

Making

EuroRoadS happen



 **Case studies : experiences from Norway**

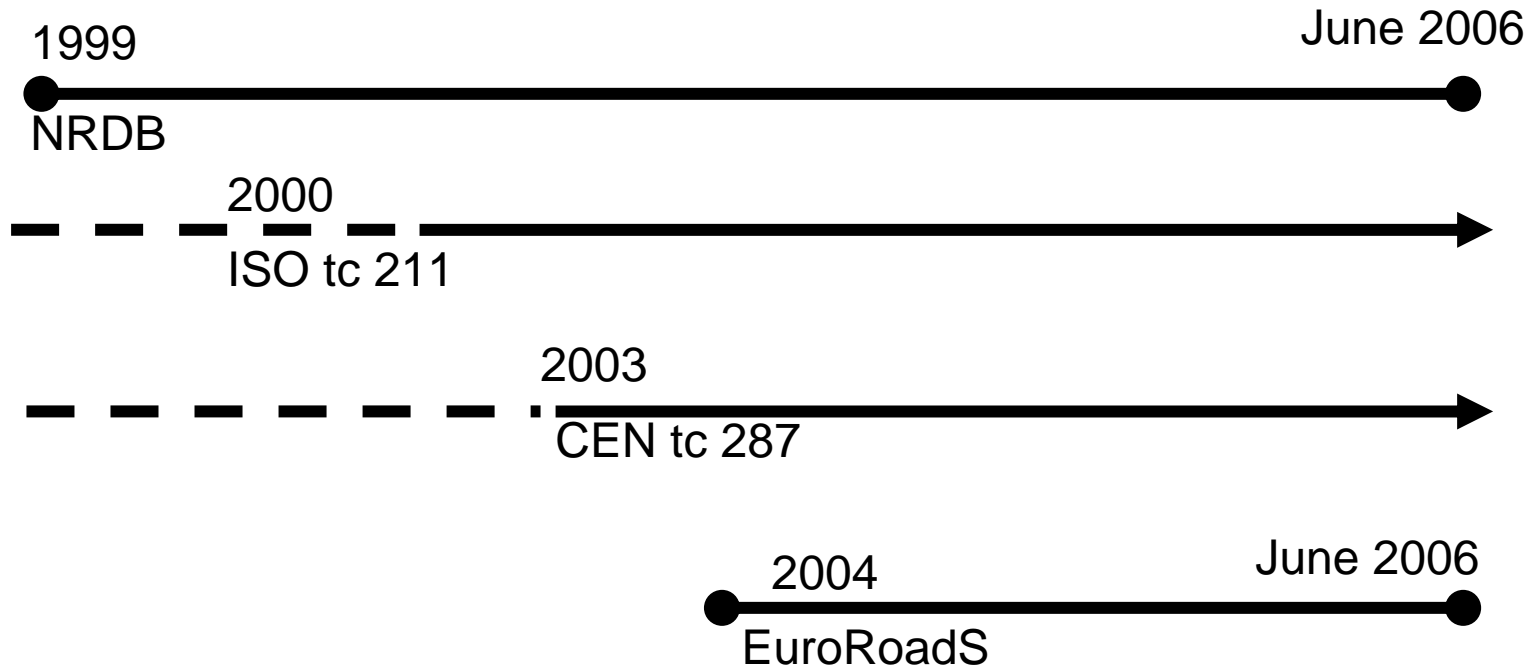
by John Mikalsen

Norwegian Public Roads Administration



Backgrounds :

- National expert to ISO tc 211 and CEN tc 287
- Developing NRDB in Norway



Some experiences

EuroRoadS has made us focused on:

- **Co-operation with the mapping authority**
- **Co-operation with Swedish Roads Administration**
- **Harmonize and standardize data definition**
- **The geometric representation of the road and the network topology**
- **Method to connect road- and traffic information to the network**
- **System architecture and database structure on the production database : e.g.. Howe to report and deliver information to the EU and the marked**
- **More political: the gap between the ITS and the geomantic domain**

