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Evaluation of Contribution of Implementing Structural Funds and Cohesion Fund to Reduce Regional Disparities in Slovakia

Final Report

September 2015
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<td>ALMP</td>
<td>Active Labour Market Policy</td>
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<tr>
<td>CCA</td>
<td>Central Coordination Authority</td>
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<tr>
<td>WTP</td>
<td>Wastewater Treatment Plant</td>
</tr>
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<td>T</td>
<td>Tourism</td>
</tr>
<tr>
<td>SCSTI</td>
<td>Slovak Centre of Scientific and Technical Information</td>
</tr>
<tr>
<td>LL</td>
<td>Lifelong Learning</td>
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<tr>
<td>ERDF</td>
<td>European Regional Development Fund</td>
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<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>ESF</td>
<td>European Social Fund</td>
</tr>
<tr>
<td>ESIF</td>
<td>European Structural and Investment Funds</td>
</tr>
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<td>EU</td>
<td>European Union</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HP</td>
<td>Horizontal Priority</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>CF</td>
<td>Cohesion Fund</td>
</tr>
<tr>
<td>CxA</td>
<td>Complex Approach</td>
</tr>
<tr>
<td>LSCxA</td>
<td>Local Strategies of Complex Approach</td>
</tr>
<tr>
<td>MRC</td>
<td>Marginalized Roma Communities</td>
</tr>
<tr>
<td>NHIC</td>
<td>National Health Information Center</td>
</tr>
<tr>
<td>NG</td>
<td>Non-repayable Grants</td>
</tr>
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<td>NSRF</td>
<td>National Strategic Reference Framework</td>
</tr>
<tr>
<td>NÚCEM</td>
<td>National Institute for Certified Educational Measurements</td>
</tr>
<tr>
<td>NUTS</td>
<td>Regional Structure Classification</td>
</tr>
<tr>
<td>HPD</td>
<td>Department of MRC Horizontal Priority Coordination</td>
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<tr>
<td>OP</td>
<td>Operational Programme</td>
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<td>OPIS</td>
<td>Operational Programme “Information Society”</td>
</tr>
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<td>PPP</td>
<td>Purchasing Power Parity</td>
</tr>
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<td>PP</td>
<td>Programming Period</td>
</tr>
<tr>
<td>MA</td>
<td>Managing Authority</td>
</tr>
<tr>
<td>ROP</td>
<td>Regional Operational Programme</td>
</tr>
<tr>
<td>SHMI</td>
<td>Slovak Hydrometeorological Institute</td>
</tr>
<tr>
<td>MBMA</td>
<td>Mediatory Body under the Managing Authority</td>
</tr>
<tr>
<td>SS</td>
<td>Secondary School</td>
</tr>
<tr>
<td>CSG</td>
<td>Community Strategic Guidelines</td>
</tr>
<tr>
<td>SVP</td>
<td>Slovenský vodohospodárs ký podnik</td>
</tr>
<tr>
<td>SF</td>
<td>Structural Funds</td>
</tr>
<tr>
<td>IIPE</td>
<td>Institute of Information and Prognoses of Education</td>
</tr>
<tr>
<td>JA</td>
<td>Job Applicant</td>
</tr>
<tr>
<td>COLSAF</td>
<td>Central Office of Labour, Social Affairs and Family</td>
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<tr>
<td>HEI</td>
<td>Higher Education Institution</td>
</tr>
<tr>
<td>PS</td>
<td>Primary School</td>
</tr>
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<td>E</td>
<td>Environment</td>
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1 Introduction

The Final Report evaluating the contribution of the implementation of Structural Funds and the Cohesion Fund to reduce regional disparities in Slovakia is presented as the main output resulting from the implementation of Partial Contract for Work No. 1266/2014. The purpose of the Report is to assess to what degree and in what manner did the implementation of the cohesion policy contribute to the reduction of regional disparities in the Slovak Republic in the 2007-2013 programming period. The significant disparities still persisting in regional development at NUTS III level are a major challenge for national policies in the context of regional development. Nevertheless, the primary purpose of the cohesion policy is to reduce the unwanted economic, social and territorial disparities between EU member states and regions. The impact of the structural funds and the Cohesion Fund on regional development was analysed as part of the strategic and specific priorities of the National Strategic Reference Framework and a number of selected measures with the highest potential to show effects at regional level.

The Report provides the reader a holistic picture about the scope of the support funded by the Cohesion Policy in the programme period, about the volume of the funds at the disposal of and those absorbed in individual regions. It also identifies the fields of support in which a positive or negative development in regional disparities was identified (i.e. the disparities were reduced or widened), and specifies the major factors contributing to such development. The structure of the Final Report complies with the terms of the assignment:

- Chapter 2 provides a summary of the main findings and recommendations.
- Chapter 3 provides an overview of the cohesion policy.
- Chapter 4 deals with the method of selecting the topics that are subject to analysis.
- Chapter 5 provides information on the initial situation of regional disparities.
- Chapter 6 deals with the financial progress achieved in the implementation of the Structural Funds and the Cohesion Fund as of 21 December 2014 as the prerequisite for positive impacts on regional development.
- Chapter 7 provides an analysis of the development of regional disparities in the area of Infrastructure and Regional Accessibility.
- Chapter 8 provides an analysis of the development of regional disparities in the area of Knowledge-based Economy.
- Chapter 9 provides an assessment of the cohesion policy interventions on the development of human resources.
- Chapter 10 identifies the major factors that affected the implementation of the projects in the 2007-2013 programming period.
Chapter 11 provides information on the links between the interventions.

Chapter 12 contains the major findings and conclusions identified and made during the assessment.

Chapter 13 provides preliminary recommendations concerning regional disparities and the potential to increase the benefits of the cohesion policy to the reduction of such disparities.

1.1 Team of Experts

Principal experts:

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<tr>
<td>Mgr. Danka Kovaľová – Key Expert</td>
</tr>
<tr>
<td>Mgr. Martin Obuch – Key Expert</td>
</tr>
<tr>
<td>Doc. RNDr. Eva Rajčáková, CSc. – Evaluator / Analyst</td>
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<td>RNDr. Angelika Švecová, PhD. – Evaluator / Analyst</td>
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<td>Ing. Juraj Juhász – Evaluator / Analyst</td>
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<td>RNDr. Milan Rajčák, CSc. – Evaluator / Analyst</td>
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<td>Ing. Kamil Smetana – Coordinator</td>
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</table>
2 Executive Summary

The long-term mission of the EU Cohesion Policy is to reduce the economic, social and territorial disparities between individual countries and regions. The Structural Funds and the Cohesion Fund, together with other funds of the EU, the Member States, and the European Investment Bank, are a major source designed for the implementation of the Lisbon Strategy (Europe 2020 Strategy after 2010). The envisaged effects of the investments are convergence (support provided to the mostly backward regions), regional competitiveness and employment (support provided to other regions). In order to use the funds provided by the Cohesion Policy of EUR 11.5 billion in total for the 2007-2013 programming period, the Slovak Republic developed a National Strategic Reference Framework and 11 operational programmes. Up to 94% of all the allocated funds shall be devoted to regions that were eligible to use the funds within the Convergence objective (all regions with the exception of the Bratislava region), 4% shall be used to support the competitiveness and employment in the Bratislava region, and 2% are aimed for the territorial cooperation in Europe. Interestingly, neither the National Strategic Reference Framework nor the operational programmes contain any objective aimed at the reduction of regional disparities. Despite the existence of indicative regional allocations to regions (NUTS II), such allocations do not function as a distribution mechanism to provide specific support to less developed regions. Indicative allocations to NUTS II regions are comparable; nevertheless, the highest amount has been allocated to Western Slovakia, i.e. to the region with the highest economic performance. That means that no mechanism was in place to reduce any regional disparities at the national level, and virtually also at the level of operational programmes.

SF and CF have a very specific position in Slovakia, as in many fields their original function – to provide additional funding – changed and now they have become the main source of funding public investments. In 2011-2013, the share of the SF and CF and their national co-financing accounted for 85% of the total public investments in the Slovak Republic. As of 31 December 2014, thus within 8 years of implementation, the Slovak Republic was able to absorb 68.4% of the total funds allocated to the 2007-2013 programme period. Despite the significant economic benefits of the Cohesion Policy at national and regional levels, particularly in the post-crisis period (after 2009), the absorption level of the funds available is low. By the end of 2014, the majority of programmes used the allocated funds in the range of 65-75% of the funds made available. Regions with the lowest economic performance (Prešov, Košice, and Banská Bystrica) were the regions with the highest number of projects/interventions carried out. Nevertheless, the picture radically changes when the volume of investments funded from SF and CF is concerned. The largest volume of funds went to the Trenčín and Žilina regions, where the major part of the funds was invested into transport infrastructure of transregional importance.

Under Strategic Priority 1 Infrastructure and Regional Accessibility, the support was directed to the improvement of transport infrastructure, environmental infrastructure and
protection of the environment, modernisation of the health infrastructure, and into regional infrastructure. On strategic priority level it can be noted that in the overall, regional disparities were reduced in 2007-2014 due to a significant contribution of the investments funded from SF and CF. Resources from the Cohesion Policy became evident in the reduction of regional disparities in the field of environmental infrastructure (sewerage network, water mains networks, water treatment plants), and environmental protection or waste management. A minor decrease in regional disparities was also in transport infrastructure (length of motorways and length of expressways) where resources from ERDF and CF were the main sources of funding. Regional disparities were mitigated despite the fact that the allocation and absorption of funds only reflected the initial state and the needs of individual regions to a certain degree.

Strategic Priority 2 Knowledge-based Economy covers the support for the information society, research and development, infrastructure of higher education institutions, and productive sector support. By the end of 2014 approximately EUR 2.3 billion were absorbed in 2,535 projects. Despite the investments made in the fields falling under SP 2 Knowledge-based Economy there were no significant changes in regional disparities in the analysed period. An analysis showed that in the majority of the monitored areas, regional disparities have remained on the level of 2007 or, in some areas, became even wider. The main reason might be the fact that research and development capacities demonstrate significant geographical differentiation with an intensive concentration in the Bratislava region, and that the share and the volume of financial resources is relatively low and significantly differentiated to support research and development from the regional GDP. Moreover, the development of regional disparities in the context of funding from SF and CF was also affected by the differences in the structure and performance of individual regional economies, and by the regionally differentiated business environment with different levels of business activity.

Strategic Priority 3 Human Resources was primarily aimed at the modernisation of the education system in relation to the labour market and improvement of employment and social inclusion. The highest volume of funds was absorbed in Prešov and Košice, two regions with the highest unemployment rates, and thus also with the highest share of population living at the risk of poverty and social exclusion. Slightly lower amounts from ESF were directed to other regions eligible to draw funds under the Convergence objective. An analysis of regional disparities at the level of SP 3 Human resources points at the constantly widening disparities between regions. Factors with the biggest impact on the development of such disparities include: uneven characteristics of regional labour markets, increasing number of income support recipients and increasing poverty risk, changes in demographic behaviour and their consequences in the age structure of the population plus the regionally differentiated raising of the education level. The relatively limited investments from ESF cannot reverse the social trends and the economy development on national and regional levels.
In line with the findings of other studies it can be noted that the usage of SF and CF in the 2007-2013 programming period Investments from the Cohesion Policy were clearly reflected in the improvement of the supported areas; nevertheless, the benefits achieved were differentiated in terms of the reduction of regional disparities. Interventions with major effect on the reduction of regional disparities might also include interventions directed to the sectors funded exclusively or almost exclusively from public sources. Another condition was that allocations, and mainly the actual use of EU funds, need to represent a high share in total public investments.

We used a questionnaire survey to ask the beneficiaries receiving assistance from SF and CF which factors have major impact on the implementation of projects in the 2007-2013 programming period. The implementation is negatively affected particularly by frequent changes in national legislation and the overall instability of the rules governing the use of EU funds and state budget resources. In combination with a high procedural burden and financial intensity they result in a high administrative burden for the entities implementing the projects. Particularly sensitive to the above factors is the response of beneficiaries from local administration bodies, NGOs and the business sector. The intensity of individual factors impact on the project implementation is also proportional to the beneficiary’s capacity. Given their limited internal capacities (HR, financial, and technical resources), municipalities, NGOs, and smaller businesses are in a somehow less favourable position. During the 2007-2013 programme period, the institutions responsible for the management and control of SF and CF were not stabilised as the beneficiaries still point at frequent personnel changes in project management. It is likely that this fact leads to the objections against the professional level of the employees, differences in the interpretation of rules/procedures, and frequent changes in the requirements to be met by the beneficiaries.

A way of improving the effects resulting from the implementation of the EU Cohesion Policy including the reduction of regional disparities is the strengthening of the synergies between the supported interventions. Despite the opportunities of the ending 2007–2013 programme period no basic mechanism was established in Slovakia to actively support the creation of synergy effects. The most apparent effort to achieve a coordinated (integrated) approach to solving the socio-economic needs on specific territories was the implementation of local comprehensive approach strategies within the horizontal priority Marginalized Roma Communities. Initially, local strategies should contain a set of at least 6 consecutive interventions (projects) providing a comprehensive solution to the inappropriate conditions of life in the marginalised Roma communities. A set of investment and non-investment projects had to be financed by selected measures of selected operational projects. The integrated territorial development principles allowing to achieve synergy effects were weakened during the implementation to such extent that it is impossible to talk about any synergy in the final implementation stages of the local

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1 Such as Assessment of Impacts of Cohesion Policy Implementation on the Development of Slovakia Using a Suitable Economic Model (KPMG 2014 and 2015).
strategies under the comprehensive approach. The questionnaire survey conducted among the beneficiaries provided us certain insight into what motivates the preparation of projects to be co-financed from SF and CF and how the projects developed by other entities are considered. This revealed the fact that public administration entities prevailingly strived to improve the situation of their target groups (population), whereas private sector entities focused on the objectives of their own organisations. The majority of recipients considers their projects interventions with local and sub-regional impact. This is also due to the very low portion (4%) of respondents who carried out their projects with the aim of reducing regional disparities. Whereas almost 70% of the entities taking part in the survey declared that their projects were interlinked with their previous (current) activities, implementation of other projects was considered by only about 40% of beneficiaries. This means that the prevailing majority of beneficiaries did not look for any opportunity to link their projects with other projects or take into consideration the implementation of other projects, which considerably reduces the potential of creating synergies. In other cases, beneficiaries partially considered the outputs generated by other projects in the stage of preparation and implementation of their own projects.
3 EU Cohesion Policy

3.1 EU Cohesion Policy in the 2007-2013 programme period

Article 158 of the Treaty establishing the European Community ("EC Treaty") is crucial for the basic orientation of the European Union ("EU") Cohesion Policy in the 2007-2013 programme period. Under the above article, in order to strengthen its economic, social, and territorial cohesion, the Union shall aim at reducing the disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, and special attention shall be paid particularly to rural areas, areas affected by changes in industry, and areas that suffer from severe and permanent natural or demographic handicaps. Therefore, the Cohesion Policy is the key instrument for achieving the objectives of economic, social, and territorial cohesion within the European Union. In comparison with the beginning of the previous programme period (2000-2006) the disparities in the economic performance and the development between the Member States and regions widened in consequence of the widening of the Community. European Social Fund, European Regional Development Fund, and Cohesion Fund are specifically used to reduce regional disparities pursuant to Article 159 of the EC Treaty. Activities in this field are also supported by the European Investment Bank and other existing financial instruments. Coordination with the tools used to support rural development (European Fund for Agriculture and Rural Development) and fishery (European Fisheries Fund) is necessary due to the complexity of the needs and solutions in the interest of strengthening the cohesion in the European Union.

Cohesion Policy is one of the most important policies created and implemented on EU level. This fact is supported by the budget for the 2007-2013 programme period in the amount of EUR 347.41 million (EUR 308.04 million in prices from 2004). It is the policy with the second largest budget after the Common Agricultural Policy. Regional disparities ("RD") should have been reduced by supporting the convergence, regional competitiveness, and employment. The most backward regions with GDP per capita expressed in purchasing power parity (GDP per capita in PPP) of less than 75% of the EU average were eligible to receive aid provided by the Cohesion Policy within the Convergence objective. Other regions could use this support within the objective Regional Competitiveness and Employment. Territorial cohesion was specifically supported through the European Territorial Cooperation objective. Under the basic mechanism used to reduce regional disparities within EU more backward regions eligible to receive assistance within the Convergence objective receive preferential treatment in the form of higher percentage of co-financing. Furthermore, 81% of all Cohesion Policy funds (Regional Competitiveness and Employment 16% and European Territorial Cooperation 3%) have been allocated to this type of regions, as shown in Chart 1. Assistance to eligible regions or individual entities in such regions is provided in line

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2 Cross-border, transnational, and interregional cooperation.
3 Objective 3 “European Territorial Cooperation” was not included into NSRF.
with the applicable State Aid map. Such map defines the sectors (industries) that may be subject to State Aid, including any resources from SF and CF, and the maximum intensity of the aid provided to support competition.

_Choice of Coherence Policy resources by objectives in 2007-2013 (in %)_

Cohesion Policy should directly contribute to the pillars of the Lisbon Strategy: growth, competitiveness, and employment in the EU. It defines the common European Union objectives and priorities until 2010 to be achieved by individual EU Member States also with the contribution of SF and CF. To ensure thematic alignment between the priorities of the Lisbon Strategy, Sustainable Development Principles\(^4\), and Cohesion Policy investments in the 2007-2013 PP, the European Commission (EC) developed the Community Strategic Guidelines (CSG) for social, economic and environmental cohesion. The purpose of the guidelines was increasing the focus of the Cohesion Policy funds mainly on themes that are crucial for the strengthening of EU’s position within the global economy and allow solving regional disparities efficiently.

Following the adoption of the CSG, individual Member States prepared their National Strategic Reference Frameworks as the main strategic documents for drawing funds from SF and CF. Based on the socio-economic analysis, the Slovak Republic defined its strategic objective and thematic priorities for the 2007-2013 PP. The strategic objective of the National Strategic Reference Framework (NSRF) was defined as follows: “By 2013 significantly improve competitiveness and performance of regions and the Slovak economy and employment while maintaining sustainable development.” To achieve the above objective it is considered crucial to concentrate the financial resources on the development of the i) Infrastructure and Regional Accessibility, ii) Knowledge-based Economy, and iii) Human Resources. **In the context of regional disparities assessment**

\(^4\) Göteborg strategy
it needs to be noted that the NSRF does not contain any explicit objective focusing on the reduction of regional disparities. The focus is on promoting Slovakia's overall convergence and competitiveness, without specific mechanisms reflecting the different level of regional development. The part dealing with the strategy states that regional disparities within the country are minimal, if we exclude from comparison the Bratislava region due to its specific status. All regions of the Slovak Republic, except for the Bratislava region, fall into the category of regions that are eligible to draw funds provided under the Convergence objective of the Cohesion Policy. The Bratislava region uses funds from SF in compliance with the terms set for more developed regions under the Regional Competitiveness and Employment objective⁵. This also corresponds with the volume of funds allocated in NSRF to the individual categories of regions.

Chart 2 Funds allocated to the Slovak Republic in 2007-2013 (EUR millions)

Source: NSRF

The following strategic and specific priorities were defined for the use of the SF and CF in the 2007-2013 PP:

1. Infrastructure and Regional Accessibility
   1.1 Regional infrastructure
   1.2 Environmental infrastructure and protection of the environment
   1.3 Transport infrastructure and public passenger transport
   1.4 Modernization of health infrastructure

2. Knowledge-based Economy
   2.1 Information society
   2.2 Research and development
   2.3 Infrastructure of higher education institutions
   2.4 Support for the competitiveness of businesses and services primarily through innovations

⁵ ETC programmes, including cross-border cooperation, are not included into NSRF.
3. Human Resources

3.1 Modern education for knowledge-based society

3.2 Supporting employment growth, social inclusion and capacity building

Horizontal priorities at the Community level are: sustainable development, information society and equal opportunities. Slovakia chose an additional horizontal priority – marginalized Roma communities.

In the 2007-2013 PP, Slovakia may use EU Cohesion Policy funding in the total amount of nearly EUR 11.5 billion. The funds from the SF and CF are drawn through 11 operational programmes. Six programmes are entitled to use the EU Cohesion Policy assistance within the objective Convergence, three programmes cover regions qualifying for assistance within the objective Convergence and Regional Competitiveness and Employment. The Operational Programme Bratislava Region is implemented within the objective Regional Competitiveness and Employment and the Operational Programme Technical Assistance is specifically designed to support the management and implementation of the SF and CF.

Table 1 Original Operational Programme Allocations in the 2007-2013 PP

<table>
<thead>
<tr>
<th>Programme</th>
<th>Fund</th>
<th>NSRF priority</th>
<th>EU funds</th>
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<tbody>
<tr>
<td>Regional OP</td>
<td>ERDF</td>
<td>1 Infrastructure and regional accessibility</td>
<td>1,554,503,927</td>
</tr>
<tr>
<td>OP Environment</td>
<td>ERDF/CF</td>
<td>1 Infrastructure and regional accessibility</td>
<td>1,820,000,000</td>
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<td>OP Transport</td>
<td>ERDF/CF</td>
<td>1 Infrastructure and regional accessibility</td>
<td>3,160,154,595</td>
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<td>OP Healthcare</td>
<td>ERDF</td>
<td>1 Infrastructure and regional accessibility</td>
<td>250,000,000</td>
</tr>
<tr>
<td>OP Research and Development</td>
<td>ERDF</td>
<td>2 Knowledge-based Economy</td>
<td>1,209,415,373</td>
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<td>OP Information Society</td>
<td>ERDF</td>
<td>2 Knowledge-based Economy</td>
<td>843,595,405</td>
</tr>
<tr>
<td>OP Competitiveness and Economic Growth</td>
<td>ERDF</td>
<td>2 Knowledge-based Economy</td>
<td>968,250,000</td>
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<tr>
<td>OP Education</td>
<td>ESF</td>
<td>3 Human resources</td>
<td>542,728,760</td>
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<tr>
<td>OP Employment and Social Inclusion</td>
<td>ESF</td>
<td>3 Human resources</td>
<td>941,301,578</td>
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<tr>
<td>OP Bratislava Region</td>
<td>ERDF</td>
<td>-</td>
<td>95,207,607</td>
</tr>
<tr>
<td>OP Technical Assistance</td>
<td>ERDF</td>
<td>-</td>
<td>97,601,421</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
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<td><strong>11,482,758,666</strong></td>
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</table>

Source: NSRF
A new mechanism was established on national (NSRF) level to provide for geographical concentration of funds. In the 2007-2013 PP, geographical concentration is based on directing investments to innovative and cohesion growth poles, the support of which should enhance the effectiveness of the EU funding and increase the contribution to overall convergence of the country. The innovation and cohesion growth poles will be territorial units allowing to assume that they will provide better value for the money invested therein due to their economic and social importance within the territory. Classification of settlements as innovation and cohesion growth poles has been derived from the settlement structure in the Slovak Republic or from the Concept of Territorial Development of Slovakia from 2011. 82 innovation growth poles have been identified (4 in the Bratislava region) – regional and district capitals. 891 cohesion growth poles have been determined (33 in the Bratislava region). SF and CF funds should be primarily absorbed by innovative and cohesion growth poles to maximise their effect on the development of the country and regions. In the context of the Slovak settlement structure the high number of selected growth poles, particularly the cohesion growth poles, has contra-productive effects on the territorial concentration. A total number of 973 municipalities, i.e. approximately one third of all municipalities in Slovakia (2,927), was classified as an innovation and/or cohesion growth pole. Generally, any municipality with the population exceeding 1,000 was classified as a growth pole. It cannot be expected that supporting municipalities with a population of less than 2000 people might significantly increase the economic growth and/or the potential of the territory or its cohesion, as such municipalities frequently do not play central roles in the respective areas. This mechanism did not specifically consider and pursue the basic purpose of the Cohesion Policy, which is the reduction of undesirable economic, social, and regional disparities.

Operational Programme level, funds were allocated according to the regionality principle. In practice this meant that each program contained a financial plan with data on the allocation of funds to individual regions (NUTS 3). Regional funds allocations should only have indicative nature; nevertheless, a number of bodies and Audit Bodies continuously monitored whether the amount (share) of regional funding is adhered to. Funds from SF (ERDF and ESF) allocated to regions under draft operational programmes have been aggregated on NSRF level. SF allocation for the 2007-2013 PP distributed among the NUTS 2 regions reflects the state and the priorities at the time of the programming period and NSRF. The distribution among the regions is indicative and can be changed if necessary. At the end of the programme period it can be noted that despite the outbreak of the global economic and financial crises that affected the performance of the country and the regions SF funds allocations in NSRF at NUTS 2 region level did not change. The allocation of funds as specified in NSRF is, to a certain degree, in conflict with the basic regional disparity reduction principles – higher amounts should be absorbed by the least developed regions. In 2006, the economic performance of the Western Slovakia region was at the level of 63% of the EU average, in Central Slovakia it was 49%, and in Eastern Slovakia 44%, where
ERDF and ESF allocations to individual regions are approximately the same, or higher (Western Slovakia received the highest amount (34.1%))\(^6\).

\(^6\) 31.9% for Central Slovakia and 34.0% for Eastern Slovakia.
4 Selection of Thematic Areas for Evaluation

In Slovakia the Cohesion Policy funding in the 2007-2013 programming period is implemented through 10 thematic programmes (and the OP Technical Assistance). These programmes build on the three strategic priorities of the NSRF:

- Infrastructure and Regional Accessibility
- Knowledge-based Economy
- Human Resources.

The NSRF’s strategic priorities are further specified by means of specific priorities essentially constituting strategic objectives of the programmes. The SF and CF funding in the 2007-2013 programming period is directed to 66 thematic measures. They represent a wide spectrum of interventions addressing development needs of Slovakia and its regions. All measures should contribute to achieving the objectives of strategic and specific NSRF priorities, but their ability to influence the fulfilment of objectives and the relevant measurable indicators is diverse.

We recommend using the following criteria to select measures that will be subject of the next analysis:

1) **Significance of allocation within the strategic and/or specific NSRF priority** – expresses the volume of allocated financial resources in the thematic areas/measures (at least 5% of allocation of the NSRF strategic priority);

2) **Progress in using allocation earmarked for thematic area/measure** – expresses the share of drawn financial funds within the thematic areas/measures (at least 50% of allocation for the measure);

3) **Regional dimension of supported interventions** – to what extent interventions contribute to addressing regional needs/specifcics, i.e. in particular whether the interventions supported in thematic areas (measures) represent demand-oriented or national projects.

The above list of criteria serves for a preliminary assessment of capacity of the interventions to produce the effects in such extent and intensity so that they can be demonstrated at a regional level and affect the development of regions. It results in a selection of thematic areas/measures which will be subject to evaluation provided there is a sufficient number of completed projects. As suitable for evaluation of the impact on reducing regional disparities we only consider those measures which met all three selected criteria. An overview of measures supported from SF and CF and assessment of their suitability for a further analysis is provided below. The analysis excluded measures implemented under the OP Bratislava Region as support was directed only to the Bratislava region and their allocation was very low. The final selection including the

---

7 Except for technical assistance measures and measure 7.1 European Capital of Culture Košice 2013 within the ROP.
explanation will be consulted during the evaluation with the sponsor and the working group.

Table 2: Overview of Measures under Strategic Priority 1 Infrastructure and Regional Accessibility (C = criterion, Y = yes, N = no)

<table>
<thead>
<tr>
<th>Measure</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OP Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Integrated protection and rational utilisation of water resources</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Flood protection</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Air protection and minimisation of adverse effects of climate change</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.1 Waste management</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5.1 Protection and regeneration of natural environment and landscape</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>7.1. POVAPSYS development</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td><strong>OP Transport</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Modernisation and development of railway infrastructure</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Motorway construction (TEN-T)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Construction of public intermodal transport terminals</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.1 Construction of infrastructure of integrated transport systems</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>4.2 Renewal of mobile fleet of integrated transport systems</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5.1 Construction of expressways</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5.2 Modernisation and construction of first-class roads</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>6.1 Renewal of railway mobile fleet</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td><strong>OP Healthcare</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Construction, reconstruction and modernisation of specialised hospitals</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.2 Construction, reconstruction and modernisation of general hospitals</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Reconstruction and modernisation of out-patient healthcare facilities</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.2 Renewal and modernisation of healthcare technology</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td><strong>Regional OP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Infrastructure of education</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Infrastructure of social services, social-legal protection and social guardianship</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Strengthening of cultural potential of the regions</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>3.2 Support and development of tourism infrastructure</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>4.1 Regeneration of settlements</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.2 Infrastructure of non-commercial rescue services</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5.1 Regional communications ensuring transport serviceability of the regions</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>7.1 European Capital of Culture Košice 2013</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

Source: Authors

The Author may change the weight of individual criteria during the assessment depending on the data obtained during the evaluation of individual projects within the OP measures.

Of the total number of 62 measures implemented in the 2007-2013 PP, which could theoretically be subject to further analysis, 15 measures meeting all three criteria were selected. Under the Strategic Priority Infrastructure and Regional Accessibility the criteria are met by 7 measures.

Subject to analysis will be measures from OP Environment: Measure 1.1 Integrated protection and rational utilisation of water resources – aimed in particular at the
completion of public water mains and sewerage networks, and Measure 4.1 Waste management – aimed at improving the separation and recycling of municipal waste. In OP Transport the criteria are met by Measure 1.1 Modernisation and development of railway infrastructure – aimed at the modernisation of railways to improve the technical and technological parameters of railway transport resulting in better accessibility of the area in terms of time. Due to high financial entitlements the majority of the allocated funds was absorbed in Western Slovakia. The above measures have no effect on the reduction of regional disparities.

The above criteria are also met by Measure 2.1 Motorway construction (TEN-T) and Measure 5.2 Modernisation and construction of first-class roads. Measure 5.1 Construction of expressways does not fully meet the above criteria; nevertheless, in the context of regional disparities it is considered relevant, as expressways, just like motorways, are components of the main transport infrastructure and they enhance the accessibility of regions.

In the Regional Operational Programme the criteria are met by Measure 1.1 Education infrastructure and Measure 4.1 Regeneration of settlements.

Under the Strategic Priority Infrastructure and Regional Accessibility the criteria are met by 6 measures. In OP Information Society the criteria are met by Measure 1.1 Electronisation of public administration and development of electronic services at central level. However, these are national projects where the beneficiaries were central public administration bodies that are located mainly in Bratislava. The projects were dealt with at central level and they do not take into account any regional dimension, therefore they will not be further analysed in the context of regional disparities.

In OP Competitiveness and Economic Growth the criteria are met by Measure 1.1 Innovation and technological transfers and Measure 3.1 Support of business activities in tourism.

In OP Research and Development the measures meeting the criteria are Measure 2.2 and Measure 4.2 Transfer of knowledge and technology from research and development into practice, and Measure 5.1 Development of infrastructure of higher education institutions and modernisation of their interior facilities to improve the conditions of educational process.
Table 3 Overview of Measures under Strategic Priority 2 Knowledge-based Economy

<table>
<thead>
<tr>
<th>Measure</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OP Information Society</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Electronisation of public administration and development of electronic services at the central level</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>1.2 Electronisation of public administration and development of electronic services at the local and regional levels</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Improvement of the system of acquisition, processing and protection of content from the resources of repository institutions</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3.1 Development and support of sustainable use of broadband access infrastructure</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td><strong>OP Competitiveness and Economic Growth</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Innovations and technological transfers</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.2 Support of common services for entrepreneurs</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.3 Support of innovation activities in enterprises</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Increasing energy efficiency both on the side of generation and consumption and introducing advanced technologies in the energy sector</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.2 Establishment and modernisation of public lightening for towns and municipalities and consultancy providing in the field of energy sector</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Support of business activities in tourism</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.2 Development of information tourism services, presentation of regions and of Slovakia</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>OP Research and Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Modernisation and building of technical infrastructure for research and development</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Support of networks of centres of excellence in research and development as the pillars of regional development</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.2 Transfer of knowledge and technology from research and development into practice</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Modernisation and building of technical infrastructure for research and development in the Bratislava region</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.1 Support of networks of excellence in research and development as the pillars of regional development in the Bratislava region</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.2 Transfer of knowledge and technology from research and development into practice in the Bratislava region</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>5.1 Building of infrastructure of higher education institutes and modernisation of their interior facilities to improve the conditions of the education process</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Source: Authors

Under Strategic Priority Human Resources the criteria are met by 3 measures.

In OP Education criteria are met by Measure 1.1 Transformation of traditional school into a modern one and Measure 2.1 Support of continuing education

Analysed will be Measure 1.1 Promoting programmes in the area of supporting employment and solving unemployment and long-term unemployment from OP Employment and Social Inclusion.
Table 4 Overview of Measures under Strategic Priority 3 Human Resources

<table>
<thead>
<tr>
<th>Measure</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Transformation of traditional school into a modern one</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.2 Higher education institutes and research &amp; development as the forces\driving the development of a knowledge-based society</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Support of continuing education</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.2 Support of continuing education in healthcare</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Raising the educational level of members of the marginalised Roma\communities</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3.2 Raising the educational level of persons with special educational\needs</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.1 Transformation of traditional school into a modern one for the Bratislava region</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4.2 Raising competitiveness of the Bratislava region through the\development of higher and continuing education</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.1 Promoting programmes in the area of supporting employment and\solving unemployment and long-term unemployment</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1.2 Promoting the creation and sustainability of jobs through increasing the\adaptability of workers, businesses and the promotion of entrepreneurship</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2.1 Supporting the social inclusion of persons at risk of social exclusion or the socially excluded through the development of care services with special\regard to marginalized Roma communities</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2.2 Promoting equal opportunities in access to the labour market and\supporting the integration of disadvantaged groups into the labour market with special regard to marginalized Roma communities</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>2.3 Promoting the reconciliation of work and family life</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>3.1 Promoting employment growth and improving employability, with\special regard to knowledge-based society</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.2 Promoting social inclusion, gender equality, and the reconciliation of work and family life in the Bratislava region</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>3.3 Capacity building and quality improvement of public administration in the Bratislava region</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4.1 Improving the quality of services delivered by public administration and non-profit organisations</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4.2 Introducing quality management systems in public administration and for NGOs in the area of employment policy and social policy</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Source: Authors

Summary

From the total 62 potential measures 15 measures were selected based on the selected criteria. The selected measures are analysed in other chapters hereof. Namely, the following measures were selected:

- Integrated protection and rational utilisation of water resources
- Waste management aimed at better separation and recycling of municipal waste
- Modernisation and development of railway infrastructure
- Motorway construction (TEN-T)
- Modernisation and construction of first-class roads
- Infrastructure of education
- Regeneration of settlements
- Innovations and technological transfers
- Promoting business activities in tourism
- Transfer of knowledge and technology from research and development into practice
- Transfer of knowledge and technology from research and development into practice (in the Bratislava region)
- Building infrastructure of higher education institutions and modernisation of their interior facilities to improve the conditions of educational process
- Transformation of traditional school into a modern one
- Support of continuing education
- Promoting programmes in the area supporting employment and solving unemployment and long-term unemployment
5 Regional Disparities in Slovakia

5.1 Basic definition of regional disparities

A feature of the Slovak regional structure is the disparity of regions accompanied with polarisation and regional hierarchy.

Regional disparities are understood as “differences in the level of socio-economic development of regions resulting from the imbalances in such development” (Matlovič, R., Klamár, R., Matlovičová, K., 2008).

Regional disparities are often expressed in the context of economic performance and the standard of living in the region, and are understood as differences between the economic performance and the wealth of the regions (countries). Regional disparities reflect the economic cohesion; such cohesion increases if “the disparities in the competitiveness of regions are alleviated” (Molle, 2007).

Solutions to disparities between the regions are closely linked with the application of regional policy instruments on national and international level. Pursuant to the programming documents of the Slovak Republic designed for the implementation of the 2007-2013 Cohesion Policy instruments regional disparities are deemed to be the main barriers that need to be overcome to achieve the objectives specified in the programming document.

5.2 Socio-economic level of Slovak regions and regional disparities in the context of analysed SPs

A multi-criteria decision-making using scores was selected to determine the socio-economic level of regions and identify regional disparities (“RD”). The inputs used for

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8 The analysis is based on the “Z” matrix where the lines stand for individual alternatives and the columns stand for individual assessment criteria. For data comparability purposes, all criteria have been transformed to maximization criteria and individual items have subsequently been transformed so that they have values 0-1. After the maximization, standardization, and allocation of scores, the position of districts was determined within the Slovak structure of regions.

Regional disparities are monitored in four areas – demographic profile (indicators: natural, migratory, and overall population movement, EU population ageing index, education structure index), economic performance (average nominal monthly income of employees, direct per capita foreign investments, per capita sales of internally produced goods and services (turnover) in the industry, business activity level, number of legal entities per 100 economically active people, labour market (employment rate, unemployment rate, long-term unemployment rate and the progressivity of economic structure) and available infrastructure (share of population supplied with water from public mains, share of population connected to public sewerage networks, density of motorways and expressways per 1,000 inhabitants, density of first- and second-class roads per 1,000 inhabitants, number of places in social facilities per 1,000 inhabitants, number of beds in hospitals per 1,000 inhabitants).

Standard instruments for the measurement of differences – variation range, standard deviation, and the Gini coefficient – were used to determine the disparities between the regions.
the assessment are selected statistical indicators for the period of years 2007-2014\(^9\) that are in relation to the strategic and specific 2007-2013 NSRF priorities.

Pursuant to the above method, Slovak regions could theoretically obtain a maximum of 4,400 scores of which 2,000 under Strategic Priority 1 Infrastructure and Regional Accessibility, 1,500 under Strategic Priority 2 Knowledge-based Economy, and 900 under Strategic Priority 3 Human resources.

Table 5 Regional Disparities by Strategic Priorities and Regions in the Slovak Republic (score)

<table>
<thead>
<tr>
<th>Region</th>
<th>Infrastructure and Regional Accessibility</th>
<th>Knowledge-based Economy</th>
<th>Human Resources</th>
<th>Total</th>
<th>Infrastructure and Regional Accessibility</th>
<th>Knowledge-based Economy</th>
<th>Human Resources</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bratislava</td>
<td>1,436</td>
<td>1,500</td>
<td>700</td>
<td>3,636</td>
<td>1,441</td>
<td>1,500</td>
<td>717</td>
<td>3,658</td>
</tr>
<tr>
<td>Trnava</td>
<td>1,015</td>
<td>396</td>
<td>377</td>
<td>1,788</td>
<td>960</td>
<td>386</td>
<td>327</td>
<td>1,673</td>
</tr>
<tr>
<td>Trenčín</td>
<td>586</td>
<td>386</td>
<td>345</td>
<td>1,317</td>
<td>653</td>
<td>247</td>
<td>296</td>
<td>1,197</td>
</tr>
<tr>
<td>Nitra</td>
<td>762</td>
<td>375</td>
<td>206</td>
<td>1,342</td>
<td>777</td>
<td>304</td>
<td>168</td>
<td>1,249</td>
</tr>
<tr>
<td>Žilina</td>
<td>657</td>
<td>403</td>
<td>290</td>
<td>1,350</td>
<td>772</td>
<td>401</td>
<td>279</td>
<td>1,451</td>
</tr>
<tr>
<td>Banská Bystrica</td>
<td>941</td>
<td>184</td>
<td>114</td>
<td>1,239</td>
<td>817</td>
<td>208</td>
<td>100</td>
<td>1,125</td>
</tr>
<tr>
<td>Prešov</td>
<td>910</td>
<td>156</td>
<td>253</td>
<td>1,319</td>
<td>839</td>
<td>116</td>
<td>244</td>
<td>1,199</td>
</tr>
<tr>
<td>Košice</td>
<td>463</td>
<td>396</td>
<td>202</td>
<td>1,062</td>
<td>480</td>
<td>351</td>
<td>216</td>
<td>1,047</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>284.33</td>
<td>398.79</td>
<td>166.69</td>
<td>781.11</td>
<td>261.97</td>
<td>410.90</td>
<td>174.12</td>
<td>809.11</td>
</tr>
<tr>
<td>Variation range</td>
<td>973</td>
<td>1,344</td>
<td>586</td>
<td>2,575</td>
<td>961</td>
<td>1,384</td>
<td>617</td>
<td>2,612</td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>0.2463</td>
<td>0.4110</td>
<td>0.3353</td>
<td>0.2625</td>
<td>0.2201</td>
<td>0.4582</td>
<td>0.3497</td>
<td>0.2791</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, COLSAF, calculations made by the authors

In 2014 the Bratislava region obtained the best scores (3,658; 83.14% of the maximum scores). According to the socio-economic level the Bratislava region has the best position in the regional structure of Slovakia and is the only dynamically developing region (Table 5, Figure 1). It is entitled to hold this position due to the highest score reached for all three strategic priorities.

The second position in the regional structure of Slovakia is held by the Trnava region (1,673; 38.03% of the maximum scores) that belongs to the developing regions (Figure 1).

In case of other regions, in the context of the analysed indicators there is a certain “shift” in the types of Slovak regions according to their socio-economic levels. While in 2007 the Trenčín, Žilina, Nitra, and Prešov regions were in the group of slightly developing regions, only the Žilina region remained in this category in 2014. Due the lower scores in 2014, the position of the Trenčín, Nitra, and Prešov regions in the regional structure is

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\(9\) If the value of any statistical indicator was not available for 2014, such value was established as an estimate made by an expert (expert estimate). Indicator values for 2014 were determined based on the 2007-2013 development of the values of relevant statistical indicators by the use of average y/y growth indices.
worse than in 2007, according to their socio-economic levels they are in the category of _partially stagnating Slovak regions_ (Figure 1).

In comparison with 2007, the number of the so-called _stagnating regions_ has increased. In 2014 the stagnating regions are the Košice (score: 1,047) and the Banská Bystrica (score: 1,047) regions. The position of the latter “slumped” due to the lower scores.

In the analysed period the values used to measure RD increased slightly, the value of standard deviation has increased from 781.11 to 809.11, variation range from 2,575 to 2,612, and the Gini coefficient from 0.2625 to 0.2791 (Table 5), which suggests a slight deterioration of regional disparities. RD between the Bratislava region and other Slovak regions deteriorate. On the other hand, if we abstract from the dominant position of the Bratislava region in the structure of Slovak regions, than the variation of the scores obtained by other regions decreases and the group of the other 7 regions become partially balanced in terms of RD.

_Figure 1 Regional disparities according to social and economic levels of Slovak regions in 2007 and 2014_

It can be assumed that in case of a more detailed analysis carried out on lower level of the hierarchy (on district level) partially developing regions would also include subregions with typical signs of stagnating regions (some districts of the Nitra, Prešov, and Trenčín regions). On the other hand, some sub-regions of central Považie record a relatively intensive development with a tendency to be included in the group of the developing regions. This would create a coherent territory consisting of the Bratislava and Trnava regions, and the Stredné Považie region with high endogenous development potential the use of which is funded from Cohesion Policy resources for 2007-2013.
6 Financial progress in implementation of SF and CF as of 30 December 2014

Implementation of the objectives of Cohesion Policy in Slovakia requires institutions, legislation and programmes in line with which the financial support is implemented. In the 2007-2013 programme period, the National Strategic Reference Framework 2007-2013 and Operational Programmes constituted the framework of regional development programme documents on national level.

Operational Programmes (“OP”) acted as complements to the framework of national programme documents and have set out the development strategy by a set of priorities and measures the achievement of which is supported by EU financial instruments in line with territorial eligibility. In the 2007-2013 programme period, 11 OP were in force, of which 7 thematic, 2 regional, and OP for technical assistance.

Strategic Priority 1 Infrastructure and Regional Accessibility had to be achieve through Operational Programmes Environment (OPEN), Transport (OPT), Healthcare (OPH), Bratislava Region (OPBR), Regional Operational Programme (ROP). Strategic Priority 2 Knowledge-based Economy used operational programmes Information Society (OPIS), Research and Development (OP R&D), and Competitiveness and Economic Growth (OPCEG); under Strategic Priority 3 Human Resources these were operational programmes Education (OPE), Employment and Social Inclusion (OPESI), and Operational Programme Bratislava Region (OPBR).

Financial implementation of 2007-2013 NSRF operational programme priorities and measures was analysed in terms of territorial concentration at the level of NUTS 3 regions (SR regions) in Slovakia and thematic concentration at the level of strategic priorities as of 31 December 2014.

Financial implementation was based on ITMS data provided by the Central Coordination Body about the status of the implemented projects and the expenditures of individual 2007-2013 NSRF operational programmes, their priority axes and measures at national and regional levels. With respect to projects whose place of implementation did not reach beyond the region’s boundaries, all funds could be unambiguously allocated to such region. A specific task was to allocate funds within transregional projects. To ensure consistency of the data base, the procedure was coordinated with the “Assessment of Impacts of Cohesion Policy Implementation on Development of Slovakia Using an Appropriate Econometric Model” project. In the previous implementation phase the project utilised the approach described below to the disaggregation of data for transregional projects.

OP Information Society

Multiregional projects of Operational Programme Information Society were mostly implemented by public institutions. The majority of transregional projects covers
activities with nation-wide effects. Therefore, it was reasonable to disaggregate the funds drawn proportionally to the number of regions in which the project was implemented.

Regional Operational Programme

In the Regional OP, there was a limited number of multi-regional projects with low allocation (approx. 2% of the total programme allocation). As in the case of the OP Information Society, the applied method disaggregated the funds to be absorbed equally according to the number of regions in which the project was implemented.

Operational Programme Bratislava Region

There were no multi-regional projects in the OP Bratislava Region.

Operational Programme Transport

Transregional projects of the OP Transport include: modernisation of railway tracks and ŽSSK rolling stock, elimination of unsatisfactory road conditions, reconstruction of junctions and bridges, and various projects of the MTCRR SR (studies, analyses, equipment for the MA etc.). Given the relatively small number of projects of transregional nature, it was possible – in cooperation with the MA for the OP Transport – to use additional information on project implementation (such as the number of km, place of use of transportation means etc.) to determine the specific regional allocation for each transregional project separately.

Operational Programme Environment

The bulk of funds in the OP Environment was used through projects of a regional nature. Transregional projects related specifically to the monitoring and evaluation, information, development and reconstruction of monitoring capacities, various studies, awareness enhancement, strategies, management, etc. Besides several beneficiaries from the public sector, beneficiaries were state organisations with Slovakia-wide operations (e.g. Slovak Hydrometeorological Institute, SVP, š.p., Slovak Environmental Inspection Authority, etc.); therefore, for disaggregation of the funds drawn within the projects to the NUTS 3 regions the indicator of the number of places of implementation was used as a factor suitable for approximation of a specific regional allocation.

Operational Programme Competitiveness and Economic Growth

In this programme there is a very low number of transregional programmes but with a high amount of funds. Beneficiaries in the transregional projects include GPEÚ, s. r. o., European Investment Fund, Slovak Innovation and Energy Agency and Slovak Tourist Board, and all projects were implemented in all NUTS 3 regions except for the Bratislava region. In terms of the project nature, such projects are aimed promotion, awareness enhancement, preparation and review of accounts, and initial grants. As similar effects on individual regions can be expected, in light of the available information the method of drawings disaggregation based on project information on regional eligibility of the drawing was used.
Operational Programme Education

The share between the number of regional and transregional projects is approximately 9:1, but in terms of finance the share is 44:56. Transregional projects mainly focus on education and professional development of teachers and pedagogical staff, development of new educational programmes, professional training development, vocational orientation of pupils, quality enhancement of education and innovative forms of education at higher education institutes, advisory etc., together with technical assistance for the OP. Following a consultation with the MA the number of places of implementation was used as a criterion for regional allocation of the funds drawn in transregional projects. However, it is necessary to note that such division will not generate the allocation of funds that fully matches the reality; but the MA also considers it reasonable.

Operational Programme Research and Development

Transregional projects under the OP Research and Development can be, depending on the topic they deal with, assigned to the following categories of projects: technical assistance, R&D infrastructure, development of centres of excellence, research and competence centres, specialised R&D and modernisation of the equipment of higher education institutions. Disaggregation of the drawing to individual regions at the level of NUTS 3 regions was carried out based on the number of places of implementation in relevant regions, as despite consulting the MA it was impossible to define a methodological approach allowing 100% accurate regional allocation of funds.

Operational Programme Employment and Social Inclusion

Under this OP, transregional projects can be divided into three main categories: projects of the Central Office of Labour, Social Affairs and Family (active labour market measures), projects of the Ministry of Labour, Social Affairs and Family of the Slovak Republic (technical assistance) and other projects (education and development of human resources). In light of the nature of projects and based on underlying documents sent by the MA the method of drawings disaggregation based on project information on regional eligibility of the drawing was identified as an appropriate method.

Operational Programme Healthcare

Only one national project, Development of Infrastructure of the National Transfusion Service of Slovakia, has so far been implemented as transregional; the project amounted to approx. EUR 6.3 million (EU source) and was implemented at a total of 14 locations throughout Slovakia (including 3 locations in the Bratislava region). Despite the fact that the ITMS does not allow to monitor the drawing of project expenditures in individual regions, in cooperation with the MA it was possible to identify the drawing in individual regions based on underlying documentation to individual payment applications.

As of 31 December 2014 the expenditures incurred (reported) in Slovakia in 8,906 implemented projects amounted to EUR 9,305,411,763, which is 68.4% of the total
allocation (Table 6). Of which the highest amount in operational programmes were the expenditures incurred in OP Transport (27.9%), Regional Operational Programme (14.7%), and OP Environment (13.4%) (Table 6, Chart 3). OP Bratislava Region (0.8%) and OP Technical Assistance (0.8%) received the lowest allocation. The highest number of projects with successful absorption was in the Regional Operational Programme (2,116 projects), OP Competitiveness and Economic Growth (1,930 projects), and OP Employment and Social Inclusion (1,561 projects) (Table 6).

Table 6 Financial Implementation of NSRR 2007-2013 According to Operational Programmes as of 31 December 2014

<table>
<thead>
<tr>
<th>Operational programme</th>
<th>Total Budget (EUR)</th>
<th>Incurred/reported expenditure (EUR)</th>
<th>Incurred/reported expenditure (%)</th>
<th>Contracted projects (quantity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPIS</td>
<td>992,465,184</td>
<td>643,964,694</td>
<td>64.9%</td>
<td>119</td>
</tr>
<tr>
<td>OPCEG</td>
<td>1,139,117,648</td>
<td>677,698,871</td>
<td>59.5%</td>
<td>1,930</td>
</tr>
<tr>
<td>OP R&amp;D</td>
<td>1,422,841,617</td>
<td>968,763,077</td>
<td>68.1%</td>
<td>535</td>
</tr>
<tr>
<td>OPE</td>
<td>664,946,787</td>
<td>476,431,992</td>
<td>71.6%</td>
<td>1098</td>
</tr>
<tr>
<td>OPEN</td>
<td>2,141,176,471</td>
<td>1,249,415,327</td>
<td>58.4%</td>
<td>748</td>
</tr>
<tr>
<td>OPBR</td>
<td>112,008,952</td>
<td>78,225,870</td>
<td>69.8%</td>
<td>432</td>
</tr>
<tr>
<td>OPT</td>
<td>3,790,719,992</td>
<td>2,596,057,094</td>
<td>68.5%</td>
<td>156</td>
</tr>
<tr>
<td>OPESI</td>
<td>1,107,413,623</td>
<td>892,135,035</td>
<td>80.6%</td>
<td>1,561</td>
</tr>
<tr>
<td>OPH</td>
<td>294,117,648</td>
<td>274,050,330</td>
<td>93.2%</td>
<td>68</td>
</tr>
<tr>
<td>ROP</td>
<td>1,828,828,151</td>
<td>1,369,948,449</td>
<td>74.9%</td>
<td>2,116</td>
</tr>
<tr>
<td>OPTA</td>
<td>114,825,201</td>
<td>78,721,023</td>
<td>68.6%</td>
<td>143</td>
</tr>
<tr>
<td><strong>NSRF 2007-2013</strong></td>
<td><strong>13,608,461,274</strong></td>
<td><strong>9,305,411,763</strong></td>
<td><strong>68.4%</strong></td>
<td><strong>8,906</strong></td>
</tr>
</tbody>
</table>

Source: ITMS, calculations by authors

As the OP Technical Assistance and other technical assistance measures in individual operational programmes were designed to assist effective, efficient, and adequate management, implementation, financial management, control and audit of the resources drawn from Structural Funds and the Cohesion Fund, and the aid was absorbed by technical, personnel, coordination and other activities carried out on national level, and the majority of beneficiaries eligible to receive technical assistance was located in Bratislava, funding from the Structural Funds was not considered in the analysis of Structural Funds absorption on regional level. This means that individual financial volumes of the expenditures incurred under the analysed strategic priorities and in the Slovak regions do not include any technical assistance.
In terms of territorial allocation, most funds under all OPs were directed to the regions of Trenčín (17.9%), Žilina (15.9%) and Prešov (15.2%) due to the implementation of large nation-wide projects under the OP Transport to modernise the railway and road network in the multi-modal corridor V connecting Bratislava with Žilina and Košice. The lowest amounts were absorbed in the regions of Trnava (8.2%), Nitra (8.8%), and Bratislava (9.1%) (Chart 4, Figure 2). In terms of the number of contracted projects on the first place is the region of Prešov with 1,845 contracted projects followed by the region of Banská Bystrica with 1,295 contracted projects, Košice with 1,230 contracted projects and Žilina with 1,135 contracted projects (Chart 5).

