

EUROPE 2020 STRATEGY AND ITS IMPLEMENTATION IN THE SLOVAK REPUBLIC^{1*}

Lucia Rýsová¹, Peter Čajka², Rastislav Kazanský³

^{1,2,3}*Faculty of Political Sciences and International Relations, Department of International Relations and Diplomacy,
Kuzmanyho 1, 974 01 Banská Bystrica, Slovak Republic*

E-mails: ¹lucia.rysova@umb.sk; ²peter.cajka@umb.sk; ³rastislav.kazansky@umb.sk

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Abstract. Since its inception, the European Union, as one of the most comprehensive and elaborate models of regional economic integration, has been striving to achieve a high degree of internal cohesion and natural convergence in the level of performance of individual national economies in its Member States as well as to maintain and improve its position as a major player in the complex geo-economics space of a globalized world economy. In order to achieve these key objectives, the European Union has been working since 2000 to implement large EU-wide strategies, one of which is the Europe 2020 strategy currently in place. The present article concentrates on the evaluation of the level of implementation of the Europe 2020 strategy in the conditions of the Slovak Republic in the context of analysis and evaluation of the level of fulfilment of individual objectives in the monitored time series.

Keywords: the European Union; world economy; economic and sustainable development; Europe 2020; the Slovak Republic

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JEL Classifications: O1, O3, O4

1. Introduction

The European Union as one of the key actors (poles) of the world economy, especially in the external dimension of economic relations, seeks to effectively engage and establish wider economic relations with selected geo-economic partners in the form of national as well as forming and formed transnational economic complexes establishing an effective network of economic cooperation bringing benefits to all cooperating actors. By developing international economic cooperation as well as continuously deepening the economic integration of its internal space, the European Union seeks to fulfil one of its main strategic objectives aimed at maintaining and continuously strengthening its position in the globalized world economy. To fulfil this goal is within the framework of its interior, the European Union seeks to implement a number of different measures using a range of different groups of instruments. In the group of main measures with the most significant impact on the whole European integration area we can mainly include the so-called EU-wide strategies setting out the main objectives and priorities for further development for a limited period of time. At present, the European integration area is being implemented in the order of the second strategy defining the basic priorities and main objectives of the comprehensive and especially sustainable development of the European integration area called Europe 2020. The actual implementation process of the Europe 2020 strategy is based on monitoring and regular evaluation of priorities and objectives both at the level of the European Union as a whole and of individual national states.

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2. Theoretical background

The European Union, despite some problems, has without any doubt huge economic potential, which makes it a power of global influence. (Ivančík, 2019) Therefore, as one of the key player's active in the globalized world economy, is striving in the long term to maintain its acquired position and to actively use its economic potential to initiate economic growth and increase competitiveness on a regional and global scale (Kovacova, 2013). Given the highly differentiated internal economic space of the European Union, it is essential to ensure the effective and efficient use of the economic potential of national economic complexes in such a way that these processes contribute to promoting economic growth and development of individual integrated national economic complexes and development of the EU transnational economic complex as a whole. In this area, the European Union has adopted a model for the implementation of strategies aimed at achieving sustainable economic growth in the constantly dynamically changing conditions of its internal and, in particular, its external economic space. The Europe 2020 strategy currently implemented is one of the key strategies aimed at initiating economic growth and development in the post-crisis period, which should reflect all the key dimensions of the sustainable development model (economic dimension, social dimension, ecological dimension). All three dimensions of the sustainable development model are reflected in the setting of the main priorities and consequently the individual strategic objectives, which are implemented by projects financed by the European Union, reflected in numerous publications (e.g. Monni et al., 2017; Prause, Atari, 2017; Monni et al., 2018; Iorio et al., 2018; Monni et al., 2019; Sarma et al., 2019; Bublisené et al., 2019; Rezk et al., 2019; Selivanova-Fyodorova et al., 2019; El Iysaouy et al., 2019; Prause et al., 2019). The implementation of the Europe 2020 strategy rests primarily on the nation states and the functionality of their economic complexes. Following the Europe 2020 headline targets defined at transnational level, at national level, the achievement of these targets is achieved through their implementation in national development strategies, in which case EU Member States have the option of identifying key targets by monitoring and forecasting future macroeconomic developments, as well as on the basis of an assessment of the real possibilities of the individual national economic complexes to effectively achieve these goals, the limits of these goals, which will be sought at national level by 2020. The Slovak Republic, as a Member State of the European Union, also strives to actively contribute to the achievement of the Europe 2020 goals. (Kavan, Brehovska, 2016) As mentioned above, the Slovak Republic has set its national limit values when setting the thresholds defined for individual Europe 2020 objectives. The implementation of the Europe 2020 strategy objectives in the Slovak Republic is implemented in close cooperation with other strategic objectives concerning various areas of economic and social practice (education, health, tax and levy, education system, economic performance, knowledge economy building, etc.) (Kavan, 2015) These objectives are contained in the basic strategic document National Reform Program. The National Reform Program is a fundamental strategic and planning document in the area and at the same time an open and dynamic document. This means that the level of achievement of each of the objectives set out in this document is monitored and evaluated on an annual basis and, based on a critical reflection and evaluation of the progress made so far, as well as the specific conditions under which the measures are implemented and measures that need to be implemented in this area.

3. Research objective and methodology

The research carried out, the partial results of which are presented in the present article, is focused on the study of selected factors determining both the transnational and selected national states the level and dynamics of the implementation of the Europe 2020 goals. the role of the Europe 2020 strategy in the context of its work as a key strategic document defining strategic objectives at the economic, social and environmental levels, which are essential pillars for creating a dynamic, developing, efficient, competitive and sustainable European Union multinational economic complex built on synergies and synergies similar principles of built and functioning national economic complexes. Various methods and procedures were used in the process of the research, the output of which is the submitted article. In particular, we consider a number of mathematical-statistical methods and procedures to be the most important ones in terms of setting the research objective for obtaining the necessary data and data. On this basis, the individual data and data were subsequently selected with respect to the defined time frame of assessment of the level of development of individual monitored indicators. These data

and data were then summarized and logically arranged on a defined timeline, and based on an assessment of the whole range of factors; these data were subsequently evaluated with an indication of expected development in the level of meeting the objectives pursued at the selected national state level.

3. Europe 2020 Strategy

In the framework of the Europe 2020 strategy, the main emphasis is placed on reiterating the basic effective functioning mechanisms, using various instruments enabling their effective functioning and bringing the expected positive effects in the form of initiating higher dynamics of economic growth supported by economic development. It is these two dimensions of economic growth, supported by a high level of development of individual sectors and retaliations, which should make a significant contribution to promoting and increasing the level of competitiveness at both regional and, above all, global level. The main concept of the Europe 2020 strategy is built on the definition of the three main priorities, each individually represents a fundamental pillar and the synergy of three main components of the model of sustainable economic development while preserving the necessary dynamics of economic performance and at the same time creating appropriate starting conditions for facilitating and increasing flexibility of the EU as the transnational economic complex as well as the Member States and their national economic complexes adapting to the dynamics of current global economic developments. The following have been selected and included in the Europe 2020 headline priority group:

- priority for smart growth
- a priority geared towards achieving sustainable growth;
- priority oriented towards inclusive growth. (Commission Communication, Europe 2020, 2010)

In the area of priority focused on achieving smart growth, the main attention is focused on the need to implement changes in the applied models of economic growth and development focused on traditional approaches of the industrial era to the model of knowledge economy both nationally and transnationally. Concentrating attention on building a knowledge-based society and the knowledge-based economy, both at transnational and national level, is now a priority of major importance, both in terms of current and future projections of economic growth and development and the pursuit of pace and progress in this area, as well as in terms of projection of current and probable future development in the field of competitiveness both at national, regional and global level. Several currently carried out analyses aimed at identifying the main sources of economic growth and progress, as well as increasing the level of competitiveness at regional and global level, show that there are fundamental changes in the area compared to the previous period, which will be national and transnational economic complexes, if they want to succeed in increasingly intense competition, especially at global level, they have to adapt. These changes are related in particular to the shift in importance and the role of basic sources of competitiveness, which have shifted away from the traditional sources of competitiveness (land, labour, minerals, etc.) towards information and knowledge, and in particular their crucial role in the process. Creating and implementing innovation in individual sectors of the economy.

