They were intended to mitigate identified shortcomings that limited the effectiveness of R&D collaboration in BBSK and which could be managed at the regional level.

6.1. RIV

RIV was a successfully piloted in BBSK and is currently being scaled up at the national level. Joint work of the CuRI partners allowed, in the first place, to design and implement this instrument in a relatively short time. Second, innovative solutions were tested in BBSK and allowed SIEA to scale up this solution across the whole country. The RIV's preparatory stage, conducted during CuRI, revealed positive aspects of collaboration between the national and regional authorities. This, for example, included combining a national-level know how in preparing support instruments with region's knowledge of local circumstances and companies, which allowed tailoring RIC to regional needs.

Further strengthening of collaboration between the national and regional entities is recommended. Procedures for such collaboration would need to be established that, for instance, allow regional administration employees to be included in the assessment procedures. Closer collaboration would benefit a number of stakeholders. As each region is contextually specific, the national level could use local knowledge during the preparation and implementation of both support instruments. Instruments tailored to regional needs could be more appealing to companies. Thanks to working with regional authorities, national agencies would gain a useful partner that has closer ties to local stakeholders. BBSK's engagement in gathering feedback from regional companies during the preparatory stage and then marketing RIV among companies and supporting them in applying for vouchers are prime examples. Regional administration would expand its capacity in managing innovation support instruments and could reinforce its position among local stakeholders as a coordinator of regional innovation policy. Companies and stakeholders of the regional innovation system would benefit from having a regional partner, who could support them in their innovative projects and who is easy to contact, thanks to physical proximity.

Streamlining procedures used in RIV could enhance its performance. RIV was a pilot project designed and implemented to tight deadlines dictated by the end of the EU programming period. There are procedures and design aspects that could further increase its attractiveness to companies. Key ones include: i) swapping a reimbursement procedure with a mechanism where the final payment goes directly from SIEA to a service provider or the advance-payment model (that would limit companies' financial risk and do not endanger their financial liquidity), ii) obliging providers to transfer IPR created thanks to a voucher to beneficiaries, iii) streamlining the application assessment procedure to shorten the decision-making time, iv) obliging an applicant and a potential service

provider to sign a conditional agreement prior to the application and make this agreement a core part of the application; v) intensifying communication between SIEA and regional administration and beneficiaries regarding the current status of applications that are being assessed.

Since RIV is a novel instrument and SIEA also implemented a national innovation voucher an impact evaluation analysis is recommended. Such a study could help SIEA to better understand how the voucher is supporting Slovak companies and whether it achieves the objectives it has envisaged. An impact evaluation would go beyond regular monitoring and could provide SIEA with contextual information about the voucher, e.g. its perception among successful and unsuccessful beneficiaries.

Finally, implementation of a large voucher could be further considered. RIV was used to test a small voucher recommended during CuR12. The large voucher, which was proposed to be up to EUR 50,000, could provide companies and ROs with incentives to deepen their R&D collaboration. This instrument could be a natural continuation for users of the small voucher, who e.g. used the latter to prepare an R&D agenda.

6.2. RIC AND INNOLABB

This Report recommends the institutionalization of RIC in BBSK. Formalization of its structure would define its staff, budget, scope of work, responsibilities and indicators. On the one hand, this would contribute to effectiveness of activities ascribed to RIC, on the other hand, it would provide clarity to stakeholders of the regional innovation system regarding its regional counterpart. Depending on regional authorities' vision, it could remain a part of the administration structure or become an inter-institutional entity. The final institutional shape will define its membership and have implications for the scope of RIC's activities and its budget. Regardless of the center's design, the region should strive to ensure participation of key stakeholders in the decision-making processes and in the implementation of the regional innovation strategy. Empowering regional stakeholders would contribute to their building of mutual trust, to increasing buy-in and to the sharing of responsibility for innovation development in the region.

