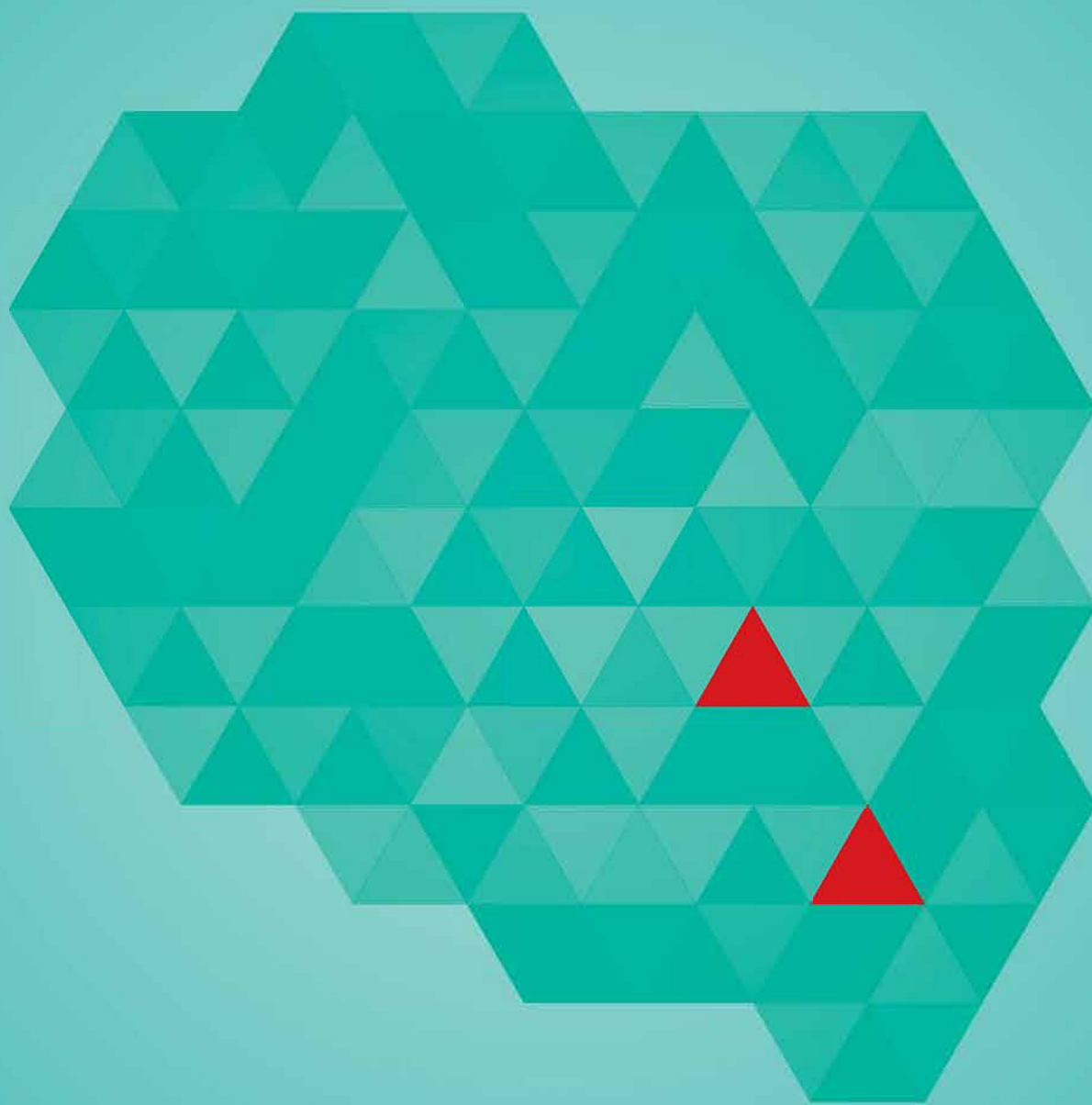


POLAND CATCHING-UP REGIONS

OVERVIEW REPORT



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March, 2017

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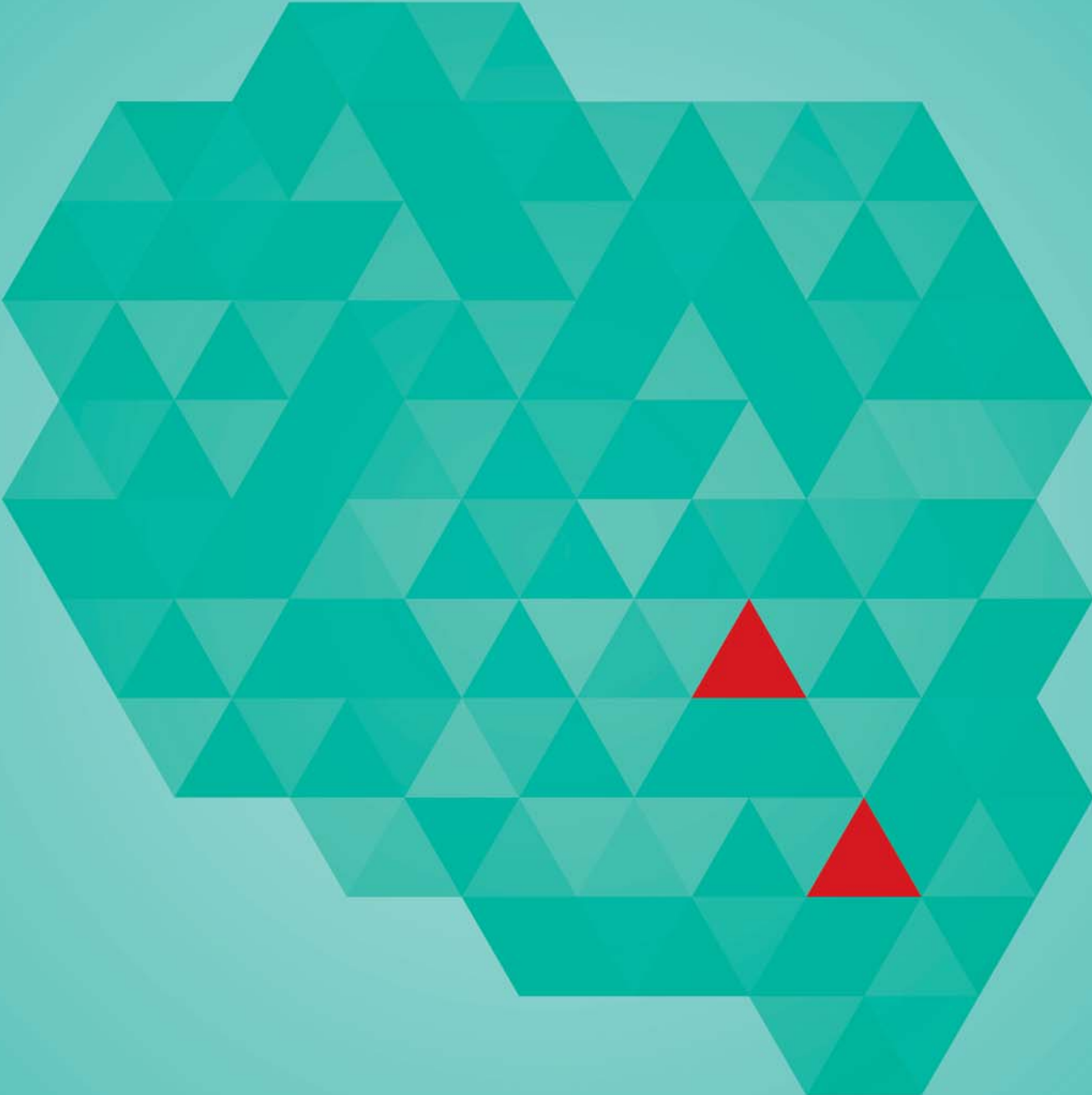
This report was prepared by a core team comprised of Paul Kriss (TTL), Marcel Ionescu-Heroiu (TTL), Grzegorz Wolszczak, Margo Hoftijzer, Dorota Tekieli-Bisińska, Elista Panayotova, Dariusz Wiatr, Jerzy Toborowicz, Krzysztof Malicki, Andrzej Kaznowski, Michał Żukowski, Anwar Aridi, Piotr Stronkowski, Jakub Rozenbaum, Maciej Gruza, Austin Kilroy, Jan Szczucki, Maciej Gajewski, Maciej Drozd, Wojciech Sacha, Tomasz Kałużny, Dmitry Sivaev.

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THE EUROPEAN COMMISSION'S CATCHING-UP REGIONS INITIATIVE IN POLAND – AN OVERVIEW

Background

The mandate of the EU Cohesion's Policy is to narrow development gaps and reduce disparities between Member Countries and regions. To this extent, around €454 billion of ESI (European Structural and Investment) Funds have been allocated to help EU regions become more competitive in the 2014-2020 Programming Period. However, not all EU regions have been able to fully take advantage of the benefits, due to the effects of the 2008 economic crisis and to a host of structural problems.

Consequently, Corina Crețu, the Commissioner for Regional Policy, with the Task Force for Better Implementation, has initiated **the Lagging Regions Initiative**.

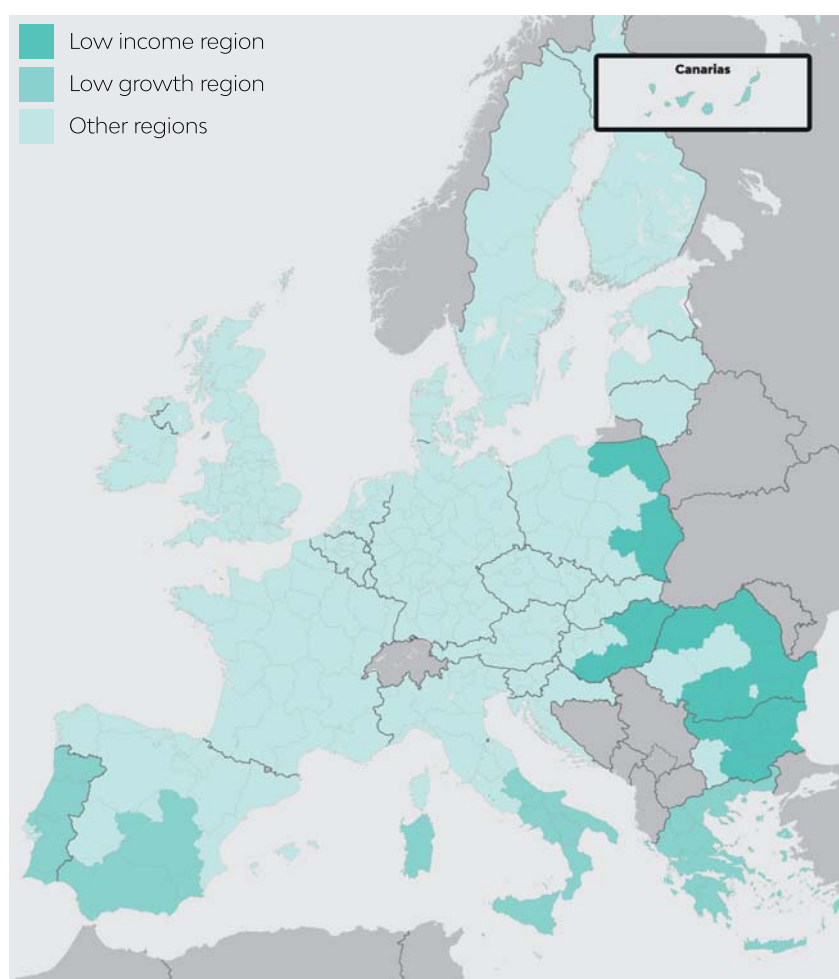
The purpose of the Initiative is to identify constraints to growth in less developed regions, and to provide targeted assistance and actions, aiming to unlock their growth potential. Thus, lagging regions will be assisted, involving a broad range of stakeholders (regional and local administrations, educational institutions, business support institutions, SMEs, entrepreneurs, investors, NGOs, IFIs) to help respond to concrete needs they have. This is meant to maximize the impact of regional investments. Two types of lagging regions have been identified in the EU:

LOW GROWTH REGIONS, which cover the less developed and transition regions that did not converge to the EU average between the years 2000 and 2013 in Member States with a GDP per Capita (PPS) below the EU average in 2013. These include almost all the less developed and transition regions in Greece, Italy, Spain and Portugal.

LOW INCOME REGIONS, covering all the regions with a GDP per Capita (PPS) below 50% of the EU average in 2013. This group covers the less developed regions of Bulgaria, Hungary, Poland and Romania.

