











# Assessment of climate change policies as part of the European Semester

**Country Report Slovakia** 

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A report submitted by ICF Consulting Services in association with

Ecologic Institute, Berlin and eclareon GmbH to DG Climate Action

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## 1 Short Summary

The Energy Policy (EP) of the Slovak Republic was approved by the Government in November 2014, defining the objectives and priorities of the energy sector until 2035. The main objective of the EP is to ensure the reliability and stability of energy supply through the diversification of gas and oil transport routes as well as the further development of the country's nuclear capacities.

By 2020, Slovakia is permitted to increase its emissions in sectors not covered by the EU ETS by +13% compared to 2005, according to the Effort Sharing Decision (ESD). The latest data for 2013 show that Slovakia emitted 10.3 percentage points less than it was allowed under the annual allocation interim target under the ESD for the year 2013. National projections indicate that the country will continue this trend and not only meet but exceed its 2020 target by a wide margin of 37.2 percentage points with existing measures and of 38.6 percentage points with additional measures.

In December 2013, all three distribution grid operators in Slovakia declared a connection moratorium for new renewable energy plants with a generating capacity of more than 10 kW. Currently, only small installations, which meet the technical requirements for the connection to the distribution grid, receive a connection approval.

On 21 October 2014, the Slovak Parliament approved the draft law on energy efficiency, which came into effect on 1 December 2014. The new Energy Efficiency Act transposes the EU's Energy Efficiency Directive into national law. Its aim is to adjust the framework for the rational use of energy, laying down energy efficiency requirements for the conversion, transmission, distribution and consumption of energy.

## 2 Climate and energy policy priorities

In general, electricity generation in Slovakia is highly dominated by nuclear power (54.3%). Fossil fuels have a cumulated share of 18.3%, of which more than 55% is lignite and coal, the rest coming mainly from gas. Hydro accounted for 18.5% of the total electricity generation in 2013, whereas the remaining renewable sources combined amounted to 4.9% (ENTSO-E 2014).

The reduction of GHG emissions in Slovakia after 1990 was mainly driven by structural changes in the economy. Since 2012, the Slovak Government has focused on reducing the financial support given to renewable energy in order to balance resulting higher electricity prices (MFSR 2012). In order to meet its emission targets, Slovakia focuses on energy efficiency measures and the further development of nuclear energy.

The EP of the Slovak Republic was approved by the Government in November 2014. It defines the objectives and priorities of the energy sector until 2035, with an outlook to 2050. The main objective of the EP is to ensure the reliability and stability of energy supply, to improve energy efficiency and to help Slovakia meeting the 2020 energy targets (Energy Policy, 2014). The concept, originally presented by the Ministry of Economy already in May 2014, is aimed at optimising the energy mix for energy security. Slovakia is almost 90% dependent on imports of primary energy sources (EurActiv, 2014).

In terms of energy security, the EP designates nuclear fuel as least vulnerable to supply disruptions. Therefore, Slovakia is planning to further develop nuclear energy in its energy mix. The EP envisages the construction of a third and fourth reactor unit at Mochovce nuclear power plant as well as the construction of new nuclear power plant in Jaslovské Bohunice (Energy Policy, 2014).

In a press statement, the NGO Greenpeace strongly criticised the new EP. According to Greenpeace, the approved EP neither solves the dependency on energy imports, nor supports the development of low-carbon energy. Instead, the EP maintains the status quo of Slovakia's strong dependence on imported oil, gas, coal and especially nuclear fuel. Greenpeace argues that in building a new nuclear power plant, the Government only increases Slovakia's dependence on nuclear fuel from Russia.

Furthermore, the Government is planning to further support mining and coal combustion and shifts these costs onto the consumers. With regards to renewable energy, the EP envisages a share of 20% by 2030. Greenpeace argue that this target is not ambitious enough given that current projections show that RES will account for 16% in 2020 and 24% by 2030. Therefore, a share of 20% in 2030 does not provide any further incentive to the sector (Greenpeace, 2014).