The second priority of the Europe 2020 strategy focuses on achieving sustainable growth. Under this priority, the need to rebuild the national economic complexes of the Member States and, in cooperation with the whole transnational economic complex of the European Union, to a more competitive and environmentally acceptable type of economy is underlined. In the long term, it can be pointed out that the European Union seeks to rebuild the applied economic growth model into a sustainable economic growth model while maintaining the necessary level of progress and extensive development (Ivančík, Nečas, 2017).

The third priority of the Europe 2020 strategy is to create efficient structures within the European Integration Area, which will not only contribute to increasing its economic growth, development and competitiveness, but also contribute to creating a type of society characterized by the high level of inclusion of its inhabitants, including in the case of various disadvantaged groups. This priority mainly affects the socio-economic dimension of the lives of EU citizens and individual Member States. This priority encompasses a wide range of areas related in particular to the effective prevention of poverty risk and the reduction of the EU population at risk of poverty and the associated social exclusion.

The identified, key priorities of the Europe 2020 strategy have found their expression and concrete definition in the form of the five core objectives that form the core of this strategy paper. A set of basic, five Europe 2020 objectives consist of: (Smarter, greener, more inclusive, 2018)

- first objective is focused on increasing the employment rate of the EU population aged 20-64 to at least 75%. This objective also directly affects the need to achieve a higher employment rate of so called disadvantaged groups such as women, older workers, people with disabilities and people with reduced working capacity, as well as migrants;
- the second objective of the Europe 2020 strategy focuses on science and research, and in particular the progressive growth of investment in this field, with a view to achieving a level of science and research investment calculated as a share of at least 3% of total GDP by 2020;

The following two objectives are aimed at supporting core areas that are directly related to the fulfilment of the priority aimed at achieving smart growth, while closely linked to the other priority of the strategy aimed at promoting inclusive growth.

This group includes objectives aimed at:

- reducing the EU-population aged 18-24 who have dropped out of school or other forms of training to at least 10%;
- increasing the population of the EU aged 30-34 with a university degree to 40%(Smarter, greener, more inclusive, 2018).

The inclusion of these two strategic objectives suggests that the EU places a strong emphasis on the re-enactment of an educated, highly skilled and skilled workforce as a necessary element in building and effective functioning of the knowledge society and knowledge economy. (Kovacova, 2013) Achieving a higher level of professional qualifications enables individuals to better find themselves in the labour market and at the same time leads to a reduction of the risk of negative impacts related to the reduced ability to integrate into the labour market (long-term unemployment, low incomes, social dependence, etc.).

Within the Europe 2020 strategy, the priority focused on sustainable growth (Monni, Iorio, Realini, 2018) has been translated into three basic objectives, which can be described as forming an integral part of the so-called energy-environmental package. This group consists of objectives aimed at: (Smarter, greener, sea inclusive, 2018)

- setting up internal systems, implementing mechanisms and introducing new technologies to achieve significant greenhouse gas emission reductions of 20% (at a favourable development of 30%) compared to 1990 levels of greenhouse gas emissions;
- promoting and introducing new technologies and technological solutions to increase the share of energy produced from renewable sources in total final energy consumption by 20%;
- achieving at least 20% higher energy efficiency by 2020;

In order to achieve a higher level of inclusion for a highly educated and socially stratified European society, the Europe 2020 core objectives also included a target aimed at: (Smarter, greener, more inclusive, 2018)

- 25% reduction in the EU population at risk of poverty and social exclusion compared to the previous period.

Monitoring the level of progress achieved in meeting the Europe 2020 objectives, such as the coordination of the instruments of the Stability and Growth Pact and the Europe 2020 strategy, is implemented through a specific mechanism known as the European Semester. (Nečas, Andrassy, 2018) The European Semester represents a cycle that overlaps in time with the period of the first half of the calendar year concerned. Within this time period, individual Member States aim to ensure internal coordination and linkage between budgetary, macroeconomic and structural policies. Individual Member States can thus implement individual proposals and recommendations communicated from a transnational level into their economic strategies and adapt the draft state budget accordingly. The implementation of the proposed recommendations is under way between July

and December of the calendar year concerned. This period is referred to as the “national semester” (European Semester, 2018)

The Europe 2020 strategy itself foresees the need to use the resources of the EU’s internal potential efficiently in order to meet the objectives set. The main sources of EU internal potential that can be used to achieve the objectives are:

- a strong and efficient internal market - seeking to achieve greater connectivity and functionality;
- cohesion policy and its main instruments,
- the EU budget;
- use of funds from both public and private sources;
- effective use of EU external policy instruments (foreign trade policy). (Commission Communication, Europe 2020, 2010)

4. Implementation of the Europe 2020 Strategy in the Slovak Republic

The Slovak Republic, as an EU Member State, has implemented in its basic strategic documents aimed at defining the basic medium-term priorities and objectives in the area of economic activity based on the monitoring of the current situation and projection of expected macroeconomic development in the following periods. The values of the level of fulfilment of the Europe 2020 strategy objectives in the Slovak Republic for some objectives do not overlap with the targets set at the transnational level, which is related, as mentioned above, mainly with the expected outlook of macroeconomic trends and tendencies in the following period. Under the conditions of the Slovak Republic there is also an annual monitoring of the level of fulfilment of individual objectives defined in the key strategic documents. The level of achievement of the Europe 2020 objectives is monitored and evaluated on the basis of an established evaluation and control mechanism, referred to as the European Semester. In this section, we will therefore focus on assessing the state of play in meeting the individual targets set at national level on the basis of the Europe 2020 headline targets.