Poland and Romania are the first countries to pilot this initiative, with two regions each – Świętokrzyskie and Podkarpackie in Poland, and North-West and North-East in Romania. In Poland, the initiative (subsequently renamed the Poland Catching-up Regions Initiative) was undertaken with the World Bank as a partner, while in Romania it was the Joint Research Center of the European Commission that has coordinated the activities. Following the work carried out in the four selected low-income regions in Poland and Romania, the European Commission plans to also focus on a selection of low-growth regions.

Figure 1. Lagging Regions in the EU



Source: DG REGIO

Why was Poland chosen as one of the pilots

The choice to focus on Poland was quite purposeful, both because of Poland's size and the wide-ranging challenges its regions face, and because of its remarkable development story. Poland's economy took off in early 1990s and continued its growth into the new millennium. In 2004, Poland joined the EU and in 2008, it officially became a High Income Country, according to the GNI per Capita Atlas method of the World Bank. As such, Poland is one of the few countries that managed to overcome the 'middle-income trap' in recent decades, and one of the very few big countries (it had a population of around 38 million in 2014) that has well managed this transition¹.

Poland is also a very good performer with regards to the absorption of EU funds. For the 2007–2013 Programming Period, it had the largest allocation of structural funds in the EU (around 67 billion Euro). While Poland's performance over the last years is remarkable, its continuous concern in the context of the EC's cohesion policy is the impact of EU funds. Over the 2007–2013 Programming Period, Poland absorbed most of the EU funds allocated through various operational programs. A large percentage of these funds was directed to bridging the infrastructure gap and constructing transport, urban, water and

wastewater, environmental, educational, sanitary, and other infrastructure assets.

During the 2014–2020 programming period, there was a shift in focus, away from hard infrastructure assets towards addressing systemic aspects of competitiveness, innovation, and entrepreneurship. This shift acknowledges that while it is critical to consolidate the progress made, it is equally important to ensure that the Cohesion Policy achieve a better leverage effect than in other EU Member Countries (e.g. Greece, Portugal, Spain, or Italy). These countries invested heavily in connective and other infrastructure yet did not significantly improve the quality of their human capital resources and business environment. The objective of the policy change is also to identify ways in which Poland could soon compete with the top performing economies in the world.

The Polish Government and the European Commission were particularly interested to find ways to improve the performance of lagging regions, and identify ways to spur growth and innovation in their economies. Consequently, in April 2016, Commissioner Cretu, officially launched the Lagging Regions Initiative together with Marshall Jarubas in Świętokrzyskie and Marshall Oryl in Podkarpackie.

¹ A majority of countries that have overcome the middle-income trap are city states (e.g. Singapore, Hong Kong, Taiwan) or relatively small countries (e.g. Israel, Lithuania, Latvia, Estonia, Slovenia)

Why were Podkarpackie and Świętokrzyskie chosen as the target regions

According to the DG REGIO definition of lagging regions, in 2016, five NUTS 2 regions (voivodships) in Poland were considered to be lagging (i.e. they had a GDP per Capita (PPS) below 50% of the EU average): Warmińsko-Mazurskie, Podlaskie, Lubelskie, Świętokrzyskie and Podkarpackie. To better address the challenges they faced, the Polish Government set up a separate national operational program – the OP Eastern Poland, with a total allocation of 2 billion Euro for the 2014–2020 Programming Period. In addition, the European Commission was interested to identify ways these funds can achieve the highest potential impact, by honing on specific bottlenecks and challenges, and identifying ways in which the bottlenecks could be removed and the challenges addressed.

The DG Regio Poland Desk team prepared detailed analytical sheets on all five lagging regions in Poland. Podkarpackie and Świętokrzyskie were chosen as targets for the Catching-up Regions Initiative (CRI) pilots because of the relatively different challenges they faced despite

their geographical proximity, and because of the potential of scaling up the relevant lessons learnt from the initiative to other lagging regions. For example, Podkarpackie has registered in recent years a relatively high level of private R&D expenditure (particularly in the aviation industry), but a low rate of formation of spin-offs and innovative start-ups, in addition to a relatively poor connection between private companies and academic institutions. Świętokrzyskie also registers a low level of entrepreneurship and innovation, while at the same time facing difficulties in matching the skills of school graduates to actual needs of private companies (particularly industrial enterprises).

Another key factor in choosing these two regions was the willingness of the regional governments in Podkarpackie and Świętokrzyskie to actively participate in the implementation of the Initiative. Finally, the Ministry of Economic Development was consulted throughout the selection process, to ensure seamless coordination between the Government's planning and operational work.

Why was the World Bank selected to provide technical assistance

The European Commission and the World Bank share a long-standing partnership for development, ranging from the joint financing of infrastructure projects to the provision of technical assistance to EU and non-EU countries. The EC considered the World Bank to be capable of bringing its technical and operational expertise,

as well as its convening power and role as an honest broker to address some of the constraints facing the lagging regions. It was assumed that by combining its operational expertise with its global knowledge, the World Bank would deliver strategic development outcomes and respond to key development challenges.

In turn, the World Bank sees the European Commission not only as a strategic development partner, but also as an invaluable source of knowledge for properly tailoring development solutions. The European Commission is arguably one of the most efficient development institutions in the world, and is to a large extent, responsible for helping several

of its Member Countries overcome the middle-income trap and become high-income economies (see table below). This is one of the reasons the World Bank has dubbed the EU the “Convergence Machine”². It is looking to learn relevant and applicable lessons, from the EC’s activities, to its other client countries.

Table 1. Development performance of a selection of EU countries

	Year EU Candidacy Negotiation was started	Year the country became a EU member	Year the country became a high-income country
Croatia	2003	2013	2007
Czech Republic	1995	2004	2004
Estonia	1995	2004	2006
Greece	1975	1981	1987
Hungary	1994	2004	2006
Ireland	1968	1973	1986
Latvia	1995	2004	2008
Lithuania	1995	2004	2008
Poland	1994	2004	2008
Portugal	1977	1986	1994
Slovak Republic	1995	2004	2005
Spain	1977	1986	1987

For the Poland Catching-up Regions Initiative, the teams working together mobilized both international and local experts, to properly respond to the variety and complexity of the issues to be addressed. A core coordination team has

been set-up in the Bank’s Warsaw office, to ensure efficient and expedient communication between the teams on the ground, the regional and national stakeholders, the project leadership, and the European Commission’s team.

How was the scope of work defined?

The European Commission has a deep engagement with the national government of Poland and with the regional governments. As such, one of the first steps in the preparation of the Poland Lagging Regions Initiative was the definition of action plans. The Action Plans focused

on key challenges (e.g. unemployment, lack of innovation, structure of the economy) that need to be addressed and key bottlenecks (e.g. slow business registration, poor interactions between research institutions and the private sector, poor coordination between private companies and

² World Bank. 2012. *Golden Growth: Restoring the lustre of the European development model*

vocational training schools) that need to be overcome to achieve better regional development outcomes.

Once the action plans have been prepared, they were used as a foundation by the regional authorities in Podkarpackie and Świętokrzyskie to prepare a list of key actions needed to address these bottlenecks and challenges. The Bank team provided advice and recommendations throughout, but it was the representatives of the regional governments, the Ministry of Development, and the European Commission which steered the discussion.

After a comprehensive list of actions was prepared for both regions, a number of meetings were organized with all relevant stakeholders (the regional governments, the Ministry of Economic Development, the European Commission, and the World Bank), to prioritize the action list and iden-

tify the actions the Poland LRI would focus on. Once these key actions were identified, further discussions helped identify detailed sub-actions and the final scope of work. The World Bank organized and helped facilitate these discussions in its Warsaw Office. Enabling all the stakeholders to meet on “neutral ground” made for a much smoother discussion and a more expeditious decision making process.

Once the scope of work was properly defined, with all vested stakeholders in agreement, the European Commission signed an Administration Agreement with the World Bank. The Bank was thus formally engaged as a provider of technical assistance and operational management for the Poland CRI. The whole process moved quite quickly, with the Administration Agreement being signed in June 2016, two months after the multi-stakeholder negotiations were started.

Project implementation

The first step of implementation was the identification of the team. A mix of international and local experts (a total of 22) were interviewed over a two-week period, and 7 were selected to be part of the core

technical team. In addition, a core coordination team was established in the Bank's Warsaw Office, to ensure proper communication between the various stakeholders and experts involved in the project. Arrangements were made for frequent interactions with local and regional stakeholders on the ground. Autonomous teams were established for each defined activity, with the technical work coordinated by an activity leader and a team of experts. Each activity team was present in the field at least once per month, to ensure the proper collection of data and information, and to swiftly respond to the needs and requests of regional stakeholders. This ensured progress was steadily made on the defined actions.

In addition, monthly Steering Committee meetings were organized with all stakeholders present. The scope of the Steering Committee meetings was to: 1) assess progress of the work to date (short monthly progress reports were

Figure 2. A Poland CRI Steering Committee meeting



prepared in preparation for the meetings); 2) discuss problems/issues encountered along the way; 3) propose next steps to be taken; and 4) agree on a change of approach or additional/different work to be completed. The

frequency of the steering committee meetings ensured that all problems/issues that arose were identified and addressed in a timely manner, avoiding wasting time and resources later in the process.

Key success factors

While the first phase of the Poland CRI has just been completed, it is safe to say that it has been a success. The documents that summarize the key results and findings of the Initiative are a good testament to what could be achieved in a short amount of time. Some of the factors that have helped make the Poland CRI a success are listed below:

- **Buy-in and involvement of regional stakeholders.** Development is all about people. The best ideas, tools, and policies cannot achieve the proper development impact if they are not accepted by the right people. The fact that the regional stakeholders in Podkarpackie and Świętokrzyskie as well as in the Ministry of Economic Development and the European Commission were fully involved in the project, from the definition of its activities to the implementation of the recommendations, made the difference
- **Integration with existing operational programs and strategies.** While the actions that were targeted under the Poland CRI are distinct and well-defined, it was important that they were not designed independently of existing strategies and programs, and rather in a complementary fashion – i.e. they helped achieve some of the key issues proposed in the existing national and regional strategies and programs
- **Dedication, commitment, and leverage of European Commission team.** The European Commission team did not only finance the Initiative.
- **Local coordination.** While international experts helped provide key technical knowledge, it would have been very difficult to keep the Initiative together and running smoothly. Over the course of the project, 75 people worked on 5 activities and delivered 25 distinct outputs. While international experts helped provide key technical knowledge, it was crucial to combine it with and adjust to the local context and needs. Without the proper coordination of all these efforts on the ground, it would have been difficult to deliver all the required results in the allotted time-frame. While international experts helped provide key techni-
- **Periodic steering committee meetings.** While preparing frequent progress reports and meeting at short time intervals can be quite demanding for all involved, it turned out that these frequent meetings and discussions were a key ingredient to the success of the Initiative. Without these meetings, it would have been possible for small problems to turn into big problems, which in the end would have been much more difficult to overcome
- **It was actively involved throughout.** The EC team did not only review all of the outputs produced; it monitored the activities on the ground and worked as a mediator when difficult decisions had to be taken. The involvement of the EC in every step of the process, ensured a smooth progress of the work and an efficient and effective response to the challenges and bottlenecks that appeared along the way

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- **World Bank expertise.** The World Bank combines operational expertise with sectoral know-how, and has unique advantage in dealing with technical assistance projects focused on development issues, particularly projects that have a strong operational/implementation focus. In addition, the World Bank acts as an honest broker, focused on achieving concrete development results (rather than generating a profit), and has the convening power required to bring different stakeholders around the table
- **Hands-on approach.** The European Commission has designed the activity as a hands-on activity, with the purposeful direct involvement of all relevant stakeholders. This approach was geared towards achieving concrete, tangible results rather than just a proposal of recommendations. As such, concrete results were achieved throughout the implementation of the project, with different stakeholders responsible for achieving these results
- **Ambitious but pragmatic objectives.** The EC team has defined from the start a number of ambitious objectives, which could realistically be achieved within the allotted time-line (i.e. 9 months). For example, the World Bank's sub-national Doing Business in Poland³ report identified a number of concrete steps that could have been undertaken by national, regional, and/or local public administrations to improve the ease of registering a business. Several of these steps (e.g. changes to the governmental portal on e-business registration, bonuses for district court staff, advertisement of e-business registration platform) were followed through to achieve concrete results

Next steps

With the completion of the activities defined under the Poland LRI, the European Commission asked the World Bank to continue its engagement, with a focus on another three activities. This, in essence, will be the second phase of the Poland CRI. Some of the activities will be a continuation of activities from phase 1 of the Poland CRI (the Podkarpackie Center for Innovation in Rzeszow), while others will be completely new (proposal of a program to encourage thermo-modernization of single family houses in high air-pollution areas and help prepare terms of reference for the development of spatial plans for two localities/ areas).

