Road user charging: our experience

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Thinking of mobility
Thinking on the road
Madrid, 20 de Septiembre de 2017

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Auspician
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Our Experience in Road User Charging

Toll collect germany
- First satellite based road charging solution
- Road Charging for Trucks +7,5t
- Tolled Road Network > 25.700km highways and 4.700 km first class roads (+40 tkm in 2018)
- Start of Operation > 01.01.2005
- Registered vehicles > 1,1 mio
- 870.000 installed OBU’s (automatic booking)
- 3.700 terminal (manual booking)
- Interoperability with Austria (Toll2GO) since 2011
- Enforcement > 300 Gantries and 300 mobile vehicles (BAG)

Satellic NV Belgium
- Road Network > 154.403 km
- Tolled Network > 6.866 km (1st)
- Easy to Install On Board Unit OBU
- Enforcement > 40 Gantries; 22 Flexible Road Site Enforcement; 40 Mobile Road Site Enforcement
- Registration > Road User Portal & Service Points (136 Locations)
- Implementation Time >18 month
- Contract term >12 years (min.)
- Start of Operation > 01.04.2016
- EETS ready

GO Maut 2.0
- Road Charging for Trucks +3,5t
- 220 Points of sale
- 44 mobile control units
- 650 million Tolling Transactions per Year
- Toll Revenue 2015: 1,25 billion Euro
- Start of Operation > 01.01.2018
- Backoffice operation
- Interoperability with Germany OBU’s
- Planned integration with Toll4Europe

TOLL4EUROPE
- T-Systems, Daimler and DKV set up a joint venture for EETS Services
- The aim is to sign up sales partners to market the EETS services and to process the tolls vis-a-vis the end customers..
- Start of Operation 2018
- Initial Countries: DE; BE; AU; FR
- Optional: PL; IT; DK; CZ
From eurovignette to Tolling as a Service: Adoption evolution

- **2003**: euroVignette -- Vignette
  - Sustainable Road Network Maintenance
  - Limited Revenue
  - Reg. for flexible Extension of Tolled Roads

- **2008**: GNSS based system
  - First satellite based road charging solution
  - RCI (Road Charging interoperability)
  - EETS ready

- **2014**: Satellic Tolling Platform
  - Infrastructure for electronic road charging (Sat & DSRC)
  - Support for electronic ticketing
  - Customer centric – self service

- **2017**: TaaS
  - Tolling as a Service – T-Systems
  - Implementation and running tolling services with one “platform” allowing customer to focus on their business processes
  - Toll4Europe
  - EETS Service based on Satellic Tolling Platform
  - Support various Tolling Schemes in EU (> 40 Schemes)

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Tolling-as-a-service Service components

Tolling Platform

Support processes

System & device management
Organizational management
Supplier management
Quality & process management
Financial control
Public relations

Our Vision
Tolling as a Service

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AEC Lab
T·Systems
1 – Prioritization or parallelization of Passengers Cars VS Trucks
2 – Design of service architecture based on standards and scalable services
3 – Keep in mind European interoperable scenario.
Understanding on Global Trends

**SCOPE & SOLUTION**

- Trucks vs. Passenger cars
- Time vs. distance
- Highways
  - Secondary roads
  - Metropol./region
  - Smart cities
- PROGRESSIVE IMPLEMENTATION
- Road CAPACITY PLAN
- ENVIRONMENT Policies
- CO₂ EMISSIONS IMPACT

**TECHNOLOGY**

- dsrC vs. SATELLITE
- Escalability
- Road Net complexity
- OWNED VEHICLE
  - SHARED VEHICLE
  - AUTHONOMOUS CAR
- SMART CAR EVOLUTION
- OBU's 5G IoT SMART PHONES
- TOLL BARRIERS

**VALUE ADDED**

- Regulation and standards interoperability
- Boost new digitalization services for citizen
- Law enforcement and Agencies interaction
- Increase platform new uses

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