



# ITS Action Plan

## Task 1.3 Digital Maps

Stakeholder consultation results

29<sup>th</sup> March, Brussels

# Aims of the stakeholder consultation

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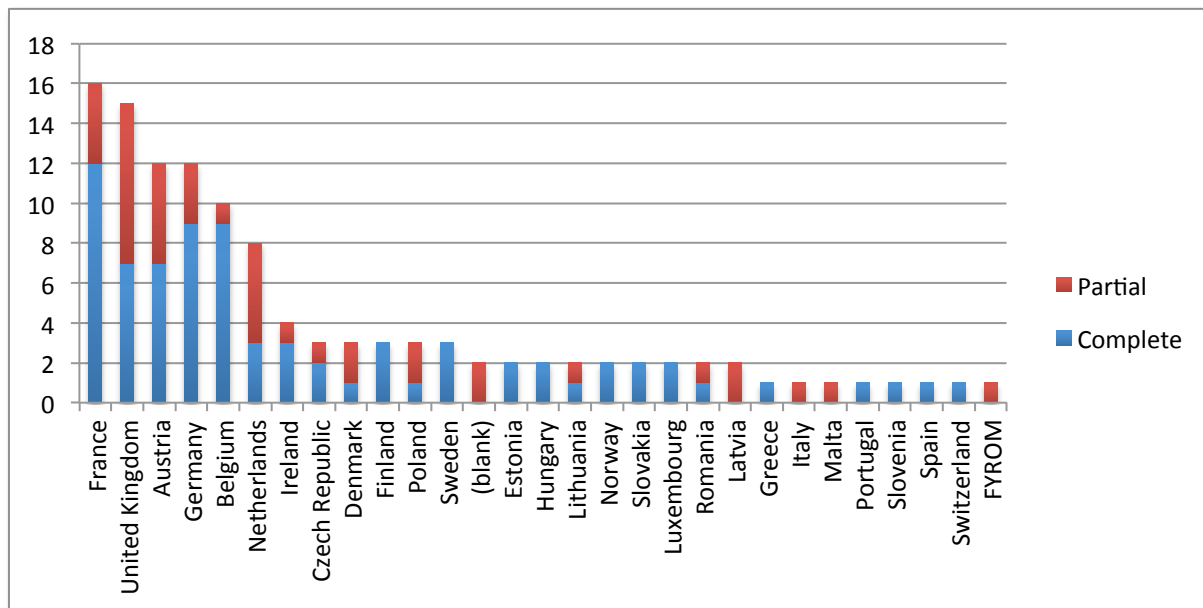


- Develop an understanding of:
  - The organisations involved in the delivery of road data
    - Remit
    - Network coverage
  - Technical aspects
    - Types of data held
    - Standards used
    - Quality issues
    - Accuracy requirements
  - Costs of data collection, aggregation and dissemination
  - Benefits of a harmonised approach
  - Future visions for data sharing between the public and private sector

# Who engaged?



- Online survey open for just over 1 month
- 78 complete, 41 partial responses
  - 90% public sector, 10% private sector
- Interviews with 15 organisations
  