Raising the employment rate of the EU population aged 20-64 years to at least 75%

As mentioned in the previous sections of the text, the first of the top five objectives set out in the Europe 2020 strategy, which was implemented in the national, national strategic employment objectives of the Slovak Republic, is aimed at increasing the employment rate of the EU population aged 20-64 to 75%. (see Figure 1) On the basis of monitoring the development in the area of employment rate growth, the Slovak Republic set its national target of 72% within this target. In 2010, the employment rate of the population of the Slovak Republic in the age group 20-64 was 64.6%. Since 2011, however, we have seen annual progress in the development of this indicator, as documented by the following data. In 2011, the employment rate of the Slovak population in the age group of 20 - 64 years increased, while the employment rate reached the level of 65.0%. Between 2012 and 2014, there was a slow growth in the fulfilment of the target, while 2013 was a year of stagnation at 65.0%. In 2014, the employment rate of the Slovak population in the age group 20-64 increased by 0.9 percentage points to 65.9%. In 2015, progress was again recorded in the given area, with the rate of reported employment of the Slovak population in the age group 20-64 years reaching 67.7%. A similar positive development was recorded also in 2016 and 2017, when the Slovak Republic again recorded progress in the given area of 69.8% (2016) and 71.1% (2017). (National Reform Program of the Slovak Republic, 2017, 2017, National Reform Program of the Slovak Republic 2018, 2018)

In order to achieve the necessary dynamics in achieving the set national target aimed at increasing the employment rate of the population aged 20-64 to at least 72%, several measures have been adopted and implemented within the Slovak Republic. Of the wide range of these measures, we can mention only some selected, such as the Action Plan to Support the Integration of the Long-Term Unemployed into the Labour Market (launched in 2016). Following this, several mechanisms were implemented in 2017 to support the wider participation of the long-term unemployed in the labour market. In March 2017, the project entitled The Road to the Labour Market was implemented, aimed at effective reduction of long-term unemployment with a direct concentration

on districts, characterized by low dynamics of economic growth determined mainly by low level of internal, economic, development potential. One of the fundamental problems of these regions is also the relatively high rate of registered long-term unemployment as well as the unemployment of certain groups of the population, leading to an increased risk of poverty and social exclusion of these population groups. In the second half of 2017, another project called Restart - Opportunity for the long-term unemployed to return to the labour market was implemented in order to achieve more significant results in the area of reducing long-term unemployment. By the end of 2017, up to 1,907 persons from the target group were thus supported, long-term unemployed. (National Reform Program of the Slovak Republic 2018, 2018)

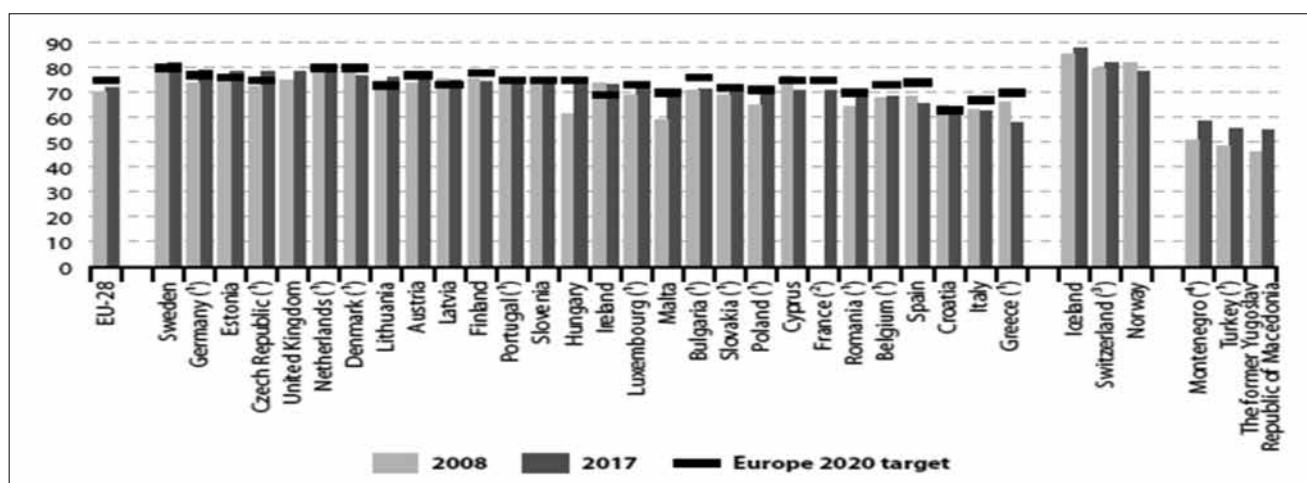


Figure 1. Employment rate of EU citizens aged 20-64 in 2008 and 2017

Source: Smarter, greener, more inclusive, 2018

Increasing the share of investment in science and research to at least 3% of GDP

We can also include in the group of objectives aimed at achieving smart growth the aim of achieving positive development in the area of progressively increasing the share of investment in science and research within the European integration area to at least 3% of GDP. (see Figure 2) Under the conditions of the Slovak Republic, in view of the current development in this area, this value was set to 1.2% within this target. Monitoring the development of a given indicator on the basis of the set timeline from 2009 and 2010 up to the present time indicates that within the given target, in our conditions we record only a slight progress, which is determined by several factors. Based on the above, we can predict that the Slovak Republic will not meet the target of 1.2% of GDP. An attempt to gradually increase the share of investment in science and research and at the same time implement certain measures aimed at increasing the share of investment in science and research coming not only from public but especially private sources can be considered as positive in this area. (Selivanova-Fyodorova, N., Komarova, Lonska, Mietule, 2019)

The initial state of development of the volume of investments in the area of science and research showed that under the conditions of the Slovak Republic these expenditures are considerably undersized given the set priorities in the area of education and further training systems as well as in the area of research and development. In 2008, the volume of R&D expenditures in the Slovak Republic was 0.46% of GDP and in 2009 it was 0.47% of GDP. Since 2010 we have seen a slightly positive development in this area, which can also be documented by the progress of the indicator. In the period 2012 - 2014, the value of the monitored indicator of the share of investments in science and research ranged from 0.62% of GDP to 0.88% of GDP. In 2015 there was a one-off increase in the volume of investments in science and research to the level of 1.17%, mainly due to the draw-down of EU funds. In 2016, however, there was a disruption of the positive development trajectory in the given area, when the share of expenditure on science and research within the Slovak Republic reached 0.79% of GDP. In 2017, the volume of expenditure on science and research reached 0.88%. (National Reform Program of the Slovak Republic 2019, 2019)

As mentioned above, the achievement of a positive development in the form of a stronger progression in the growth of the volume of expenditure on science and research is determined by a number of different groups of factors. (Prause, Atari, 2017) In this context, we will only highlight the most important ones that need to be addressed in the short term. In particular, it is a more efficient and effective use of funds allocated from EU resources, especially in connection with the implementation of the settings of the Operational Program Research and Innovation. Attention should also be paid to the gradual application of the implementation plan of the Strategy for Intelligent Specialization of the Slovak Republic (RIS3), which has a direct link to the gradual launch and implementation of state programs aimed mainly at supporting science and research and R&D in 2018-2020. The purpose of the implementation of these programs should be to set up systemic measures aimed at promoting research and innovation beyond 2028. Further measures should be aimed at establishing an effective and efficient mechanism of support for public research and education institutions, not only within their traditional framework tasks in scientific research and educational activities, but especially in the area of creating suitable preconditions for the possibility of developing stronger links between research activity and practice so that the results of scientific research can be directly applied in practice. (Monni, S., Palumbo, Tvaronavičienė, 2017) Attention should also be paid to the area of international scientific research cooperation and thus increase the possibilities of access to the use of various grant schemes for their support.