# 3 GHG trends and projections

Slovakia reduced its total GHG emissions by 15% between 2005 and 2013. The share of GHG emissions not covered by the European Emission Trading Scheme (EU ETS) is around 49%, which is below the EU28 average (see Table 1).<sup>1</sup>

Table 1 Key data on GHG emissions

|                     |                          | National data |      |      | EU28 |       |
|---------------------|--------------------------|---------------|------|------|------|-------|
|                     |                          | 2005          | 2011 | 2012 | 2013 | 2013  |
| Total GHG emissions | Mt CO₂eq                 | 50.3          | 44.7 | 42.7 | 42.7 | 4 539 |
| Non-ETS emissions   | Share in total emissions | 50%           | 50%  | 51%  | 49%  | 58%   |

Source: EEA 2014a; EEA 2014c

By 2020, Slovakia can increase its emissions not covered by the EU ETS by 13% compared to 2005, according to the ESD. The latest data for 2013 show that Slovakia emitted 10.3 percentage points less than it was allowed under the annual allocation interim target under the ESD for the year 2013 (see figures in Table 2). National projections indicate that the country will continue this trend and not only meet but exceed its 2020 target by a wide margin of 37.2 percentage points with existing measures (WEM) and of 38.6 percentage points with additional measures (EEA 2014a).

Table 2 Non-ETS emission targets, trend and projections

|      | rabio 2 iton 2 i o onnocion targoto, trona ana projectiono |                       |  |  |
|------|--|-----------------------|--|--|
|      |  | Compared to base year |  |  |
| 2013 | ESD interim target   | + 2.3%                |  |  |
|      | ESD emissions  | - 8.0%                |  |  |
| 2020 | ESD target   | + 13.0%               |  |  |
|      | ESD projections WEM  | - 24.2%               |  |  |
|      | ESD projections WAM  | - 25.6%               |  |  |

Source: EEA 2014a. Green indicates target met or exceeded, orange indicates a value below.

GHG emissions are mainly created by direct fuel consumption (e.g. households for heat generation) followed by the energy industries and industrial production (see figure below for historic and estimated emissions by sector). Projections indicate that by 2020 emissions will remain constant; however, emissions from the energy industry will increase slightly until 2015, but decrease to current levels by 2020.

<sup>&</sup>lt;sup>1</sup> The European Environment Agency has developed a complex methodology to measure progress on the Non-ETS/ESD targets of all EU Member States. This report uses the figures derived on this basis. A detailed explanation and the underlying absolute amounts are contained in Annexes 1-3 of the EEA report No 6/2014 "Trends and projections in Europe 2014. Tracking progress towards Europe's climate and energy targets for 2020" available at <a href="http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2014/">http://www.eea.europa.eu/publications/trends-and-projections-in-europe-2014/</a>

35 30 25 Mt CO<sub>2</sub> equivalent 20 15 Energy supply **Energy use** 10 Transport 5 Industrial proc. 0 Agriculture 1990 1995 2000 2005 2010 2015 2020 Waste Int'l aviation -10 LULUCF -15

Figure 1 GHG trends and projections by sector

Source: EEA 2014a. Actual data until 2012 and projections from 2010 onwards. Dashed lines indicate the WEM projection, dotted lines the WAM projection.

## 4 Policy development

This section covers significant developments made in key policy areas between January and December 2014. It does so through two different perspectives: 1) progress on the policies communicated under the National Reform Programme and 2) developments in the identified national priority sectors and policy areas.

### 4.1 Key policies as outlined in the National Reform Programme

Member States prepare National Reform Programmes (NRPs) each April outlining the country's progress and the key policies and measures to achieve targets under the EU 2020 Strategy. These key policies and measures are summarised in the following table and their current status is provided.

Table 3 Key policies and measures as outlined by the NRP 2014

| Low-carbon Development Strategy of the Slovak Republic until 2030 |   |  |  |
|---|---|--|--|
| Status in the NRP   | Planned. In cooperation with the World Bank, the Slovak Government will elaborate a low-carbon strategy.  |  |  |
| Status as per Dec<br>2014   | No further progress.  |  |  |
| Description of policy   | The strategy will identify the reduction potential and the cost-efficient forms of decreasing emissions. An overview of the reduction potential of various measures and the expected costs of their implementation will be provided. These measures will include the modernisation of the public lightning systems, higher energy efficiency of buildings, support for transport infrastructure and public passenger transport (NRP, 2014). |  |  |

