Greece. Olympia Odos Concession - a Hybrid Rebate Toll System

Enabling fair charging and allowing for a smooth migration towards free-flow tolling.

Olympia Odos is one of the most significant motorway concessions in Greece. It links the cities of Athens, Corinth and the port city of Patras on the Peloponnese, via 202 kilometers of motorway. Due to high costs and space restrictions, the construction of the fully closed system with plazas at each entry and exit was not feasible. Thus, until recently, drivers had to pay for entire sections of Olympia Odos, even if they got off the highway at the next exit. This was especially painful for frequent local drivers and commuters.

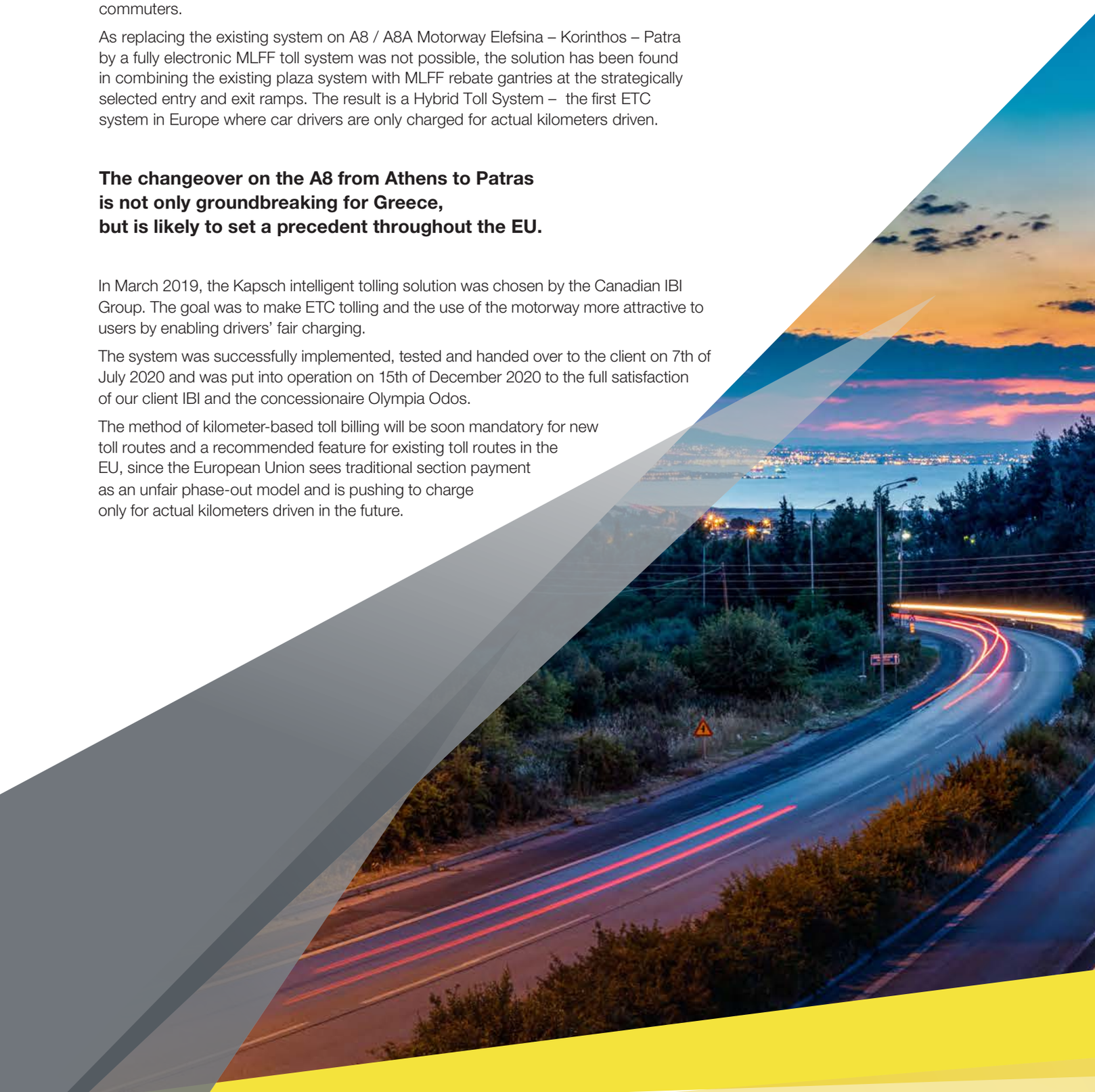
As replacing the existing system on A8 / A8A Motorway Elefsina – Korinthos – Patra by a fully electronic MLFF toll system was not possible, the solution has been found in combining the existing plaza system with MLFF rebate gantries at the strategically selected entry and exit ramps. The result is a Hybrid Toll System – the first ETC system in Europe where car drivers are only charged for actual kilometers driven.

The changeover on the A8 from Athens to Patras is not only groundbreaking for Greece, but is likely to set a precedent throughout the EU.

In March 2019, the Kapsch intelligent tolling solution was chosen by the Canadian IBI Group. The goal was to make ETC tolling and the use of the motorway more attractive to users by enabling drivers' fair charging.

The system was successfully implemented, tested and handed over to the client on 7th of July 2020 and was put into operation on 15th of December 2020 to the full satisfaction of our client IBI and the concessionaire Olympia Odos.

The method of kilometer-based toll billing will be soon mandatory for new toll routes and a recommended feature for existing toll routes in the EU, since the European Union sees traditional section payment as an unfair phase-out model and is pushing to charge only for actual kilometers driven in the future.