Some of the key findings of the Poland CRI have been captured in a Commission Staff Working document titled "Competitiveness in low-income and low-growth regions: The lagging regions report"⁴. It includes both an overview of the key recommendations made under the Poland CRI, as well as a number of concrete results that have been achieved during the implementation of the project.

Separate from the Poland CRI, the World Bank allocated resources of its own to research and identify solutions to the challenges faced by lagging regions all over the EU. This work is coordinated

³ The report can be accessed at: <http://www.doingbusiness.org/-/media/WBG/DoingBusiness/Documents/Subnational-Reports/DB15-Poland.pdf>

⁴ The report can be accessed at: http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/lagging_regions%20report_en.pdf

with the programming unit of DG Regio, with a focus on re-thinking EU's regional development policy for the 2021-2027 Programming Period. Some of the key activities included in this Lagging Regions work include: a proposal of alternative definitions for lagging regions (beyond using simple GDP thresholds); a look into the importance of cities and functional urban areas for regional growth and development; an inquiry into alternative financial instruments that could complement EU grants; solutions for improving the business environ-

ment so that regions are more attractive to private investment. This strand of work will be finalized in June 2017, with a second phase planned for July 2017 - June 2018.

At a larger scale, the European Commission is discussing extending the initiative to other EU Member Countries and regions, including low-growth regions. Within Poland, the DG Regio Poland Desk is working with the Polish Government to roll-out the results of the Poland CRI to other regions in Poland.

OVERVIEW OF INITIATIVE RESULTS

VOCATIONAL EDUCATION AND TRAINING (SWIETOKRZYSKIE)

Why?

Worldwide, Vocational Education and Training (VET) is receiving increasing attention, particularly as a potentially useful instrument to address high unemployment rates among youth. With the general two-pronged objective of (on the one hand) improving the employment and earnings potential of VET graduates, and (on the other hand) addressing skill constraints of firms, VET is considered as a possible means to improve the alignment of skill supply with demand.

The benefits of gaining practical work experience through in-firm learning as part of VET are widely recognized.

Work-Based Learning (WBL) is the approach through which students acquire essential skills by participating in activities in enterprise premises, including on-site training as well as particularly by participating in actual business operations. WBL, when implemented effectively, provides students both with relevant practical skills, as well as with essential socio-emotional skills, such as the ability to work in teams, problem solving, and discipline.

In Świętokrzyskie (as in Poland generally), VET provision in upper-secondary level technical schools is still largely school-based. Less than 9 percent of Polish students engage in practical activities on firms' premises beyond the obligatory four weeks that students are required by education regulations to spend in firms throughout their training program. While data on the scope of in-firm learning experiences of students of technical schools are not available at the regional level, it is generally assumed that the incidence and duration of WBL for students in Świętokrzyskie are below the national averages.

The absence of a sound WBL mechanism in upper secondary VET is considered both to prevent students from building the skills that prepare them for a productive working career, and to constrain private sector growth by not exploiting opportunities to build a labor force that is equipped with market-relevant skills.

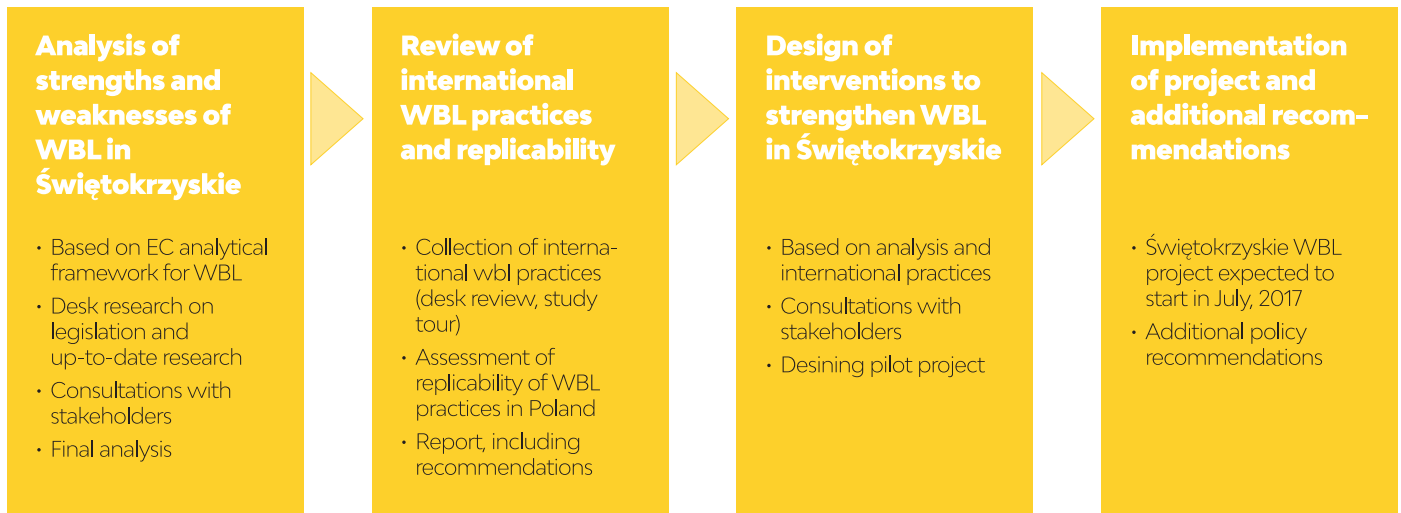
How?

The approach taken to strengthen WBL implementation in Świętokrzyskie consisted of four phases, of which three were supported by the Catching-Up Regions Initiative.

The first phase comprised the identification of the main strengths and challenges to effective WBL implementation in Świętokrzyskie – and to an extent in Poland as a whole. The second phase consisted of a review of practices applied in other countries to address the main

challenges that were identified in the preceding analysis, and an assessment of the replicability of these practices in Świętokrzyskie. During the third phase, a program to pilot interventions to strengthen WBL was designed, and approved to benefit from EC funding. The final phase, implementation of the pilot project, is expected to take place during the period of 2017–2020, and is therefore beyond the scope of the Catching-Up Regions Initiative. (Figure 3.)

Figure 3. Sequence of activities in the 'Catching-up regions' initiative



The approach applied was characterized by an intensive involvement of key stakeholders in the region. Considering that a crucial element of sound WBL implementation comprises effective coordination and collaboration of various stakeholders (firms, VET providers, public authorities, social partners), intensive efforts were made to engage these actors in the implementation of

this activity as well as with each other. This included regular consultations with the regional VET Working Group (established to inform the Catching-Up Regions Initiative on VET), regular consultations with individual and groups of stakeholders in the region, and participation of a varied group of stakeholders in a study tour on WBL that was organized in Latvia.

What was achieved?

Successful outcomes were achieved in three key areas: (1) stakeholder engagement and capacity building; (2) knowledge generation; and (3) a clear design for a pilot project that is expected to be financed by the ESF. Combined, these three elements have created a strong foundation for impactful future interventions to strengthen WBL both in Swietokrzyskie and in other regions in Poland.

Adequate engagement of WBL stakeholders, particularly enterprises, is notoriously difficult to achieve in contexts where VET provision is largely school-based. Through the intensive consultations and stakeholder engagement activities that were carried out as part of this activity, key stake-

holders in the region (including private sector representatives) have become increasingly engaged and have contributed substantially to the design of the pilot project (see below). Moreover, as part of this engagement, crucial stakeholder capacity on the benefits of WBL and on effective implementation approaches has been developed.

The analysis on strengths and weaknesses for WBL implementation in the region, complemented with the review of relevant international approaches to address key weaknesses, has resulted in substantial knowledge generation on the best way forward to promote WBL implementation in Swietokrzyskie. The main conclusions and recommenda-

tions resulting from these analyses are the following:

- **The key areas for improvement to strengthen WBL implementation are:** 1) strengthen the governance and financing framework for WBL; 2) establish effective mechanisms for stakeholder consultation and coordination; 3) create adequate incentives and capacity of VET providers; 4) create adequate incentives and capacity of firms; 5) establish appropriate quality assurance mechanisms for WBL; and 6) ensure a facilitating role by Centres for Practical Training (CPT);
- **It is recommended to strengthen WBL in Swietokrzyskie by applying a comprehensive approach,** simultaneously addressing all identified areas for improvement, since they are strongly intertwined and mutually reinforcing. This approach will allow creating a 'virtuous cycle' where improvements in each dimension will also promote improvements in the others.
- **It is recommended to focus on the main structural impediments, through a pragmatic approach targeting the 'lowest hanging fruit' which will allow showcasing early results.** Concretely, this approach implies that in the early stages of WBL implementation, participating stakeholders will most likely be concentrated among larger-size and more competitive firm, better-managed VET providers, and higher performing students for which there is particularly strong demand in the labor market.

As WBL implementation becomes more entrenched, increasing participation is expected of smaller-sized firms, weaker VET providers, and students who are more difficult to place in firms.

The pilot project that was designed with support from the Catching-Up Regions Initiative will pilot a variety of approaches to strengthen WBL.

In addition to strengthening VET implementation in the region during the project implementation period (2017–2020), the project is expected to generate lessons learned that will serve to inform further interventions to strengthen WBL after 2020, both in Swietokrzyskie and in other regions in Poland. The project will establish a grant mechanism to provide financing to regional stakeholders who develop viable pilot approaches for WBL implementation which meet the minimum criteria established for project implementation. The pilot project will address identified constraints related particularly to capacity and incentives through a combination of financial support and technical assistance. In addition, the project's design includes various elements to ensure that the lessons learned generated through the pilots can feed into future activities to strengthen WBL in Swietokrzyskie and beyond (including the development of templates and other guidance material, the inclusion of stakeholders that may emerge as leading actors of future structural support mechanisms, and a sound monitoring and evaluation mechanism which will record lessons learned and good practices).

Lessons learned

A main takeaway from this activity is that, with the right mix of activities (see section 2 above), substantial progress can be made in a relatively short period of time. Moving from a starting point characterized by a limi-

ted knowledge base, weak stakeholder communication, and the absence of a clear and shared understanding among key stakeholders of the benefits and objectives of WBL, to a point where a sound project has been designed

through a strong consultative process with stakeholder who are committed to its implementation, is evidence that initiatives such as the Catching-Up Regions Program can be a very effective way to 'kick-start' important reforms, particularly in case of interventions which require the involvement of a large number of stakeholders and there is no obvious 'champion' to initiate these activities.

Particularly considering the many stakeholders involved, transaction costs are relatively high and could potentially be reduced in future initiatives. In addition to the relatively large number of regional actors, stakeholders involved in this activity included various national level ministries, EC directorates, and World Bank departments. Transaction costs related to ensuring effective coordination among these various actors could potentially be reduced by ensuring strong(er) up-front clarity on both the objectives and approach to

implementation of this activity, and on the coordination mechanisms that will be applied during implementation.

Whereas the Pilot Project will ensure that activities to strengthen WBL will continue in the short to medium term, additional efforts will be required to ensure that lessons learned generated to the project are disseminated and applied. The likelihood of successful implementation of the pilot project (including the generation of good practices and lessons learned) is increased through the envisaged procurement of strong external technical assistance under the pilot project. However, ensuring that lessons learned are used to strengthen WBL beyond the project and, particularly, beyond the Swietokrzyskie region, is beyond the scope of the project and will require additional efforts, which would potentially be most appropriately led by a national-level actor such as, for example, the Ministry of Education.

THE PODKARPACKIE CENTER FOR INNOVATION (PODKARPACKIE)

Why?

This report is an implementation focused document that proposes a solution for addressing the problem of unexploited potential in the Podkarpackie R&D ecosystem (in particular, relatively low, although gradually increasing, level of intensity of business – university collaboration). This problem was jointly identified by the project partners: the European Commission, the Podkarpackie Marshal Office (MO), the Ministry of Economic Development (MoED) and the World Bank (WB). A single regional technology transfer office (TTO) was found to be a preferred option to tackle the challenge. The main goal of this report is to present a model of such a TTO – a proposed Podkarpackie Center for Innovation (PCI) – that resulted from a joint effort of key local stakeholders: MO, universities, local enterprises and their representatives. The PCI is a detailed and comprehensive concept which includes specific organizational and governance solutions as well as their legal and financial underpinnings.

The Podkarpackie region is performing comparatively well on some key indicators of innovation. R&D expenditures per capita were on par with the national level in 2014 (€90), and almost five times higher than in 2007 (€20). On this measure the region ranks fourth among 16 Polish regions. In terms of private R&D expenses the Podkarpackie regions ranks third among Poland's regions, after Mazowieckie and Malopolska. Despite negative national trends, the number of students (and in particular, students of technical universities) in Podkarpackie grew significantly over the last years, making Rzeszow the top European city in terms of the number of students per 1000 inhabitants (almost 50 thousand students in a city of nearly 190 thousand citizens).