| SlovSeff3                 |  |
|---------------------------|--|
| Status in the NRP         | Planned. The Slovseff3 programme is expected to be launched in the first half of 2014.   |
| Status as per Dec<br>2014 | In force. On 13 June 2014, the EBRD announced to support renewable energy projects and energy efficiency measures in Slovakia with a € 20 million loan to Slovenská sporiteľňa, a.s. The budget for SlovSEFF III will be complemented by additional funds from a carbon credit transaction between Slovakia and Spain, reaching an expected total amount for phase III of € 40 million. These funds will be on-lent to private companies (EBRD, 2014). |
| Description of policy     | The project has been approved by the EBRD Council and a Slovak bank has been selected to provide loans. After meeting the condition of achieving the targeted saving, the total allocation of 40 million EUR will be used to provide advantageous loans related to increasing energy efficiency in companies, increasing the energy performance of buildings and households and supporting renewable energy sources (NRP, 2014).                       |

| Slovak-Hungarian gas connection |   |  |  |
|---------------------------------|---|--|--|
| Status in the NRP               | Planned.  |  |  |
|                                 | The project is planned to be commissioned on 1 January 2015.  |  |  |
| Status as per Dec<br>2014       | Ongoing.  While the Slovak part of the interconnector is technically fully prepared to start technical operation, the launch of the new interconnector will be delayed, due to technical problems on the Hungarian side (BBJ, 2014).  |  |  |
| Description of policy           | The planned connections of electricity systems with Hungary will eliminate bottlenecks and increase the cross-border capacity. This will increase the safety and reliability of operation of both transmission systems and increase the total marketable capacity in the common market (NRP, 2014). |  |  |

| Obligation to perform e   | Obligation to perform energy audits  |  |  |  |
|---------------------------|--|--|--|--|
| Status in the NRP         | Planned.   |  |  |  |
| Status as per Dec<br>2014 | In force.  According to the new Energy Efficiency Act, all large enterprises are required to perform an energy audit and update it every four years.  Enterprises which fail to conduct a regular energy audit will face fines from € 5,000 to 30,000. Furthermore, the law complements requirements for owners of large office buildings with a total floor area of more than 1,000 m², which will now be obliged to charge each tenant his energy consumption costs separately from other provided services. Under the new monitoring system, the building owner will also have to provide the Slovak Innovation and Energy Agency with detailed energy consumption data |  |  |  |
| Description of policy     | annually by 31 March (CFO, 2014).  Higher energy efficiency in companies will be achieved through energy audits which will reveal possible savings and possible solutions. Large companies will have the obligation to perform such audit automatically. Audits for SMEs will be supported from the operational programme Quality of Environment. A comprehensive renewal of public buildings will be financed from the same operational programme (NRP, 2014).  |  |  |  |

#### 4.2 National policy priorities

The below sub-sections provide updates on key existing and new policies in priority sectors and policy areas of relevance to the energy and climate targets under the Europe 2020 strategy<sup>2</sup>. Each sector or policy area contains information on the most important policy instruments in operation or development.

#### 4.2.1 Environmental Taxation

In Slovakia, the implicit tax rate on energy is the lowest in the EU with EUR 48 per ton of oil equivalent in 2012 (compared to an average of EUR 173) (Eurostat, tsdcc360). However, the share of environmental tax revenues in overall tax revenue was at 6.2% in 2012, and therefore slightly above the EU average of 6.1% (Eurostat, ten00064). When comparing environmental tax revenues with GDP, however, Slovakia has the third lowest share with 1.8% in 2012 (compared to an average of 2.4%) (Eurostat, ten00065).

According to an in-depth analysis of prices and costs of energy conducted by the European Commission, Slovakia has the fifth highest electricity prices for industrial customers in the EU. This fact notably reduces the global competitiveness of Slovak enterprises. Regarding the household sector, the study revealed that Slovak households spend up to 16 % of their overall expenses on energy. This is the highest share in the entire EU (Energia, 2014a).