- Not necessarily a representative sample



# Respondents

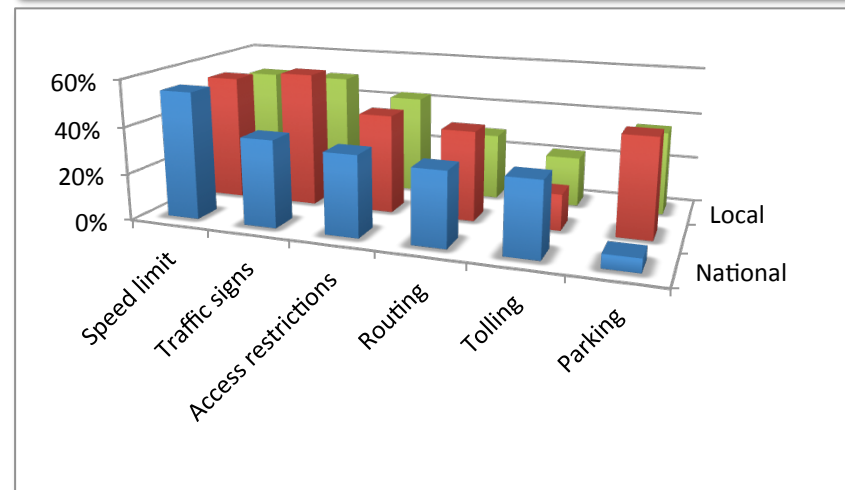
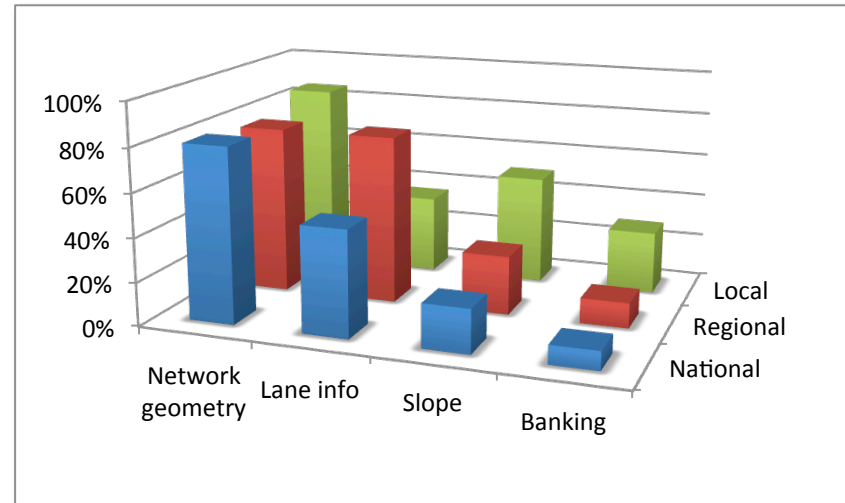


- Range of organisations responded to the survey
- Respondents identified the scope of their activities
  - E.g. public/private; sell/collect data; network coverage
- General organisation types
  - Type 1 = **public**, responsible for data collection at a **local** level
  - Type 2 = **public**, responsible for data collection at a **regional** level
  - Type 3 = **public**, responsible for data collection at a **national** level
  - Type 4 = **private** sector
- However, each organisation has a different scope/remit, and this has an impact on their responses to the questions

# Collecting data



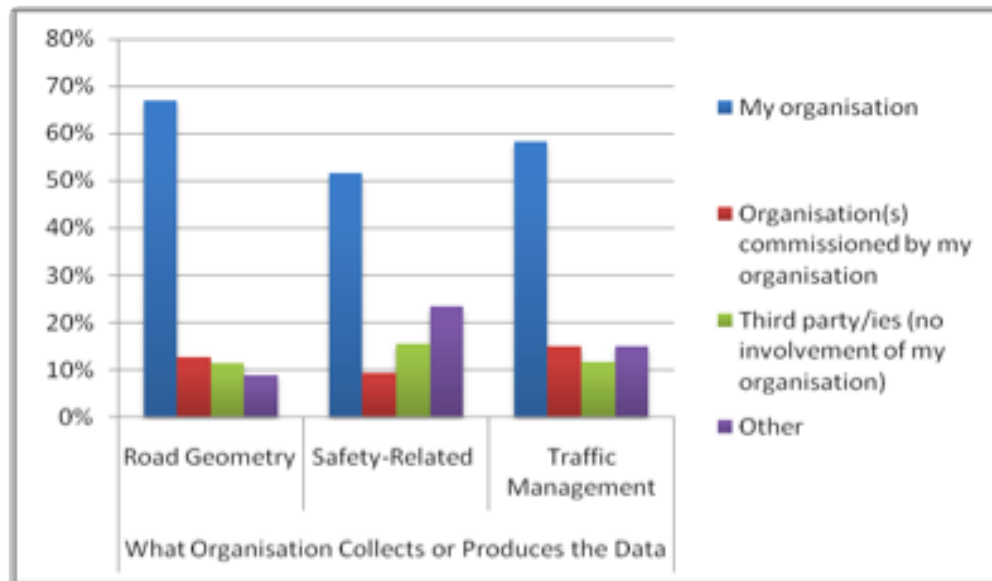
- Types of data collected
  - Geometry
  - Safety related data
  - Traffic management rules
- What does this tell us?
  - The majority of data collected is basic geometry data
  - Limited collection of other data
- Potential implications?
  - Limited support for certain applications