Absorption of Cohesion Policy funds by regions

**Chart 3** Expenditures Incurred by Operational Programmes as of 31 December 2014 (EUR million)

**Source:** ITMS, calculations by authors

**Chart 4** Expenditures Incurred (by Slovak Regions as of 31 December 2014)

**Chart 5** Number of Projects Contracted (by Slovak Regions as of 31 December 2014)

**Source:** ITMS, calculations by authors
Figure 2 Expenditures Incurred under Structural Funds in 2007-2013 PP on Operational Programmes (Slovak Regions as of 31 December 2014)

Podiel výdavkov podľa operačných programov

<table>
<thead>
<tr>
<th>Opis</th>
<th>Podiel výdavkov Podľa Operačných Programov</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPIS</td>
<td>8.2% Trnavský</td>
</tr>
<tr>
<td>OPKaHR</td>
<td>8.8% Nitriansky</td>
</tr>
<tr>
<td>OPVaV</td>
<td>9.1% Bratislavs'ký</td>
</tr>
<tr>
<td>OP</td>
<td>12.2% Košický</td>
</tr>
<tr>
<td>OPžP</td>
<td>12.9% Banskobystrický</td>
</tr>
<tr>
<td>OPBK</td>
<td>15.2% Prešovský</td>
</tr>
<tr>
<td>OPD</td>
<td>15.9% Žilinský</td>
</tr>
<tr>
<td>OPZ</td>
<td>17.9% Trenčianský</td>
</tr>
<tr>
<td>OPEN</td>
<td></td>
</tr>
<tr>
<td>OPESI</td>
<td></td>
</tr>
<tr>
<td>OPE</td>
<td></td>
</tr>
<tr>
<td>OPH</td>
<td></td>
</tr>
<tr>
<td>ROP</td>
<td></td>
</tr>
</tbody>
</table>

Podiel výdavkov v krajoch SR

<table>
<thead>
<tr>
<th>Opis</th>
<th>Podiel výdavkov v Krajoch SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPIS</td>
<td>8.2% Trnava</td>
</tr>
<tr>
<td>OPKaHR</td>
<td>8.8% Nitra</td>
</tr>
<tr>
<td>OPVaV</td>
<td>9.1% Bratislava</td>
</tr>
<tr>
<td>OP</td>
<td>12.2% Košice</td>
</tr>
<tr>
<td>OPžP</td>
<td>12.9% Banská Bystrica</td>
</tr>
<tr>
<td>OPBK</td>
<td>12.5% Prešov</td>
</tr>
<tr>
<td>OPD</td>
<td>15.9% Žilina</td>
</tr>
<tr>
<td>OPZ</td>
<td>17.9% Trenčín</td>
</tr>
<tr>
<td>OPEN</td>
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</tr>
<tr>
<td>OPESI</td>
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<tr>
<td>OPE</td>
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</tr>
<tr>
<td>OPH</td>
<td></td>
</tr>
<tr>
<td>ROP</td>
<td></td>
</tr>
</tbody>
</table>

Source: ITMS, calculations by authors

Summary

As of 31 December 2014 the expenditures incurred (reported) in Slovakia in 8,906 implemented projects amounted to EUR 9,305,411,763, which is 68.4% of the total allocation. The most successful absorption so far was under the Operational Programme Healthcare where 93.2% of the total allocation were used and under Operational Programme Employment and Social Inclusion with the use of 80.6% of the allocated funds. The lowest absorption was under the Operational Programme...
Environment (58.4%) and the Operational Programme Competitiveness and Economic Growth (59.5%).

In terms of territorial allocation, most funds under all OPs were directed to the regions of Trenčín (17.9%), Žilina (15.9%) and Prešov (15.2%) due to the implementation of large nation-wide projects under the OP Transport. In terms of the number of contracted projects on the first place is the region of Prešov (1,845 contracted projects).
7 Strategic Priority 1 Infrastructure and Regional Accessibility

The efficiency of the majority of economic activities in the territory is directly or indirectly affected by the public infrastructure available in the fields of transport, environment and civil infrastructure of towns and municipalities. Nevertheless, the availability and the quality of infrastructure are not the only aspects needed to make a territory more attractive. It is also necessary to create adequate conditions so that the use of the regional infrastructure and better accessibility result in the growth of the services that are linked with such infrastructure. In this respect, specific attention has to be paid to healthcare and social infrastructure.

7.1 Development of Regional Disparities under Strategic Priority 1: Knowledge-based Economy

Infrastructure and accessibility of regions are crucial for the development of regions, economic activities and localization of foreign investments. Statistical data on regional, environmental, transport, and healthcare infrastructure by Slovak regions in 2007 and 2014 are considered in the assessment of RD pursuant to SP 1 Infrastructure and Regional Accessibility. Based on the results of statistical methods applied in the assessment of regional disparities it can be noted that regional disparities appear at regional level in both time horizons and are reflected in different scores assigned to and the position of the regions within the regional structure of Slovakia.

In both years, the Bratislava region and the Trnava region were in the leading positions. In these two regions all types of transport infrastructure are developed and the density of roads (motorways and expressways with relevant feeders) and in the case of the Bratislava region also the density of operated railway tracks is the highest in the Slovak Republic. The Bratislava region is the leader according to technical infrastructure and waste management indicators. Production of solid and gas emissions per one unit of the area is below the Slovak average. The position of this region is also fortified by other types of infrastructure, mainly by the education and healthcare infrastructure, and also the tourism infrastructure. As it is a tourism region of international importance, it also has the highest visitors rate and the highest number of overnight stays in accommodation facilities.

Another group includes the regions of Banská Bystrica, Nitra, Žilina and Prešov. Their scores are in the range from 700.1 to 9000 (Figure 3). The Banská Bystrica and Prešov regions both worked on the development of their transport infrastructure; nevertheless, in terms of the density of roads, motorways and expressways with feeders as well as the density of operated railway tracks they are less than average. In these regions,

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10 Information from resources of the Statistical Office of the SR, in case of unavailable data for year 2014 determined as an expert estimate.
environmental indicators in the field of generation of municipal waste, solid emissions, sulphur dioxide, nitrogen oxide, and carbon monoxide, are significantly below the Slovak average, which is generally due to the lower concentration of industrial production and transport intensity. On the other hand, these regions are better equipped with social, healthcare, and educational institutions, mainly secondary vocational schools. The number of visitors and overnight stays in accommodation facilities in the Prešov region is the third highest. The Nitra and the Žilina regions increased their scores in comparison with 2007, and the latter also improved its position in the regional structure in the analysed field. A positive impact on the standing of the above regions have the completed new sections of the D1 motorway and the R1 expressway plus the relevant feeders that have been put into operation. In the Žilina region a more than average share of population is supplied by water from public water mains and connected to the sewerage network. Even though the production of municipal waste per capita in the Nitra region exceeds the Slovak average, the share in the separation of collected components of the municipal waste and the volume of recycled municipal waste per capita lag behind the Slovak average. In Slovakia, production of solid emissions and selected oxides is the lowest in the Nitra region. According to the indicators of the capacity of social and educational infrastructure the regions achieve average or slightly above-the-average values. Significantly below the Slovak average is the bed capacity of healthcare facilities in the Nitra region. It is beyond doubts that the number of visitors and overnight stays in tourist accommodation facilities – which is one of the highest among Slovak regions – contribute to the position of the Žilina region.

Two regions – Trenčín and Košice – are in the group of regions with the lowest score despite the fact that funds were allocated to the Košice under the 2007-2013 Cohesion Policy to complete the reconstruction of the infrastructure and to support the town of Košice as the European capital of culture. In contrast to the Košice region, the region of Trenčín has an above-the-average density of roads and motorways with the feeder roads, operated railway tracks, and a high share of population supplied with water from public water mains, but the connection of population to the sewerage network is problematic, and the production of solid emissions and oxides is above-the-average due to the concentration of industrial production and car traffic; also the recycling of municipal waste is low. Even the relatively good values of other analysed regional infrastructure indicators “are not able” to substantially improve the extremely negative values of the environmental infrastructure indicators. The Trenčín region has the lowest number of visitors and overnight stays in accommodation facilities. Despite some comparative advantages, the Trenčín region is, according to the analysed indicators of SP 1 Infrastructure and Regional Accessibility, one of the most problematic for long years.

Standard RD measurement tools (standard deviation, variation and Gini coefficient) point out the fact that the successful implementation of 2007-2013 Cohesion Policy projects and the contribution of the projects was manifested, according to SP 1 Infrastructure and Regional Accessibility, in lower disparities between the regions. Main factors with
impact on RD development in the context of the analysed indicators include the completion of multimodal transport corridor sections and enhanced accessibility of regions with higher-level network of motorways and speedways with feeder roads along with operated railway tracks and enhanced technical, medical and educational infrastructure, development of waste management with the aim to enhance the share of separated and recycled municipal waste, reduce the production of solid and other emissions – mainly by operators and for heating of houses, and geographically differentiated number of visitors and overnight stays in accommodation facilities. Positive was also the impact of effective use of the 2007-2013 Cohesion Policy and implementation of projects aimed at the construction of transport, environmental, and other regional infrastructure.

Figure 3 Regional Disparities under SP 1 Infrastructure and Regional Accessibility by Slovak Regions

Source: Statistical Office of the Slovak Republic, calculations made by authors

Summary

According to the results of analyses and based on the level of disparities in 2007-2014 regional disparities in the context of SP 1 Infrastructure and Regional Accessibility have been moderated.

In comparison with 2007, in 2014 there was a decrease in the value of standard deviation from 284.3 to 261.9, in case of the variation range from 973 to 961, and the Gini coefficient from 0.2463 to 0.2201, which suggests a reduction of regional disparities in transport, environmental, and technological infrastructure.

Factors influencing RD development in the context of analysed indicators are following:

- completion of multimodal transport corridor sections and enhanced accessibility of regions with higher-level network of motorways and speedways with feeder roads along with operated railway tracks and enhanced technical, medical and educational infrastructure,
- development of waste management with higher proportion of municipal waste separation and recycling,
7.2 Absorption of funds from SF and CF under Strategic Priority 1 Infrastructure and Regional Accessibility

The purpose of supporting Strategic priority 1 Infrastructure and regional accessibility was to enhance the infrastructure of regions and to increase the efficiency of related public services as the efficiency of most economic activities performed in the territory is directly or indirectly affected by available public infrastructure covering transport, environment and civil infrastructure of towns and municipalities. The support was absorbed in four specific areas: Regional infrastructure, environmental infrastructure and protection of environment, transport infrastructure and public passenger transport as well as modernisation of health infrastructure.

Total expenditures incurred under Strategic Priority 1 Infrastructure and Regional Accessibility were EUR 5.5 billion, which was 58.8% of the total expenditures invested in NSRF 2007-2013. In terms of specific areas, the largest volumes of funds (EUR 2.5 billion) were absorbed in Transport Infrastructure and Public Passenger Transport (79 supported projects) and Regional Infrastructure (EUR 1.46 billion) (2,645 supported projects). Environmental Infrastructure and Protection of the Environment was supported by EUR 1.25 billion (695 projects) and Modernisation of Health Infrastructure by EUR 272.4 billion (75 projects).

Individual projects were funded in compliance with the objectives and measures of operational programmes – Regional Operational Programme, OP Competitiveness and Economic Growth, OP Environment, OP Healthcare, OP Transport, and OP Bratislava Region. In terms of operational programmes, the highest volume of funds, EUR 2.5 billion, was absorbed by 79 projects within OPT, which constituted 45.7% of funds invested in the whole strategic priority. In ROP support reached EUR 1.4 billion (25.47%) in 2199 projects, in OP EN EUR 1.25 billion (22.7%) in 695 projects, and in OPH EUR 0.27 billion (5%) in 75 projects. In OP CEG Strategic Priority 1 included Priority axis 1 Energy Measure 2.2 Construction and modernisation of public lighting for towns and municipalities and provision of energy consulting services funded in the amount of EUR 31 thousand in 316 projects and in OP BR priority axis 1 Infrastructure and regional accessibility with the volume of incurred expenditures of EUR 36 thousand in 130 projects.

Allocation of funds under Strategic Priority 1 Infrastructure and Regional Accessibility to individual regions takes into consideration regional as well as internal specifics of the regions. The largest amounts were absorbed in the Trenčín region (EUR 1.2 billion), the
Žilina (EUR 1 billion), and the Prešov region (EUR 952.2 billion). The smallest amount was allocated to the Bratislava region (EUR 193.1 million) (Chart 6, Figure 4); in terms of territorial eligibility this region was beyond the area of support in several cases, which fact is also reflected by the number of contracted projects (164). The highest number of contracted projects was in the Prešov (727), Žilina (498), Košice (486) and Nitra (474) regions (Chart 6).

Chart 6 Strategic Priority 1 Infrastructure and Regional Accessibility (Slovak Regions as of 31 December 2014)

<table>
<thead>
<tr>
<th>Incurred expenditures</th>
<th>Number of contracted projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>v mil. Eur</td>
<td></td>
</tr>
<tr>
<td>BA 1,400</td>
<td>BA 800</td>
</tr>
<tr>
<td>KE 1,200</td>
<td>KE 700</td>
</tr>
<tr>
<td>TT 1,000</td>
<td>TT 600</td>
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<td>PO 800</td>
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</tbody>
</table>

Source: ITMS, calculations by authors

Figure 4 Structural Funds Expenditures Incurred under 2007-2013 PP – Strategic Priority 1 Infrastructure and Regional Accessibility (Slovak Regions as of 31 December 2014)

### Specific Priorities

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<th>Specific Priority</th>
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<tr>
<td>1.1 Regionálna infraštruktúra</td>
<td>1.1 Regional infrastructure</td>
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</table>
| 1.2 Environmentálna infraštruktúra a ochrana životného prostredia | 1.2 Environmental infrastructure and protection of the...
7.2.1 Regional Infrastructure

Interventions in the field of *regional infrastructure* were focused on increasing the availability and improving the quality of regional civil infrastructure and facilities. Projects were supported in accordance with the priority axes and measures of the Regional Operational Programme, OP Bratislava Region, and OP Competitiveness and Economic Growth.

Regional Operational Programme

The Regional Operational Programme was focused on regional infrastructure as one of the most important factors determining the quality of life of the population. Interventions through ROP were specifically directed to support civil facilities within the infrastructure of the territory to meet the qualitative and quantitative requirements and provide for a balanced availability of the same by improving the quality and increasing the number of transport and settlement elements within the infrastructure. Moreover, the nature of ROP interventions in the regional infrastructure contributed to the energy efficiency and barrier free accessibility of the buildings used in the infrastructure as civil facilities. Regional infrastructure projects were supported through 6 priority axes.

Within *Priority axis 1 Education Infrastructure* support in the total amount of EUR 595.9 million was given to 808 projects. These projects were aimed at the reconstruction, extension, and modernisation of selected kindergartens, primary and secondary schools and the associated purchase of equipment, including ICT. The purpose of these interventions was to fix the unsatisfactory construction and technical condition of the buildings, adjust the facilities to make them accessible for immobile users, and reduce the high energy intensity of operations in all types of schools.

*Priority axis 1 – Infrastructure for social services, social protection, and social guardianship* was aimed at activities related with the construction, reconstruction, extension, and modernisation of social service facilities, facilities for social protection and social guardianship (including children’s homes, rehabilitation and crisis centres)
and community centres (in particular to strengthen the social inclusion of the marginalised Roma communities) including relevant equipment. 203 projects were supported by EUR 143.3 million, the majority of which was absorbed in the Prešov region (58 projects; EUR 27.3 million), in the Trnava region (25 projects; EUR 24 million), and in the Trenčín region (21 projects; EUR 23.8 million).

Repository institutions and the revitalisation of unused cultural monuments were supported under Priority axis 3 Enhancing of cultural potential of regions and tourism infrastructure with 84 contracted projects in the total amount of EUR 43.2 million. Support under the above priority axis was also provided to the tourism infrastructure in line with the funding of tourism clusters, building of partnerships between the players in the tourism sector, creation of comprehensive information portals and marketing activities. A total of 53 projects totalling EUR 4.4 million were supported. Interest in non-repayable grants ("NG") to support projects in the tourism sector expressed primarily applicants from the Prešov regions; 14 projects were implemented and almost EUR 1 million invested.

Priority axis 4 Measure 4.1 Regeneration of settlements aimed at enhancing the benefit of people and businessmen from the services linked with the supported infrastructure was one of the most significant development opportunities to municipal applicants. This was a chance and opportunity to arrange the reconstruction and modernisation of public areas, local roads or elements of small architecture. Contracted were 719 projects with incurred expenditures of EUR 376.6; where the majority of projects and funds absorbed was in the Prešov region (147 projects; EUR 70.3 million), in the Košice region (134 projects; EUR 67.2 million), and in the Nitra region (129 projects; EUR 64.8 million).

Measure 4.2 Infrastructure of non-commercial rescue services, particularly aimed at the facilities of Firefighters and Rescue Corps and the Mountain Rescue Service absorbed EUR 46.4 million in 232 implemented projects.

Availability of civil infrastructure facilities was funded by interventions into regional transport infrastructure – Priority axis 5 Measure 5.1 Regional communications ensuring transport serviceability of regions. A total amount of EUR 121.2 million was spent in 80 projects on the modernisation and completion of second and third class roads, activities enhancing road traffic safety, reducing the accident rate, increasing the capacity, fluency, and comfort of transport with the highest financial allocations in the regions of Prešov (24 projects; EUR 27.3 million), Žilina (9 projects; EUR 22 million), and Košice (10 projects; EUR 21.9 million).

Košice as the European capital of culture in 2013 was supported by EUR 62 million (Measure 7.1 – European Capital of Culture Košice 2013).

Operational Programme Bratislava Region

In the region of Bratislava, modernisation and completion of civil infrastructure in cities and municipalities were funded – due to the specific position of the region resulting from
its limited territorial eligibility – from Operational Programme Bratislava region, *Priority axis 1 – Infrastructure* by 130 projects that absorbed a total amount of EUR 36.5.

**Operational Programme Competitiveness and Economic Growth**

The environmental aspect in the form of reduced energy intensity and increase of economic efficiency of the supported civil infrastructure facilities was stressed in the support for regional infrastructure under *Operational Programme Competitiveness and Economic Growth, Measure 2.2 Building and modernisation of public lighting for towns and municipalities and provision of energy consulting services* with 316 contracted projects in the total amount of EUR 31.3 million.

In terms of territorial allocation of the support on regional level, as of 31 December 2014 the major part of the funds for the completion and modernisation of regional infrastructure was used in the regions of Prešov (EUR 279 million; 551 projects), Košice (EUR 262.7 million; 372 projects) and Žilina (EUR 234.6 million; 359 projects). On the other hand, due to the “tapered” territorial eligibility, the least funds were spent in the regions of Bratislava (EUR 36.5 million; 130 projects), Trnava (EUR 140.4 million; 257 projects), and in Trenčín (EUR 157.6 million; 255 projects). Expenditures incurred in 330 projects in the region of Banská Bystrica amounted to EUR 167.4 million, and in the Nitra region EUR 184.7 million in 385 contracted projects (Chart 7).

**Chart 7 Strategic Priority 1 Infrastructure and Regional Accessibility**

*Field Regional Infrastructure (by Slovak Regions as of 31 December 2014)*

<table>
<thead>
<tr>
<th>Incurred expenditures</th>
<th>Number of contracted projects</th>
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<tbody>
<tr>
<td>BA</td>
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<td>BB</td>
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<td>KE</td>
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<td>NR</td>
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<td>TN</td>
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Source: ITMS, calculations by authors

**7.2.2 Environmental Infrastructure and Protection of the Environment**

Support in the field of *Environmental infrastructure and protection of the environment* was focused on the improvement of environmental conditions and on rational utilisation of resources through completion and enhancement of the quality of Slovakia’s
environmental infrastructure in line with EU regulations. Completion and improvement of quality of environmental infrastructure focused on the protection and enhancement of the environment and improvement of territorial coverage by environmental infrastructure, which should assist in increasing the attractiveness of the environment for investments and in improving the living conditions for the population, its health and standard of living. Support was provided through OP Environment.

**Operational Programme Environment**

The objective of OP EN was to improve environmental conditions and utilize resources rationally by means of completion and enhancement of the environmental structure in the Slovak Republic in line with EU regulations and also to strengthen the environmental component of sustainable development. Financial aid was provided under six priority axes.

**Priority axis 1 Integrated protection and rational utilisation of water resources** is aimed at ensuring the population’s access to drinking water and to increase the number of inhabitants living in houses connected to a public wastewater collection system as well as to ensure drinking water supplies to the territory from a public water mains in sufficient quantity and quality and provide for the collection and treatment of urban wastewater. Support was granted to 180 projects in the amount of incurred expenditures totalling EUR 592 million, which was 47.4% of the total expenditures incurred under OP EN. The largest volumes of funds went to the Žilina region (EUR 114.9 million; 23 projects), the Prešov region (EUR 109.9 million; 33 projects) and the Banská Bystrica region (EUR 82.1 million; 32 projects).

The main purpose of building an observation network continuously monitoring the quality of water and an efficient flood protection infrastructure and a flood warning and forecasting system was to reduce significantly any damages caused by floods. 100 projects in the amount of EUR 72.4 were implemented under **Priority axis 2 and Measure 2.1 Flood protection**, where almost fifty percent of the expenditures and projects were incurred and implemented in the Prešov region (EUR 39 million; 44 projects).

Protection of air and improvement of air quality, mainly in areas where special protection of air is necessary, was primarily aimed at financial interventions resulting in the reduction of emissions of basic and other air pollutants and also at better monitoring of emissions in consequence of the modernisation of existing and installation of new stations of National Air Quality Observation Network. Other focus areas included minimisation of adverse effects of climate change particularly by reduction of greenhouse gas emissions and also activities related with the transposition and implementation of Directive 2004/101/EC, and establishment of a trading system for greenhouse gas emission allowances in the Community, and, last but not least, also support for renewable energy sources. Support in the amount of EUR 206.8 million was provided to 113 implemented projects through **Priority axis 3 Measure 3.1 Air protection**.
and minimisation of adverse effects of climate change mainly in regions with the highest air pollution – the regions of Košice (EUR 56.5 million; 17 projects), Banská Bystrica (EUR 51.4 million; 16 projects), Prešov (EUR 37.8 million; 23 projects), and Trenčín (EUR 24 million; 21 projects).

Waste management was addressed under *Priority axis 4 Measure 4.1 Waste management*, with the objective to complete the construction of waste management infrastructure in the Slovak Republic in line with laws of EU and SR, to reduce and eliminate adverse effects of environmental burdens and waste disposal sites on the health of people and on ecosystems. Interventions were directed at projects aimed at more efficient separation of municipal waste collection, higher volumes of recycled waste, environmentally friendly treatment of hazardous waste, closing down and reclamation of waste disposal sites, and elimination of environmental burdens. The amount of incurred expenditures was EUR 305 million, which was the second highest share (28% of the expenditures under OP EN). Support was provided to 282 projects. Lowest allocations – in terms of number of projects (3) and expenditures incurred (EUR 3.4 million) – were in the Bratislava regions. In other regions the allocations amounted from EUR 35.4 million (47 projects in the region of Nitra, EUR 37.4 million (43 projects) in the region of Trnava, EUR 44 million (42 projects) in the region of Žilina, EUR 51.6 million (34 projects) in the region of Košice, EUR 57.8 million (27 projects) in the region of Trenčín, EUR 59 million (43 projects) in the region of Prešov), to EUR 61.3 million (43 projects) in the region of Banská Bystrica.

The objective of *Priority axis 5 Measure 5.1 Protection and regeneration of natural environment and landscape* was completion of Natura 2000 protected sites and infrastructure for nature conservation in the Slovak Republic in line with EU and SR laws. Support in the field of conservation of nature and landscape was aimed at achieving or preserving a favourable situation of species and habitats of European importance, mainly through Natura 2000, completion of eligible organisations (their material and personnel needs), monitoring the state of changes in the landscape, and better environmental awareness of the public and land owners; the total volume of the financial intervention was EUR 28.4 million absorbed in 20 implemented projects with the highest value in the Žilina region (EUR 12.1 million; 10 projects). Expenditures in the amount of EUR 4.3 million were spent in the Košice region and EUR 3.4 million were incurred in the region of Prešov. In other regions, expenditures ranged from EUR 1.3 million in the Trnava region to EUR 3 million in the Trenčín region.

The implementation of the flood warning and forecasting system (POVAPSYS) in the territory of the Slovak Republic was funded under *Priority axis 7 Measure 7.1 POVAPSYS development* to prevent and mitigate the threat of floods and damage caused by floods. The amount spent was EUR 3.5 million.

For geographical differentiation of the expenses incurred on the level of Slovak regions see *Chart 8*. The highest volume of funds to support the environmental infrastructure and environmental protection was absorbed in the Prešov region (EUR 249.1 million), which
is the region with the highest number of implemented projects (144). EUR 199.5 million were allocated to 109 projects in the Žilina region and EUR 193.8 million in 104 projects were spent in the Banská Bystrica region. Expenditures in the amount of EUR 174 million (90 projects) were incurred in the region of Košice, EUR 145.6 million (71 projects) in the region of Trenčín, EUR 131.5 million (76 projects) in the region of Trnava, EUR 106 million (81 projects) in the region of Nitra, and at least EUR 50.6 million (20 projects) in the Bratislava region.

7.2.3 Transport Infrastructure and Public Passenger Transport

The purpose of supporting transport infrastructure and public passenger transport is to improve regional accessibility of Trans-European networks (TEN-T), providing sufficient density of national transport corridors, and developing public and passenger transport. Projects received support from OP Transport in 6 Priority Axes.

Operational Programme Transport

OP Transport was focused on the construction and modernisation of the Slovak transport infrastructure and the integration of such infrastructure into the European transport system. Its other role was to provide links between major settlements with the aim to eliminate regional disparities in less developed Slovak regions while observing the sustainable mobility principle. It was a tool eliminating gradually the unfavourable parameters of regional transport infrastructure and dealing with the crucial issues of safety, reliability, and quality of transport. Total expenditures incurred amounted to EUR
2.5 billion of which up to 64.4% were used for the modernisation and development of railway infrastructure (32.4%; EUR 813.3 million; 9 projects), and construction of motorways (32%; EUR 840.6 million; 16 projects).

Activities aimed at the railway infrastructure were carried out under Priority axis 1 and Measure 1.1 Modernisation and development of railway infrastructure and by gradual improving the technical and technological parameters of the railway transport route they were aimed at the modernisation of the existing corridors. The expenditures incurred amount to EUR 813.3 million and were allocated to the Trenčín region (EUR 580.7 million) and the Žilina region (EUR 221.2 million).

Priority axis 6 Measure 6.1 Renewal of railway mobile fleet served for the renewal of the rolling stock. The objective was to improve the performance of public passenger transport by rail, particularly in urban, suburban, and regional transport. A project in the amount of EUR 186.3 million was aimed at the renewal of the fleet of Železničná spoločnosť Slovensko.

The main objective of Priority axis 2 Measure 2.1 Motorway construction (TEN-T) and Priority axis 5 Measure 5.1 Construction of expressways was increase the density of higher-class roads, improve the free flow and safety of road traffic, improve the accessibility of the Slovak Republic and Slovak regions and between the Slovak regions. The funds were invested into quick and effective links between all major settlement centres. In the construction of motorways, the total amount of EUR 840.6 million was absorbed in the region of Trenčín (EUR 263.1 million), Žilina (EUR 271.3 million), Prešov (EUR 221.5 million), and Košice (EUR 47.7 million). Construction of expressways was co-funded in the regions of Banská Bystrica (EUR 216.6 million), Košice (EUR 47.8 million) and Trenčín (EUR 35.2 million). The total amount of the assistance was EUR 299.6 million. In case of first-class roads – Measure 5.2 Modernisation and construction of first-class roads, the projects were particularly aimed at sections at unsatisfactory technical condition, exceeded capacity, and critical locations with frequent accidents. The funds in the total amount of EUR 253.3 million were absorbed in the regions of Prešov (EUR 91.5 million), Trnava (EUR 53.7 million), Trenčín (EUR 27.9 million), Banská Bystrica (EUR 24 million), Nitra (EUR 20 million), Košice (EUR 19.6 million), and Žilina (EUR 15.8 million).

To promote environmentally friendly types of transport – Priority axis 3 Measure 3.1 Construction of public intermodal transport terminals relevant construction expenditures were incurred by the cities of Žilina (EUR 8.5 million), Bratislava (EUR 0.4 million), Trnava (EUR 0.4 million), and Košice (EUR 0.3 million).

Public transport of passengers (Priority axis 4 Measure 4.1 Construction of infrastructure of integrated transport systems and 4.2 Renewal of mobile fleet of integrated transport systems) was covered by investments into integrated transport systems and via grants in public passenger transport in the regions of Bratislava (EUR
76.5 million), Košice (EUR 22.8 million), Prešov (EUR 14.3 million), Trnava and Trenčín (each EUR 13.9 million) (Chart 9).

The largest portion of funds allocated to support transport infrastructure and public passenger transport was absorbed in the regions of Trenčín (EUR 947.4 million; 37.7%; 7 projects) and Žilina (EUR 544.1 million; 21.7%; 16 projects), followed by Prešov (EUR 361.3 million; 11 projects), Banská Bystrica (EUR 241.2 million; 12 projects) and Košice (EUR 164.9 million; 14 projects). They lowest expenditures incurred were allocated in the regions of Nitra (EUR 47.4 million; 13 projects), Trnava (EUR 96.8 million, 5 projects) and Bratislava (EUR 106 million; 14 projects) (Chart 19).

Chart 9 Strategic Priority Infrastructure and Regional Accessibility
Specific Priority 1.3 Transport infrastructure and public passenger transport
(by Slovak Regions as of 31 December 2014)

7.2.4 Modernisation of health infrastructure
The purpose of modernising the health infrastructure was providing for efficient healthcare services by means of a high-quality health infrastructure. Improvement of the health of the population is the key prerequisite for improving the quality of life of the population. Healthy population is a significant source allowing to maintain and improve the competitiveness of regions and eventually make Slovakia more attractive to investors. Projects focused on the modernisation of health structure were carried out as part of Healthcare Operational Programme. In terms of territorial eligibility all regions of Slovakia were supported except for the Bratislava region.

Operational Programme Healthcare
Operational Programme Healthcare was aimed at the improvement of the conditions influencing the health of working age and other population by enhancing the quality, efficiency, and availability of healthcare services and by health promotion within the health infrastructure. Investments were made under two priority axes with total expenditures of EUR 272.4 incurred on 75 projects.

**Priority axis 1 Measure 1.1 Construction, reconstruction and modernisation of specialised hospitals and 1.2 Construction, reconstruction and modernisation of general hospitals** was aimed at the construction, reconstruction, and modernisation of health infrastructure of general and specialised hospital with the main focus on the treatment of “class 5” diseases. A total of 27 projects totalling EUR 220.7 million were supported. The highest amounts were spent in the Banská Bystrica region (EUR 51.6 million) and the Prešov region (EUR 50.7 million). The next three ranks are occupied by the Košice region (EUR 44.5 million), the Nitra region (EUR 30.8 million) and the Žilina region (EUR 28.1 million). The smallest amounts were absorbed by the Trenčín region (EUR 3.8 million) and the Trnava region (EUR 8.9 million).

**Priority axis 2 Measure 2.1 Reconstruction and modernisation of out-patient healthcare facilities** aimed at better quality, efficiency, and availability of healthcare services with the main focus on prevention and promotion of health in case of “group 5” diseases was supported by 48 projects that have absorbed EUR 51.7 million in total. Also in this case the largest amounts were allocated to the Prešov region (EUR 12.1 million; 15 projects) and the Banská Bystrica region (EUR 10.6 million; 12 projects). The lowest allocations received the regions of Trenčín (EUR 0.84 million; 1 project), Trnava (EUR 6.2 million; 4 projects), and Nitra (EUR 6.8 million; 5 projects).

The national project “Completion of National Transfusion Service” with the total amount of EUR 6.3 million with 14 centres put into operation throughout Slovakia was implemented under **Priority axis 2 Measure 2.2 Renewal and modernisation of healthcare technology**.

Under the support for the modernisation of health infrastructure the territorially highest allocation of interventions and project activity of applicants were in the Prešov region (EUR 62.9 million; 21 projects) and the Banská Bystrica region (EUR 62.3 million; 20 projects). They lowest expenditures were incurred in the regions of Trenčín (EUR 4.7 million; 2 projects) and Trnava (EUR 15.6 million; 6 projects) (*Chart 10*).
7.3 Financial implementation of Strategic Priority 1 Infrastructure and Regional Accessibility in the context of regional disparities

Financial aid was used in line with the eligibility of regions as defined for the 2007-2013 programming period. The amounts absorbed by individual regions were determined by a number of factors, mainly by the development needs and the potential of regions, by the absorption capacity, by the preparedness of important investment projects and national projects, and by the success of submitted demand-oriented projects.

In terms of the identified regional disparities and use of funds under Strategic priority 1 Infrastructure and Regional Accessibility it can be noted that the allocation of financial interventions took into consideration the socio-economic standing of individual Slovak regions with the exception of the Košice region. This region received the lowest score and thus ranks the last in the regional structure of Slovakia and received a financial intervention only in the amount of fifty per cent of the support provided to the Trenčín region, which ended on the second last rank in the regional disparities assessment. Nevertheless, it needs to be noted that significant disparities in the use of support on regional level, with the highest investments in the regions of Trenčín, Žilina and Prešov, are the consequence of “big” investment projects co-financed in the transportation sector (construction of motorway sections, modernisation of railway tracks etc.) (Figure 5).
Chart 5 Regional Disparity and Expenditures Incurred under Strategic Priority
1 Infrastructure and Regional Accessibility and its specific priorities as of 31 December 2014

1. Infrastructure and Regional Accessibility

1.1 Regional infrastructure

1.2 Environmental infrastructure and protection of the environment

1.3 Transport infrastructure and public passenger transport

4 Modernisation of health infrastructure

<table>
<thead>
<tr>
<th>Regionálne disparity (počet bodov)</th>
<th>Regional disparity (score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realizované výdavky</td>
<td>Incurred expenditures</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, ITMS, calculations made by the authors
Under Specific Priority 1.2 Environmental infrastructure and protection of the environment, projects with the highest volume of interventions were implemented in regions with significantly inadequate environmental infrastructure, particularly in terms of drinking water supplies to population, construction of wastewater collection systems and waste management (Figure 5).

Geographically, the allocation of financial support used under Specific Priority 1.3 Transport infrastructure and public transport complies with the main focus on the completion and modernisation of road and railway infrastructure included into the network of Trans-European multimodal corridors (Figure 5).

Under Specific Priority 1.4 Modernisation of health infrastructure the funds were concentrated in the construction and reconstruction of specialised hospitals, primarily aimed at the treatment of cardiovascular diseases, with the highest expenditures incurred in the regions of Banská Bystrica, Košice, Nitra, and Žilina (Figure 5).

Summary

The objective of Strategic Priority 1 Infrastructure and regional accessibility was to enhance the infrastructure of regions covering the areas of transport, environment and civil infrastructure in towns and municipalities. The support was absorbed in four specific areas: Regional infrastructure, environmental infrastructure and protection of environment, transport infrastructure and public passenger transport as well as modernisation of health infrastructure.

Total expenditures incurred under Strategic Priority 1 Infrastructure and Regional Accessibility were EUR 5.5 billion, which was 58.8% of the total expenditures invested in NSRF 2007-2013. In terms of specific areas, the largest volumes of funds (EUR 2.5 billion) were absorbed in Transport Infrastructure and Public Passenger Transport (79 supported projects) and Regional Infrastructure (EUR 1.46 billion) (2,645 supported projects). Environmental Infrastructure and Protection of the Environment was supported by EUR 1.25 billion (695 projects) and Modernisation of Health Infrastructure by EUR 272.4 billion (75 projects).

Individual projects were funded in compliance with the objectives and measures of operational programmes – Regional Operational Programme, OP Competitiveness and Economic Growth, OP Environment, OP Healthcare, OP Transport, and OP Bratislava Region.

The highest efficiency of absorption was recorded in OP Healthcare, where 93.2% of the funds allocated had been absorbed as of 31 December 2014. It was followed by the Regional Operational Programme with a success rate of 74.9%, OP Transport with 68.5
% and finally by OP Environment with an absorption rate of 58.4%.

The largest amounts were absorbed in the Trenčín region (EUR 1.2 billion), the Žilina (EUR 1 billion), and the Prešov region (EUR 952.2 billion). The smallest amount was allocated to the Bratislava region (EUR 193.1 million); in terms of territorial eligibility this region was beyond the area of support in several cases.

In terms of the identified regional disparities and the absorption of funds under Strategic priority 1 it can be noted that the interventions take into consideration the socio-economic condition of individual Slovak regions with the exception of the Košice region which ranks last in the regional structure of Slovakia and received a financial intervention only in the amount of fifty per cent of the support provided to the Trenčín region.

7.4 Assessment of SF and CF contribution to the reduction of regional disparities under Strategic Priority 1 Infrastructure and Regional Accessibility

Seven (7) measures were identified based on the selected method to assess the contribution of SF and CF to the reduction of regional disparities under Strategic Priority 1 Infrastructure and Regional Accessibility.

- Measure 1.1 Integrated protection and rational utilisation of water resources (OP Environment)
- Measure 4.1 Waste management (OP Environment)
- Measure 1.1 Modernisation and development of railway infrastructure (OP Transport)
- Measure 2.1 Motorway construction (TEN-T) (OP Transport)
- Measure 5.1 Construction of expressways (OP Transport)
- Measure 5.2 Modernisation and construction of first-class roads (OP Transport)
- Measure 1.1 Infrastructure of education (Regional OP)
- Measure 4.1 Regeneration of settlements (Regional OP)

7.4.1 Measure 1.1 Integrated protection and rational utilisation of water resources

The main focus of Measure 1.1 Integrated protection and rational utilisation of water resources was to make sure that the largest possible number of inhabitants have access to drinking water and that the number of people increases who live in houses connected to public wastewater collection systems and are supplied drinking water from public water mains in sufficient quantity and quality where such supplies are in combination with the collection and treatment of urban waste water. Safe collection and treatment of wastewaters is an important factor of water protection from pollution aimed at achieving
the objective of the Water Framework Directive, i.e. achieve a good environmental state of waters by 2015.

The measure was implemented under OP Environment Priority Axis 1 Integrated protection and rational utilisation of water resources.

Measure 1.1 Integrated protection and rational utilisation of water resources has been funded from the Cohesion Fund and the amount of EUR 1,111,427,018 allocated to it is 51.91% of the total amount allocated to the operational programme. From the beginning of the programme period until 31 December 2014, there were 13 calls for NG applications under the measure for a total allocation of EUR 1.127 billion. 486 NG applications were received, of which 188 projects were contracted in a total value of EUR 1.154 billion. Expenditures reached a value of EUR 604.5 million, which represents a success rate of 54.5% for the absorption of allocated funds. 91 projects were completed on time and 7 projects were terminated early. The amount of the funds spent under the projects completed on time was EUR 343.7, expenditures of the early terminated projects amounted to EUR 28.1 million. As of 31 December 2014 the European Commission approved 8 big projects under Measure 1.1 Integrated protection and rational utilisation of water resources with the total contracted amount of EUR 351.9 million the implementation of which will contribute to problem-free supplies of potable water to population and disposals of wastewaters without negative environmental impacts.

In the assessment of whether the objectives of the measure have been met, the connection to and the length of the water supply mains and sewerage networks and the number of water treatment plants can be considered significant indicators.

An important environmental infrastructure indicator is the length of the water supply network without connections and the share of population supplied by water from public water mains. As of 31 December 2014 the length of the water supply network in Slovakia was 29,642 km long (expert estimate), which – in comparison with 2007 – is an increase by 2,882 km. The length of water supply networks varies by regions. The longest sections are in the regions of Nitra, Prešov, and Košice (Table 7).

<table>
<thead>
<tr>
<th>Table 7 Selected indicators by Slovak regions</th>
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<tbody>
<tr>
<td>Indicator/Region</td>
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<tr>
<td>Length of water supply network without connections (in km)</td>
</tr>
<tr>
<td>In 2007</td>
</tr>
<tr>
<td>In 2014*</td>
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<tr>
<td>Growth index (%)</td>
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<tr>
<td>Share of population supplied by water from public water mains (expressed in %)</td>
</tr>
<tr>
<td>In 2007</td>
</tr>
<tr>
<td>In 2014*</td>
</tr>
<tr>
<td>Growth index (%)</td>
</tr>
<tr>
<td>Length of sewerage network without connections (in km)</td>
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<tr>
<td>In 2007</td>
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In 2007-2014, the addition to the length of the water supply network without connections was, absolutely and relatively, the highest in the region of Trenčín (+968 km, growth index 143.4%), Trnava (+700 km, index growth 132.8%), Košice (+621 km, growth index 117.6%), and Žilina (+541 km, growth index 115.5%); the region of Banská Bystrica was not included into the assessment.

Changes in the length of the water supply network without connections also had a positive impact on the share of population supplied by water from public water mains; on national level such share increased from 86.6% in 2007 to 87.5% in 2014. There are no significant regional differences in water supplies to population from public water mains. More than 90% of the population are supplied by water from public water mains in the regions of Bratislava (96.7%), Trenčín (93.5%), Nitra (90.7%) and Žilina (90.2%); the lowest share is in the regions of Prešov (80.5%) and Košice (82.1%) and this irrespective of the construction of new sections of the water supply network under the analysed period funded by the 2007-2013 Cohesion Policy resources, and the share of population supplied by water from public water mains increased by approximately 10%. The most significant change was in the Trenčín region where the share of population supplied by water from public water mains increased by up to 30%.

In 2014, the sewerage network in Slovakia – without connection – was 12,707 long (expert estimate), which is an increase on the 2007 length by more than 3,936.81 km (growth index 144.89%), with the highest share in the regions of Prešov (17.01%, 2,162 km), Žilina (16.07%, 2,042 km), Trnava (14.74%, 1,873 km), Košice (12.32%, 1,566 km), and Bratislava (12.24%, 1,556 km (expert estimate)). In 2007-2014, the in absolute and relative terms highest addition to the sewerage network without connections was in the regions of Trnava (+1,145.5 km, growth index of 257.57%), Žilina (+886.30 km, growth index of 142.94%), and Nitra (+543.34 km, growth index of 159.38% (expert estimate)); in other regions the length of the sewerage network increased by approximately 20-40%.

The newly built sections of the sewerage network positively influenced the number of inhabitants connected to public sewerage network on national (a 58.2% share of
population connected to public sewerage network in 2007 and 64.4% in 2014 (expert estimate)) and regional levels. In comparison with 2007, there is an increase by 14% in the number of people connected to public sewerage network in the regions of Trenčín, Prešov, and Žilina. Regions of Nitra and Banská Bystrica, where the share of people connected to the public sewerage network was the lowest throughout the analysed period, failed to achieve the national average values despite the positive trends in the construction of sewerage networks.

A factor affecting the quality of environment, in combination with the construction of collectors and networks, is the collection and treatment of municipal wastewaters. An important element of environmental infrastructure are wastewater treatment plants (“WTP”). Environmental infrastructure still faces the problem of inadequate number and geographical differentiation of WTP with adequate technology, which results in the pollution of water streams.

New WTP are under construction or have been put into operation, nevertheless, a number of the WTP operated in the past were put out of service due to unsatisfactory technological parameters.

In 2007-2014, 146 new WTP were constructed in the Slovak Republic and the total number of WTP was increased from 503 in 2007 to 678 (expert estimate) in 2014. New WTP were constructed and put into operation in all regions, except for the Bratislava region, where the number of WTP dropped.

As of 31 December 2014 implementation of projects supported under Measure 1.1 Integrated Protection and Rational Utilisation of Water Resources which built 186.82 km of drinking water distribution networks and 956.47 km of sewerage networks. As of 31 December 2014, 33,019 inhabitants were connected to the newly built drinking water distribution networks, and the number of inhabitants connected to the newly built sewerage networks reached 44,195. 43 sewage treatment plants were newly built or reconstructed.

In case of large projects under NG contracts, the declared target number of inhabitants connected to the newly constructed drinkable water distribution networks is 72,072 and the number of inhabitants connected to the newly built sewerage network is 301,567 as of 31 December 2014 (2014 Annual Report OP Environment).

In the context of the development of statistical indicators it can be noted that according to all the analysed indicators there was a reduction in the disparities between the regions of Slovakia in the period under survey. The most important indicators monitoring the achievement of the set objectives is the share of population supplied with drinkable water from public mains, showing an increase by 1% and the share of population connected to the sewerage network, showing an increase by more than 10% since 2007. Based on the values of measurable indicators of Measure 1.1 projects after their successful implementation, it is expected that the number of inhabitants supplied by drinking water will rise by 72,072, which represents more than 1% of Slovakia’s population. At the
same time it is expected that the number of inhabitants connected to sewerage networks will increase by 301,567, which amounts to 5.5% of Slovakia’s population.

Finally it can be noted that the financial support from the Cohesion Fund granted to projects aimed at drinkable water supplies to and drainage of waste water through a sewerage system from households in Slovakia significantly contributed to the reduction of regional disparities in Slovakia in the analysed period.

7.4.2 Measure 4.1 Waste management

The objective of the measure is to complete the waste management infrastructure in the Slovak Republic in line with the laws of EU and SR, to reduce and eliminate adverse effects of environmental burdens and waste disposal sites on the health of people and on ecosystems. The measure is mainly focused on implementing new separated communal waste collection systems and on increasing the efficiency of the existing ones, on increasing the volume of recycled waste, on making the hazardous characteristics of waste less hazardous, on handling hazardous waste, and on finding solutions for environmental burdens, as well as closing down and reclamation of waste disposal sites.

The measure was implemented under OP Environment – Priority axis 4 Waste management, was funded from the Cohesion Fund and the amount of EUR 472,776,470 allocated to it is almost 22.1% of the total amount allocated to the operational programme. From the beginning of the programme period until 31 December 2014, there were 20 calls for applications under the measure for a total allocation of EUR 713,818,143. 1,532 applications were registered applying for EUR 1,829,259,033, of which 283 projects were contracted in a total value of EUR 446,987,015. Expenditures incurred reached a value of EUR 349.6 million, which is a success rate of 78.2% for the absorption of allocated funds. 183 projects were completed on time and 14 projects were terminated early.

In the assessment of whether the objectives of the measure have been met, the volume of separated municipal waste components and the volume of recycled municipal waste can be considered significant indicators.

An important requirement of waste management is legislation governing the separation and recycling of municipal waste, which is also supported by EU Cohesion Policy funds for 2007-2013.

In 2007-2014, the weight of separately collected municipal waste components in Slovakia increased by approximately 65%, from 109.89 thousand tonnes in 2007 to 180.98 thousand tonnes (expert estimated) in 2014. In the separation of municipal waste all regions of Slovakia show a positive development. The highest increase in the weight of separately collected waste components was recorded in the regions of Košice (+10.21 thousand tonnes), Trnava (+14.14 thousand tonnes), Žilina (+15.33 thousand tonnes), and Bratislava (+8.67 thousand tonnes).
In 2014 the largest percentage of separately collected municipal waste was achieved in the region of Bratislava (18.40%; 33.31 thousand tonnes), Žilina (16.12%; 29.17 thousand tonnes), Trnava (14.60%; 26.43 thousand tonnes), Trenčín (12.92%; 23.38 thousand tonnes), and Banská Bystrica (10.88%; 19.69 thousand tonnes).

Positive is also the national and regional development in the per capita volume of recycled municipal waste. On national level, there was an increase in the recycled waste from 48.27 kg in 2007 to 108.28 kg per one person (expert estimate) in 2014, with regional differences. The most significant change in the per capita volume of recycled municipal waste was in the regions of Košice (+347.39 kg/person), Trenčín (+60.11 kg/person), Trnava (+53.58 kg/person), and Prešov (+52.75 kg/person); other regions recorded an increase in the range from +42 kg/person (Nitra) to +49.66 kg/person (Žilina; expert estimate).

As of 31 December 2014, 147 waste separation facilities were constructed or modernised in the projects funded under Measure 4.1 Waste Management. 113,226 tonnes of waste are separated in these facilities each year. Further funds went into the construction or modernisation of 100 material waste recovery facilities (building waste, plastics, edible oils and fats etc.), which recovered 356,018 tons of material waste a year. 8 hazardous waste treatment facilities were built. 19 environmental burdens were eliminated and 47 waste disposal sites were closed down and reclaimed.

The development of statistical indicators points to a favourable development in the area of waste management and reduction in regional disparities. In terms of waste separation, 62% of the waste was separated within projects supported from the Cohesion Fund. In the period of 2010-2014 up to 85% of the funds invested into elimination of environmental burdens came from the Cohesion Fund.

The highest support under Measure 4.1 Waste management was used in the regions with the lowest rate of waste separation and recycling (regions of Banská Bystrica and Košice). From this point of view it can be noted that in the context of the monitored
indicators interventions from the Cohesion Funds significantly contributed to the reduction of regional disparities in the field of waste management (Table 8).

7.4.3 *Measure 1.1 Modernisation and development of railway infrastructure*

First of all it needs to be stated that OPT is primarily aimed at large, so-called national investment projects for the modernisation and development of transport infrastructure. In contrast to demand-oriented operational programmes, the Managing Authority of Operational Programme Transport does not make calls for the submission of applications for NG. Projects for the modernisation and construction of the main transport infrastructure under OPT are of transregional and international importance and impact. The regional aspect and determination of regional allocations on operational programme level is therefore subordinated to national and EU needs. Priority interests in the sector are based on government approved strategic and development documents as well as commitments of the Slovak Republic towards the EU resulting from international contracts or contracts with strategic investors. The regional structure of financial resources significantly influences the nature of the projects such as routing of the transport infrastructure, linear constructions, transport infrastructure in a territory and the condition of such infrastructure, actual transport situation in the relevant territory (profile intensities, number of traffic accidents, etc.), level of technical preparation of projects, as well as the effort of the ministry to ensure the continuity of the construction, mainly of sections of the main railway and road infrastructure.

The objective of *Measure 1.1 Modernisation and development of railway infrastructure* is to improve the condition of the railway infrastructure, modernise railway stations, construct core railway nodes, increase the safety and reliability of operations and reduce the number of accidents.

The measure is funded from the Cohesion Fund under OP Transport *Priority axis 1 – Railway infrastructure*. It has been allocated EUR 1,022,856,793, which accounts for 27.4% of the total allocation for the operational programme. As of 31 December 2014 the European Commission approved 17 projects, of which 13 were contracted in the total amount of EUR 1.127 billion. An absorption rate of 54.5% in the total amount of EUR 604.5 million was recorded in the analysed period. One project, with incurred expenditures of EUR 101 million, was completed on time, and 4 projects with the total expenditures of EUR 55.9 million were terminated early.

Localisation, construction, density, and hierarchy of Slovak rail roads reflects primarily the different geographical natural conditions (orography, hydrological and other conditions) and the socio-economic situation (potential of the location, constitutional arrangement, structure of settlements, mutual location (distance) of main economic centres, directions of the links between suppliers and clients, etc.).
Important signs of a functional and efficient transport system in Slovakia is the fact that railways are linked with the road network. The main function of railway transport are freight services. All Slovak settlements are connected to the railway network. In Slovakia, the railway tracks are part of the European transport system, international rail systems, and multimodal corridors (IV, V, and VI).

As of 31 December 2014 the total length of the railway network in Slovakia was 3,589 km. Of the total length, almost 40% of the operated railways are located in the regions of Košice (706 km) and Banská Bystrica (670 km), 15% (537 km) are in the region of Nitra, and approximately 11% are in the region of Žilina (395 km) as well as in the region of Prešov (420 km). The share of other regions (Bratislava 6.22%; Trenčín 8.92%; Trnava 8.86%) is lower, and several sections of the modernised and in terms of hierarchy most important railways are integral part of European multimodal corridors.

The share of railway transport in the total performance of passenger transport has a growing tendency (5.27% in 2007; 6.7% in 2014). The growing share is mainly due to the modernisation of railway corridors and the decrease in public road transport services. Modernisation of further sections of the railway corridors and renewal of the rolling stock create the conditions for the strengthening of the position of railway transport in the transport market.

As of 31 December 2014, modernisation of 64.31 km of railways was funded from EU funds. In geographical terms, 4 projects – with incurred expenditures of EUR 487.1 million – were implemented in the region of Trenčín, and 5 projects – with the intervention of EUR 173.9 million – in the region of Žilina. 4 projects with EUR 30.1 million spent were classified as transnational (2014 Annual Report OPT).

In terms of measurable indicators, the partial result achieved by the modernisation of the 18.9 km long section between Žilina and Krásno nad Kysucou could be assessed as of 31 December 2014. Due to the modernisation the time necessary to travel/drive through this section was reduced by approximately 2 minutes. In addition to the time saving, the investment also resulted in better technical condition of the rail track, higher safety and comfort. Significant time savings in cargo transportation is expected in the newly built marshalling yard in Žilina (Teplička nad Váhom). In the extent in which the marshalling yard was built it will allow to process approximately 1,200 freight wagons on a top level within 24 hours and handle 45 ending and 41 outgoing freight wagons. In passenger transport, time savings will result from the modernisation of the track between the cities of Nové Mesto nad Váhom and Púchov. The estimated time savings shall be approximately 3 minutes. Time savings of 1.5 minute are expected at the modernised section Trenčianska Teplá – Beluša after the speed increases from the current 120 km/h to 160 km/h.

The implementation of projects focused on the modernisation of railways is highly time-consuming and costly. Since there was a need to ensure continuity especially in the construction of sections of main rail infrastructure, funds were invested especially in the
Trenčín and Žilina regions in this programme period. In the next period it is expected that support will gradually move to the regions of Central and Eastern Slovakia. A contribution of the implementation of SF and CF support to reducing regional disparities in rail transport will become obvious only after rail infrastructure is modernised across the whole territory of the Slovak Republic.

