Food for thought

A tale of tolling, EETS and free lunches in Bulgaria, by **Norbert Schindler**

If you have been monitoring the procurement of nationwide truck tolling schemes for nearly two decades, as I have, you may have noticed the remarkable decrease in the cost of building such systems in recent years. When Germany issued its landmark tender for the tolling of trucks at the turn of the century, the capital investment costs were well above €1 billion. A few years after the German system was launched, a number of other European countries invested in similar tolling schemes, to the tune of at least €500 million. By 2013, Hungary showed the world that a national tolling system could be built at a fraction of that cost; merely €100 million were needed to implement the Hungarian scheme that operated on 6,500 km of the public road network.

In 2017, Bulgaria awarded the contract to construct a nationwide tolling scheme for a mere €75 million (150 million LEV). Included in this price tag is not only the cost for implementing distance-based truck tolling on an incredible 80 per cent of the Bulgarian road network, but also the e-vignette system for light vehicles. On top of that, the Bulgarian tender also required weigh-in-motion facilities and meteorological instruments to be provided as well.

Until now, I thought there was no such thing as a free lunch.

A TENDER MOMENT

The Bulgarian authorities issued one of the most unique tenders for nationwide tolling ever witnessed, based on the model for an electronic tolling system recommended by the World Bank. The 200-page World Bank study underlined the need for the new toll system to be interoperable with other European systems, flexible (allowing extensions to the tolled road network), and user-friendly. The study recommended that Bulgaria deploy satellite-based technology for tolling trucks and an electronic vignette (e-vignette) for light vehicles, based primarily on the model that was already implemented in Hungary.

The World Bank study also recommended the implementation of the European Electronic Toll Service (EETS) in the new Bulgarian system. Consequently, the tender required that EETS work from the very beginning – allow-

ing European Toll Service Providers to operate in the Bulgarian domain, based on clearly defined standards and interfaces.

Until now, only the Belgian Viapass system – launched in 2016 - supported multiple EETS Toll Service Providers from the first day of operation. The unique Bulgarian approach is challenging, as it necessitates the operation of two highly diverse tolling practices already implemented in the EU. Bulgaria aspires to have the best of both worlds when it comes to satellite-based tolling technology – the quick and cost-effective approach of Hungary, as well as the complex solution of Belgium, with EETS being fully supported.

This means that existing fleet management in Bulgaria can offer toll declaration services using simple tracking devices. At the same time, Toll Service Providers from any EU member state can bring their clients and their own (EETS-compliant) satellite-based solutions into the country.

Now that EETS is supported in Belgium, many new EETS providers have been established over the past year – and will be eager to offer their services in Bulgaria. It should be noted, however, that the EETS approach implemented in Belgium wasn't exactly cheap: €1.4 billion were invested for designing, constructing and operating the system for 12 years. Not included in that calculation are the investments made by individual EETS providers that decided to participate in the Belgian scheme.

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By contrast, Bulgaria awarded a contract for the construction of a nationwide tolling scheme that comes at just 5 per cent of the price paid tag paid in Belgium. That sounds like an awful lot of free lunches.

By following the Hungarian model, Bulgarians can exploit the use of existing GPS-based fleet management systems – as opposed to having to procure hundreds of thousands of satellite-based On Board Units, for example. Whereas Belgium installed a "default" Toll Service Provider, thus ensuring that any user entering the country would be provided with an OBU, the Bulgarian system does not foresee an investment in a single OBU at all.

▲ Hungary's approach to its national tolling system in 2013 was quick and cost-effective

On the other hand, Bulgaria does not already have an electronic vignette system already in place – as Hungary did – and must still invest in the enforcement infrastructure (i.e. fixed gantries with ANPR cameras) as well as in a new point-of-sales network, required for both the light-vehicles and the heavy vehicles. How all of this will be paid for, given the incredibly low investment costs, remains to be seen.

A COMPELLING STORY

Perhaps the Bulgarians will be able to have their cake and eat it too. In any case, the winner of the Bulgarian contract will eventually need to cover its expenses for building the tolling system. If the implementation costs are not covered, the tolling operator will need to find other means of turning a profit during system operations.

It would therefore not be surprising if the new operator reached the profit zone through the sale of add-ons to the system, which could be awarded during the course of tolling operations. Surely, it will be very interesting to watch this story as it unfolds.

With its unique tolling approach, Bulgaria could very well set a new standard for tolling in Europe that will draw the attention of many other countries, also seeking a cost-effective solution that can generate revenues needed for developing and maintaining the national road network. Indeed, the acquisition of a complex tolling solution at an incredibly low cost – with more extras than comparable systems in Europe – is something we could all dig into. *Bon appétit!*

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Norbert Schindler is CEO of GNSS Consulting, based in Vienna, Austria and will be participating in Thinking Cities' Autonomous, Connected & Electric Vehicles Roundtable Discussion in Rooms F002/003 on Thursday 22 March from 1430-1630