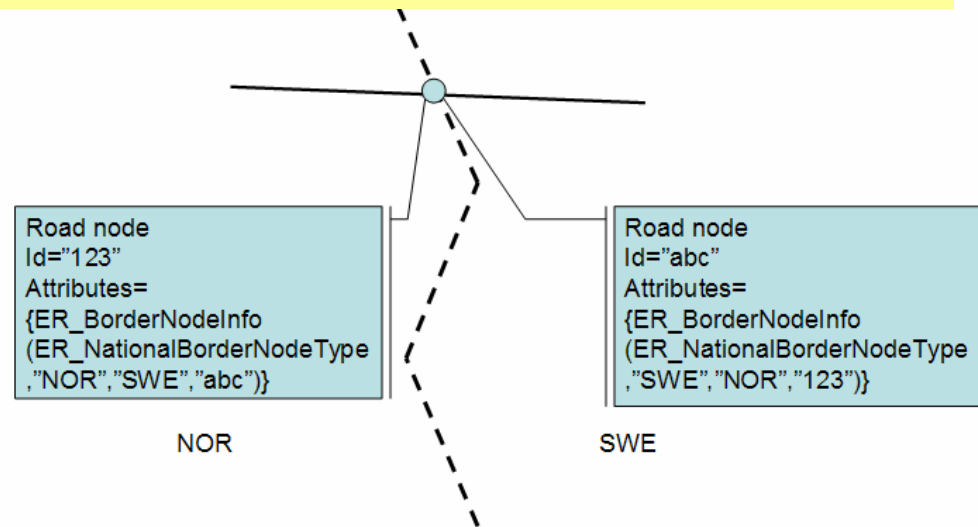


Co-operation : Border Node Information

Problem:

A common (Sweden – Norway) work to identify border nodes

- Agree on geometry for the border
- Identify roads that cross border
- Add a node attribute to each border node

