Open Data Transport Authorities

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Knowledge Centre Open Data

Research focuses on the governance of open data, its impact, legal and financial conditions for implementing and adopting open data policies.

- Assessment of open data infrastructures
- Governance of open data
- Open data business models
- Legal aspects of open data
- Use and users of open data

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http://www.kcopendata.eu

Some of our current projects

- Open Spatial Data Infrastructure (open SDI)
- Safeguarding Data Protection in an Open Data World (SPOW) (2015-2019)
- Effective governance of open spatial data (at local level), E-GOS (2016-2018) & E-GOS Local (2017-2018)
- The STIG: Stress Testing the Infrastructure for Geographic information (2011-2019)
- 4D Open Spatial Information Infrastructure for Participatory Urban Planning Monitoring (2016-2019)

Some of our past projects

- E-conveyancing & cyber security (blockchain) (2017)
- Exploring the sustainability of open data business models of National Mapping and Cadastre Agencies in Europe (2017)
- Location data processing by social and commercial platforms (2017)
- Societal Cost-Benefit Analysis of high-value open datasets (2016)
- Sustainable business models for (self-funding) open data providers (2015)

Costs of open data

1. Administrative preparation costs
   - development of policy strategy, inventory potential datasets, buying out contracts
2. Investment costs
   - training of personnel, developing a data pl APIs, extra servers, etc.
3. Data processing costs
   - anonymising / aggregating, metadata. etc.
4. Maintenance costs
   - keeping data up to date, marketing/promotio
5. Lost income for data supplier