The Podkarpackie innovation ecosystem has five specific opportunities for improvement in the university-

business R&D cooperation realm.

The issues include: (1) the rate of creating technology start-ups (in particular, a low rate of R&D-based start-ups founded as a result of research performed at the local universities) is below the region's potential; (2) the levels of licensing revenues generated by the region's universities may be significantly improved; (3) the level of utilization of the local universities R&D equipment for commercial purposes is low and could be significantly increased (this applies as well to the level of revenues derived from contract research that is based on that equipment); (4) the involvement of the local corporations in the joint university-business collaboration, even though good in some areas by Polish standards (example: the Aviation Valley cluster companies and their cooperation with the Rzeszow University of Technology, RUT), falls short of its potential; (5) local student successes in national and international level competitions could be more systematically translated into subsequent entrepreneurial success. In recent years the Podkarpackie universities and companies have achieved significant successes in these five areas, however, their further intensification is necessary for the Podkarpackie innovation ecosystem to become one of the leaders in the country.

The root causes behind the unexploited potential of the Podkarpackie innovation system lie first in the still-limited competencies, financial resources and capacity to deliver (mainly in areas of valorization and structured contract research), and secondly in the fact that an entrepreneurial ethos at the main two local state-owned universities is still in the early stage of development. This problem affects researchers, students and university support personnel alike. While the local universities began efforts to strengthen their commercialization capacity (e.g.,

the RUT operates both a sizeable technology transfer center (TTC) and a special purpose company (SPC)), the schools typically lack the concentrated critical mass of skills necessary for successful commercialization of university-born R&D results. This stems in part from their overall shortage in Podkarpackie, and partly from a dispersion of these skills across multiple players of the Podkarpackie innovation ecosystem (such as universities, regional development agencies, technology parks, clusters, incubators, accelerators, etc.). The limited business-science R&D collaboration stems primarily from the misaligned incentive system for the researchers, constraints not allowing commercial utilization of the universities' R&D equipment and differences in the organizational cultures of corporate and science worlds that are difficult to match. As of today R&D collaboration with business does not generate sufficient benefits (e.g., in terms of parametric evaluation by the Ministry of Higher Education, revenues and research opportunities) for either the universities or researchers to more evenly balance their priorities among basic research, education and applied research. In addition, leading European universities and TTOs acknowledge that the presence of a strong entrepreneurial ethos at the

universities is an important ingredient of successful innovation ecosystems. For that reason, initiatives that shape innovation-oriented attitude among students and provide them with opportunities to prototype and experiment have been gaining popularity.

The aforementioned improvement opportunities are only partially addressed by the existing TTCs of the local universities and by the national-level programs and instruments.

The TTCs do a very good job at some tasks, mostly internally focused (e.g., support on IP issues, administration of research grants, etc.), but have neither the scale, nor the required competencies or resources to significantly ramp up market-oriented, demand-generating activities: grow licensing revenues, increase the level of university-originated start-ups that base on R&D, proactively market services, which leverage the university R&D equipment or spur the entrepreneurial efforts of the students. The report also shows that PCI will be complementary (and not duplicative) to the national-level programs meant to stimulate commercialization of university-born R&D (such as BRIDGE Alfa or the Fast Track) and entrepreneurship (such as Starter and others).

How?

Project was divided into several sub-tasks with clearly described outputs.

These were: i) designing a unified database that describes universities' R&D equipment with the greatest commercialization potential, ii) describing region's supply of and demand for R&D services, iii) supporting universities in devising of the methodology for freeing-up the 20% of capacity of their R&D equipment purchased with the contribution of EU funds, iv) designing a model of a single TTO for the Podkarpackie region.

The concept of PCI is a result of consultations with all key local stakeholders.

The MO, universities (university management, TTCs, researchers, students) and enterprises have been active partners in designing the PCI model, and during multiple individual interviews and workshops they have contributed comments and tested the feasibility of subsequent versions of the proposed model. They also expressed support for the three-platform PCI concept, though the design is still a work-in-progress and its details are likely to evolve during

the implementation stage through 2017. The Podkarpackie universities will be vitally interested in such a design of the PCI that will enhance the progress recently achieved by their TTCs (e.g., RUT). Subsequent iterations helped improve the model, but also raised awareness and mutual understanding of various perspectives among the stakeholders. This report proposes a number of detailed solutions, especially regarding PCI's activities, governance, team selection and financing to illustrate the current state of the concept's development, and

set up a foundation for further implementation work.

Combining national and international knowledge made the PCI model more robust. Study visits to successful technology transfer offices in Europe, such as the Toulouse Tech Transfer (France), LRD Leuven (Belgium) and the Aalto Design Factory (Finland), as well as learning from Polish case studies helped incorporate good practices and distill some key success factors for a regional TTO.

What was achieved?

This report recommends creating a professional business-university interface, the Podkarpackie Center for Innovation (PCI), to comprehensively address identified needs of the Podkarpackie innovation ecosystem. In principle, the PCI will help link businesses and university researchers, develop key skills of university researchers and administrative staff necessary for R&D collaboration, support R&D projects by providing resources (money, skills, knowledge), and stimulate students' entrepreneurship. By intensifying such a collaboration thanks to a proactive, market-oriented attitude and envisaged early commercialization successes, the PCI will contribute to further strengthening the ethos of business-university cooperation at the local universities. An alternative approach was also considered; it would focus on building up the capacity of individual TTCs and SPCs currently operating at the universities. However, this approach was found to be suboptimal due to the lack of economies of scale (a certain critical mass is needed to make a TTC work), scope (it involved too big fragmentation of needed skills and competencies), and the possible lack of additional financing that would need to come from the universities.

Creation of a relatively independent professional entity (PCI) to help accelerate commercialization and techno-

logy transfer processes seems an effective and efficient choice. Such an approach allows attracting private sector talent to intensify business-academia collaboration, while also building up capacity of the universities in a mid-term horizon (by working hand-in-hand with the PCI, the universities will learn in practice key principles and good practices of commercialization). Creating an entity that gathers competencies in R&D project valorization and contract research under one roof (thus creating scale and scope economies), and has a stable mid-term financing model will help jump start business-university collaboration. R&D-based innovation usually requires several years to yield results. A five-year period seems sufficient to prove effectiveness of the proposed solution and to demonstrate to the local stakeholders the value added of such an entity.

The PCI will aim at increasing universities' revenues from licensing of R&D results and certain kinds of contract research, and enhancing the rate of creation of IP-driven start-up companies. These are the three key measurable indicators that will define the success of the PCI. Increasing revenues from commercialization of universities' IP and contract research can further translate into their enhanced R&D capacity and

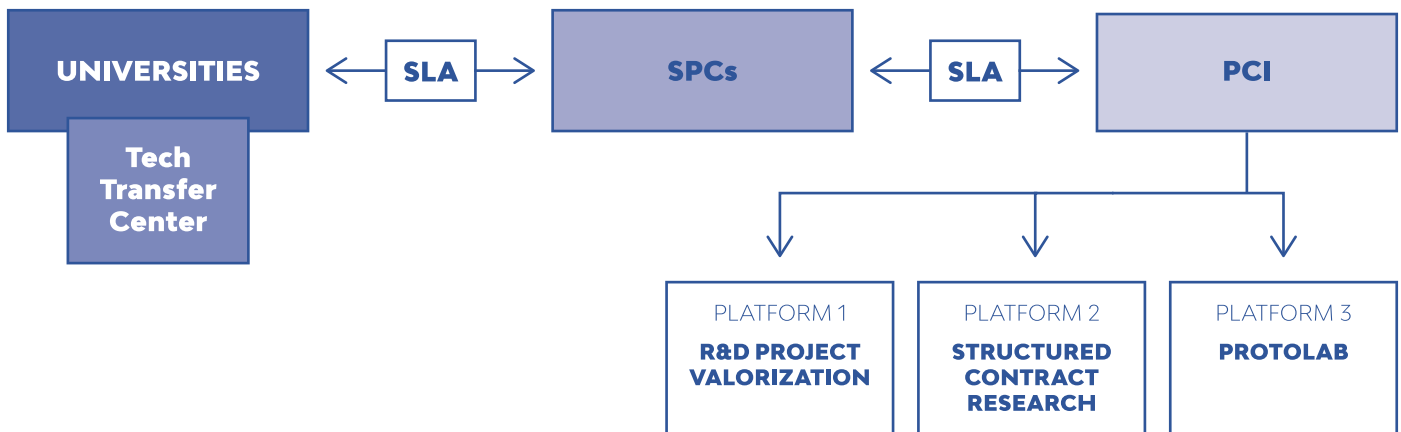
stronger acceptance of the entrepreneurial ethos among academics. This can create a virtuous circle mechanism and, in turn, lead to a continuous increase of university revenues.

The PCI will complement the work of TTCs and SPCs in several ways. First, by providing experienced private sector people, who could coach and assist research teams in developing their inventions. Second, by proactively reaching out to entrepreneurs and marketing services that could be offered by universities. Third, by co-financing promising applied research work performed by scientists. Fourth, by helping upgrade existing R&D equipment to increase its commercial potential. Collaboration with the PCI will benefit TTCs and SPCs at least in three important ways, while at the same time will not add an extra burden to their ongoing operations. First, enhancing the capacity of TTC/SPCs' staff (learning by doing); secondly, raising awareness and entrepreneurial ethos among researchers, staff and management; finally, accruing real financial benefits from the enhanced business-science collaboration

(i.e., increased revenues from licensing and royalties from spin-offs based on the university-originated R&D and revenues from structured contract researched performed at the university equipment).

A PCI team will operate three activity platforms (R&D project valorization, structured contract research, and the ProtoLab). Platform 1 will perform R&D project valorization tasks, thus raising the TRL (Technological Readiness Level) of the funded projects to the point where commercialization becomes possible. Platform 2 will focus on taking advantage of universities' R&D equipment being freed up⁵; it will do so by marketing structured, repeatable contract research services that leverage this R&D equipment. Platform 3 will target Podkarpackie university students; it will foster entrepreneurial culture among them by providing a facility and tools to prototype their inventions and experiment in an interdisciplinary atmosphere. Through those platforms, the PCI will support the local universes (and their TTCs and SPCs), as well as Podkarpackie innovative enterprises, students, and young researchers (Figure 4).

Figure 4. A model of the Podkarpackie Center for Innovation



Description: SPC – Special Purpose Company, SLA – Service-Level Agreement, PCI – Podkarpackie Center for Innovation
Source: The World Bank

Selecting and nurturing promising R&D projects (Platform 1) will be the focal point for PCI. These will be R&D projects at a Proof-of-Principle (PoP) and Proof-of-Concept (PoC) stages that are mainly initiated at the local universities.

PCI will add value to these projects in several ways:

- Increase the TRL of the projects (e.g., by providing external market and technical expertise) from the level of

⁵ The “freeing up” of universities’ R&D equipment means that up to 20% of that equipment’s capacity can be used for ancillary purposes; in practice, this means for commercial use

approximately TRL 2-3, which is a standard technology level when a R&D project leaves the basic research stage, to the TRL 6-9, which are close to commercialization either via licensing (direct commercialization) or setting up a start-up company (indirect commercialization)

- Prepare grant applications for obtaining financing for further R&D work that aim at raising the projects' TRL, e.g., from the Fast Track program run by the National Center for Research and Development or EU's Horizon 2020 (synergy with the national, inter-regional and European programs), as well as help attract external investors (e.g., venture funds, business angels, etc.)
- Provide advisory services (strategic and tactical) and hands-on assistance on securing the intellectual property rights (IPR) position of the selected R&D projects
- Provide advisory services and hands-on assistance on business strategy, marketing, staffing and business development to the selected R&D projects.

The structured contract research (Platform 2) will concentrate on matching demand for and supply of such R&D research services. The supply side will mostly focus on the local universities (20% of the freed-up capacity), while the demand side should encompass entities beyond the Podkarpackie region and beyond Poland. Acting in accordance with its demand-driven mission, the PCI will not simply act as an intermediary in the re-sale of R&D services provided by the universities, but instead it will assist companies in seamlessly acquiring these R&D services and will assure the high quality level of such a service. The PCI will focus on a specific sub-segment of R&D services that are performed at the universities' R&D equipment, namely ones that are of standardized, repeatable nature, hence the name "structured contract research". This means that the PCI will not deal with highly specialized, one-off research projects

that require specialized consulting expertise of researchers. These expertise-based services will continue to be provided by the individual professors and labs, while the existing TTCs will continue to be the primary conduit for such work.