# Collecting data (cont.)



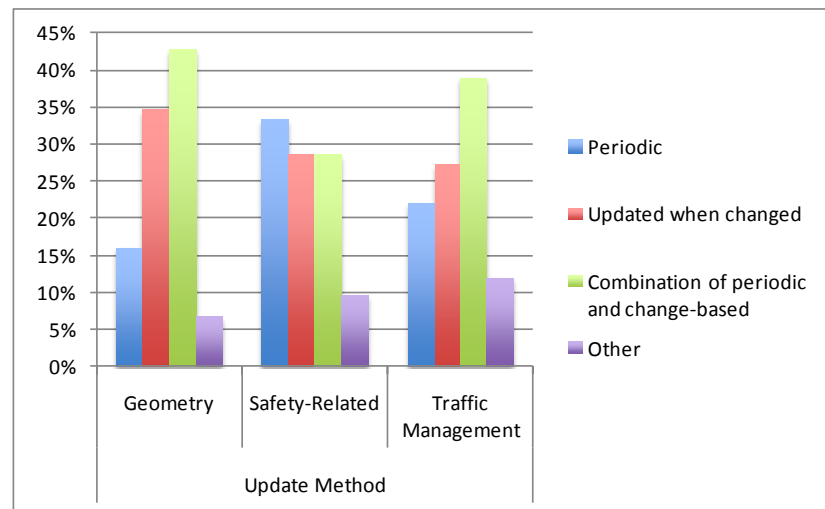
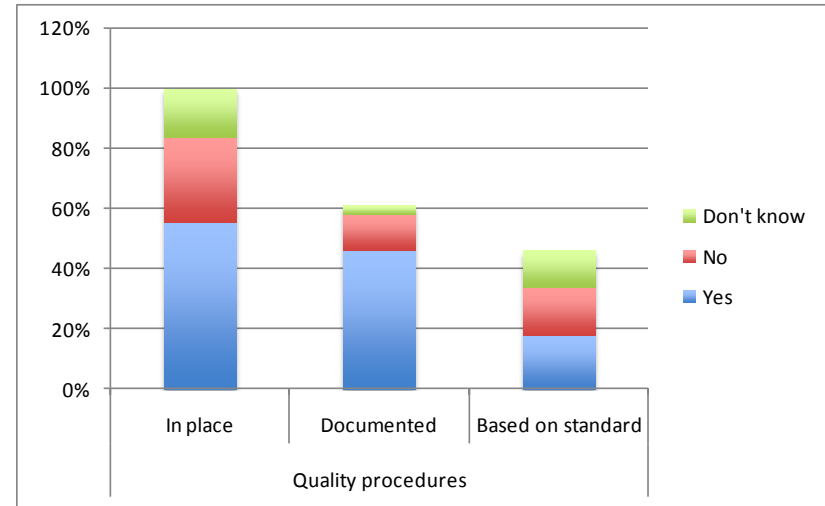
- Who collects the data
  - Mixed ownership (the organisation themselves [50-65%], contractors, third parties)
- What does this mean?
  - Limited control over the data chain
  - Potential impact on the ability to share the data
  - Need a robust approach to assuring the quality of that data across the data chain



