

**EasyWay**



Annual Forum 2010



**Shortcut to the future.**

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



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## **ITS and Data Quality in Spain**

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## Outline

- Introduction
- Data quality in Spain
- In the framework of EasyWay
- Conclusions



## Introduction

- Data quality is needed to guarantee ITS services
  - Accuracy, completeness, availability, ...
  - Specially in harmonized and in cross border areas ITS services
- ITS data quality depends on the quality of all elements and processes involved in the service provision
- Start point is to guarantee quality in raw data
  - Errors in initial phases, will be spread and it could be difficult to correct later on.



## Introduction

- Data quality is needed in order to:
  - A Quality operational traffic management.
  - To deploy traffic management and traffic information services (public and privates) with a high level of user acceptance.
  - To reach benefits in :
    - Traffic management
    - Road safety
    - Environment



## Introduction

- Data Quality has to be implemented in a multilevel approach

**Raw  
Data**



**Service  
provision**



## Introduction

- Data Quality has to be implemented in a multilevel approach

Technological (sensor, signal, wire, ...)

Data inf. and integration (speed, flow)

Functional level (algorithm, processes)

Operational level (strategies)

User Acceptance (behavior vs signalization)

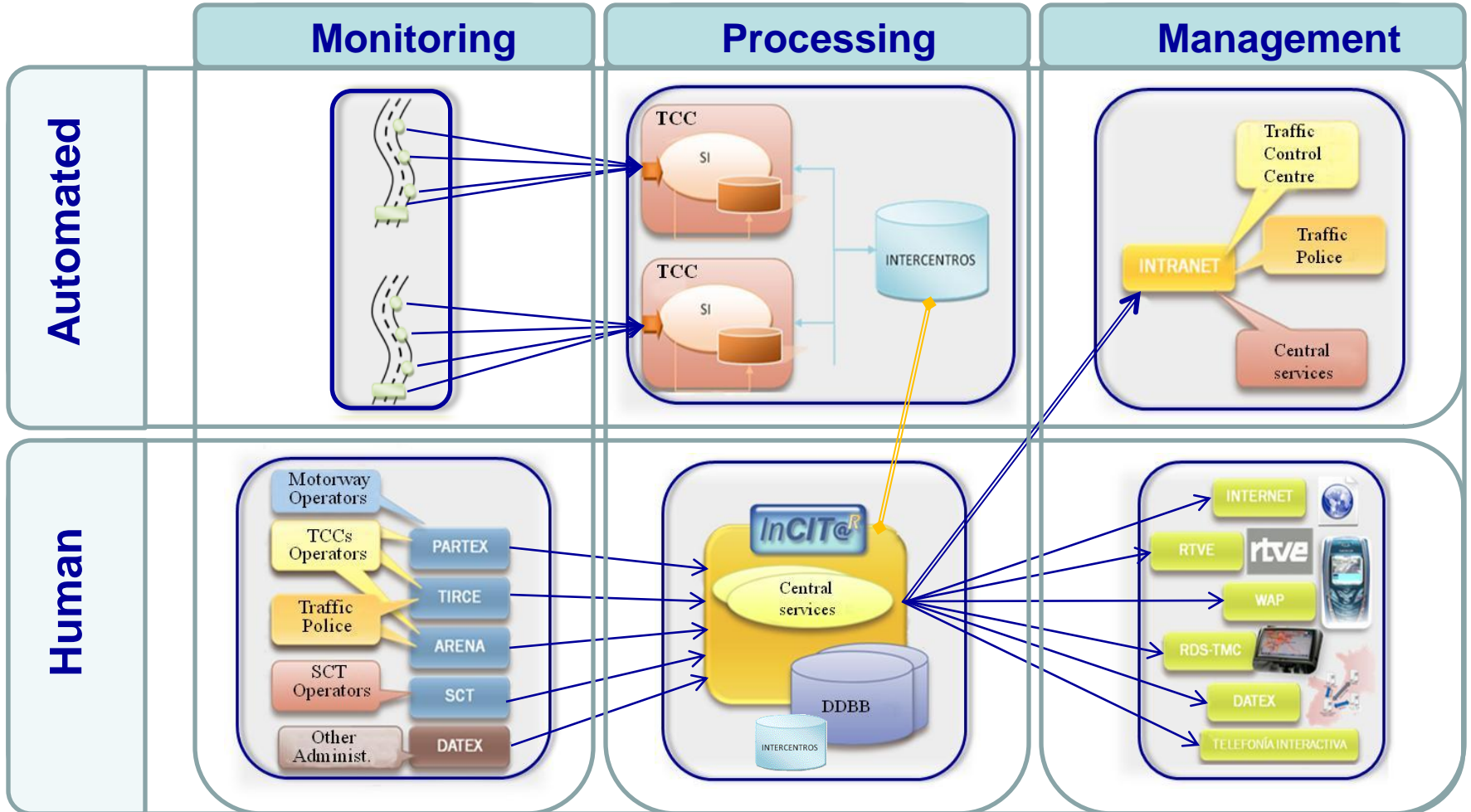
Result level (results vs objectives)

Raw  
Data

Service  
provision



## Data quality in Spain





## Data quality in Spain

- Traffic Management
  - Spanish standard UNEs
  - Purpose:
    - to improve quality in ITS systems.
  - The norms defines the operative processes & responsibilities of TCCs.
  - Different layers of applications
    - Individual equipment
    - Processed data
    - Shared information



## Data quality in Spain

- Committee AEN/CTN199
- Equipment for traffic management
  - To normalize equipment, systems and communications services needed to advanced traffic management (urban and no urban)
  - It includes all monitoring and communication systems
  - Structured in 15 Subcommittees



## **Data quality in Spain**

- **SubCommittee 15.- Data quality**
  - To elaborate norms about traffic and meteo data according the European normative
  - To define algorithms and models to process and store raw data
  - To define exchange information mechanism between TCCs



## Data quality in Spain

- SubCommittee 15.- **Data quality**
  - Workgroup 1.- INTERCENTRES
    - Develop norms related to data exchange between TCCs
  - Workgroup 2.- Data analysis
    - To define a set of filters to guarantee data quality of raw data before to store it in DDBB
    - To define a methodology to rebuild data (when missing or incorrect)



## In the frame Of EasyWay

- ICT Expert and Study Group
  - Task 3.- ICT infrastructure quality
    - “The Data Quality Aspect in ITS Framework and Best Practices” document
    - Objectives
      - To collect all over Europe pragmatic and concrete information on best practices on Data Quality Aspect for ITS.
    - The document has two parts
      1. Definition of quality and its various aspects,
      2. an appendix with a collection of experiences and best practices.



## Conclusions

- Data quality is essential to provide Quality ITS services.
- All elements and processes are involved in the data quality process
- Quality has impact on
  - Traffic management, road safety and environment
- DGT is doing a big effort to provide high level quality ITS services

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**Thank you for your  
attention**

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