7.4.4 Measure 2.1 Motorway construction (TEN-T)

The objective of the measure is to enhance the accessibility of Slovakia and Slovak regions by building high-quality national roads and thus contribute to the homogeneousness of the Trans-European Transport network and integration of the Slovak road infrastructure in the European transport system. The measure focuses on the development of new sections of motorways and expressways included into the TEN-T network, with the aim to evenly cover Slovakia’s territory.

The measure is funded from the Cohesion Fund under OP Transport Priority axis 2 – Road infrastructure TEN-T. It has been allocated EUR 1,198,921,733, which accounts for 31.6% of the total allocation for the operational programme. As of 31 December 2014 the European Commission approved 17 projects, of which 16 were contracted in the total amount of EUR 1.198 billion. An absorption rate of 70% in the total amount of EUR 841.8 million was recorded in the analysed period. Four projects, with expenditures incurred in the amount of EUR 116 million were completed on time.

In the assessment of whether the objectives of the measure have been met, the length of motorways and relevant feeder roads and the density of the motorway network can be considered significant indicators.

An important factor significantly determining the competitiveness and development opportunities of regions is the main road network, particularly motorways.

### Table 9 Selected indicators by Slovak regions

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NR</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of motorways and motorway feeders (in km)</td>
<td>110.053</td>
<td>67.242</td>
<td>80.341</td>
<td>0</td>
<td>69.13</td>
<td>0</td>
<td>40.429</td>
<td>5.325</td>
<td>372.52</td>
<td>0.5290</td>
</tr>
<tr>
<td>In 2007</td>
<td>111.999</td>
<td>67.242</td>
<td>89.135</td>
<td>0</td>
<td>66.6</td>
<td>0</td>
<td>92.797</td>
<td>5.407</td>
<td>429.075</td>
<td>0.4953</td>
</tr>
<tr>
<td>Growth index (%)</td>
<td>101.8</td>
<td>100.0</td>
<td>110.9</td>
<td>0.0</td>
<td>96.3</td>
<td>0.0</td>
<td>229.5</td>
<td>101.5</td>
<td>115.2</td>
<td></td>
</tr>
<tr>
<td>Length of motorways with construction co-funded from the Cohesion Fund (in km)</td>
<td>0</td>
<td>0</td>
<td>9.6</td>
<td>0</td>
<td>9.15</td>
<td>0</td>
<td>3.32</td>
<td>0</td>
<td>22.07</td>
<td></td>
</tr>
<tr>
<td>Expenditures incurred from SF and CF (EUR million)</td>
<td>3</td>
<td>0</td>
<td>263.4</td>
<td>0</td>
<td>593.4</td>
<td>0</td>
<td>284.3</td>
<td>50</td>
<td>841.8</td>
<td></td>
</tr>
</tbody>
</table>

* Expert estimate

Source: Statistical Office of the Slovak Republic, ITMS

In the analysed period, the length of Slovak motorways with relevant feeder roads increased from 372.52 km in 2007 to 429.075 km (expert estimate) in 2014, which means
that 59,556.5 km of new motorway sections were commissioned. The longest motorways and feeder roads is in the Bratislava region (111,999 km; 25.92% SR; motorway sections D1, D2, and D4), in the Trenčín region (89,135 km; 20.63% SR; motorway section D1), in the Prešov region (92,795 km; 2.17% SR; motorway section D1), in the Prešov region (67,242 km; 15.58% SR; motorway section D1), and in the Žilina region (66.6 km; 20.63% SR; motorway section D1). The infrastructure of the above motorways and feeder roads is integral part of the TEN-T routes of multimodal corridors IV, V and VI through the territory of Slovakia.

The construction of new motorway sections and feeder roads not only enhanced the transitivity of the Slovak territory in the west-east direction on roads, but also changed the density of motorways per one unit of the area, which increased from 0.76 km/100 km² at the beginning of the analysed period to 0.88 km/100 km², where the highest density is in the regions of Bratislava (5.46 km/100 km²), Trenčín (1.98 km/100 km²) and Trnava (1.62 km/100 km²). The uncompleted motorways in the regions of Prešov and Košice is demonstrated in lower accessibility of the above regions and in below-average density of motorways and relevant feeders (Prešov region 1.07 km/100 km²; Košice region 0.08 km/100 km²).

As of 31 December 2014 EU funds were invested within Measure 2.1 Motorway Construction (TEN-T) into the construction of 22.07 km of new motorways, which accounts for 41% of the total length of the 53.6 km built in the analysed period. In geographical terms, 1 project was implemented in the Bratislava region with financial support of EUR 3 million, 1 project – with the expenditures incurred of EUR 263.4 million was implemented in the Trenčín region, 8 projects in the value of EUR 593.4 million were implemented in the Žilina region, 4 projects with the amount spent of EUR 284.3 million were implemented in the Prešov region, and 1 project – with the intervention of EUR 50.5 million – in the region of Košice. 9.6 km of motorway in the Trenčín region, 9.15 km in the Žilina region, and 3.32 km in the Prešov region have been constructed under the projects. (2014 Annual Report OPT)

The implementation of projects supported within Measure 2.1 Motorway construction (TEN-T) is crucial for the reduction of regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers. The construction of new motorways will enhance the quality of Slovakia’s connection to road networks of the neighbouring countries and improve the accessibility of individual regions of Slovakia. It will also attract foreign investments, increase tourism and enhance Slovakia’s global competitiveness. An evaluation of their net advantage will only be possible after the completion of all motorway section providing for a fluent connection between Western and Eastern Slovakia. The construction of a 100 km road network is necessary to make the D1 motorway fully passable.
7.4.5 **Measure 5.1 Construction of expressways**

The objective of the measure is to provide for high-quality road connection between regions, regional centres, regions and the capital of Bratislava, and to make the Trans-European network accessible. The measure focuses on the development of new sections of motorways and expressways with the aim to evenly cover Slovakia’s territory with the main road infrastructure.

The measure is implemented as part of OP Transport Priority Axis 5 Road Infrastructure, and it is funded from the European Regional Development Fund. It has been allocated EUR 361,729,412, which accounts for 9.5% of the total allocation for the operational programme. As of 31 December 2014 the European Commission approved 7 projects in the total amount of EUR 537.4 billion. An absorption rate of 84% in the total amount of EUR 300 million was recorded in the analysed period. Three projects, with expenditures incurred in the amount of EUR 131.3 million were completed on time.

In terms of comparative advantages for further development and competitiveness growth, particularly in regions with lower accessibility in terms of transport and/or time, an important role is played by expressways with the relevant feeder roads that complement the main infrastructure and significantly increase the accessibility of such regions.

In 2009-2014, the total length of Slovak expressways with relevant feeder roads increased from 179.653 km in 2007 to 286.267 km (expert estimate) in 2014. Newly built sections of the R1 expressway were put into operation in the regions of Nitra (+57.303 km) and Banská Bystrica (+15.52 km) In Slovakia, the longest sections of expressways with relevant feeder roads are currently operated in the Banská Bystrica region (117 km; 38.5% SR) and Nitra region (80 km; 28.8% SR).

Newly built sections also increased the density of expressways (0.37 km/100 km² in 2007; 0.58 km/100 km² in 2014). This value is geographically differentiated with the highest density in the Nitra region (1.26 km/100 km²), the Banská Bystrica region (1.13 km/100 km²), and the Košice region (0.61 km/100 km²).

<table>
<thead>
<tr>
<th>Table 10 Selected indicators by Slovak regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator/Region</td>
</tr>
<tr>
<td>Length of expressways and motorway feeders (in km)</td>
</tr>
<tr>
<td>In 2007</td>
</tr>
<tr>
<td>In 2014</td>
</tr>
<tr>
<td>Growth index (%)</td>
</tr>
<tr>
<td>Length of expressways with construction co-funded from the Cohesion Fund (in km)</td>
</tr>
<tr>
<td>2007-2014</td>
</tr>
<tr>
<td>Expenditures incurred from SF and CF (EUR million)</td>
</tr>
<tr>
<td>2007-2014</td>
</tr>
</tbody>
</table>

* Expert estimate

Source: Statistical Office of the Slovak Republic, ITMS

98.2 km of expressways and feeder roads have been built in Slovakia since 2009. Under Measure 5.1 Construction of Expressways, EU funds were invested in the construction of 42.25 km of new expressways, which accounts for 42% of the total length of newly built expressways.
expressways. In geographical terms, 1 project has been implemented in the Trnava region with the expenditures incurred so far in the amount of EUR 0.5 million, 1 project – with the expenditures incurred of EUR 35.1 million was implemented in the Trenčín region, 6 projects with expenditures incurred in the amount of EUR 216.6 million were implemented in the Banská Bystrica region, 1 projects with the amount spent of EUR 47.8 million was implemented in the Košice region (2014 Annual Report OPT).

In Slovakia, motorways and expressways make up the main transport infrastructure, connecting the major settlements in Slovakia and integrate the country into the European transport system. Like in the case of motorways, the implementation of projects supported under the measure 5.1 Construction of expressways is crucial for reducing regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers, especially in the regions of southern Slovakia where the network of main roads is considerably underdeveloped.

7.4.6 Measure 5.2 Modernisation and construction of first-class roads

The objective of Measure 5.2 Modernisation and construction of first-class roads is to increase the safety and smoothness of transport on first-class roads by means of their construction and modernisation.

The measure is implemented as part of OP Transport Priority Axis 5 Road Infrastructure, and it is funded from the European Regional Development Fund. It has been allocated EUR 454,794,072, which accounts for 12% of the total allocation for the operational programme. As of 31 December 2014 the European Commission approved 28 projects, of which 25 were contracted in the total amount of EUR 485.6 billion. An absorption rate of 57.3% in the total amount of EUR 260.5 million was recorded in the analysed period. Five projects, with expenditures incurred in the amount of EUR 108.1 million were completed on time.

First-class roads, in addition to motorways and expressways, are the main pillars of the transport structure seamlessly connecting individual regional centres and also border crossing points; these roads are mainly important for international and national transport. According to their characteristics and technical parameters first-class roads should make sure that traffic, primarily the transit traffic, is safe and fast-moving and avoid towns and municipalities to minimise its negative effects.

First-class roads are distributed quite evenly and the longest sections are in the region of Banská Bystrica (644.14 km) and in the Prešov region (623.62 km; expert estimate). For geographical distribution of first-class roads by individual regions of the Slovak Republic see Table 11. The density of first-class roads by regions, which remained almost unchanged (6.87km/100 km² in 2007; 6.69 km/100 km² in 2014) in 2007-2014, has changed only slightly. There is only a minor increase by 0.33 km/100 km² in the road
density in the region of Banská Bystrica. The highest is the density of first-class roads in the regions of Nitra (7.63 km/100 m²), Žilina (7.36 km/100 km²), Prešov (6.95 km/100 km²) and Banská Bystrica (6.81 km/100 km²).

Table 11 Selected indicators by Slovak regions

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NR</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of first-class roads (in km)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>131.655</td>
<td>291.014</td>
<td>307.66</td>
<td>517.749</td>
<td>511.946</td>
<td>612.885</td>
<td>626.364</td>
<td>366.651</td>
<td>3365.924</td>
<td>0.2797</td>
</tr>
<tr>
<td>In 2014*</td>
<td>130.110</td>
<td>260.172</td>
<td>301.313</td>
<td>501.157</td>
<td>644.139</td>
<td>623.617</td>
<td>335.694</td>
<td>3279.240</td>
<td>0.2974</td>
<td></td>
</tr>
<tr>
<td><strong>Growth index (%)</strong></td>
<td>98.8</td>
<td>89.4</td>
<td>97.9</td>
<td>0.0</td>
<td>97.9</td>
<td>0.0</td>
<td>96.6</td>
<td>91.6</td>
<td>97.4</td>
<td></td>
</tr>
<tr>
<td><strong>Length of first-class roads with construction co-funded from ERDF (in km)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditures incurred from SF and CF (EUR million)</td>
<td>0</td>
<td>0</td>
<td>23.6</td>
<td>0</td>
<td>11.4</td>
<td>21.8</td>
<td>59.9</td>
<td>0</td>
<td>116.7</td>
<td></td>
</tr>
</tbody>
</table>

* Expert estimate

Source: Statistical Office of the Slovak Republic, ITMS

Thanks to EU funds 15.18 km of new first-class roads were built and 432.4 km modernised under Measure 5.2 Modernisation and Construction of First-Class Roads as of 31 December 2014. In geographical terms, 1 project has been implemented in the Trenčín region with the expenditures incurred so far in the amount of EUR 23.6 million, 2 project – with the expenditures incurred of EUR 11.4 million – were implemented in the Žilina region, 6 projects with expenditures incurred in the amount of EUR 21.8 million were implemented in the Banská Bystrica region, and 6 projects in the Prešov region incurred total expenditures of EUR 59.9 million (ITMS 2014).

First-class roads are important for international and national road transport, interconnection of regions, seats of governments of self-governing regions and districts, connection to road networks of the neighbouring countries, and they also ensure the transport accessibility of the whole territory. About 50% of all transport performance is generated on first-class roads. Projects supported from SF helped modernise 13% of first-class roads. Modernisation also improved the safety of road traffic; as a result, the number of road traffic casualties is decreasing in Slovakia. Since 2007 their number has dropped by 41%, from 627 to 259. In this respect it can be stated that contributions from SF have considerably improved the quality and safety of first-class roads.

### 7.4.7 Measure 1.1 Education Infrastructure

The objective of Measure 1.1 Education Infrastructure is to improve the quality of the services rendered by the education sector through the reconstruction, extension and modernisation of pre-school (kindergarten), primary school and secondary school facilities including the procurement of the necessary equipment.

Support of education infrastructure is, from the perspective of public sector (mainly local administration bodies), one of the most important development priorities. The projects were very similar in their nature, they differed in the type (kindergarten, primary school, 

62
special school, joint school (spojená škola), secondary school, etc.), size/capacity, and importance of the school within the network of education facilities, and in the construction and technical condition of the building. They included mainly construction and technical interventions aimed at the reconstruction, extension, and modernisation of selected kindergartens, primary and secondary schools and the associated purchase of equipment, including ICT. The purpose of these interventions was to fix the unsatisfactory construction and technical condition of the buildings, fix the inadequate conditions for immobile users and reduce the high energy intensity of operations for all types of schools while respecting the environmental sustainability principles. These interventions meet the qualitative and quantitative standards of the education process aimed at improving the quality of the education process. In case of technical professional secondary schools the objective is to increase the professional level and competitiveness of graduates on the labour market. In case of kindergartens identified in the local development strategies in the growth poles, the support is provided in the form of extended capacity of existing facilities and creation of daycare centres plus the purchase of relevant equipment. For all types of schools, interventions should consider rationalisation trends in the network of facilities (such as combination of schools). Such interventions also support the inclusion of children with limited mobility (particularly by elimination of construction barriers). Support is provided to specific types of schools and school facilities for disadvantaged groups as an instrument supporting the equality of opportunities, mainly to facilities in territories with significantly represented marginalised Roma communities as an instrument supporting social inclusion of Roma communities.

The measure is implemented as part of the Regional Operational Programme of Priority Axis 1 – Education Infrastructure, and it is funded from the European Regional Development Fund. It has been allocated EUR 599,727,717 which accounts for 32% of the total allocation for the operational programme. As of 31 December 2014, there were 4 calls for the submission of applications for non-refundable financial contributions (NFC) within the measure, in a total allocation of EUR 503.83. Beneficiaries were public and private sector organisations. 1,747 NFC applications were received, of which 782 projects in a total value of EUR 621.75 million were contracted. As of 31 December 2014, expenditures reached the value of EUR 594.4 million, which represents a success rate of 93.2% for the absorption of allocated funds. 746 projects have been duly completed (primary schools 609, secondary schools 65 and kindergartens 67), 35 projects were terminated prematurely. In the private sector, beneficiaries were prevailingly churches and religious organisations, to a small extent non-governmental organisations and associations. In the public sector, the majority of supported projects (664 of the total 782 projects) was submitted by municipalities. Support was provided to 634 primary schools, 85 secondary schools, and 62 kindergartens.

An important indicator of project contribution are energy saving measures that resulted in lower consumption of electricity. In the 2007-2014 period Slovakia reduced its electricity
consumption by 15,741.75 thousand MWh (approximately by 10%; Table 12) thanks all the regions in the country. The absolutely biggest electricity savings were in these regions: Bratislava (623.15 thousand MWh), Trnava (318.81 thousand MWh), Prešov (253.97 MWh), and Košice (215.20 MWh). In other regions the consumption dropped by 110-130 MWh on average. The relatively highest electricity savings are in the Prešov and Trnava regions (both with the growth index of 72%) and in the Nitra region (growth index 87%).

In 2014, the biggest electricity consumption – caused by the energy intensive economy and household consumption – was in the Bratislava (4,108.46 MWh; 26.10% SR), Banská Bystrica (3,320.14 MWh; 21.09% SR), and Košice (2,413.19 MWh; 15.33% SR) regions (Table 12). The share of other regions is in the range from 4.13% (650.31 MWh, expert estimate; Prešov region) to 12.81% (2,016.49 MWh, expert estimate; Žilina region).

In line with the Slovak Energy Policy (ME SR 2004) declaring the need to create conditions that will provide for sufficient energy, efficient use of energy, safe and uninterrupted energy supplies, maximum savings in energy consumption, continuous reduction of energy intensity, and rational use of energy, there was a significant reduction in heat consumption in Slovakia in years 2007-2014.

In 2014 the heat consumption in Slovakia amounted to 258.599 million GJ (expert estimate), which – in comparison with 2007 – is a reduction by 24.02 million GJ. Heat savings in individual Slovak regions differ significantly. In the analysed period, except for the Bratislava (+21.93 million GJ), Trenčín (+0.11 million GJ) and Prešov (+1.49 million GJ) regions, there was a drop in the heat consumption. Most significant reduction was in the Trnava (-28.40 million GJ), Žilina (-9.51 million GJ), and the “energy intensive” Košice (-4 million GJ) region (Table 12).

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NR</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
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<tr>
<td><strong>Electricity consumption (in thousands of MWh)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>4,731.61</td>
<td>1,153.24</td>
<td>1,690.97</td>
<td>1,018.21</td>
<td>2,126.28</td>
<td>3,367.70</td>
<td>904.28</td>
<td>2,628.39</td>
<td>17,620.67</td>
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<tr>
<td>In 2014*</td>
<td>4,108.46</td>
<td>834.43</td>
<td>1,581.99</td>
<td>887.92</td>
<td>2,016.49</td>
<td>3,320.14</td>
<td>650.31</td>
<td>2,413.19</td>
<td>15,741.75</td>
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<tr>
<td>Growth index (%)</td>
<td>86.8</td>
<td>72.4</td>
<td>93.6</td>
<td>87.2</td>
<td>94.8</td>
<td>98.6</td>
<td>71.9</td>
<td>91.8</td>
<td>89.3</td>
</tr>
<tr>
<td><strong>Heat consumption (GJ million)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>191.81</td>
<td>31.80</td>
<td>4.96</td>
<td>5.38</td>
<td>12.93</td>
<td>4.67</td>
<td>5.83</td>
<td>25.24</td>
<td>282.62</td>
</tr>
<tr>
<td>In 2014*</td>
<td>213.75</td>
<td>3.40</td>
<td>5.07</td>
<td>2.86</td>
<td>3.42</td>
<td>4.67</td>
<td>7.33</td>
<td>21.23</td>
<td>258.60</td>
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<tr>
<td>Growth index (%)</td>
<td>111.4</td>
<td>10.7</td>
<td>102.3</td>
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<td>26.5</td>
<td>99.8</td>
<td>125.6</td>
<td>84.1</td>
<td>91.5</td>
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<tr>
<td><strong>Expenditures incurred from SF and CF (EUR million)</strong></td>
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<td>1.4</td>
<td>64.8</td>
<td>64.8</td>
<td>119</td>
<td>67.2</td>
<td>122.6</td>
<td>75.7</td>
<td>594.4</td>
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<th>Year</th>
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</thead>
<tbody>
<tr>
<td>Expenditures incurred from SF and CF (EUR million)</td>
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</tbody>
</table>

* Expert estimate

Source: Statistical Office of the Slovak Republic, ITMS

In 2014, heat consumption in the Bratislava region was up to 82.66% (213.75 million GJ, expert estimate), in the Košice region it was 8.21% (21.23 million GJ), and in the Prešov
region 2.83% (7.33 million GJ). The shares of other regions were much lower, approximately on the level of 1.32% (two regions: Trnava and Žilina) up to 1.96% (the Trenčín region; Table 12).

Measure 1.1 Infrastructure of Education has profoundly contributed to the reduction of the “modernisation debt” accumulated over long years in the school infrastructure in consequence of the necessary technology and construction work using materials with better heat insulation parameters, increased use of renewable energy sources, particularly with regard to meeting the capacity and space requirements concerning effective energy use in school facilities by reduction of their energy intensity, and also contributed to the harmonisation of the family life with the work life by adding new and refurbishing the existing kindergarten facilities, and last but not least, contributed to the creation of the conditions allowing social integration in kindergarten and primary school facilities where municipalities have a higher number of MRC. The projects have also significantly contributed to the improvement of the education process and education services. In many cases only thanks to the implementation of a project schools could purchase computers and other ICT technology that is the prerequisite and inevitable part of digitalisation in regional schools and modern education. Moreover, also the contribution to higher energy efficiency of buildings, elimination of barriers and thus higher mobility, and the contribution to job creation are not insignificant.

The objects that had received support had their walls (a total area of 2,917,151 m²) thermo-insulated. Renewable energy resource facilities increased their installed capacity by 2.82 MW, the energy intensity of building decreased by 50% on average and yearly savings of energy amounted to 629,282.03 GJ.

The decision to divide the available ROP allocation among the participating NUTS III regions was political, adopted on national level. Regional policy principles and existing regional disparities between individual NUTS II regions were considered by the selected division of regional allocations. Nevertheless, disparities in the distribution of civil infrastructure facilities and settlements, demographic and age structure of population, etc. that have a significant impact on the support in individual areas supported by ROP have not been taken into consideration. Therefore, the basis used to allocate the funds was the effort to comply with the planned amount of indicative regional allocations on Operational Programme level. However, on the level of specific areas of support this amount was affected by specific regional needs (such as higher support of education infrastructure in regions with higher natural population growth rate).

As ROP is mainly focused on the development of the NUTS II region Eastern Slovakia, the Prešov region has the most projects (178) and the largest volume contracted (EUR 132.2 million). High interest in support for education infrastructure was also shown in the Žilina (154 projects; EUR 123.5 million) and Nitra regions (101 projects; EUR 70.4 million), which is a reflection of the demographic structure and the distribution of schools.
Finally it can be stated that such setting of allocations under Measure 1.1 Infrastructure of Education helped to significantly reduce the modernisation and operation debt of school facilities in Slovakia.

7.4.8 **Measure 4.1 Regeneration of Settlements**

The objective of Measure 4.1 Regeneration of Settlements is to enhance the infrastructure of areas through the regeneration of settlements. The intention is to improve the competitiveness of settlements identified as innovation and cohesion growth poles. The areas of support included:

- demand-oriented projects focused on the development of municipalities
- integrated strategies of urban area development
- projects focused on the development of municipalities with Roma settlements in rural areas
- region development documents

Interventions under Measure 1.1 Regeneration of Settlements went to the tangible infrastructure of towns and municipalities as focal points of settlement in regions. A high structural level of public areas and their supplementary elements, a satisfactory technical condition of local roads and an environment with a high aesthetic value are vital for the attractiveness of an area for various economic activities and at the same time prevent the development of areas threatened by physical deterioration and social exclusion.

Regeneration of settlements is one of the most significant development priorities for applicants – towns and municipalities. After education infrastructure, it is ROP’s second biggest area of support in terms of allocation of funds and interest of applicants. For them resources from EU Structural Funds present an opportunity and possibility to improve the condition of the tangible infrastructure of settlements despite insufficient resources in municipal and state budgets. Especially for smaller municipalities the funds often represent the only way how they can reconstruct and modernise often decaying public areas, local roads or elements of small architecture and thus not only ensure their functionality and required aesthetic properties but also improve their own competitiveness and attractiveness. The technical condition and aesthetic quality of the tangible infrastructure of towns and municipalities are vital not only for the quality of life of their inhabitants, but also for their attractiveness for tourists, inhabitants of surrounding towns and municipalities and potential investors.

Projects were mostly focused on improving the condition of the tangible infrastructure of settlements identified as innovation and cohesion growth poles, supporting the infrastructure of housing, building elements of tangible infrastructure in settlements with separated and segregated Roma settlements and producing development documents at the level of regions.
The measure is implemented through the Regional Operational Programme and funded from the European Regional Development Fund. It has been allocated EUR 468,640,036, which accounts for 25.6% of the total allocation for the operational programme. As of 31 December 2014, there were 9 calls for applications for non-refundable financial contributions (NFC) under the measure totalling EUR 486,113,842. 1,015 NFC applications were received, of which 695 projects in a total value of EUR 434.3 million were contracted. As of 31 December 2014, expenditures reached a value of EUR 376.6 million, which represents a success rate of 80.3% for the absorption of allocated funds. 361 projects were properly completed.

The tangible infrastructure of towns and municipalities consists of publicly accessible areas, squares, local roads, pavements, elements of green areas, public lighting, public lavatories, elements of small architecture and similar. Local infrastructure in settlements constitutes an integral part of public areas, which, together with streets, form an urban skeleton of settlements and significantly affect their functional, social and aesthetic-cultural value. These elements of tangible architecture are mostly in the ownership of towns and municipalities, and their technical condition and aesthetic quality contribute to determining the quality of life of their inhabitants and their attractiveness not only for their inhabitants, but also for inhabitants of the surrounding areas, tourists and potential investors, which creates conditions for their further development.

In the period under survey tangible architecture in settlements did not achieve the required functional and aesthetic standards. In addition, urban areas also faced further physical deterioration and social exclusion. Approximately 49% of inhabitants of the Slovak Republic live in residential buildings. Over 70% of the existing buildings are mass-constructed blocks of flats built after 1970. An objective deficiency of urban areas is the technical and social decline of the housing stock, especially the unsatisfactory technical condition and high energy intensity of buildings.

As of 31 December 2014, Measure 4.1 Regeneration of Settlements supported 546 projects, which have contributed to the sustainability and attractiveness of towns. The projects helped reconstruct 200.6 km of local roads, and thanks to Structural Funds 42% of inhabitants live in a more competitive environment. 55 projects were focused on the support of housing infrastructure. With the support of Structural Funds, 56 development documents were produced. From a territorial point of view, 54% of settlements which had been identified as cohesion and innovation growth poles received support.

**Summary**

Based on an analysis of selected measures of Strategic Priority 1 Infrastructure and Regional Accessibility and assessment of their contribution to the reduction of regional disparities, it can be stated that in the period under survey:

- Measure 1.1 Integrated Protection and Rational Utilisation of Water Resources
supported projects which built 186.82 km of drinking water distribution networks and 956.47 km of sewerage networks. As of 31 December 2014, 33,019 inhabitants were connected to the newly built drinking water distribution networks, and the number of inhabitants connected to the newly built sewerage networks reached 44,195. 43 sewage treatment plants were newly built or reconstructed. According to all monitored indicators, disparities between the regions of Slovakia were reduced in the period under survey. The percentage of population supplied by drinking water from public water mains had increased by 1% since 2007 and the percentage of population connected to public sewerage networks had risen by over 10%. Based on the values of measurable indicators of Measure 1.1 projects after their successful implementation, it is expected that the number of inhabitants supplied by drinking water will rise by 72,072, which represents more than 1% of Slovakia’s population. At the same time it is expected that the number of inhabitants connected to sewerage networks will increase by 301,567, which amounts to 5.5% of Slovakia’s population.

- Within the supported projects of Measure 4.1 Waste Management, funds were invested in the construction or modernisation of 147 waste separation facilities, which separated 113,226 tons of waste a year. Further funds went into the construction or modernisation of 100 material waste recovery facilities (building waste, plastics, edible oils and fats etc.), which recovered 356,018 tons of material waste a year. 8 hazardous waste treatment facilities were built. 19 environmental burdens were eliminated and 47 waste disposal sites were closed down and rehabilitated. The development of statistical indicators points to a favourable development in the area of waste management and reduction in regional disparities. In terms of waste separation, 62% of the waste was separated within projects supported from the Cohesion Fund. It is also where 85% of funds invested in the elimination of environmental burdens in the period of 2010-2014 came from. The highest financial support under Measure 4.1 Waste Management went to regions with the lowest rate of waste recovery and separation (Banská Bystrica and Košice regions).

- Thanks to EU funds, 64.31 km of railways were modernised under Measure 1.1 Modernisation and Development of Railway Infrastructure. The implementation of projects focused on the modernisation of railways is highly time-consuming and costly. Since there was a need to ensure continuity especially in the construction of sections of main rail infrastructure, funds were invested especially in the Trenčín and Žilina regions in this programme period. In the next period it is expected that support will gradually move to the regions of central and eastern Slovakia. A contribution of the implementation of SF and CF support to reducing regional disparities in rail transport will become obvious only after rail infrastructure is modernised across the whole territory of the Slovak Republic.

- Under Measure 2.1 Motorway Construction (TENT-T), EU funds were invested in the construction of 22.07 km of new motorways, which accounts for 41% of the
total length of 53.6 km (of which 9.6 km were built in the Trenčín region, 9.15 km in the Žilina region and 3.32 km in the Prešov region). The implementation of projects supported within the measure is crucial for reducing regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers. The construction of new motorways will enhance the quality of Slovakia’s connection to road networks of the neighbouring countries and improve the accessibility of individual regions of Slovakia. It will also attract foreign investments, increase tourism and enhance Slovakia’s global competitiveness.

- **Under Measure 5.1 Construction of Expressways (TENT-T),** EU funds were invested in the construction of 42.25 km of new expressways, which accounts for 42% of the total length of newly built expressways (of which 23.75 km were built in the Banská Bystrica region, 14.18 km in the Košice region and 4.3 km in the Žilina region). Like in the case of motorways, the implementation of projects supported under this measure is crucial for reducing regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers, especially in the regions of southern Slovakia where the network of main roads is considerably underdeveloped.

- **Thanks to EU funds under Measure 5.2 Modernisation and Construction of First-Class Roads,** 15.18 km of new first-class roads were built and 432.4 km modernised. First-class roads are important for international and national road transport, interconnection of regions, seats of governments of self-governing regions and districts, connection to road networks of the neighbouring countries, and they also ensure the transport accessibility of the whole territory. About 50% of all transport performance is generated on first-class roads. Projects supported from SF helped modernise 13% of first-class roads. Modernisation also improved the safety of road traffic; as a result, the number of road traffic casualties is decreasing in Slovakia. Since 2007 their number has dropped by 41%, from 627 to 259. In this respect it can be stated that contributions from SF have considerably improved the quality and safety of first-class roads.

- **Measure 1.1 Infrastructure of Education** made a significant contribution to reducing the long-term accumulated debt when it comes to modernisation and operation of school infrastructure. Essential structural changes were made using materials with better thermo-insulating properties, there was an increase in the use of renewable energy resources, especially when it comes to meeting capacity and space requirements. School buildings improved their energy efficiency by reducing their energy intensity. Thanks to extension and modernisation of kindergartens, there was a reconciliation of family and working life. Last but not least, the measure helped create conditions for social integration in kindergartens and primary schools which are located in municipalities with a higher number of
members of marginalised Roma communities. The projects also significantly contributed to the improvement of the quality of educational process. In addition, and this is also not insignificant, they contributed to an increase in the energy efficiency of buildings, elimination of barriers to mobility and job creation. The objects that had received support had their walls (a total area of 2,917,151 m²) thermo-insulated. Renewable energy resource facilities increased their installed capacity by 2.82 MW, the energy intensity of building decreased by 50% on average and yearly savings of energy amounted to 629,282.03 GJ. In compliance with the objective of ROP, financial interventions focused especially on the development of the NUTS II Eastern Slovakia region.

- Interventions under *Measure 4.1 Regeneration of Settlements* went to the tangible infrastructure of towns and municipalities as focal points of settlement in regions. Support went to 546 projects, which have contributed to the sustainability and attractiveness of towns. The projects helped reconstruct 200.6 km of local roads, and thanks to Structural Funds 42% of inhabitants live in a more competitive environment. 55 projects were focused on the support of housing infrastructure. With the support of Structural Funds, 56 development documents were drawn. From a territorial point of view, 54% of settlements which had been identified as cohesion and innovation growth poles received support.
8 Strategic Priority 2: Knowledge-based Economy

The objective of Strategic Priority 2 Knowledge-based Economy is to develop resources of sustainable economic growth and enhance the competitiveness of industry and services. Contributions from the Structural Funds have focused on projects that will make the environment more attractive for the performance of innovative activities by global corporations and will encourage local innovative capacities to create and develop competitive innovative clusters.

A significant factor in supporting the knowledge-based economy was also modernisation of the infrastructure of universities aimed to increase the quality of educational process.

Efficient e-Government helps significantly to reduce the administrative burden of the population. Interventions have focused on the modernisation of state administration, regional and municipal government through information and communication technology, with the aim to increase the quality of supply, transparency and efficiency of public services provided to the population and businesses.

8.1 The Development of Regional Disparities under Strategic Priority 2 Knowledge-based Economy

One of the priorities of the 2007-2013 Cohesion Policy was supporting the development of knowledge-based economy. For the purpose of evaluating regional disparities in regions of the SR according to Strategic Priority 2 Knowledge-based Economy, a point method was used which relies on indicators of economic performance, business environment, research and development and internetisation in regions of the SR in 2007 and 2014 (expert estimate).

In both 2007 and 2014 regions could theoretically achieve a maximum of 1,500 points. In both years the Bratislava region placed first with the maximum of 1,500 points and the Žilina region second (it scored 403 points in 2007 and 401 points in 2014). In both cases we speak of regions whose important development priority is research and development. It is the Bratislava region and the Žilina region that receive the highest volumes of the country’s GDP set aside for research and development: 1.28% and 0.55% of Slovakia’s GDP, respectively.

The position of the regions in the area of Knowledge-based Economy is also influenced by research and development employment rate per 1,000 employees (20.4 in the Bratislava region and 4.3 in the Žilina region), or possibly the employment of FTE researchers, which is nearly triple the Slovak average. The current state is due to a large concentration of sector-diversified research and development in research and higher education institutions. The position of the Bratislava region and the Žilina region is also given by positive values of education indicators in the area of training of experts for research and development.

In addition, the Bratislava region has an above average share of Internet-connected households (83.4%) and the best values of indicators of economic performance. The
Bratislava region has the highest concentration of small and medium-sized enterprises, which is also positively reflected in the rate of entrepreneurial activity (17.32%).

Activities and employment in research and development, tailored to the needs of regional economy and research at higher education institutions, the share of Internet-connected households, together with a highly developed business environment and rate of entrepreneurial activity approximately one fifth higher than the Slovak average, make the Žilina region number two based on indicators of SP 2 Knowledge-based Economy (it scored 403 points in 2007 and 401 points in 2014).

Compared to 2007, there were not any changes on the third to fifth positions. They are occupied by the Trnava region (396 points in 2007 and 386 points in 2014), the Nitra region (375 points in 2007 and 304 points in 2014) and the Košice region (396 points in 2007 and 351 points in 2014). The share of Internet-connected households in these regions is similar to the country’s average; the share of research and development expenditures in GDP is differentiated (after the Bratislava region, the Košice region has the second highest – 0.79%). Despite research at higher education institutions and research activities mainly in technical and social sciences and the humanities, the other two regions use a relatively low volume and share of GDP expenditures (in the Trnava region it is 0.42% and in the Nitra region it is 0.27%). The different position of research and development in regional economy is also reflected in differentiated research and development employment. Higher education and research institutions found mainly in regional centres offer the possibility of PhD studies and developing the potential of human resources for research and development. The economic performance of the regions is different. Based on the basic macroeconomic indicator of GDP per capita in PPP, the Trnava region achieves 111.84% of the Slovak average while the Košice region 77.47% and the Nitra region 89.49%. The performance of the regional industry based on turnover and new orders in industry per 1,000 inhabitants is the second highest in the Trnava region and about 60% of Slovakia’s average in the Nitra region.

Based on their point score, the Trenčín region and the Banská Bystrica region constitute the second but last group. Compared to 2007, there was a deterioration in the position of the Trenčín region (386 points in 2007 and 247 points in 2014) and a slight improvement in the position of the Banská Bystrica region (184 points in 2007 and 208 points in 2014). In both regions the share of Internet-connected households is slightly lower than Slovakia’s average. Research and development are underfunded (circa 0.4% of GDP) and the number of FTE researchers employed in research and development per 1,000 inhabitants in both regions is considerably below average. The number of PhD graduates per 1,000 inhabitants aged 25-29 (0.63) in the Trenčín region is an insufficient prerequisite for adequate staffing of research and development in the future. According to GDP per capita in PPP, both regions lag behind by about 10-15% compared to Slovakia’s average. According to turnover and new orders in industry per 1,000 inhabitants and construction production carried out by own employees per 1,000 inhabitants, both regions lag behind considerably. The performance of the regional economy is also
reflected in the employee’s average nominal monthly salary, which is 10-13% lower than that in Slovakia’s national economy. The rate of entrepreneurial activity in the Trenčín region (13.83%) is comparable to Slovakia’s average; however, it is considerably lower in the Banská Bystrica region (12.59%).

The Prešov region placed last in both years (Figure 6). Funding and FTE employment of researchers, although improving slightly, are very low. The performance of the regional economy has also been a long-term problem. The values of the macroeconomic indicator of GDP per capita in PPP and performance of production industry and building industry are the lowest among Slovakia’s regions. The region is still facing negative consequences of crisis development.

Figure 6 Regional disparities under SP 2 Knowledge-based Economy and by regions of the SR

![Figure 6](image)

Source: Statistical Office of the Slovak Republic, calculations made by the authors

Standard tools for measuring RD according to SP 2 Knowledge-based Economy point to a slight deterioration in regional disparities, which is influenced mainly by the values of economic performance indicators.

Summary

According to SP 2 Knowledge-based Economy, the value of standard deviation has increased from 398.79 to 410.90, variation range from 1,344 to 1,384 and the Gini coefficient from 0.4110 to 0.4582 compared to 2007, which suggests stability or slight growth in regional disparities. Economic performance indicators (regional GDP per capita in PPP), which slowed down their growth as a result of crisis, have affected the values of monitored indicators.

The formation of RD according to SP 2 Knowledge-based Economy in the context of analysed indicators was influenced by:

- spatially considerably differentiated numbers of research and development employees, with their highest concentration (over 50%) in the Bratislava region,
- relatively low and spatially significantly differentiated share and volume of funds to support research and development from regional GDP,
8.2 Absorption of SF and CF funds under Strategic Priority 2 Knowledge-based Economy

Funds were invested in three areas: Information Society, Research and Development, Support for the Competitiveness of Enterprises and Services.

Expenditures related to the support of Knowledge-based Economy accounted for 29.1% (EUR 2.3 billion in 2,535 projects) of the total expenditures in the programme period. The highest volume of funds intended for the support of knowledge-based economy was used to support research and development (EUR 968.9 million, 42.3%; 632 projects), the competitiveness of enterprises and services (EUR 707.7 million, 29.6%; 1,683 projects) and, finally, information society (EUR 649 million, 28%; 220 projects).

Individual projects were funded in compliance with the objectives and measures of operational programmes – OP Research and Development, OP Competitiveness and Economic Growth, OP Information Society and OP Bratislava Region. In terms of operational programmes, the highest volume of funds, EUR 968.9 million, was absorbed by 479 projects under OP R&D, which constituted 42.3% of funds invested in the whole strategic priority. In OP CaEG support reached EUR 677.7 million (29.6%) in 1,530 projects and in OP IS EUR 644 million (28%) in 98 projects. In the Bratislava region the area of knowledge-based economy was supported by EUR 36 million in 285 projects from OP BR under Priority Axis 2 Knowledge-based Economy. The highest efficiency of absorption was recorded in OP R&D, where 68.1% of the funds allocated had been absorbed as of 31 December 2014. It was followed by OP IS with a success rate of 64.9% and finally by OP CaEG with an absorption of 59.5% of the funds allocated.

The largest portion of funds was absorbed in the regions of Bratislava (EUR 434 million; 439 projects), Banská Bystrica (EUR 408.8 million; 334 projects), Košice (EUR 395.2 million; 277 projects) and Žilina (EUR 357.4 million; 359 projects) (Chart 11, Figure 7). The Bratislava region ranked first thanks to a high concentration of research potential, which had absorbed more than EUR 235 million. In the Banská Bystrica region (EUR 219.4 million) and in the Prešov region (EUR 177.2 million) the biggest financial allocations went into the support of innovations, competitiveness and tourism.
Chart 11 Strategic Priority 2 Knowledge-based Economy (regions of the SR as of 31 December 2014)

Incurred expenditures

Number of contracted projects

Source: ITMS, calculations by authors

Figure 7 Structural funds expenditures incurred under 2007-2013 PA – Strategic Priority 2 Knowledge-based Economy (regions of the SR as of 31 December 2014)

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<tr>
<td>2.1 Informatizácia spoločnosti</td>
<td>2.1 Information society</td>
</tr>
<tr>
<td>2.2 Výskum a vývoj</td>
<td>2.2 Research and development</td>
</tr>
<tr>
<td>2.3 Infraštruktúra vysokých škôl</td>
<td>2.3 Infrastructure of higher education institutions</td>
</tr>
<tr>
<td>2.4 Podpora konkurencieschopnosti podnikov a služieb najmä prostredníctvom inovácií</td>
<td>2.4 Support for the competitiveness of businesses and services primarily through innovations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Podiel výdavkov v krajoch SR</th>
<th>Share in expenditures by regions of the SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,2% Trenčiansky</td>
<td>8.2% Trenčín</td>
</tr>
<tr>
<td>10% Trnavský</td>
<td>10% Trnava</td>
</tr>
<tr>
<td>11,6% Prešovský</td>
<td>11.6% Prešov</td>
</tr>
<tr>
<td>12% Nitriansky</td>
<td>12% Nitra</td>
</tr>
<tr>
<td>12,2% Žilinský</td>
<td>12.2% Žilina</td>
</tr>
<tr>
<td>13,6% Košický</td>
<td>13.6% Košice</td>
</tr>
</tbody>
</table>
8.2.1 Information Society

Support for information society was focused on creating inclusive information society as a means of developing a high-performance, knowledge-based economy. Interventions directed to support three main themes – e-Government, digital content and broadband Internet accessibility – amounted to EUR 649 million in 220 projects within OP Information Society and OP Bratislava Region. All regions of Slovakia were supported.

Operational Programme Information Society

The objective of Operational Programme Information Society was “to create an inclusive information society as a means of developing a high-performing knowledge-based economy.” Funds were provided for the modernisation of public administration through information and communication technologies (ICT) and were directed to all public administration organisations. Interventions were implemented in the whole organisational structure of public administration regardless of in which locations these institutions are situated and what functions they perform. Support was provided under three priority axes.

Priority Axis 1 Electronisation of Public Administration and Development of Electronic Services was focused on the electronisation of public administration and the development of e-government. Interventions focused primarily on the key functions and activities of public administration at central, regional and local levels with the aim to efficiently provide public administration services to citizens.

Measure 1.1 Electronisation of Public Administration and Development of Electronic Services at Central Level included the formation and sustainability of basic components of the integrated information system of public administration through investments in shared hardware and software and applications supporting the efficient performance of processes in state administration, which will enable the integration of ICT and selected public administration processes into one point – “front office”. Its share in the total allocation is 75.7%, i.e., EUR 460 million, which went into building components of an integrated information system of public administration that would cover the whole territory of Slovakia.

Measure 1.2 Electronisation of Public Administration and Development of Electronic Services at Local and Regional levels was aimed at the creation and sustainable development of a good-quality “internal administration system” of local and regional governments which would enable a systematic building of a network of integrated service points which would, due to a density of coverage in regions and a wide availability of services, significantly reduce the need of travelling when public
administration services are needed. The integrated service points will give complete or partial access to electronic services provided by public administration at one place. Within the measure, support in the total amount of EUR 44.9 million was given to 38 projects with a significantly regional aspect.

Besides e-Government, another important factor for the development of information society is access to a sufficient amount of digital content. **Priority Axis 2 Development of Memory and Repository Institutions and Renewal of Their National Infrastructure** was focused on the digitisation and making available of the content of memory and repository institutions, such as archives, libraries, museums, galleries, monument protection offices, specialised institutes and cultural institutions. The projects were supported by a total amount of EUR 122.4 million; support for individual projects ranged from EUR 2.1 million in the Trenčín region to EUR 8.5 million in the Prešov region. The largest amounts of funds went to the Bratislava region (EUR 70.2 million) and the Žilina region (EUR 26.9 million).

The objective of **Priority Axis 3 Improvement of Broadband Internet Access** was to achieve a high penetration of broadband Internet access comparable to developed EU countries. The projects here were focused on stimulating demand of households and population and increasing motivation to use broadband technologies. Financial support amounted to EUR 185.4 thousand.

**Operational Programme Bratislava Region**

In the Bratislava region Information Society was supported by a total amount of EUR 6 million in 135 projects from OP Bratislava Region, Priority Axis 2 Knowledge-based Economy, Measure 2.2 Information Society.

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**Chart 12 Strategic Priority 2 Knowledge-based Economy**

*Area of Information Society (by regions of the SR as of 31 December 2014)*

<table>
<thead>
<tr>
<th>Incurred expenditures</th>
<th>Number of contracted projects</th>
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<tbody>
<tr>
<td>v mil. Eur</td>
<td></td>
</tr>
<tr>
<td>BA</td>
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<td>KE</td>
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<td>TT</td>
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<td>BB</td>
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<tr>
<td>ZA</td>
<td></td>
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<tr>
<td>NR</td>
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Source: ITMS, calculations by authors
From the point of view of territorial distribution, most funds intended for the support of information society were absorbed in the Bratislava region (EUR 170.2 million; 142 projects), the reason being the electronisation of public administration at central level. Projects in this area were implemented mainly in public administration organisations based in Bratislava, Slovakia’s administrative centre. The Bratislava region was followed by the Žilina region where a total amount of EUR 95.9 million had been invested. The lowest amount, EUR 68.9 million, had gone to the Trenčín region. In other regions, interventions ranged from EUR 72.9 million in the Trnava region to EUR 79.4 million in the Banská Bystrica region (Chart 12).

8.2.2 Research and Development

The objective of Specific Priority 2.2 Research and Development was modernisation and improvement of efficiency of the system for the support of research and development so that it would contribute to the growth of competitiveness of the economy, reduction of regional disparities, creation of new innovative (high tech) small and medium-sized enterprises and job creation. Interventions in the total amount of EUR 968.7 million went to 479 projects within OP Research and Development. In terms of territorial eligibility, all regions of Slovakia were supported.

Operational Programme Research and Development

The objective of the operational programme was modernisation and improvement of efficiency of the system for the support of research and development and quality of the infrastructure of higher education institutions so that they would contribute to the growth of competitiveness of economy, reduction of regional disparities, creation of new innovative (high tech) small and medium-sized enterprises, job creation and improvement of the conditions of educational process at higher education institutions. Projects were supported through 5 priority axes.

Priority Axis 1 Measure 1.1 Modernisation and Building of Technical Infrastructure for Research and Development and Priority Axis 3.1 Modernisation and Building of Technical Infrastructure for Research and Development in the Bratislava Region were focused on modernising and improving the quality of technical infrastructure for research and development with the aim to enhance the ability of research and development institutions to effectively cooperate with research institutions in the EU and abroad, as well as social and economic operators through knowledge and technology transfers. The objective of these priority axes is to create quality research and development infrastructure as an essential prerequisite for growth in the volume and quality of research and development activities in the Slovak Republic. Financial allocations in the total amount of EUR 90.6 million went to 28 projects focused on the renewal of equipment, modernisation and building of research and development infrastructure. The Bratislava region saw the implementation of 2 national projects worth EUR 21.8 million under Measure 3.1. Almost EUR 19.5 million were absorbed in the Košice region (5
Increasing innovation in business is impossible without a research base of high quality knowledge, competent, flexible and creative researchers and state-of-the-art physical infrastructure. The research base must be interconnected with the business sector so that an efficient transfer of knowledge to real processes in economy is ensured, especially in global and regional clusters of production industries and services. Contributions under **Priority Axis 2 Measure 2.1 Support of Networks of Excellence in Research and Development as the Pillars of Regional Development and Support of Supraregional Cooperation** and **Priority Axis 4.1 Support of Networks of Excellence in Research and Development as the Pillars of Regional Development in the Bratislava Region** went into the support of processes that would develop cooperation and knowledge transfers and support the creation of sectoral and regional clusters with the aim to create and support networks of excellence directly involved in educational process or focused on areas of strategic significance for further development of economy and society. The financial allocation amounted to EUR 205.4 million (101 projects), of which EUR 66.5 million went to the Bratislava region (42 projects), EUR 65.7 million to the Košice region (25 projects) and EUR 25.8 million to the Žilina region (11 projects). In the other regions, expenditures ranged from EUR 1.9 million in the Trnava region to EUR 13.2 million in the Prešov region.

Expenditures incurred in the support of innovative culture in research organisations and applied research the results of which could be used in national economy and the improvement of responsiveness of research institutions to social and economic needs under **Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice** and **Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region** amounted to EUR 374.4 million. The largest amounts of funds were absorbed in the regions of Bratislava (EUR 146.9 million; 90 projects), Košice (EUR 55.9 million; 27 projects), Žilina (EUR 46.2 million; 40 projects) and Trnava (EUR 43.6 million; 20 projects). The smallest amounts went to the Trenčín region (EUR 14.5 million) and the Prešov region (EUR 17 million).

**Priority Axis 5 Infrastructure of Higher Education Institutions** aimed to increase the quality of education at higher education institutions through investments into tangible infrastructure. Support went to investment activities focusing on reconstruction and extension of the premises of higher education institutions and on modernisation of their interior equipment in order to improve the conditions in which educational process takes place at higher education institutions. Support went to all regions of Slovakia, except for
the Bratislava region. 59 projects worth EUR 227.7 million were implemented under this priority axis. EUR 49.2 million went to the Košice region (10 projects), EUR 47.2 million to the Banská Bystrica region (14 projects) and EUR 45 million to the Žilina region (13 projects). Both the Trenčín and the Trnava regions received EUR 31 million each. The smallest amounts went to the Nitra region (EUR 7.1 million; 11 projects) and the Prešov region (EUR 15.7 million).

The regional distribution of funds intended for the support of research and development corresponds with the location of research potential. Approximately 50% of equipment is found and 50% of researchers work in the Bratislava region where one third of Slovakia’s higher education institutions and a number of small and medium-sized enterprises are based. This is a result of the largest amount of funds (EUR 235.2 million, i.e., 24.3% of research and development expenditure; 134 projects) invested in this region. The Bratislava region is followed by the Košice region (EUR 209.8 million, 21.7%; 67 projects) and the Žilina region (EUR 145.7 million, 15.1%; 68 projects). The next three ranks are occupied by the Banská Bystrica region (EUR 110 million), the Trnava region (EUR 92.9 million) and the Nitra region (EUR 82.9 million). The bottom two ranks are occupied by the Trenčín region (EUR 34.7 million) and the Prešov region (EUR 55.8 million) (Chart 13).

Chart 13 Strategic Priority 2 Knowledge-based Economy
Research and Development (by regions of the SR as of 31 December 2014)

8.2.3 Competitiveness of Enterprises and Services
The objective of support for the competitiveness of enterprises and services was to ensure sustainable economic growth and employment. This area was supported by a total amount of EUR 707.7 billion allocated to 1,683 projects under OP Competitiveness and Economic Growth and OP Bratislava Region. 46.8% of these funds (EUR 488.1 million) were spent on support for innovations and technology transfers. All regions of Slovakia were supported.
Operational Programme Competitiveness and Economic Growth

In order to enhance competitiveness and ensure a sustainable growth of industry, energy sector, tourism and selected services, it was necessary to provide a more significant support for transfers of technologies, innovations of technologies, processes and products, improvement and expansion of infrastructure for enterprises and innovations, introduction of quality management systems and intellectual property protection. *Priority Axis 1 – Innovations and Growth of Competitiveness* aimed to support small and medium-sized enterprises and job creation through the development of entrepreneurship and participation of Slovak producers in trade fairs, exhibitions and trade missions. It also aimed to build regional innovation centres at the level of self-governing regions that would provide institutional support for the stimulation of innovations. All regions were supported, except for the Bratislava region which was not eligible for support. The support amounted to EUR 575.9 million (1,272 projects, 78.2%). Most funds were invested in the Nitra region (EUR 133.7 million; 157 projects), Prešov region (EUR 89.7 million; 246 projects), Banská Bystrica region (EUR 85.4 million; 209 projects), Žilina region (EUR 72.3 million; 205 projects) and Trenčín region (EUR 72.3 million; 164 projects). The least funds went to the Košice region (EUR 55.5 million; 161 projects) and Trnava region (EUR 66.8 million; 130 projects).