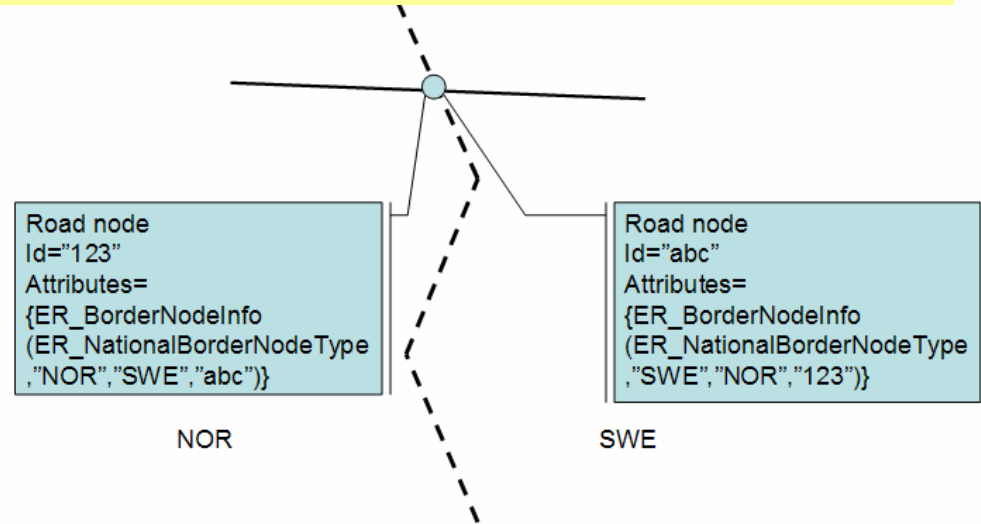


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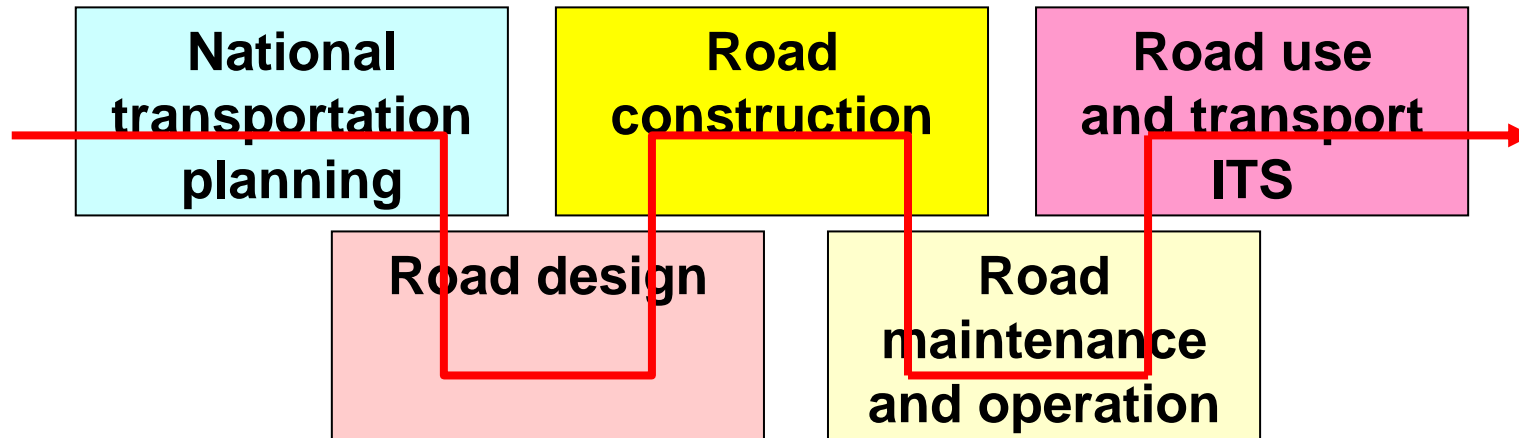


Solution:

Mostly already done based on an ongoing project and co-operation between the mapping authority in the both country

New National Road Database

principal processes



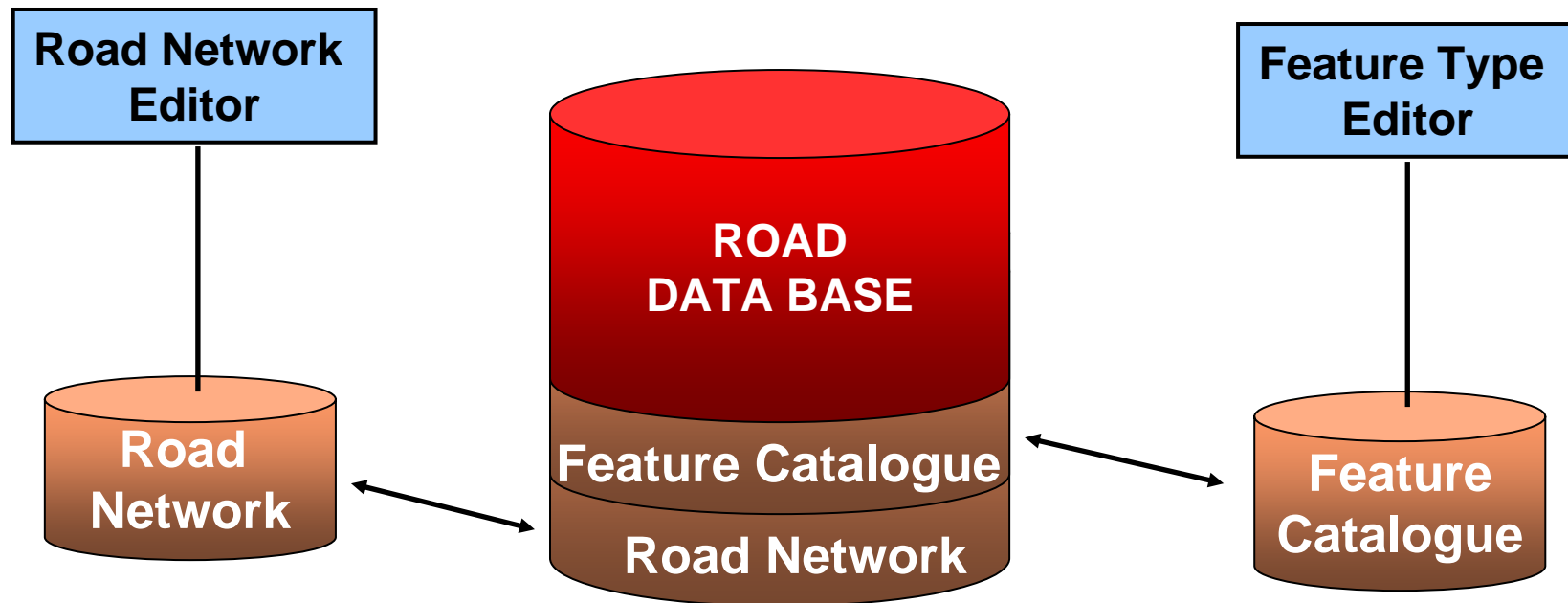
Road Network Model and Feature Catalogue Model