The ProtoLab (Platform 3) is a physical space equipped with basic tools and machines that allow for constructing prototypes. The main idea behind the ProtoLab is to offer students and researchers from all Podkarpackie universities an opportunity to learn and experiment with various production technologies in interdisciplinary teams. Students and young researchers will be able to build Proof-of-Concept prototypes resulting from their R&D projects, as well as learn using some rather basic equipment (e.g. electrical equipment, basic 3D printers, basic lathe, milling machines, etc.) which will be accessible 24 hours a day. Experimentation could be targeted at students and researchers' own ideas or it can be focused on ideas sourced from the public and private sectors. When more sophisticated equipment is needed to complete a prototype, appropriate arrangements could be made with a university to use its facilities. Hence the ProtoLab will offer students an opportunity to prototype in the way that is currently difficult to match in the framework of the existing student scientific associations (interdisciplinary character, flexible access, availability of tools, etc.).

Key players in Podkarpackie understand that PCI's success is a long-term undertaking and requires continuous nurturing and support from the region's business, political and academic leaders. Its success depends on visionary decision makers, effective planning and implementation, and stable strategic support from the private and the public sector. Podkarpackie stakeholders are aware of that and express desire to develop the PCI, select the best possible management team, offer it a degree of autonomy and finance it in the start-up years, because they understand that its success can benefit all of them.

The PCI should be set up as a limited liability company, with mixed public-private shareholding and managed by the competitively selected team of top professionals. PCI's shareholding will include a private entity representing the management team, the MO, and possibly other parties (e.g., the City of Rzeszow or local corporations). The local universities will be actively engaged in PCI's operations thanks to participation in its governing bodies (the Supervisory Board and Resource Allocation Committee). At the current stage, universities are not expected to contribute financially to the PCI, their CTTs and SPCs will have a status of the main "client" of the PCI.

The PCI's management team has to be competitively selected in an open procedure to ensure that best possible professionals manage the Center. The management team has to have hands-on experience in both technology investing and R&D commercialization, and has to be willing to commit to implement PCI's mission on the ground in Podkarpackie. An agreement between the

MO and PCI will spell out clear goals to attain and well-aligned incentives to motivate the management team to achieve high performance.

Approximately PLN 70M is needed to fund the launch and the initial 5 years of PCI operations. The PCI will aim at full financial sustainability in the long-term, yet public resources will constitute indispensable support in the short- and medium-term. International experience shows that it usually takes around ten or more years for a TTO to become nearly or completely financially self-sufficient and that public funds play a facilitating role in their success. It is assumed that the PCI will generate increasing revenues, thus its dependency on public funds will diminish over time. Initially, the PCI will be funded from the Podkarpackie Regional Operational Program (ROP). It is expected that about 16% of the initial 5-year period PCI expense base can be covered by revenues generated from PCI activities. That percentage will gradually increase, allowing for PCI to reach a break-even point after approximately 15 years from its launch.

Lessons learned

Research commercialization is a complex non-linear process. Over the last decade, the Podkarpackie and national innovation support programs have been strongly investing in the supply side of R&D. Thanks to these initiatives, the Podkarpackie universities are currently equipped with top quality R&D equipment. This project addresses the issue of R&D demand as well as provision of the high quality R&D services. This will be accomplished by the creation of PCI, which will act as a platform to facilitate communication and collaboration between businesses and researchers.

Top-level leadership encouraged the development of the concept and oversaw its design. There were two

champions of the concept. First, the Podkarpackie Marshal Office devoted a lot of energy into the work on the PCI concept and in the assembling of a coalition supporting the PCI concept. The MO is willing to implement this innovative concept that requires a considerable amount of flexibility, vision and hard work. Second, the European Commission supported the PCI idea, giving a green light to ROP modification in order to allow PCI financing. The two parties also gave a strong backing to the idea that PCI's management should be made up of the most competent professionals available on the Polish (and even European) market, and that it should be selected in an open and competitive process. Such a strong top-down leader-

ship and support should also ensure proper implementation of the PCI concept as well.

To exploit the commercial potential of the R&D equipment, the universities have to first free up the so-called “20% of capacity” of their equipment.

The term “freeing-up of R&D equipment” refers to the process of amending the contracts (annexing) to purchase R&D equipment and accompanying infrastructure, which were signed by universities several years ago. Recent decisions by the European Commission make it possible to amend those contracts in a way that allows “up to 20% of equipment’s capacity” be used for “non-essential purpose” (ancillary). Because the R&D equipment and infrastructure was purchased with the intention of being used for primary research or educational purposes, in practice “non-essential purpose” means the use of R&D equipment for applied research and commercial applications. Amending these contracts is underway and requires preparing a methodology and procedures for monitoring the utilization of the R&D equipment’s capacity that was freed-up.

Pooling together universities’ resources for commercialization seems complex; accomplishing it will require

time and goodwill. Specialized professional skills for R&D commercialization are in short supply at the Podkarpackie universities. Early in the PCI design, the universities ruled out a proposal of creating a single, joint SPC (owned by all universities) that would pool their resources to tackle R&D commercialization. For that reason, the PCI model assumes that each university will continue with own SPC (that will be the counterparty to the PCI). By showing a commercialization success, the PCI concept is to gradually convince the universities that scale and scope matter, and make them more receptive to collaborate with each other and pool resources.

To ensure the sustainability of the PCI, it has to have a clear value proposition for the key stakeholders.

The PCI will have to prove that it is able to generate higher rate of R&D collaboration between the universities and business that could be measured by a higher rate of innovative R&D projects and start-up companies, higher licensing fees or royalties, higher rate of student collaboration with businesses. Table 2 presents selected benefits to the stakeholders of the Podkarpackie ecosystem from increased intensity of the R&D collaboration.

Table 2. Selected benefits for major stakeholders resulting from a high intensity of R&D collaboration

Universities (SPCs, TTCs)	Inventors	Students	Enterprises	Region	Investors
<ul style="list-style-type: none"> • More potential clients for university IP and contract research work • Potential for private funding of research work • Increased attractiveness of universities to potential students 	<ul style="list-style-type: none"> • Ease of attracting investors • The “networking effect” (easier to find skilled people, make business contacts, etc.) 	<ul style="list-style-type: none"> • Attractive local employment opportunities • Supportive environment for young entrepreneurs • Increased value of degrees from local universities 	<ul style="list-style-type: none"> • Access to skilled student base and R&D • Innovation flows up and down the supply chain • Easier access to university-based R&D 	<ul style="list-style-type: none"> • Higher tax revenue base • Ability to attract direct investment (including FDI) • Positive spill-over effect into other industries 	<ul style="list-style-type: none"> • Attractive pipeline of potential projects • The “networking effect” (easier to find the right managers, skilled people for target companies)

Source: The World Bank

Some universities may require more time to realize full benefits of the PCI and enhanced R&D collaboration with business.

The Rzeszow University (RU), can be a more demanding partner for the PCI to collaborate with, because their R&D cooperation with business is at an earlier stage of development compared with that at the technical schools, like the RUT. For instance, the RU has to still set up its own SPC and use it to commercialize its IP. The RUT already possesses a SPC, its TTC employs over twenty staff, and the school has much longer tradition of successful R&D collaboration with business.

Quality matters – the top professionals are a “must-have” for the success of the PCI.

All interviews with successful technology transfer offices pointed out the same key success factor, i.e., the quality of people. They are the driving force and they will decide about the success or failure of the PCI. Good, experienced professionals who understand the sensitivities of the university environment and are devoted to the mission of the PCI will have to form the core of the PCI management team. Involving competent and committed people will also be important for other parties involved, such as the MO, the universities and the Podkarpackie companies.

ACTIVATING ENTREPRENEURSHIP IN DEPRIVED AREAS (PODKARPACKIE AND SWIETOKRZYSKIE)

Why?

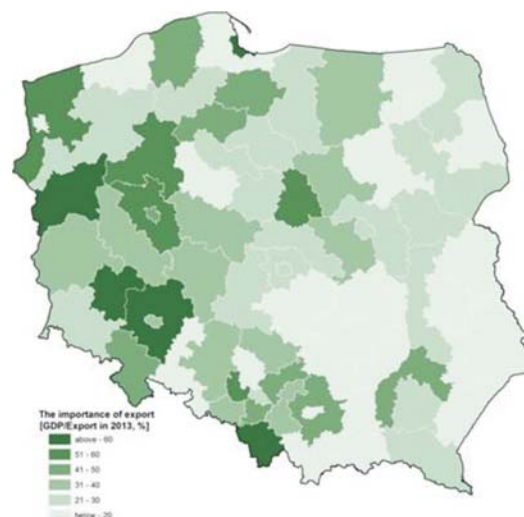
Increased growth and competitiveness of SMEs is a key part of Podkarpackie and Świętokrzyskie regional efforts to address 'lagging regions'.

At the *voivodeship* level, both regions have a relatively low number of registered enterprises and low number of start-ups per capita. Moreover, exports form a relatively low share of regional income (see Figure 5). This is problematic, since exports have a symbiotic relationship with firm-level productivity and innovation, as well as bringing new income into the regional economy. At the *poviat* level, some areas suffer particularly severely from a lack of jobs, low incomes, and uncompetitive firms.

Preparatory research by the World Bank team revealed some key insights on SMEs in the lagging areas.

These insights are described in more detail in the main report and its Annexes, and are based upon in-depth interviews with 40 SMEs in the two regions during mid-2016.

Figure 5. Exports as a share of GDP – lower in Podkarpackie and particularly in Świętokrzyskie than elsewhere in Poland



Source: Analysis of Chamber of duty data from Komornicki & Czapiewski, 2016.

- **Almost all interviewed SMEs were finding it tough to compete, inside and outside their region.**

Most SMEs we interviewed were competing on costs and price, because of a lack of differentiation of their product compared to competitors (thus making it difficult to earn a premium price). Most SMEs compete in markets where only minimal quality standards are required, thus they are stuck in a race to the bottom on price. SMEs (especially smaller ones) are often subcontractors to larger firms, and have little power to negotiate prices because their products are widely available, and thus they cannot exercise market power.

- **However, SMEs in both regions have potential to grow.**

Examples are demonstrated by a few SMEs, producing tradable goods and services, that have successfully differentiated their products, established a 'niche' or brand, and have quickly expanded, creating more jobs and increasing their revenues from exports. Examples include: a producer of hand-made glass decorations that now has national and foreign buyers and is increasing its production capacity; a manufacturer of specialized mirrors that has increased its production capacity 25 times in the last 10 years.

In recent years, publicly-funded business support measures have focused on Business Support Institutions (BSIs) as interlocutors to provide market advisory and other services to SMEs.

However, our team's interviews suggested there is a shortage of such services. SMEs declared a need and a willingness to pay for a range of consultancy services, but often would pay, "as long as it is of good quality. Sometimes it turns out we know more than the 'expert.'" SMEs also recognized the need, and the potential benefits, of group services, but were unwilling to

pay for them (fearing difficulties in implementation, and a risk of 'free-riding' by SMEs who did not pay). Thus there is a desire to make these services more responsive to firms' needs.

The European Commission asked the World Bank to assist in the development and implementation of a system to stimulate uptake of services by SMEs.

The World Bank was asked to propose how SMEs can better take advantage of services offered by public institutions in lagging areas, and to recommend how to adjust services provided to SMEs by the BSIs in the region. The team was asked to focus on four *poviats* as a means to understand the economic opportunities and needs of 'lagging areas': Brzozów and Leżajsk in Podkarpackie; and Sandomierz and Staszów in Świętokrzyskie.

The aim of an Enterprise Competitiveness Scheme (ECS) would be to help SMEs compete more successfully in local, regional, and international

markets. In practice, this means helping declining and stagnating SMEs get out of their downward trend, and helping SMEs with constrained potential become 'rising champions'. Some SMEs have strategic investment plans, but had not implemented them; others had no plan to get out of their situation; and the most successful firms will need to further adapt and sustain their competitive niche in existing or new markets.

Based on this range of needs, a diversity of services will be required – often customized at the individual SME level.

Consulting services to support the growth of SMEs must be specialized according to particular industries and particular firms. For example, market opportunities to export apples will be different to those to export glass decorations, and assistance needs will vary by business size, management structure, willingness to take risks, and so on. It is reasonable to assume that delivery of these services will need to be tailored to the needs of each firm.

How?

