

**EasyWay**



Annual Forum 2010



**Shortcut to the future.**

Lisbon • November 16<sup>th</sup>-18<sup>th</sup>



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**DATEX2 as a platform to  
support and implement new  
ITS services**

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# Presentation Structure

1. Introduction
2. The needs
3. How can DATEX2 help
4. Our experience
5. Conclusions



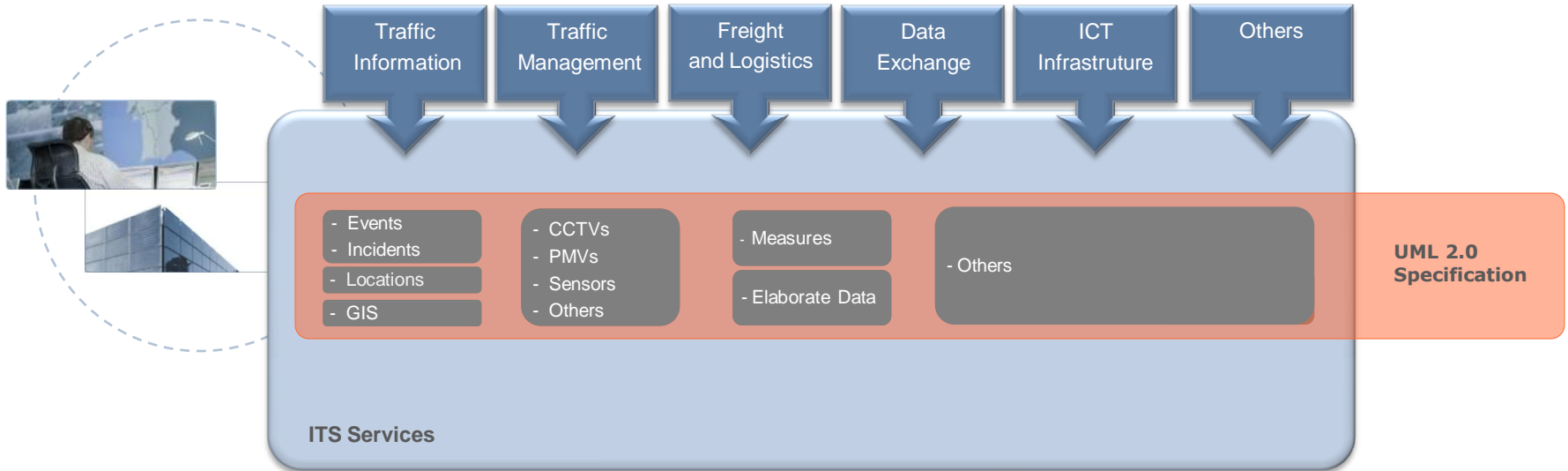
# Introduction

1. Project EasyWay guidelines and the new EU ITS directive define principles for Europe-wide implementation of new traffic services;
2. Based on these principles, Road Operators face the adoption of new specifications and the implementation of new ITS services;
3. DATEX2 specification started as one of the core EasyWay workgroups, aiming at traffic and travel data exchange between Road Operators and other European transportation stakeholders;
4. However, due the other study groups needs, it evolved and became a modeling base for new services. Being, in the beginning, a base traffic and travel information system model, it now includes more specific information, like Hazardous Materials Transportation or Traffic Management Plans and others.



