The Grant Agreement for R2 Žiar nad Hronom - bypass was signed on 10th April 2013. A financial contribution was granted for construction of the new expressway section R2 in the length of 5.7km. The beneficiary - National Motorway Company was granted the funding of **29 972 528.55 EUR** which consisted of **25 476 649.27 EUR** from the Cohesion Fund (85% of total amount) and the national contribution of **4 495 879.28 EUR** (15% of the total amount). The financial contribution was based on a financial analysis (within the cost-benefit analysis – CBA) of the project and the funding gap resulted in **98.15 %**. The expressway section R2 Žiar nad Hronom - bypass has been in use since December 2014.

The Managing Authority for OPII decided to verify and update the CBA with the objective of improving the future quality of the projects´ CBAs submitted in OPII and subsequently increasing effectiveness of the funds drawing from the national and EU sources.

In ex-post CBA the following input data were updated based on years 2015 – 2017 (exception being GDP where prediction explained below was used):

*GDP – source: Statistical Office of the Slovak Republic, Ministry of Finance of the Slovak Republic, CBA guide for OPII version 2*

*Inflation – source: Statistical Office of the Slovak Republic*

*Average fuel prices – source: Statistical Office of the Slovak Republic*

*Investment cost – source: National Motorway Company accounting*

*Traffic volumes – source: nation-wide traffic count of SSC 2015, automatic traffic counter of NDS, a.s.*

*Infrastructure and maintenance cost – source: National Motorway Company accounting*

*Revenues – source: National Motorway Company accounting*

*Accidents – source: Police Force of the Slovak republic*

CBA of whole project was re-counted along with prediction to year 2041.

**Assessment of the financial analysis**

The funding gap has raised from **98.15%** to **100%** which means that amount of the EU grant for eligible costs should be bigger than the amount included in the Grant Agreement from 2013. This is due to the fact that the project´s toll revenues cannot cover expenses related to operation costs and the infrastructure maintenance within any year of the 30-years long reference period.

|  |  |  |
| --- | --- | --- |
| Investment cost | original 30 869 906 EUR | updated 33 331 084 EUR |

Increase in the Investment cost was caused primarily by landslide during the construction period and the subsequent redevelopment of the territory, resulting in signing of amendments to the contract for construction works.

|  |  |  |
| --- | --- | --- |
| Residual value | original 0 EUR | updated 0 EUR |

Updated inputs did not cause any change of this indicator.

|  |  |  |
| --- | --- | --- |
| Revenues | original 5 381 475 EUR | updated 8 413 369 EUR |

The project´s toll revenues are directly dependent on heavy traffic intensities. The heavy traffic intensities on selected road section are lower compared to the anticipated traffic intensities in the original CBA.

|  |  |  |
| --- | --- | --- |
| Infrastructure and maintenance cost | original 4 936 446 EUR | updated 10 292 548 EUR |

Maintenance and operation costs of the infrastructure were calculated with use of the OPD methodology. The Managing Authority for OPII updated the calculation method which makes the estimation of costs more accurate.

**Assessment of the economic analysis**

The revenue-to-expense ratio has decreased from **3.54** to **2.07** due to the reasons described below. This means that even though the revenue-to-expense ratio has decreased the project is still valid because benefits for society outweigh the costs related to the project implementation.

|  |  |  |
| --- | --- | --- |
| Passenger travel time | original 74 073 143 EUR | updated 77 956 170 EUR |

The higher traffic intensity on the new road has caused the increase of the passenger travel time. In 2017 the real traffic data show almost double increase of the vehicles using the new bypass compared to the original prediction.

|  |  |  |
| --- | --- | --- |
| Vehicle operating cost  | original 4 842 271 EUR | updated -9 000 359 EUR |

There are no savings in the vehicle operating cost. This is caused by the lower traffic intensities on all selected road sections even though the intensity on the new expressway bypass of R2 Žiar nad Hronom has increased.

|  |  |  |
| --- | --- | --- |
| Accidents | original 279 301 EUR | updated -16 899 650 EUR |

Update of the traffic accidents shows significantly higher accident rate than what was estimated in the original CBA. The Slovak Traffic Police does not register any “critical section” in this area although the main road through city of Žiar nad Hronom is still classified as very dangerous.

**Conclusions**

The ex-post CBA proved the justification for financing of the project from EU funds. The financial analysis confirmed the assumption that the project as such is unable to cover the expenses with its incomes and therefore a contribution from the Cohesion fund is necessary. The economic analysis also confirmed the effectiveness of using public sources as the project´s revenues for the society overweigh the expenses.