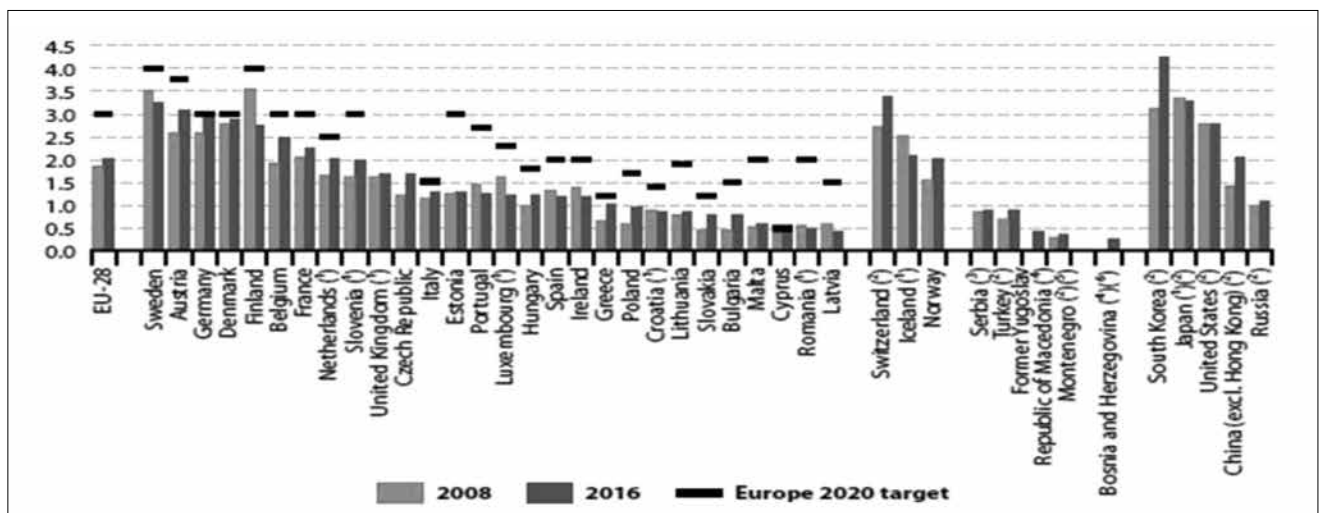


Figure 2. Share of R&D expenditure in the EU and other countries in 2008-2016 (expressed as % of GDP)

Source: Smarter, greener, more inclusive, 2018

Reducing the EU-population aged 18-24 who have dropped out of school or other forms of training to at least 10%

The other Europe 2020 targets include an emphasis on reducing the 18-24-year-old EU population who dropped out of school or other forms of training to at least 10%.

Within this target, the Slovak Republic has set its national target at 6%. Developments within a given indicator can be documented as follows. In 2009, this indicator was 4.9%. Since 2011, however, we have seen a gradual increase in the values of the indicator aimed at monitoring the share of the population of the Slovak Republic aged 18-24 who had dropped out of school or other forms of training. In 2011, this indicator reached 5.1%, in 2012 it was 5.3%. In 2013, the monitored indicator increased to the declared level of 6.4%. Between 2014 and 2015, the monitored indicator recorded a slight increase again, reaching 6.9% in 2015. In 2017, the monitored indicator reached 9.3%. (National Reform Program of the Slovak Republic 2019, 2019) Based on the monitoring of the development trend in the area of the monitored indicator, the growth of values in this case is not associated with a favourable development in the given area. An early school leaving or other form of training brings with it a range of negative socio-economic impacts. Low levels of qualifications, expertise, skills and different competences disadvantage individuals in the labour market, reducing their competitiveness on the

labour market, which is usually reflected in their low social applicability and quite often leads to long-term unemployment, social dependence and hence social exclusion (see Figure 3).

In connection with the observed increase in the monitored indicator, the Slovak Republic has undertaken a whole range of reforms aimed at improving and improving education and training at all levels of the education system. (Vackova, Kovacova, Kancirova, Losoncz, 2016) In connection with the observed increase in the monitored indicator, the Slovak Republic has undertaken a whole range of reforms aimed at improving education and training at all levels of the education system. For example, we can mention the adoption of the document entitled National Program for the Development of Education, which is a strategic document integrating the long-term strategy and concept of the content of education at various levels and forms of education. Other measures have been implemented in this area, such as: reviewing expenditure on education, setting up measures to promote dual education, introducing measures to create an effective career guidance mechanism for pupils and students, and concentrating on increasing the social inclusion of pupils from social disadvantaged environment, streamlining the network of secondary education, harmonizing education at all levels of the system with the needs of practice, etc. (National Reform Program of the Slovak Republic 2019, 2019)

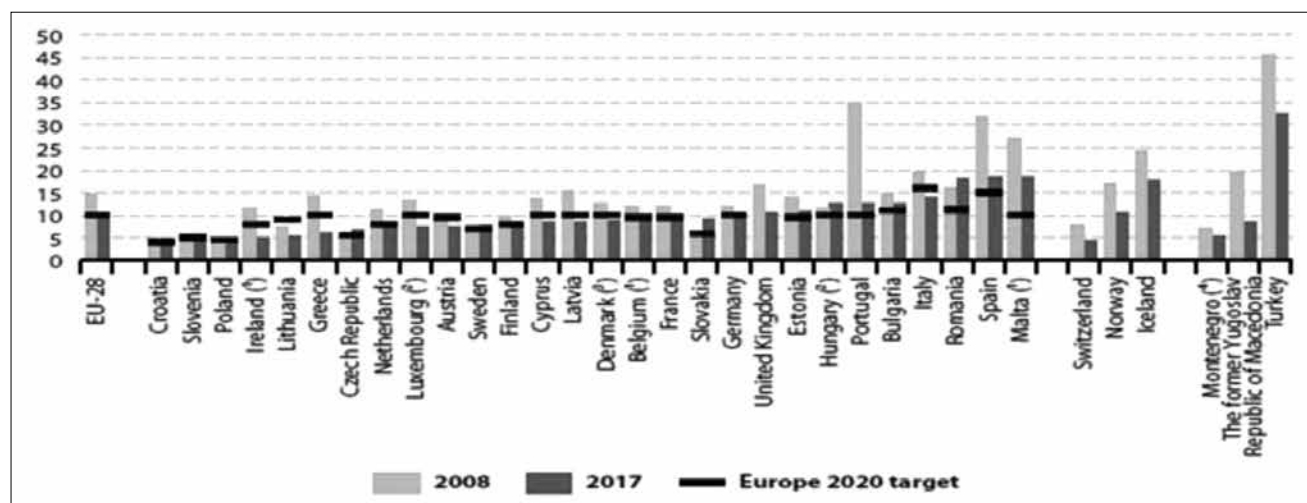


Figure 3. The share of the EU population who left school early, or other forms of training in 2008 and 2017

Source: Smarter, greener, more inclusive, 2018

Increase in the EU population aged 30-34 who have completed university education to at least 40%

The Group of Europe 2020 Strategy, implemented at national and transnational level, also included another objective aimed at promoting and improving education, as well as increasing the share of the educated and highly skilled workforce possessing the necessary knowledge and skills. This objective is primarily aimed at monitoring the development of the population of the EU aged 30-34 who have completed at least 40% of university education. In line with setting the target value at the supranational level, the Slovak Republic also set a target value of 40% within the target.

On the basis of monitoring the development of the indicator we can state that in our conditions we record positive development for individual monitored years, which is also documented by the following data. In 2009, the indicator of the population of the Slovak Republic, aged 30-34, who had completed university education was 17.6%. Since then, we have seen a gradual increase in the development of this indicator. In 2010, the value of this indicator reached 22.1%. In 2011, the value of this indicator reached the level of 23.2%. In 2012, it was already 23.7%. Between 2013 and 2014, the monitored indicator increased again to 26.9%. In 2015, the growth was 28.4% and in 2016 the growth of the indicator reached 31.5%. In 2017, the population of the Slovak Republic aged 30-34 years with completed university education reached 34.3%. (National Reform Program of the Slovak Republic 2019, 2019)

However, a positive development in the area of the monitored indicator must also be supported by a series of implemented measures. Based on a content analysis of selected strategic documents of the Slovak Republic aimed at supporting higher education, these documents point out that in the period up to 2020 it will be necessary to focus on: support of employees working in higher education (increasing their social and economic value, as well as the attractiveness of their profession), improving the quality and availability of education, increasing the proportion of students' practical training, in particular in line with the needs of current social and economic practice.