Project Scope:

According to the contract, Kapsch was responsible for the supply of:

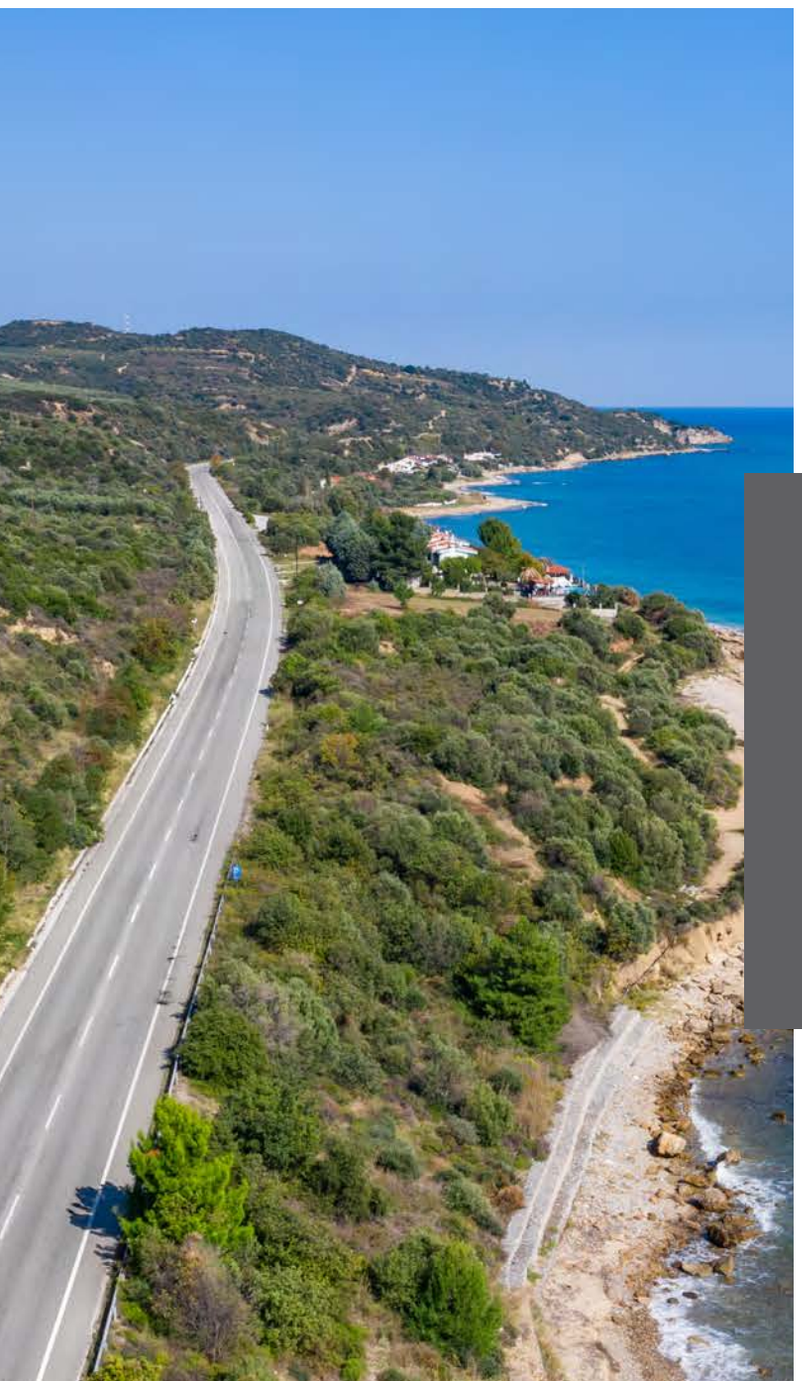
- A dedicated tolling and enforcement equipment for 30 MLFF
- Rebate Gantries, including the respective software, licenses and spare parts
- A central proxy to combine the Detection System with the existing Toll Back Office system operated by the concessionaire
- A 24/7 Real Time Monitoring System and the technical support (4th level)

The Challenges:

- Delays in the project delivery due to the Covid-19 pandemic and lockdowns
- Optimization of roadside geometry on on-ramps and off-ramps for best possible performance
- Coordination and design of a shared roadside cabinet

The Solution:

- DSRC MLFF ETC solution
- Central proxy application
- Enter and exit ramps equipped with Roadside Systems (RSS) for detection and classification of passing vehicles.
- Installation of the Roadside Systems (RSS) directly on entry and exit ramps along the tolled highway enables the functionality of toll fee and rebate calculation to guarantee distance-based toll tariffs. ETC users will pay the toll at the conventional Toll Plaza and will be granted with a rebate depending the point entered and/or exited. In order to avoid fraud, the RSS is placed on the ramps as a full tolling and enforcement station
- Basic functions: DSRC (reading tag), ANPR (license number reading) and VC (vehicle classification)



The Added Value

- Reduced traffic noise and emission.
- The billing technology not only ensures that costs are charged fairly in line with European Union recommendations, but can also be expanded to include additional services. For example, it is possible to set the toll for vehicles according to different environmental standards: e-vehicles would pay less than gasoline or diesel engines.

Kapsch TrafficCom AG | Am Europlatz 2 | 1120 Vienna | Austria | P +43 50 811 0
F +43 50 811 2109 | ktc.info@kapsch.net | www.kapsch.net | www.kapschtraffic.com