



## Monetary Valuation of EU-wide road safety developments in 2013

Richard Allsop, June 2014

In the 5<sup>th</sup> PIN report, the monetary valuation of preventing one road death (VPF) was estimated at 2009 factor prices and in 2009 euro to be 1.70 million EUR<sup>1</sup>. For the purpose of the 8<sup>th</sup> PIN Report, this value needs to be updated to reflect the economic conditions for 2013.

There are two components that need to be taken into account in the updating of the VPF value: the change in GDP per head and the conversion from 2009 euro to 2013 euro. The latter will be done by using the values of the Eurostat Harmonised Index of Consumer Prices (HICP) for the EU28 in 2009 and 2013. The former will be dealt with by considering the Eurostat estimates of the year-on-year percentage changes in the real GDP for the EU28 from 2009-10 to 2012-13 together with the increase in the EU28 population between 2009 and 2013.<sup>2</sup>

The formula used to update the VPF figure is thus the following:

$$\text{VPF}(2013) = \text{VPF}(2009) * (\text{GDP}(2010)/\text{GDP}(2009)) * (\text{GDP}(2011)/\text{GDP}(2010)) * (\text{GDP}(2012)/\text{GDP}(2011)) * (\text{GDP}(2013)/\text{GDP}(2012)) * (\text{HICP}(2013)/\text{HICP}(2009)) / ((\text{POPULATION}(2013)/\text{POPULATION}(2009)))$$

and numerically

$$\text{VPF}(2013) = 1,700,000 * 1.020 * 1.016 * 0.996 * 1.001 * 1.0965 / 1.0069 = 1,912,751$$

or 1.91 million EUR

This formula differs in detail but not in substance from the one used in the corresponding calculation for the 7<sup>th</sup> PIN Report. The change is made to reduce rounding errors that could arise when adjusting the valuation over longer periods of years.

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<sup>1</sup> For the full VPF calculation method, please read the 2011 PIN report methodological note at [http://www.etsc.eu/documents/Methodological\\_Note\\_PINReport2011.pdf](http://www.etsc.eu/documents/Methodological_Note_PINReport2011.pdf)

<sup>2</sup> The economic and population data was retrieved from EuroStat on 24.05.2014.