## The needs

1. Provide new services
2. Manage information
3. Implement ITS Services

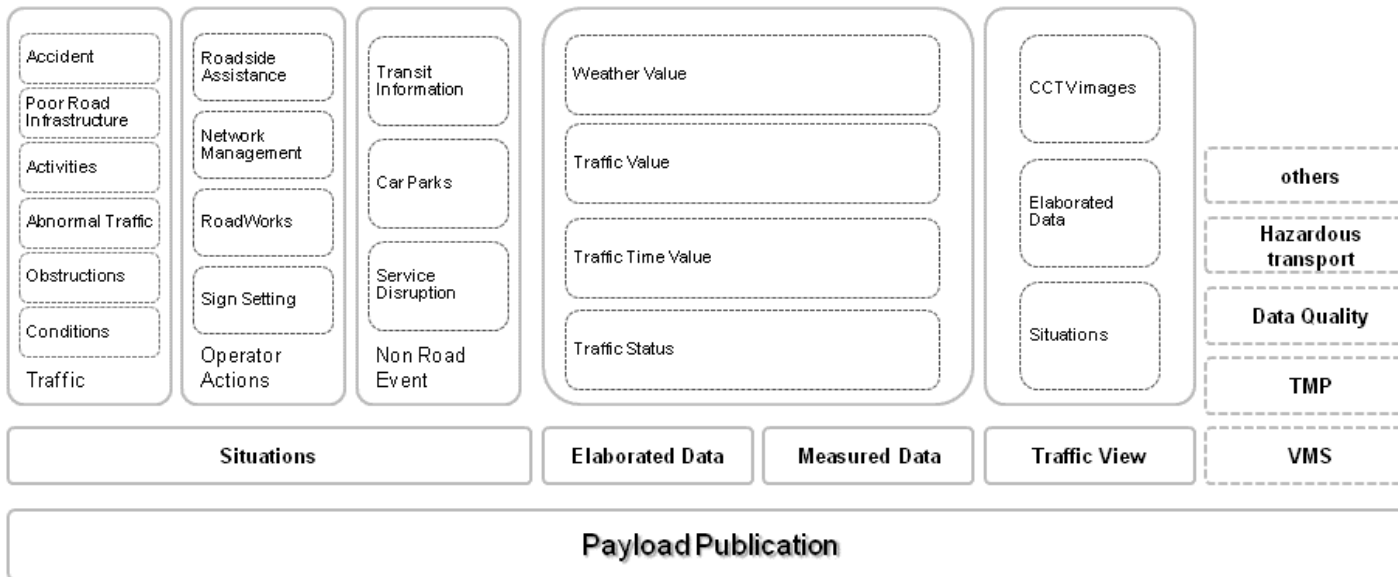




# How can DATEX2 help ?

## 1. What to exchange

- DATEX2 provides an excellent data dictionary



## 2. How to exchange and implementing services

## 3. Methodology to modeling and use new information and services



# Our Experience: first approach

## 1. Datex2.Toolkit – Data Exchange

1. Main focus on *data translation* between existing systems and DATEX II protocol
2. Custom services development (traffic management, ...)
1. Example (Portuguese DATEX II implementations): exchange data between EP (Portuguese National Road Authority), Brisa (Portuguese Road Operator) and DGT (Spanish National Road Authority)

## 2. Lessons learned

1. Existing Information Systems don't have all the information needed for DATEX II data exchange
2. ITS need more than what DATEX II provide as a data model: services, services and services.
3. DATEX II is *the* data platform for ITS systems and Data Exchange.
4. DATEX II can be the platform for ITS services.



