National Data Warehouse for Traffic Information
The Dutch approach

Marja J. van Strien
Managing Director

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• 2020 congestion at level 1992
• 95% of travellers are on time during peak hours
• Traveltimes will be acceptable during peak hours
Building: very effective, expensive, time consuming and environmental constraints
Pricing: very effective, expensive, public objection
Traffic Management: quickly effective, relatively low cost and acceptable
Who are we?

Collaborative venture between 15 authorities to collect process, store and distribute traffic data.
Participating authorities

- Rijkswaterstaat (all highways)
- City of Amsterdam
- City of Rotterdam
- City of The Hague
- City of Utrecht
- Province of Noord-Brabant
- Province of Noord-Holland
- Province of Utrecht
- Province of Zuid-Holland
- City Region Utrecht
- City Region Amsterdam
- City Region Arnhem-Nijmegen
- City Region Eindhoven
- City Region The Hague
- City Region Rotterdam
Started in 2007
What is our aim?

• Develop and maintain a joint database for traffic data

• Stimulate effective use of this data for traffic management and traffic information and policy → cooperation and central source

• Create efficiency by working together and sharing information
Traffic information

Fast, complete and clear
Traffic management

central source for all road authorities
Result

- Better utilisation of existing roads
- Greater accessibility
- 17% expected increase of LHV's will be flattened to 5-10%
Happy road users
Content database

- **Traffic information**
  Current information about the situation on the roads e.g. *traffic intensity, journey time, spotspeeds*

- **Status information**
  Information about the operational condition of the roads e.g. *roadworks, reports of congestions and incidents, status of peak lanes and bridges, operations scenarios*

- **Historical data**
Traffic information: collect, store and distribute

VMS's show speed and traffic jams; if necessary also alternative routes
NDW network

Road classes:
- National motorways
- Secondary roads
- Urban throughways
Quality requirements

• Traffic information is measured every minute
• Measured data is processed and made available to users within 75 seconds.

Also quality requirements for:

– reliability
– completeness of data
– system availability
Datasupply

Road authorities

Consortium 2

Consortium 1

Road authorities

State/RWS

Provinces

Municipalities

Cityregions

Supervisory board

NDW

Contract / SLA / Service catalogue

Demand

Road authorities

Service Providers

Systemprovider

Contract

Contracts

Datasupply

Consortium 1

Consortium 2

Road authorities

NDW

Contract
NDW today

- Commitment from Rijkswaterstaat and 14 local authorities: 5500 km
- Database opens July 6th 2009
- Development by growth:
  - new data
  - new suppliers
  - new customers
Traffic information
Situation June 2010

West and South part of the Netherlands:
✓ 33% of new data in database
✓ Authorities that provide data themselves are connected

Targets: *add more new data and improve quality of data*

North and East part of the Netherlands:
✓ Tender collecting new data till July 15
Statusinformation
Situation June 2010

✓ Reports of congestion of RWS in database

✓ Roadworks of main and underlying road network of partners in database; delivery being tested
Business model NDW

- **Data model**
  - NDW outsources data collection and storage to commercial contractors
  - Data ownership lies with joint authorities
  - Data distribution to service providers
    - (connection fee €6000 per year)

**Effect:** High quality travel information available for broad public
Business model NDW

- **Investment model**
  - Joint governments pay for NDW organisation and exploitation database
  - Each party pays for data on own road network
  - Partners get all data from NDW
Opportunities and issues for traffic information (service providers)

Opportunities
• Giant leap forward in reliability of traffic information
• Basic data for individual travel advise now available

Issues
• Investments in application development
• Financial aspects of business cases