€20K-€100K per org. once off

€10K-€5M* per org. once off

€1K-€250K* per org. once off

€10K-€200K* per org. per annum

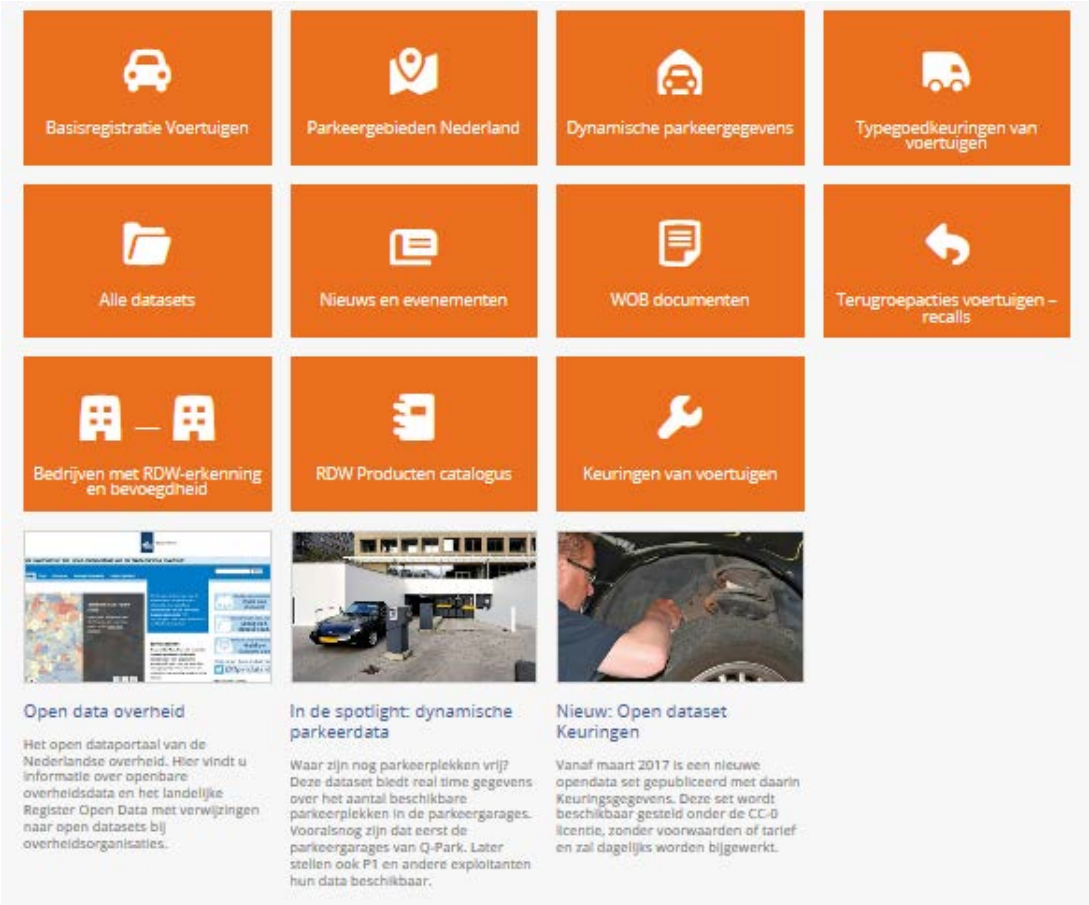
€1K-€105.5M per org. per annum

** Costs are often included in regular data management costs / innovation programmes*

RDW Netherlands Vehicle Authority

- Self-funding agency
- Key register manager
- Licensing of vehicles and vehicle parts, supervision and enforcement, registration, information provision and issuing documents.
- International cooperation
- EReg
- EUCARIS
- European Issues

RDW Open Data Dashboard



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RDW open data since 2013

- Data
  - Derived through mandatory registrations
- Funding
  - Registration fees
  - Fee-based services
- Platform
  - Switch from MS Azure to Socrata
- Effects of open data
  - Higher quality due to more feedback
  - Little effect on fee-based services
  - Fewer (formal) requests via other channels

Sample RDW open data application

http://www.poseidonsecurity.nl/match-catch/

Open Data | RDW | O... | Resultaten bijpassend... | npropendata.rdw.nl | Match & Catch - ... | Autozine - Nieuws: iV... | thegreenland.eu

poseidon *a Securitas company*

POSEIDON SECURITY SOLUTIONS VACATURES SUPPORT ACADEMY CONTACT

Een intelligente combinatie van hard- en software, ontwikkeld in nauwe samenwerking met TNO

Reken af met doorrijders

Benzinedieven kosten de maatschappij jaarlijks miljoenen euro's. Naast financiële schade zorgt het doorrijdersprobleem voor frustratie en woede bij bedrijven en hun medewerkers. Bovendien kost benzinediefstal veel van uw kostbare tijd; denk aan alle tijd en energie, die gemoeid is met de aangifte; formulieren invullen, gegevens opzoeken, camerabeelden opvragen... Kortom, reken af met doorrijders en kies voor een geavanceerde oplossing voor de beveiliging van uw tankstation.