*Priority Axis 2, Measure 2.1 Increasing Energy Efficiency both on the Side of Generation and Consumption and Introducing Advanced Technologies in the Energy Sector* aimed to reduce energy intensity to a level comparable to the European Union, increase energy efficiency and save energy. The projects focused on introducing progressive technologies, supporting consulting services on energy-saving measures aimed at the general public and introducing and optimising measures aimed at the energy efficiency of public buildings. Expenditures incurred under this measure reached EUR 190.7 million. All regions were supported, except for the Bratislava region, which is not eligible for support – Banská Bystrica by EUR 46.6 million (29 projects), Košice and Nitra by EUR 40.2 million each (25 projects each), Prešov by EUR 28.7 million (34 projects), Trenčín by EUR 19.5 million (18 projects), Trnava by EUR 10.2 million (10 projects) and Žilina by EUR 5.2 million (22 projects).

Support for business activities in tourism was focused on the growth of competitiveness of tourism in the area of provision of services, using investments intended to enhance tourism attractiveness and services with an emphasis on the year-round use of tourism capacities and related services – *Priority Axis 3, Measure 3.1 Support of Business Activities in Tourism* in a total amount of EUR 224.8 million. The largest support went to regions with the highest potential for tourism development – Banská Bystrica (EUR 83.9 million; 53 projects), Prešov (EUR 55.3 million; 54 projects) and Žilina (EUR 34.7 million; 58 projects). From EUR 12.8 to 19.8 million went to the Košice, Nitra and Trenčín regions; the Trnava region received the least support – only EUR 1 million.
There was one national project under Measure 3.2 *Development of Information Tourism Services, Presentation of Regions and of Slovakia*. It bore the same name and was allocated EUR 23.7 million.

**Operational Programme Bratislava Region**

Support for innovation and access to information and communication technologies especially within small and medium-sized enterprises in the Bratislava region was provided under *Priority Axis 2, Measure 2.1 Innovations and Technology Transfers*. Interventions went into 153 projects worth EUR 30 million.

Expenditures incurred in the support for the competitiveness of enterprises and services vary from region to region. The largest volumes of funds went to the Banská Bystrica region (EUR 219.4 million; 291 projects), Nitra region (EUR 194.5 million; 199 projects) and Prešov region (EUR 177.2 million; 334 projects). They were followed by the regions of Žilina (EUR 115.7 million; 285 projects), Trenčín (EUR 115 million; 199 projects), Košice (EUR 111.8 million; 205 projects) and Trnava (EUR 81.3 million; 149 projects). The least funds were absorbed in the Bratislava region (EUR 28.6 million; 163 projects) (*Chart 14*).

*Chart 14 Strategic Priority 2 Knowledge-based Economy*  
*Support for the competitiveness of enterprises and services primarily through innovations*  
(by regions of the SR as of 31 December 2014)

| Source: ITMS, calculations by authors |

8.3 **Financial Implementation of Strategic Priority 2 Knowledge-based Economy in the Context of Regional Disparities**

Under *Strategic Priority 2 Knowledge-based Economy*, the largest volumes of funds went to the Bratislava and Košice regions, which have the highest concentration of public administration institutions, research institutions and other organisations whose competitiveness could be enhanced through innovations.
One of the objectives of *Strategic Priority 2 Knowledge-based Economy* was information society. As a result, funds were used to support e-Government, digital content and availability of broadband Internet. The largest amounts were absorbed in the Bratislava region, where public administration institutions are concentrated. Support also went into the electronisation of public administration at local and regional levels; as a result, the other regions received approximately equal amounts of funds.

In the Bratislava region support also went into projects in compliance with a specific priority focused on research and development. A low rate of absorption of structural funds for the infrastructure of higher education institutions might be in compliance with the eligibility of the Bratislava region according to this specific priority, but since the infrastructure of higher education institutions is in a condition which does not meet their needs, it would require higher allocations and subsequent absorption. Under this specific priority, relatively little funds went into research and development, the only exceptions being the Bratislava and Košice regions (*Figure 8*).

Prešov, Žilina and Banská Bystrica were more successful in the implementation of projects under specific priorities focused on support for the competitiveness of enterprises and services through innovations. Although the Trenčín region was eligible to apply for funds under all specific priorities of Strategic Priority Knowledge-based Economy, since only a low number of projects were successful, it achieved the lowest absorption rate (*Figure 8*).

*Chart 8 Regional disparities and expenditures incurred under Strategic Priority 2 Knowledge-based Economy and its specific priorities as of 31 December 2014*

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**2.1. Information society**

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**2.2 Research and development**

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**2.3 Infrastructure of higher education institutions**

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**2.4 Support for the competitiveness of businesses and services primarily through innovations**
2 Knowledge-based economy

<table>
<thead>
<tr>
<th>Regionálne disparity (počet bodov)</th>
<th>Regional disparity (score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realizované výdavky</td>
<td>Incurred expenditures</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, calculations made by the authors
Summary
The objective of Strategic priority 2 Knowledge-based Economy is to develop resources of sustainable economic growth and enhance the competitiveness of industry and services.

Funds were invested in three areas: Information Society, Research and Development, Support for the Competitiveness of Enterprises and Services.

A significant factor in supporting the knowledge-based economy was also modernisation of the infrastructure of higher education institutions aimed to increase the quality of educational process.

Expenditures related to the support of Knowledge-based Economy accounted for 29.1% (EUR 2.3 billion in 2,535 projects) of the total expenditures in the programme period. The highest volume of funds intended for the support of knowledge-based economy was used to support research and development (EUR 968.9 million, 42.3%; 632 projects), the competitiveness of enterprises and services (EUR 707.7 billion, 29.6%; 1,683 projects) and, finally, information society (EUR 649 million, 28%; 220 projects).

The highest efficiency of absorption was recorded in OP R&D, where 68.1% of the funds allocated had been absorbed as of 31 December 2014. It was followed by OP IS with a success rate of 64.9% and finally by OP CaEG with an absorption of 59.5% of the funds allocated.

The largest amount of funds was absorbed in the regions of Bratislava (EUR 434 million; 439 projects), Banská Bystrica (EUR 408.8 million; 334 projects), Košice (EUR 395.2 million; 277 projects) and Žilina (EUR 357.4 million; 359 projects). The Bratislava region ranked first thanks to a high concentration of research potential, which had absorbed more than EUR 235 million. In the Banská Bystrica region (EUR 219.4 million) and in the Prešov region (EUR 177.2 million) the biggest financial allocations went into the support of innovations, competitiveness and tourism.

8.4 Assessment of the Contribution of SF and CF to the Reduction of Regional Disparities under Strategic Priority 2 Knowledge-based Economy

For the purpose of assessing the contribution of SF and CF to the reduction of regional disparities under Strategic Priority 2 Knowledge-based Economy, 6 measures were identified according to the selected methodology:

- Measure 1.2 Electronisation of Public administration and Development of Electronic Services at Central Level (OP Information Society)
- Measure 1.1 Innovations and Technology Transfers (OP Competitiveness and Economic Growth)
o Measure 3.1 Support of Business Activities in Tourism (OP Competitiveness and Economic Growth)

o Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice (OP Research and Development)

o Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region (OP Research and Development)

o Measure 5.1 Building Infrastructure of Higher Education Institutions and Modernisation of Their Interior Equipment with a View to Improve the Conditions of Educational Process (OP Research and Development)

8.4.1 1.2 Electronisation of Public Administration and Development of Electronic Services at Central Level

Measure 1.2 was focused on the formation and sustainable development of basic components of an integrated information system of public administration through investments in shared hardware and software and applications supporting the efficient performance of processes in state administration, which would enable the integration of ICT and selected public administration processes into one point – “front office”.

Framework activities of Measure 1.2 were aimed at the creation and sustainable development of a good-quality back office of local and regional governments through investments in shared hardware and software which would facilitate the performance of key processes at regional and local levels in compliance with the concept of the integrated architecture of ISPA. ISPA allows a systematic building of a network of integrated service points which will, due to a density of coverage in regions and a wide availability of services, significantly reduce the need of travelling when public administration services are needed. Activities were aimed to introduce efficient electronic services of regional and local governments, which would be in compliance with the concept of state administration electronic services and which would run parallel to the electronisation of state administration.

According to the programme structure, Measure 1.1 was part of Priority Axis 1 Electronisation of Public Administration and Development of Electronic Services and was supported from OPIS through national projects.

74 calls for applications with a total allocation of EUR 602,055,721 were published under Measure 1.2 within the programme period. 57 applications for a total allocation of EUR 1.195 billion were received. 53 of them and a total allocation of EUR 1.109 billion were approved; 41 projects were contracted and their total contracted value was EUR 785.2 million. 11 projects were terminated and 2 projects worth EUR 17.66 million were completed properly (2014 Annual OPIS Report).

The projects that were successfully completed were the Audit Information System of the Supreme Audit Office of the Slovak Republic – Electronic Services of the Supreme
Audit Office and the Data Centre for e-Government. This means that values of measurable indicators can not be analysed based on projects that are currently being implemented and expected to be completed in 2015.

A significant indicator for assessing if objectives of Measure 1.2 have been met is physical progress, which takes into account the targeted and actual value of the indicator. The target value was 73 projects, of which 53 (73.6%) were implemented. 274 electronic online services were introduced, which is, however, only 38.6% of the total target number of 709.

The indicator ‘number of public administration organisations which have introduced a system of e-Government’ shows a very low success rate. As of the end of 2014 the system had been launched only by 35 (2.4%) public administration organisations of the originally planned 1,425. There was an expectation that 1,200 Integrated Service Points would be created within the programme period of 2007-2013. However, none had been created as of 31 December 2014 (2014 Annual Report on the Implementation of OPIS).

The objectives of Measure 1.2 were implemented through national projects aimed at contributing to the quality of public administration services provided across Slovakia. For this reason, the measure has no effect on the development or changes in regional disparities. Several projects under the measure are still being implemented, which does not allow an exact assessment of the results and contributions of the measure in the context of regional disparities.

### 8.4.2 Measure 1.1 Innovations and Technology Transfers

The measure is aimed to support the private sector where the so-called main stone innovations and technology transfers offer a solution to reduce energy intensity and environmental impacts and increase production efficiency, which will lead to the enhancement of competitiveness of enterprises and services, the growth of added value, increased efficiency and modernisation of equipment. This measure was also expected to create new jobs through support for start-up enterprises. It also offered support to Slovak producers to participate in trade fairs, exhibitions and trade missions and activities aimed at the promotion of Slovak industrial potential. Three sub-measures were specified within the measure – Support for Innovations and Technology Transfers; Support for Job Creation through the Development of Entrepreneurship; Support for Slovak Producers to Participate in Trade Fairs, Exhibitions and Trade Missions.

Based on the programme structure, Measure 1.1 is part of Specific Priority 2.4 Support for the Competitiveness of Enterprises and Services Primarily through Innovations, Priority Axis 1 Innovations and Growth of Competitiveness. Projects are co-funded from OP Competitiveness and Economic Growth.
The allocation for Measure 1.1 for the period of 2007-2013 was EUR 488,192,754. There were 14 calls published. 2,951 project proposals with a total budget of EUR 1.48 billion were submitted, 1,181 of them were approved with a total approved budget of EUR 536.55 million. The number of projects that had been properly completed was 381; 87 projects had been terminated (2014 Annual Report on the Implementation of Operational Programme Competitiveness and Economic Growth).

The highest number of projects submitted for consideration was in the Prešov (568), Banská Bystrica (502) and Žilina (496) regions. The highest number of projects approved was again in the Prešov region (233 projects with a total budget of EUR 126.87 million), Žilina region (191 projects with a total budget of EUR 76.14 million) and Banská Bystrica region (191 projects with a total budget of EUR 83.45 million). Based on the percentage of expenditures incurred and certified, there are significant regional differences in how successful projects were, with the highest success rate in the regions of Trnava (83.67%), Nitra (57.16%), Žilina (40.69%) and Trenčín (38.15%).

Of the total volume of expenditures incurred (EUR 234.825 million, which represents 48.11% of the measure’s budget), the largest share went to the Nitra region (EUR 48.006 million; 20.44%), quite equal shares went to the Banská Bystrica region (EUR 36.643 million; 15.60%), Prešov region (EUR 37.15 million; 15.82%) and Žilina region (EUR 35.293 million; 15.03%) and lower shares went to the Trenčín region (EUR 30.737 million; 13.09%), Trnava region (EUR 23.972 million; 10.21%) and Košice region (EUR 23.034 million; 9.08%) (IMTS).

Measure 1.1 also supported the implementation of the national project Promotion of Slovak Industrial Potential and Provision of Free Services to SMEs to Promote Them at Exhibitions Abroad (ME SR) with a total budget of EUR 388.77 million. The project aimed to promote Slovak industrial potential and provide free services to SMEs to promote them at exhibitions and fair trades abroad. The project was implemented from March 2014 to January 2015. It supported 36 SMEs to participate, together with Slovak industry and ME SR, in trade fairs and exhibitions abroad. This means that only 50.71% of the target 71 SMEs got the chance as of 31 December 2014.

<table>
<thead>
<tr>
<th>Table 13 Selected indicators by regions NUTS II* SR</th>
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<tbody>
<tr>
<td>Indicator/Region</td>
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<tr>
<td>Number of enterprises with innovations*</td>
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<tr>
<td>2007</td>
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<tr>
<td>2014</td>
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<tr>
<td>Growth index (%)</td>
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<tr>
<td>2007</td>
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<tr>
<td>Expenditures from SF (EUR million)</td>
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<tr>
<td>2007-2014</td>
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</tbody>
</table>

Notes: *data about enterprises with innovations in individual regions are not available
**includes enterprises “only with technological innovation”, “enterprises only with non-technological innovation”, “enterprises only with technological and non-technological innovation”
Source: Statistical Office of the Slovak Republic, calculations made by the authors
A significant statistical indicator is the number of enterprises with innovations. In 2014 Slovakia had 2,885 enterprises with innovations registered, which represents a growth of 210% compared to 2007. The development of the number of enterprises with innovations is, given the availability of data, analysed at the level of NUTS II regions. The most dynamic expansion in the number of enterprises with innovations was recorded in the Bratislava region, where the number of these enterprises had risen from 698 to 2,302 in the period of 2007-2014 (growth index of 320%). The Bratislava region is, however, not eligible for funding. The number of enterprises with innovations increased in the NUTS II region of Eastern Slovakia, too (+52 enterprises, growth index of 115.29%). In the NUTS II regions of Western Slovakia (-42 enterprises) and Central Slovakia (-38 enterprises) there was a decrease in the number of enterprises with innovations despite the fact that they had absorbed the largest volumes of financial support from Measure 1.1.

Besides participation of SMEs in trade fairs and exhibitions at home and abroad with an actual value of 71 (50.71 of the target value), other measurable indicators relevant in the context of regional disparities include number of innovative production methods and number of submitted patent applications. As of 31 December 2014 the number of innovative production methods stood at 517, the most of which had been introduced in the regions of Žilina, Banská Bystrica, Prešov and Trnava, with an average of 7.8 per district. The numbers of innovative production methods are expected to grow in selected districts of the Žilina region (Martin), Prešov region (Martin) and Nitra region (Nitra). 11 patent applications were submitted under Measure 1.1, 6 of them in the Banská Bystrica region, 3 in the Žilina region, 1 in the Trenčín region and 1 in the Nitra region (2014 Annual Report on the Implementation of Operational Programme Competitiveness and Economic Growth).

The implementation of projects aimed to develop main stone innovations and technology transfers has contributed to the modernisation of equipment, increased production efficiency, as well as to the reduction of energy intensity and environmental impacts. An important prerequisite for the development of SMEs is their participation in trade fairs and exhibitions at home and abroad. From a global point of view, the implementation of projects under Measure 1.1 presents a real potential for the growth of competitiveness of enterprises and services.

Given a spatial differentiation of project activities and absorbed funds, with the highest volume of expenditures incurred in the Nitra, Banská Bystrica, Prešov and Žilina regions, and despite a concentration of innovations in the Žilina, Banská Bystrica, Prešov and Trnava regions and a higher success rate of patents in the Žilina, Banská Bystrica, Trenčín and Trnava regions, Measure 1.1 supported the development of innovative environment in the private sector, raised awareness of SMEs and contributed to the reduction of disparities between 7 regions of Slovakia which were eligible for support from Measure 1.1.
8.4.3 **Measure 3.1 Support of Business Activities in Tourism**

The principal focus of **Measure 3.1 Support of Business Activities in Tourism** is to support projects related to the provision of services using investments intended to enhance tourism attractiveness and services with an emphasis on the year-round use of tourism capacities and related services. The activities focused on supporting the construction of micro-infrastructure (parking areas, utilities, public sanitary facilities, rest areas, guide boards etc.) in tourist centres, constructing new and modernising the existing tourist facilities, creating new attractions in regions, supporting the renewal of conservation areas, thematic cultural routes, cultural and historical sights and facilities, including UNESCO sites, supporting the construction and renewal of ski slopes, piers, quays etc.

The implementation of the measure was supposed to contribute to the creation of complex year-round tourist services and new innovative services with higher added value, to the improved quality of customer services and extended stays of foreign tourists in Slovakia. Support was also intended for the creation of new tourism products with an emphasis on a better use of Slovakia’s cultural, technical and historical sights and natural sites, better access to tourist facilities and resorts and a wider offer for customers. The measure was intended to help the private sector achieve synergetic effects through investments in tourism infrastructure that would considerably improve tourism efficiency and employment. Support also went into projects of complex year-round tourist programmes with an emphasis on the use of natural and cultural heritage and existing tourist facilities. The aim was to create several programmes with a year-round offer, which would be able to combine summer and winter activities (sports, cultural, optional and other) in a compact product and whose uniqueness and taking into consideration of the country’s national peculiarities would attract both local and foreign tourists to spend a longer time in Slovakia. Efficient support was supposed to be a suitable prerequisite for reducing regional disparities in Slovakia’s economic performance.

Based on the programme structure, Measure 3.1 Support of Business Activities in Tourism is part of Priority Axis 3 Tourism and Specific Priority 2.4 Support for the Competitiveness of Enterprises and Services Primarily through Innovations of OP CaEG.

The total budget allocated to the measure was EUR 195.3176 million. There were 8 calls published in the period of 2007-2014. 1,280 projects were submitted in response to the calls, with a total budget of EUR 1.143 billion. 229 projects were approved, of which 200 were contracted with a total budget of EUR 181.71 million. The highest number of projects submitted for consideration was in the regions of Žilina (326), Prešov (291) and Banská Bystrica (245), which are, besides the Bratislava region, regions with tourism of international and national significance and year-round use and in which tourism constitutes a significant part of regional economy. The success rate of applicants,
However, differed. The total number of approved projects was 229, most of which were implemented in the regions of Žilina (58), Banská Bystrica (53) and Prešov (54). The total approved budget was EUR 223.57 million.

Based on expenditures incurred, the measure was supported by EUR 112.019 million, depending on the region. The highest amounts of expenditures were incurred in the regions of Banská Bystrica (36.85%), Prešov (25.13%) and Žilina (16.06%; Table 14).

For the purpose of assessing the objectives of Measure 3.1 in the context of regional disparities, the following statistical and measurable indicators are important: number of tourists in tourist accommodation facilities and revenue from the accommodation of tourists in tourist accommodation facilities per 1,000 inhabitants.

The development of the number of visits to Slovakia is, besides global trends of social and economic development, influenced by different attractiveness, natural, selective and realisation prerequisites, location's potential, accessibility, condition of material and technical base and destination management in tourist regions. The number of visits in the period of 2007-2014 shows an evident impact of global economic depression, which “slowed down” the development of the number of visits especially in 2010-2011. The figure became stable or increased slightly in the following three years, depending on the region (Table 14).

In 2014 Slovakia was visited by 3.72771 million tourists in accommodation facilities, which is about 50,040 less than in 2007 (growth index of 98.69%). The development of the number of visits reflects consequences of economic depression. There was a drop in 2009-2011 both at national and regional levels. Better quality and expansion of capacity of accommodation and other tourist facilities did not have a positive effect on the development of the number of visitors to Slovakia. Slovakia is a transit country where tourists usually stay for a short time and whose tourism is seasonal in character.

Table 14 Selected indicators by regions of the SR

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NT</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tourists in tourist accommodation facilities (thousand)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>883.10</td>
<td>244.60</td>
<td>289.85</td>
<td>223.30</td>
<td>689.53</td>
<td>426.18</td>
<td>699.42</td>
<td>321.77</td>
<td>3777.75</td>
<td>0.3337</td>
</tr>
<tr>
<td>In 2014</td>
<td>954.89</td>
<td>268.36</td>
<td>244.11</td>
<td>236.88</td>
<td>735.47</td>
<td>384.80</td>
<td>642.71</td>
<td>260.49</td>
<td>3727.71</td>
<td>0.3840</td>
</tr>
<tr>
<td>Growth index (%)</td>
<td>108.13</td>
<td>109.71</td>
<td>84.22</td>
<td>106.08</td>
<td>106.66</td>
<td>90.29</td>
<td>91.89</td>
<td>80.96</td>
<td>98.68</td>
<td></td>
</tr>
<tr>
<td>Revenue from the accommodation of tourists in tourist accommodation facilities per 1,000 inhabitants (EUR thousand)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>122.50</td>
<td>48.82</td>
<td>29.11</td>
<td>17.02</td>
<td>59.45</td>
<td>37.70</td>
<td>52.41</td>
<td>18.71</td>
<td>48.22</td>
<td>0.3830</td>
</tr>
<tr>
<td>In 2014</td>
<td>100.08</td>
<td>48.00</td>
<td>41.81</td>
<td>23.70</td>
<td>72.91</td>
<td>43.72</td>
<td>54.34</td>
<td>17.18</td>
<td>50.22</td>
<td>0.3310</td>
</tr>
<tr>
<td>Growth index (%)</td>
<td>81.70</td>
<td>98.32</td>
<td>143.63</td>
<td>139.25</td>
<td>122.64</td>
<td>115.97</td>
<td>103.68</td>
<td>91.82</td>
<td>104.15</td>
<td></td>
</tr>
<tr>
<td>Expenditures from SF (EUR million)</td>
<td>0</td>
<td>1,209</td>
<td>8.593</td>
<td>7.676</td>
<td>17.989</td>
<td>41.280</td>
<td>20.146</td>
<td>7.127</td>
<td>112.019</td>
<td></td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, ITMS, calculations made by the authors

113 regions of international significance, 8 regions of mostly national significance, 5 regions of supraregional significance, 5 regions of regional significance (ME SR 2005).
Almost 70% of the total number of tourists in accommodation facilities are concentrated in the regions of Bratislava (954.89 thousand; 27.13% SR), Žilina (735.47 thousand; 19.73% SR), Prešov (642.71 thousand; 17.12% SR) and Banská Bystrica (384.80 thousand; 10.32%), where regions with tourism of international and national significance are located. The share of other regions ranges from 6.35% (236.88 thousand; Trenčín region) to 7.20% (268.36 thousand; Trnava region). Despite the fact that Košice was declared the European Capital of Culture in 2013 and supported from Cohesion Policy resources, the number of visitors to the Košice region dropped to 260.49 thousand (6.99%) compared to 2007 (321.77 thousand; Table 14).

Revenues from tourist accommodation closely correspond with the number of visitors and nights spent in Slovakia. Revenues from tourist accommodation in Slovakia amounted to EUR 267.55 million in 2014, which represents an increase of EUR 13.47 million compared to 2007 (growth index of 105.30%). The target value of the measurable indicator of revenue growth was 109.6%, which means that the actual value of the indicator is 4.3% lower and differentiated by regions of the SR. A higher than target growth in revenues was recorded in regions where the largest number of projects was implemented and which received the highest support. It is the case of the Prešov region (revenue growth index 106.1%), Žilina (121.71%) and Banská Bystrica region (116.09%). This group also includes the Trenčín region (revenue growth index 141.58%) and the Nitra region (134.91%), where tourism suppliers received less support under Measure 3.1.

Of the total amount of revenues, the largest amounts were earned in regions with tourism of international and national significance (Bratislava, Tatras, Northern Váh, Orava, Liptov) and regions suitable for combined forms of tourism and year-round use. Despite a certain decrease, the Bratislava region earned 23.38% of revenues from the accommodation of visitors to Slovakia (EUR 62.57 million), Žilina region 18.82% (EUR 50.34 million), Prešov region 16.65% (EUR 44.56 million) and Banská Bystrica region 10.71% (EUR 28.65 million). The share of the other regions is lower, ranging from 5.11% (Košice region) to 9.24% (Trenčín region).

There are regional differences in the volume of revenues from the accommodation of tourists in tourist accommodation facilities per 1,000 inhabitants, with the highest values in the regions of Bratislava (EUR 100.08 thousand; 202.79% of Slovakia’s average), Žilina (EUR 72.91 thousand; 147.75%), Prešov (EUR 54.34 thousand; 110.12%) and Trnava (EUR 48 thousand; 97.27%). The lowest volume of revenues per 1,000 inhabitants was recorded in the regions of Košice (EUR 17.18 thousand; 34.8% of Slovakia’s average) and Nitra (EUR 23.70 thousand; 48.02%; Chart 16).
Regional differences in the number of visitors and revenues from accommodation in tourist accommodation facilities are a consequence of the joint influence of several factors (spatially differentiated natural, social and cultural conditions, attractiveness, accessibility etc.).

The value of the Gini coefficient suggests deterioration in regional disparities according to the number of visitors (0.337 in 2007; 0.3840 in 2014) and reduction in regional disparities according to revenues from accommodation in tourist accommodation facilities per 1,000 inhabitants (0.3830 in 2007; 0.3310 in 2014) at the level of regions of the SR. On the one hand, it is a result of visitors’ increased interest especially in the most attractive regions with tourism of international and national significance (Bratislava, Prešov, Žilina and Banská Bystrica), and on the other hand, it is a result of decreased interest in regions with tourist regions of lower hierarchical level (Trenčín, Trnava). Territorial differentiation in the number of visitors is in compliance with support under Measure 3.1. Expenditures went mainly to the Prešov and Žilina regions. It can be stated that financial support has contributed not only to better conditions, development of complex and new innovative tourist services, expansion of product portfolios, but also to a rise in the number of visitors and reduction of regional disparities in the number of tourists to tourist accommodation facilities.
8.4.4  

**Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice and Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region**

The objective of **Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice** was to increase cooperation of research and development institutions with social and economic practice through the transfer of knowledge and technology. The activities focused on enhancing innovation culture in the academic sphere through incubators, supporting applied research and development, increasing the use of intellectual property rights by research and development institutions in the academic sphere and building and supporting regional centres. All regions, except for the Bratislava region, were eligible for support under this measure.

The objective of **Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region** was to increase cooperation of research and development institutions in the Bratislava region with social and economic practice through the transfer of knowledge and technology and thus contribute to the economic growth of the region and whole Slovakia. The region eligible for support was the Bratislava region.

Based on the programme structure, Measures 2.2 and 4.2 are part of Priority Axis 2 Support to Research and Development of OP Research and Development, Specific Priority 2.2 Research and Development.

*The measures focus on the following framework activities:*

- enhancing innovation culture in the academic sphere through incubators,
- creating and running programmes for mobilisation and creation of potential innovations in public research and development and higher education institutions,
- creating and running competitions for business plans and incubators in public research and development and higher education institutions,
- support for applied research and development,
- improving the quality of internal management of the transfer of technologies and knowledge from academia into practice, including activities aimed at removing barriers between research and development on the one hand and society and economy on the other,
- increasing the use of intellectual property rights by research and development facilities in the academic sphere.

The total allocation for Measure 2.2 was EUR 460,962,417. There were 15 calls for grant applications published. 536 projects applied for support, 347 applications were rejected and 189 approved, of which 178 projects with a total budget of EUR 573.86 million were...

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12 Measures 2.2 and 4.2 focus on similar issues; as a result, they will be analysed together in one sub-chapter.
contracted. As of 31 December 2014, 72 projects under the measure were completed properly and 9 projects were terminated.

Measure 4.2 received an allocation of EUR 271,889,894. There were 15 calls for applications, and as of 31 December 2014, 241 project applications worth EUR 579.8 million were submitted for consideration. 153 applications were rejected and 88 approved, of which 81 projects were contracted. EUR 332,234 million under OP Research and Development were invested to support the transfer of knowledge and technologies from research and development into practice as of 31 December 2014.

41.18% of these funds (EUR 133.104 million) were spent on projects implemented under Measure 4.2 in the Bratislava region and 58.82% (EUR 190.130 million) on projects implemented under Measure 2.2 in the other seven regions. Expenditures under Measure 2.2 differed from region to region. The highest amount of expenditures was incurred in the Trnava region (EUR 39.782 million; 20.92%), Žilina region (EUR 34.955 million; 18.38%), Košice (EUR 31.986 million; 16.82%) and Nitra region (EUR 24.449 million; 12.86%). A lower rate of absorption was in the Banská Bystrica region (EUR 21.928 million; 11.53%), Trenčín (EUR 18.519 million; 9.74%) and Prešov region (EUR 31.986 million; 9.74%; Table 15).

The objectives of Measures 2.2 and 4.2 are met through national projects which are received by the Slovak Centre of Scientific and Technical Information (hereinafter SCSTI SR).

National projects under Measure 2.2

- **National Information System of Support for Research and Development in Slovakia – Access to Electronic Information Resources (RKZ/26240220001; SCSTI SR).** The project budget was EUR 9.855 million with a cumulative absorption of EUR 8.601 million. The project aimed to build an efficient system of information support for research and development in Slovakia in the form of electronic information resources. The project was implemented from 15 December 2008 to 30 April 2014.

- **National Infrastructure for Support of Technology Transfer in Slovakia (NITT SK/26240220043; SCSTI SR)** with a budget of EUR 3.433 million and a cumulative absorption of EUR 1.487 million. The project aimed to create and implement a system of national support of the transfer of knowledge acquired through research and development into economic and social practice. The project is planned to be implemented from 15 June 2010 to 31 October 2015.

- **National Information System of Support for Research and Development in Slovakia – Access to Electronic Information Resources II (NISPEZ II/26240220083; SCSTI SR)** with a total budget of EUR 4.092 million and a cumulative absorption of EUR 2.370 million. The project aimed to provide information support to selected best-quality research and development institutions in Slovakia. The project is planned to be implemented from 6 March 2013 to 31 October 2015.

- **PopRaD – Popularisation of Research and Development in Slovakia (26240220085; SCSTI SR)** with a total budget of EUR 3.631 million and a cumulative absorption of
EUR 406,114. The project aimed to improve the perception and position of research in society through popularisation of science and technology among the general public, including adolescents. The project is planned to be implemented from 27 April 2013 to 31 November 2015.

- **Support for the Establishment and Development of the National Business Centre in Slovakia – Phase I** (26240220092; SCSTI SR) with a total budget of EUR 9.989 million and a cumulative absorption of EUR 57,350. The aim is to build a national business centre which will provide a wide selection of services and complex support for Slovak small and medium-sized enterprises from one place with a view to intensifying mutual cooperation in the area of research, development and innovative development between academic and research institutions and especially technology-oriented enterprises. The project is planned to be implemented from May 2014 to October 2015.

**National projects under Measure 4.2:**

- **National Information System of Support for Research and Development in Slovakia – Access to Electronic Information Resources (NISPEZ) (K/26220220001; SCSTI SR)** with a total budget of EUR 10.027 million and a cumulative absorption of EUR 8.617 million. The project aimed to build an efficient system of information support for research and development in Slovakia in the form of electronic information resources. The project was implemented from 15 December 2008 to 30 May 2015.

- **National Infrastructure for Support of Technology Transfer in Slovakia (NITT SK/26220220095; SCSTI SR)** with a budget of EUR 4.802 million. The project aimed to create and implement a system of national support of the transfer of knowledge acquired through research and development into economic and social practice. The project is planned to be implemented from 15 June 2010 to 31 October 2015.

- **National Information System of Support for Research and Development in Slovakia – Access to Electronic Information Resources II (NISPEZ II, K/26220220178; SCSTI SR)** with a total budget of EUR 4.099 million and a cumulative absorption of EUR 2.313 million. The project aimed to provide information support to selected best-quality research and development institutions in Slovakia. The project is planned to be implemented from 6 March 2013 to 31 October 2015.

- **PopRaD – Popularisation of Research and Development in Slovakia (26220220181; SCSTI SR)** with a total budget of EUR 11.320 million and a cumulative absorption of EUR 1.197 million. The project aimed to improve the perception and position of research in society through popularisation of science and technology among the general public, including adolescents. The project is planned to be implemented from 27 April 2013 to 30 November 2015.

The objectives of Measures 2.2 and 4.2 are met through national projects received by SCSTI SR. Individual electronic information resources in the form of information databases are being gradually made available to the research community in Slovakia,
information in the form of proceedings, lectures and conferences is being updated and made available to researchers and the general public.

Research institutions receive services related to the protection of intellectual property rights and commercialisation of research and development results. Altogether, 63 patent applications were submitted, and a system of services within ICT infrastructure was created and launched to meet the needs of the academic community. PopRaD helped organise various academic conferences, exhibitions, interactive scientific presentations, round table discussions and popularisation events. Support went into the completion of 3 scientific parks and 1 research centre. Research teams were constituted to perform applied research activities within the project of the Comenius University Scientific Park and started preparation and preliminary research. As of 31 December 2014, the construction part of the project was completed to approximately 26%. Further projects are underway (Biomedicine University Scientific Park of the Slovak Academy of Sciences in Bratislava and similar). The project of the Centre for Applied Research of New Materials and Technology Transfer started in September with the construction of research centres. A building inspection at the pavilion of technology was performed in December 2014.

Of the total number of 41 projects aimed to support applied research, 31 were completed; most of them located in Bratislava (SAV, UK, STU). 11 projects (5 of which were properly completed) supported applied research, development and transfer of technologies in cooperation between the public and the private sector in the area of progressive materials and technologies, knowledge-based technologies, biotechnologies and health and quality of life. The project involves 20 entities, mostly private companies; however, UK and STU in Bratislava are the biggest participants.

The building of research and development centres was supported via 16 projects for enterprises and their partners (cooperation between the academic and industrial sphere in the area of health and quality of life, progressive materials and technologies and knowledge-based technologies). The projects involve 27 entities (private companies, STU in Bratislava and UK in Bratislava).

The building of centres of excellence under OP R&D received support in 3 projects of research institutions in the priority areas of biomedicine and biotechnology, ICT and materials research. The projects involve 33 entities (private companies and STU in Bratislava).

The implemented projects strengthen cooperation in research and development between enterprises and academic institutions and support top centres of applied research and development in order to achieve results which will be of comparable quality to international partners, applicable in practice and which will reflect the needs of key industries in Slovakia.

Given the focus of Measures 2.2 and 4.2, statistical and measurable indicators that could be considered significant in the context of regional disparities are research and
development personnel – FTE researchers\textsuperscript{13} (2007-2014\textsuperscript{14}) and number of new jobs for research and development personnel.

As of 31 December 2014, Slovakia had 14,980 personnel working in research and development – FTE researchers (full-time; hereinafter “researchers”), which represents an increase of 2,630 compared to 2007 (growth index of 121.25%). The number of researchers increased especially due to a rise in GDP expenditures on research and development. These, however, account for only 0.8% of GDP while they are expected to constitute 3%.

The spatial differentiation of researchers remained more or less stable in the period under survey; the largest numbers worked in the regions of Bratislava (1,477.7; 52%), Košice (2,200.9; 14.8% SR), Nitra (1,200; 8.1% SR) and Žilina (916; 6.1% SR). Above average numbers of researchers can be found in regions with a concentration of research and development institutions and research universities, especially in regional centres. The share of the other regions ranges from 3.9% in the Trenčín region to 7.1% in the Banská Bystrica region (Table 15).

\textit{Table 15 Selected indicators by regions of the SR}

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NT</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE personnel in research and development (full-time) – researchers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 2007</td>
<td>613.8</td>
<td>555.7</td>
<td>1,009.9</td>
<td>815.9</td>
<td>637.4</td>
<td>386.2</td>
<td>2,013.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,322.30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12,354.20</td>
<td></td>
<td>0.5705</td>
<td></td>
</tr>
<tr>
<td>In 2014*</td>
<td>7,800.00</td>
<td>800.0</td>
<td>594.0</td>
<td>1,200.0</td>
<td>916.0</td>
<td>910.0</td>
<td>560.0</td>
<td>2,200.0</td>
<td></td>
<td>0.5625</td>
</tr>
<tr>
<td>Growth index (%)</td>
<td>130.3</td>
<td>106.8</td>
<td>112.2</td>
<td>142.7</td>
<td>145.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>123.37</td>
<td>4</td>
<td>9</td>
<td>118.82</td>
<td>7</td>
<td>7</td>
<td>109.29</td>
<td>121.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditures from SF (EUR million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007-2014</td>
<td>133.104</td>
<td>39.78</td>
<td>18.51</td>
<td>34.95</td>
<td>21.92</td>
<td>18.51</td>
<td>190.130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>2</td>
<td>9</td>
<td>24,449</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>31.986</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Explanatory notes: * – expert estimate
Source: Statistical Office of the Slovak Republic, ITMS, calculations made by the authors

\textit{Chart 17 FTE personnel in research and development (full-time) – researchers}

\textsuperscript{13} Full-time employees
\textsuperscript{14} Year 2014 – expert estimate
\textsuperscript{15} Amount of expenditures incurred under Measure 2.2, i.e., in the Bratislava region
\textsuperscript{16} Amount of expenditures incurred under Measure 4.2, i.e., in all regions except for the Bratislava region
The values of the Gini coefficient in 2007 and 2014 indicate a growth in regional disparities in the number of researchers by regions of the SR. Striking regional disparities are obvious if all 8 regions are taken into account; however, they become slighter if the Bratislava region is not considered. There has been a reduction in regional disparities among 7 regions, also thanks to Cohesion Policy resources within respective measures. There was a positive development in the indicator ‘FTE personnel in research and development (full-time) – researchers’ in 2007-2014. The number of researchers in employment grew by about 2,600 due to job creation in Slovakia; however, regional disparities persist. The highest rise in the number of researchers in employment has been recorded not only in regions with a concentration of research and development institutions and research universities (growth index of 123.37% in the Bratislava region, 109.25% in the Košice region, 112.27% in the Žilina region), but even more obviously in the Banská Bystrica region (growth index of 142.77%), Trnava region (130.34%) and Prešov region (145%). A rise of about 15-20% in the number of researchers in employment has also been due to jobs created under Measures 4.2 and 2.2. The target value of the measurable indicator of OP R&D, Measure 2.2 had been 478 new jobs; however, as of 31 December 2014 only 39.5 jobs were created, which represents 8.26% of the target value. Based on a comparison of the actual and target value of the measurable indicator, it must be stated that the measure is contributing to job creation in research and development.
8.4.5 Measure 5.1 Building Infrastructure of Higher Education Institutions and Modernisation of Their Interior Equipment Aimed at Improving Conditions of Educational Process

Measure 5.1 Building Infrastructure of Higher Education Institutions and Modernisation of Their Interior Equipment Aimed at Improving Conditions of Educational Process focused on increasing the quality of higher education through investments in tangible infrastructure (refurbishment and extension of buildings, modernisation of interior equipment). Eligible activities focused on modernising the interior equipment of higher education institutions in which educational process takes place to improve the conditions for new forms of teaching and learning (support of new technologies in building language, chemistry, biology, physics and ICT classrooms, academic libraries equipped with computers, development and maintenance of ICT networks), investment activities aimed at the reconstruction and refurbishment of higher education institutions (thermo-insulation, replacement of windows, roofs, central heating, wall repairs, adjustments to the interior of buildings, refurbishment of sanitary facilities and toilets, hot water, water distribution, sewage and electricity networks), constructing new buildings and extending the existing higher education institutions, modernising and refurbishing university accommodation facilities, gymnasiums, canteens and sports facilities.

Based on the programme structure, Measure 5.1 is part of Specific Priority 2.3 Infrastructure of Higher Education Institutions and it is supported from OP Research and Development for eligible regions, with the exception of the Bratislava region.

The total allocation for Measure 5.1 amounted to EUR 285.294 million. 5 calls for applications were published for Measure 5.1 as of 31 December 2014; 102 applications were received and 76 of them approved. 75 projects were contracted. 38 projects totalling EUR 16.97 million were properly completed.

The absorption of funds differed from region to region, with the highest rate of absorption in the regions of Banská Bystrica (21.60%; EUR 47.798 million), Žilina (18.52%; EUR 40.079 million), Košice (19.95%; EUR 39.731 million), Nitra (14.89%; EUR 32.943 million) and Trnava (13.36%; EUR 29.561 million). The Trenčín region and the Prešov region incurred the lowest expenditures: EUR 12.675 million and EUR 17.621 million, respectively. These accounted for less than 10% of expenditures incurred.

In light of the objective of the measure and the supported activities, the following indicators can be considered the most relevant in the context of regional disparities: the statistical indicator of number of higher education students (2007-2014) and the measurable indicators of number of students who benefit from higher quality of infrastructure, number of refurbished buildings and facilities and number of classrooms with ICT networks introduced or modernised as a result of the implementation of a project.
Changes in the number of higher education students are affected by demographic development and opportunities and interest on the part of secondary school students to study at higher education institutions abroad.

In 2014, 102,060 students were studying at Slovakia’s 36 institutions of higher education (20 of which are public, 13 private and 3 state), at all three levels of higher education, both in full-time and part-time programmes. This represents a decrease of 42,880, or about 20%, compared to 2007. The decrease was partly caused by less interest in studying at public (-45.5 thousand students; year 2007 – 106.07 thousand, year 2014 – 150.05 thousand students) and state (-1.19 thousand students; year 2007 – 4.9 thousand, year 2014 – 3.7 thousand students) institutions of higher education. There was an increased interest in studying at private institutions of higher education (+3.85 thousand students). 2007-2014 saw a decrease in the number of higher education students, the only exceptions being the Košice and Trnava regions. The highest decrease was recorded in the regions of Prešov (-10.71 thousand), Žilina (-10.38 thousand), Bratislava (-854 thousand) and Banská Bystrica (-6.87 thousand; Table 16).

The tradition and level of higher education institutions and the diversification of their focus are reflected in the spatial differentiation of the number of higher education students by regions of the SR. 76.79 thousand students (42.18% SR) were studying at 14 higher education institutions in the Bratislava region (39% SR) in the academic year of 2014/2015. Compared to 2007, there had been a decrease of 8.55 thousand students (Table 16). Similar numbers of students were studying at 4 HEIs in the Košice region (22.39 thousand; 12.30% SR), 3 HEIs in the Nitra region (20.17 thousand; 11.08% SR) and 4 HEIs in the Trnava region (16.68 thousand; 9.16% SR). The other regions had lower shares of students studying at HEIs (Žilina 8.6%; Banská Bystrica 7.9%; Prešov 5.5%; Trenčín 3.3%).

As of 31 December 2014, 7 new buildings and facilities were built under Measure 5.1, which represents 100% of the target value. 86 buildings and facilities were refurbished and reconstructed, which is much more than the target value of 41. It represents 209.76% of the target value of the indicator (2014 Annual Report on the Implementation of OP Research and Development). The implementation of the projects has contributed to
higher energy efficiency and lower energy intensity of buildings, which has had a positive impact on the environment.

Another indicator that must be highlighted is the partial project indicator *number of classrooms with ICT networks introduced or modernised as a result of the implementation of a project*. 3,018 classrooms had been equipped with ICT, which represents 99.48% of the target value. Modernisation of the interior equipment of buildings and classrooms is related to an increase in qualitative conditions of higher education, which have been improved especially by the introduction or modernisation of ICT networks.

The target value of the measurable indicator *number of students who benefit from higher quality of infrastructure* was set to 363.75 thousand students. The actual value achieved was 221.39 thousand students, which more or less corresponded with the number of higher education students at the time when the measurable indicator had been “set” – during the preparation of OP Research and Development. This represents 60.87% of the target value of the indicator (*2014 Annual Report on the Implementation of OP Research and Development*).

The implementation of projects has improved the quality of higher education infrastructure especially in regional centres where most higher education institutions are located, and reduced regional disparities among 7 regions in Slovakia.

**Summary**

Based on an analysis of selected measures of SP 2 Knowledge-based Economy and assessment of their contribution to the reduction of regional disparities, the following conclusions can be made.

**Measure 1.2 Electronisation of Public Administration and Development of Electronic Services at Central Level** was focused on the creation and sustainable development of basic components of an integrated information system of public administration through investments in shared hardware and software and applications supporting the efficient performance of processes in state administration, which would enable the integration of ICT and selected public administration processes into one point – “front office”.

74 calls for applications with a total allocation of EUR 602.056 million were published under Measure 1.2; 41 projects totalling EUR 785.3 million were contracted. The objectives of the measure were implemented through national projects aimed at contributing to the quality of public administration services provided across Slovakia.

The measure was implemented at national level and therefore has had no effect on the development or changes in regional disparities. In addition, several projects under the measure are still being implemented, which does not allow an exact assessment of the results and contributions of the measure in the context of regional disparities.
Measure 1.1 Innovations and Technology Transfers is aimed to support the private sector where the so-called main stone innovations and technology transfers offer a solution to reduce energy intensity and environmental impacts and increase production efficiency and enhance the competitiveness of private entities. The measure also involved encouraging SMEs and producers to participate in trade fairs and exhibitions, as well as activities aimed at promoting Slovakia’s industrial potential.

The total budget allocated to the measure was EUR 488.193 million. 14 calls for applications were published, 2,951 project proposals were submitted, of which 1,181 totalling EUR 536.55 million were approved. Expenditures totalled EUR 234.825 million (48.11% of the total budget) and differed from region to region (Nitra EUR 48.006 million; Banská Bystrica EUR 36.643 million; Prešov EUR 37.15 million; Žilina EUR 35.293 million; Trenčín EUR 30.737 million; Trnava EUR 23.972 million; Košice EUR 23.034 million; ITMS). Besides demand-oriented projects, there was also a national project aimed at the promotion of Slovakia’s industrial potential and provision of free services to SMEs who would like to present themselves at exhibitions abroad (EUR 388.77 million).

In the context of regional disparities, we considered appropriate to analyse the number and spatial differentiation of enterprises with innovations. There are 2,885 enterprises with innovations registered in Slovakia, which represents an increase of 210% compared to 2007. The rise has been largely due to the Bratislava region (+1,704), which is not eligible for support under the measure. The number of enterprises with innovations has also increased in the NUTS II region of Eastern Slovakia (+52 enterprises) while there has been a decrease in the other regions, and this despite the highest volume of expenditures.

In terms of the development of regional disparities, an indicator we consider relevant is the participation of SMEs in local and foreign trade fairs and exhibitions – 71 entities participated (50.71% of the target value); the number of innovative production methods – 571 were registered, most of which were in the regions of Žilina, Banská Bystrica, Trnava and Prešov; and the number of patent applications submitted – there were 11, 6 of which were submitted in the Banská Bystrica region, 3 in the Žilina region, 1 in the Trenčín region and 1 in the Nitra region.

Measure 1.1 has supported the development of innovative environment in the private sector, raised awareness of production sector entities and SMEs and positively contributed to the reduction of regional disparities among 7 regions of Slovakia which were eligible for support under Measure 1.1.

Measure 3.1 Support of Business Activities in Tourism

The principal focus of the measure is to support projects related to the provision of services, using investments intended to enhance tourism attractiveness and services with an emphasis on the year-round use of tourism capacities and related services. The implementation of the measure was supposed to contribute to the creation of complex year-round tourist services and new innovative services with higher added value, to
the improved quality of customer services and extended stays of foreign tourists in Slovakia.

The total budget allocated to the measure was EUR 195.3176 million. 8 calls for applications were published, 1,280 project proposals totalling EUR 1.143 million were submitted. 229 project proposals were approved, of which 200 totalling EUR 181.71 million were contracted. As of 31 December 2014, expenditures reached EUR 112.019 million (58.4% of the total budget; ITMS), most of which had gone to regions where tourist regions of national or international significance can be found (Banská Bystrica 36.8%; Prešov 25.13%, Žilina 16.67%). Expenditures contributed not only to an improved quality and extension of services, but also to a growth in the number of tourists visiting Slovakia (3,727.71 thousand), revenues from the accommodation of tourists in accommodation facilities (EUR 50.22 thousand per 1,000 inhabitants) and mitigation of regional disparities.

Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice and Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region. Both measures aimed to increase cooperation of research and development institutions with social and economic practice through the transfer of knowledge and technology with the aim to enhance the competitiveness of convergence regions (Measure 2.2) and the Bratislava region (Measure 4.2). Measure 2.2 was allocated EUR 460.963 million, 15 calls for applications were published, 536 project applications were received, 189 of them were approved and 178 totalling EUR 573.86 million were contracted. As of 31 December 2014, 72 projects under the measure were completed properly and 9 projects were terminated.

Measure 4.2 was allocated EUR 271.890 million, 15 calls for applications were published, 241 project applications were received, 88 of them were approved and 81 contracted.

EUR 332.234 million under OP Research and Development were invested to support the transfer of knowledge and technologies from research and development into practice as of 31 December 2014. 41.18% of these funds (EUR 133.104 million) were spent on projects implemented under Measure 4.2 in the Bratislava region and 58.82% (EUR 190.130 million) on projects implemented under Measure 2.2 in the other seven regions. Expenditures under Measure 2.2 differed from region to region (Trnava EUR 39.782 million, 20.92%; Žilina EUR 34.955 million, 18.38%; Košice EUR 31.986 million, 16.82%; and Nitra EUR 24.449 million, 12.86%). 6 national projects were implemented or are still being implemented under Measure 2.2 and 5 national projects under Measure 4.2. The implementation of projects has contributed to the creation of jobs in research and development. Their number has risen by about 2,600. The highest rise has been recorded in regions with a concentration of research and development institutions and research universities (growth index of 123.37% in the Bratislava region, 109.25% in the Košice region, 112.27% in the Žilina region). A rise of about 15-20% in the number of researchers in employment has also been due to jobs created...
under Measures 4.2 and 2.2. It is positive that the implementation of projects under the analysed measures has mitigated regional disparities.

Measure 5.1 Building Infrastructure of Higher Education Institutions and Modernisation of Their Interior Equipment Aimed at Improving Conditions of Educational Process through Investments in Tangible Infrastructure.

The total allocation for Measure 5.1 amounted to EUR 285.294 million. 5 calls for applications were published, 102 applications were received, 76 of them approved and 75 contracted. Up to now 38 projects totalling EUR 16.97 million have been properly completed.

The absorption of funds differed from region to region (Banská Bystrica 21.60%, EUR 47.798 million; Žilina 18.52%, EUR 40.079 million; Košice 19.95%, EUR 39.731 million; Nitra 14.89%, EUR 32.943 million; Trnava 13.36%, EUR 29.561 million; Trenčín EUR 12.675 million; Prešov EUR 17.621 million).

7 new buildings and facilities were built under Measure 5.1 (100% of the target value), 86 buildings and facilities were refurbished and reconstructed (209.7% of the target value), 3,018 classrooms were equipped with modern ICT networks as a result of the implementation of a project (99.48% of the target value) and 221.39 thousand students benefit from better quality infrastructure. The implementation of projects has improved the quality of higher education infrastructure, especially in regional centres where most higher education institutions are located, and reduced regional disparities among 7 regions of Slovakia, where projects under the measure were implemented.
9 Strategic Priority 3 Human Resources

The aim of Strategic Priority 3 Human Resources is to increase employment, quality of human resources for the needs of knowledge-based society and social inclusion of vulnerable groups. Financial interventions went into the reform of education aimed at improving the quality of educational content and processes so that educational institutions produce students who are flexible enough to respond to the requirements and needs of the labour market. The projects that had received support focused on developing lifelong learning, reducing unemployment rates in the underdeveloped regions of Slovakia, implementing active labour market measures in order to improve the quality of human resources and deal with the issue of social inclusion of persons with special educational needs, with a particular focus on marginalised Roma communities.

Strategic Priority 3 Human Resources includes two specific priorities – 3.1 Modern Education for Knowledge-based Society and 3.2 Supporting Employment Growth, Social Inclusion and Capacity Building.

The objective of Specific Priority 3.1 Modern Education for Knowledge-based Society is to ensure Slovakia’s long-term competitiveness by aligning the educational system with the needs of knowledge-based society. The priority was supported through OP Education.

Specific Priority 3.2 Supporting Employment Growth, Social Inclusion and Capacity Building aims to increase employment, decrease unemployment, enhance social inclusion and build administrative capacities. The projects were implemented through OP Employment and Social Inclusion in all regions of Slovakia.

9.1 Development of Regional Disparities at the Level of Strategic Priority 3 Human Resources

Human resources represent an important factor of the development of a region. Demographic development, natural, mechanic and overall mobility of the population and structural signs (age and education structure of the population) are primary factors which determine the number and “quality” of human resources. Other factors that cannot be ignored are social level, which is a reflection of economic status and situation on the labour market, and sociopathogenic phenomena (criminal offences and similar).

The spatial differentiation of these processes, phenomena and structural signs crucially determines regional disparities in the area of Human Resources. In order to evaluate regional disparities under SP 3 Human resources, data for individual regions in 2007 and 2014 have been used.

According to indicators of SP 3 Human Resources, there are regional disparities evident in both years under analysis. The Bratislava region with the highest score of 700 points in 2007 (77.7% of the maximum score) and 717 in 2014 (79.66% of the maximum) holds a
dominant position in the regional structure of Slovakia in the area of human resources and is further strengthening its leadership. Spatially differentiated demographic behaviour and population structure, together with the indicators of social status, are important factors influencing the growing polarisation of Slovakia’s regional structure. The Bratislava region also achieved the best values in other demographic and social indicators.