In the Stability Programme for 2013-2016, which was released in April 2013, the Slovak Ministry of Finance argues that there were several reasons limiting the scope for future tax increases: In the case of excise taxes on fuel (mainly gasoline and diesel), the final consumer price has to be taken into account. Since the prices for gasoline were already higher than in neighbouring countries, a higher tax burden could pose a risk that the expected tax revenues would not be fulfilled. A significant increase of other energy taxes (electricity, coal, natural gas) would have an extremely regressive effect, i.e. it would pose a disproportionate burden on low-income households. Instead, the Ministry is considering abolishing several existing exemptions from energy taxes in order to generate additional revenues for the state budget. Their abolition would contribute to higher tax revenue of around 50 million EUR per year (Stability Programme, 2013). In June 2013, the Regulatory Office for Network Industries (ÚRSO) requested the Ministry of Finance to abolish the tax exemption for renewable energy plants, since these plants were already sufficiently supported under the Renewable Energy Act (Energie Portal, 2013). However, in the final version of the amendment which came into effect on 1 January 2014, the Ministry leaves the tax exemption for RES unchanged and only introduces minor changes in order to reduce the administrative burden for consumers (Law on Energy Taxes, 2014).

In 2014, there has been no further progress in this sector.

#### 4.2.2 Energy Efficiency

Within the EU-28, Slovakia has the fifth most-energy-intensive economy. Energy intensity declined by 33% between 2005 and 2012, which is far above the EU average decline of 13% (Eurostat, tsdec360). Final energy consumption dropped by 11% between 2005 and 2012 with the reductions coming mainly from the service and the residential sector (Eurostat, tsdpc320). However, this decrease was largely due to the economic recession and related drops in productivity. Slovakia is currently on track to meet its indicative EU energy efficiency target (EEA 2014a).

On 21 October 2014, the Slovak Parliament approved the draft law on energy efficiency, which came into effect on 1 December 2014. The new Energy Efficiency Act transposes the EU's Energy Efficiency Directive (2012/27/EU) into national law. Its aim is to adjust the framework for the rational use of energy, laying down energy efficiency requirements for the conversion, transmission, distribution and consumption of energy. The bill also regulates the monitoring and the promotion of energy efficiency and identifies responsibilities for natural and legal persons as well as Government authorities. The aim

<sup>&</sup>lt;sup>2</sup> The Consortium jointly with DG Clima identified these based on identified challenges in Country Profiles (EEA, 2014), share of sectors in total GHG emissions, and Country Specific Recommendations (2014). DG Clima has identified additional relevant issues to be reviewed for some or all Member States, including country specific energy challenges.

of the law is also to increase the efficiency of energy use throughout the energy chain, especially in areas with high energy savings potential such as the industry or buildings (Energia, 2014b).

To increase the expertise in the energy sector, the law introduces qualifying schemes for providers of energy services with guaranteed energy savings as well as an improved certification system for energy auditors. All large enterprises will be required to perform an energy audit and update it every four years. However, under current legislation, the obligation to perform an energy audit depends on the final energy consumption not on the size of the company, which means that the new law abolishes the mandatory energy audit for those small and medium-sized companies which have exceeded the present energy consumption limits. Enterprises which fail to conduct a regular energy audit will face fines from € 5,000 to 30,000. Furthermore, the law complements requirements for owners of large office buildings with a total floor area of more than 1,000 m², which will now be obliged to charge each tenant his energy consumption costs separately from other provided services. Under the new monitoring system, the building owner will also have to provide the Slovak Innovation and Energy Agency with detailed energy consumption data annually by 31 March (Energy Efficiency Act, 2014).

According to the Act, the Slovak Ministry of Economy will set energy savings targets for final consumers until 2016 and 2020 as well as a national energy efficiency target for 2020. In order to achieve these objectives, the Ministry will prepare an Energy Efficiency Concept and an Energy Efficiency Action Plan for 2014-2016 (CFO, 2014).

On 8 January 2014, the Slovak Government approved an amendment of the Law on Thermal Energy including several changes which were required by the European Energy Efficiency Directive. Among others, the installation of heating meters will be mandatory for all consumers by the end of 2016. This obligation includes consumers who live in a building with central heating; exempted are buildings with a total area of less than 500 square meters (Energia, 2014c).

On 13 June 2014, the European Bank for Reconstruction and Development (EBRD) announced to support renewable energy projects and energy efficiency measures in Slovakia with a € 20 million loan to Slovenská sporiteľňa, a.s. The loan is granted under a third phase of the Sustainable Energy Finance Facility in Slovakia (SlovSEFF) which so far has supported around 700 sustainable energy investments worth over € 190 million. The budget for SlovSEFF III will be complemented by additional funds from a carbon credit transaction between Slovakia and Spain, reaching an expected total amount for phase III of € 40 million. These funds will be on-lent to private companies (EBRD, 2014).