# Managing data



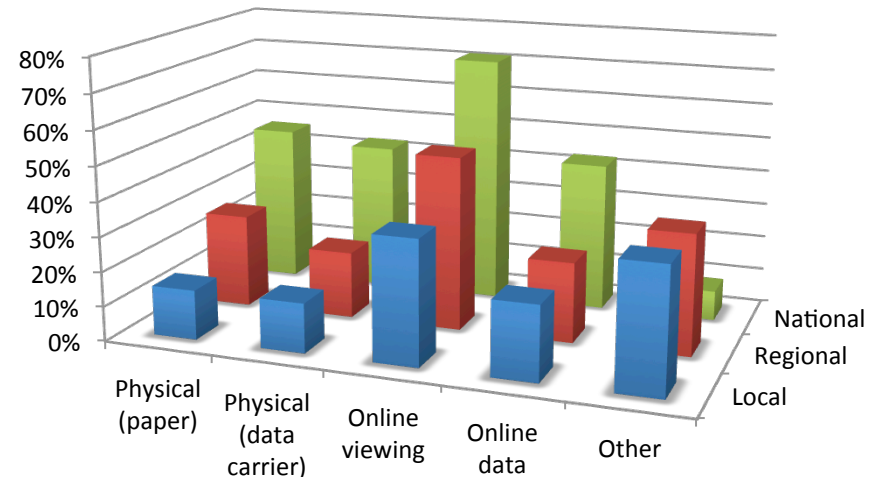
- Quality management
  - Use of quality procedures (c. 55%), reinforced by standards
  - Variety of update methods
  - Varying time between updates
- What does this tell us?
  - Potential impact on the use of the data on downstream applications/services



# Sharing data



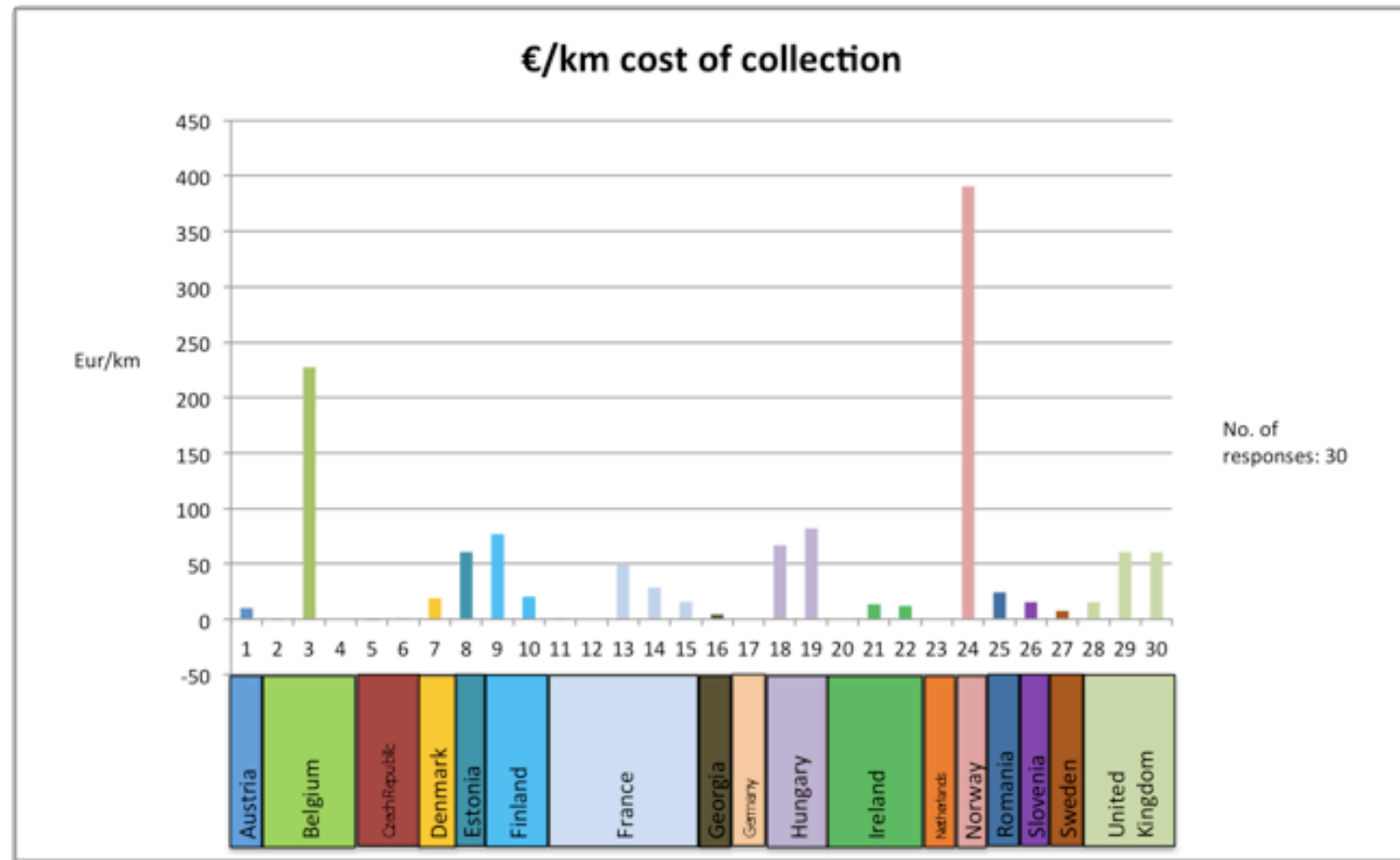
- Issues affecting the sharing of data
- Access conditions
  - Some organisations grant access to their data
  - Others do not
  - Others apply certain restrictions to access
- The basis for collecting data can have an impact on the availability of that data
- Publishing channels
  - Range of methods
  - If the data is published in a physical format it requires additional processing to make it useable by 3<sup>rd</sup> parties