# Our Experience: at present time

## 1. DRIVE - Traffic Information

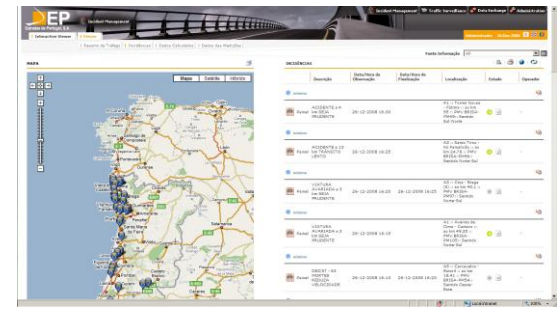
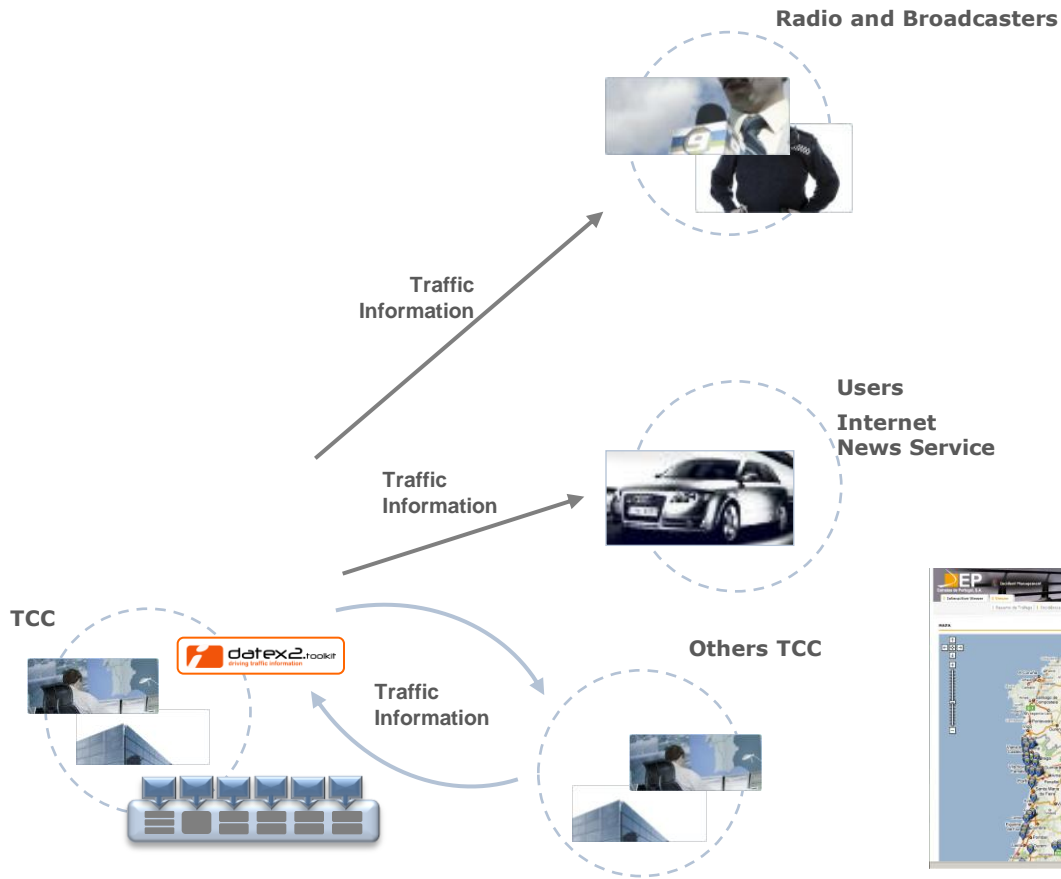
1. Main focus on ITS services
2. Data translation is an important base component – Data Exchange
3. DRIVE aims to deploy all kind of services suitable for different ITS roles (Traffic Information, Traffic Management, Data Analysis, Data Exchange, End-user services, among others)