RIC's mid- and long-term financing is currently uncertain and poses a challenge for more detailed planning. The BBSK declares interest in more active management of regional innovation policy, though its resources are limited. At the national level, details of the programming perspective 2021-2027 and funds from the RRP and JTF are being worked out. It is still to be decided whether and how these funds would support RICs' activities in the Slovak Republic. Schemes for potential national-regional collaboration are also not elaborated yet.

This Report proposes four sets of activities for RIC's future scope of work during its initial period of functioning. The selected activity streams are intended to match key bottlenecks to enhance R&D collaboration in the region. They predominantly focus on soft activities, since both EC and MIRDI indicated these are more likely to be financed, in comparison to hard infrastructure investments. Three of them relate to: i) building trust and enhancing networking and collaboration among stakeholders within the innovation ecosystem, ii) curating, analyzing and providing regional data and information on innovation activities, and iii) attracting potential investors. The fourth one aims at service provision to regional stakeholders (mostly talent, companies, ROs). Selecting priorities and sequencing their implementation will be crucial for RIC's success, considering its current capacity and limited experience and resources. Bestowing too many activities on such a young entity may lead to overstretching it and to its sub-optimal performance. RIC engagement in these four activity streams could be as follow and could expand with time and RIC's growing capacities.

First, enhance trust and collaboration between regional stakeholders. Although quite intangible, trust is a cornerstone of effective and efficient collaboration. RIC should prioritize activities that bring regional stakeholders closer to each other and stimulate their communication and ideally collaboration. Reinforced information flow and stable communication platforms are needed to attain this goal. Organization of regular events (e.g. conferences, innovation days, study visits), identification of funds for joint projects, encouraging joint applications for funds could be envisaged

here. RIC could implement such activities either by itself or outsource them to other stakeholders, e.g. regional ROs or intermediary institutions. RIC will not act in the vacuum, there are already other innovation actors in the region, hence it could contribute to or promote activities of these other stakeholders to help develop a regional innovation network. All in all, RIC thanks to its proximity to regional government could become an important node in the innovation ecosystem, but should not attempt becoming the only one. It could keep monitoring strengths and weaknesses of the regional system and dynamically complement them. That could include continuous mapping of stakeholders, their plans, activities and needs.

Second, curate data about and become an ‘observer and analyst’ of innovation activities, their outputs and impact on the BBSK region. RIC could become a regional ‘think tank’ or a go-to place on the topic of regional innovation. Regularly updated and reliable data about the regional innovation system would be a valuable resource serving multiple purposes within the region and outside. That could include curating quantitative and qualitative information about regional innovation that goes beyond the currently available public statistics. Such examples could include regional innovation factsheets, companies’ needs, sectoral investor profiles (with a focus on sectoral innovation, R&D infrastructure and intellectual capital) or more in-depth strategic foresight or analytical studies on selected R&D&I topics of regional relevance. Information like that could be collected through formal statistical channels or through regular communication with stakeholders and as a feedback to RIC’s activities (one example could be success stories of companies that received RIV). On the one hand, such data would help decision makers (national and regional) in public administration and intermediary organizations take evidence-based decisions. This could be also helpful in monitoring RIS. On the other hand, it could inform investment decisions of private sector stakeholders. Finally, sharing up-to-date information could facilitate collaboration between the stakeholders from the private and research sectors and would stimulate interest around the innovation topic in the region.

Third, use data to demonstrate region’s innovation potential and attract investors and individuals. Reliable information and data can constitute a comparative advantage for a region when it is competing for investors’ attention and talented individuals with other local governments from the Slovak Republic or abroad. The ability to quickly produce targeted messages that are understandable to potential investors may move the needle in favor of BBSK. Furthermore, data-rich external marketing could attract potential collaborators of regional companies and ROs. Institutional entities, such as RIC, BBSK or other regional intermediaries will have more opportunities to promote region’s innovation potential in international fora than individual companies. RIC’s activities could involve preparing regional innovation briefs, innovation success stories, summaries of surveys with regional stakeholders.