Standardization (ISO/CEN and national bodies)



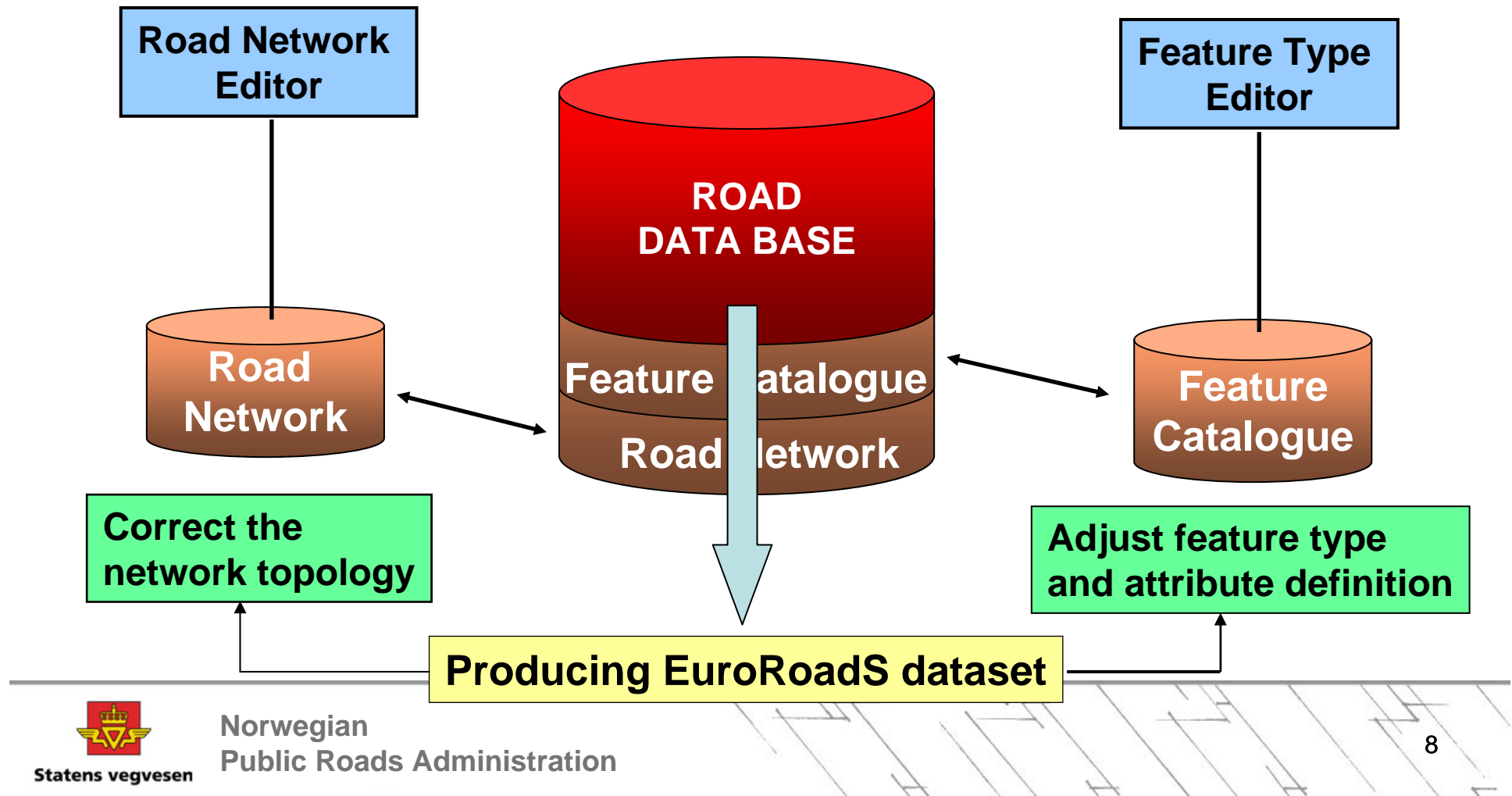
New National Road Database