Compared to 2007, the scores in the area of human resources decreased in the other regions of Slovakia although several of them maintained their position in Slovakia’s regional structure. The Trnava region, which scored 377 points in 2007 (41.89% of Slovakia’s average) and 327 in 2014 (36.33% of Slovakia’s average), maintained a relatively strong and stable position in terms of the quality of human resources. This is due to a stable character of demographic processes in the region, labour market with low rates of registered and long-term unemployment, stable social situation with a low risk of poverty – 60% of the median value – and a below average number of social allowance beneficiaries. The Trnava region’s second position is due to its population’s lower level of education.

Other regions that occupy fairly strong positions in Slovakia’s regional structure in the area of human resources are the Žilina region (290 points in 2007 and 279 points in 2014) and the Trenčín region (345 points in 2007 and 296 points in 2014). They are regions with a different demographic behaviour of its populations, which is demonstrated in their different age structures, with a significant portion of aging population in the Trenčín region. Positive indicators of social level in both regions are a consequence of the performance of the regional economy and a long-term relatively positive situation on the regional labour markets with a balance between the demand and job creation and without a significant imbalance resulting from the mismatch between the professional orientation or educational level of labour force on the one hand and employers’ requirements on the other. The rate of registered and long-term unemployment in both regions is lower than Slovakia’s average. The stability of social environment in both regions results in a poverty risk rate lower than Slovakia’s average – 60% of the median value.

Regions that hold almost identical positions in Slovakia’s regional structure in the area of human resources are the Prešov region (253 points in 2007 and 244 points in 2014) and the Košice region (202 points in 2007 and 216 points in 2014) (Figure 9). They are regions with consistently above average population growth, which is also reflected in the EU aging index, whose value in these regions is approximately 30% lower than Slovakia’s average. On the other hand, imbalance on the regional labour markets has a long-term impact on above average rates of registered and long-term unemployment, a poverty risk rate – 60% of the median value, a growing share of the socially dependent and a higher than average number of sociopathological phenomena (criminal offences and similar). If we also take into account one of the most serious issues – a high concentration of Roma inhabitants that do not adapt easily and are threatened by social
exclusion, the improvement of the position of these regions in Slovakia’s regional structure in the area of human resources seems unlikely and requires a concentration of attention and financial resources to offer a complex solution to this challenging issue.

The position of the Nitra region deteriorated in the period under analysis especially due to degressive demographic development and adverse age and education structure of the population (Figure 9). The region which ranked last in Slovakia’s regional structure in the area of human resources in 2007 and 2014 is Banská Bystrica (Figure 9). Degressive demographic development is especially manifest in a declining and aging population and its relatively low educational level. The regional labour market of the Banská Bystrica region is one of the most problematic – the rates of registered and long-term unemployment and poverty risk (60% of the median value) are the second highest among Slovakia’s regions.

Figure 9 Regional disparities according to indicators of SP 3 Human Resources and regions of the SR

The scores and standard rates of regional disparities in almost all monitored demographic and social indicators indicate growing regional disparities in the area of human resources. Besides the Bratislava region, the Trnava region is gradually strengthening its position. The Žilina region has maintained its position from 2007. As a result of joint influence of several negative factors of demographic and social environment, there has been a deterioration in the position of the Trenčín, Prešov and Košice regions. The region which ranks last in Slovakia’s regional structure in the area of human resources is permanently Banská Bystrica (Figure 9). The factors which have most influenced the development of regional disparities in the area of human resources in the context of analysed demographic and social indicators include changes in demographic behaviour and their impact on the aging and age structure of the population, a spatially differentiated growth of the population’s educational level, regionally differentiated employment rate, character of the labour market with a stabilised rate of registered unemployment, permanently high rates of long-term unemployment and youth unemployment and growing rate of poverty risk.

Summary
The scores and standard rates of regional disparities in almost all monitored demographic and social indicators indicate constantly growing regional disparities in the area of human resources. In Slovakia’s regional structure it is the regions of Bratislava and Trnava which are gradually strengthening their positions. The Žilina region has been maintaining its stable position while the position of the other regions has deteriorated compared to 2007 as a result of joint influence of several negative factors of demographic and social environment. Compared to 2007, the values used to measure RD increased in 2014, the value of standard deviation increased from 166.61 to 174.12 and the Gini coefficient from 0.3353 to 0.3497, which indicates that regional disparities are growing.

The factors that have most affected the development of regional disparities in the area of Human Resources in the context of analysed indicators include:

- imbalanced nature of regional labour markets with a certain stabilisation of the rate of registered unemployment in the last year under survey, but a long history of high long-term unemployment and youth unemployment rates, a growth of poverty risk rate – 60% of the median value;
- changes in demographic behaviour and their impact on the population’s age structure;
- regionally differentiated growth of the population’s level of education;
- effective use of the 2007-2013 Cohesion Policy instruments and project implementation. Projects implemented under Strategic Priority Human Resources are non-investment projects whose sustainability and benefits will become evident in regional disparities in the area under analysis with a certain delay in time.

9.2 Use of SF and KF funds under Strategic Priority 3 Human Resources

Interventions within Strategic Priority 3 Human Resources were directed at two areas – Modern Education for Knowledge-based Society and Supporting Employment Growth and Social Inclusion. Expenditure on the support of Human Resources accounted for 12.8% (EUR 1.3 billion) of the total expenditure. Almost one third of the amount (EUR 476.4 million; 1,050 projects) was implemented to support education and more than two thirds (EUR 892 million; 1,508 projects) to support employment growth. Projects aimed at increasing the quality of human resources were funded from the operational programmes – OP Education and OP Employment and Social Inclusion and were implemented in all Slovak regions. As of 31 December 2014, the efficiency of drawing for OP E&SI and OP Education was 80.6% and 71.6%, respectively.

The territorial distribution of expenditure allocated for the support of activities under Strategic Priority 3 Human Resources shows significant differences. The majority of funds were directed into the regions of Prešov (EUR 195 million; 751 projects), Košice (EUR 182.9 million; 461 projects), Banská Bystrica (EUR 172.8 million; 484 projects) and Žilina (EUR 165.8 million; 269 projects). The lowest intervention was allocated to
the Bratislava region (EUR 26.9 million; 147 projects) which, in the long term, has been achieving the highest employment rates and the lowest unemployment in the SR. In other regions, interventions ranged from EUR 148.4 million to EUR 155 million (Chart 18, Figure 10).

**Chart 18 Strategic Priority 3 Human Resources (SR by region as of 31 December 2014)**

In incurred expenditures

Number of contracted projects

Source: ITMS, calculations by authors

**Figure 10 Structural funds expenditures incurred under 2007-2013 PP Strategic Priority 3 Human Resources (SR by region as of 31 December 2014)**

<table>
<thead>
<tr>
<th>Specific Priority</th>
<th>Share in expenditures by regions of the SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Moderné vzdelávanie pre vedomostnú spoločnosť</td>
<td>2.2% Bratislava</td>
</tr>
<tr>
<td>3.2 Podpora rastu zamestnanosti, sociálnej inklúzie a budovanie kapacit</td>
<td>2.2% Bratislava</td>
</tr>
<tr>
<td>Podiel výdavkov v krajoch SR</td>
<td>11% Trnava</td>
</tr>
<tr>
<td>2,2% Bratislavský</td>
<td>11% Trnava</td>
</tr>
<tr>
<td>11% Trnavský</td>
<td>11.8% Trenčín</td>
</tr>
<tr>
<td>13,4% Nitriansky</td>
<td>13.4% Nitra</td>
</tr>
<tr>
<td>13,6% Žilinský</td>
<td>13.6% Žilina</td>
</tr>
<tr>
<td>14,1% Banskobystrický</td>
<td>14.1% Banská Bystrica</td>
</tr>
<tr>
<td>16,2% Košický</td>
<td>16.2% Kolice</td>
</tr>
</tbody>
</table>

Specific Priority 3 Human Resources

- Specific Priority 3.1 Modern education for knowledge-based society
- Specific Priority 3.2 Supporting employment growth, social inclusion and capacity building

Incurred expenditures

Number of contracted projects

Source: ITMS, calculations by authors
9.2.1 Modern Education for Knowledge-Based Society

The objective of the support of modern education for knowledge-based society was to ensure long-term competitiveness of Slovakia by aligning the educational system with the needs of the knowledge-based society. The priority was supported within the measures of OP Education with a total amount of EUR 476 million of expenditure incurred on 1,050 projects.

Operational Programme Education

Projects supported under Priority Axis 1 Measure 1.1 Transformation of traditional school into a modern one and Priority Axis 4 Measure 4.1 Transformation of traditional school into a modern one for the Bratislava region were aimed at the completion of the reform of primary and secondary schools with emphasis on the content reform of education. Interventions were directed at innovations of the content, methods and better quality of education outputs to meet the needs of the labour market in a knowledge-based society. The areas of support included communication skills, personal and interpersonal skills, creative and critical thinking, work with modern information technologies, foreign language learning. The support of 753 projects totalling EUR 200.5 million was directed into all Slovak regions – Prešov (EUR 35.7 million; 170 projects), Košice (EUR 32.5 million; 136 projects), Žilina (EUR 31.5 million; 124 projects), Banská Bystrica (EUR 27.3 million; 113 projects), Trenčín (EUR 23.8 million; 63 projects), Nitra (EUR 24 million, 71 projects), Trnava (EUR 19.8 million; 33 projects) and Bratislava (EUR 5.8 million; 43 projects).

In order to promote effective international cooperation, the funds were allocated to projects focusing on involving universities in research and development networks and student and teacher mobility under Measure 1.2 Universities and research & development as the driving forces in the development of a knowledge-based society and Measure 4.2 Raising competitiveness of the Bratislava region through the development of higher and continuing education. Interventions totalling EUR 53.7 million were carried out in all Slovak regions. The support in the regions of Žilina and Trnava amounted to EUR 8.6 million and EUR 11.1 million, respectively. It was substantially lower in other regions, ranging from EUR 4.1 million in the regions of Banská Bystrica and Prešov to EUR 6.1 million in the Nitra region.

Priority Axis 2 Measure 2.1 Support of continuing education and 2.2 Support of continuing education in healthcare was focused on the development of the system of continuing education and consultancy for adults by increasing its quality, ensuring better preparedness and placement of graduates on the labour market using modern education forms and methods and providing continuing professional training in selected industrial,
trade and service sectors. Its objectives also included the development and implementation of education programmes that deepen or broaden knowledge, skills and abilities of employees in the national economy in order to increase their qualifications in line with the requirements defined by employer associations, social partners, regional governments and to extend knowledge and skills improving the quality of life of seniors and health care workers. 69 projects were implemented in all regions except Bratislava, with a total expenditure of EUR 80.9 million and ranged from EUR 10.8 million in the Banská Bystrica region to EUR 12.7 million in the Prešov region.

Increasing the level of education of persons with special educational needs through lifelong guidance, professional advisory support of educational counselling and prevention staff as well as increasing the level of education of marginalised Roma communities through the development of specialized programmes, courses and workplaces was the focus of Priority Axis 3 Measure 3.1 Raising the educational level of members of the marginalised Roma communities. 108 projects with a total value of EUR 32.1 million were implemented mainly in regions with the highest share of Roma population – the regions of Košice (EUR 7.1 million; 36 projects), Prešov (EUR 7 million; 34 projects) and Banská Bystrica (EUR 6.3 million; 33 projects). In other regions (Nitra, Žilina, Trenčín, Trnava) the support ranged from EUR 2.8 to EUR 3 million.

Education of disabled persons and the development of a comprehensive advisory system to prevent and influence socio-pathological phenomena in the school environment was the objective of Measure 3.2 Raising the educational level of persons with special educational needs, which was supported with EUR 8.9 million ranging by region from EUR 0.9 in the Trnava region to EUR 1.7 million in the Košice region.

Geographical differentiation of incurred expenditure shows significant differences between Slovak regions. The largest portion of funds allocated to support modern education for knowledge-based society was incurred in the regions of Košice (EUR 63.9 million; 203 projects), Prešov (EUR 60.9 million; 241 projects), Žilina (EUR 56.9 million; 160 projects), Banská Bystrica (EUR 49.5 million; 166 projects) and Nitra (EUR 45.7 million; 103 projects). They were followed by the regions of Trenčín (EUR 43.7 million; 77 projects), Nitra (EUR 43.8 million, 65 projects) and Bratislava (EUR 11.6 million; 56 projects).

Chart 19 Strategic Priority 3 Human Resources
Specific Priority 3.1 Modern education for knowledge-based society
(SR by region as of 31 December 2014)

<table>
<thead>
<tr>
<th>Incurred expenditures</th>
<th>Number of contracted projects</th>
</tr>
</thead>
</table>

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9.2.2 Supporting Employment Growth and Social Inclusion

The support of employment growth and social inclusion was focused on reducing unemployment, increasing employment and social inclusion and improving the services provided by public administration. Expenditure of EUR 892 million on 1,508 projects was incurred as part of the measures of the Operational Programme Employment and Social Inclusion in all Slovak regions.

Operational Programme Employment and Social Inclusion

Priority Axis 1 Measure 1.1 Promoting programmes in the area of supporting employment and solving unemployment and long-term unemployment was directed at the preparation of the National Employment Strategy and local comprehensive approach strategies in order to promote employment growth and employability of the unemployed, with a particular focus on long-term unemployed, young unemployed and school-leavers. 37 projects, mostly at the national level, with a total expenditure of EUR 596.2 million received support.

Priority Axis 1 Measure 1.2 Support for the creation and retention of jobs through increasing the adaptability of workers, companies and business support and for the Bratislava region Priority Axis 3 Measure 3.1 Promoting employment growth and improving employability, with special regard to knowledge-based society were focused on long-term retention of the existing and filled-in jobs, the creation of new jobs and the creation of suitable conditions to sustain economic growth and enhance employees’ and employers’ skills. A total of 594 projects totalling EUR 102.8 million were implemented. The highest fund allocations were directed into regions with the highest rates of total and long-term unemployment in the long term – the regions of Prešov (EUR 21.5 million; 130 projects), Banská Bystrica (EUR 17.4 million; 93 projects) and Košice (EUR 13.8 million; 89 projects). The lowest amounts were allocated in the regions of Trnava (EUR 7.5 million; 45 projects) and Bratislava (EUR 7.7 million; 36 projects) which, in the long term, have shown the highest employment rates and the lowest unemployment rates.
Social inclusion interventions were allocated for the promotion of integration of persons at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalised Roma communities and businesses that create jobs for such persons. Projects that received support focused on preventing social exclusion through the provision of social counselling and improving public awareness in relation to marginalised Roma communities and other marginalised population groups under **Priority Axis 2 Measure 2.1 Supporting the social inclusion of persons at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalised Roma communities** and **Measure 2.2 Promoting equal opportunities in access to the labour market and supporting the integration of disadvantaged groups into the labour market with special regard to marginalised Roma communities**. The support amounted to EUR 61.2 million allocated to 836 projects with the largest amounts of expenditure incurred in the regions of Prešov (EUR 18.9 million; 355 projects), Košice (EUR 10.9 million; 144 projects), Banská Bystrica (EUR 10.4 million; 192 projects) and Nitra (EUR 6.9 million; 68 projects). In other regions, the expenditure ranged from EUR 4.3 million in the Žilina region to EUR 5 million in the Trnava region.

**Priority Axis 2 Measure 2.3 Promoting the reconciliation of work and family life** and **Priority Axis 3 Measure 3.2 Promoting social inclusion, gender equality, and the reconciliation of work and family life in the Bratislava region** focused on the creation of equal opportunities in access to the labour market and support of disadvantaged groups on the labour market as well as reconciliation of work and family life with a particular emphasis on gender equality. The support totalled EUR 21 million with a relatively even territorial allocation ranging from EUR 2.1 million in the Trnava region to EUR 2.6 million in the Prešov region. The region of Bratislava was the only exception with the support totalling EUR 5.7 million.

In the area of building public administration capacities, projects focused on improving the quality of human capital and increasing the level of the services provided by public administration and NGOs with emphasis on effective service provision. The financial support totalled EUR 42.6 million and was implemented through 153 projects under **Priority Axis 3 Measure 3.3 Capacity building and quality improvement of public administration in the Bratislava region** and **Priority Axis 4.1 Improving the quality of services delivered by public administration and non-profit organisations**. Financial allocations ranged from EUR 4.2 million (11 projects) in the Trenčín region to EUR 7.5 million (24 projects) in the Banská Bystrica region. The Bratislava region received only EUR 1.9 million allocated to 32 projects.
The support of employment growth and social inclusion was mainly directed into regions that have persistently shown unfavourable situation in terms of unemployment rates and social inclusion. The majority of funds were incurred in the regions of Prešov (EUR 134.1 million; 510 projects), Banská Bystrica (EUR 123.3 million; 318 projects) and Košice (EUR 119 million; 258 projects). They were followed by the regions of Trenčín (EUR 109.4 million; 96 projects), Nitra (EUR 109.3 million; 156 projects) Žilina (EUR 108.9 million; 109 projects) and Trnava (EUR 104.6 million; 85 projects). The lowest allocation of EUR 15.3 million (91 projects) was in the Bratislava region (Chart 20).

### Financial Implementation of Strategic Priority 3 Human Resources in the Context of Regional Disparities

The highest allocations on projects implemented under Strategic Priority 3 Human Resources were in the regions of Košice, Prešov, Banská Bystrica and Nitra, being the regions with difficult labour markets persistently showing above-average rate of both registered and long-term employment as well as unemployment of school leavers. Projects implemented under Specific Priority 3.1 Modern education for knowledge-based society aimed to extend the competence of human resources in order to facilitate their access to the labour market. The highest amount of expenditure was allocated to projects addressing social inclusion, primarily in the Košice and Prešov regions which have persistently reported the highest poverty rate – 60% of the median, the concentration of low-income population groups, socially dependent, socially excluded persons or persons at risk of social exclusion. Territorial differentiation of regional disparities in the area of
human resources corresponds to the implementation of projects and the use of funds under Strategic priority 3 Human Resources and its specific priorities (Figure 11).

Figure 11 Regional disparities and structural fund expenditure 2007-2013
Strategic Priority 3 Human Resources
(SR by region as of 31 December 2014)

3 Human Resources

<table>
<thead>
<tr>
<th>Regionálne disparity (počet bodov)</th>
<th>Regional disparity (score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relizované výdavky</td>
<td>Expenditure</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, COLSAF, ITMS, authors’ calculations

**Summary**

The aim of Strategic Priority 3 Human Resources is to increase employment, quality of workforce for the needs of knowledge-based society and social inclusion of vulnerable groups. Financial interventions focused mainly on educational reforms, mitigation of the
level of unemployment and issues of social inclusion focused on marginalised Roma communities.

Interventions focused on two areas – Modern Education for Knowledge-based Society and Supporting Employment Growth and Social Inclusion. Expenditure on the support of Human Resources accounted for 12.8% (EUR 1.3 billion) of the total expenditure. Almost one third of the amount (EUR 476.4 million; 1,050 projects) was implemented to support education and more than two thirds (EUR 892 million; 1,508 projects) to support employment growth. Projects aimed at increasing the quality of human resources were funded from the operational programmes – OP Education and OP Employment and Social Inclusion and were implemented in all Slovak regions. As of 31 December 2014, the efficiency of drawing was 80.6% and 71.6% for OP E&SI and OP Education, respectively.

The territorial distribution of expenditures allocated on the support of activities within the Strategic Priority 3 Human Resources closely corresponds to the situation in the labour market in individual regions. Most funds were directed into the regions of Prešov (EUR 195 million; 751 projects), Košice (EUR 182.9 million; 461 projects), Banská Bystrica (EUR 172.8 million; 484 projects), which have appeared most problematic in terms of quality of human resources and have shown the highest unemployment rates for a long time. The lowest intervention was allocated to the Bratislava region (EUR 26.9 million; 147 projects) which has persistently achieved the highest employment rates and the lowest unemployment in the SR.

In terms of the defined regional disparities and drawing of funds under Strategic Priority 3 it can be observed that the allocation of financial interventions reflects the socioeconomic position of Slovak regions and the majority of funds were allocated to regions with the worst position in the Slovakia's regional structure – the Košice, Prešov and Banská Bystrica regions.

9.4 Assessment of the SF and CF Contribution to the Reduction of Regional Disparities within Strategic Priority 3 Human Resources

3 measures have been selected for evaluation based on the accepted criteria:

- Measure 1.1 Transformation of traditional school into a modern one (OP Education)
- Measure 2.1 Support of further education (OP Education)
- Measure 1.1 Promoting programmes in the area of employment, solving unemployment and long-term unemployment (OP Employment and Social Inclusion)
9.4.1 Measure 1.1 Transformation of Traditional School into a Modern One

The objective of Measure 1.1 Transformation of traditional school into a modern one was to implement the content reform of education at primary and secondary schools and the preparation of school leavers for the current and prospective needs of the knowledge-based society and the continuing education in the system of universities and further education.

Specific objectives of the measure focused on the innovation of the content and methods, improving education outputs for the needs of the labour market in the knowledge-based society; orientation of the preparation and further education of educational staff to gain and develop competencies necessary to transform the traditional school into a modern one; improvement of administration and management of schools and their stimulation towards greater openness to the needs of local communities; ensuring institutional quality of schools and school facilities.

The purpose of framework activities was to increase the quality of key competencies and skills of pupils by supporting the reform and development of general and vocational education at primary and secondary schools; promoting educational and career guidance at primary and secondary schools; promoting the training of teachers and further education of educational staff; supporting the open school system; supporting and developing evaluation tools of educational activities at schools and school facilities.

According to the programme structure Measure 1.1 Transformation of traditional school into a modern one is part of Specific Priority 3.1 Modern education for knowledge-based society, Priority Axis 1 – Reform of the education and vocational training system of the OP Education. Eligible areas are convergent regions (Slovak regions except for Bratislava).

27 calls for applications with a total allocation of EUR 605.31 million were published for the support under Measure 1.1. A total of 2,134 NFC applications were received with a total budget of EUR 252.89 million. Based on the submitted NFC applications 708 projects were approved with a total contribution of EUR 401.77 million. The number of contracted projects was 638 (EUR 324.58 million), 374 projects were duly completed with a budget of EUR 81.5 million and 25 projects with a budget of EUR 56.39 million were terminated early. (Annual Report OP Education 2014).

The cumulative drawing of the EU funds committed to Measure 1.1 in 2007-2013 was EUR 189,638 million (58.13% of the contracted project budget), the highest shares were in the regions of Prešov (17.76%; EUR 33.685), Košice (16.30%; EUR 30.909 million), Nitra (16.19%; EUR 30.699 million) and Žilina (13.95%; EUR 26.452 million). The shares of other regions account for approximately 11% (ITMS; Table 17).

The transformation of traditional school into a modern one was also supported in the Bratislava region from OP Education under Measure 4.1 with an amount of expenditure
of EUR 6.010 million (as of 31 December 2014; ITMS). Measure 4.1 is subject to no further analysis.

Among others, the following demand-oriented or national projects have been or are implemented under Measure 1.1:

**National projects:**

- **Foreign language training for primary school teachers in relation to the Foreign Language Teaching Concept at Primary and Secondary Schools (National Education Institute)** with a total budget of EUR 12,751,021.05 and cumulative drawing of EUR 9,752,368.76 (Annual Report OP Education as of 31 December 2014). The objective of the project was to achieve in the long-term planning horizon 100% representation of qualified teachers in grade 1 for foreign language teaching for the target group of younger school-age children, to innovate the content and methods and improve education outputs for the needs of the labour market and knowledge-based society. The project was implemented from 16 September 2008 to 31 March 2014.

- **Teacher training in relation to the development of school training programmes (State Vocational Training Institute)** with a total budget of EUR 3,207,400.00 and cumulative drawing of EUR 2,488,377.83 (Annual Report OP Education as of 31 December 2014). The aim of the project was nationwide retraining and training of educational staff at primary and secondary schools to implement the school content reform and develop school training programmes. The project was implemented from 2 January 2009 to 28 February 2014.

- **Modern education – digital education for general education subjects (Institute of Information and Prognoses of Education/Slovak Centre of Scientific and Technical Information)** with a total budget of EUR 19,564,573.89 and cumulative drawing of EUR 12,048,939.03 as of 31 December 2014. (Annual Report OP Education as of 31 December 2014). The objective is to implement the content reform of education at primary and secondary schools using innovative teaching forms and methods. The project is implemented from 15 December 2012 to 30 November 2015.

- **Improving the quality of education at primary and secondary schools using electronic testing (National Institute for Certified Educational Measurements).** The total project budget is EUR 25,654,789.62 and cumulative drawing was EUR 15,445,867.00 as of 31 December 2014 (Annual Report OP Education as of 31 December 2014). The global goal of the project is to increase the quality of education at primary and secondary schools and the specific objective is to improve the educational process of pupils at education level ISCED 2 and ISCED 3 by creating and implementing a set of electronic evaluation tools to verify knowledge and key competences of pupils by implementing new forms of evaluating the level of pupils’ knowledge and monitoring factors that influence the quality of schools. The project is implemented from 5 March 2013 to 31 December 2015.

- **Development of secondary vocational training (State Vocational Training Institute)** with a total budget of EUR 43,999,014.95 (Annual Report OP Education as of 31
The aim of the project is to increase the quality of vocational training in the selected groups of study fields at secondary vocational schools. The project is implemented from March 2013 to October 2015.

- Supporting professional orientation of primary school pupils at vocational education and training through the development of polytechnic education aimed at developing work skills and work with talents (State Vocational Training Institute). The total project budget is EUR 19,922,846.31 and cumulative drawing was EUR 10,575,479.69 as of 31 December 2014 (Annual Report OP Education as of 31 December 2014). The project aims to modernize the content of education of primary school pupils in the areas Man and Nature (biology, physics, chemistry) and Man and the World of Work (technology), to support professional orientation towards vocational education and training, to develop work skills of primary school pupils through polytechnic education implemented in the course of learning using new teaching aids for practical training by innovating training forms and methods, to equip technical classrooms at 49 primary schools in seven Slovak regions, to ensure continuous education of educational staff at primary school in the aforementioned areas and to introduce more attractive forms and methods of teaching chemistry, physics, biology and technology. The global goal of the project is to implement the content reform of education at primary and secondary schools with focus on practical application. The project is implemented from March 2013 to October 2015.

National projects contribute to higher quality of educational process and are the prerequisite for a better employability of school leavers, however given the territorial distribution of project implementation they have no effect on the creation of regional disparities in the analysed area.

In terms of the objectives and activities of Measure 1.1 Transformation of traditional school into a modern one and in the context of regional disparities, we consider as relevant the statistical indicators of school achievement of primary and secondary school pupils (%, 2007-2014\(^{17}\)) and unemployment rate of secondary school leavers\(^ {18}\) (%; 2007 and 2014).

School achievement of primary school pupils is measured by an average test achievement of grade 9 primary school pupils in Slovak language, literature and mathematics. The results of testing and achievement of pupils are a direct result of effectiveness and efficiency of the educational system and indirectly reflect geographical differentiation of social and national population structure in the SR by region.

Compared to 2007, the achievement of grade 9 pupil testing at primary schools decreased in both subjects. In 2014, an average achievement of grade 9 pupils tested in Slovak

\(^{17}\) Year 2014 – expert estimate

\(^{18}\) Unemployment rate of secondary school leavers (%) – job seekers – secondary school leavers aged up to 26 for a period of 2 years/secondary school leavers (grammar schools, secondary vocational schools, special schools, music schools) *100 (%)
language and literature was 63.1% (-2.5 percentage points compared to 2007) and in mathematics 61.1% (-5.1 percentage points). The achievement of pupils in Slovak language and literature is relatively balanced in terms of geography (max. Žilin region 66.9%; min. Prešov region 61.7%) with all regions other than Banská Bystrica showing a decrease in the achievement rates. Overall achievement rate in mathematics testing of grade 9 pupils is 56%, with notable differences at a regional level (max. Banská Bystrica 66.9%, min. Košice 59.5%).

Overall achievement rate of grade 9 pupils according to test results in 2007 and 2014 decreased on average by 6% Banská Bystrica being the only region that recorded an improvement in the quality of results by approx. 13%. Other regions recorded a negative development and decrease in the achievement rate of approx. 5% to 11.5%. The achievement of grade 9 pupils testing is geographically differentiated and the Gini coefficient shows reduction of regional disparities (Table 17).

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NT</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average achievement rate of T9 primary school pupil testing by Slovak regions (%)*</td>
<td>63.75</td>
<td>64.05</td>
<td>65.15</td>
<td>61.40</td>
<td>67.30</td>
<td>56.60</td>
<td>65.30</td>
<td>63.20</td>
<td>63.34</td>
<td>0.0880</td>
</tr>
<tr>
<td>In 2007</td>
<td>63.75</td>
<td>64.05</td>
<td>65.15</td>
<td>61.40</td>
<td>67.30</td>
<td>56.60</td>
<td>65.30</td>
<td>63.20</td>
<td>63.34</td>
<td>0.0880</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>95.06</td>
<td>91.88</td>
<td>93.25</td>
<td>94.71</td>
<td>87.89</td>
<td>113.07</td>
<td>90.28</td>
<td>88.45</td>
<td>94.00</td>
<td>0.0833</td>
</tr>
<tr>
<td>Average achievement rate of secondary school pupils by Slovak regions (%)**</td>
<td>61.22</td>
<td>60.33</td>
<td>61.23</td>
<td>60.38</td>
<td>60.85</td>
<td>58.56</td>
<td>64.34</td>
<td>64.37</td>
<td>61.30</td>
<td>0.0808</td>
</tr>
<tr>
<td>In 2007</td>
<td>61.22</td>
<td>60.33</td>
<td>61.23</td>
<td>60.38</td>
<td>60.85</td>
<td>58.56</td>
<td>64.34</td>
<td>64.37</td>
<td>61.30</td>
<td>0.0808</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>70.57</td>
<td>90.63</td>
<td>87.42</td>
<td>87.11</td>
<td>87.43</td>
<td>85.38</td>
<td>87.12</td>
<td>86.15</td>
<td>85.23</td>
<td>0.0956</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>143.80</td>
<td>157.89</td>
<td>196.29</td>
<td>144.63</td>
<td>176.17</td>
<td>162.45</td>
<td>155.97</td>
<td>131.03</td>
<td>157.71</td>
<td>0.1882</td>
</tr>
</tbody>
</table>

Explanatory notes: * – average achievement rate of grade 9 primary school pupil testing in mathematics, Slovak language and literature; ** average achievement in the external part of school-leaving exam in Slovak language and literature, German, English and mathematics

School achievement of secondary school pupils (%, 2007, 2014) is expressed through average achievement in the external part of school-leaving exam in compulsory (Slovak language and literature, English) and selected optional (German, mathematics) subjects.

In 2014, average achievement of secondary school pupils according to results of the external part of school-leaving exam was 52.25%, which is approximately 9 percentage points less than in 2007 (growth index 85.23%). The achievement of secondary school pupils decreased in all regions in a range from 10% (Trnava region) to 30% (Bratislava region) and shows significant geographical differences (min. Bratislava region 70.57%, max. Trnava region 90.3%; Table 17). The values of the Gini coefficient of average achievement in the external part of school leaving exam of secondary school pupils in 2007 and 2014 show the widening of regional disparities in the SR by region (Table 17).
Unemployment rate of secondary school leavers (grammar schools, secondary vocational schools, special secondary schools and music schools) is the expression of the absorption capacity of regional labour markets for secondary school leavers aged up to 26. The geographical differentiation in the value of the indicator reflects not only the specifics of demographic development of mid 90s (lower natality) and lower number of secondary school leavers, but particularly the “success” of secondary school leavers aged up to 26 in applying for a job.

In 2014 there were more than 55,420 secondary school leavers in Slovakia, which was 14,500 fewer than in 2007. The development of unemployment rate of secondary school leavers corresponds to the development of overall unemployment. Long-term decrease in unemployment of school leavers aged up to 26 until 2007 was “halted” by the financial and economic crisis in the following years. Particularly in recent years, unemployed secondary school leavers aged up to 26 have been a risk group on the labour market and despite positive development of overall unemployment in 2014 the problems with employability of secondary school leavers aged up to 26 have increased, with geographical differentiation demonstrating significant regional disparities. In 2014, compared to 2007, the number of job seekers – secondary school leavers aged up to 26 in Slovakia increased by 4,200 (from 16,400 to 20,600) and their unemployment rate increased from 23.49% to 37.21%.

Unemployment rate of secondary school leavers aged up to 26 increased in all regions from approximately 44% (Bratislava region) to 96% (Trenčín region) with the highest numbers not only in the regions of Prešov (46.51%), Banská Bystrica (45.81%), Košice (39.14%) and Nitra (31.76%) being the regions with long-term above-average rate of recorded unemployment and prevailing structural imbalance on regional labour markets, but also in the Žilina (37.4%) and Trnava (34.95%) regions. Despite the growing value, the lowest unemployment rate of secondary school leavers up to 26 is in the Bratislava region (16.71%; Table 17).

Prevailing regional disparities in the unemployment rate of secondary school leavers aged up to 26 are also evident from the Gini coefficient that showed only a marginal decrease in 2014 (0.1882) compared to 2007 (1.966; Table 17).

Significant in evaluating the importance of the support under the cohesion policy 2007-2013 for Measure 1.1 in relation to improving education and employment of school leavers can be measurable indicators of the number of newly-developed educational programmes and secondary school leaver employability.

The indicator of newly-developed educational programmes expresses the number of newly-developed educational programmes, study fields and programmes supported under the OPE whose objectives, methods and forms should lead to improved quality of

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19 The share of secondary school education programme participants under the OPE who found employment on the labour market or successfully continued at the next education level within 12 months to the total number of school leavers.
education. According to projects completed as of 31 December 2014, the number of implemented projects was 976, which was approximately 8 times the projected value of 120. This significant difference is the result of legislative changes (Act No. 245/2008 Coll. on education and training (The School Act) and on amendment of certain acts as amended) and the implemented school reform.

The value of the indicator of **secondary school leaver employability** is currently 0, because it is based on the result and impact indicators and the fulfilment is only expected after the completion of all projects in which the given indicator was used as an impact indicator. In interpreting the results of the given status, we can make conclusion based on the development of the statistical indicator that shows regional disparities in the employment of secondary school leavers aged up to 26.

Since a number of national and many demand-oriented projects are underway, the impact of their implementation on the development of regional disparities cannot be clearly and accurately identified at present; it is possible more or less based on the analysed statistical indicators. The regional distribution of the funds is in line with the needs arising also from the analysis of the selected indicators with the highest share in the Prešov, Košice and Nitra regions.

The current status of the quality of education and the employment of secondary school leavers confirms the essential need not only to increase the number, but in particular to change the structure and specific focus of educational programmes that would broaden knowledge, improve quality, competence skills and abilities of secondary school leavers in line with the needs of the labour market.

### 9.4.2 Measure 2.1 Supporting Further Education

The goal of Measure 2.1 is to contribute to creating and developing an effective lifelong learning system in Slovakia. The specific objective of Measure 2.1 is to support improving quality of further education with emphasis on developing key competences and improving the qualifications of employees. Enhancement of the quality and capacity of the lifelong learning system should lead to an increased share of economically-active population participating in lifelong learning.

According to the programme structure Measure 2.1 is part of Specific Priority 3.1 Modern education for knowledge-based society, Priority Axis 2 Further education as a tool of human resource development. Projects implemented under Measure 2.1 are co-financed from OP Education with a total allocation of EUR 116.34 million.

9 calls for applications had been published for Measure 2.1 as of 31 December 2014. 129 NFC applications were received with an amount of the requested contribution of EUR 256.6 million; 77 projects (EUR 149.09 million) were approved and 72 projects with NFC amount of EUR 145.64 million were contracted. The number of duly completed projects was 9 with 4 projects terminated early. As of 31 December 2014, the amount of
expenditure under Measure 2.1 totalled EUR 60.564 million (ITMS). The use of funds within the eligible territory of 7 regions was relatively even ranging from EUR 8.408 million (13.88%) in the Trnava region to EUR 9.058 million (14.96%) in the Prešov region (Table 18).

The support of lifelong learning was implemented in the Bratislava region and co-financed from the OP Education, Measure 4.2 Raising competitiveness of the Bratislava region through the development of higher and further education, with total expenditure of EUR 5.678 (as of 31 December 2014; ITMS). This measure is subject to no further analysis.

Among others, the following demand-oriented and national projects have been or are implemented under Measure 2.1:

- **Professional and career growth of educational staff (Methodology and Pedagogy Centre).** The total project budget is EUR 41,156,561 and cumulative drawing was EUR 21,617,952.52 (Annual Report OP Education as of 31 December 2014). The main objective is to create an effective system of further education for educational and professional staff at schools and school facilities focusing on the development of key competences. The project is implemented from 15 October 2009 to 31 October 2015.

- **KOMPrax – Practical skills through informal training in work with young people (IUVENTA – Slovak Youth Institute) with a budget of EUR 6,071,713.27 and cumulative drawing of EUR 4,904,106.65 (Annual Report OP Education as of 31 December 2014). The main goal of the project is to allow young people and those working with the young access to repeated and flexible acquisition of competences in work with the young and comprehensive advisory services. The project was implemented from 15 December 2010 to 30 June 2015.

- **PRAKTIK – Practical skills through informal training in work with young people (IUVENTA – Slovak Youth Institute).** Project budget is EUR 5,236,011.61 with cumulative drawing of EUR 1,413,359.48 (Annual Report OP Education as of 31 December 2014). The aim of the project is to develop an effective system of further education for those working with young people for practical use of informal education tools in the development of young people's interests. The project is implemented from 1 October 2012 to 31 July 2015.

- **Increasing qualifications of physical and sports training (National Sports Centre) with a budget of EUR 5,065,310.80 and cumulative drawing of EUR 1,488,764.70 (Annual Report OP Education as of 31 December 2014). The main goal of the project is to increase qualifications of physical and sports training teachers with emphasis on innovation of the process and methods of teaching physical training at primary and secondary schools. The project is implemented from 31 January 2013 to 31 October 2015.**
The creation of the National Qualifications System (State Vocational Training Institute). Project budget is EUR 21,442,896.78 with cumulative drawing of EUR 1,412,206.26 (Annual Report OP Education as of 31 December 2014). The main goal of the project is to create and develop an effective lifelong learning system focused on developing key competences, extending and increasing qualifications in line with the current and prospective needs of a knowledge-based society available throughout life for all Slovak citizens. The project is implemented from 1 February 2013 to 31 October 2015.

Further education and guidance for adults as a tool for better employability (National Institute of Lifelong Learning) with a budget of EUR 27,993,607.83 and cumulative drawing of EUR 18,382,932.26 (Annual Report OP Education as of 31 December 2014). The aim of the project is the system of further education and guidance for adults through increasing its quality. The project is implemented from 5 March 2013 to 30 September 2015.

Activating education methods (Methodology and Pedagogy Centre) with a budget of EUR 17,970,644.89 and cumulative drawing of EUR 3,989,796.32 (Annual Report OP Education as of 31 December 2014). The aim of the project is a focused and active investment in competence development of workers in the field of education and training, with an emphasis on increasing and improving the use of activating education methods and focusing on emotional intelligence and media literacy as the prerequisites for the development of a knowledge-based society. The project is implemented from 15 April 2013 to 31 November 2015.

National projects aim to contribute to promoting lifelong learning and guidance for adults through increasing its quality, focused active investment in competence development of workers in the field of education and training. Given the territorial allocation of implemented funds it can be stated that currently they have no direct impact on regional disparities. This impact can only manifest in the period after the completion of the project.

In terms of the objectives of Measure 2.1 Supporting further education in the context of regional disparities we consider as relevant the indicators of the number of people participating in lifelong learning per 100 inhabitants aged 25-64 and the number of lifelong learning programmes.

The number of LL participants in 2014 in Slovakia decreased compared to 2007 from 332,480 to 256,760, i.e. approx. by a quarter. Participation of inhabitants in the Trnava and Žilina regions in LL increased by approx. 15-20%, in other regions the number of persons participating in LL decreased. In 2014 the majority of LL participants were in the Bratislava (119,160), Prešov (44,990) and Banská Bystrica (43,690) regions.

On the other hand, the share of successful graduates of the total number of LL participants slightly increased. While in 2007 it was 63.3% (210,560) in 2014 it was...
76.3% (195,800), with regional differences (max. Žilina region 87.1%; min. Trnava region 50.2%).

Table 18 Selected indicators by Slovak regions

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NT</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of LL participants per 100 inhabitants aged 25-64</td>
<td></td>
<td></td>
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<tr>
<td>In 2007</td>
<td>31.94</td>
<td>3.58</td>
<td>10.26</td>
<td>4.67</td>
<td>6.73</td>
<td>11.68</td>
<td>10.53</td>
<td>7.46</td>
<td>10.86</td>
<td>0.4190</td>
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<tr>
<td>In 2014</td>
<td>30.80</td>
<td>4.06</td>
<td>7.90</td>
<td>3.13</td>
<td>7.88</td>
<td>3.39</td>
<td>3.24</td>
<td>5.72</td>
<td>8.27</td>
<td>0.5013</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>96.44</td>
<td>113.45</td>
<td>77.02</td>
<td>67.07</td>
<td>117.05</td>
<td>29.00</td>
<td>30.74</td>
<td>76.66</td>
<td>76.13</td>
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<tr>
<td>Expenditures from SF (EUR million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

Explanatory notes: LL – Lifelong learning
Source: IIPE, Statistical Office of the Slovak Republic, ITMS, authors’ calculations

The share of LL participants per 100 inhabitants aged 25-64 was 10.86 and 8.27 in 2007 and 2014, respectively. The highest share of LL participants per 100 inhabitants aged 25-64 is in the Bratislava region (30.80), while in other regions it ranges from just 3.13 (Nitra region) to 8.27 (Košice region). The development of the Gini coefficient (Table 18) shows prevailing to slightly increasing regional disparities according to the indicator of the number of LL participants per 100 inhabitants aged 25-64.

762 programmes were supported as part of the implementation of Measure 2.1 as of 31 December 2014. It was 612 more than the target number of 150 programmes. This confirms high interest in the supported LL programmes. The achieved value of the indicator is mainly the result of the implemented national projects under which 987 programmes were supported with which the projected value was exceed even before the termination of the programming period.

3% of inhabitants aged 25-64 participated in LL as part of the implementation of Measure 2.1, which is 9.5% of inhabitants aged 25-64 fewer than the target value of 12.5% (Annual Report OP Education as of 31 December 2014).

Since educational projects are still being implemented, it is not possible to definitely evaluate the contribution of the measure on the development of regional disparities. Nevertheless, it can be assumed that increased competences, skills and qualifications of economically-active inhabitants will constitute a competitive advantage regarding employability, which may, with a certain time delay, positively reflect in reducing regional disparities according to indicators of inhabitants aged 25-64 on the labour market.
9.4.3 Measure 1.1 Promoting Programmes in the Area of Employment, Solving Unemployment and Long-Term Unemployment

Measure 1.1 Promoting programmes in the area of employment, solving unemployment and long-term unemployment is part of Specific Priority 3.2 Supporting employment growth, social inclusion and capacity building, Priority Axis 1 – Supporting employment growth, OP Employment and Social Inclusion.

Measure 1.1 Promoting programmes in the area of employment, solving unemployment and long-term unemployment aimed at addressing Slovakia's major issues on the labour market, particularly low employment rate, high unemployment rate concerning long-term unemployed, young unemployed and school leavers. To fulfil the measure, framework activities were proposed encouraging target groups to actively participate in the labour market and activities designed to improve the provision of public services.

The key group of instruments to create new jobs and fill in vacancies by the unemployed or persons at risk of dismissal from employment were the instruments of active labour market policy (ALMP). ALMP instruments were focused on increasing employability and creating jobs. Support was provided for activities facilitating better access to employment, prevention of long-term unemployment, retention of work habits, including proactive instruments aimed at preventing from, or reducing exclusion due to disability. The support was allocated to the selection of suitable activities to integrate disabled applicants in a sustainable employment. In relation to the activation of job seekers preferred activities were those that motivated the employment of the unemployed to a much greater degree and activated the effort particularly of long-term unemployed to integrate into the labour market. Secondary objective was the retention of work habits.

The support was also allocated to activities designed to improve information, advisory, educational, mediation and other employment services in order to employ the unemployed or persons at risk of dismissal from employment. Moreover, the support was allocated to improving geographical and professional mobility of workforce in order to fill vacant or newly-created jobs.

All regions other than the Bratislava region were eligible for support under Measure 1.1. Measure 1.1 was supported from the OP Employment and Social Inclusion, through national and demand-oriented projects co-financed from the ESF.

The total budget for Measure 1.1 was EUR 570,189 million. 39 calls for applications had been announced and 42 NFC applications with a budget of EUR 895.5 million received as of 31 December 2014. 40 NFC applications were successful with the approved budget of EUR 871.4 million, thereof 39 projects with a budget of EUR 730.15 million were contracted (Annual Report OP Employment and Social Inclusion for 2014). 23 projects are implemented at present. As of 31 December 2014, the amount of expenditure totalled EUR 589.360 million (ITMS).
The share of regions in the amount of expenditure varied. The highest expenditure was in the regions of Prešov (EUR 100.435 million; 17.04% of expenditure), Košice (EUR 97.47 million; 16.54%), Nitra (EUR 84.505 million; 14.34%), Žilina (EUR 84.717 million) and Banská Bystrica (EUR 81.089 million; 13.76%) and the lowest in the Trnava region (EUR 68.323 million; 11.59%).

Although the Bratislava region was not eligible for funds under the analysed measure, the support of employment growth and improvement in unemployment with particular regard to knowledge-based society was supported under Measure 3.1 OP E&SI with a total expenditure of EUR 8.324 million (as of 31 December 2014; ITMS). However, this measure is subject to no further analysis.

Given the objective of Measure 1.1 in terms of drawing and regional disparities, we consider as relevant the statistical indicators of unemployment rate of people aged 15-64 (%; 2007-2014), unemployment rate (%; 2007-2014), long-term unemployment rate (%; 2007-2014) and the share of young people aged 15-24 in the total number of unemployed (%; 2007-2014) and the measurable indicators of the number of created jobs and sustainability rate of supported jobs for up to 12 months from terminating support (%).21

Employment rate of people aged 15-64 expresses employment of inhabitants and closely corresponds to macroeconomic development, the condition of the national and regional labour markets, the nature and effectiveness of active labour market policy.

The development of employment rate of people aged 15-64 showed fluctuations in 2007-2014, which reflects the impact of the economic crisis and demonstrates in the decrease of the rate in 2009 (60.1%) a 2010 (58.8%), a certain stabilisation in 2011 (59.3%) and 2012 (59.7%) and a moderate growth in 2013 (59.8%) a 2014 (59.9%). The territorial differentiation of the employment rate of people aged 15-64 shows significant regional disparities being, in addition to the global trends, the evidence of the performance of regional economy and competitive advantages of regions for the competitiveness and employment growth.

20 The number of unemployed aged 15-64 is taken from the Labour Force Survey; data for 2014 – expert estimate.

21 Employability success rate = the number of successfully employed persons/number of persons in the target group involved in supported projects*100. Sustainability rate of supported jobs for up to 12 months from terminating support is calculated from completed projects.
In 2014, the highest employment rate of people aged 15-64 was in the Bratislava region (70.7%), approximately average in the regions of Trnava (64.3%), Trenčín (60.7%) and Nitra (60.2%). Employment rate of people aged 15-64 in the Košice (54.6%) and Prešov (55.2%) regions is approximately 8 to 10% lower than the national average (59.9%). These regions have shown a distinctive long-term imbalance on the labour market with a number of negative characteristics (relatively low education level of the population – educational level index in the Prešov region 49.7, Košice region 56.7, national average 57.3), with a concentration of marginalised Roma communities and people adapting with difficulties to labour market conditions and with a high share of population aged 15-64 in the population structure due to the specifics of demographic trends.

Registered unemployment rate expresses the situation on the labour market. The main feature of the labour market in Slovakia is a distinctive imbalance between the demand and supply. The development of unemployment and labour market in recent years, influenced by the interaction of a number of global factors (financial and economic crisis; mismatch between the educational and professional structure of the workforce and the demands of employers, poor linking and networking of economic entities with educational institutions in the context of labour market needs; the entry of development capital and foreign investors; low labour migration, etc.) and regional specificities
(performance of the regional economy, level of education and adaptability of the workforce to labour market demands and others).

The unemployment rate demonstrates significant regional disparities during the analysed period. The so-called dynamically developing and competitive regions (Bratislava, Žilina, Trnava) provide a relatively sufficient number and structure of jobs corresponding to requirements, particularly in entities in diversified industrial sectors, tertiary sector and construction. High-quality education structure of population (high share of inhabitants with university and completed secondary school education with school-leaving exam) is a competitive advantage for a stable labour market with a long-term below-average rate of registered employment, prevailing short- and mid-term unemployment and the creation of jobs.

The development of unemployment rate has been variable, with decreases in 2007 and 2008 and a relatively sharp increase in 2009 and 2012. Even after stabilisation in 2013 and 2014, the national unemployment rate was 12.05%, which is 4.06 percentage more than in 2007, with significant regional differences. Throughout the analysed period, the lowest, although growing, unemployment rate was in the regions of Bratislava (6.13%; as of 31 December 2014), Trnava (8.03%), Trenčín (9.56%) and Žilina (10.91%). On the other hand, above-average unemployment rate was in the regions of Košice (15.92%; as of 31 December 2014), Banská Bystrica (17.22%, 142.9%) and Prešov (17.45%, 142.90%; *Chart 22*) where its implications are increased by further negative characteristics of the labour market (high long-term unemployment rate, unemployment of young people and school leavers, small number of created jobs, etc.).

*Chart 22 Registered unemployment rate in 2007-2014 by Slovak Regions (%)*

<table>
<thead>
<tr>
<th>Slovak Region</th>
<th>Slovak Region</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bratislavský</td>
<td>Bratislava</td>
<td>5.98</td>
<td>5.46</td>
<td>6.13</td>
<td>6.91</td>
<td>6.70</td>
<td>6.70</td>
<td>6.67</td>
<td>6.67</td>
</tr>
<tr>
<td>Trnavský</td>
<td>Trnava</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
<td>8.03</td>
</tr>
<tr>
<td>Nitriansky</td>
<td>Nitra</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
<td>7.58</td>
</tr>
<tr>
<td>Žilinský</td>
<td>Žilina</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
<td>10.91</td>
</tr>
<tr>
<td>Banskobystrický</td>
<td>Banská Bystrica</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
<td>15.92</td>
</tr>
<tr>
<td>Prešovský</td>
<td>Prešov</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
<td>17.45</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the SR
The development trend of the long-term unemployment (12 and more months) in Slovakia is different to short- and mid-term unemployment with undesirable economic and social implications (lowering income and life standard of inhabitants, increasing the number of socially-dependent persons, increasing the risk of poverty, social exclusion and others). Long-term unemployment rate is deemed as a “barometer” of the social situation within a country (region).

In 2007-2014 the long-term unemployment rate increased from 4.68% to 7.54% (+ 2.86 percentage points) with regional differences. As of 31 December 2014, the long-term unemployment rate in the regions of Banská Bystrica (12.09%), Prešov (12.08%) and Košice (11.32%) was approximately 50 to 60% higher than the average in the SR (7.54%). These regions concentrate a number of factors with an adverse effect on the rate of registered and long-term unemployment (concentration of a marginalised segment with low adaptability to labour market conditions, below-average level of education of population, regional economic performance, low number of created jobs and others).

As of 31 December 2014, the lowest long-term unemployment rate was in the regions of Bratislava (2.33%), Trnava (3.59%), Trenčín (4.87%) and Žilina (5.87%; Chart 23).

A relatively serious problem is a constantly growing number of job seekers aged 15-24, i.e. young people not integrated into the active labour market after completing their school education and registered as job seekers. The share of job seekers aged 15-24 of the total number of job seekers is 17.52%. Regional disparities in unemployment of young people aged 15-24 are the result of a different performance of regional economies and their ability to create educational and professional structure of young people aged 15-
24 adequate to the structure of corresponding jobs, poor linking of the educational system of the regional schools to the needs of regional labour markets, poor motivation of young people to find work, etc. Professional orientation and the level of achieved education of young people are also decisive factors. In regions with a higher share of job seekers aged 15-24 with a low level of or in(complete) elementary education, the regional labour market creates little number of permanent jobs, or they only have the opportunity to work short-term in seasonal jobs. Unemployment of young people aged 15-24 is “copying” the development curve of registered employment at the national and regional levels.

The geographical distribution of the share of job seekers aged 15-24 in the total number of job seekers has remained more or less stable with the concentration in regions with long-term highest unemployment rate, high share of people aged 15-24, with the concentration of young people from marginalised groups with a low level of education or incomplete education and low adaptability to the conditions of the labour market. This particularly applies to the Prešov (19.89%) and Košice (16.44%) regions. Above-average share of job seekers aged 15-24 is also in the Žilina region (19.55%) with an above-average number of inhabitants aged 15-24 due to the positive demographic development.

In the long term, the lowest share of job seekers aged 15-24 is in the regions of Bratislava (14.22%), and below-average share is also in the Nitra (15.57%) region with a relatively low share of young people due to unfavourable demographic development.