The educated population possessing the necessary skills is now one of the cornerstones of our societal, political, social and economic development. (Ivančík, 2019) A highly qualified workforce is one of the main sources of new knowledge that underlies the processes of creating innovation applicable in various areas and aspects of life in contemporary societies (see Figure 4). Innovation is one of the main drivers of economic growth, the progress of individual economic sectors, and also of increasing competitiveness, not only at the regional but especially at the global level.

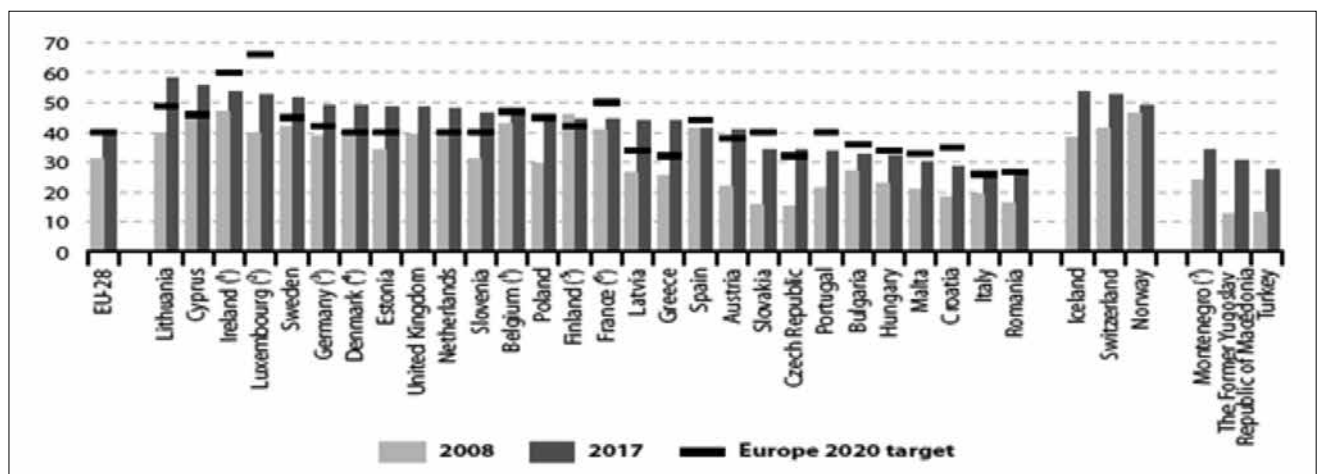


Figure 4. Share of EU population aged 30-34 with university degree in 2008 and 2017

Source: Smarter, greener, more inclusive, 2018

Reducing greenhouse gas emissions by 20% compared to 1990 greenhouse gas emission levels

Another group of objectives declared in the framework of the Europe 2020 strategy consists of objectives that are part of the so-called environmental-energy package and have a direct link to the main priority of the strategy aimed at achieving sustainable growth (see Figure 5).

The first of these targets is the 20% reduction target for greenhouse gas emissions compared to 1990 levels. As part of this goal, the Slovak Republic has set its national target value at 13%. By following the development of the given indicator in our conditions, we can state that we are quite successful in achieving this goal. In 2011, the GHG emission reduction level in our country was 0.8%. In 2012 and 2013, the GHG emission reduction was 4.5 - 4.6%. In 2014, the greenhouse gas emission reduction limit was reached at 10.5%. In 2015, this figure dropped slightly to 9.1%, but in 2016 it reached its 2014 level again, reaching 10.6%. In 2017, there was a stagnation in the development of the indicator aimed at monitoring the achieved level of reduction of greenhouse gas emissions, while the value of the monitored indicator was at the level of 2016. (National Reform Program of the Slovak Republic 2019, 2019)

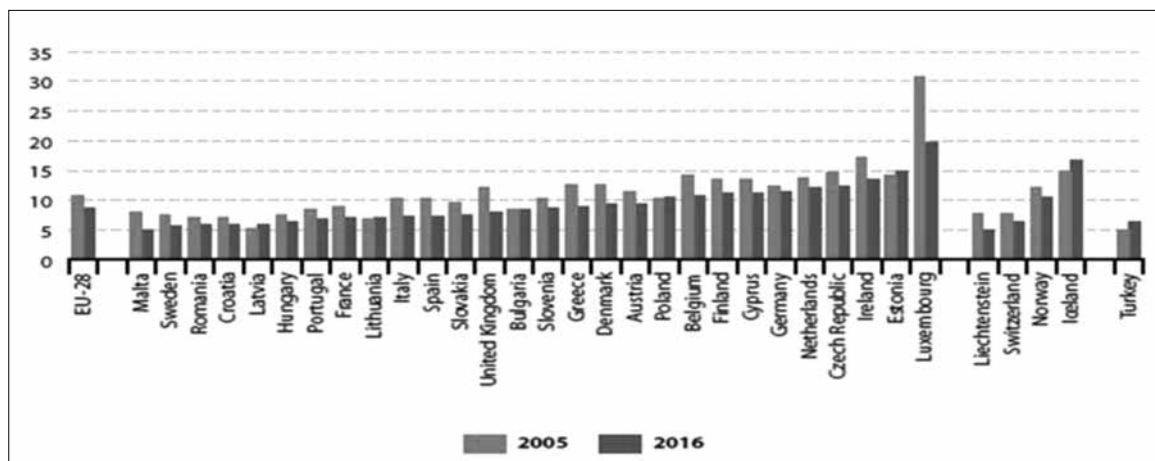


Figure 5. Greenhouse gas emissions in the EU and individual Member States in 2005 and 2016

Source: Smarter, greener, more inclusive, 2018

Increase in the share of energy produced from renewable sources in total final energy consumption by 20%

The second objective, included in the target group of environmental energy package, is the objective aimed at increasing the share of energy produced from renewable sources in total final energy consumption by 20% (see Figure 6). Within this target, the Slovak Republic has set its national target value of 14%. As in the case of the previous target, in our conditions we succeed in meeting the set values, which can be documented on the development of the monitored indicator in individual years. In 2011, in our conditions the share of energy produced from renewable sources in total final energy consumption reached 10.3%. Between 2012 - 2013, the monitored indicator reached approximately the same value as in 2011. Since 2014, there has been a slight progress in the area, when the value of the indicator reached 11.7% and in 2015 12.9%. In 2016, we recorded a slight decrease in the value of the indicator aimed at monitoring the share of energy produced from renewable sources in the total final energy consumption, which reached the level of 12%. (National Reform Program of the Slovak Republic 2019, 2019)