The proposed Enterprise Competitiveness Scheme (ECS) was designed through the following process:

- (i) **Assessment of demand and needs for business development services by SMEs** – including though in-depth, one-on-one interviews with 40 SMEs in the targeted lagging districts;
- (ii) **Assessment of current supply of business development services**, through interviews with approximately 20 BSIs;
- (iii) **Stakeholder group meetings (discussion seminars)** with the authorities in the four targeted *poviats* during June 2016;
- (iv) **Review of prior schemes and 'good practice' documentation.** The team accounted for patterns

observed in successful schemes elsewhere in the world;

- (v) **Internal team design proposals.** In order to lessen the risk of 'group-think,' the team of five core members split into two groups and independently designed proposals. The team coordinator then selected the best features from each one;
- (vi) **Technical discussions with the Marshals' Offices of Świętokrzyskie and Podkarpackie**, during technical seminars in November/December 2016;
- (vii) **Key decisions put to the project Steering Committee**, which considered several alternative options for each major element in the scheme's design;
- (viii) **Economic and Financial Analysis**, which aims to forecast the approxi-

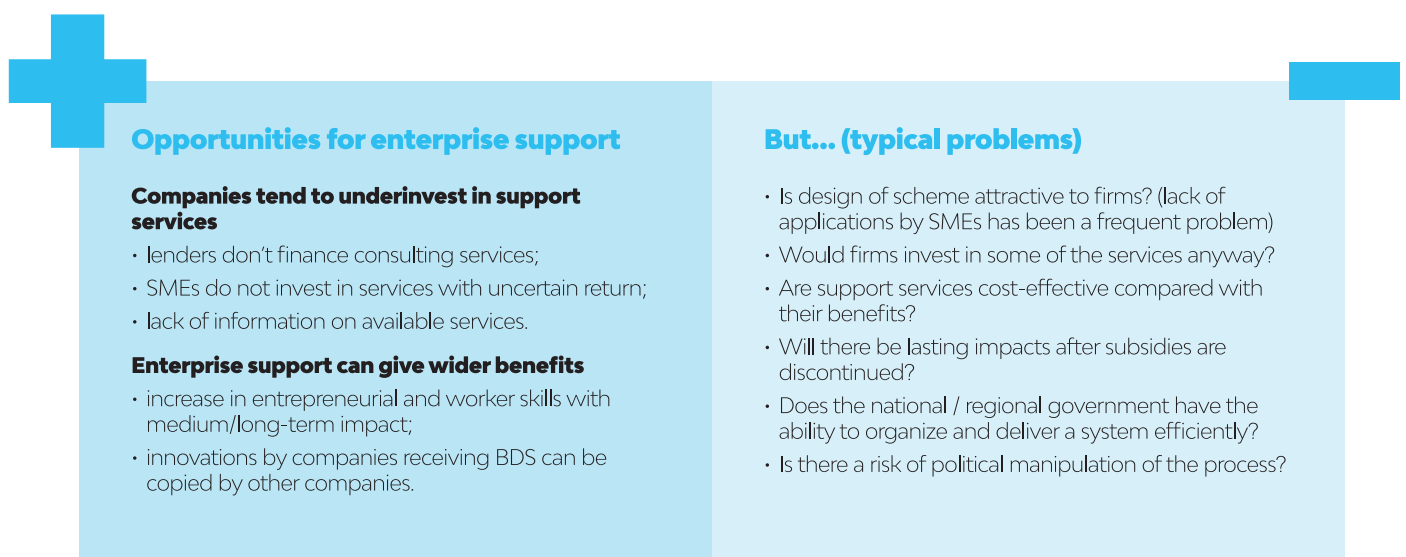
mate impact of the ECS scheme, including an analysis of the core assumptions and their effects on the scheme;

- (ix) **Final report drafted and peer reviewed.** Three peer reviewers with substantial and diverse experience were chosen: two from within the World Bank (senior and lead economists), and one Professor from Warwick Business School, UK, who is a recognized expert on SME voucher schemes;
- (x) **Feedback and comments incorporated.** Comments were received

from the European Commission, the Polish Ministry of Economic Development, the Marshal's Office of Świętokrzyskie, and the Marshal's Office of Podkarpackie. A Steering Committee in February 2017 decided on the remaining unresolved issues, and the final report was revised accordingly.

In designing this project, the team was keen to mitigate a number of key risks associated with supporting competitiveness of SMEs. These are summarized below in Figure 6.

Figure 6. Opportunities and typical problems with enterprise support schemes



Therefore, several 'good practices' of successful comparison projects were incorporated in the design of this scheme:

- Scheme is based on SMEs' needs analysis (i.e. the scheme design is demand-led);
- Clear policy objectives (i.e. increased ability of SMEs to compete successfully);

- Simple and clear application criteria, and low-entry barriers compared with traditional grant programs;
- Flexibility in use of vouchers (i.e. recipients should have some freedom to decide on the best uses);
- Availability of an independent advisor, to provide objective guidance to SMEs.

What was achieved?

The Enterprise Competitiveness Scheme (ECS) is proposed to offer three windows for enterprise support services: Operational; Strategic; and Group. In all three windows, SMEs will

receive public financial support for co-financing of business advisory services to improve competitiveness and contribute to regional economic growth. A summary of each window is provided in Table 3.

Table 3. Three windows for SMEs: Operational, Strategic, and Group

	1. OPERATIONAL	2. STRATEGIC	3. GROUP
Target SMEs	SMEs need to <u>improve, refine, or expand existing operations</u> – but perceive services as expensive and of uncertain quality / benefit.	SMEs need to <u>change firms' orientation, develop new product(s), or enter new market(s)</u> – but perceive services as expensive and of uncertain quality / benefit.	SMEs need to <u>release some constraints that afflict several SMEs collectively</u> – but perceive services as expensive and of uncertain quality / benefit.
Eligible SMEs	Tradable goods & services only (agribusiness, light manufacturing, tourism, etc). Excludes retailers and other non-tradable local services.		
Example services	<ul style="list-style-type: none"> • Smaller, simpler marketing actions, website preparation; • Assistance entering foreign markets (basic information); • Elaboration of applications for commercial financing; • Legal services; • Specialized training; • Managerial training. 	<ul style="list-style-type: none"> • Strategic business planning, product development (branding; differentiation; innovation); • Production process improvements (cost optimization & efficiency); • Assistance entering new foreign markets (tailored strategy). 	<ul style="list-style-type: none"> • Services provided to a group of firms to achieve joint objectives (e.g. regional branding; tourism joint products; export promotion; market intelligence; industry trends; client recognition).
Anticipated budget ⁶	Approx. 14% of total	Approx. 42% of total	Approx. 22% of total
Rate of co-financing	ECS provides 50% of contract value	ECS provides 60% of contract value	ECS provides 85% of contract value
Value per voucher ⁷	5 000 PLN to 12 500 PLN	15 000 PLN to 120 000 PLN	120 000 PLN to 2 000 000 PLN
Max duration	12 months	18 months	24 months
Application process by SMEs	Simple single-stage (formal eligibility of SME and service)	Two-stage (eligibility + diagnostic assessment)	Via a consortium
Information platform	All service providers and tenders searchable on single centralized website (one per <i>voivodeship</i>)		
Verification	Short report on completion		Report every 3 months

⁶ These window sizes are guidelines and can be reviewed according to demand. The remaining 22% is estimated for overhead costs: the ECS Administrator; 'ECS marketplace' website; IAs; Evaluation Committee; and internal costs of the Marshal's Offices.

⁷ These values show the contribution from public resources. The total size of the services contract will be larger, e.g. the 12 500 PLN maximum for an operational voucher will yield a 25 000 PLN services contract (@ 50% co-financing rate), and the 120 000 PLN maximum for a strategic voucher will yield a 200 000 PLN services contract (@ 60% co-financing rate).

Full eligibility criteria are provided in the report on this activity, but we should highlight two ‘radical’ proposals here:

- **Recommendation to exclude firms of less than three employees.** The rationale for this proposal is that 95% of all firms in the two regions are micro-size (less than 10 employees), but firms of between zero and two employees have yet to prove themselves capable of scaling-up and contributing to regional job growth. Other programs exist to assist micro firms and start-ups; meanwhile, this scheme is designed to help existing small firms scale-up and increase their competitiveness. Firms with three to nine employees can be considered to have ‘self-selected’ as possessing growth potential.
- **Recommendation to include only firms engaged in the production of tradable goods and services.** Tradable goods and services are those that can be traded across geography, rather than produced and consumed only in a local market⁸. The exclusive focus on tradable goods and services is for three reasons:
 - i. Tradable goods and services *increase export revenue, or diminish leakage of income through imports*, hence contributing most directly to regional income growth;
 - ii. Firms engaged in producing tradable goods and services are *competing predominantly with firms outside the poviats and regions* (therefore there is less danger of supporting some firms at the expense of other firms in the same area – i.e. a ‘win-lose’ situation);
 - iii. Export-oriented tradable goods and services are a route to *higher productivity and innovation*.This eligibility requirement does not mean that recipient firms are *already* exporters: rather, they are engaged in products and value chains that have the *potential* to be exported.

In terms of service providers, service providers will not be limited to BSIs. BSIs will compete with commercial providers of business development and consultancy services, to provide services to SMEs. Additionally, service providers will not be limited to those only in Podkarpackie or Świętokrzyskie. In pursuit of greater efficiency and competency, service providers outside the two regions will be able to bid on contracts under the ECS scheme.

This transition will not be easy for BSIs. Our background research in Podkarpackie and Świętokrzyskie showed that few BSIs are skilled in responding to market needs, according to demand from SMEs. BSIs have become adept at implementing projects financed by EU Funds, but are focused largely on these publicly-funded services, with relatively few offers on a commercial basis. Furthermore, most BSIs provide general services and do not specialize in specific economic sectors or type of services. This low-level of specialization also means that BSIs’ services are rather basic, and only some of them are able to provide more advanced services (usually through mobilizing external experts). Interviews with SMEs reveal that they perceive BSIs’ services to be susceptible to poor quality delivery. BSIs will need to make efforts to build closer links with enterprises and focus on tailored, accessible, services for enterprises. In Świętokrzyskie, some support for this effort may remain available under ROP measures 1.3 and 2. In Podkarpackie, BSIs should be ready for to move towards the commercialization of their services on their own accord.

Three additional ingredients are proposed to ensure that the Enterprise Competitiveness Scheme functions efficiently:

- **Administrator.** The role of the administrator is to publicize and promote the scheme, administer vouchers (including selection of successful

⁸ Examples of tradable goods and services include: agricultural products, manufactured goods, ICT services, and tourism. Examples of non-tradable goods and services include: retail (shops), taxi services, hairdressing, household cleaning services, cafés, plumbing services, and motor vehicle repair

applicants, quality control, payments and financial control), maintain the online 'marketplace' platform, and continually monitor the program to increase efficiency.

- **Independent Advisor (IA).** The role of the IA is to catalyze the ECS system, by providing advisory services to SMEs to assist in diagnosing their needs, preparing good quality applications, and selecting service providers. In essence, the IA acts as a 'broker' to ensure a smooth transaction between the SME, the service provider, and the ECS Administrator.
- **'Marketplace' website.** The role of the 'marketplace' is to provide an efficient way for SMEs to find and procure the best service provider for their needs. It provides an online database of service providers, together with reviews of those providers left by client SMEs.

Lastly, it should be noted that the ECS scheme will co-exist with at least two other Operational Programmes (OPs): Eastern Poland and Rural Development. Some similarities exist (particularly Measures 1.2 and 1.4 of the Eastern Poland OP). However, there are some key differences: the Eastern Poland OP is more selective (it requires SMEs to be ready to export, while the ECS scheme will support a wider range of SMEs); it has a broader range of eligible expenditures by SMEs (whereas the ECS focuses narrowly on business services); and it will support a few large projects (while the ECS will support a larger number of SMEs with smaller contributions). Eligible expenditures in the Eastern Poland OP can reach a maximum of 3.1 million PLN per company, while eligible expenditures under the ECS will be limited to 200 000 PLN per company. In addition, there is some similarity with the Baza Usług Rozwojowych (BUR) scheme, but BUR focuses on training, while the ECS is geared towards expanding the business services sector.

Lessons learned

Lessons learned will be identified once the scheme is underway and being implemented. During the research and design of the scheme, the main lesson learned is that high potential SMEs exist even in 'lagging areas'. During implementation, the scheme should be judged according to its ability to generate an increase in demand by SMEs for business development services, which are in turn effective in increasing growth and competitiveness for SMEs in the target areas. These should contribute to increased exports and increased jobs, as part of regional economic growth.

During implementation, it will be important to monitor the performance of the scheme. The financial analysis

prepared by our team estimates that the ECS will have a positive net impact if it increases the sales growth rate of SMEs by 29% (e.g. raising the annual growth rate of a beneficiary SME from 1% to 1.29%, or from 2% to 2.58%, etc). This target for increases in sales should be taken as a 'hurdle rate' for the ECS - i.e. if the rate of a 29% increase in growth rate is not met, then the scheme is not likely to achieve a positive net impact. If this rate is not reached in a given year, a clear action plan should be formed by the ECS Administrator to succeed the following year. If the target value is not reached two years in a row, the scheme should be heavily revised or cancelled, since it is not adequately improving the competitiveness of SMEs.

EASIER BUSINESS REGISTRATION (PODKARPACKIE AND SWIETOKRZYSKIE)

Why?