### Table 19 Selected indicators by Slovak regions

<table>
<thead>
<tr>
<th>Indicator/Region</th>
<th>BA</th>
<th>TT</th>
<th>TN</th>
<th>NT</th>
<th>ZA</th>
<th>BB</th>
<th>PO</th>
<th>KE</th>
<th>SR</th>
<th>Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate of people aged 15-64 (%)</td>
<td>70.9</td>
<td>66.7</td>
<td>63.8</td>
<td>61.1</td>
<td>60.4</td>
<td>54.9</td>
<td>58.3</td>
<td>52.8</td>
<td>61.1</td>
<td>0.1144</td>
</tr>
<tr>
<td>In 2014*</td>
<td>70.7</td>
<td>64.3</td>
<td>60.7</td>
<td>60.2</td>
<td>58.0</td>
<td>58.6</td>
<td>55.2</td>
<td>54.6</td>
<td>60.3</td>
<td>0.1060</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>99.7</td>
<td>96.4</td>
<td>95.1</td>
<td>98.5</td>
<td>96.0</td>
<td>106.7</td>
<td>94.7</td>
<td>103.4</td>
<td>98.7</td>
<td>0.3673</td>
</tr>
<tr>
<td>Registered unemployment rate (%)</td>
<td>1.98</td>
<td>4.30</td>
<td>4.50</td>
<td>7.10</td>
<td>5.55</td>
<td>14.10</td>
<td>12.05</td>
<td>13.02</td>
<td>7.83</td>
<td>0.2499</td>
</tr>
<tr>
<td>In 2014</td>
<td>6.13</td>
<td>8.03</td>
<td>9.56</td>
<td>11.21</td>
<td>10.91</td>
<td>17.22</td>
<td>17.45</td>
<td>15.92</td>
<td>12.05</td>
<td>0.4494</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>309.60</td>
<td>186.74</td>
<td>212.44</td>
<td>157.89</td>
<td>196.58</td>
<td>122.13</td>
<td>144.81</td>
<td>122.27</td>
<td>154.04</td>
<td>0.4494</td>
</tr>
<tr>
<td>Long-term unemployment rate (%)</td>
<td>0.47</td>
<td>1.91</td>
<td>1.88</td>
<td>4.22</td>
<td>2.71</td>
<td>9.23</td>
<td>7.51</td>
<td>8.51</td>
<td>4.56</td>
<td>0.3415</td>
</tr>
<tr>
<td>In 2014</td>
<td>2.33</td>
<td>3.59</td>
<td>4.87</td>
<td>6.38</td>
<td>5.87</td>
<td>12.09</td>
<td>12.08</td>
<td>11.32</td>
<td>7.32</td>
<td>0.3415</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>495.74</td>
<td>187.96</td>
<td>259.04</td>
<td>151.18</td>
<td>216.61</td>
<td>130.99</td>
<td>160.85</td>
<td>133.02</td>
<td>160.62</td>
<td>0.3415</td>
</tr>
<tr>
<td>Share of job seekers – young people aged 15-24 in the total number of job seekers (%)</td>
<td>0.47</td>
<td>1.91</td>
<td>1.88</td>
<td>4.22</td>
<td>2.71</td>
<td>9.23</td>
<td>7.51</td>
<td>8.51</td>
<td>4.56</td>
<td>0.3415</td>
</tr>
<tr>
<td>In 2014</td>
<td>2.33</td>
<td>3.59</td>
<td>4.87</td>
<td>6.38</td>
<td>5.87</td>
<td>12.09</td>
<td>12.08</td>
<td>11.32</td>
<td>7.32</td>
<td>0.3415</td>
</tr>
<tr>
<td>Growth index 2007-2014 (%)</td>
<td>495.74</td>
<td>187.96</td>
<td>259.04</td>
<td>151.18</td>
<td>216.61</td>
<td>130.99</td>
<td>160.85</td>
<td>133.02</td>
<td>160.62</td>
<td>0.3415</td>
</tr>
</tbody>
</table>

The values of analysed statistical indicators and standard rates to determine regional disparities clearly show regional differences. The value of the Gini coefficient of the analysed indicators decreased in 2014 compared to 2007 (Table 19), which clearly demonstrates the reduction of regional disparities due to the effects of global factors (improved macroeconomic environment, effective and efficient active labour market
policy), and also the recovery of regional labour markets. The employment rate also increased in the regions of Košice, Prešov and Banská Bystrica with the lowest employment rate of people aged 15-64.

The value of the Gini coefficient also decreased for other indicators (unemployment rate, long-term unemployment rate, which suggests reducing regional disparities in Slovak regions (Table 19). Changes in regional disparities based on selected statistical indicators were also positively influenced by the implementation of the instruments of the cohesion policy.

The highest share of implemented funds was located in the regions with a below-average employment rate of people aged 15-64 and the highest rates of registered and long-term unemployment – the regions of Prešov (17.04%), Košice (16.54%), Banská Bystrica (13.76%) and Nitra (14.34%). The share of other regions is about 12% (Trnava 11.59; Trenčín 12.35%; Table 19).

OP E&SI declared as the target value 110,713 created jobs, of which in accordance with the implementation of the measure the actual number of created jobs was 77,905 (70.36%) with a year-on-year growth of 11.64%. From the point of view of regions, year-on-year growth in jobs of 0.1% to 3.5% was recorded by all regions, except for the Trnava and Trenčín regions (Annual Report OP E&SI 2014), which was also positively reflected in the employment rate of people aged 15-64. On the other hand, it must be emphasised that the actual unemployment rate (12.05%) is 4.5% higher than the target value (8%) of the measurable indicator (Annual Report OP E&SI 2014), which in terms of time aspect could not reflect the adverse effects of the financial and economic crisis on the labour market.

Sustainability rate of supported jobs for up to 12 months from terminating support is calculated from completed projects (%). This is a measurable impact indicator of sustainability rate of supported jobs for up to 12 months from terminating support significant in evaluating the success of support and it should achieve its maximum value 6 months after the completion of the project. At present, with a number of projects underway, it is not possible to determine the exact value of this measurable indicator. The number of persons retaining their job increased year-on-year by one third (approx. 3,700) of persons and the fulfilment compared to the target value is only 23.24% (Annual Report OP E&SI for 2014).

Cohesion policy instruments in 2007-2013 in support of Measure 1.1 partially contributed to addressing the situation on regional labour markets, to stabilising and a slight decrease in the registered unemployment rate at the national and regional levels.

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22Employability success rate = the number of successfully employed persons/number of persons in the target group involved in supported projects*100. Sustainability rate of supported jobs for up to 12 months from terminating support is calculated from completed projects.
and to reducing regional disparities. However, regional disparities of the structural nature of the labour market – long-term unemployment rates represent a serious problem. The exact evaluation of overall contribution of non-investment projects will be possible with a certain time delay after the implementation of all projects.

**Summary**

Measure 1.1 Transformation of traditional school into a modern one. The objective was to implement the content reform of education at primary and secondary schools and to prepare school leavers for the current and prospective needs of a knowledge-based society and the continuing education in the system of universities and further education. 27 calls for applications with an allocation of EUR 605.31 million were published under Measure 1.1. 2134 NFC applications were received, 708 projects were approved with a total contribution of EUR 401.77 million and 638 were contracted. 374 projects were duly completed (EUR 81.5 million) and 25 projects were terminated early. As of 31 November 2014, the drawing was EUR 189,638 million (58.13% of the contracted project budget), the highest shares were in the regions of Prešov (17.76%; EUR 33.685 million), Košice (16.30%; EUR 30.909 million), Nitra (16.19%; EUR 30.699 million) and Žilina (13.95%; EUR 26.452 million). The shares of other regions account for approximately 11%. 6 national projects were implemented within the Measure, too. The number of implemented projects was 976, which was approximately 8 times the target value. Since a number of national and many demand-oriented projects are underway, the impact of their implementation on the development of regional disparities cannot be clearly and accurately identified at present. The regional distribution of the funds is in line with the needs, with the highest share in the Prešov, Košice and Nitra regions which have shown the highest unemployment rates of secondary school leavers aged up to 26 (Prešov region 46.51%; Banská Bystrica region 45.81%, Košice region 39.14%, Nitra region 31.76%) and effectively contributes to reducing regional disparities.

Measure 2.1 Supporting further education is focused on creating and developing an effective lifelong learning system and improving quality of further education with emphasis on developing key competences and improving the qualifications of employees. 9 calls for applications were announced and 129 NFC applications were received with an amount of the requested contribution of EUR 256.6 million; 77 projects (EUR 149.09 million) were approved and 72 projects were contracted, as of 31 December 2014. 9 projects were duly completed and 4 projects were terminated early. The amount of expenditure totalled EUR 60.564 million (ITMS) and the use of funds within the eligible territory of 7 regions was relatively even ranging from EUR 8.408 million (13.88%) in the Trnava region to EUR 9.058 million (14.96%) in the Prešov region. Demand-oriented or national (7) projects have been or are implemented under the Measure. In terms of the objectives of the Measure in the context of regional disparities we consider as relevant the indicators of the number of people participating
in lifelong learning per 100 inhabitants aged 25-64 and the number of lifelong learning programmes. The number of LL participants in 2014 decreased compared to 2007 from 332.48 thousand to 256.76 thousand, with regional differences. The share of LL participants per 100 inhabitants aged 25-64 is regionally differentiated, from 3.13 (Nitra region) to 8.27 (Košice region). 762 programmes were supported as part of the implementation of the Measure. It was 612 more than the target number of 150 programmes. 987 programs were supported within the national projects and 3% of inhabitants aged 25-64 participated in LL which is 9.5% of inhabitants aged 25-64 fewer than the target value of 12.5%. Several projects are still being implemented and it is not possible to definitely evaluate the contribution of the measure on the development of regional disparities. It can be assumed that increased competences, skills and qualifications of economically-active population will constitute a competitive advantage regarding employability, which may, with a certain time delay, positively reflect in reducing regional disparities in the area of human resources.

Measure 1.1 Promoting programmes in the area of employment, solving unemployment and long-term unemployment aimed at addressing Slovakia's major issues on the labour market, particularly low employment rate, high unemployment rate concerning long-term unemployed, young unemployed and school leavers. The total budget for the measure was EUR 570.189 million. 39 calls for applications had been announced and 42 NFC applications with a budget of EUR 895.5 million received as of 31 December 2014. 40 NFC applications were approved (EUR 871.4 million), 39 projects were contracted (EUR 730.15 million). 23 projects are implemented at present. As of 31 December 2014, the amount of expenditure totalled EUR 589.360 million (ITMS). The highest share of expenditure was allocated to the regions of Prešov (EUR 100.435 million; 17.04% of expenditure), Košice (EUR 97.47 million; 16.54%), Nitra (EUR 84.505 million; 14.34%), Žilina (EUR 84.717 million) and Banská Bystrica (EUR 81.089 million; 13.76%). The development of employment rate of people aged 15-64 showed fluctuations in 2007-2014 with distinctive regional differences in the territorial differentiation of the employment rate of people aged 15-64 (Trnava region 64.3%, Trenčín region 60.7%, Nitra region 60.2%, Košice region 54.6%, Prešov region 55.2%). Similar characteristics are demonstrated by the unemployment rate which is highly above-average in the regions of Košice (15.92%; as of 31 December 2014), Banská Bystrica (17.22%) and Prešov (17.45%). The long-term unemployment rate in the regions of Banská Bystrica (12.09%), Prešov (12.08%) and Košice (11.32%) is approximately 50 to 60% higher than the average in the SR (7.54%). According to the analysed indicators, there are differences at the level of regions with reducing regional disparities. The highest share of implemented funds was located in the regions with a below-average employment rate of people aged 15-64 and the highest rates of registered and long-term unemployment, i.e. the regions of Prešov (17.04%), Košice (16.54%), Banská Bystrica (13.76%) and Nitra (14.34%). The share of other regions is about 12% (Trnava 11.59%; Trenčín 12.35%). OP E&SI
declared as the target value 110,713 created jobs, of which in accordance with the implementation of the measure the actual number of created jobs was 77,905 (70.36%) with a year-on-year growth of 11.64%. From the point of view of regions, year-on-year growth in jobs of 0.1% to 3.5% was recorded by all regions, except for the Trnava and Trenčín regions. The actual unemployment rate (12.05%) is 4.5% higher than the target value (8%) of the measurable indicator. However, in terms of time aspect, the target value of the indicator could not reflect the adverse effects of the financial and economic crisis on the labour market. The number of persons retaining their job increased year-on-year by one third (approx. 3,700) of persons and the fulfilment compared to the target value is only 23.24%. Cohesion policy instruments in 2007-2013 in support of Measure 1.1 partially contributed to addressing the situation on regional labour markets, to stabilising and a slight decrease in the registered unemployment rate at the national and regional levels and to reducing regional disparities. However, regional disparities of the structural nature of the labour market – long-term unemployment rates represent a serious problem. The exact evaluation of overall benefit of non-investment projects implemented under the measure and their contribution to RD will be possible with a certain time delay after completing the implementation of all projects.
10 Factors Affecting SF and CF Implementation in Regions

A number of external and internal factors affected the use and implementation of the SF and CF in regions during the 2007–2013 programming period. The fundamental basis is the national legislation valid in the SR that should be formulated in accordance with legal regulations applicable in the EU. The key legal norms that have a significant effect on the use of the SF and CF in Slovakia include Act No. 528/2008 Coll. on aid and support provided from European Community funds and Act No. 25/2006 Coll. on public procurement, which represents the most important process framework for selecting supplies of the subject matter for the majority of projects financed through the SF. Sufficient specificity and quality of such documents improves opportunities in the implementation of planned activities also through the SF. The socioeconomic situation of regions is another major external factor. It is a wide spectrum of factors that determine the overall level of regions. The key factors comprise economic performance of regions and the quality of business environment, quality of infrastructure, quality of life of the population in education and employment, and the quality of the region’s environment. Core development documents, which identify problems and needs and define options for their solution, are based on the existing socioeconomic situation of regions. When applying for aid from the SF, applicants and beneficiaries must also consider the financial costs required for the preparation of the necessary documentation and for ensuring the processes throughout the project cycle. From the procedural perspective, the implementation system is developed in the SF and CF Management System, which defines the rules and procedures in obtaining aid from the SF, and these procedures determine administrative intensity of action steps in practice. Another factor affecting the implementation of the SF in regions is the quality and level of institutions responsible mainly for the provision of structural aid, i.e. ministries and institutions that act as aid providers. The existence and quality of internal capacities on the part of applicants/beneficiaries as well as availability and quality of external capacities that ensure the technical aspects of SF implementation throughout the project cycle of implemented projects are a significant factor.

A questionnaire survey was conducted to measure the impact of the aforementioned factors. The entities approached included the beneficiaries of aid under the SF and CF during the 2007-2013 programming period (other than technical assistance beneficiaries). Of the total number of 4,294 beneficiaries, 511 respondents returned the completed questionnaire, which is 11.9% of the approached group of beneficiaries. Respondents include central public administration bodies, local and regional government bodies, entrepreneurs and NGOs. The beneficiaries expressed their attitudes to and opinions on the significance of individual factors on a scale of 1 to 5, with higher scores representing higher impact of factors on the implementation.

In terms of evaluation and regional disparities it should be noted that the aforementioned factors whose intensity of impact on the implementation of the SF and CF was the subject of evaluation through the questionnaire survey are not region-specific. The
identified factors and aspects affect all beneficiaries equally, regardless of the location of implementation of their projects (this partially applies to socioeconomic situation as well). The examined factors equally influence the implementation of projects in the western and eastern Slovakia, because the systems containing them are uniform for all funds and programmes. The analysis thus focused on quantifying the perception of the significance of individual factors by different groups of beneficiaries.

10.1 Legislative Framework

Legislative framework is the principal basis for the opportunity to obtain and use aid under the SF and KF for all types of entities as potential applicants in regions. This mainly concerns EU legislation subsequently either directly or through legal regulations applied at the level of individual Member States. The quality and development of the national legislation determines the opportunities and the success of using the SF and KF in individual EU countries, with the most significant impact in Slovakia particularly in the area of PP or NFC application procedure.

On average, 437 respondents commented on the factor of “Legislative framework”, which is 85.5% of all respondents. The approached entities definitely perceive as the most problematic the issue of frequent legislative changes (38.4% of the average number of respondents consider this issue as a significant impact factor). Considering the development of legislation applicable to provision of aid from EU funds it is clear that this mainly concerns the legislative rules governing the PP. Frequent amendments of the Public Procurement Act create considerable instability of rules in the procurement of the subject matter of projects financed from the EU structural funds. For this reason, frequent legislative changes was the most sensitive issue for officials of central public administration bodies (share 54.5%) which as a result of these changes are forced to modify the rules for providing aid, which creates a justified negative response in the target group of potential NFC applicants/beneficiaries. Negative perception by potential applicants/beneficiaries is also evidenced by the answers of respondents from the private sector, local government and non-profit sector, who perceive this issue as considerably significant, with the rate of material impact ranging from 33.1% to 61.5%.

A logical consequence of the modification of rules for providing assistance due to legislative changes is the subsequent origination of new obligations for applicants/beneficiaries. This issue was viewed in the survey as the second most problematic, and given its close connection to the issue of legislative changes, the materiality rate was almost the same, achieving the share of 35.9%. The origination of new obligations was the most sensitive issue for respondents from central public administration bodies (64%) and non-profit sector (74%). With respect to central public administration bodies, these new obligations are deemed as a major obstacle the required efficiency that hinders the implementation process and in the case of non-profit sector entities these obligations create an excessive administrative burden. Also from other
groups of entities that represent potential applicants/beneficiaries 29.2% to 36.4% considered the issue as considerably significant.

The third problematic issue is ambiguity of interpretation of legislation. The share of respondents who consider this issue as a considerably significant impact factor represents 30% of the average number of respondents. Particularly with respect to the PP there is ambiguity in the interpretation of specific provisions of the Public Procurement Act and this subsequently causes problems to both aid providers and beneficiaries. The implication of this problem is in particular disputable practical application that causes an excessive administrative burden. For aid providers this burden represents an increased number of control processes following the implementation of the PP and for applicants/beneficiaries the necessity of frequent repetition of PP procedures. This burden thus causes excessive prolongation of the period required to take the necessary administrative actions, which subsequently causes lack of time for the implementation of projects as such, often exposing them to the risk of failing to meet the total contract period to complete a project and to financial sanctions. This issue was most sensitive for the respondents from the non-profit sector (almost 49%), for private sector it was considerably significant for more than 31% of respondents. Within the factor of “Legislative Framework” the issue of lacking legislation deemed as considerably significant by 4 to 12.5% of respondents from individual types of entities. A more significant deviation was constituted by the respondents from the non-profit sector, where the share achieved 28%. This may be particularly due to the fact that the entities in this group in terms of eligibility for financial assistance from the EU funds in Slovakia are the least numerous and least preferred group of potential applicants/beneficiaries, which is also partly the result of poor support in the valid legal regulations.

In addition to the four issues above, the respondents could state other issues that they consider significant within the “Legislative Framework” factor. The greatest number of other weaknesses in this area was provided by respondents from the private sector, followed by local government bodies and non-profit organisations, i.e. the group of potential applicants/beneficiaries. The most frequently mentioned weaknesses were: time-consuming preparatory and approval phase at the expense of the time for the implementation of projects; excessive red tape on the part of aid providers and administrative intensity of processes; weaknesses in the legislation governing the PP and redundancy of certain PP control processes; changes to implementation rules during a project cycle; insufficient financial instruments and changes to financing rules.
10.2 Socioeconomic Situation

Socioeconomic situation has an effect on the implementation of the SF and CF in the region at all levels, with the basic indicators being in particular region's overall economic performance, employment and workforce situation, transport infrastructure, the level of education and financial situation of entities carrying out economic activities in the
region. Region’s problems and needs are defined in the basic development documents (economic and social development plans and territorial plans) that also include the ways to address these issues.

On average, 372 respondents commented on the factor of “Socioeconomic Situation”, which is 72.9% of all respondents. As part of this factor the respondents definitely consider as the most sensitive the issue of limitation of their own funds considered as a considerably significant impact factor by 63.44% of the respondents. With the exception of central public administration bodies and state institutions, sufficient funds are an important prerequisite to apply for aid from the EU funds in funding one’s plans. These funds are necessary both to finance the preparation of NFC applications (projects) in the preparatory phase and to ensure co-financing during the implementation of projects. Since central public administration bodies are to a large extent the providers of aid who create the rules for providing the assistance, they consider this issue as considerably significant (share of more than 64%). Among applicants/beneficiaries this issue is considered as the most significant by more than 60% of local government bodies (towns and villages) that form one of the most numerous groups of applicants/beneficiaries.

Given the wide scope of the needs that the towns and villages must finance in their operation, the lack of available funds is often the factor limiting their application for aid from the EU funds. This lack of funds is most notable particularly with larger projects (building of infrastructure), for which it is necessary to use considerable funds even in the preparatory phase, in particular to prepare project documentation and a detailed project budget. Highly significant impact of this issue was also identified in other groups of entities that represent an actual group of applicants/beneficiaries. For regional government bodies and non-profit sector entities the share was more than 52%. For private sector entities, the share was more than 36%. The lowest value in the private sector mainly results from the fact that only entities without financial difficulties are eligible to apply for aid from the EU funds, so they also have funds available to co-finance projects supported from EU funds.

The second most sensitive issue was the issue of overall unfavourable economic situation. This issue was deemed as considerably significant by 34.95% of the answering respondents. It is clear that overall economic situation has a direct impact on overall level of quality of life in regions and reaches all areas (economic, social, etc.). When the situation is unfavourable, entities in the group of potential applicants/beneficiaries primarily address their existential problems and do not have sufficient funds to implement projects funded from the EU funds that require a certain degree of financial participation. This issue is deemed as the most sensitive by non-profit sector entities (share of almost 58%) that due to being depended on the economic situation of providers of funds and due to limited options to obtain grants and subsidies feel at the time of unfavourable economic situation a substantial lack of funds to finance their activities. This issue is considered the least significant by private sector entities (about 23%). The reason is probably the same as mentioned above, i.e. that in order to apply for assistance
from EU funds, entities must have adequate economic strength. Among the central public administration, regional government and local government bodies the shares of significance of this issue range from 30% to 41%.

The third most important issue within the factor of “Socioeconomic Situation” is the lack of qualified workforce. However, it is deemed as considerably significant by less than 17% of the respondents from the average number of respondents, which is a relatively low share. Among different groups of approached entities this issue was considered the most influential by private sector respondents. This is mainly due to the fact that this group of entities includes actual employers and their activities and results directly depend on the required number of qualified workforce. The shares of respondents from other groups of entities who considered this issue as considerably significant ranged from 13% to 18%.

Poor transport accessibility was considered the least significant issue within the factor of “Socioeconomic situation”. Only a total of 9.5% respondents of the average number of answering respondents stated this issue as considerably significant. Among the types of entities that did not consider this issue at all significant were the respondents from central public administration bodies with the values of shares in other groups ranging from 12% to 14%. The identified low shares are the result of the fact that the process of building infrastructure (particularly road infrastructure) in Slovakia has been one of the most dynamic sectors in recent years, which is demonstrated by a significant improvement of transport accessibility of different regions. The necessary transport accessibility is thus the basic prerequisite for labour migration, supplies of goods and services and the related development of economic activities and entrepreneurs.

*Chart 25: The number of answers stating high and very high impact of socioeconomic environment on the implementation of the SF and CF projects*
### 10.3 Implementation System

The system of implementation at the national level is based on the National Strategic Reference Framework, which is the fundamental document for the provision of aid from the SF and CF. This is then transferred to individual operational programmes that define in terms of territory, theme and finance the areas eligible for support and groups of eligible beneficiaries, with the quality of these documents being the principal determinant of the successful use of the SF and CF in regions.

On average, 380 respondents commented on the factor of “Socioeconomic Situation”, which is 74.36% of all respondents. Within this factor, definitely the most sensitive issue was the possibility to use EU support only for certain types of expenditure, which is
deemed as a considerably significant impact factor for 55.79% of the average number of respondents. This issue is deemed as the most sensitive by local government respondents that represent an important actual group of applicants/beneficiaries, with the share of considerable significance reaching more than 77%. This high share is mainly caused by the fact that within the preparation and implementation of projects financed from the EU funds certain types of expenditure (large amounts) for this group are often defined as ineligible (e.g. preparation of project documentation, etc.). The group of ineligible expenditure in many cases also includes expenditure on internal capacities (employees) of applicants/beneficiaries that participate in activities related to project activities and implementation (internal project management). Within other groups the shares of considerable significance of this issue were identified at levels ranging from 50% to 57%, which also confirms its considerable significance within the factor of “Implementation System”. This finding can be practically interpreted as the fact that more than half of aid providers and also potential applicants/beneficiaries do not consider the extent of expenditure defined as eligible within projects financed from EU the funds as sufficient with respect to the actual needs of the regions.

The second most important issue within the factor of “Implementation System” is the possibility to use EU support only for defined activities. This issue was considered as considerably significant by 50.53% of answering respondents. The level of considerable significance of this issue were similar for all types of entities, with values ranging from 46% to more than 57% and the highest share identified in the group of regional government bodies. As concerns applicants/beneficiaries it is clear that more than half of them do not consider the extent of supported activities defined in programme documents as sufficient with respect to their needs and plans.

The third most intensively viewed issue within this factor is the possibility of using EU funds only in for selected group of applicants/beneficiaries. However, the share of respondents considering this issue as significant is much lower, with 37.89% of the total average number of answering respondents. The most significant share (more than 44%) was identified in the group of respondents from the non-profit sector. This is mainly caused by the fact that the non-profit and NGO sector is defined in the programme documents as the smallest group of potential eligible applicants/beneficiaries or is completely excluded from certain operational programmes. Within other types of entities the shares of considerable significance of this issue were identified at similar levels, ranging from less than 34% to less than 39%. This means that about one third of actual potential applicants/beneficiaries (other than non-profit sector) perceive certain limits in the defined groups of eligible applicants/beneficiaries in the valid programme documents.

The last issue within this factor in terms of significance is the possibility of using EU funds only in selected regions. In terms of significance this issue was deemed by the
respondents as an issue with the lowest impact. The total share of respondents considering this issue as considerably significant accounted for 23.16% of the average number of answering respondents. The most significant share (of more than 37%) was recorded in the group of respondents from the non-profit sector. Considering the fact that this sector has limited options to apply for support from the EU funds, regional limitations among this group of entities are perceived as one of significant obstacles. Within other types of entities the shares of considerable significance of this issue were identified at similar levels, with values ranging from almost 19% to more than 22%. The shares of about one fifth prove that although other groups perceive the difference in opportunities to use the EU funds at the level of regions, about 80% of them do not consider the differences as considerably significant.
Chart 26: The number of answers stating high and very high impact of the implementation system on the implementation of the SF and CF projects

<table>
<thead>
<tr>
<th>Possible use of EU funds</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Možnosť využívať podporu EÚ len vo vybraných regiónoch</td>
<td>Possibility of using EU funds only in selected regions</td>
</tr>
<tr>
<td>Možnosť využívať podporu EÚ len na vymedzené aktivity</td>
<td>Possibility of using EU funds only for selected activities</td>
</tr>
<tr>
<td>Možnosť využívať podporu EÚ len na určité typy výdavkov</td>
<td>Possibility of using EU funds only for selected types of expenditure</td>
</tr>
<tr>
<td>Možnosť využívať podporu EÚ pre vymedzený okruh žiadateľov/prijímateľov</td>
<td>Possibility of using EU funds only for selected group of applicants/beneficiaries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Questionnaire survey</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Štátne správy</th>
<th>Regional government bodies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orgány miestnej samosprávy</td>
<td>Local government bodies</td>
</tr>
<tr>
<td>Súkromné spoločnosti</td>
<td>Private companies</td>
</tr>
<tr>
<td>Neziskové spoločnosti</td>
<td>Non-profit companies</td>
</tr>
<tr>
<td>Iná forma subjektu</td>
<td>Other form of entity</td>
</tr>
</tbody>
</table>
10.4 Financial Intensity of Processes

The level of administrative burden resulting from the established procedural processes in the implementation of projects funded by the SF and CF results in primary and derivative financial costs incurred by applicants and beneficiaries. This fact implies that the financial condition of these entities and the opportunities to obtain financial resources to co-finance projects are often the decisive factors in planning to apply for this form of support.

On average, 375 respondents commented on the factor of “Financial Intensity of Processes”, which is 73.39% of all respondents. Within this factor the approached entities definitely consider as the most sensitive the issue of long time until the reimbursement of expenditure, with the share of respondents considering this issue as considerably significant accounting for 64.8% of the average number of respondents. There were slight differences in the perception of significance by entities in different groups. Among central public administration, regional and local government, the shares were lower (50%, 52.4% and 56.6%, respectively). The lengthy process of reimbursement is considered problematic by a higher share of beneficiaries from the private and non-profit sectors – 64.4% and 66.67%, respectively. Based on the above almost two thirds of entities in these groups consider these periods as unreasonably long and causing considerable practical problems. These problems are of a varied nature depending on the implemented financing method. In terms of the length of time, however, the maturities of invoices (under the applicable legislation) are substantially shorter than the actual reimbursement periods by aid providers. This time discrepancy puts beneficiaries in a situation that they are unable to meet their obligations to supplies on time, which may result in subsequent financial sanctions. In the case of refunds may later use for reimbursing expenditure beneficiaries cause financial problems (evacuation of own resources for a long period), since the reimbursement assistance provider are presented solely expenditure which beneficiaries have paid the contractor. Beneficiaries may lack these financial resources to pay other obligations related to their ordinary activities.

The second most problematic issue within the factor of “Financial Intensity of Processes” is overall financial intensity of projects, with more than half of the respondents (50.13%) stating that its impact was considerably significant. The lowest impact was stated by central public administration bodies (less than 36%). On the other hand, in other groups that represent actual applicants/beneficiaries of funds, the highest shares were recorded for local government bodies (more than 46%) and the private sector (more than 52%). In their opinion, overall financial intensity of projects is reflected already in the preparatory phase which requires the preparation and development of a large number of documentation of various level of detail to be attached to NFC applications (budgets, financial analyses, project documentation, etc.). Since in many cases the applicants have
no professional internal capacities necessary to prepare such documentation, they are forced to use the services of external suppliers (capacities) providing their services on a commercial basis. Accordingly, already in the preparatory phase the applicants are required to spend a substantial amount of funds without a guaranteed outcome of the NFC application procedure. Once the project is approved, the implementation phase follows, in which, besides financial intensity described in the previous paragraph, the necessity to use an external project management (external capacities) may further increase overall financial intensity.

The third issue deemed by respondents as considerably significant within this factor is the issue of access to loans/bank guarantees. This issue was considered as considerably significant by 21.6% of the total average number of respondents. While entities from the group of central public administration bodies considered this issue as considerably significant in 10% of cases, regional government bodies did not consider it as significant at all. In the group of potential applicants/beneficiaries, private sector entities (more than 30%) and non-profit sector entities (more than 39%) considered access to loans/bank guarantees as the most significant. With respect to non-profit sector entities, the reason is the fact that given the nature of their activities that do not guarantee regular financial income, while often having low-value assets, they constitute higher risk to financial institutions, so their options to get loans or bank guarantees are considerably limited.

The last issue that was subject to survey within the factor of “Financial Intensity of Processes” was deterioration of the situation due to the global crisis, which was considered as considerably significant by only about 18% of the average number of 375 respondents. There were substantial differences in the perception of this issue by individual types of approached entities. While central public administration bodies did not consider this issue at all significant and the level of significance was almost 11% and 13% for non-profit sector entities and regional government bodies, respectively, for private sector and legal government the shares were almost 25% and 27%, respectively. This is caused by the fact that these types of entities are most sensitive to variations in their financial situation due to the global economic crisis and in the event of unfavourable economic situation in the region have limited options to realise their needs through projects financed from the EU funds.
Chart 27: The number of answers stating high and very high impact of the financial intensity on the implementation of the SF and CF projects

| Zhoršenie finančnej situácie v dôsle glob. krízy | Deteriorating financial situation as a result of the global crisis |
| Celková fin. náročnosť implem. projektu | Overall financial intensity of implemented project |
| Dlhý čas na reálne preplatenie výdavkov | Long time needed for actual reimbursement of expenditure |
| Prístup k úverom/bankovým zárukám | Access to loans/bank guarantees |
| Ústredná štátna správa | Central public administration |
| Orgány regionálnej samosprávy | Regional government bodies |
| Orgány miestnej samosprávy | Local government bodies |
| Súkromné spoločnosti | Private companies |
| Neziskové spoločnosti | Non-profit companies |
| Iná forma subjektu | Other form of entity |

Source: Questionnaire survey

10.5 Administrative Intensity of Processes

The valid rules and procedures for obtaining aid from the SF based on the SF and CF management system are transformed into the MA/MBMA guidelines and manuals with
respect to specific programmes. The level of complexity and red tape of these processes is, due to the required compliance, one of the important factors when applicants decide on the potential use of the SF to finance their needs and plans.

On average, 412 respondents commented on the factor of “Administrative Intensity of Processes”, which is 80.6% of all respondents. Within this factor the approached entities definitely consider as the most sensitive the issue of a lengthy PP process, with the share of respondents considering this issue as considerably significant accounting for 74.6% of the average number of respondents. This value is definitely the highest overall of all monitored factors. This perception is almost identical within all monitored sectors with the identified share values oscillating from 71.5% (local government bodies) to 78.95% (other forms of entity) and it means that actually about three thirds of entities in all approached groups consider this issue as the most significant impact factor within the entire implementation process of projects financed from the EU funds. Respondents stated a number of matters as problematic within the PP procedures. The first is instability of legal regulations, particularly with the Public Procurement Act being subject to constant amendments. These amendments are then the reason for frequent changes in PP procedures prepared by aid providers. All groups of respondents viewed these issues as problematic. In addition, other problematic issues stated by entities from groups that represent actual applicants/beneficiaries include ambiguity of interpretation of PP rules and procedures, which in many cases requires the repetition of PP procedures. After completion, the lengthy PP review processes that are often duplicate, are viewed as problematic. In some cases the reviews incorrectly applied the principle of retroactive effect, i.e. the completed PP were reviewed under the legislation applicable at the time of the review and not under that valid at the time of implementing PP procedures. All the aforementioned issues cause applicants/beneficiaries excessive administrative burden and due to their time intensity have an adverse effect on the length of periods required for the implementation of project activities.

The second most problematic issue within the factor of “Administrative Intensity of Processes” is ambiguity of implementation rules, with almost half of the respondents (47.1%) stating that its impact was considerably significant. Within the groups of actual applicants/beneficiaries the lowest shares were recorded for local government bodies and private sector entities (in both cases at about 49%). The highest shares of considerable significance were stated by non-profit sector entities (60%) and regional government bodies (70%).

The third issue considered as considerably significant within the factor of “Administrative Intensity of Processes” was the burden of preparation of applications for payment. This issue was considered as considerably significant by 44.4% of the average number of respondents. The lowest shares were recorded for respondents from regional government bodies (33.3%) and central public administration bodies (38.5%). The low
share was also recorded for non-profit sector entities (37.5%). On the other hand, more than 43% shares were recorded for local government and private sector respondents. For these entities the process of preparing applications for payment represents a considerable administrative burden. This mainly involves the preparation and completion of the required attachments constituting mainly financial and accounting records, including detailed invoices and also reports of preformed work. These documents, their scope and labour intensity are one of the obstacles to higher efficiency of implementation process for beneficiaries. Another issue in terms of significance within the factor of “Administrative Intensity of Processes” is the issue of the burden of preparing monitoring reports. This issue was considered as considerably significant by 40.78% of the average number of respondents. Definitely the lowest share was identified for central public administration bodies (8.33%). Within other groups the shares were much higher with the values ranging from more than 38% (private companies) to almost 46% (local government bodies). The groups of entities representing potential applicants/beneficiaries consider this issue as considerably significant due to the fact that the preparation of monitoring reports represents a considerable administrative burden for them during the project implementation process. This concerns in particular the obligation to prepare and submit various documents as attachments to monitoring reports. Also in the event of using external management services, this part of actions related to the preparation of a monitoring report is almost exclusively the responsibility of beneficiaries alone.

Chart 28: The number of answers stating high and very high impact of the administrative intensity of processes on the implementation of the SF and CF projects
10.6 Institutional Aspects

Professional quality and the level of approach of institutions that act as aid providers in the valid system is the basic factor influencing the effectiveness of obtaining and using the SF and CF funds in regions. This level is determined in particular by the expertise of administrative capacities and observing the basic rules of client-oriented approach demonstrated in particular in the binding nature of expert opinions and the method of communication with applicants or beneficiaries. On average, 376 respondents commented on the factor of “Institutional Aspects”, which is 73.6% of all respondents. Within this factor the approached entities definitely consider as the most sensitive the issue of ambiguous instructions and guidelines provided by MA/MBMA staff, with the
share of respondents considering this issue as considerably significant accounting for 37.5% of the average number of respondents. The lowest share in terms of significance of 25% was stated by respondents from the central public administration. From other groups of respondents this issue was considered as the most significant by private sector entities (46.8%). This is mainly due to the fact that these entities do not have their own professional capacities for the preparation and management of projects and because in many cases they cannot afford to fund external services, they rely on accurate and clear guidelines and instructions provided by MA/MBMA. Also shares for local government bodies and private sector entities, for which as applicants/beneficiaries it is important to have clear and precise instructions by MA/MBMA, achieved values of 36.5% and 35.35%, respectively. This means that more than one third of respondents in these groups consider previous instructions provided MA/MBMA as insufficient and unclear. This often requires the performance of additional actions and creates further administrative burden.

The second most problematic issue within the factor of “Institutional Aspects” is frequent changes in the positions of project managers, with 33.2% of respondents stating that its impact was considerably significant. The lowest share of 23.1% was stated by respondents from the central public administration. In the group of respondents from local government, the share accounted for 25%, so the perception of the problem is at a similar level to that of the central public administration bodies. Similar values of shares were recorded for private sector entities (25%) and local government (29.2%). The highest share of considerable significance was stated by non-profit sector entities (46.7%). This means that almost half of beneficiaries in this group view the turnover in project manager positions at MA/MBMA as a negative factor and a considerable obstacle to effective implementation of projects financed from the EU funds. The related problems demonstrate particularly in inflexible communication, poorer support of beneficiaries and the resulting longer time to implement project activities.

The third issue considered as considerably significant within the factor of “Institutional Aspects” was the means of communication by MA/MBMA staff. This issue was considered as considerable significant by 21.5% of the average number of respondents. The lowest share was recorded for respondents from local government (18.2%). The values of shares of significance in other groups of entities ranged from 24% to 27.8%. The highest share was recorded for non-profit sector entities (30.4%). This means that almost one third of respondents in these groups consider the means of communication by MA/MBMA staff as inadequate. Information is often provided orally or electronically without the required binding nature. There have been several cases when MA/MBMA staff later denied their opinions and due to changes in opinions beneficiaries were required to take a number of additional actions. Also, in many cases the communication with aid providers lacked client-oriented approach.
The fourth issue considered as considerably significant within the factor of “Institutional Aspects” was the poor support by MA/MBMA staff. This issue was considered as considerably significant by 19.9% of the average number of respondents. The lowest share was recorded for respondents from private sector (16.7%). The values of shares of significance in other groups of entities ranged from 14.8% to 30.4%. The highest share was recorded for non-profit sector entities (30.4%). Relatively high shares were recorded for respondents from central public administration (27.3%) and regional government (25%) bodies. According to respondents from groups representing applicants/beneficiaries, weaknesses in this area are often evident in a formal approach to clients and particularly in the low number of structures supported in regions (low level of decentralised provision of aid). This results in an increased intensity of actions and overall increase of administrative burden for applicants/beneficiaries.

The fifth issue considered as considerably significant within the factor of “Institutional Aspects” was insufficient expertise of MA/MBMA staff. This issue was considered as considerably significant by 19.2% of the average number of respondents. The lowest share was recorded for respondents from private sector (17.1%). The values of shares of significance in other groups of entities ranged from 19.7% to 34.1%. The highest share was recorded for non-profit sector entities (34.1%). Relatively high shares were recorded for respondents from central public administration (25%) and regional government (22.2%) bodies. Insufficient expertise often manifests in the provision of inaccurate and misleading information to applicants/beneficiaries, choice of wrong procedure to solve arising problems, which results in an excessive burden for the applicants/beneficiaries, often with a financial impact. Lack of expertise in many cases originates in the selection of MA/MBMA staff when job applicants must fulfil minimum educational requirements, regardless of the focus of their future work. Since several institutions provide no continuous professional training of staff, many shortcomings and professional errors occur with a negative impact on applicants/beneficiaries. These shortcomings have an adverse effect on fluency and effectiveness of the implementation process.

*Chart 29: The number of answers stating high and very high impact of the institutional aspects on the implementation of the SF and CF projects*
### Capacities

The existence and professional level of capacities of applicants/beneficiaries, or relevant availability of high-quality external capacities directly affects the preparation and quality of projects throughout the project cycle. Important aspects within this factor are labour mobility and undesired turnover that have a positive, or adverse effect on availability of professional capacities at applicants or beneficiaries.
On average, 363 respondents commented on the factor of “Capacities”, which is 71% of all respondents. Within this factor the approached entities definitely consider as the most sensitive the issue of lack of experience of implementing similar projects, with the share of respondents considering this issue as considerably significant accounting for 32.5% of the average number of respondents. Individual types of approached entities perceive the impact of this factor differently. In terms of considerable significance, the highest share was recorded for local government bodies (35.9%), central public administration (35.7%) and private sector entities (31.9%). This means that approximately one third of entities among aid providers, local government and private sector beneficiaries consider their internal capacities as insufficient. In the case of aid providers the reason is frequent turnover of the relevant employees, employee age structure (high number of graduates) combined in many cases with insufficient expertise (graduates from schools with orientation that substantially differs from the actual performed work). In the case of local government bodies the reason is mainly that their limited finances prevent them from engaging experts assigned exclusively to activities related to project implementation. For this reason these activities are often provided by internal staff without sufficient experience, who perform them in addition their main duties that are completely different. Respondents from other sectors considered this issue as much less significant. Among regional government bodies and non-profit companies only 21.4% and 17%, respectively, consider this issue as considerably significant. This means that the majority of these entities have capacities with sufficient experience of implementing similar projects and do not consider this issue as considerably significant within the factor of “Capacities”.

The second most problematic issue within the factor of “Capacities” is lack of internal staff with the necessary qualifications, with 26.2% of respondents stating that its impact was considerably significant. In terms of considerable significance, the highest share was recorded for local government bodies (41.5%). As mentioned in the previous paragraph, the reason for this is the fact that local government entities do not have the budget necessary to engage experts exclusively assigned to activities related to the implementation of projects financed from the EU funds. In the case of central public administration bodies, the share was not very high (23.1%), although it is not negligible. Respondents from other sectors considered this issue as much less significant. Among regional government bodies, non-profit companies and private sector 13.6%, 14.3% and 20.3%, respectively, consider this issue as considerably significant. This means that more than 80% of these entities do not have sufficient own staff with the necessary qualification and do not consider this issue as considerably significant within the factor of “Capacities”.

The third most significant issue within the factor of “Capacities” was overall lack of internal staff, with 24.2% of respondents stating that its impact was considerably significant. The perception of the impact of this factor also varies by type of approached
In terms of considerable significance, the highest share was recorded for local government bodies (40.5%) and central public administration bodies (33.3%). The reasons for these relatively high values were explained in the previous paragraph. The fourth issue within the factor of “Capacities” concerns frequent changes of internal staff, i.e. overall turnover. In terms of significance, this issue was definitely considered as the least significant within this factor, with the share of considerable significance representing only 6.3%.

*Chart 30: The number of answers stating high and very high impact of the capacities on the implementation of the SF and CF projects*
<table>
<thead>
<tr>
<th>Neziskové spoločnosti</th>
<th>Non-profit companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iná forma subjektu</td>
<td>Other form of entity</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
Summary

1. Legislative Framework

Three most problematic areas were identified in the area of legislation with roughly the same degree of significance. The first concerns frequent legislative changes (in particular in PP) and the resulting new obligations that often cause changes in implementation conditions during the project cycle. In addition, ambiguity of interpretation of valid legislation is viewed as problematic. In terms of the types of entities these issues are viewed as equally problematic by central public administration bodies, local government bodies, private and non-profit sector entities. All the aforementioned factors represent an excessive administrative burden for these entities.

2. Socioeconomic Situation

All entities considered as most significant the lack of own funds and overall unfavourable economic situation caused by the recent global crisis. The crisis had a direct impact on the financial capacity of both private sector and public administration. Limited own funds combined with expenditure refunding system cause a lot of practical problems. In addition to these issues, some entities also considered as negative the lack of qualified workforce.

Implementation System

Within the factor of “Implementation System” all entities considered as the most problematic the fact that the support from the SF and CF can only be used for certain exactly specified types of expenditure. Another issue that was perceived as almost equally problematic was the fact that the support from the EU funds can only be used to finance certain selected activities. As a result, the scope of expenditure and supported activities does not reflect the actual needs of entities operating in regions. Another issue identified as problematic was the fact that the support was only designed for a selected group of applicants/beneficiaries and certain types of entities operating in the given territory were not eligible.

3. Financial Intensity of Processes

With respect to financial intensity of processes the length of periods for expenditure reimbursement was deemed as the most problematic. This fact results in additional financial costs particularly for entities which, due to limited own funds, are required to use other financial instruments (loans/guarantees). This directly reduces the effects achieved through projects financed from the SF and CF. Besides this area, another sensitive issue is overall financial intensity of project implementation, which for investment projects is notable from the preparatory phase (preparation of project and technical documentation, etc.). Limited options of obtaining bank loans/guarantees on financial markets were also identified as partly problematic.
4. Administrative Intensity of Processes

Factors influencing administrative intensity are clearly dominated by lengthy PP processes (often also their lack of transparency and their complexity). The issue of PP in relation to the status and development of legislation in this area has for a long time been the most problematic aspect and a serious obstacle to the effective implementation of the projects financed by the SF and CF. Participants also negatively perceive ambiguity of implementation rules during a project cycle which represents an additional procedural and financial burden in the implementation of the approved projects.

5. Institutional Aspects

The most significant in the context of institutional aspects seems ambiguity of instructions and guidelines provided by MA/MBMA staff that do not comply with the effective regulations or expert opinions of other staff. In many cases the respondents also stated that MA/MBMA staff opinions were intentionally in other than written form so that their binding effect could not be claimed. The second most problematic area is frequent turnover of MA/MBMA staff, particularly in the positions of project managers, which causes practical, mainly procedural problems. The other three areas viewed as equally problematic are closely interrelated. They include insufficient level of expertise of MA/MBMA staff often leading to inappropriate means of communication and the related low level of the support needed by applicants/beneficiaries. This causes excessive procedural and administrative burden associated with additional costs.

6. Capacities

Significant in terms of SF and CF implementation seems the lack of experience of implementing similar projects, lack of internal staff with the necessary qualifications and overall lack of internal staff. All these areas are closely interrelated. The demanding nature of processes related to the implementation of projects financed from the SF and CF requires an appropriate number of qualified staff who can adequately perform the procedures and actions necessary to ensure effective project implementation. They can perform this activity as their sole work or alongside their main work as a secondary activity. Where entities cannot have these capacities for financial reasons, external capacities should be available on the market with sufficient expertise and experience and able to fully replace such internal capacities.
11 Synergic Effects

In general, synergy means merging several components together with the aim of achieving higher aggregate value than just a simple sum of individual parts. Synergy relies on mutual action coming from several components having overall positive result which exceeds the one which would have been achieved by the action of individual components. Thus, the synergy concept found its practical implementation in broad range of areas: starting with social sciences, all the way through medicine, management, financing and marketing.

In the context of cohesion policy, a notion of synergy/synergic effects had appeared at the end on 80-ies and started to be actively implemented since 90-ies. It is also a reason why European Union has been forming space in its legislative framework for interconnection of various cohesion policy tools, but at the same time, to allow cohesion policy and its tools to be interconnected with other relevant policies (strategies, programmes and tools). In this sense, synergy means mutual coordination, management and meaningful interconnection of interventions. The aim is not to have a formal connection, but to achieve a higher level of efficiency and mainly final effects of intervention/project.

General regulation takes into consideration a need to safeguard complementary approach between interventions of the Community and member countries. A cooperation should be strengthened by participation of various types of partners, especially regional and local authorities. National development strategies of EU members countries contained in the NSRF formed grounds for coordination of cohesion policy coordination and other national and international resources while increasing competitiveness and employment in the programming period 2007 – 2013. Despite diverse purpose and character of ERDF and ESF, opportunities were created to complement these funds while fulfilling stipulated objectives. Programming assistance from ERDF and CF as part of operational programs for transport and environment took place in parallel with the aim of securing mutual connection and interlink between individual interventions. Programming aligned with Strategic guidelines of the Community (SUS) was supposed to strengthen mutual coordination of funds and existing financial tools, European Investment Bank (EIB) and European Investment Fund (EIF). In order to achieve synergy, the Council explicitly stated principles of providing assistance from cohesion policy sources which help to achieve synergy in its general regulation. Some of the key principles of programming period 2007 – 2013 are:

- complementarity
- consistency
- coordination
- compliance
- additionality.
Actual synergy requires active enforcement during strategic planning, programming and implementation or announcement of calls. To achieve that, all relevant stakeholders in charge of management and coordination of cohesion policy and operational programs must be engaged and functioning mechanisms must be in place for the synergy/synergic effects to work. Last but not least, applicants and beneficiaries must acquire sufficient information on possibilities for creating synergy in supported interventions and skills for their practical implementation.

National strategic reference framework of the Slovak Republic for 2007 – 2013 responds to the need for synergy strengthening. The document contains a separate sub-chapter on coordination of operational programs (sub-chapter 5.3). Measures to improve mutual coordination include formation of uniform system of SF and CF, uniform SF and CF financial management system and central monitoring system (ITMS). Coordination also included monitoring and evaluation. In line with horizontal priorities of the Community (sustainable development, equality of opportunities and information society), systems for coordination of horizontal priority implementation on the level of NSRR were created and responsible bodies appointed to facilitate their coordination. Slovakia added its national horizontal priority – marginalized Roma community (MRC) to European priorities. To improve the situation of MRC, an indicative amount of EUR 200 mil. was set aside to be used along with 6 operational programs mainly through comprehensive local approach strategies. Local strategies as such form a tool of integrated development merging investment and non-investment projects from various areas with the aim of achieving synergic effects while improving living conditions in the places with high concentration of MRC. Furthermore, NSFR describes the way in which interlink and coordination can be achieved between activities financed from ERDF and ESF. The key measures include cooperation of relevant RO/MBMA while announcing their call for proposals for NG and harmonization of mutually interconnected calls. Cooperation should have then continued during project assessment and selection. When it comes to coordination between cohesion policy and rural development and fishery, instead of identifying potential links, demarcation lines were more pronounced between respective funds in order to eliminate potential duplication of subsidies.

Programming period 2007-2013 offered several opportunities for active and targeted support of synergic effects as part of cohesion policy implementation:

- interconnection of intervention financing from ERDF and ESF
- enabling SF financing combined with other financial tools
- interconnection of interventions complementary in their contents
- implementation of integrated strategies in a selected territory
- vertical coordination of interventions between individual levels.

Despite the fact that synergies were declared as very important in NSFR for programming period 2007 – 2013, in practice, one can hardly identify islands of efforts to mutually coordinate and logically interconnect existing interventions. One of the main
reason of this status is the fact that on the national and OP levels, no mechanism has been created to support synergy. Although legislative and operational framework has not hindered closer cooperation and harmonization of activities, it did not motivate them to generate synergy, either. Entities outside central administration could have submitted projects on demand as part of announced calls, which were not mutually harmonized. Respective projects on demand were selected based on competition (selected projects for funding were the ones which acquired the highest number of points) regardless of their potential to generate synergy with other activities.

**Joint call for proposals for NG (ERDF and ESF)**

One of such islands of initiative in this area was a joint call for proposals to support small and middle-size entrepreneurs right from the start of programming period (2008/2009) as part of OP Employment and Social Inclusion and OP Competitiveness and economic growth. The attempt of agencies in charge was to interconnect investments into new production technologies (ERDF) with employee training (ESF). At the end of the day, investment and non-investment activities failed to be interconnected in projects devoted to private sector. Despite the fact that these two operational programs provided a broad spectrum of opportunities for closer cooperation in order to support synergy, no similar initiatives were undertaken throughout the programming period 2007-2013. The same applies to youth unemployment, where both operational programs formed independent calls and national projects to support employment of young applicants under 29.

**Local strategies of complex approach**

The only area in the entire NSFR where serious interest in harmonizing contents, space and time of interventions had been declared right from the start of programming period 2007-2013 in order to achieve synergy, were local strategies of complex approach (LSKxP). Strategy of using SF for the benefit of marginalized Roma communities in programming period 2007-2013, elaborated based on experience from 2004-2006, was built around the principle of complexity. It represents a systemic and coordinated approach to solving problems of the target group. The aim was to facilitate adequate connection of investment and non-investment activities while considering conditions in given territory and target group’s needs.

Before the call for proposals for LSKxP funding was announced, relevant local government members were informed by the Office of Government’s Plenipotentiary for Roma Community (OGPRC) on conditions of preparation, approval and implementation of strategies. Eligible applicants were towns, municipalities, municipal boroughs and association of towns (micro-regions) meeting following requirements: “prove existence of MRC or there is spatial separation and segregation of Roma in isolated municipal or urban settlements on the territory of the town/municipality and they are included in the List of Eligible Applicants for LSKxP funding” (Pilot call for proposals for LSKxP funding).
funding). Respective list originating from Atlas of Roma Communities 2004 contains several hundreds of eligible applicants. Actual needs of eligible local governments exceeded overall indicative allocation several times (EUR 200 mil.). That is why it was necessary to specify the purpose of support and to adapt eligibility criteria accordingly. Clear orientation of SF funding via LSKxP could have enabled focus of the assistance or a part of the assistance on certain locations or key topics (e.g. the poorest regions). As a result of eligibility criteria being stipulated in a very generic manner, the needs of segregated communities and integrated communities ended on the same level.

