1. Kapsch TrafficCom AG

2. Road user charging in the EU & Kapsch approach

3. Perspectives of ETC – 3 Key messages
   - Distance-based tolling on TEN-T
   - Quo Vadis Road User Charging – Policy aspects
   - Interoperability of toll domains
Kapsch TrafficCom AG
Kapsch TrafficCom Group.

Urban Access Management

Safety & Security

Toll Collection

- Subsidiaries and References
- Subsidiaries
- References

- 260 Projects in 41 countries
- 80% Of Multi Lane Free Flow (MLFF) Systems worldwide are supplied by Kapsch TrafficCom
- 100 Cars per second are passing through Kapsch TrafficCom’s MLFF tolling points
- 44 Million drivers that use our OBUs (On Board Units) as a means of payment
- 3 of 5 National truck tolling schemes in Europe use Kapsch TrafficCom’s technology and services
- 12 Months (average) to deliver complete national truck tolling schemes (for the Czech Republic and Austria)
Kapsch TrafficCom Portfolio.

**Toll Collection**
- Target groups: Road operators, Concessionaires
- Applications: Highway tolling, Area tolling, Plaza tolling, HOT lane tolling, Toll enforcement

**Urban Access Management**
- Target groups: Municipalities
- Applications: City tolling, Access restriction, Low emission zones, On-street parking

**Traffic Safety & Security**
- Target groups: Police authorities, Road authorities
- Applications: Speed monitoring, Weigh in motion, Incident detection, Traffic surveillance

**Add-on Applications**

**Products & Components – (Sub-)Systems – System Integration – System Operations.**
Road charging in the EU & Kapsch approach
Road user charging in the EU, HGV schemes.

Integrated electronic network-wide toll collection
Eurovignette
National vignettes
Toll collection with physical barriers on the main motorways
Neither vignettes nor tolls
Integrated electronic network-wide toll collection under preparation

Source: EU DG MOVE, 2010
The Kapsch approach – Match objectives, schemes and technology
Perspectives of ETC – 3 Key messages
Application of the “User/Polluter pays” principle on TEN-T.

Regulates and prevents discriminatory charging on motorways

„User pays principle“ for HGV > 12t (1999)

„Polluter pays“ principle introducing HGV emission classes
HGV > 3.5 tons (2006)

Calculation scheme for external costs (2011)

Art 191/2 EU Treaty: “...the polluter should pay”
Application of the “User/Polluter pays” – Objectives and Effects.

Traffic Control / Demand Management
- Reduce congestion
- Guarantee level-of-service

Environmental Protection / Quality of Life
- Reduce air pollution (PM$_{10}$, CO$_2$, NO$_X$)
- Noise protection

Effects on road traffic:
- Decreasing traffic volume
- Better geographical distribution of traffic

Better distribution of traffic time-wise

Road User:
- Avoid/Consolidate trips
- Choose different route

- Choose different departure time
- Choose different transport mode

Variable or dynamic RUC schemes
Parameters of RUC – Put the „User/Polluter principle“ into practice.

- **LOCATION**
  - lane
  - route / section
  - area
  - zone

- **TIME**
  - static
  - variable
  - dynamic

- **VEHICLE**
  - truck / car
  - axles
  - emission class
  - others

- **USER**
  - trip purpose
  - car occupancy
  - others

- **DEMAND**
  - traffic volume
  - level of service
  - historical

- **EMISSIONS**
  - air quality
  - noise
  - real-time

**Parameters of RUC – Put the „User/Polluter principle“ into practice.**

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Quo Vadis Road User Charging – Policy aspects.

OECD Transport Outlook 2011 to counter eroding fuel tax: “Driving is less elastic than fuel consumption, so the efficiency costs of taxing driving are likely lower than those of taxing fuel consumption. In addition, kilometer-taxes are more flexible tools for addressing the main transport externalities, notably congestion.”

Gradually replacing transport system taxes with more effective instruments for further integrating infrastructure and external costs?

Expansion of tolling to all vehicle types? Distance based charging?
Quo Vadis Road User Charging – Which vehicles.

EC communication on the application of national road infrastructure charges levied on light private vehicles (14.5.2012); Future targets/elaboration of schemes
1. First phase: a mandatory regime for HGV charging till 2016
2. Second phase: a mandatory regime for internalizing external cost charging with the mandatory recovery of infrastructure costs. There is a possibility to extend these rules also to light vehicles

Legislation phasing in a harmonized, distance-based charging scheme for lorries replacing across Europe time based charges and possibly other charges?

Availability of proportionately-priced vignettes for light vehicles and introduction of optional rules of “fairness” and “proportionality” in the states where such a time vignette is applied? Process: from time-based charging => distance-based charging?

Art 18 EU Treaty: Non-discrimination on grounds of nationality
Interoperability of toll domains – The way forward.

Interoperability of ETC systems in the EU progressed since the introduction of the respective Directive (2004/52/EC).

Some successful regional interoperability initiatives;
- EasyGo + model (NO, SE, DK, AT); single contract, single invoice, single OBU offered through toll chargers (2 Mio OBU’s in circulation)
- Toll2Go (DE, AT); single OBU, two contracts, two contracts (42 000 HGV equipped)
- FR/ES; Interoperability between selected toll chargers; single OBU, single invoice

Interoperability likely to continue to develop regionally and demand driven, with or without providers;
- Development of these road charging regions contribute to the maturing of interoperability
- Eventually one or more EU wide service provider will be needed to interconnect these regions with each other and deal with a single-digit number of toll domains only.
- TEN-T Call to support regional pilot projects (open till end of March 2013)
## Sum-up Key aspects.

**From Patchwork to Network**
- “User”- and “Polluter pays” principle on TEN-T.
- Harmonized, distance-based charging scheme for lorries replacing across Europe time based charges.

**Policy**
- Gradually replacing transport system taxes with more effective instruments
- Expansion of tolling to all vehicle types?

**Interoperability**
- Interoperability progressing, demand driven and regional
- European framework facilitating the gradual merger of regional approaches?
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Replaces transport system taxes with more effective instruments for further integrating infrastructure and external costs?

Expansion of tolling to all vehicle types? Distance based charging?

Regulates and prevents discriminatory charging on motorways

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