## 2. Lessons Learned

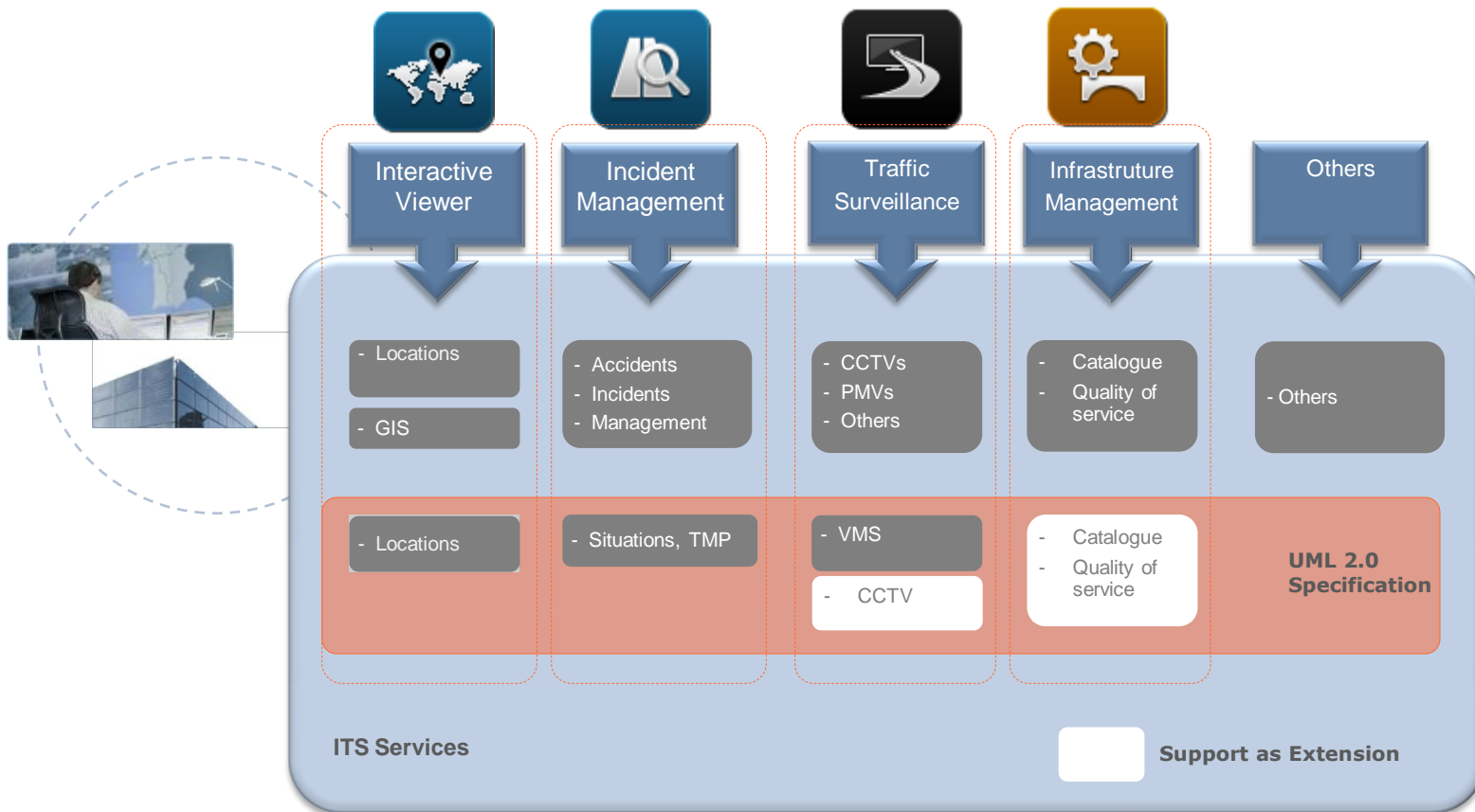
1. All these services share two basic concepts: Data Modeling and Services Implementation
2. Using DATEX II data model and its methodology as a base for services implementation, the resulting systems will be more prepared for Data Exchange and Integration with all parties composing ITS European Ecosystem
3. This approach allows for better prepared systems in the ITS services implementation ruled by the EU Guidelines, not only those already in place, but also new services to be defined in the future



# First Approach



## Drive Implementation





## New Generation of ITS Solutions



Interactive Viewer



Incident Management



Traffic Surveillance



Fleet Management



Work Management



Infrastructure Management



Data Analysis



Data Exchange



Technical Supervision



Administration

**Information** – Management and control of all information that supports traffic management.

**Innovation** – Through new services and new operation models implementation.

**Interoperability** – Data exchange and coordinated operation with other entities, using several standards.

**Intelligence** – Agile platform that directs operators to the actions and tasks associated with operation processes.

**Independence** – Standards based platform gives total independence of equipments and infrastructure.



# Conclusions

1. By adopting standards like DATEX II in their ITS infra-structure, Road Operators are in the right path for the implementation of new services defined in the Easyway guidelines.
2. DATEX II is one of the base specifications for building EasyWay guidelines and EU ITS directive principles.
3. Beyond the use of efficient systems and methods to exchange information, the use of standard protocols is a crucial experiment for open and advanced solutions with added value services for road operators and travelers.