Fourth, support regional stakeholders in enhancing their innovative capacity. Depending on its resources, RIC will be continuously developing its capacity and, in turn, its ability to deliver services to various stakeholders. There are three basic types of addressees of its service offer: i) individuals i.e. students and would be entrepreneurs, ii) existing companies, and iii) ROs and their researchers. Individuals could be treated as region’s potential talent pool. They could benefit from entrepreneurship, innovation and mentoring programs as well as access to infrastructure such as the innolabb or a mobile innolabb. Companies’ needs will vary and RIC still need to prioritize, which areas require most attention. Piloting support measures such as the regional innovation voucher could help RIC understand these needs. They would also allow RIC move beyond surveys, which do not always yield accurate answers. Other pilot programs could include innovation trainings for companies’ management to shape pro-innovation attitudes or acceleration programs to be delivered in collaboration with entities that have proven track record in delivering such services. Establishing a network of external experts could also be a suitable solution for RIC and could be implemented in collaboration with other regions and entities, e.g. national agencies. Finally, RIC could support or provide innovation-oriented training programs for researchers at BBSK ROs. It could also apply for funds (projects) to external sources that could finance demand-driven research ideas of regional companies or to be delivered at regional ROs.

RIC's final scope of activity should be adjusted to its goals and expected resources. It will be vital for RIC's success to start with a limited number of priorities. Trying to deliver on all of the above fronts from the very beginning may prove too much and could undermine the Center's performance. For that reason, it is recommended that RIC divides its activities into core and non-core ones. The former could be covered by its core (regular) staff and financed from its dedicated (core) budget. The latter could be delivered under the condition of obtaining additional (external to its core budget) funds that would ensure expanding RIC's capacity. In fact, RIC's ability to 'projectize' (obtain external funding to implement projects) its activities will be an important skill to acquire that will contribute to building its in-house capacity.

This report assumes that RIC will start with a limited dedicated budget and capacity and they will keep expanding together with its growing experience. It is recommended that during initial period (e.g. two year) RIC maintains a small core team that focuses on building its competences and testing its areas of specialization. A lean core team would help the Center maintain required agility and change its development direction as it is seemed fit. This could be complemented by non-core team, e.g. external experts and administrative roles financed from externally-sourced funds.

RIC's initial core activities should be adjusted to its human and financial capacity and should target areas with the highest potential value added to the regional innovation system. Hence its core activities could focus on i) delivery of public goods (trust building, coordination of stakeholders, information provision, and data curating – since currently, no one is systematically performing these in the region) and ii) easy to implement ('low-effort') services to stakeholders, e.g. innolabb, mobile innolabb, limited amount of services for regional stakeholders such as entrepreneurship courses or specifically identified services for companies. Such a set of limited activities seem feasible to manage by a small team and could be implemented with a relatively small budget. It would also pave the way for RIC's deepening of knowledge about the regional innovation system and establishing its position among the regional stakeholders. Some of these activities could be outsourced by RIC to other innovation stakeholders, e.g. surveys, targeted analyses. The non-core activities could encompass activities that are more resource-intensive and would require obtaining additional external resources. These could include more complex training and mentoring programs for innovation-driven companies (management's innovation capacity, investment readiness), assistance in technology transfer activities and building companies' value based on innovation, acceleration and scale-up programs for research- and innovation-driven companies.

Innolabb has been piloted by BBSK and currently is being expanded thanks to additional resources the region obtained. Promoting innovation and entrepreneurship among BBSK's youth, in schools and VET programs will be an important driver for sustaining the regional innovation ecosystem in the long-term. The successfully established innolabb in Banská Bystrica and seven news ones being rolled out throughout the region are a step in the right direction. They contribute to more territorially inclusive regional innovation policy. This might be further reinforced by region's plans to operate a mobile innolabb, i.e. a truck with innolabb-like equipment that could travel across the region with an aim to attract youth to develop their own ideas. At the same time, strong involvement of the private sector will be critical for maintaining the quality of the innolabb or any future training courses. Here, creative incentives for private sector's involvement as mentors, sponsors or clients will need to be proactively thought about. Engaging the users - youth and beneficiaries - in the design of future innolabb's activities, training course but also in the development of the regional innovation strategy will be equally important. It is by listening to and understanding users and future innovators that useful insights can be gained. Recruiting diverse, competent speakers and trainers – ideally those with hands-on experience in innovation - is another aspect that will guarantee the success of the youth-focused activities.