All Polish regions share the same regulatory framework for registering a limited liability company. However, according to the World Bank's "Doing Business in Poland 2015" report, there are significant differences in the ease of doing business among 18 Polish cities. Kielce and Rzeszów, the capitals of the Świętokrzyskie and Podkarpackie voivodships are ranked third- and second-to-last in the ease of business registration, largely because registration takes 36–37 days, compared to eight days in Poznań, the city with the fastest registration divisions.

The World Bank identified three main aspects of the problem:

- The uptake of the nationwide S24 online registration service was be-

low its potential in Podkarpackie and Świętokrzyskie, with less than half of the applications filed through it, even though it is two times cheaper, four times faster, and significantly more reliable than paper registration.

- Approximately one fifth of applications is returned or dismissed, which in practice doubles or sometimes triples the time to register, while creating additional workload and backlogs in courts.
- Backlogs, caused by seasonal spikes in caseload and complicated work processes in registration divisions, slow down the review of applications.

How?

The World Bank's technical assistance on easier business registration in the Podkarpackie and Świętokrzyskie voivodships under Activity 3 of the Lagging Regions Initiative was divided into two phases of six months each. In the first phase (April – September 2016), the World Bank conducted a review of international and national best practices in business registration and benchmarked them with the situation in Podkarpackie and Świętokrzyskie on the basis of its *Doing Business* methodology. This phase produced detailed recommendations on easier business recommendations, which were then implemented in the second phase, from October to March 2017. The work

was carried out in close collaboration with the institutions represented in the Lagging Regions Steering Committee, as well as the Ministry of Justice, District and Appellate Courts in Kielce and Rzeszów, the National School for Judges and Prosecutors, and business support institutions in the two regions.

Three priority areas of intervention were identified to make it easier to register a limited liability company in the Podkarpackie and Świętokrzyskie voivodships:

- Encouraging online registration;
- Limiting returned applications;
- Expediting application processing.

Encouraging online registration

Encouraging online registration was identified as the most important step that the Podkarpackie and Świętokrzyskie voivodships could take to make business registration easier. This required promoting the existing registration service, S24 (administered by the Ministry of Justice), through an online advertising campaign, as well as better communication in district courts and via business support institutions and firm associations in the regions.

The online advertising campaign focused on providing reliable information about the advantages of the electronic registration service to potential applicants. The Ministry of Economic Development's portal <http://www.biznes.gov.pl> was identified as best placed to provide authoritative and comprehensive information about online registration of com-

panies. Existing information on S24 was upgraded and new content added by the World Bank team in collaboration with the website's administrator, the Ministry of Economic Development.⁹ This improved the searchability of the information about online registration and directed users to official, verified content. Once the landing page had been improved, an online advertising campaign was rolled out in November 2016. The campaign was restricted to users in Podkarpackie and Świętokrzyskie. Between November 2016 and February 2017, the online ads were displayed 10.7 million times, which led to almost 40,000 unique referrals to the landing page about online registration (see Figure 7). As a result, the website is currently being displayed as the top result for the majority of applicable search phrases (it ranked fourth in search results at the outset of the campaign).¹⁰

Figure 7. Results of online advertising campaign



Source: World Bank staff based on Google Analytics

In addition, conventional hardcopy advertising materials (leaflets and posters, see Figure 8) were prepared and distributed through the District Courts in Rzeszów and Kielce, as well as to over 20 business chambers and support institutions in the regions. Several business support institutions have also used these materials for e-mail campaigns to affiliated entrepreneurs. Staff at the help desks in both court registers has been trained to reach out to potential applicants about the online registration service and its advantages.

Limiting returned applications

In order to limit the number of returned applications, in August and September 2016 the World Bank reviewed more than 300 cases to identify the most common errors made by applicants. This review found that most of the errors could be avoided by providing applicants with clear instructions. Applicants adhering to these instructions could reduce the risk of their application being returned or dismissed by an estimated 96%. The World Bank team used its review of returned applications to prepare and pilot

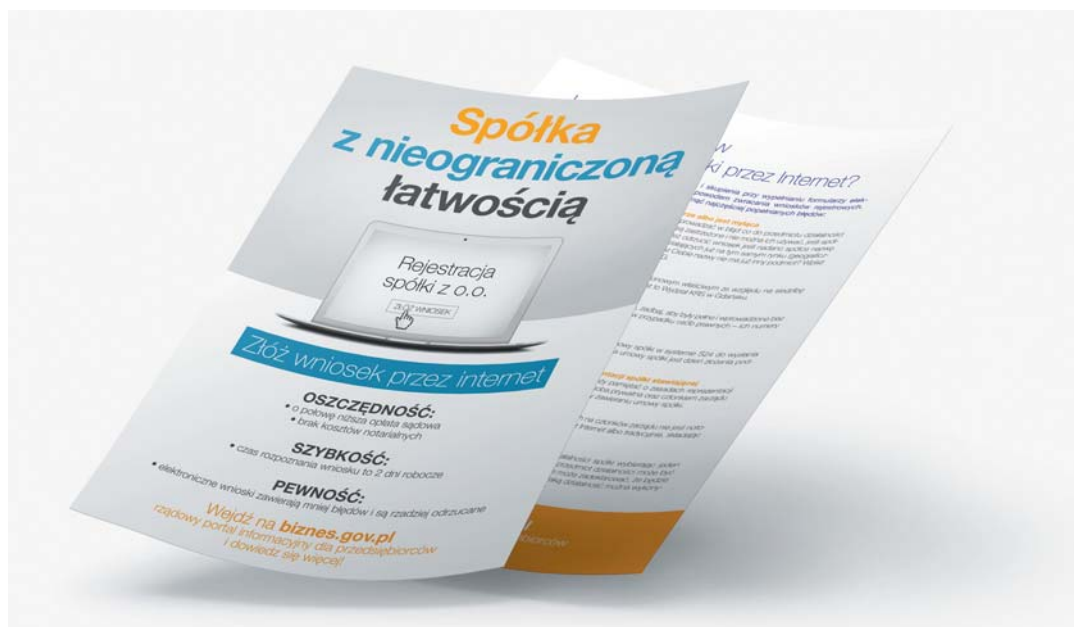
⁹ <https://www.biznes.gov.pl/przedsiębiorcy/biznes-w-polsce/zakladam-firme/rejestracja-dzialalnosci/rejestracja-spolki-z-o-o>

¹⁰ Verified on 23.09.2016 and on 28.02.2017 in incognito mode search through www.google.com, the most popular search engine in Poland with 96% market share

from October 2016 to March 2017 new guidance for applicants. The guidance was published by the Ministry of Economic Development on its portal <http://www.biznes.gov.pl>¹¹ and is used by district courts' staff in their daily interactions with entrepreneurs. The guidan-

ce has been also printed on the backside of leaflets, which have been made available at various business support institutions and at district courts. These materials were used during the marketing campaign and will continue to be promoted by district courts.

Figure 8. Online registration – hardcopy advertising materials



Note: The front of the leaflet, also printed as a poster, communicates the advantages of online registration (it is cheaper, faster, more reliable) and refers to government websites. The backside of the leaflet provides guidance on how to avoid the 12 most frequent errors in applications.

In addition, the World Bank team organized a one-day workshop with adjudicating staff from District Courts in Kielce and Rzeszów in January 2017 to upgrade their skills and unify divergent interpretations of the law. The workshop was organized in partnership with, and on the premises of, the National School for Judges and Prosecutors. The adjudicators were trained, for the first time since the launch of the S24 service, in using this platform. They also reviewed and worked out consistent interpretations for a number of legally challenging cases.

The World Bank team also prepared and shared in November 2016, with the Ministry of Justice, technical recommendations on how to validate automatically applications submitted online and guide

users through the registration process. An improved user experience can significantly ease business registration as automating the validation of applications and embedding tooltips in the registration process can avoid the vast majority of returns. The Ministry of Justice committed to introducing these changes by December 2016, but implementation has stalled.

Expediting application processing

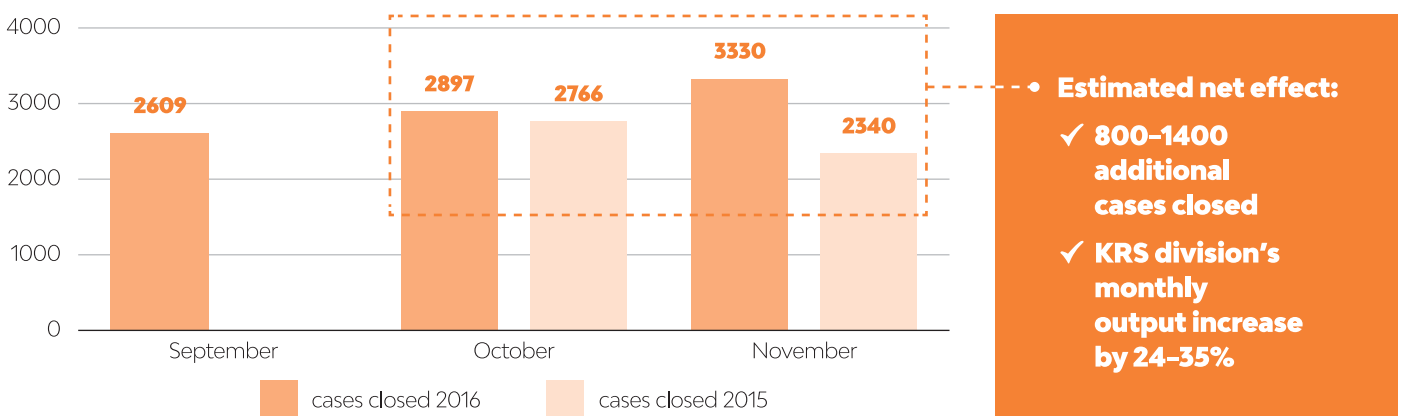
The problems of seasonal spikes in workload of registration divisions and subsequent backlogs was addressed by working out flexible staffing arrangements and offering staff incentives to close more cases. The World Bank assisted,

¹¹ For online registration: <https://www.biznes.gov.pl/przedsiębiorcy/biznes-w-polsce/zakladam-firme/rejestracja-dzialalnosci/rejestracja-spolki-z-o-o/jak-uniknac-bledow-przy-internetowej-rejestracji-spolki>
For paper applications: <https://www.biznes.gov.pl/przedsiębiorcy/biznes-w-polsce/zakladam-firme/rejestracja-dzialalnosci/rejestracja-spolki-z-o-o-w-sposob-tradycyjny/jak-uniknac-bledow-przy-rejestracji-spolki-z-o-o>

among others, in preparing and piloting a performance-based bonus among the administrative staff of business registration divisions. In Rzeszów, such a scheme was introduced in the last week of October and throughout November 2016. The bonus scheme resulted in closing 800–1400 additional cases and provided valuable lessons in performance management (see Figure 9). The District Court in Kielce introduced a similar bonus scheme in December 2016 for two members of the administrative staff charged with removing bottlenecks. In addition, the District Court in Kielce entered into

an agreement with a local university to introduce paid three to four months traineeships for young graduates, allowing registration divisions to better manage workload peaks. It is the first time that the District Courts in Kielce and Rzeszów used flexible staffing and results-based rewards, and after successful pilots the courts are considering to introduce such schemes in future. The introduction of bonus schemes was supported through several workshops and working meetings in Kielce, Rzeszów, and Warsaw in October/December 2016 and March 2017.

Figure 9. Number of cases closed by administrative staff in court registration division in Rzeszów



Source: District Court in Rzeszów

Note: Clerk assistants were eligible for a bonus of 20%–40% of base salary from October 24th to November 30th. Nine clerk assistants participated. Payout depended on the number of cases closed. Even though the registration division was overwhelmed with work during this part of the year, significant output gains were achieved, both in comparison to output in September 2016 (2609 cases), average monthly output in 2016 (2115 cases/month), as well as in relation to the actual output in the same period in 2015 (2340–2766 cases). Staffing levels did not change significantly, with 10 adjudicating staff and 10 assistants employed full-time in the registration division in 2015 and eight adjudicating staff (plus 0.1 FTE of one judge) as well as nine assistants + two support staff in 2016. In the last week of October, the daily output increased by 60% after the introduction of the bonus (1283 cases closed in seven work days between October 24th and 31st vs 1614 cases closed in 15 work days between October 1st and 23rd).

The problem of fragmented workflows and IT systems was addressed by encouraging managers to use monitoring tools for management of the case flow in the KRS division. For example, the case review in Kielce revealed that business registration is delayed on average by 4.7 days after the judicial review has been completed, when assistants need to type the applicant's details into the business registry. This insight informed a reorganization of the workflow. The World Bank advised the Ministry of

Justice, the administrator of four IT systems used in registration divisions, on integrating back office systems to expedite application processing. World Bank evidence shows that a full integration of existing systems coupled with other measures could reduce the number of work steps from 17 to five per case. The Ministry included integrating back office systems in its plans, but it has not yet submitted a project in this regard for co-financing from the European Social Fund.