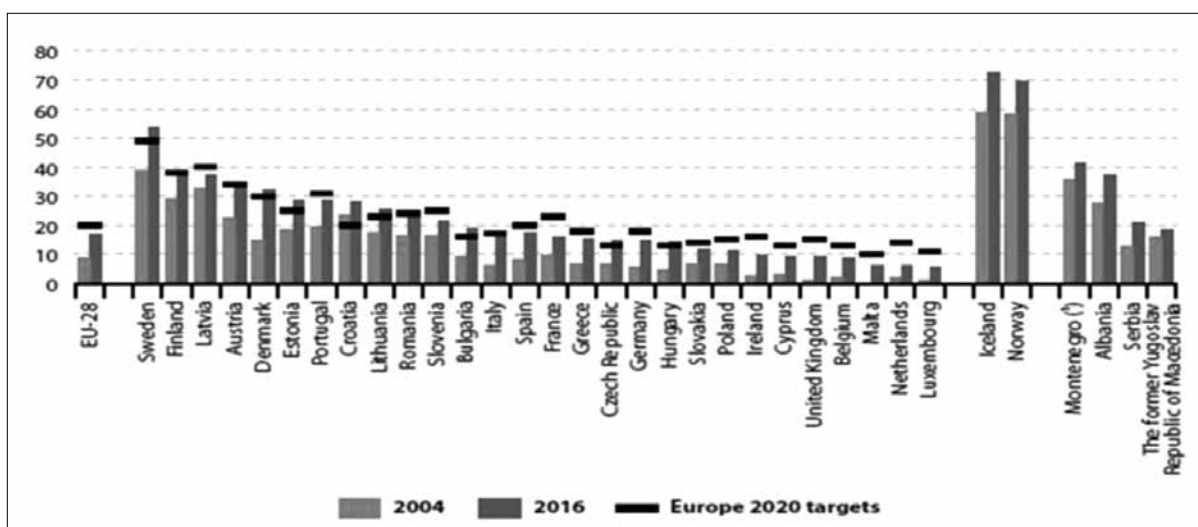


Figure 6. The share of renewable energy sources in total final energy consumption in 2004 and 2016

Source: Smarter, greener, more inclusive, 2018

Increase energy efficiency by at least 20%

The last of the three objectives forming an integral part of the objectives of the Europe 2020 Environment and Energy Package is the objective of increasing energy efficiency by at least 20% by 2020. (Rezk, Radwan, Salem, Sakr, Tvaronavicienė, 2019) Within this target the Slovak Republic has set a limit of 11%. As in the case of the previous two objectives, we are seeing progress in our conditions in meeting the energy efficiency target (see Figure 7). The development of this indicator is monitored on the basis of periodic evaluation and monitoring of changes in final energy consumption values compared with the average achieved in the years 2001 - 2005. (Sarma, Karnitis, Zuters, Karnitis, 2019) The results of realized comparisons show the following. In 2011, final energy consumption fell to 5.3% from the reference values. In 2012, the reduction was at 9.6%. In 2013, the value of the monitored indicator reached the level of 7.0%. In 2014 and 2015, the reduction in final energy consumption was between 12.3% (2014) and 11.4% (2015). In 2016, the reduction in final energy consumption in our conditions reached 8.8%. (National Reform Program of the Slovak Republic 2019, 2019)

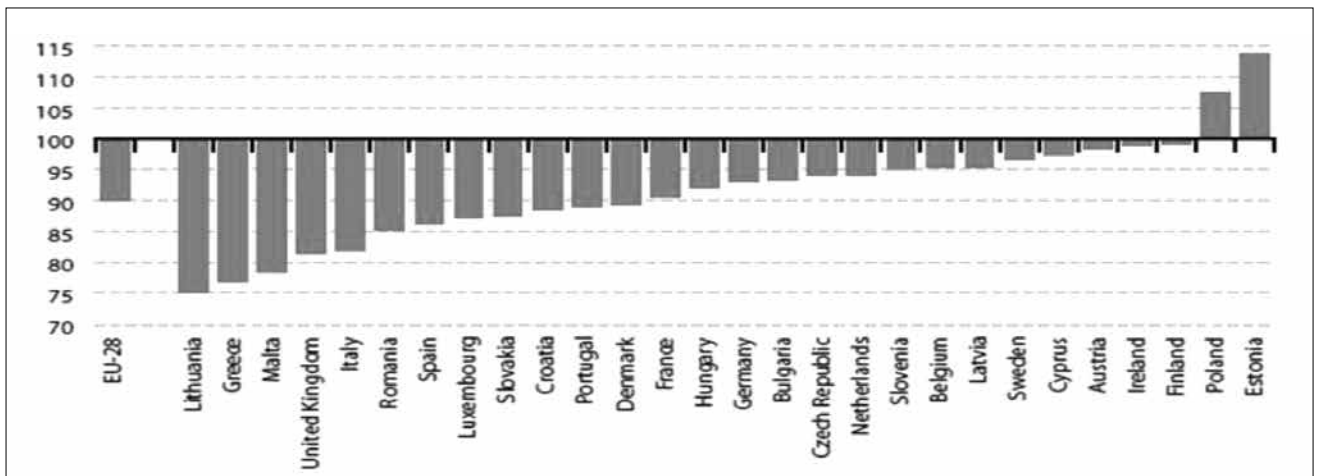


Figure 7. Changes in final energy consumption

Source: Smarter, greener, more inclusive, 2018

As mentioned in the previous sections of the text, the Slovak Republic is experiencing a certain progress for all three objectives under the environmental energy package. In this context, however, it is also necessary to point out certain problem areas and bottlenecks that are closely linked to the issue. The main problem areas related mainly to the area of protection and preservation of healthy environment include: waste management, air quality, still relatively low level of waste recycling, waste separation, as well as negative impact of relatively high concentration of dust particles in air pollution. (Necas, Kollar, 2018) In this area, the Slovak Republic endeavours to seek and take relatively fundamental measures concerning these key areas of environmental protection. Among the wide range of strategic documents and measures and systems solutions declared there are, for example, the development and approval of the concept of the 2030 Environmental Policy Strategy, which focuses in particular on finding effective tools and avenues to avert and mitigate the negative impacts of major environmental challenges currently facing the Slovak Republic (air quality, waste management, forest protection and forestry). Other key strategy documents include the adoption of a Low Carbon Strategy aimed at identifying the potential and internal potential of individual economic sectors in the context of the need to reduce emissions by using the so-called “carbon economy”. A cost-effective approach with a view to 2050. A relatively essential document in this area is the Strategy of the Slovak Republic’s Adaptation to the Adverse Consequences of Climate Change. (National Reform Program of the Slovak Republic 2018, 2018)

25% reduction in the EU population at risk of poverty and social exclusion

The last of the Europe 2020 objectives is to emphasize the need to focus attention on reducing the EU’s population at risk of poverty and social exclusion by 25%. The evaluation of individual collected data shows that in 2011, 20.6% of the Slovak population were exposed to the risk of poverty and social exclusion. Gradually, this

share was reduced in the coming years. In 2012, the monitored indicator was 20.5%. In 2013 it was 19.8%. In 2014 and 2015 it stagnated at 18.4%. In 2016 it reached 18.1% and in 2017 it was 16.3%. (National Reform Program of the Slovak Republic 2019, 2019)