#### 4.2.3 Renewable Energy

The share of renewables in gross final energy consumption was 10.4% in 2012 which is above the indicative 2012 target of 8.2% set out by the Renewable Energy Directive (RED). The average annual growth rate was 8.1% between 2005 and 2012. Thus, an annual growth rate of 5.5% is still needed between 2013 and 2020 to reach the 2020 target of 14% (EEA 2014a). The share of renewable electricity generation in final electricity consumption increased – mainly due to the installation of new PV power plants - from 11.6% to 20.1% between 2005 and 2012, while the share of renewable heating increased from 5.0% to 8.7% (Eurostat, SHARES 2014).

According to an amendment to the Renewable Energy Act from January 2013, with effect from 1 July 2013, the feed-in tariff only applies to photovoltaic installations on buildings with a maximum capacity of 30 kW. All larger installations are no longer covered by the support mechanism. Slovak decision-makers argued that this proposal would "reduce unfair practices of some electricity producers" and "reduce the impact on the end user of electricity" (Energia 2013a). Subsequently, feed-in tariffs for all technologies were reduced on 1 July 2013 and were subject to another reduction on 1 January 2014 (RES Legal Europe, 2015).

For small-scale renewable energy generation plants up to 10 kW, a development plan was approved by the Slovak Government on 3 July 2013 (Small RES Development Plan, 2013). The development plan was prepared in cooperation with the Minister of Economy and the President of the regulatory authority ÚRSO and intends to reduce the administrative barriers for small renewable energy installations. Furthermore, it includes plans to make certain micro-regions more energy independent through the diversification of energy sources (Energia 2013b).

In December 2013, all three distribution grid operators in Slovakia declared a connection moratorium for new renewable energy plants with a generating capacity of more than 10 kW. Currently, only small installations, which meet the technical requirements for the connection to the distribution grid, receive a connection approval. The DSOs argue that this decision is only due to technical considerations, since the amount of electricity generated by renewable energy plants is not consumed directly in the place of production, which subsequently leads to instabilities of the distribution grid. Representatives of the distribution companies also referred to the development plan for small-scale installations, which foresees the construction of approximately 300 MW of new renewable energy sources; however, only provided that the electricity grid will be further developed and the transmission capacity of the Slovak-Hungarian cross-border section increased (Energia, 2014d). Therefore, the connection moratorium will presumably not be suspended, as long as these infrastructural measures have not been implemented.

On 22 October 2013, the Slovak Parliament approved another amendment to the Renewable Energy Act. The amendment changes the conditions for the promotion of CHP plants with capacities of more than 125 MW and raises the current minimum share of renewable energy from 20% to 30%. Furthermore, renewable energy producers (except wind power plants) are now entitled to receive the preferential feed-in tariffs for the first 5 MW (rather than 10 MW) of electricity supplied to the grid. However, plants with higher capacities can still receive the entire support, provided that they combine electricity and heat production. In addition, gases generated as by-products of metallurgical production processes may also be supported, which according to the Ministry of Economy aims to promote domestic energy sources to reduce the dependence on imports of primary energy sources (CFO, 2013).

However, it is worth noting that the amendment also intends to simplify the connection process for small renewable energy installations up to 10 kW. These producers shall be guaranteed a free connection to the distribution grid at existing delivery points and distribution system operators shall provide for the free installation of a bi-directional meter measuring the amount of electricity taken from and fed into the grid. These measures shall support installations in households which do not require support through a feed-in tariff but that cover a large part of the energy consumption (Energia, 2013c).

In 2014, there has been no further progress in this sector.

#### 4.2.4 Networks

Due to the fact that Slovakia is almost 90% dependent on imports of primary energy sources, the Slovak Government regards the diversification of transport routes as essential for the country's energy security. Therefore, Slovakia is currently implementing a gas interconnection project with neighbouring Hungary, which was planned to be commissioned on 1 January 2015. While the Slovak part of the interconnector is technically fully prepared to start technical operation, the launch of the new interconnector will be delayed, due to technical problems on the Hungarian side (BBJ, 2014). The Slovak Government stated that this interconnection project will eliminate bottlenecks and increase the cross-border capacity. This will increase the safety and reliability of operation of both transmission systems and increase the total marketable capacity in the common market (NRP, 2014).