from converting data to sheering data

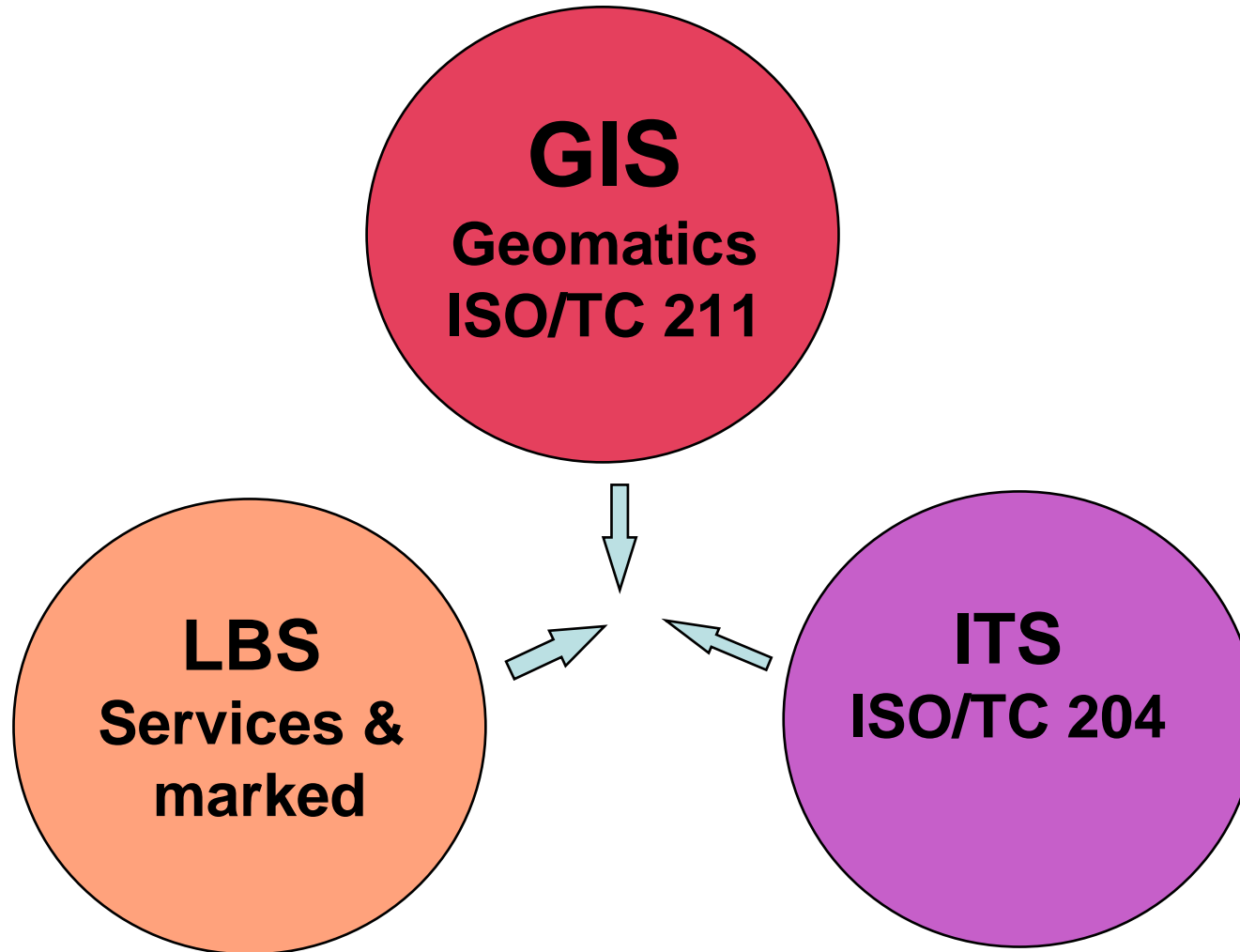


New National Road Database