The aim of local strategies was to provide for the interests of local governments in comprehensive MRC problem solution by supporting investment and non-investment interventions. The strategy was supposed to express mid-term intentions of towns/municipalities in the context of target group’s actual needs and valid plans of economic and social development. The form itself contained applicant’s identification, basic data on location, intents and approach to implementation, description of activities and a schedule. It is paradoxical that applications for LSKxP funding were assessed, but Department of MRC Horizontal Priority Coordination did not require submission of local strategy itself. The only part of application specifically focusing on LSKxP is part 14 “Intent and objectives of proposed strategy”. A substantial part of the application focuses on individual projects implemented as part of the strategy. It has to be noted that pilot call published at the end of the year 2008 failed to contain clear terms and conditions for application processing. This insufficiency led to diverse level of project processing. Unclear rules were also reflected in the first round of project assessment in 2009 in which only two local strategies were approved. Further calls for proposals concerning LSKxP funding were amended and finalized. In total, 257 applications were filed and 151 of them were approved. Number of submitted applications is an expression of local governments’ interest in supporting LSKxP. Criteria for funding had been altered in time due to various factors.

Submitted applications meeting formal criteria were assessed based on pre-defined criteria stated in Evaluation sheet for expert evaluation. Evaluation criteria focused on following aspects of KxP:

- adequacy and effectiveness
- mode of implementation
- budget and cost efficiency
- administrative, expert and technical capacity of the applicant
- sustainability.

Each application has been assessed by 2 independent internal experts based on 33 criteria. Efficiency and adequacy of local strategy carried most weight (30%), although strategy description was included only in one item of the agenda. As part of selection criteria, the applications had to score at least 75% in abovementioned groups of criteria and at the same time, accumulated more than 75% of the total amount. We believe that
some selected criteria were not clear and made room for diverse interpretation by assessors, in other words, their assessment was very problematic in the light of information provided in the application. However, overall approach to selection was even more troublesome. HP MRC coordinator basically applied the same approach as in case of projects on demand funded from SF. Such approach is built around competition among applicants. This is an approach which we find to be inappropriate for the type of funding which frequently helps to provide for basic living conditions for the poorest groups of citizens via synergies. Problem of assessment and selection is linked to insufficiently defined purpose of HP MRC. Apart from others, selection criteria also contributed to the fact that the whole system put smaller and poorer municipalities into disadvantaged position. Their capacity and potential for high quality processing of applications is significantly limited compared to towns. Towns handling larger budgets often run their independent project management or EU fund departments with specialized staff. On the other hand, mayors of small municipalities lack expert and technical capacities to process this type of document and are therefore forced to hire external suppliers to do that, which puts strain on their budgets. We regard assistance from regional offices of Departments of MRC Horizontal Priority Co-ordination while preparing applications for LSKxP funding as substantiated and partially compensating disadvantages of small municipalities. However, results of pilot and other calls point out to the limited benefit for applicants who needed consultations the most. Out of 151 approved LSKxP, integrated communities living chiefly in towns represent approximately 35%. A portion of separated communities is approx. 40% and only 25% of approved LSKxP is located in segregated locations which are in greatest need of mutually interconnected interventions.

For majority of eligible applicants, processing of application for LSKxP funding was a difficult task requiring expert assistance. Thus, we consider the original idea of Departments of MRC Horizontal Priority Co-ordination stating that regional offices of HP MRC should be in charge of application processing along with local governments and communities to be right. However, changes in the call led to a situation where local governments did not have to co-operate with regional offices while preparing their applications, despite such assistance being offered to them. Consistency of delivered support services by beneficiaries should have come as a significant benefit for regional Departments of MRC Horizontal Priority Co-ordination. Moreover, office staff were supposed to secure quality of documents in terms of their relevance for target communities. The regional office staff itself regards open and direct communication as a key added value of such office. Personal contact and communication with local governments were crucial mainly when rules for LSKxP support changed. Right from the start, towns and municipalities showed interest in gradual and complex handling of MRC situation, when they primarily planned to implement investment activities and subsequently “soft” projects. Once the application for LSKxP funding was approved, applicants found out that financial resources for investment activities in ROP, that they were interested in, were already spent, thus they would not be funded as part of LSKxP.
Thanks to their personal contacts, regional office staff were able to persuade mayors to carry on implementing LSKxP.

Setting of LSKxP system implementation requires that at least two projects are implemented, while one of them has to be an investment project and at least one should be a non-investment project. These conditions profoundly differ from the concept of complex approach elaborated by USVRK at the end of programming period 2004-2006. At that time, complexity was defined by the requirement of implementing at least 6 mutually thematically interconnected interventions in a local strategy. Changes occurred, inter alia, due to the status of implementation of operational programs, when allocations were already exhausted in some relevant measures (ROP 1.1 and ROP 4.1). For objective reasons, beneficiaries are not in a position to maintain the principle of implementing all preliminary approved project intentions and the space for project synergy within approved strategies has shrunk significantly. Applicants learned about limited funding only after their application for LSKxP funding was approved, i.e. in a period when project intents should already have been implemented. Local strategies with 2 to 3 project intents with unrelated topics may not be considered an integrated approach to MRC problems with a potential of generating synergy. It is a fact that due to the changes in the system of KxP implementation during programming period 2007 to 2013, it is not possible to facilitate integrated approach to local strategy implementation, i.e. LSKxP does not operate as a systemic tool supporting synergy and using finances from SF.

As a result of lacking planning and implementation of functional mechanisms to support links between various fields of support from SF and CF (synergy) in programming period 2007-2013, there are no data available on mutually coordinated and interconnected projects. That is a reason why it would be necessary to carry out a survey between NG beneficiaries from SF and CF. A part of the questionnaire focused on motifs and basis of project preparation and the other part tried to investigate to what extent were the funded projects intentionally interconnected with other projects financed from SF and CF (the questionnaire is enclosed in Annex 1). While gathering a group of respondents, we took ITMS outputs as basis for identifying 9 303 duly completed or running projects at the end of 2014. Projects were implemented by 4 294 entities from central state administration, local and regional administration, private and non-profit sectors. While evaluating the questionnaire, we were taking into consideration the type of beneficiary, since motifs of public administration, private sector and NGOs are different when it comes to project implementation and their interconnection to other activities. Overview of results from the questionnaire survey and a brief commentary can be found below.
Results of questionnaire survey concerning synergies forming part of SF and CF

While assessing synergy effects of interventions and their benefits by respondents, the survey focused on targeted interconnection between various projects or strategies. The response rate in the survey reached 511 while all groups of entities were represented: local administration bodies (33.66%), regional administration bodies (5.87%), central state administration bodies (2.74%), private companies (30.33%), NGOs (10.96%) and other entities (16.44%).

Chart 33: Breakdown of entities participating in the survey (numbers)

<table>
<thead>
<tr>
<th>Entity Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>nezisková organizácia</td>
<td>200</td>
</tr>
<tr>
<td>orgán miestnej samosprávy</td>
<td>180</td>
</tr>
<tr>
<td>orgán regionálnej samosprávy</td>
<td>160</td>
</tr>
<tr>
<td>súkromná spoločnosť</td>
<td>140</td>
</tr>
<tr>
<td>orgán ústrednej štátnej správy</td>
<td>120</td>
</tr>
<tr>
<td>iné</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey

Basis for project preparation and implementation varied. Most frequently, respondents put on the first place either independently or in a combination with other motifs, improved position/conditions for target groups (49.31%) and increased competitiveness of the company (26.42%). On the other hand, the least motivating factor for project implementation seems to be improvement of one’s own organisation’s functioning (8.81%), reduced regional disparities (4.31%) and job creation (3.91%).
The analysis of individual types of basis for project implementation broken down to respective types of entities represented by respondents implies that improved position/conditions of target groups, improved functioning of one’s own organisation, reduction of regional disparities and job creation mainly worked as driving force for local administration. To the contrary, increased competitiveness of the company motivated private companies, only. Almost half of projects aimed at improved position/conditions of target groups were implemented by the local administration bodies (43.25%) and NGOs (17.06%) or other entities (18.65%). This motivation was the least stimulating one for regional administration bodies (8.33%), central state administration bodies (1.59%) and private companies (10.32%). Equally, those entities which aspired to improved functioning of their own organisation, were mostly (42.22%) local administration bodies and private and other companies had the same representation (15.56%). Representation of other entities was symbolic and balanced. Increased competitiveness of the company motivated only private companies (80.74%), even though this motif worked a little for other organisations’ projects (11.11%) too, but it hardly stimulated projects run by central state administration bodies (2.22%), regional administration (2.22%) and local administration (2.96%). Projects based on reduction of regional disparities were mainly implemented by (81.82%) local administration bodies, but hardly any of them were carried out by regional administration bodies (9.09%), NGOs (4.55%) or private companies (4.55%). Central state administration bodies and other organisations failed to include this basis in their projects at all. Job creation was the least popular motif among...
projects implemented by respondent organisations. The highest number of organisations which included such motif were from amongst the private companies (40%) and local administration bodies (30%), while regional administration bodies were not represented in this group at all. This motif had very feeble representation in projects of NGO (15%), central state administration (10%) and other organisations (5%).

For most respondent (34.44%) project preparation and implementation did not mean a follow up to any development project. In this category, we are mainly talking about projects of private companies (48.30%) and NGOs (11.93%) and other organisations (21.59%). On the other hand, public administration implemented only few projects without connection to the past development projects (18.18%). The most frequent development document that other respondents took as basis, was the official development document of the town/municipality (27.40%) selected by majority of local administration bodies (92.14%). Most respondents who chose a valid development document (14.21%) as basis were other organisations (38.35%) and NGOs (20.55%). Portion of public administration bodies and private companies was negligible. The smallest number of projects were based on the official development document in the region (10.18%); here, private and other organisations had the largest representation (38.46%) and when it comes to valid development document of the company (5.89%), it was the most frequent basis for private companies (85.71%).

*Chart 32: Types of document basis for project preparation and implementation broken down to the sample of respondents (number)*

<table>
<thead>
<tr>
<th>Document Basis</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oficialného rozvojového dokumentu mesta/obce</td>
<td>176</td>
</tr>
<tr>
<td>Oficialného rozvojového dokumentu regiónu</td>
<td>140</td>
</tr>
<tr>
<td>Platného rozvojového dokument organizácie</td>
<td>49</td>
</tr>
<tr>
<td>Platného rozvojového dokumentu firmy</td>
<td>73</td>
</tr>
<tr>
<td>Nemá väzbu na rozvojové dokumenty</td>
<td>52</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
When it comes to interconnection of the projects with other activities increasing synergy of interventions, the largest representation was recorded from amongst the projects with local impact (42.47%), those with national impact (19.57%) and the projects with regional impact (20.55%). Projects with supra-regional (7.05%) and sub-regional impact (7.83%) only had a small portion.

While projects with local impact are at least based on official development document of the town/municipality, majority of projects in other areas had no connection to any development document. Majority of projects with local impact are at least based on official development document of the town/municipality (50.69%), majority of projects in other areas had no connection to any development document (29.03%). When it comes to local impact, projects deriving from valid development document of the organisation/company had their share, too (14.29%), most of them being private and other organisations. Majority of projects with regional impact had no connection to any development document (36.19%). Representation of projects with regional impact and connection to the official development document of the region or valid development document of the organisation/company is equal (20.95%); the smallest share (16.19%) is taken by projects linked to official development document of the town/municipality. In the group of supra-national projects, majority of the projects (40%) had no connection to any development document and another group (47%) is linked to the valid development document of the organisation/company represented chiefly by private and other organisations. Despite the fact that portion of projects with supra-regional and sub-regional impact is negligible, even this group is dominated by projects with no connection to any development document (39.74%) or those based on valid development document of the organisation/company (26.32%); the rest of the group are projects linked to official development document of the town/municipality (14.47%) and official development document of the region (18.42%).
Low level of synergy which, based on the analysis, seems to be typical for territorial impact and basis (motifs), is determined by the lower level synergy, already, i.e. the interconnection of entities’ own activities and their connection to activities of other entities.

The implemented projects are most often (68.88%) linked to one’s own completed or running development projects.
Chart 34: Distribution of projects linked to their own completed or running development projects (number)

![Chart 34: Distribution of projects linked to their own completed or running development projects (number)](image)

Source: Questionnaire survey

<table>
<thead>
<tr>
<th>yes</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

Links to completed or running projects/activities of other entities were recorded in less than half of the projects (41.29%).

Chart 35: Distribution of projects linked to completed or running projects/activities of other entities (number)

![Chart 35: Distribution of projects linked to completed or running projects/activities of other entities (number)](image)

Source: Questionnaire survey

<table>
<thead>
<tr>
<th>yes</th>
<th>yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>
The most frequent link between one’s own projects has been recorded in case other organisations (77.38%), local administration bodies (75.58%), NGOs (75%) and private companies (69.03%). Interconnection of the one’s own projects is hardly present in projects implemented by regional administration bodies (60%) and central state administration bodies (50%).

Central state administration bodies are the ones who most frequently link their projects/activities with other entities’ projects or activities (64.29%). The most frequent link between one’s own projects/activities and other entities’ projects/activities has been recorded in case of regional administration bodies (53.33%), NGOs (51.79%) and other organisations (51.19%). Local administration bodies and private companies tend to link their projects/activities to a lesser degree (32.90%).

Chart 36: Percentage of respondents who linked their own projects (%)

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGO</td>
<td>75%</td>
</tr>
<tr>
<td>Local administration body</td>
<td>75.58%</td>
</tr>
<tr>
<td>Regional administration body</td>
<td>77.38%</td>
</tr>
<tr>
<td>Private company</td>
<td>69.03%</td>
</tr>
<tr>
<td>Central state administration body</td>
<td>60%</td>
</tr>
<tr>
<td>Other</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
Central state administration and regional administration bodies tend to link their activities with other entities, thus increasing synergy effect, while interconnectedness of their own activities is lower in comparison. On other hand, the rest of respondents develop connection among their own activities, whilst interconnectedness to other entities’ projects/activities remains around 50%. The lowest degree of connectedness to activities/projects of other entities can be observed in private companies.

Out of 21 pre-selected areas representing strategic priorities of NSRF 2007-2013 which should bring about awaited synergy, respondents (53.62%, i.e. 274) chose areas in which they link their projects to activities/projects of other entities. Five most frequently quoted areas are: environmental and landscape protection (19.34%), transport infrastructure (16.79%), support of small and middle-size companies (6.93%), cultural and natural heritage (5.84%) and tourism (5.47%). In terms of structure of entities in two most frequent areas for synergy of activities, distribution of interest to connect one’s own projects with activities/projects of other entities concentrates around local administration bodies, mainly in environmental protection and landscape area (49.06%) and transport infrastructure (63.04%). Representation of other entities is negligible compared to local administration bodies.
In relation to projects’ interconnectedness with activities/projects of other entities, the same sample of respondents (274+2) stated the way in which their projects are linked to projects/activities of other entities. The most frequent case is that respondent’s project further develops outputs of projects/activities of other entities (28.99%) or it complements projects/activities of other entities (26.45%) or the respondent’s project is being implemented in the same thematic area as projects/activities of other entities (22.83%) or the respondent’s project utilizes particular outputs of projects/activities of other entities (18.84%).

Chart 39: Distribution of projects based on the way in which respondent’s project relates to activities/projects of other entities (number)
Respondents took into consideration the implementation of other projects/activities in the process of preparation and implementation of their own projects to a various degree. While in preparation phase 70.26% of respondents took other projects/activities into consideration, as much as 72.21% did so in the implementation part.

When preparing projects, almost half (45.41%) of respondents took other projects/activities into consideration partially. Less than one quarter of respondents fully considered implementation of other projects/activities (24.24%). The rest of respondents took consideration of the other projects/activities to a minimum extent (14.82%) or ignored it (15.53%).

### Table 1: Consideration of Other Projects/Activities

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Further develops outputs of projects/activities of other entities</td>
<td>80.69%</td>
</tr>
<tr>
<td>Complements projects/activities of other entities</td>
<td>80.69%</td>
</tr>
<tr>
<td>In order to implement your project, it was necessary to complete projects/activities of other entities</td>
<td>70.26%</td>
</tr>
<tr>
<td>The project is being implemented in the same thematic area as projects/activities of other entities</td>
<td>60.37%</td>
</tr>
<tr>
<td>Utilizes particular outputs of projects/activities of other entities</td>
<td>56.45%</td>
</tr>
<tr>
<td>Takes consideration to a minimum extent</td>
<td>44.81%</td>
</tr>
<tr>
<td>Ignores consideration of the other projects/activities</td>
<td>35.53%</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
In the implementation process, only one quarter of respondents (25.34%) took other projects/activities into full consideration. The largest group considered other projects/activities only partially (42.69%). The rest of respondents took implementation of other projects/activities into consideration to a minimum extent (16.21%) or ignored it (15.75%).

*Chart 41: Distribution of projects based on extent to which respondents took other projects/activities into consideration during implementation phase of their project (number)*
Government Office of the Slovak Republic
Assessment of SF and CF Contribution to the Reduction of Regional Disparities in Slovakia
Final Report

<table>
<thead>
<tr>
<th>v plnej miere</th>
<th>čiastočne</th>
<th>minimálne</th>
<th>vôbec</th>
</tr>
</thead>
<tbody>
<tr>
<td>fully</td>
<td>partially</td>
<td>to a minimum extent</td>
<td>ignored it</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
Frequency in which projects under measures with synergy potential are being implemented

In programming period 2007-2013 projects funded by both SF and CF were implemented in 2,465 municipalities of the Slovak Republic. In terms of the size of municipalities expressed by the number of inhabitants, the smallest municipalities were the ones most frequently funded, when more than 80% of municipalities had less than 2,000 inhabitants. By the end of 2014, at least 1 SF and CF project was implemented in 798 municipalities with less than 500 inhabitants and in 662 municipalities with 501 to 1,000 inhabitants. The largest portion of projects were run by beneficiaries in municipalities of Prešov region (614) and Banská Bystrica region (519). On the other hand, the smallest portion of projects were implemented in municipalities of Bratislava region (81) as a result of limitations imposed on use of resources from Cohesion Fund in Bratislava region and overall number of municipalities in this region.

The analysis of project location in the municipalities indicates some interesting results in terms of territorial concentration of SF and CF assistance. Based on selected approach, investments should have been concentrated into innovation and cohesion growth poles (altogether 973 municipalities). Based on acquired data, we have identified 2,465 municipalities in which SF and CF projects had been implemented, implying that principles of territorial concentration were not respected. Moreover, the largest group of municipalities investing in cohesion policy were the smallest ones, which fail to play a role social and economic centres.

In order to analyse synergic effect, 13 measures were selected to identify potential for synergy formation in the region (municipalities). Selected measures contained the ones with thematic links, thus it can be expected that implemented projects could bring more benefits to target groups than if they had been implemented in isolation. The purpose of analysis was to identify the number of projects funded under measures with potential for synergy formation. Below is a description of links between measures with the highest incidence in municipalities where SF and CF projects were implemented. Overview of analysed combination of measures is included below.
<table>
<thead>
<tr>
<th>Code of the measure</th>
<th>Measure</th>
<th>Code of the measure</th>
<th>Follow-up measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2111022</td>
<td>Digitalisation of public administration and electronic services on local and regional level (OPIS)</td>
<td>2112012</td>
<td>Digitalisation of contents saved in memory and fund institutions, archiving and providing access to digital data (OPIS)</td>
</tr>
<tr>
<td>2 2213022</td>
<td>Support and development of tourism infrastructure (ROP)</td>
<td>2213012</td>
<td>Strengthening of cultural potential of the regions (ROP)</td>
</tr>
<tr>
<td>3 2211012</td>
<td>Infrastructure of education (ROP)</td>
<td>2611013</td>
<td>Transformation of traditional school into a modern one (OPE)</td>
</tr>
<tr>
<td>4 2212012</td>
<td>Infrastructure of social services, social-legal protection and social guardianship (OPESI)</td>
<td>2714013</td>
<td>Improving the quality of services delivered by public administration and non-profit organisations (OPESI)</td>
</tr>
<tr>
<td>5 2612023</td>
<td>Support of continuing education in healthcare (OPE)</td>
<td>2812012</td>
<td>Reconstruction and modernisation of out-patient healthcare facilities (OPHC)</td>
</tr>
<tr>
<td>6 2714013</td>
<td>Improving the quality of services delivered by public administration and non-profit organisations (OPESI)</td>
<td>2111012</td>
<td>Digitalisation of public administration and development of electronic services on central level (OPIS)</td>
</tr>
<tr>
<td>7 2714013</td>
<td>Improving the quality of services delivered by public administration and non-profit organisations (OPESI)</td>
<td>2212012</td>
<td>Infrastructure of social services, social-legal protection and social guardianship (OPESI)</td>
</tr>
<tr>
<td>8 2213012</td>
<td>Strengthening of cultural potential of the regions (ROP)</td>
<td>2214012</td>
<td>Regeneration of settlements (ROP)</td>
</tr>
<tr>
<td>9 2214012</td>
<td>Regeneration of settlements (ROP)</td>
<td>2512022</td>
<td>Construction and modernisation of public lighting for towns and municipalities and provision of energy consulting services (OPCEG)</td>
</tr>
<tr>
<td>10 2613013</td>
<td>Raising the educational level of members of the marginalised Roma communities (OPE)</td>
<td>2712013</td>
<td>Supporting the social inclusion of persons at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalized Roma communities (OPESI)</td>
</tr>
<tr>
<td>11 2212012</td>
<td>Infrastructure of social services, social-legal protection of children and social guardianship (ROP)</td>
<td>2712013</td>
<td>Supporting the social inclusion of persons at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalized Roma communities (OPESI)</td>
</tr>
<tr>
<td>12 2511012</td>
<td>Innovation and technological transfers (OPESI)</td>
<td>2711023</td>
<td>Promoting the creation and sustainability jobs via increased adaptability of employees, business and promotion of entrepreneurship</td>
</tr>
<tr>
<td></td>
<td>2511022</td>
<td>Supporting joint service provision for entrepreneurs (OPCEG)</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2511032</td>
<td>Supporting innovation in companies (OPCEG)</td>
<td></td>
</tr>
</tbody>
</table>
In relation to potential 13 synergies introduced in the table above, we include a closer description of the 5 most frequent measures implemented in the same territorial units.

The most frequent combination of two measures, which created space for synergy in project implementation, was measure 1.1 Infrastructure of education (Regional OP) and measure 1.1 Transformation of traditional school into a modern one (OP Education). In case of the first measure, the project dealt with school reconstruction, extension and modernisation (selected kindergartens, primary and secondary schools). As part of this measure, ICT was bought to support the educational process. The aim of the second measure forming part of OP Education should have been an introduction of innovative teaching forms and methods, update of curricula and new subjects were supposed to be launched into practice. This measure should have strongly supported ICT use. In case of primary and secondary schools, both measures could have generated strong synergy providing for major improvements in teaching process in modern school premises.

In total, 203 cases were identified where projects were implemented in relation to both measures on the same territorial unit. The largest number of such projects was found on the territory of Banská Bystrica (50), then in Prešov region (40) and finally in Žilina region (31). In terms of the size of territorial unit on which projects were implemented from both measures, the largest incidence (68) was found in towns above 10 000 inhabitants. These were followed by towns and municipalities from 2,000 to 5,000 inhabitants (59), towns and municipalities from 5,000 to 10,000 inhabitants (37) and then by towns from 1,000 to 2,000 inhabitants (28). Focus of abovementioned measures makes it clear that the highest probability of actual synergy appears in towns with the lowest number of citizens. As a result of the fact that there are more primary and secondary schools in larger territorial units, individual projects could have been implemented in different schools, whilst the number of schools where both types of projects were implemented, is smaller. Distribution of both types of projects implemented within the same territorial units in individual regions can be found in the chart below.
The second most frequent combination of two measures, which created space for synergy in project implementation, was measure 1.1 Innovations and technological transfers (OP Competitiveness and economic growth) and measure 1.2 Supporting job creation and sustainability via increased adaptability of employees, enterprises and support for entrepreneurship (OP Employment and Social Inclusion). The first measure represents mainly activities such as modernisation of machines, apparatus and equipment, facilities in testing rooms and technologies (including purchase of innovative and state-of-the-art technologies) with the aim of raising competitiveness and added value while reducing and alleviating negative environmental impact of industry and services. So, the point is to support business activities while emphasizing elements of innovation. The second measure provides comprehensive support for development of enterprises and activities helping to forecast changes, to adapt to alternated conditions, continuous support for job creation, broadening the range of skills needed for adaptability of employees and establishment and adaptation of entrepreneurs and enterprises to market change. Both measures implemented via projects with necessary continuity should bring about development of business activities and their better resistance to volatility of business environment, while generating several positive effects for overall economic situation in the country (e.g. in employment field).
In total, 168 cases were identified where projects were implemented in relation to both measures on the same territorial unit. The largest number of such projects was found on the territory of Banská Bystrica (44), then in Prešov region (25) and finally in Košice region (21). In terms of the size of territorial units on which projects were implemented from both measures, the largest incidence (78) was found in towns above 10 000 inhabitants. These were followed by towns and municipalities from 2 000 to 5 000 inhabitants (31) and then by towns from 5 000 to 10 000 inhabitants (25). Focus of abovementioned measures makes it clear that the highest probability of actual synergy appears in towns with the lowest number of citizens due to the smaller number of enterprises. However, only 36 projects were implemented on the same territorial units up to 2000 inhabitants as part of both measures, which means approx. 20%. In the light of the fact that 80% of the projects were implemented in towns with more than 2 000 inhabitants, a low number of actually visible synergies can be expected. Distribution of both types of projects implemented within the same territorial units in individual regions can be found in the chart below.

![Chart 42: Incidence of projects from 1.1 OPCEG and 1.2 OP E&S in municipalities as broken down to regions and number of inhabitants](image_url)

<table>
<thead>
<tr>
<th>Banskobystrický kraj</th>
<th>Banská Bystrica region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bratislavský kraj</td>
<td>Bratislava region</td>
</tr>
<tr>
<td>Košický kraj</td>
<td>Košice region</td>
</tr>
<tr>
<td>Nitrianský kraj</td>
<td>Nitra region</td>
</tr>
<tr>
<td>Prešovský kraj</td>
<td>Prešov region</td>
</tr>
<tr>
<td>Trenčianský kraj</td>
<td>Trenčín region</td>
</tr>
<tr>
<td>Trnavský kraj</td>
<td>Trnava region</td>
</tr>
<tr>
<td>Žilinský kraj</td>
<td>Žilina region</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey
Further potential combination of a pair of measures, where high number of projects were implemented within the same territorial unit, could have been found in measure 4.1 Regeneration of settlements (Regional OP) and measure 2.2 Construction and modernisation of public lighting for towns and municipalities and provision of energy consulting services (OPCEG). When it comes to the first measure, it chiefly deals with revitalisation of public space in municipalities and towns, support for housing infrastructure in obsolete apartment houses and projects focused on the development of municipalities with Roma settlements in rural areas (refurbishment of infrastructural networks such as water and sewage systems, etc.) The second measure mainly supported reconstruction of existing and construction of modern lighting systems in towns and municipalities. A synergy of abovementioned measures can be found in simultaneous implementation of project activities in the same part of the town or municipality, i.e. modernisation of lighting on refurbished public space or modernised residential zones.

In total, 129 cases were identified where projects were implemented in relation to both measures on the same territorial unit. The largest number of such projects was found on the territory of Nitra region (28), then in Banská Bystrica region (26) and finally in Žilina region (19). In terms of the size of territorial unit on which projects were implemented from both measures, the largest incidence (46) was found in towns with 1,000 to 2,000 inhabitants, followed by towns and municipalities from 2,000 to 5,000 inhabitants (31) and towns over 10,000 inhabitants (21). Regarding the focus of abovementioned measures, actual synergies may be expected to appear mainly in territorial units with smaller number of public areas and residential zones, i.e. in smaller towns and municipalities. Since half of the projects from abovementioned measures were implemented in towns and municipalities up to 2 000 inhabitants, some activities with synergic effects are likely to have been implemented there. Distribution of both types of projects implemented within the same territorial units in individual regions can be found in the chart below.
Fourth combination of measures with potential for generating synergy, is connection of measure 2.1 Infrastructure of social services, social-legal protection and social guardianship (Regional OP) and 2.1 Supporting the social inclusion of persons at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalized Roma communities (OPESI). The first measure focuses on increased quality of provided services in social sphere via reconstruction, expansion, modernisation and construction of social services and facilities providing social-legal protection of children and social guardianship, including procurement of equipment. The aim of the second measure is to help sustain, revive and develop physical capacity of persons and their families to conduct independent life, support their integration into society, prevent accompanying negative factors preventing marginalised groups of citizens from accessing or persisting on the labour market. The measure is being implemented via provision of social services and measure of social-legal protection, social guardianship and social counselling.

Of the total number of 98 cases, the largest incidence was detected in Prešov region (36), followed by Banská Bystrica region (22) and then Nitra region (13). In terms of the size
of territorial units, the largest number of projects were implemented in towns with more than 10,000 inhabitants (39); these were followed by towns and municipalities from 2,000 to 5,000 inhabitants (19) and then by towns from 5,000 to 10,000 inhabitants (15) and lastly by municipalities from 1,000 to 2,000 inhabitants (15). Probability of actual synergies decreases with growing size of territorial units since larger towns may have several different social services, thus projects may not be implemented in the same facilities. Since 25 projects were simultaneously implemented in towns and municipalities from 500 to 2,000 inhabitants as part of both measures, it is likely that only small number of activities could generate synergy. Distribution of both types of projects implemented within the same territorial units in individual regions can be found in the chart below.

*Chart 44: Incidence of projects from 2.1 ROP and 2.1 OPCEG in municipalities as broken down to regions and number of inhabitants*

<table>
<thead>
<tr>
<th>Region</th>
<th>Projects Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banskobystrický kraj</td>
<td>14</td>
</tr>
<tr>
<td>Bratislavský kraj</td>
<td>12</td>
</tr>
<tr>
<td>Košický kraj</td>
<td>10</td>
</tr>
<tr>
<td>Nitriansky kraj</td>
<td>8</td>
</tr>
<tr>
<td>Prešovský kraj</td>
<td>6</td>
</tr>
<tr>
<td>Trenčiansky kraj</td>
<td>4</td>
</tr>
<tr>
<td>Trnavský kraj</td>
<td>2</td>
</tr>
<tr>
<td>Žilinský kraj</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey

The last combination of two measures in which projects had been implemented within the same territorial unit, was the measure 3.1 Raising the educational level of members of the marginalised Roma communities and 2.1 Supporting the social inclusion of persons...
at risk of social exclusion or the socially excluded through the development of care services with special regard to marginalized Roma communities (OPESI). The aim of the first measure is to support social inclusion of MRC population by simplifying their access to formal education and by allowing for acquisition of skills needed on labour market and at the same time educating MRC population and persons working in the area of integration into society. The aim of the second measure is to help sustain, revive and develop physical capacity of persons and their families to conduct independent life, support their integration into society, eliminate accompanying negative factors preventing marginalised groups of citizens from accessing or persisting on the labour market. This combination of measures allows for implementation of two types of so called soft projects.

In total, 80 cases were identified where projects were implemented in relation to both measures on the same territorial unit. The largest number of such projects was found on the territory of Banská Bystrica (30), then in Prešov region (27) and finally in Košice region (16). These are regions with the highest incidence of MRC population. In terms of the size of territorial unit on which projects were implemented from both measures, the largest incidence (29) was found in towns with 2 000 to 5 000 inhabitants, followed by towns and municipalities over 10 000 inhabitants (23) and then towns and municipalities from 1 000 to 2 000 inhabitants (17). In the light of the fact that in both cases the activities are focusing on marginalised communities, it is likely that even larger towns may have built a certain degree of co-ordination where specialised teams are dealing with this topic while enjoying support from specialised educational and social facilities. Due to the reasons mentioned above, overall probability of planning and implementation of actual synergy is higher than in other cases described above and can be presumed in all types of regional units (it is most likely LSKxP). Distribution of both types of projects implemented within the same territorial units in individual regions can be found in the chart below.
Summary

We considered a synergy in the context of cohesion policy to be mutually intentionally intertwined and co-ordinated intervention with capacity to produce larger effects thanks to mutual interaction than independent implementation would have generated. Legislation valid for 2007-2013 responded to the need for co-ordination of policies, tools and interventions by defining principles for application of cohesion policy tools which directly support synergy formation: complementarity, consistency, coordination, compliance and additionality. The Slovak National Strategic Reference Framework contains a whole chapter devoted solely to description of co-ordination in the use of SF and CF with other policies and financial tools. Coming close to the end of programming period 2007-2013, we have to state that description of co-ordination system and interconnection managed to retain only its declarative nature despite its significance. In practice, it means that one of the key requirement for reaching synergic effects was not met – a functioning system was not established which would effectively stimulate
interconnection between interventions in order to achieve synergy. Throughout implementation of SF and CF, just independent initiatives occurred attempting to intertwine investment and non-investment interventions. The first indication of support for synergy was a mutually harmonised call for proposals for NG as part of OP Employment and Social Inclusion and OP Competitiveness and economic growth. At the end of the day, calls which were co-ordinated in time and theme, did not manage to interconnect investment and non-investment projects tailored for the private sector. Another area in which co-ordination and actual interconnection of interventions should have been a bearing component, was support of marginalised Roma communities. In fact, Slovakia was the first country to define complex system of measures tackling unfavourable situation and living conditions of Roma while employing cohesion policy resources. To apply a complex approach enforcing implementation of several investment and non-investment activities in location with high proportion of MRC, European Commission allocated EUR 200 mil. The original requirement to implement at least 6 logically interconnected interventions for improvement of the situation in MRC in given location was abandoned for several reasons and at the end of the day, beneficiaries could implement at least 2 projects. As a result of the fact that implementation of operational programmes and local strategies was not harmonised, principles of complexity being weakened and administrative problems being present, one cannot regard local strategies of complex approach as tool capable of generating synergic effects between SF and CF interventions.

In the light of aforementioned, applicants/beneficiaries were not actively incentivised to seek and create synergy in programming period 2007-2013. It was feasible to intertwine the projects in their contents, timeline and geographic location, but the actual setting of the SF and CF implementation was very complicated. Process of preparation, assessment and selection of applications for NG failed to contain mechanism supporting synergy. Apart from the national projects, all interventions funded from EU Cohesion Policy (projects on demand) were selected based on tender, i.e. the highest score. That is also the reason why questionnaire survey was performed among beneficiaries aimed at identifying how beneficiaries themselves perceived their connections with other projects.

The results of the survey indicate that the key motif for preparation and implementation of SF and CF projects was for public administration (mainly local administration bodies) to improve the status of a target group, while private entities chiefly pursued their own goals (competitiveness and development). Only about 4% of beneficiaries state that their primary motivation for project implementation was tackling the problem of regional disparities. That is very much implied by the impact of implemented projects. Most of them achieved local, sub-regional or regional effects. In terms of synergic effects, it is interesting to note that more than one third of entities did not base their projects on any development document, whether on the level of local administration or its own organisation. It points out to the fact that SF and CF assistance is often perceived as one-
off opportunity to gain funding without more profound connection to the comprehensive strategy. Local administration usually declared that they based their projects on economic and social development plans. In fact, these are the projects which respond to issues of municipalities and their inhabitants, while achieving local impact.

Almost 70% of all respondents stated that their activities implemented with funding from SF and CF in programming period 2007-2013 are somehow linked to their own activities. Interconnection with their own activities is almost equally profound in the group of local administration as it is with private sector. High interconnectedness to the organisation’s own activities derives from the responsibilities and competencies of local and regional governments and from the nature of business activities and focus of NGOs, respectively. When it comes to synergy formation, it is important to note that just slightly more than 40% of all entities followed-up activities/projects of other entities with their projects and partly took note of other projects/activities during preparation and implementation of their project. That applies to interconnectedness of activities of various organisations within the same territory and at the same time interlink of activities implemented within surrounding area. Majority of beneficiaries from public and private sectors did not actively seek ways of interconnecting their projects with completed or pending projects. In case that some link could have been traced to activities/projects implemented by other entities, the most frequent connection was follow-up to project outputs (29%) and complementary activities to projects/activities of other entities (26%). High frequency of responses were detected in the area of thematic interconnectedness (23%) and direct use of outputs from other projects (19%). Themes which occurred most frequently in the projects of other entities were protection of environment and landscape (19%) and transport infrastructure (17%) where key entities come from amongst local and regional administration.

The survey implies that co-ordination of project activities and their connection to strategic priorities of programme documents focuses mainly on local level, where key players are local administration bodies. Their strategic position must be perceived in the context of economic and social development plans as well as their competencies which make them key players on local grounds. Degree of significance and intensity of activity consideration decreases inversely with higher territorial impact (regional or national level). Thus, expected benefit of synergic effects fails to exceed its local dimension and penetrate into synergies on higher hierarchic levels. That is the reason why local projects with thematic and geographical links to the territory failed to generate synergies in programming period 2007-2013 which would statistically significantly influence development of regional disparities in aggregate.

In order to identify incidence of projects with synergic potential, 13 pairs of measures were selected out of six OP which are close in theme. Likelihood of synergy formation lied in implementation of projects from measures focusing on modernisation of existing or building of new infrastructure and subsequently, measures implemented via soft projects in social and educational spheres. Overall, it can be stated that incidence of
projects implemented from amongst measures which could generate synergy in location is low. The most frequently occurring combination was support to reconstruction of school facilities and improvement of educational process – it occurred in 203 municipalities. Combination of interventions generating space for thematic interconnection of intervention from various measures were naturally statistically mostly present in towns, i.e. in municipalities with higher number of inhabitants. At the same time, it can be stipulated that the highest probability of achieving concrete synergies occurred in smaller municipalities with limited number of facilities to be reconstructed or built anew, while follow-up activities took place in these facilities as part of so called soft projects.
12 Findings and conclusions

To what extent did building and modernisation of infrastructure via SF and CF project implementation and their effects, consequences and impacts contribute to reduction of disparities among regions, their increased attractiveness, competitiveness and alleviation of differences among them?

The aim of strategic priority 1. Infrastructure and regional accessibility was to enhance the infrastructure of regions covering areas like transport, environment and civil infrastructure in towns and municipalities. The support focused on four specific areas: regional infrastructure, environmental infrastructure and protection of environment, transport infrastructure and public passenger transport as well as modernisation of health infrastructure. Total expenditures were EUR 5.5 billion, which means 58.8% of the total expenditures invested in NSRF 2007-2013.

Regional Disparities under SP 1 Infrastructure and Regional Accessibility in 2007-2014 have been moderated as a result of selected methodology. Factors influencing RD development in the context of analysed indicators are following:

- completion of multimodal transport corridor sections and enhanced accessibility of regions with superior motorway and speedway network along with operated railway tracks and enhanced technical, medical and educational infrastructure
- development of waste management with higher proportion of municipal waste separation and recycling
- reduced production of solid and gas emissions.

When it comes to environmental infrastructure, disparities between the regions of Slovakia were reduced in the period under survey in the area of environmental infrastructure. Values of measurable indicators point out to more than 50% share of the positive statistic indicator growth, especially in the area of citizens’ drinking water supply, connection to sewerage and waste separation and handling.

Support in the field of transport infrastructure focused mainly on financing of so called national projects. Priority interests in the field of transport based on government approved strategic and development documents as well as commitments. Regional distribution of finances significantly influenced character of projects as well as the attempt of the department to secure continuity in construction of railway and road infrastructure, especially the superior parts. Based on this, finances in this programming period were chiefly invested in Trenčín and Žilina regions. In the next period it is expected that support will gradually move to the regions of central and eastern Slovakia. SF and CF contributed with approx. 40% to newly-built parts of motorways and speedways. Funding from EU helped to modernise 432.2 km of 1st class roads, which increased fluency and safety of road transport.
In terms of regional infrastructure, interventions were mainly made in infrastructure of education. Funding helped to significantly reduce long-term cumulated ”modernisation and operational debt” in the infrastructure of schools by implementing inevitable construction and technical adjustments, reducing energy efficiency in buildings and modernising as well as expanding school capacity.

In terms of regional disparity development in 2007-2014, SP 1 Infrastructure and Regional Accessibility, regional disparities had been moderated, inter alia, thanks to SF and CF funding in the SP 1 Infrastructure and Regional Accessibility. Funding has been largely invested based on social-economic status of individual regions in the regional infrastructure of Slovakia.

How did SF and CF funding via NSRF help in areas like human resources and what were its effects, impacts and consequences on development of unemployment, level of qualification and social situation of citizens in individual regions?

The aim of Strategic Priority 3 Human Resources is to increase employment, quality of workforce for the needs of knowledge-based society and social inclusion of vulnerable groups. Financial interventions focused mainly on educational reforms, mitigation of the level of unemployment and issues of social inclusion focused on marginalised Roma communities. Interventions focused on two areas – Modern Education for Knowledge-based Society and Supporting Employment Growth and Social Inclusion. Expenditure on the support of Human Resources accounted for 12.8% (EUR 1.3 billion) of the total expenditure. Thereof almost one third was invested to support education and more than two thirds to support employment growth.

An analysis of regional disparities at the level of SP 3 Human resources points at the constantly widening disparities between regions. Factors which had the greatest impact on development are following:

- imbalanced nature of regional labour markets with a certain stabilisation of the level of unemployment in the recent year, with a long history of high numbers of long-term unemployed and unemployed graduates;
- growing number of social allowance beneficiaries and increased risk of poverty – 60% of median;
- changes in demographic behaviour and their impact on the population’s age structure;
- regionally differentiated growth of citizens’ level of qualification.

Projects implemented under Strategic Priority Human Resources are non-investment projects whose sustainability and benefits will become evident in regional disparities in the area under analysis with a certain delay in time.

The territorial distribution of expenditures allocated on the support of activities within the Strategic Priority 3 Human Resources closely corresponds to the situation in the labour market in individual regions.
In terms of stipulated regional disparities and spending of funds based on Strategic priority 3, it can be stated that financial interventions take into consideration social-economic status of the Slovak regions and most funding ended in regions with the worst status in the regional structure of Slovakia – Košice, Prešov and Banská Bystrica, however, resulting positive effects may be observed only after certain amount of time.

How did digitalisation of society, support for research and development, enhanced infrastructure of Universities and support for competitiveness of enterprises contributed via SF and CT and what were the consequences, effects and impacts of this implementation on development of sustainable economic growth resources in regions and enhanced competitiveness of industries and services in individual regions?

The objective of Strategic priority 2 Knowledge-based economy is to develop resources of sustainable economic growth and to enhance competitiveness of the industry and services. Funding focused on three areas – digitalisation of society, research and development as well as support of competitiveness of enterprises and services. A significant factor in supporting the knowledge-based economy was also modernisation of the infrastructure of higher education institutions aimed to increase the quality of educational process. Expenditures supporting knowledge-based economy represented 29.1% of the total expenditures spent in programming period 2007-2013, which means EUR 2.3 bill. in 2535 projects.

Based on SP 2 Knowledge-based economics, development of regional disparities in a monitored period, indicates stabilised situation and minor In the context of analysed indicators, RD was influenced by:

- spatially considerably differentiated numbers of research and development employees, with their highest concentration (over 50%) in the Bratislava region,
- relatively low and spatially significantly differentiated share and volume of funds to support research and development from regional GDP,
- different structure and performance of the regional economy, which is reflected in regional differences according to the macroeconomic indicator of GDP per capita in PPP and the performance of selected industries (production, building) in the regions,
- regionally differentiated business environment with a different rate of entrepreneurial activity.

The largest portion of funding of the total spending as part of knowledge-based economics was oriented towards research and development 42, then enhancement of competitiveness of enterprises and services 29.6 and finally, information society 28.

The largest portion of spending was observed in Bratislava, Banská Bystrica, Košice and Žilina regions. The Bratislava region ranked first thanks to a high concentration of research potential, which had absorbed more than EUR 235 million. In Banská Bystrica
and Prešov regions, most funding was spent to support innovations, competitiveness and tourism.

**Is it possible to identify interventions with the most significant impact on alleviation of regional disparities in SR?**

**Is it possible to identify which types of interventions aimed at elimination of regional disparities generate only minimum effects and fail to actually eliminate any regional disparities? If yes, state the reasons why they fail.**

Overall, it can be stated that SF and CF investments generate positive economic effects on development of national and regional economics. If it was not for these funds, investment activities would be significantly reduced in supported regions. The highest effect in terms of reduction of regional disparities, was achieved by investments into environmental Infrastructure and protection of the environment. Since 2007, these areas have witnessed major decrease in regional disparities which is mainly thanks to investments from Cohesion Policy. In programming period 2007-2013, the abovementioned areas were chiefly funded by ERDF and CF forming more than one third of all disposable resources.

On the other hand, investments from SF and CF failed to reverse a long-term trend of deepened regional disparities in employment area (unemployment), research and science as well as business activities. Despite the fact that regional disparities deepened in monitored period, EU funds combined with state budget helped to make regional divergence less severe. A key reason why only limited effects were achieved by interventions in relation to regional disparities is the fact that indicators providing basis for assessment of regional disparities, express performance and status of economics as such (e.g. rate of unemployment, rate of employment and business activity, etc.) It means that SF and CF investments, compared to the volume of entire economics, dispose of very limited ability to change overall development of national and regional economics.

Field of science and research is very specific, since share of public funding of total expenditures in research and funding and HDP, remains very important. At the same time, SF funding represented an important part of public expenditures in science and research, which is confirmed by increased ratio of expenditures in science and research to GDP after EU funding started (since 2009). However, use of funding is conditioned by absorption capacity concentrated in centres of science and research (Bratislava region), which may have a final divergent effect in relation to regional disparities. Digitalisation of society, especially electronic public services for citizens and entrepreneurs is branch specific, too. Majority of investments into digital society ended up in national projects which resulted in an even effect in distribution of electronic services in all regions.
Which factors have positive and which ones have negative effect on SF and CF implementation in individual regions?

The analysis identified seven factors which influenced implementation of SF and CF in PO 2007-2013. The results show that their impact on implementation is perceived in a rather negative perspective by a whole spectrum of entities, while following aspects influenced implementation the most:

Within the “legislative framework”, three areas were identified as the most problematic with almost equal level of severity: frequent legislative amendments, new duties implied by frequent legislative amendments and ambiguous interpretation of valid legislation which, in effect, often changes conditions for project implementation and result in legal uncertainty of the projects.

The most serious aspects of “social-economic situation” are lack of one’s own funding and overall unfavourable economic situation caused by recent global crisis having direct impact on financial capacity of private sector and public administration. Limited resources combined with expenditure refunding system caused a lot of practical problems to beneficiaries. Apart from abovementioned aspects, lack of qualified workforce has also been perceived as disqualifying factor.

Allegedly, the “implementation system” contained a troubling fact that SF and CF funding could only be used for certain types of expenditures and limited activities and only for restricted number of applicants/beneficiaries, thus several types of entities operating in given territory were not eligible.

“Financial burden of processes” was mostly caused by length of period for refunds, which caused further problems with liquidity and overall solvency as well as additional financial burden for entities forced to utilise other financial tools (loans/guarantees) which, in effect, reduced the effect of SF and CF assistance. This is closely related to limited possibilities for acquiring bank loans/guarantees on financial markets. Overall financial burden of project implementation has also been quoted as troubling, since in case of investment projects, the burden is created in preparatory phase, already (elaboration of project and technical documentation, CBA, etc.).

“Administrative burden of processes” on the side of applicants/beneficiaries was mainly caused by lengthy PP processes. Amendments of PP legislation and rules as well as its practical implementation in relation to SF and CF assistance has long been considered a serious hindrance to implementation of assistance. Another negative aspect takes form of frequent changes in rules for implementation during project cycle caused by undue delays and financial problems in project implementation. It was also pointed out that processing of request for payment is also complicated and causes high administrative burden to beneficiaries.
As part of “institutional aspects”, the most serious flaw on the side of MA/MBMA employees causing legal uncertainty is the ambiguity in instructions and guidelines. Instructions often lack written form, they frequently contradict valid binding regulations or expert opinion of other staff in the same field of expertise. Further institutional aspects which were perceived as negatively influencing implementation are fluctuation of MA/MBMA staff, especially on the level of project managers, which causes problems in the process and insufficient level of expertise among the staff of MA/MBMA leading often to inadequate communication and low level of support needed by applicants/beneficiaries.

In terms of “capacities”, local administration and private sector quoted lack of experience with implementation of similar projects as problematic, along with lack of internal staff with necessary qualification and overall lack of internal employees. Nature of processes linked to implementation of projects funded from SF and CF requires adequate capacity inevitable for efficient project implementation. This may apply to internal capacities needed solely for preparation and implementation of SF and CF projects or external capacities available in given market segment which can fully compensate for lacking internal human resources.

Is it possible to identify synergic effect induced by SF and CF financial interventions among key supported areas? If yes, describe their mutual interconnectedness and influence.

We considered a synergy in the context of cohesion policy to be mutually intentionally intertwined and co-ordinated intervention with capacity to produce larger effects thanks to mutual interaction than independent implementation would have generated. Legislation valid for 2007-2013 responded to the need for co-ordination of policies, tools and interventions by defining principles for application of cohesion policy tools which directly support synergy formation: complementarity, consistency, coordination, compliance and additionality. The Slovak Republic devoted a special sub-chapter in its National Strategic Framework to description of co-ordination of SF and CF use with other policies and financial tools. Coming close to the end of programming period 2007-2013, we have to state that description of co-ordination system and interconnection managed to retain only its declarative nature despite its significance. It means a failure to meet one of the fundamental requirements for synergy – to create functioning system supporting active interconnection of interventions in order to achieve synergy.

Throughout the process of SF and CF implementation, only isolated islands of initiative occurred trying to achieve systemic interconnection between interventions of investment and non-investment nature. The first indication of support for synergy was a mutually harmonised call for proposals for NG as part of OP Employment and Social Inclusion and OP Competitiveness and economic growth. At the end of the day, calls co-ordinated
In time and theme failed to reach actual connectedness of investment and non-investment projects in private sector. Another area in which co-ordination and actual interconnection of interventions should have been a bearing component, was support of marginalised Roma communities. In fact, Slovakia was the first country to define complex system of measures tackling unfavourable situation and living conditions of Roma while employing cohesion policy resources. To apply a complex approach enforcing implementation of several investment and non-investment activities in location with high proportion of MRC, European Commission allocated EUR 200 mil. The original requirement to implement at least 6 logically interconnected interventions for improvement of the situation in MRC in given location was abandoned for several reasons and at the end of the day, beneficiaries could implement at least 2 projects. As a result of lacking harmonisation in implementation of operational programmes and local strategies, weakening principles of complex approach and administrative issues, one cannot regard local strategies of complex approach as a tool capable of generating synergic effects between SF and CF interventions.

In the light of aforementioned, applicants/beneficiaries were not actively incentivised to reach synergy in programming period 2007-2013. It was feasible to intertwine the projects in their contents, timeline and geographic location, but the actual setting of the SF and CF implementation was very complicated. Process of preparation, assessment and selection of applications for NG failed to contain mechanism supporting synergy. Apart from the national projects, all interventions funded from EU Cohesion Policy (projects on demand) were selected based on tender, i.e. the highest score. That is also the reason why questionnaire survey was performed among beneficiaries aimed at identifying how beneficiaries themselves perceived their connections with other projects.

The results of the survey indicate that the key motif for preparation and implementation of SF and CF projects was for public administration (mainly local administration bodies) to improve the status of a target group, while private entities chiefly pursued their own goals (competitiveness and development). Only about 4% of beneficiaries state that their primary motivation for project implementation was tackling the problem of regional disparities. That is very much implied by the impact of implemented projects. Most of them achieved local, sub-regional or regional effects. In terms of synergic effects, it is interesting to note that more than one third of entities did not base their projects on any development document, whether on the level of local administration or its own organisation. It points out to the fact that SF and CF assistance is often perceived as one-off opportunity to gain funding without more profound connection to activities of supported entities, especially in private sector. Local administration usually declared that they based their projects on economic and social development plans. In fact, these are the projects which respond to issues of municipalities and their inhabitants, while achieving local impact. Almost 70% of all respondents claim that activities implemented with SF and CF support in programming period 2007-2013 form follow-up to their own activities. Interconnection with their own activities is almost equally profound in the group of local
administration as it is with private sector. High interconnectedness to the organisation’s own activities derives from the responsibilities and competencies of local and regional governments and from the nature of business activities and focus of NGOs, respectively.

When it comes to synergy formation, it is important to note that just slightly more than 40% of all entities followed-up on activities/projects of other entities. That applies to interconnectedness of activities of various organisations within the same territory and at the same time interlink of activities implemented within surrounding area. Majority of beneficiaries from public and private sectors did not actively seek ways of interconnecting their projects with completed or pending projects. In case that some link could have been traced to activities/projects implemented by other entities, the most frequent connection was follow-up to project outputs (29%) and complementary activities to projects/activities of other entities (26%). High frequency of responses were detected in the area of thematic interconnectedness (23%) and direct use of outputs from other projects (19%).

Missing mechanisms to support synergy formation in implementation of cohesion policy in Slovakia in programming period 2007-2013 contributed to low incidence of interventions with synergic potential. The lowest incidence was identified in case of combination of investment activities in educational and social infrastructure and thematically close non-investment activities focusing on enhanced quality of education and provision of social services, including MRC. Statistically highest potential for achieving synergy is generated in urban areas with the highest number of projects being implemented. However, practice shows that many of these projects are being implemented by various entities operating in a town/municipality without any intended links. Finally, it can be stated that in programming period 2007-2013, synergic effects were achieved only in isolated cases as a result of beneficiary’s efforts (local administration) and enjoyed no systemic support.
13 **Recommendations**

**Regional disparities and their mitigation**

Long-term deepening or sustaining profound regional disparities represents only of the key development challenges in the Slovak Republic. Despite declared efforts to tackle the problem of regional disparities and improve position of economically less performing regions by many governments, no fundamental institutional and legislative framework with concrete tools had been created to improve the situation. That is why it is necessary for regional (territorial) development area to have adequate position and weight in the field of development policies.