Finally, further strengthening of collaboration with the national level in the area of innovation support is recommended. BBSK has a track record in working with SIEA that lead to the successful implementation of RIV. Continuing such collaboration, also with other national agencies, could be beneficial to all sides. For BBSK it would contribute to building its capacity, companies would obtain targeted solutions, and national agencies would receive support is reaching their potential beneficiaries. When shaping such collaborative initiatives, it would be useful to involve

regional authorities/entities into decision making and implementation processes to strengthen their capacity and inclusion. Further continuation of a multi-governance dialogue within the inter-ministerial group for the release of R&D infrastructure is also recommended. BBSK is a member of this working group and since this topic is included in the CuR14 program for BBSK's R&D component, its participation could be beneficial to all involved parties. Last but not least, regular communication with MIRD1, MoEcon, MoEdu and SIEA that has been developed during CuR12 and CuR13 could be further expanded. This communication channel is praised by all involved entities and paves the way for enhanced collaboration and synchronization of innovation policy in the Slovak Republic.

NOTES

- 1 A limited number of activities that took place in the first quarter of 2022 are also mentioned, since they directly relate to core activities described in this report.
- 2 CuRI2 Report is available at <https://www.worldbank.org/en/region/eca/publication/slovakia-catching-up-regions>.
- 3 Status for the first quarter of 2022.
- 4 More Information available at <https://sapie.sk/news/innovation-vouchers>
- 5 World Bank (2020), Linking industry and research in the Banská Bystrica region (BBSK): <https://documents1.worldbank.org/curated/en/099055201252224628/pdf/P173029045964c0d10b85a056fe0349ae52.pdf>. Companies in the Kosice region that were interviewed during the CuRI3 program by the World Bank team provided a similar feedback.
- 6 Data at the moment of report finalization.
- 7 The registry of Eligible Researchers of Innovative Projects.
- 8 <https://www.mhsr.sk/search?search=-datab%C3%A1za+opr%C3%A1vnen%C3%BDch+rie%C5%A1ite%C4%BEov>
- 9 Application for potential providers to list in the MoEcon's registry <https://www.mhsr.sk/uploads/files/TV0JVf2e.pdf>
- 10 In future editions, it is recommended to test direct payment between SIEA and a provider to minimized beneficiary's financial risk.
- 11 Initially, RIC was named InnoBBSK.
- 12 AmCham Slovakia (2022), On a Mission to Innovate, CONNECTION 1/2022 accessed at <https://amcham.sk/publications/issues/2022-1-human-capital-education-and-labor/article/273628/on-a-mission-to-innovate>
- 13 Regional Innovation Centers were already advocated in and supported by the 2008-2010 national innovation policy (see https://www.siea.sk/wp-content/uploads/inovacie/dokumenty/navrh_inovacna_politika_2008_2010.pdf) but their funding was discontinued in 2011 and they do not operate in three Slovak regions participating in CuRI.
- 14 The CuRI2 Report also provides information about gaps related to research organizations and the national level.
- 15 The BBSK organized an online survey that encompassed university and vocational education schools' students in the region. Almost 1,400 students were surveyed and 90 percent respondents welcomed the establishment of such a student-company platform in the region.
- 16 3,120,639 EUR (88%) from the total is obtained from EU Structural Funds (OP Human Resources 2014-2020), and 368,310 EUR (12%) from Slovakia's national budget (Ministry of Labour, Social Affairs and Family).
- 17 Procedural Manual for Submission of National Project (Proposals): Verification of the model of counselling centers for youth in the Banská Bystrica Region pursuant to § 26 of the ESI Funds Act, Chapter 3.4.1 National ESI Funds Management System Projects (2014-2020).