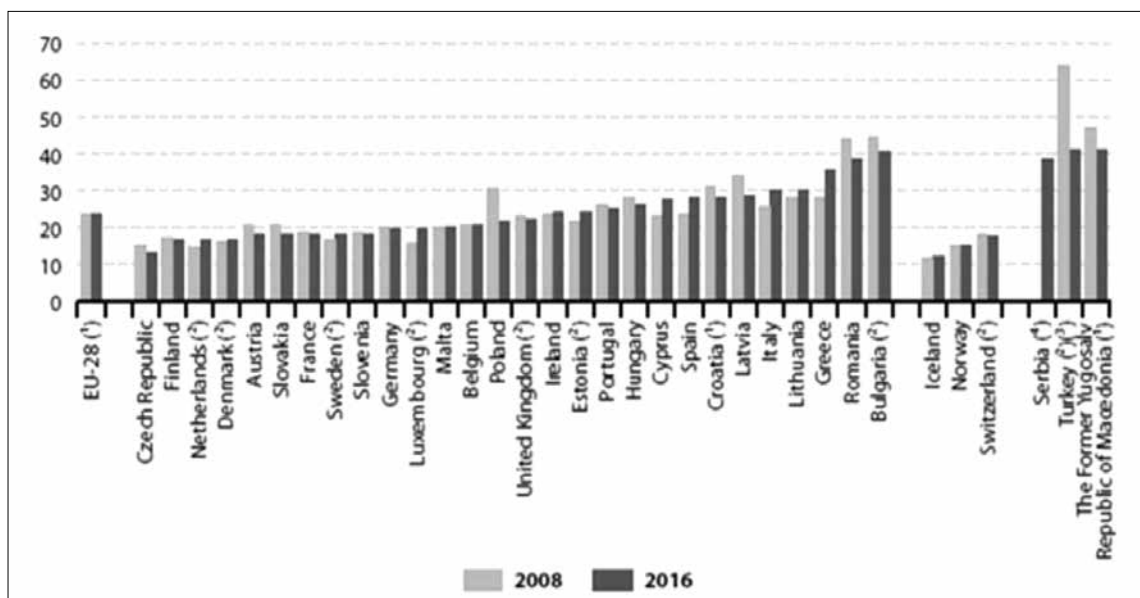


Figure 8. EU population at risk of poverty and social exclusion in 2008 and 2016

Source: Smarter, greener, more inclusive, 2018

The results of an EU-level survey showed that within the European Integration Area, people at risk of poverty and social exclusion are most often confronted with three basic types of poverty (see Figure 8) (Harakalova, 2019) Financial poverty, which is one of the most widespread forms of poverty within the European Integration Area and threatens up to 17.3% (2016) of the European population, ranks first in this case. Another type of poverty is a material shortage, with up to 7.5% of Europe’s population exposed in 2016. (Prause, Tuisk, Olaniyi, 2019) Another type of poverty is poverty resulting from the low rate of remuneration of the work done, which is mainly related to low labour productivity resulting from the low or possibly insufficient level of qualifications, lack of necessary work skills, knowledge and competences. (Losonczi, 2014) In 2016, up to 10.5% were exposed to this type of poverty. (Smarter, greener, more inclusive, 2018)

4. Conclusions

In accordance with the setting of the Europe 2020 strategy goals, the Slovak Republic has implemented in its national strategy documents as one of the key tasks the fulfilment of these goals in connection with other long-term goals aimed at supporting the growth dynamics of economic growth and competitiveness on a trans-national, regional and global level. As stated above, each EU Member State has set, based on the analysis of the current economic development, the basic target values of the level of fulfilment of the individual objectives declared in the Europe 2020 strategy, which it seeks to achieve effectively. In the case of the Slovak Republic, there was also a definition of the basic target values that it wants to achieve in case of fulfilling each goal of the Europe 2020 strategy. In this context, it can be pointed out that, for some selected objectives, the Slovak Republic maintained its national target value at the same level as set at EU level. The assessment of the level of fulfilment of the individual sub-objectives of the Europe 2020 strategy under the conditions of the Slovak Republic showed both positive development and progress in selected areas, but also revealed weaknesses in the process of implementation of the Europe 2020 strategy. A positive development was recorded in the area of employment rate growth of persons aged 18-24. A relatively positive development has also been observed in the area of meeting the target in increasing the number of people aged 30-34 who have completed university education. The Slovak Republic is gradually progressing also in the case of meeting the objectives of the so-

called environmental-energy package. On the other hand, the Slovak Republic has made very little progress in increasing the share of investment in science and research. In this area, we are comparatively lagging behind the EU average, and the area of science and research and its support today is one of the main objectives declared in several strategic documents as one of the key sources and engines of economic progress and support for increasing competitiveness. According to the surveys carried out nowadays, the group of the most competitive economies in the world includes mainly those that invest large amounts of funds in the area of support of science and research. Science and research are the main bearers of new ideas and knowledge, which are subsequently transformed into a range of innovations that can be used in different areas of life in contemporary societies and are thus initiators of the progress of society as a whole. It will therefore be necessary to pay increased attention to this area in the coming period, focusing in particular on putting into practice several measures and instruments that have only been declared. The process of implementing the objectives set out in the Europe 2020 strategy is carried out within the Slovak Republic in relation to other key objectives and despite the fact that in the case of meeting the selected objectives we have seen some progress in each of the identified areas it is necessary to introduce and implement a whole range of measures and system solutions so that progress in the level of fulfilment of individual strategic objectives is dynamic.

References

- Bublienė, R., Vinogradova, I., Tvaronavičienė, M., Monni, S. 2019. Legal form determination for the development of clusters' activities. *Insights into Regional Development*, 1(3), 244-258. [https://doi.org/10.9770/ird.2019.1.3\(5\)](https://doi.org/10.9770/ird.2019.1.3(5))
- El Iysaouy, L., El Idrissi, N. E., Tvaronavičienė, M., Lahbabi, M., Oumnad, A. 2019. Towards energy efficiency: case of Morocco. *Insights into Regional Development*, 1(3), 259-271. [https://doi.org/10.9770/ird.2019.1.3\(6\)](https://doi.org/10.9770/ird.2019.1.3(6))
- Harakalová, D. 2019. Critical moments of European integration. In: Economic, Political and Legal Issues of International Relations 2019 - Bratislava (Slovensko): Bratislava Ekonóm, ISBN 978-80-225-4627-0. P. 156-160. https://www.mzv.sk/documents/10182/54004/140815_analyza_poznatkami_k_prosperite.pdf
- Iorio, M., Monni, S., Brollo, B. 2018. The Brazilian Amazon: a resource curse or renewed colonialism? *Entrepreneurship and Sustainability Issues*, 5(3), 438-451. [https://doi.org/10.9770/jesi.2018.5.3\(2\)](https://doi.org/10.9770/jesi.2018.5.3(2))
- Ivančík, R. 2019. Quo vadis European Defence and Security. *Journal Political Science*, 22(3), 47-67. ISSN 1335-2741. <http://doi.org/10.24040/politickevedy.2019.22.3.47-67>
- Ivančík, R., Nečas, P. 2017. Towards enhanced security: defense expenditures in the member states of the European Union. *Journal of Security and Sustainability Issues*, 6(3), 373-382. ISSN 2029-7017/ISSN 2029-7025 (online). [https://doi.org/10.9770/jssi.2017.6.3\(4\)](https://doi.org/10.9770/jssi.2017.6.3(4))
- Kavan, S. 2015. Ethical Aspects of the Work of Rescuers During Extraordinary Events. *The Social Sciences*, 10(6), 684-690. ISSN: 1818-5800. <https://doi.org/10.3923/sscience.2015.684.690>
- Kavan, S., Brehovská, L. 2016 Cooperation of South Bohemia and Cross-Border Regions with a Focus on Civil Protection. In Klímová, V., Žitek, V. (eds.) *19th International Colloquium on Regional Sciences. Conference Proceedings*. Brno : Masaryk University, 2016. pp. 907-914. ISBN 978-80-210-8273-1. <https://doi.org/10.5817/CZ.MUNI.P210-8273-2016-117>
- Kovacova, L. 2013. Effective and Innovative Trends of Education Security Personnel in Conditions of Universities (in Slovak), *Kosicka Bezpečnostna Revue*, 3(1), University of Security Management: Kosice, pp. 67-72. ISSN 1338-4880.
- Losonczy, P. 2014. Information Security in Primary Schools (in Slovak). *Kosicka bezpečnostna revue*, 4(2), University of Security Management: Kosice, 77-82, ISSN 1338-4880
- Monni, S., Iorio, M., Realini, A. 2018. Water as freedom in the Brazilian Amazon. *Entrepreneurship and Sustainability Issues*, 5(4), 812-826 [http://doi.org/10.9770/jesi.2018.5.4\(8\)](http://doi.org/10.9770/jesi.2018.5.4(8))
- Monni, S., Palumbo, Tvaronavičienė, M. 2017. Cluster performance: an attempt to evaluate the Lithuanian case. *Entrepreneurship and Sustainability Issues*, 5(1), 43-57. [http://doi.org/10.9770/jesi.2017.5.1\(4\)](http://doi.org/10.9770/jesi.2017.5.1(4))
- National Reform Program of the Slovak Republic 2017. Bratislava: Ministry of Finance of the Slovak Republic. <https://ec.europa.eu/info/sites/info/files/2017-european-semester-national-reform-programme-slovakia-sk.pdf>
- National Reform Program of the Slovak Republic 2018. Bratislava: Ministry of Finance of the Slovak Republic. <https://ec.europa.eu/>