*Responsible authority: Ministry of Transport, Construction and Regional Development SR*

In order for EU cohesion policies to efficiently and effectively contribute to mitigation of regional disparities in Slovakia, it is necessary to clearly and comprehensively articulate such objectives in strategic documents for SF and CF implementation (ESIF). Neither the National Strategic Reference Framework (Partner Agreement), nor operational programmes contain strategic objectives concerning use of EU funding to reduce regional disparities. In terms of the actual benefit for mitigation of regional disparities, it seems vital to create functioning mechanism to support less developed regions, including co-ordination of interventions.

*Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities*

Economic models can be used to quantify the impact of public funding (EU and state budget funds) on development of individual regions. Well calibrated model apparatus allows for ex-ante (preliminary) assessment of various scenarios as basis for adoption of investment strategies and regional distribution of funds. Nevertheless, it is fundamental that in order to mitigate regional disparities, it is necessary to allocate sufficient funding to less developed regions compared to the others, to leverage regional economies.

*Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities*

With regard to limited EU and state budget funds (public finances), it is necessary to define key areas for support in order to reduce regional disparities. A strategy applied so far provided support to a broad spectrum of priorities, which causes a situation in which disposable resources lack capacity to make greater difference in operation of national and regional economies.
Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

Investments from cohesion policy can make the most significant difference in areas which are strictly or almost strictly subsidised from public funding with high SF and CF (ESIF) proportion of total public spending (e.g. transport infrastructure, environmental infrastructure and digitalisation). These are the areas which allow for processing of mid-term investment plans with quantified objectives. Meeting the objectives and achieving progress in investment strategy funded from EU funds (state budget) requires continuous monitoring and co-ordination of national level.

Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

Effects of SF and CF funding (ESIF) will fully materialise in society only after a certain amount of time (depending on the industry). That is the reason why it is crucial to make sure that accessible funding is being invested right from the start of programming period 2014-2020 and to safeguard continuity with ending programming period 2007-2013. Aggregated positive effects of investments from cohesion policy which influence development of regional disparities can only be observed if sufficient amount of funding is invested, i.e. sometime around 2017/2018.

Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

Implementation

To achieve synergy in SF and CF funding (ESIF) implementation, it is inevitable to create functioning co-ordination mechanism on national level along with a framework for efficient and active interconnection of interventions. Responsible authorities should define mechanism (tools) allowing for practical achievement of synergy throughout the programming period. This requires concrete procedures and steps generating synergy (thematic, territorial and financial). Mutual information about focus and schedule of individual calls between MA and MB is not sufficient.

Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

To continue in targeted attempts to simplify the system for EU cohesion policy implementation in Slovakia. Despite measures undertaken on national and programme level, beneficiaries are still very sensitive about complexity of project preparation and implementation (financial and administrative burden) as well as frequent changes in
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legislation and rules. Moreover, beneficiaries feel unsecure during implementation process because of unstable rules of project implementation and fluctuation of staff from institutions in charge of SF and CF management and control (project managers). Here, it would be advisable to adopt and implement measures to increase qualification and expertise of staff involved in cohesion policy implementation.

Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

Assessment of the trends related to regional disparities

Typically, regional disparities are being assessed by means of pre-defined measurable indicators monitored on regional level. However, such set of assessment indicators must be defined by an institution in charge of regional development policy or the one assigning analysis/evaluation with regard to its purpose. In order to assess development of regional disparities in Slovakia, we recommend that a set of measurable indicators is created to form basis for monitoring of development in selected areas taking use of cohesion policy funding into consideration.

Responsible authority: Ministry of Transport, Construction and Regional Development SR/Central Coordinating Authority

Deeper assessment of cohesion policy benefits requires analysis of particular areas of support. It will not only allow for monitoring of aggregate indicators on the level of regional statistics, but also for performance of additional analysis using econometric models (micro and macro), counterfactual impact evaluation and subsequent analysis. Analysis on the level of such complicated document as National Strategic Framework (strategic priorities) is, cannot sufficiently describe the benefits of interventions.

Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities

Assessment of trends in development of regional disparities in the context of public policies or EU Cohesion Policy can be performed by authorised body Government’s Office (Central Co-ordinating Authority) and central state administration authority in charge of regional development. Information on regional disparities and solutions related to them are required not only in communication with European Commission, but also in relation to formation of national strategies and policies.

Responsible authority: Ministry of Transport, Construction and Regional Development SR/Central Coordinating Authority
Data collected from individual projects and aggregated to the level of measures, priority axis and programmes provide only limited information. First and foremost, it is vital to improve quality of database and its relevance/interconnection to the regional statistics. Here, it is necessary to perform significant adaptations in the approach to monitoring, especially in relation to applied measurable indicators. Annual reports provide data on achieved progress aggregated to the national level without regional division.

*Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities*

ITMS could contain independent module for analysis of regional aspects involved in cohesion policy implementation. To achieve that, quality of information on implemented projects and their focus has to improve to allow for further their analysis.

*Responsible authority: Central Co-ordinating Authority in co-operation with managing authorities*
14 Annexes

14.1 Annex 1 Questionnaire

QUESTIONNAIRE FOR BENEFICIARIES OF NON-REPAYABLE GRANTS FROM SF AND CF

Basis for SF and CF project preparation and implementation.
1. Please, indicate the type of your organisation:
   • central state administration body
   • regional administration body
   • local administration body
   • private company
   • NGO
   • other

2. What was your key motif for project preparation and implementation: (several options can be marked)
   • improved position/conditions of target groups
   • increased competitiveness of the company
   • improved functioning of one’s own organisation
   • job creation
   • reduction of regional disparities
   • others

3. Your projects is based on:
   • official development document of the town/municipality
   • official development document of the region
   • valid development document of the company
   • valid development document of the organisation
   • no connection to development document
Factors affecting the SF and CF implementation

4. What legislative factors influenced your project implementation: (several options can be marked)
   - missing legislation (insufficient legal framework) – 1 to 5
   - ambiguity of legal interpretation – 1 to 5
   - frequent changes in legislation – 1 to 5
   - new obligations based on valid legislation – 1 to 5
   - others, please state .................................. – 1 to 5

5. What economic factors influenced your project implementation: (several options can be marked)
   - unfavourable economic situation – 1 to 5
   - lack of qualified workforce – 1 to 5
   - feeble transport accessibility – 1 to 5
   - limited resources – 1 to 5
   - others, please state .................................. – 1 to 5

6. What are the aspects of SF and CF implementation which influenced implementation of your project: (several options can be marked)
   - possibility of using EU funds only in selected regions – 1 to 5
   - possibility of using EU funds only in for selected activities – 1 to 5
   - possibility of using EU funds only in for selected expenditures – 1 to 5
   - possibility of using EU funds only in for selected group of applicants/beneficiaries – 1 to 5
   - others, please state .................................. – 1 to 5

7. What financial factors influenced your project implementation: (several options can be marked)
   - deteriorating financial situation as a result of global crisis – 1 to 5
   - overall financial burden of project implementation – 1 to 5
   - long time needed for actual reimbursement of expenditures – 1 to 5
   - access to loans/bank guarantees – 1 to 5
   - others, please state .................................. – 1 to 5

8. What administrative factors influenced your project implementation: (several options can be marked)
   - burden of preparing monitoring reports on project implementation – 1 to 5
   - burden of processing application for payment – 1 to 5
   - lengthy public procurement process – 1 to 5
   - requirements for project publicity – 1 to 5
   - ambiguity of rules for implementation – 1 to 5
   - others, please state .................................. – 1 to 5
9. What institutional factors influenced your project implementation: (several options can be marked)
   - low level of support from institutional staff responsible for programme implementation – 1 to 5
   - insufficient level of qualification on the side of institutional staff responsible for programme implementation – 1 to 5
   - frequent changes among project managers in institutions responsible for programme implementation – 1 to 5
   - ambiguity of instructions and guidelines provided by institutional staff responsible for programme implementation – 1 to 5
   - way of communication on the side of institutional staff responsible for programme implementation – 1 to 5
   - others, please state .................................. – 1 to 5

10. What factors concerning your internal capacities influenced your project implementation: (several options can be marked)
    - overall lack of internal staff – 1 to 5
    - lack of internal staff with necessary qualification – 1 to 5
    - lack of experience with implementation of similar projects – 1 to 5
    - frequent changes among internal staff – 1 to 5
    - others, please state .................................. – 1 to 5

**Interconnection of the project with other activities (synergy)**

11. What is the territorial outreach of your project:
    - local
    - sub-regional (district)
    - regional
    - supra-regional
    - national

12. Is your project linked to its own completed or running development projects:
    - yes
    - no

13. Does your project form a follow-up to completed or running projects/activities of other entities:
    - yes
    - no
14. If your project forms a follow-up to completed or running projects/activities of other entities, please state in what thematic fields were these projects/activities performed:

(more options can be marked)
- transport infrastructure
- environmental protection
- waste management
- anti-flood measures (and crisis management)
- water and sewage system
- health infrastructure
- public space
- cultural and natural heritage
- tourism
- digitalisation of services
- improved internet access
- support for small and middle-size companies
- support to basic and applied research
- energy efficiency
- infrastructure of education
- quality of formal education
- lifelong learning
- active labour market policy tools
- social inclusion
- marginalised Roma communities
- building efficient public administration
- other fields

15. How does your project follow these projects/activities?

- utilizes particular outputs of projects/activities of other entities
- further develops outputs of projects/activities of other entities
- in order to implement your project, it was necessary to complete projects/activities of other entities
- the project is being implemented in the same thematic area as projects/activities of other entities
- complements projects/activities of other entities

16. To what extent have you considered implementation of other projects/activities during preparation of your project?

- fully
- partially
- to a minimum extent
- ignored it
17. To what extent have you considered implementation of other projects/activities during implementation of your project?

- fully
- partially
- to a minimum extent
- ignored it
14.2 Annex 2 Résumé

Use of Cohesion Policy in the 2007-2013 Programme Period

The disparities in the performance and the development between the regions of the European Union (EU) remain despite the efforts to reduce them, they even widened by the enlargement of the European Union to include the Central and East European countries. The EU key instrument for reducing the regional disparities between the regions is the cohesion policy. Pursuant to Article 158 of the Treaty establishing the European Community, it is aimed to reinforce the economic, social and territorial cohesion by supporting the less-developed and the disadvantaged regions in particular. European Social Fund, European Regional Development Fund, and Cohesion Fund are specifically used for these purposes.

The cohesion policy also contributed to achieving the Lisbon strategy (after 2010 the Europe 2020 strategy), which was the key EU development strategy, during the 2007–2013 programming period. The total budget for the cohesion policy for 2007 – 2013 accounted for EUR 347.41 million (EUR 308.04 million in prices from 2004). The long-term mission of the cohesion policy – reducing the economic, social and territorial disparities – should have been achieved in this programme cycle by supporting the convergence of the least developed regions and reinforcing the regional competitiveness, and employment. The applied European-level mechanism aimed to reduce the regional disparities within EU favours more backward regions in the form of providing more financial funds (81 % of all cohesion policy funds) and higher percentage of co-financing (up to 85 % of eligible costs).

For the Slovak Republic, a sum of EUR 11.5 billion was set aside from the total budget of cohesion policy for the 2007–2013 programme period. The National Strategic Reference Framework (NSRR) was prepared to use the EU aid. The strategic objective of the NSRF is “by 2013 to significantly improve competitiveness and performance of regions and the Slovak economy and employment while maintaining sustainable development”. To achieve the above objective it is considered crucial to concentrate the financial resources on the development of the i) Infrastructure and Regional Accessibility, ii) Knowledge-based Economy, and iii) Human Resources. The strategic priorities are fulfilled by means of 11 operational programmes. Geographically, 94 % of the total allocation for the country were intended for regions outside the Bratislava region.
Interestingly, neither the National Strategic Reference Framework nor the operational programmes contain any explicit objective aimed at the reduction of regional disparities in the country. Despite the existence of indicative regional allocations to regions (NUTS II), such allocations do not function as a distribution mechanism to provide specific support to less developed regions. The main reason is that the indicative allocation level to all NUTS II regions is comparable; nevertheless, the highest amount has been allocated to Western Slovakia, i.e. to the region with the highest economic performance, if we exclude the Bratislava region. That means that no mechanism was in place to
provide specific support to regions with lower economic performance and to reduce any regional disparities at the national level, and also at the level of operational programmes throughout the programming period 2007-2013.

The absence of a system support of the least developed regions could have been compensated, to a certain degree, by the chosen approach to regional concentration of financial resources. Regional concentration is based on localization of investments from SF and CF to innovative and cohesion growth poles, the support of which should enhance effectiveness of the EU funding and increase the contribution to overall convergence of the country. The innovation and cohesion growth poles are territorial units allowing to assume that they will provide better value for the money invested therein due to the economic and social importance of such settlements within the territory. Classification of settlements as innovation and cohesion growth poles has been derived from the settlement structure in the Slovak Republic (Concept of Territorial Development of Slovakia from 2001). 82 innovation growth poles have been identified (4 in the Bratislava region) – regional and district capitals. 891 cohesion growth poles have been determined (33 in the Bratislava region). SF and CF funds should be primarily absorbed by innovative and cohesion growth poles to maximise their effect on the development of the country and regions. In the context of the Slovak settlement structure the high number of selected growth poles, particularly the cohesion growth poles, has contra-productive effects on the territorial concentration. A total number of 973 municipalities, i.e. approximately one third of all municipalities in Slovakia (2,927), was classified as an innovation and/or cohesion growth pole. Generally, any municipality with the population exceeding 1,000 was classified as a growth pole. However, municipalities of low population are not able to increase the economic growth and the potential of the territory, as they do not play central roles and do not have sufficient functional links to surrounding regions. The location analysis of projects financed from the SF and CF indicates that the requirements for concentration of aid into selected growth poles were not respected in the implementation phase. By the end of 2014, at least 1 project financed from the SF and CF was implemented in up to 2,465 municipalities in Slovakia, which has reduced concentrating of resources into natural centres.

SF and CF have a very specific position in Slovakia, as in many fields their original function – to provide additional funding – changed and now they have become the main source of funding public investments. In 2011-2013, the share of the SF and CF and their national co-financing accounted for 85% of the total public investments in the Slovak Republic and was the highest among the EU countries. As of 31 December 2014, thus within 8 years of implementation, the Slovak Republic was able to draw 68.4% of the total funds allocated to the 2007-2013 programming period. Despite the significance of SF and CF for public investments, verifiable economic and social benefits at national and regional levels, particularly in the post-crisis period (after 2009), the absorption level of the funds available is low. By the end of 2014, the majority of programmes used the
allocated funds in the range of 65% – 75% of the funds made available. With regard to the level of funding at the time of the final report (78.70% as of 31 August 2014), we foresee that no more than 90% of Cohesion Policy funds allocated for the reduction of regional disparities by the end of the programme period 2007-2013.

**Total Development of Regional Disparities in Slovakia 2007-2014**

A feature of the Slovak regional structure is the disparity of regions accompanied with regional polarisation and hierarchy.

Regional disparities are understood as “differences in the level of socio-economic development of regions resulting from the imbalances in such development” (Matlovič, R., Klamár, R., Matlovičová, K., 2008).

Regional disparities are expressed as differences between the economic performance and the wealth of the regions (countries). They reflect the economic cohesion; such cohesion increases if “the disparities in the competitiveness of regions are alleviated” (Molle, 2007).

A multi-criteria decision-making using scores was selected to determine the socio-economic level of regions and identify regional disparities. The inputs used for the assessment are selected statistical indicators for the period of years 2007-2014 that are in relation to the strategic and specific 2007-2013 NSRF priorities.

Pursuant to the above method, Slovak regions could theoretically obtain a maximum of 4,400 scores of which 2,000 under Strategic Priority 1 Infrastructure and Regional Accessibility, 1,500 under Strategic Priority 2 Knowledge-based Economy, and 900 under Strategic Priority 3 Human resources.

**Table 1 Regional Disparities by SP and Regions in the SR (score)**

<table>
<thead>
<tr>
<th>Region</th>
<th>In 2007</th>
<th>In 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infrastructure and Regional Accessibility</td>
<td>Knowledge-based Economy</td>
</tr>
<tr>
<td>Bratislava</td>
<td>1,436</td>
<td>1,500</td>
</tr>
<tr>
<td>Trnava</td>
<td>1,015</td>
<td>396</td>
</tr>
<tr>
<td>Trenčín</td>
<td>586</td>
<td>386</td>
</tr>
<tr>
<td>Nitra</td>
<td>762</td>
<td>375</td>
</tr>
<tr>
<td>Žilina</td>
<td>657</td>
<td>403</td>
</tr>
<tr>
<td>Banská Bystrica</td>
<td>941</td>
<td>184</td>
</tr>
<tr>
<td>Prešov</td>
<td>910</td>
<td>156</td>
</tr>
<tr>
<td>Košice</td>
<td>463</td>
<td>396</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>284.33</td>
<td>398.79</td>
</tr>
<tr>
<td>Variation range</td>
<td>973</td>
<td>1,344</td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>0.2463</td>
<td>0.4110</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, COLSAF, calculations made by the authors

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24 If the value of any statistical indicator was not available for 2014, such value was established as an estimate made by an expert (expert estimate). Indicator values for 2014 were determined based on the 2007-2013 development of the values of relevant statistical indicators by the use of average y/y growth indices.
According to the socio-economic level in 2014, the Bratislava region has the best position in the regional structure and the best scores (3,658; 83.14% of the maximum scores) and is the only dynamically developing region (Table 1). It is entitled to hold this position due to the highest score reached for all three strategic priorities. The second position in the regional structure of Slovakia is held by the Trnava region (1,673; 38.03% of the maximum scores) that belongs to the developing regions.

In case of other regions, in the context of the analysed indicators there is a certain “shift” in the types of Slovak regions according to their socio-economic levels. While in 2007 the Trenčín, Žilina, Nitra, and Prešov regions were in the group of slightly developing regions, only the Žilina region remained in this category in 2014. Due the lower scores in 2014, the position of the Trenčín, Nitra, and Prešov regions in the regional structure is worse than in 2007, according to their socio-economic levels they are in the category of partially stagnating Slovak regions.

In comparison with 2007, the number of the so-called stagnating regions has increased, when in 2014 the stagnating regions are the Košice (score: 1,047) and the Banská Bystrica (score: 1,125) regions. The position of the latter “slumped” due to the lower scores.

In the analysed period the values used to measure RD increased slightly, the value of standard deviation has increased from 781.11 to 809.11, variation range from 2,575 to 2,612, and the Gini coefficient from 0.2625 to 0.2791 (Table 1), which suggests a slight deterioration of regional disparities. RD between the Bratislava region and other Slovak regions deteriorate. On the other hand, if we abstract from the dominant position of the Bratislava region in the structure of Slovak regions, than the variation of the scores obtained by other regions decreases and the group of the other 7 regions become partially balanced in terms of RD.

**Development of Regional Disparities in the Area of Human Resources**

The efficiency of the majority of economic activities in the territory is directly or indirectly affected by the public infrastructure available in the fields of transport, environment and civil infrastructure of towns and municipalities. Nevertheless, the availability and the quality of infrastructure are not the only aspects needed to make a territory more attractive. It is also necessary to create adequate conditions so that the use of the regional infrastructure and better accessibility result in the growth of the services that are linked with such infrastructure. In this respect, specific attention has to be paid to healthcare and social infrastructure.

The objective of Strategic priority 1 Infrastructure and regional accessibility was to enhance the infrastructure of regions covering areas like transport, environment and civil infrastructure in towns and municipalities. The support was absorbed in four specific areas: Regional infrastructure, environmental infrastructure and protection of
environment, transport infrastructure and public passenger transport as well as modernisation of health infrastructure.

Total expenditures incurred under Strategic Priority 1 Infrastructure and Regional Accessibility were EUR 5.5 billion, which was 58.8% of the total expenditures invested in NSRF 2007-2013. In terms of specific areas, the largest volumes of funds (EUR 2.5 billion) were absorbed in Transport Infrastructure and Public Passenger Transport (79 supported projects) and Regional Infrastructure (EUR 1.46 billion) (2,645 supported projects). Environmental Infrastructure and Protection of the Environment was supported by EUR 1.25 billion (695 projects) and Modernisation of Health Infrastructure by EUR 272.4 billion (75 projects).

Individual projects were funded in compliance with the objectives and measures of operational programmes – Regional Operational Programme, OP Competitiveness and Economic Growth, OP Environment, OP Healthcare, OP Transport, and OP Bratislava Region.

The highest efficiency of absorption was recorded in OP H, where 93.2% of the funds allocated had been absorbed as of 31 December 2014. It was followed by ROP with a success rate of 74.9%, OP T with 68.5 % and finally by OP E with an absorption of 58.4% of the funds allocated.

The largest amounts were absorbed in the Trenčín region (EUR 1.2 billion), the Žilina (EUR 1 billion), and the Prešov region (EUR 952.2 billion). The smallest amount was allocated to the Bratislava region (EUR 193.1 million); in terms of territorial eligibility this region was beyond the area of support in several cases.
Chart 2 Regional Disparity and Expenditures Incurred under Strategic Priority
1 Infrastructure and Regional Accessibility and its specific priorities as of 31 December 2014

2. Infrastructure and Regional Accessibility

1.1 Regional infrastructure

1.2 Environmental infrastructure and protection of the environment

1.3 Transport infrastructure and public passenger transport

4 Modernisation of health infrastructure

<table>
<thead>
<tr>
<th>Regionálie disparity (počet bodov)</th>
<th>Regional disparity (score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realizované výdavky</td>
<td>Incurred expenditures</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, ITMS, calculations made by the authors

The absorption of funds under Strategic priority 1 takes into consideration the social-economic status of individual regions of Slovakia with the exception of the region of Košice which ranks last in the regional structure of Slovakia and the financial intervention reached only the half the support of the Trenčín region (Figure 2).
Based on an analysis of selected measures of Strategic Priority 1 Infrastructure and Regional Accessibility and assessment of their contribution to the reduction of regional disparities, it can be stated that in the period under survey:

- **Measure 1.1 Integrated Protection and Rational Utilisation of Water Resources** supported projects which built 186.82 km of drinking water distribution networks and 956.47 km of sewerage networks. As of 31 December 2014, 33,019 inhabitants were connected to the newly built drinking water distribution networks, and the number of inhabitants connected to the newly built sewerage networks reached 44,195. 43 sewage treatment plants were newly built or reconstructed. In all monitored indicators, disparities between the regions of Slovakia were reduced in the period under survey. The percentage of population supplied by drinking water from public water mains has increased by 1% since 2007 and the percentage of population connected to sewerage networks has risen by over 10%. Based on the values of measurable indicators of Measure 1.1 projects after their successful implementation, it is expected that the number of inhabitants supplied by drinking water will rise by 72,072, which represents more than 1% of Slovakia’s population. At the same time it is expected that the number of inhabitants connected to sewerage networks will increase by 301,567, which amounts to 5.5% of Slovakia’s population.

- Within the supported projects of **Measure 4.1 Waste Management**, funds were invested in the construction or modernisation of 147 waste separation facilities, which separated 113,226 tons of waste a year. Further funds went into the construction or modernisation of 100 material waste recovery facilities (building waste, plastics, edible oils and fats etc.), which recovered 356,018 tons of material waste a year. 8 hazardous waste treatment facilities were built. 19 environmental burdens were eliminated and 47 waste disposal sites were closed down and rehabilitated. The development of statistical indicators points to a favourable development in the area of waste management and reduction in regional disparities. In terms of waste separation, 62% of the waste was separated within projects supported from the Cohesion Fund. It is also where 85% of funds invested in the elimination of environmental burdens in the period of 2010-2014 came from. The highest financial support within Measure 4.1 Waste Management went to regions with the lowest rate of waste recovery and separation (Banská Bystrica and Košice regions).

- Thanks to EU funds, 64.31 km of railways were modernised under **Measure 1.1 Modernisation and Development of Railway Infrastructure**. The implementation of projects focused on the modernisation of railways is highly time-consuming and costly. Since there was a need to ensure continuity especially in the construction of sections of main rail infrastructure, funds were invested especially in Trenčín and Žilina regions in this programme period. In the next period it is expected that support will gradually move to the regions of central and eastern Slovakia. A contribution of the implementation of SF and CF support to reducing regional disparities in rail
transport will become obvious only after rail infrastructure is modernised across the whole territory of the Slovak Republic.

- Within Measure 2.1 Motorway Construction (TENT-T), EU funds were invested in the construction of 22.07 km of new motorways, which accounts for 41% of the total length of 53.6 km (of which 9.6 km were built in the Trenčín region, 9.15 km in the Žilina region and 3.32 km in the Prešov region). The implementation of projects supported within the measure is crucial for reducing regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers. The construction of new motorways will enhance the quality of Slovakia’s connection to road networks of the neighbouring countries and improve the accessibility of individual regions of Slovakia. It will also attract foreign investments, increase tourism and enhance Slovakia’s global competitiveness.

- Within Measure 5.1 Construction of Expressways (TENT-T), EU funds were invested in the construction of 42.25 km of new expressways, which accounts for 42% of the total newly built length (of which 23.75 km were built in the Banská Bystrica region, 14.18 km in the Košice region and 4.3 km in the Žilina region). Like in the case of motorways, the implementation of projects supported under this measure is crucial for reducing regional disparities because the projects make a considerable contribution to the improvement of quality (continuity and safety) in road transport for regional, national and international (transit) hauliers, especially in the regions of southern Slovakia where the network of main roads is considerably underdeveloped.

- Thanks to EU funds within Measure 5.2 Modernisation and Construction of First-Class Roads 15.18 km of new first-class roads were built and 432.4 km modernised. First-class roads are important for international and national road transport, interconnection of regions, seats of governments of self-governing regions and districts, connection to road networks of the neighbouring countries, and they also ensure the transport accessibility of the whole territory. About 50% of all transport performance is generated on first-class roads. Projects supported from SF helped modernise 13% of first-class roads. Modernisation also improved the safety of road traffic; as a result, the number of road traffic casualties is decreasing in Slovakia. Since 2007 their number has dropped by 41%, from 627 to 259. In this respect it can be stated that contributions from SF have considerably improved the quality and safety of first-class roads.

- Measure 1.1 Infrastructure of Education has made a significant contribution to reducing the long-term accumulated debt when it comes to modernisation and operation of school infrastructure. Essential structural changes have been made using materials with better thermo-insulating properties, there has been an increase in the use of renewable energy resources, especially when it comes to meeting capacity and space requirements. School buildings have improved their energy efficiency by reducing their energy intensity. Thanks to extension and modernisation of kindergartens, there has been a reconciliation of family and working life. Last but not
least, the measure has helped create conditions for social integration in kindergartens and primary schools which are located in villages with a higher number of members of marginalised Roma communities. The projects have also significantly contributed to the improvement of the education process and education activities. Moreover, also the contribution to higher energy efficiency of buildings, elimination of barriers and thus higher mobility, and the contribution to job creation are not insignificant. The objects that had received support had their walls (a total area of 2,917,151 m\(^2\)) thermo-insulated. Renewable energy resource facilities increased their installed capacity by 2.82 MW, the energy intensity of building decreased by 50% on average and yearly savings of energy amounted to 629,282.03 GJ. In compliance with the objective of ROP, financial interventions focused especially on the development of the NUTS II Eastern Slovakia region.

- Interventions within *Measure 1.1 Regeneration of Settlements* were directed at the tangible infrastructure of cities and municipalities as focal points of settlement in regions. Support went to 546 projects, which have contributed to the sustainability and attractiveness of towns. The projects helped reconstruct 200.6 km of local roads, and thanks to Structural Funds 42% of inhabitants live in a more competitive environment. 55 projects were focused on the support of housing infrastructure. With the support of Structural Funds, 56 development documents were drawn. From a territorial point of view, 54% of settlements which had been identified as cohesion and innovation growth poles received support.

**Development of Regional Disparities in the Area of Knowledge-based Economy**

The objective of *Strategic Priority 2 Knowledge-based Economy* is the development of resources of sustainable economic growth and the increase in competitiveness of the industry and services. Contributions from the Structural Funds have focused on projects that will make the environment more attractive for the performance of innovative activities by global corporations and will encourage local innovative capacities to create and develop competitive innovative clusters.

A significant factor in supporting the knowledge-based economy was also modernisation of the infrastructure of universities aimed to increase the quality of educational process. Efficient e-Government helps significantly to reduce the administrative burden of the population. Interventions have focused on the modernisation of state administration, regional and municipal government through information and communication technology, with the aim to increase the quality of supply, transparency and efficiency of public services provided to the population and businesses.

Expenditures related to the support of Knowledge-based Economy accounted for 29.1% (EUR 2.3 billion in 2,535 projects) of the total expenditures in the programme period. The highest volume of funds intended for the support of knowledge-based economy was
used to support research and development (EUR 968.9 million, 42.3%; 632 projects), then the competitiveness of enterprises and services (EUR 707.7 billion, 29.6%; 1,683 projects) and, finally, information society (EUR 649 million, 28%; 220 projects).

The projects were funded in compliance with the objectives and measures of operational programmes – OP Research and Development, OP Competitiveness and Economic Growth, OP Information Society and OP Bratislava Region. In terms of operational programmes, the highest volume of funds, EUR 968.9 million, was absorbed by 479 projects within OP R&D, which constituted 42.3% of funds invested in the whole strategic priority. In OP CaEG support reached EUR 677.7 million (29.6%) in 1,530 projects and in OP IS EUR 644 million (28%) in 98 projects. In the Bratislava region the area of knowledge-based economy was supported by EUR 36 million in 285 projects from OP BR under Priority Axis 2 Knowledge-based Economy. The highest efficiency of absorption was recorded in OP H, where 68.1% of the funds allocated had been absorbed as of 31 December 2014, further OP IS with 64.9% and OP CaEG with an absorption of 59.5% of the funds allocated.

The largest amount of funds was absorbed in the regions of Bratislava (EUR 434 million; 439 projects), Banská Bystrica (EUR 408.8 million; 334 projects), Košice (EUR 395.2 million; 277 projects) and Žilina (EUR 357.4 million; 359 projects). The Bratislava region ranked first thanks to a high concentration of research potential, which had absorbed more than EUR 235 million. In the Banská Bystrica region (EUR 219.4 million) and in the Prešov region (EUR 177.2 million) the biggest financial allocations went into the support of innovations, competitiveness and tourism.

Under Strategic Priority 2 Knowledge-based Economy, the largest volumes of funds went to the Bratislava and Košice regions, which have the highest concentration of public administration institutions, research institutions and other organisations whose competitiveness could be enhanced through innovations.

One of the objectives of Strategic Priority 2 Knowledge-based Economy was information society. As a result, funds were used to support e-government, digital content and availability of broadband Internet. The largest amounts were absorbed in the Bratislava region. Support also went into the electronisation of public administration at local and regional levels; as a result, the other regions received approximately equal amounts of funds.

In the Bratislava region support also went to projects in compliance with a specific priority focused on research and development. A low rate of absorption of structural funds for the infrastructure of higher education institutions might be in compliance with the eligibility of the Bratislava region according to this specific priority, but since the infrastructure of higher education institutions is in a condition which does not meet their needs, it would require higher allocations and subsequent absorption. Under this specific priority, relatively little funds went to research and development, the only exceptions being the Bratislava and Košice regions. Prešov, Žilina and Banská Bystrica were more
successful in the implementation of projects under specific priorities focused on support for the competitiveness of enterprises and services through innovations. Although the Trenčín region was eligible to apply for funds under all specific priorities of Strategic Priority Knowledge-based Economy, since only a low number of projects were successful, it achieved the lowest absorption rate (Figure 3).

Chart 3 Regional Disparity and Expenditures Incurred under Strategic Priority 2 Knowledge-based Economy and its specific priorities as of 31 December 2014

<table>
<thead>
<tr>
<th>2.1. Information society</th>
<th>2.2 Research and development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regionálne disparity (počet bodov)</td>
<td>Regionálne disparity (počet bodov)</td>
</tr>
<tr>
<td>Realizované výdavky</td>
<td>Realizované výdavky</td>
</tr>
<tr>
<td>56 000 000 EUR</td>
<td>110 000 000 EUR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.3 Infrastructure of higher education institutions</th>
<th>2.4 Support for the competitiveness of businesses and services primarily through innovations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regionálne disparity (počet bodov)</td>
<td>Regionálne disparity (počet bodov)</td>
</tr>
<tr>
<td>Realizované výdavky</td>
<td>Realizované výdavky</td>
</tr>
<tr>
<td>24 000 000 EUR</td>
<td>63 000 000 EUR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Knowledge-based economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regionálne disparity (počet bodov)</td>
</tr>
<tr>
<td>Realizované výdavky</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regionálne disparity (počet bodov)</th>
<th>Regional disparity (score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realizované výdavky</td>
<td>Incurred expenditures</td>
</tr>
</tbody>
</table>

Source: Statistical Office of the Slovak Republic, calculations made by the authors
Based on an analysis of selected measures of SP 2 Knowledge-based Economy and assessment of their contribution to the reduction of regional disparities, the following conclusions can be made.

- **Measure 1.2 Electronisation of Public Administration and Development of Electronic Services at Central Level** was focused on the creation and sustainable development of basic components of an integrated information system of public administration through investments in shared hardware and software and applications supporting the efficient performance of processes in state administration, which would enable the integration of ICT and selected public administration processes into one point – “front office”.

  74 calls for applications with a total allocation of EUR 602.1 million were published under Measure 1.2; 41 projects totalling EUR 785.2 million were contracted. The objectives of the measure were implemented through national projects aimed at contributing to the quality of public administration services provided across Slovakia.

  The measure was implemented at national level and therefore has had no effect on the development or changes in regional disparities. In addition, several projects under the measure are still being implemented, which does not allow an exact assessment of the results and contributions of the measure in the context of regional disparities.

- **Measure 1.1 Innovations and Technology Transfers** is aimed to support the private sector where the so-called main stone innovations and technology transfers offer a solution to reduce energy intensity and environmental impacts and increase production efficiency and enhance the competitiveness of private entities. The measure also involved encouraging SMEs and producers to participate in trade fairs and exhibitions, as well as activities aimed at promoting Slovakia’s industrial potential.

  The total budget allocated to the measure was EUR 488.2 million. 14 calls for applications were published, 2,951 project proposals were submitted, of which 1,181 totalling EUR 536.5 million were approved. Expenditures totalled EUR 234.8 million (48.1% of the total budget) and differed from region to region (Nitra EUR 48.1 million; Banská Bystrica EUR 36.6 million; Prešov EUR 37.2 million; Žilina EUR 35.3 million; Trenčín EUR 30.7 million; Trnava EUR 23.9 million; Košice EUR 23 million; ITMS). Besides demand-oriented projects, there was also a national project aimed at promotion of Slovakia’s industrial potential and provision of free services to SMEs to promote them at exhibitions abroad (EUR 388.8 million).

  In the context of regional disparities, we considered appropriate to analyse the number and spatial differentiation of enterprises with innovations. There are 2,885 enterprises with innovations registered in Slovakia, which represents an increase of 210% compared to 2007. The rise has been largely due to the Bratislava region (+1,704), which is not eligible for support under the measure. The number of enterprises with innovations has also increased in the NUTS II region of Eastern
Slovakia (+52 enterprises) while there has been a decrease in the other regions, and this despite the highest volume of expenditures.

In terms of the development of regional disparities, an indicator we consider relevant is the participation of SMEs in local and foreign trade fairs and exhibitions – 71 entities participated (50.7% of the target value); the number of innovative production methods – 571 were registered, most of which were in the regions of Žilina, Banská Bystrica, Trnava and Prešov; and the number of patent applications submitted – there were 11, 6 of which were submitted in the Banská Bystrica region, 3 in the Žilina region, 1 in the Trenčín region and 1 in the Nitra region.

Measure 1.1 has supported the development of innovative environment in the private sector, raised awareness of production sector entities and SMEs and positively contributed to the reduction of regional disparities among 7 regions of Slovakia which were eligible for support under Measure 1.1.

- Measure 3.1 Support of Business Activities in Tourism The principal focus of the measure is to support projects related to the provision of services, using investments intended to enhance tourism attractiveness and services with an emphasis on the year-round use of tourism capacities and related services. The implementation of the measure was supposed to contribute to the creation of complex year-round tourist services and new innovative services with higher added value, to the improved quality of customer services and extended stays of foreign tourists in Slovakia.

The total budget allocated to the measure 3.1 was EUR 195.3 million. 8 calls for applications were published, 1,280 project proposals totalling EUR 1.1 million were submitted. 229 project proposals were approved, of which 200 totalling EUR 181.7 million were contracted. As of 31 December 2014, expenditures had reached EUR 112 million (58.4% of the total budget; ITMS), most of which had gone to regions where tourist regions of national or international significance can be found (Banská Bystrica 36.8%; Prešov 25.1%, Žilina 16.7%). Expenditures contributed not only to an improved quality and extension of services, but also to a growth in the number of tourists visiting Slovakia (3,727.7 thousand), revenues from the accommodation of tourists in accommodation facilities (EUR 50.2 thousand per 1,000 inhabitants) and mitigation of regional disparities.

- Measure 2.2 Transfer of Knowledge and Technology from Research and Development into Practice and Measure 4.2 Transfer of Knowledge and Technology from Research and Development into Practice in the Bratislava Region. Both measures aimed to increase cooperation of research and development institutions with social and economic practice through the transfer of knowledge and technology with the aim to enhance the competitiveness of convergence regions (Measure 2.2) and the Bratislava region (Measure 4.2). Measure 2.2 was allocated EUR 460.9 million, 15 calls for applications were published, 536 project applications were received, 189 of them were approved and 178 totalling EUR 573.9 million were
contracted. As of 31 December 2014, 72 projects under the measure were completed properly and 9 projects were terminated. Measure 4.2 was allocated EUR 271.9 million, 15 calls for applications were published, 241 project applications were received, 88 of them were approved and 81 contracted.

EUR 332.2 million under OP Research and Development had been invested to support transfer of knowledge and technologies from research and development into practice as of 31 December 2014. 41.18% of these funds (EUR 133.1 million) were spent on projects implemented under Measure 4.2 in the Bratislava region and 58.8% (EUR 190.1 million) on projects implemented under Measure 2.2 in the other seven regions of Slovakia. Expenditures under Measure 2.2 differed from region to region (Trnava EUR 39.8 million, 20.9%; Žilina EUR 34.9 million, 18.4%; Košice EUR 31.9 million, 16.8%; and Nitra EUR 24.5 million, 12.9%). 6 national projects were implemented or are still being implemented under Measure 2.2 and 5 national projects under Measure 4.2. The implementation of projects has contributed to the creation of jobs in research and development. Their number has risen by about 2,600. The highest rise has been recorded in regions with a concentration of research and development institutions and research universities (Bratislava, Košice and Žilina regions). A rise of about 15-20% in the number of researchers in employment has also been due to jobs created under Measures 4.2 and 2.2. It is positive that the implementation of projects under the analysed measures has mitigated regional disparities.

- **Measure 5.1 Building Infrastructure of Higher Education Institutions and Modernisation of Their Interior Equipment Aimed at Improving Conditions of Educational Process** through investments in tangible infrastructure.

The total allocation for Measure 5.1 amounted to EUR 285.3 million. 5 calls for applications were published, 102 applications were received, 76 of them approved and 75 contracted. Up to now 38 projects totalling EUR 16.9 million have been properly completed.

The absorption of funds differed from region to region (Banská Bystrica 21.6%, EUR 47.8 million; Žilina 18.5%, EUR 40.1 million; Košice 19.9%, EUR 39.7 million; Nitra 14.9%, EUR 32.9 million; Trnava 13.4%, EUR 29.6 million; Trenčín EUR 12.7 million; Prešov EUR 17.6 million).

7 new buildings and facilities have been built under Measure 5.1 (100% of the target value), 86 buildings and facilities have been refurbished and reconstructed (209.7% of the target value), 3,018 classrooms have been equipped with modern ICT networks as a result of the implementation of a project (99.5% of the target value) and 221.4 thousand students benefit from better quality infrastructure. The implementation of projects has improved the quality of higher education infrastructure, especially in regional centres where most higher education institutions are located, and reduced
regional disparities among 7 regions of Slovakia, where projects under the measure 5.1 were implemented.

**Development of Regional Disparities in the Area of Human Resources**

The aim of Strategic Priority 3 Human Resources is to increase employment, quality of workforce for the needs of knowledge-based society and social inclusion of vulnerable groups. Financial interventions focused mainly on educational reforms, mitigation of the level of unemployment and issues of social inclusion focused on marginalised Roma communities.

Interventions focused on two areas – Modern Education for Knowledge-based Society and Supporting Employment Growth and Social Inclusion. Expenditure on the support of Human Resources accounted for 12.8% (EUR 1.3 billion) of the total expenditure. Almost one third of the amount (EUR 476.4 million; 1,050 projects) was implemented to support education and more than two thirds (EUR 892 million; 1,508 projects) to support employment growth. Projects aimed at increasing the quality of human resources were funded from the operational programmes – OP Education and OP Employment and Social Inclusion and were implemented in all Slovak regions. As of 31 December 2014, the efficiency of drawing was 80.6% and 71.6% for OP E&SI and OP Education, respectively.

The territorial distribution of expenditures allocated on the support of activities within the Strategic Priority 3 Human Resources closely corresponds to the situation in the labour market in individual regions. Most funds were directed into the regions of Prešov (EUR 195 million; 751 projects), Košice (EUR 182.9 million; 461 projects), Banská Bystrica (EUR 172.8 million; 484 projects), which have appeared most problematic in terms of quality of human resources and have shown the highest unemployment rates for a long time. The lowest intervention was allocated to the Bratislava region (EUR 26.9 million; 147 projects) which has persistently achieved the highest employment rates and the lowest unemployment rate in the SR.

In terms of the defined regional disparities and drawing of funds under Strategic Priority 3 it can be observed that the allocation of financial interventions reflects the socioeconomic position of Slovak regions and the majority of funds were allocated to regions with the worst position in the Slovakia’s regional structure – the Košice, Prešov and Banská Bystrica regions (Figure 4).
Based on an analysis of selected measures of Strategic Priority 3 Human Resources and assessment of their contribution to the reduction of regional disparities, the following conclusions can be made:

- **Measure 1.1 Transformation of Traditional School into a Modern One** The objective was to implement the content reform of education at primary and secondary schools and to prepare school leavers for the current and prospective needs of a knowledge-based society and the continuing education in the system of universities and further education. 27 calls for applications with an allocation of EUR 605.3 million were published under Measure 1.1. 2134 projects were received, 708 were approved with a total contribution of EUR 401.8 million and 638 were contracted. 374 projects were duly completed (EUR 81.5 million) and 25 projects were terminated early. As of 31 November 2014, the drawing was EUR 189.6 million (58.1% of the contracted project budget), the highest shares were in the regions of Prešov (17.7%; EUR 33.7 million), Košice (16.3%; EUR 30.9 million), Nitra (16.2%; EUR 30.7 million).
and Žilina (13.9%; EUR 26.5 million). The shares of other regions account for approximately 11%. 6 national projects were implemented within the Measure, too. The number of implemented projects was 976, which was approximately 8 times the target value. Since a number of national and many demand-oriented projects are underway, the impact of their implementation on the development of regional disparities cannot be clearly and accurately identified at present. Territorial allocation of the funds used is in line with the needs, with the highest share in the Prešov, Košice and Nitra regions which have shown the highest unemployment rate of secondary school leavers up to 26 (Prešov region 46.5%; Banská Bystrica region 45.8%, Košice region39.1%, Nitra region 31.8%) a effectively contribute to mitigation of RD.

- **Measure 2.1 Support of Continuing Education** is focused on creating and developing an effective lifelong learning system and improving quality of further education with emphasis on developing key competences and improving the qualifications of employees. 9 calls for applications were announced and 129 applications were received with an amount of the requested contribution of EUR 256.6 million; 77 projects (EUR 149.1 million) were approved and 72 projects were contracted, as of 31 December 2014. 9 projects were duly completed and 4 projects were terminated early. The amount of expenditure totalled EUR 60.6 million (ITMS) and the use of funds within the eligible territory of 7 regions was relatively even ranging from EUR 8.4 million (13.9%) in the Trnava region to EUR 9.1 million (14.96%) in the Prešov region. Demand-oriented or national (7) projects have been or are implemented under the Measure. In terms of the objectives of the Measure in the context of regional disparities we consider as relevant the indicators of the number of people participating in lifelong learning per 100 inhabitants aged 25-64 and the number of lifelong learning programmes. The number of LL participants in 2014 decreased compared to 2007 from 332.5 thousand to 256.8 thousand, regionally differentiated. The share of LL participants per 100 inhabitants aged 25-64 is regionally differentiated, from 3.1 (Nitra region) to 8.3 (Košice region). 762 programmes were supported as part of the implementation of the Measure. It was 612 more than the target number of 150 programmes. 987 programs were supported within the national projects and 3% of inhabitants aged 25-64 participated in LL which is 9.5% of inhabitants aged 25-64 fewer than the target value of 12.5%. Several projects are still being implemented and it is not possible to definitely evaluate the contribution of the measure on the development of regional disparities. It can be assumed that increased competences, skills and qualifications of economically-active population will constitute a competitive advantage regarding employability, which may, with a certain time delay, positively reflect in reducing regional disparities in the area of human resources.

- **Measure 1.1 Promoting Programmes in the Area of Employment, Solving Unemployment and Long-Term Unemployment** aimed at addressing Slovakia's major
issues on the labour market, particularly low employment rate, high unemployment rate concerning long-term unemployed, young unemployed and school leavers. The total budget for the Measure was EUR 570.2 million. 39 calls for applications had been announced and 42 NFC applications with a budget of EUR 895.5 million received as of 31 December 2014. 40 applications were approved (EUR 871.4 million), 39 projects were contracted (EUR 730.2 million). 23 projects are implemented at present. As of 31 December 2014, the amount of expenditure totalled EUR 589.4 million (ITMS). The highest expenditure was in the regions of Prešov (EUR 100.4 million; 17.1% of expenditure), Košice (EUR 97.5 million; 16.5%), Nitra (EUR 84.5 million; 14.3%), Žilina (EUR 84.7 million) and Banská Bystrica (EUR 81.1 million; 13.8%). The development of employment rate of people aged 15-64 showed fluctuations in 2007-2014 with distinctive regional differences in the territorial differentiation of the employment rate of people aged 15-64 (Trnava region 64.3%; Trenčín region 60.7%, Nitra region 60.2%, Košice region 54.6%, Prešov region 55.2%). Similar characteristics are demonstrated by the unemployment rate which is highly above-average in the regions of Košice (15.9%; as of 31 December 2014), Banská Bystrica (17.2%) and Prešov (17.5%). The long-term unemployment rate in the regions of Banská Bystrica (12.1%), Prešov (12.1%) and Košice (11.3%) is approximately 50 to 60% higher than the average in the SR (7.5%). According to the analysed indicators, there are differences at the level of regions with reducing regional disparities. The highest share of implemented funds was located in the regions with a below-average employment rate of people aged 15-64 and the highest rates of registered and long-term unemployment, i.e. the regions of Prešov (17.1%), Košice (16.5%), Banská Bystrica (13.8%) and Nitra (14.3%). The share of other regions is about 12% (Trnava 11.6%; Trenčín 12.4%). OP E&SI declared as the target value 110,713 created jobs, of which in accordance with the implementation of the measure the actual number of created jobs was 77,905 (70.4%) with a year-on-year growth of 11.6%. From the point of view of regions, year-on-year growth in jobs of 0.1% to 3.5% was recorded by all regions, except for the Trnava and Trenčín regions. The actual unemployment rate (12.1%) is 4.5% higher than the target value (8%) of the measurable indicator. However, in terms of time aspect, the target value of the indicator could not reflect the adverse effects of the financial and economic crisis on the labour market. The number of persons retaining their job increased year-on-year by one third (approx. 3,700) of persons and the fulfilment compared to the target value is only 23.2%. Cohesion policy instruments in 2007-2013 in support of Measure 1.1 partially contributed to addressing the situation on regional labour markets, to stabilising and a slight decrease in the registered unemployment rate at the national and regional levels and to reducing regional disparities. However, regional disparities of the structural nature of the labour market – long-term unemployment rates represent a serious problem. The exact evaluation of overall benefit of non-investment projects implemented under the measure and their
contribution to RD will be possible with a certain time delay after completing the implementation of all projects.

Other Aspects Connected with the Development of Regional Disparities

A way of improving the effects resulting from the implementation of the Cohesion Policy on the economic and social development including the reduction of regional disparities is the strengthening of the synergies and synergic effects. Despite the extensive description of co-ordination of SF and CF use with other policies and financial tools in NSRF, the fact is that in implementation of cohesion policy, a functioning system was not established which would effectively stimulate interconnection between interventions in order to achieve synergy.

Throughout implementation of SF and CF, just independent initiatives occurred attempting to intertwine investment and non-investment interventions. The first indication of support for synergy was a mutually harmonised call for proposals for NG as part of OP Employment and Social Inclusion and OP Competitiveness and economic growth. At the end of the day, calls which were co-ordinated in time and theme, did not manage to interconnect investment and non-investment projects tailored for the private sector. Another area in which co-ordination and actual interconnection of interventions should have been a bearing component, was support of marginalised Roma communities. In fact, Slovakia was the first country to define complex system of measures tackling unfavourable situation and living conditions of Roma while employing cohesion policy resources. To apply a complex approach enforcing implementation of several investment and non-investment activities in location with high proportion of MRC, European Commission allocated EUR 200 mil. The original requirement to implement at least 6 logically interconnected interventions for improvement of the situation in MRC in given location was abandoned for several reasons and at the end of the day, beneficiaries could implement at least 2 projects. As a result of the fact that implementation of operational programmes and local strategies was not harmonised, principles of complexity being weakened and administrative problems being present, one cannot regard local strategies of complex approach as tool capable of generating synergic effects between SF and CF interventions.

In the light of aforementioned, applicants/beneficiaries were not actively incentivised to seek and create synergy in programming period 2007-2013. It was feasible to intertwine the projects in their contents, timeline and geographic location, but the actual setting of the SF and CF implementation was very complicated. Process of preparation, assessment and selection of applications for NG failed to contain mechanism supporting synergy. The results of the survey carried out between the beneficiaries receiving assistance from SF and CF indicate that the key motif for preparation and implementation of SF and CF projects was for public administration (mainly local administration bodies) to improve the status of a target group. Private sector entities focused on the objectives of their own
organisation (competitiveness and development). In the context of assessment of impacts of cohesion policy implementation on the reduction of regional disparities, it has to be noted that only about 4% of beneficiaries stated that their primary motivation for project implementation was tackling the problem of regional disparities. The SF and CF assistance is in many cases perceived as one-off opportunity to gain funding without more profound connection to other activities. Data suggest that more than one third of beneficiaries did not base their projects on any development document, whether on the level of local administration or its own organisation. At the same time almost 70% of all respondents declared certain links between implemented projects and their own previous activities and just slightly more than 40% of all entities followed-up activities of other entities with their projects. Consequently, majority of beneficiaries did not actively seek ways of interconnecting their projects with completed or pending projects of other entities in given territory. In case that beneficiaries and their projects had certain link to activities implemented by other entities, the most frequent connection was follow-up to project outputs (29%), complementary activities of other entities (26%) and thematic interconnectedness (23%). Co-ordination of development activities and their connection to strategic priorities of programme documents focuses mainly on local level. Thus, expected benefit of synergic effects fails to exceed its local dimension and penetrate into synergies on higher hierarchic levels. That is the reason why local projects with thematic and geographical links to the territory failed to generate synergies in programming period 2007-2013 which would statistically significantly influence development of regional disparities in aggregate. In order to identify incidence of projects with synergic potential, 13 pairs of measures were selected out of six OP which are close in theme. Likelihood of synergy formation lied in implementation of projects from measures focusing on modernisation of existing or building of new infrastructure and subsequently, measures implemented via soft projects in social and educational spheres. Overall, it can be stated that incidence of projects implemented from amongst measures which could generate synergy in location is low. The most frequently occurring combination was support to reconstruction of school facilities and improvement of educational process – it occurred in 203 municipalities. Combination of interventions generating space for thematic interconnection of intervention from various measures were naturally statistically mostly present in towns, i.e. in municipalities with higher number of inhabitants. At the same time, it can be stipulated that the highest probability of achieving concrete synergies occurred in smaller municipalities with limited number of facilities to be reconstructed or built anew, while follow-up activities took place in these facilities as part of so called soft projects. The main factors underlying the implementation of cohesion policy include especially frequent changes in national legislation and the overall instability of the rules governing SF and CF. In combination with a high procedural burden and financial intensity they result in a high administrative burden for the entities implementing the projects.
Particularly sensitive to the above factors is the response of beneficiaries from local administration bodies, NGOs and the business sector. The intensity of individual factors impact on the project implementation is also proportional to the beneficiary’s capacity. Given their limited internal capacities (HR, financial, and technical resources), municipalities, NGOs, and smaller businesses are in a somehow less favourable position. During the 2007-2013 programme period, the institutions responsible for the management and control of SF and CF were not stabilised as frequent personnel changes remain.