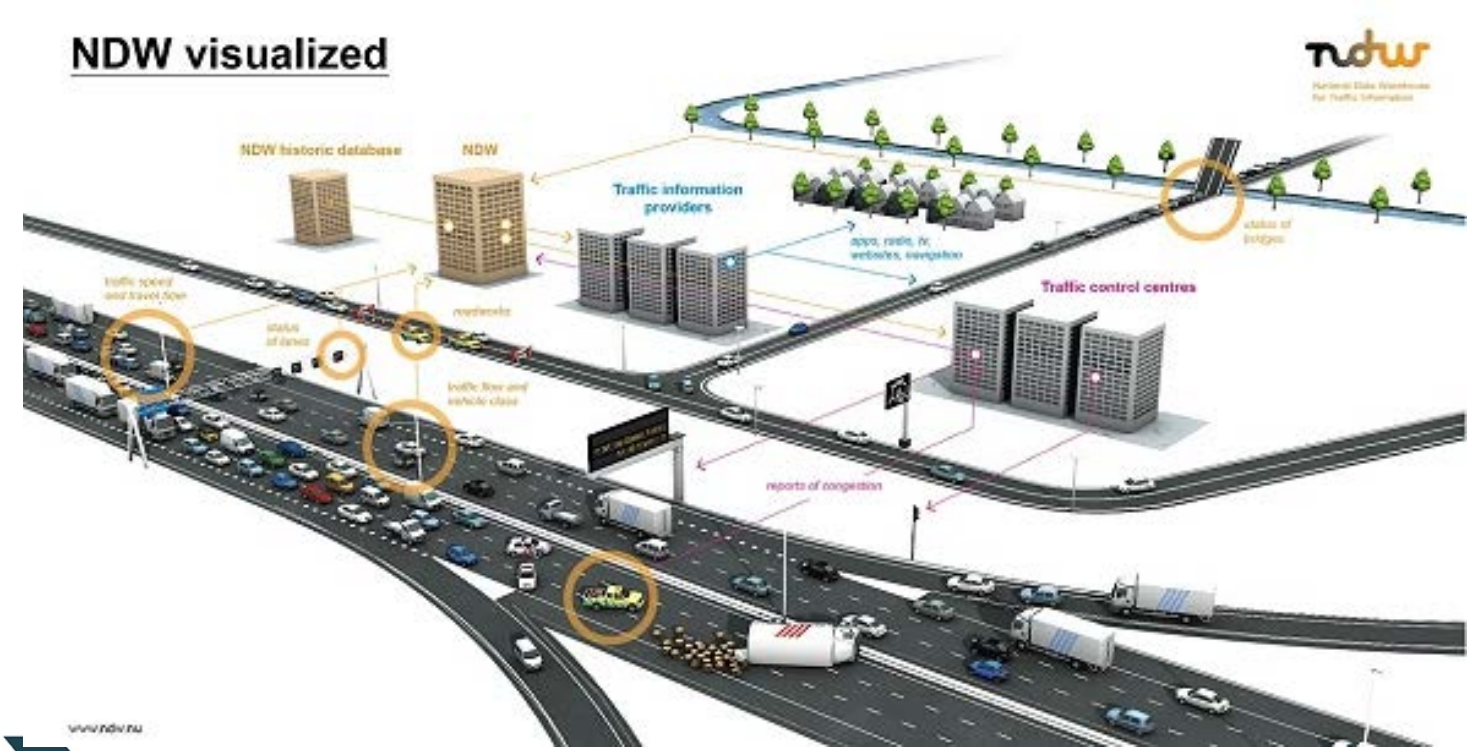
Binnen één seconde zekerheid

Poseidon, een gerenommeerde speler in de Petrol branche, ontwikkelde samen met TNO de ultieme oplossing Match & Catch. Na een ontwikkel- en testperiode van twee jaar wordt Match & Catch nu breed ingezet als oplossing tegen benzinedieven. Geavanceerde software en camera's voor kentekenherkenning en voertuigherkenning beveiligen uw tankstation tegen benzinedieven. De met een SSA Award bekroonde oplossing is gebruiksvriendelijk en supersnel. Binnen één seconde wordt een voertuig en kenteken herkend en gecheckt in diverse databases. Is er een match, dan geeft uw medewerker eenvoudig de pomp niet vrij.

5:29
17-4-2018

NDW National Data Warehouse for Traffic Information

- Cooperation of 19 public authorities, central government (RWS), 12 provinces, all urban regions, and the cities of Amsterdam, Rotterdam, The Hague and Utrecht
- Data from ca. 24,000 measurement points used for traffic information, effective traffic management, and accurate traffic analyses for better accessibility and traffic flow.
- Manager National Portal ITS



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NDW open data since 2013

- Real-time data service (via ftp)
  - Real-time traffic data
  - Status information, e.g. road works, open bridges

- Historical data service (prior registration)
  - Historical data (no. of vehicles (per category) passing a point, the average speed and/or average speed between two points)
  - Every minute details per hour time slots
  - Basic module: intensity & speed for max. 10 points, selected on a map
  - Expert module: all historical data, incl. travel times, selected by period of all 24,000 points, for max 12.5 Gb

NDW Data+Services Agreement

Reciprocal agreement with private sector

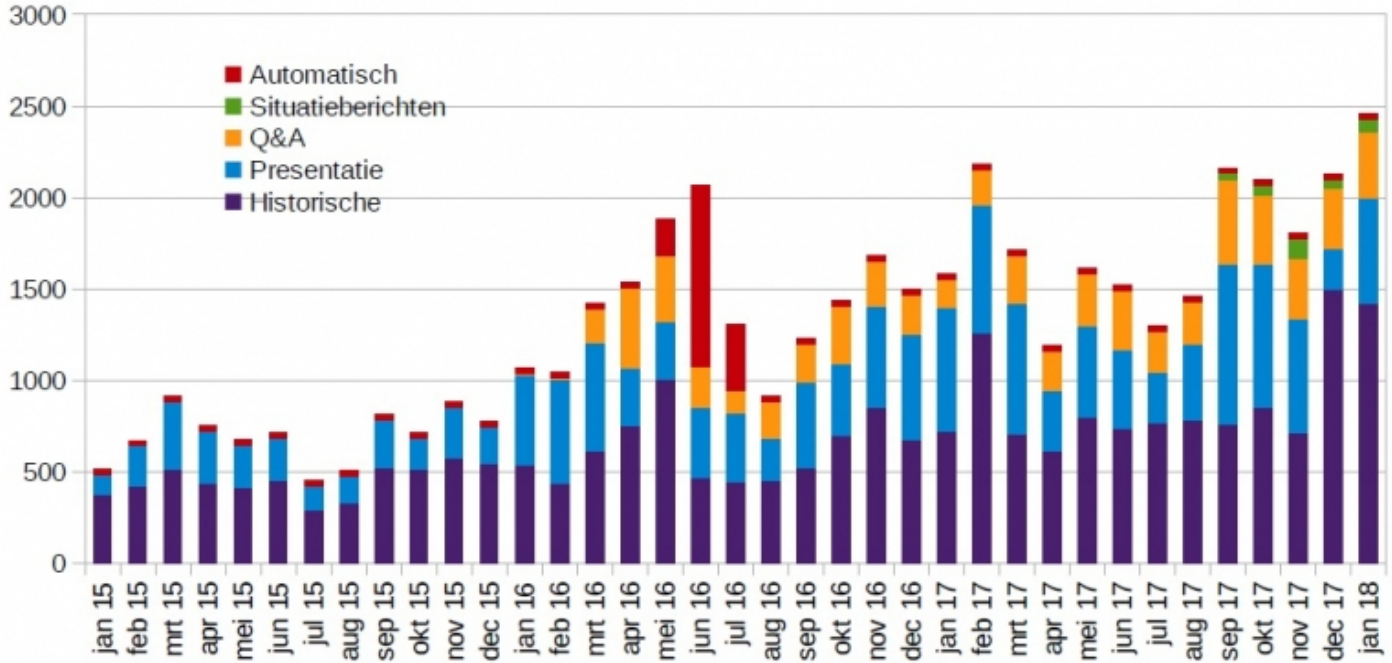
- Open data with a service level agreement (SLA) + 24/7 service desk and user group membership
- In return for a service, e.g. floating car data, enriched data, data services
  - Must add a real contribution to the goals of NDW partners

