

Interoperability of electronic road toll systems **European Electronic Toll Service** Framework for ITS Deployment

Directive 2004/52/EC Decision 2009/750/EC Directive 2010/40/EU

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EUROPEAU COMMISSION

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# Directive 2004/52/EC Scope

- All electronic road toll systems requiring an on-board equipment
- Collection of all types of road fees on the entire Community road network and various structures [tunnels, bridges, ferries...]



- Allows two electronic tolling technologies
  - » Satellite: GNSS + Mobile Communication (recommended)
  - » Micro-waves: DSRC (CEN and UNI)



#### Directive 2004/52/EC Requirements

- Setting up a European Electronic Toll Service, complementary to national/local toll systems
- To be defined by the European Commission assisted by the Toll Committee







# Decision 2009/750/EC EETS definition

Lays down rights and obligations

Entered into force the 8 October 2009
 After 3 years at the latest : EETS available for vehicles >3,5 tonnes or > 9 persons (driver + 8). Mid-term review.

» After 5 years at the latest : EETS available for all vehicles categories.





## European Electronic Toll Service (EETS) Essential elements: General

#### EETS shall meet requirements on

- » safety/health
- » reliability/availability
- » environmental protection
- » technical compatibility
- » security/privacy (protection of freedoms and
  - fundamental rights of individuals requirements)



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#### European Electronic Toll Service (EETS) Essential elements: Users

#### EETS Users

may subscribe to EETS through their EETS Provider of choice regardless of nationality, state of residence or vehicle's registration

» are responsible for correct declaration of variable tolling parameters (trailer, weight...)







#### European Electronic Toll Service (EETS) Essential elements: Toll Chargers

## Toll Chargers shall » publish EETS Domain Statement/Toll Context data

- » charge EETS users not more than corresponding national/local tolls
- » collaborate in assessing "suitability for use" of EETS Providers' equipment and procedures
- » contract with EETS Providers on a non discriminatory basis

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#### **European Electronic Toll Service (EETS) Essential elements: EETS Providers**

#### EETS Providers shall

» be registered (subject to conditions) in a Member State where they are established

- » reach full European coverage within 2 years
- » guarantee toll payment to Toll Chargers



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#### European Electronic Toll Service (EETS) Interoperability Management

 National Conciliation Body empowered to examine whether conditions imposed by a Toll Charger on different EETS Providers are nondiscriminatory



#### • Standards Organisations: CEN / CENELEC / ETSI

#### European Electronic Toll Service (EETS) Interoperability Management

 Notified Bodies: independent 3<sup>rd</sup> party assessment of "compliance to specifications" and "suitability for use" of equipment and procedures. NB-EETS Coordination Group.

#### Toll Committee



• Platforms (not in the legislation)

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## EETS & Intelligent Transport Systems (ITS)

#### I T S

## Use of information and communication technologies in transport

#### Safer, cleaner and more efficient transport

#### **Road Transport ITS**

- » electronic toll collection
- » dynamic traffic management
- real-time traffic information
- » satellite navigation, tracking & tracing
- » in-vehicle safety systems (eCall)

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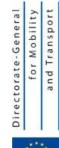
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#### EU Policies on ITS

## Action Plan for the Deployment of Intelligent Transport Systems (ITS) in Europe (Dec 2008)

Directive 2010/40/EU: Framework for the Coordinated and Effective Deployment and Use of Intelligent Transport Systems



Road transport and interfaces with other modes
» Ensure road transport sustainability



#### Directive 2010/40/EU Potentials of road transport ITS

- Congestion: 
   5-15%
   » electronic toll collection,
   dynamic traffic management & navigation
- Fatalities: 
   5-15% and Injuries: 
   5-10%
   speed alert, eCall, lane keeping support, ESC



#### CO<sub>2</sub> Emissions: ☆ 10-20%

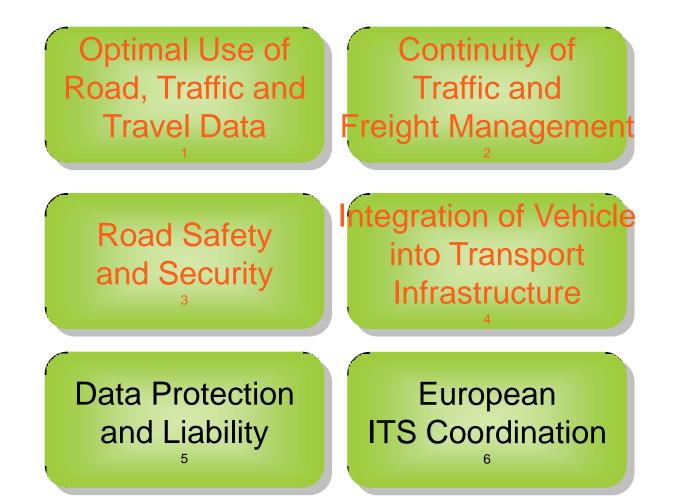
» road charging, access management, eco-driving support, multi-modality





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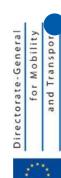
## ITS Priority Areas





#### Action 4.1: Open In-Vehicle Platform

- Adoption of "Open In-Vehicle Platform Architecture" to provide ITS services and applications
- Decision 2009/750/EC: In addition to tolling, the EETS on-board equipment should enable implementation of future other location-based services without interfering with toll operations



Study underway. Report will be submitted to standardisation bodies, possibly with a mandate.



## More information



#### Electronic road tolling

http://ec.europa.eu/transport/its/road/application\_areas/electronic\_pricing and payment en.htm

**ITS Directive and Action Plan** 

http://ec.europa.eu/transport/its/road/action\_plan\_en.htm



#### Thank you for your attention !