What was achieved?

A rise in the share and absolute number of online registrations in Podkarpackie and Świętokrzyskie (see Table 4) has been observed during the duration of the Lagging Regions Initiative.

The share of applications to register a limited liability company that were filed electronically grew faster between the second

and last quarter of 2016 in both regions, than the average in Poland. Consequently, and given the growth in the number of registered firms, more companies were registered online in Podkarpackie and Świętokrzyskie in the last quarter than in the second quarter of 2016 (as well as any previous point in time).

Table 4. S24 uptake for online registration of limited liability companies

	Kielce	Rzeszów	All other registers	Registered companies in Poland
IV – VI 2016	52.4%	58.1%	50%	13,971
VII – IX 2016	62.3%	62.3%	52%	12,736
X – XII 2016	62.4%	62.4%	56%	15,030
TOTAL 2016: 55,728				

Source: Ministry of Justice

With regard to limiting returned applications to register a company, the immediate results of interventions are yet to be seen.

This is due to the fact that guidance has been only available since November 2016. It can be observed, however, that the Lagging Regions Initiative coincided in the last quar-

ter of 2016 with a significant drop in returned paper applications, which was not observed in the rest of the country (see Table 5). Given delays in usability upgrades of the business registration system S24, the Lagging Regions Initiative did not coincide with a decrease in the share of returned electronic applications.

Table 5. Percentage of rejected or returned applications to register a limited liability company

	Kielce		Rzeszów		All other registers	
	S24	paper	S24	paper	S24	paper
IV – VI 2016	15.7%	34.4%	9.0%	21.1%	11.7%	19.6%
VII – IX 2016	10.0%	32.7%	8.3%	26.3%	11.4%	21.9%
X – XII 2016	16.8%	28.8%	9.8%	14.4%	11.0%	20.7%

Source: Ministry of Justice

The Lagging Regions Initiative coincided with an increase in the number of applications that were processed in the Kielce and Rzeszow District Courts without undue delays

(up to three days for electronic submissions and up to 14 days for paper submissions).

This improvement has not been observed in other district courts in Poland (see Table 6). This increase in the number of applications was achieved even though the District Courts in Kielce and Rzeszów closed significantly more cases in the last quarter of 2016 than in previous quarters.

Table 6. Percentage of applications reviewed within reasonable timeline

	Kielce			Rzeszów			All other registers	
	S24 ≤ 3 days	Paper ≤ 2 weeks	cases closed	S24 ≤ 3 days	Paper ≤ 2 weeks	cases closed	S24 ≤ 3 days	Paper ≤ 2 weeks
IV – VI 2016	75.5%	57.0%	198	76.2%	61.1%	429	80.1%	67.1%
VII – IX 2016	76.3%	61.1%	135	79.2%	55.6%	425	74.9%	51.5%
X – XII 2016	83.2%	60.8%	185	72.9%	64.7%	529	77.9%	55.1%

Source: Ministry of Justice

Lessons learned

There are many measures at the local level to be taken by district courts to ease business registration.

In the past, efforts to make it easier to register a firm in Poland focused on the national level – reforming laws and regulations, and introducing electronic registration. Now the time has come to supplement these efforts with adequate implementation on the ground. The Lagging Regions Initiative demonstrated several ways to improve the performance of registration divisions: promoting e-registration, providing guidance to applicants, simplifying work processes, improving work incentives, and monitoring the case flow. Achieving improvements at the local level requires strong leadership from heads of district courts, who need to deal with a large number of veto players supervising staffing, budgeting, and internal compliance.

Justice sector reforms require more attention to detail and involvement of local stakeholders.

The experience of managers in district courts is that there are many modernization projects happening “above their heads” but there is limited or no effort to bring them on board

with the changes. For instance, five years after the online registration service S24 was introduced, staff was not trained in its application. The court’s management is open to new ideas, but it needs to be involved closely in the design of reform to ensure buy-in and smooth implementation.

Performance pay can boost the efficiency of registration divisions in the short term.

The public sector hardly ever uses bonus schemes tying employees’ remuneration to output, even when it involves routine tasks and is permitted by the law. Earlier attempts to introduce performance pay in Kielce and Rzeszów failed because the bonuses were inadequate and output not tracked. The pilot scheme implemented in Podkarpackie was proposed on a voluntary basis, with a bonus dependent on the achievement of pre-defined metrics, scalable to actual performance of the employee. The bonus scheme boosted the registration division’s monthly output by about one third and should be used to address seasonal spikes in workload.

FINANCIAL INSTRUMENTS (PODKARPACKIE)

Why?

A portion of the financial allocation of the 2007–2013 Regional Operational Program (ROP) of the Podkarpackie voivodship supported financial instruments (loans and guarantees) that were distributed by the financial intermediaries selected for implementation by the Program Managing Authority (Voivodship Board). Upon completion of the supported projects, the allocated capital must be repaid, after adjustments for losses and management costs as well as gains (interest on loans and bank deposits). As an external revenue source, the repaid capital may then be used for similar projects that provide financial support to micro, small, and medium-size enterprises (SMEs) development. This requires developing and setting-up a regional mechanism (built into the 'exit strategy'), based on capital from the previous programming perspective to provide financing to intermediaries whose instruments aim to decrease the region's financing gap. But,

development of such a program must take into account the planned support for financial instruments envisaged within the current ROP 2014–2020.

The Marshal Office of Podkarpackie voivodship asked for World Bank experts' support in order to:

The Marshal Office of Podkarpackie voivodship asked for World Bank experts' support in order to:

- (1) Develop the 'exit strategy' for financial instruments supported under ROP 2007–2013;
- (2) Design the distribution model, including setting-up the regional authorities' 'in-house' entity, responsible for managing the process of resources distribution;
- (3) Design new financial products as part of the investment strategy of the 'in-house' entity that address the regional financing gap and reflect the needs of the regional SMEs (better and easier access to external sources of finance that are complementary to instruments from the ROP 2014–2020).

How?

Technical assistance was based on a participative and cooperative process with the World Bank's experts (leading the consulting process within the scope of Lagging Regions Initiative of the European Commission) and stakeholders of the new regional finance delivery mechanism. Participants included the beneficiaries of projects supported by the ROP during 2007–2013 and now are the target of the new regional financial mechanism (i.e. a group of non-banking financial intermediaries, operating in the Podkarpackie region, that distri-

bute loans and guarantees for improving access to external capital sources to accelerate SMEs development in Podkarpackie). Other participating stakeholders were from regional Business Support Institutions. Representatives of the Podkarpackie Marshal Office were engaged in the consultancy process, formulating specific needs to the future regional financial instruments (summary of methods and participants – see Figure 10).

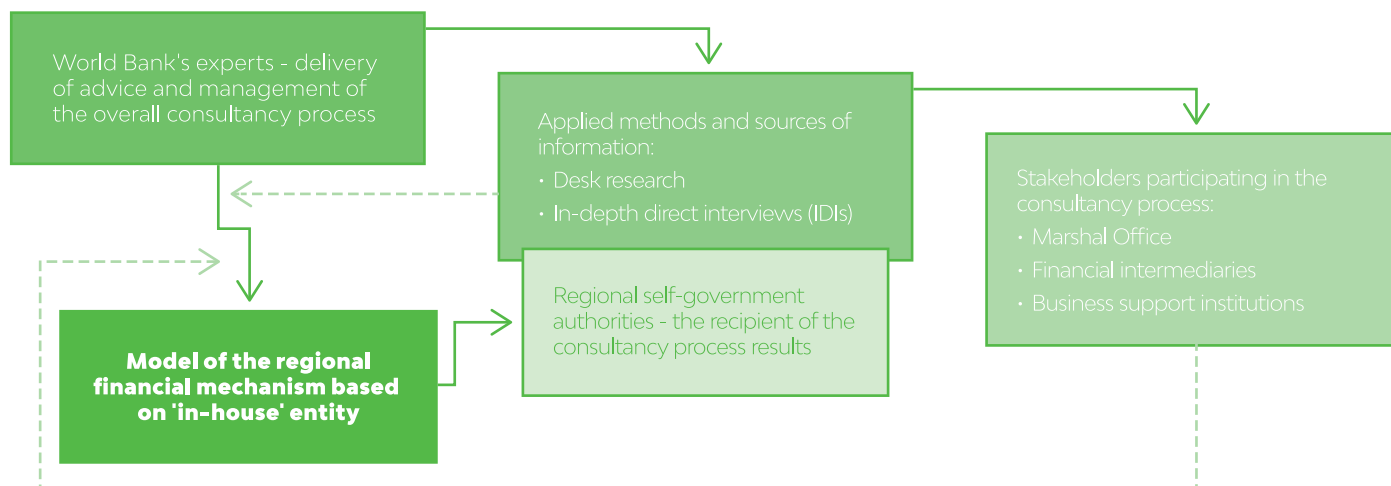
During the design phase of the new solutions concerning utilization of financial resources from ROP 2007–2013,

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experts relied upon the findings of the Ex-ante assessment of financial engineering instruments for Podkarpackie Voivodship ROP 2014–2020, ordered by the Marshal Office in 2014. Its findings helped to understand the causes of

the region’s financing gap, re-assess SMEs’ needs for access to capital, and determine the types of financial instruments envisaged under ROP 2014–2020. Some other information sources were also referred to by a thorough experts’ desk research.

Figure 10. Sources, methods and stakeholders of the consultancy process



In addition, the design team drew upon the experiences of other regions in Poland that implemented similar regional finance delivery systems (e.g. the *Dolnośląski Development Fund Ltd* and the *Pomorski Development Fund Ltd*). World Bank consul-

itants organized a study visit for representatives of the Podkarpackie Marshal Office to learn more about the *Dolnośląski Development Fund*, in particular, the practical issues concerning the ‘in-house’ model of financial instruments delivery to the regional market.

What was achieved?

Consultations by World Bank experts supported the creation of the Podkarpackie Development Fund Ltd (PDF), a regional financial vehicle that will be an ‘in-house’ entity in the voivodship. It is currently undergoing the registration preparatory phase.¹² The PDF’s scope of activity will comprise the following:

(1) Collection of financial resources from previously implemented instruments,

and (in the future) from other available sources (including resources from financial instruments funded under ROP 2014–2020);

(2) Design of new financial products according to survey-based responses reflecting strategic development needs of the regional SMEs;

(3) Place the new financial offer on the regional market, based on the activities of the PDF and a network of selected regional financial intermediaries.

¹² Based on the resolution of the Sejmik Województwa Podkarpackiego (Regional Legislative Council) as of 27th, February 2017 on giving consent to establish a company under the name of Podkarpacki Fundusz Rozwoju Spółka z ograniczoną odpowiedzialnością (*Podarpacki Development Fund, Limited Liability Company*)

Under the supervision of the PDF, financial intermediaries will be responsible for distributing financial resources made available to them by the PDF in the form of 'quota limits'. They will manage both the funding dissemination and recovery (responsible for capital repayments over an acceptable, agreed losses limit/cap).

For the initial implementation period, the PDF's investment strategy emphasizes the introduction of two types of loans to the regional market for: (i) financing SMEs' working capital needs; (ii) pre- or co-financing of projects implemented by regional enterprises within the framework of the Cohesion Policy for 2014–2020 (established as a response to the financial needs of

SMEs that arose during the ROP 2014–2020).

The World Bank's experts also analyzed and proposed recommendations for the strategic development of the PDF. These focused on organizational development of the entity, and concerned:

- (1) Building its financial capacity,
- (2) Implementation of new financial instruments (equity-based) and
- (3) Human resources development.

The experts also assisted representatives of the Marshal Office in establishing settlements with financial intermediaries concerning repayments of resources invested in financial engineering instruments under ROP 2007–2013.

Lessons learned

The technical assistance was of utmost importance because of the limited experience of the regional government with the financial instruments, the complexity of establishing such instruments on the regional level, and due to the conditions of the instruments' financial sources. The consultancy process was effective because stakeholders worked with World Bank staff thoroughly knowledgeable about setting up financial instruments that reflect the development needs of the regional SMEs and financial intermediaries in Podkarpackie voivodship and other regions of Poland. This enabled experts to act as an indepen-

dent intermediary in the sensitive process of setting-up the 'exit strategy', that requires mutual understanding and openness for cooperation between concerned parties (the regional authorities and financial intermediaries).

The future challenges will be ensuring that the PDF's financial instruments address the needs of the SMEs in the region and at the same time do not compete (or only to a limited extent) with the offer of the commercial, mostly banking, sector as well as with the other public funding available nationally and regionally.