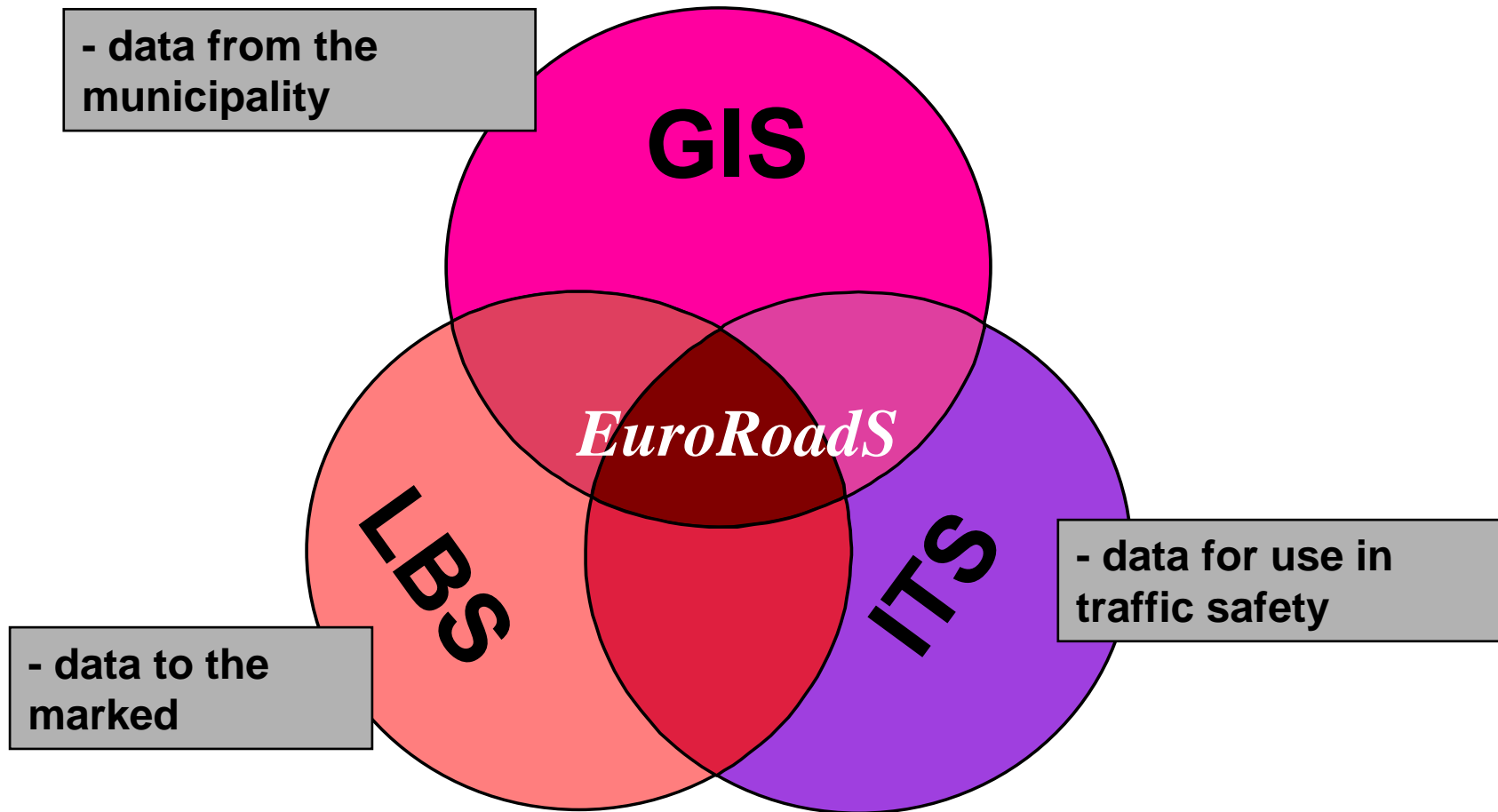
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Howe to tight the gap between the domains?