info/sites/info/files/2018-european-semester-national-reform-programme-slovakia-sk.pdf

National Reform Program of the Slovak Republic 2019. Bratislava: Ministry of Finance of the Slovak Republic. <https://ec.europa.eu/info/sites/info/files/2019-european-semester-national-reform-programme-slovakia-sk.pdf>

Nečas, P., Andrassy, V. 2018. Diplomatic Missions' Order versus Security and Sustainability. *Journal of Security and Sustainability Issues* 8(2). 145-154. ISSN 2029-7017 print/ISSN 2029-7025 online. From [https://doi.org/10.9770/jssi.2018.8.2\(13\)](https://doi.org/10.9770/jssi.2018.8.2(13))

Nečas, P., Kollar, D. 2018. EU Security Strategy and its importance for sectoral security. In: *International Relations 2018: current issues of the world economy and politics*. Bratislava: Ekonóm, 2018. ISBN 978-80-225-4602-7. s. 519-529

Communication of the Commission: Europe 2020, A strategy for smart, sustainable and inclusive growth. Brusel: European Commission. Retrieved September 15, 2014, from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:SK:PDF>

Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Evaluating the implementation of the Europe 2020 strategy for smart, sustainable and inclusive growth. Brusel: European Commission. Retrieved March 3, 2017, from http://ec.europa.eu/europe2020/pdf/europe2020stocktaking_sk.pdf

Prause, G., Atari, S. 2017. On sustainable production networks for Industry 4, *Entrepreneurship and Sustainability Issues* 4(4): 421-431. [http://doi.org/10.9770/jesi.2017.4.4\(2\)](http://doi.org/10.9770/jesi.2017.4.4(2))

Prause, G., Tuisk, T., Olaniyi. 2019. Between Sustainability, Social Cohesion and Security. Regional Development in North-Eastern Estonia. *Entrepreneurship and Sustainability Issues*, 6(3), 1135-1154. [http://doi.org/10.9770/jesi.2019.6.3\(13\)](http://doi.org/10.9770/jesi.2019.6.3(13))

Rezk, M.R., Radwan, A., Salem, N.M., Sakr, T.M., Tvaronavičienė, M. 2019. Foresight for sustainable energy policy in Egypt: results from a Delphi survey. *Insights into Regional Development*, 1(4), 357-369. [https://doi.org/10.9770/ird.2019.1.4\(6\)](https://doi.org/10.9770/ird.2019.1.4(6))

Sarma, U., Karnitis, G., Zutters, J., Karnitis, E. 2019. District heating networks: enhancement of the efficiency. *Insights into Regional Development*, 1(3), 200-213. [https://doi.org/10.9770/ird.2019.1.3\(2\)](https://doi.org/10.9770/ird.2019.1.3(2))

Selivanova-Fyodorova, N., Komarova, V., Lonska, J., Mietule, I. 2019. Differentiation of internal regions in the EU countries. *Insights into Regional Development*, 1(4), 370-384. [https://doi.org/10.9770/ird.2019.1.4\(7\)](https://doi.org/10.9770/ird.2019.1.4(7))

Smarter, greener, more inclusive. 2018. <https://ec.europa.eu/eurostat/documents/3217494/9087772/KS-02-18-728-ENN.pdf/3f01e3c4-1c01-4036-bd6a-814dec66c58c>

Strategy for smart specialization of the Slovak republic. 2013. Bratislava: Ministry of economy of the Slovak Republic. 2014 Retrieved March 2, 2018 <https://rio.jrc.ec.europa.eu/en/library/strategy-smart-specialisation-slovak-republic-ris3>

Vackova, M., Kovacova, L., Kancirova, M., Losoncz, I, P. 2016. The Need for Innovation of Security Education for Strengthening the Results of Traditional Teaching at Universities. *Communications - Scientific Letters of the University of Zilina*, 18(3), 93-97. <http://komunikacie.uniza.sk/index.php/communications/article/view/317>

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About contributors:

Assoc. Prof. **Lucia RÝSOVÁ**, PhD. works at the Faculty of Political Sciences and International Relations of Matej Bel University in Banská Bystrica at the Department of International Relations and Diplomacy as an Associate Professor in International Relations. In his teaching and research activities, he focuses on: the development of a globalized world economy and the position of its selected actors, international economic integration in the context of exploring the processes affecting the formation and development of integration groups and their interrelations, international relations theories and European integration. She is the author and co-author of several monographs, co-author of several collective scientific monographs, textbooks, numerous scientific studies, and articles on international relations, world economy, international economic integration and theories of international relations.

ORCID ID: <https://orcid.org/0000-0003-2965-1162>

Assoc. Prof. Dr. **Peter ČAJKA**, PhD. works at the Faculty of Political Sciences and International Relations of Matej Bel University in Banská Bystrica at the Department of International Relations and Diplomacy as an Associate Professor in International Relations. In his pedagogical and scientific research activities he focuses on the following issues: current trends recorded in the world economy and their implications in specific conditions of development of national and transnational economic complexes located within geographical macro-regions. From a wide range of issues related to the topic, it focuses primarily on the current trends in population development and their impacts, especially on the socio-economic systems of selected countries. He is the author and co-author of several monographs, co-author of several collective scientific monographs, textbooks, numerous scientific studies, and articles on international relations, political geography, world economy and regional studies.

ORCID ID: <https://orcid.org/0000-0003-0568-394X>

Assoc. prof. **Rastislav KAZANSKÝ**, PhD. MBA is a Head of the Department of Security Studies at the Faculty of Political Science and International Relations of Matej Bel University (MBU) in Banská Bystrica, where he conducts lectures, seminars and consultations both in daily and in external forms. At present, he is professionally involved in pedagogical and scientific research activities within the Geopolitics of Central European Region, Security Policy - Conflict Theory, Peace and Conflict Studies. He is the author and co-author of several monographs, co-author of several collective scientific monographs, textbooks, numerous scientific studies, and articles on international relations, political science and history.

ORCID ID: <https://orcid.org/0000-0002-2701-2023>

Register for an ORCID ID:

<https://orcid.org/register>