Data+Service companies

Direct effects of NDW open data

- Change of role in data value chain
  - from data aggregator to data partner
- Efficiency gains
- higher data quality due to reciprocal data exchange
- More (new) users and more applications on basis of open data
- Heaps more data traffic!
- Open data only small part of total operations, OD costs hard to isolate

Historical data traffic 2015-2018



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Open data NDW costs & benefits 2016

Real-time traffic data	Costs	Benefits
Direct effects: • server costs • admin. costs • multiple data collection	 -0.18M -0.9M pm	 pm
Indirect effects: • less vehicle loss hours • traffic diversion costs • reliability • new products/companies	 - + - -	 57M -29M 14M +
Other effects. e.g. commuter/company location attractiveness, less CO_2 emission	-pm	+pm
Total	-1.08M +pm	41.1M +pm

Transport for London (TfL) Open Data

Benefits: to £130M/year

- Time savings for network passengers £70-90M/year
- Time savings for other road users, reduced emissions
- Free apps for passengers in lieu of fee-based SMS, £2-5M/year
- Better information to plan journeys, travel more easy and passengers take more journeys, up to £20M/year
- Commercial opportunities for developers: over 600 apps, £12-15M/year. 500-700 extra jobs
- Leveraging value & savings from partnerships through access to data of partners (e.g. crowd-sourced traffic data)
- Efficiency gains: no development costs for own apps

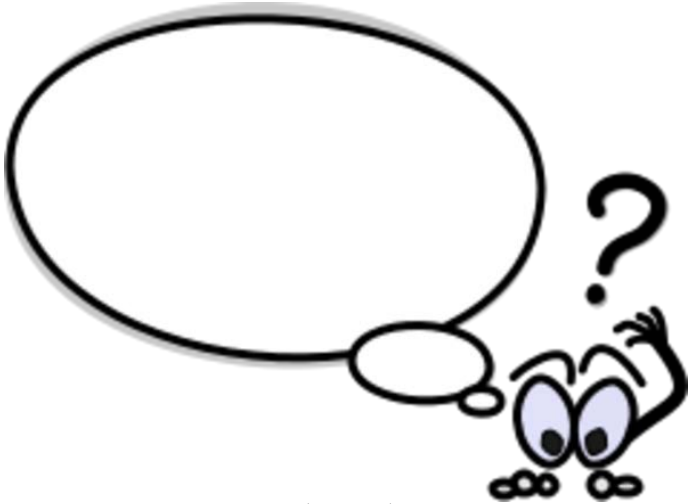
Costs: ca. £1M/year

Deloitte LLP (2017). Assessing the value of TfL's open data and digital partnerships. http://content.tfl.gov.uk/deloitte-report-tfl-open-data.pdf

Challenges for transport authorities

- How to engage the (re)users
- Data formats
- Data portals
- Level of user-friendliness
- Data latency / delays in data transfer
- Service level guarantees
- How to manage privacy-sensitive / commercial-sensitive data

Questions?



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