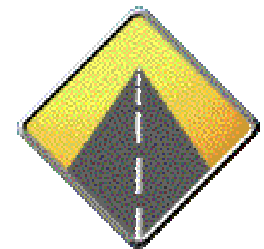
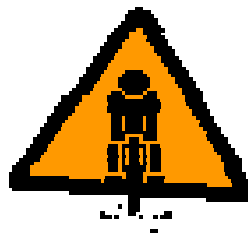


The case studies in EuroRoadS is an practical example – howe to tight the gap



Data in NRDB

- Traffic volume
- Traffic accidents
- Permitted axle load
- Surface material
- Road curvature
- Speed limits
- Road width
- Tunnels and bridges
- Environmental data
 - Pollution from traffic
- Road furniture
 - Rails, traffic signs, manholes, ditches, brick walls etc.

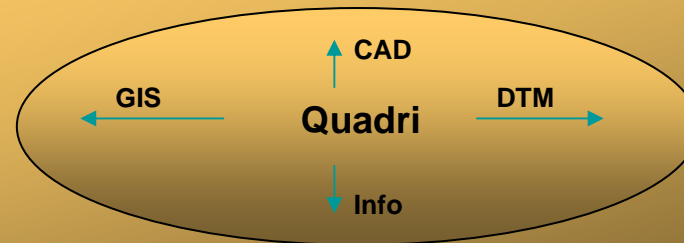


Three layer system design

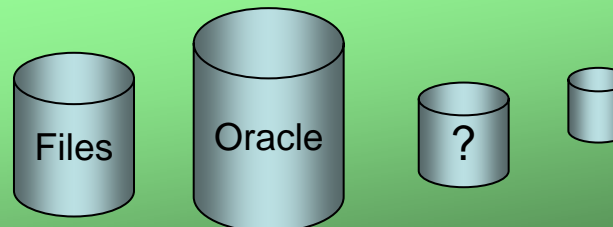
1. Applications



2. Model



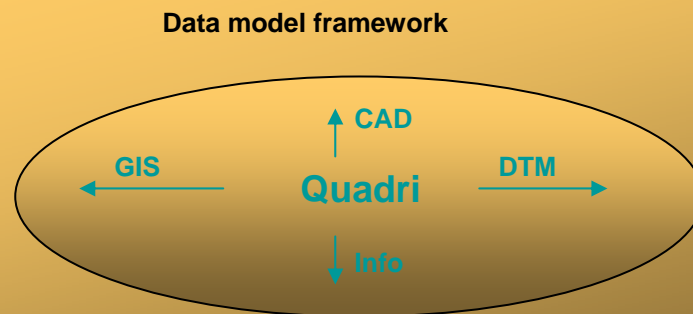
3. Database



The data model and the data model framework

- Administrates the data between databases and user applications
- Interacting the data with the standard feature catalogue and the road network

2. Model



- Feature catalogue
- Network model (topology)
- Calculations and data management functions
- Distribution infrastructure (http)
- Application interface (SOAP, COM)
- Open database interface