# Costs of data collection



- Varying costs between organisations, types of organisations, MS





- Basis for varying costs
  - Reasons for collecting the data
  - Quality requirements
  - Type of data collected
  - Method of collection
  - Downstream use of the data
  - Format of the data
  - Method of dissemination

# Benefits of a harmonised approach

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- Support the certain applications/services e.g. ADAS
- Helps to meet safety targets
- Support the commercial exploitation of data
- Identify the true costs/benefits of data collection
- Improve efficiency within an organisation
- Enhanced comparability of data sets
- Support cooperation between different parties
- Providing a reliable basis for a data or information exchange model

# Future visions for sharing data

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- We invited comments on what the ideal future model of cooperation between the public and private sector might involve
- Examples of public sector views:
  - Review the licensing conditions to make it easier to share data
  - Data to be provided to all stakeholders at production costs
  - Reciprocal agreement between public and private sector authorities
  - Public authorities publish only network change data



Sources for construction of digital maps in new markets:

- Public and private data suppliers and partners
  - Mapping agencies through 1-on-1 relations
  - Road authorities through 1-on-1 relations
  - Aerial photographs and satellite imagery
- Proprietary survey vehicles
  - Advanced positioning and inertia instruments (odometer, gyroscopes)
  - Cameras providing a 360 degree view
  - Light Detection And Ranging (LIDAR)
- Increasing use of crowd sourcing
  - Floating vehicle data
  - Navigation user feedback
  - Community based map editing
- Less dependency on public sources for map updating

# Digital Map Providers – public cooperation



- Currently one-on-one relations with public road and mapping authorities; costly
- Digital map providers
  - Need standard interfaces to public authorities (i.e. ROSATTE)
  - Need quality assurance for public road data (i.e. ROSATTE)
  - But free road geometry data will kill willingness to invest in high quality road data collection
  - Limit public data to safety attributes (including road and traffic regulation)
- OSM
  - Community based data will be better and more up-to-date than public and private map data
  - Make all data public for free now (any format)



**Thank you for your attention**

James Long, Rapp Trans