Moreover, Slovakia is cooperating with Poland on the construction of the so-called North-South Corridor. This project has been selected by the EU as a "Project of Common Interest"; the costs for the Slovak part of the corridor will amount to approx. 142 million EUR (SME, 2014).

#### 4.2.5 Transport

GHG emissions and energy consumption from transport have increased between 1990 and 2012. Furthermore, the proportion of transport emissions among Slovakia's total emissions has increased to 15% (Eurostat, tsdcc210 and tsdpc320). Average emissions for newly registered cars are the eighth highest in the EU with a level of 135.2 gCO $_2$ /km. Average emissions in Slovakia have decreased by 14%, which is at a slower rate than the EU average of 22% between 2005 and 2013 (Eurostat, tsdtr450). Fuel taxation in Slovakia is close to the EU average. While the road fuel excise duties on petrol are slightly above the EU average, the excise duties on diesel are slightly below average (EEA 2014b).

In Slovakia, no registration tax applies. The ownership tax – which is rather low compared to other EU MSs - applies only to vehicles used for business purposes, based on weight and number of axles but not on CO<sub>2</sub> emissions. Additionally, Slovakia levies an annual vignette for cars, and a distance-based road toll for HDVs on specific highways (ACEA 2014, 2012, CE Delft 2012).

There are two different biofuel targets for the Slovak transport sector: one type of target is for the biofuel energy content share, which is calculated from the energy content of the total quantity of petrol and diesel fuels placed on the market, and the other type of target pertains to the minimum content of biofuels in each litre of a particular type of fuel (diesel and petrol). As of 1 January 2015, the obligatory biofuel content share amounts to 4%. While the minimum volume for biodiesel in diesel was set to 5.4%, the bioethanol component in petrol was set at 3.3% (RES Legal, 2015).

As part of the TEN-T programme, the project "Central European Green Corridors" supports the development of electromobility and the pilot deployment of 115 high power-recharging points in Central Europe, including 21 in Slovakia. The recharging points will be deployed in Austria, Croatia, Germany, Slovakia and Slovenia. The aim is to create a recharging network with countrywide coverage which will support customer roaming between the countries covered in this project. The project will be implemented until December 2015; the total project budget amounts to 7.1 million EUR, of which 50% will be covered by the European Union (European Commission, 2014).

# Policy progress against Country Specific Recommendations (CSRs) issued 2013

The EU Commission provides Country Specific Recommendations (CSRs) for each MS for consideration and endorsement by the European Council. The recommendations are designed to address the major challenges in relation to the targets of the EU 2020 Strategy. In the following table, the CSRs relevant for climate change and energy are listed, and their progress towards their implementation is accessed.

| Existing CSRs   | Progress  |  |  |
|---|---|--|--|
| Step up efforts to make the energy market function better, in particular by increasing the public transparency of the regulatory framework and by exploring the determinants of the high electricity network charges, notably for industrial consumers. Building on the progress made so far. | Transparency in decision-making processes has been increased by transposing the third energy package to the Act on Energy and Regulation in Network Industries. The competence scope of the Regulatory Office for Network Industries has been extended. Implementation of the third energy package has enabled a simpler change of electricity consumer, shortened the terms for changes to not more than 21 days, and also ensured better protection of consumers (NRP, 2014). |  |  |
|   | A successful launching of the daily energy market coupling project with the Czech Republic and the Republic of Hungary has significantly improved liquidity and prices for the participants (NRP, 2014).  |  |  |
| Further develop interconnections with neighbouring countries, including with Ukraine, accordingly to the Memorandum of Understanding signed in April  | Slovakia supports the Slovak-Hungarian gas interconnection project, which was planned to be commissioned on 1 January 2015. While the Slovak part of the interconnector is technically fully prepared to start technical operation, the launch of the new interconnector will be delayed, due to technical problems on the Hungarian side   |  |  |

| (BBJ, 2014). Moreover, Slovakia is cooperating with Poland on the construction of the so-called North-South Corridor. This project has been selected by the EU as a "Project of Common Interest"; the costs for the Slovak part of the corridor will amount to approx. 142 million EUR |
|--|
| corridor will amount to approx. 142 million EUR (SME, 2014).   |

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