

Innovation and Big Data at Statistics Netherlands

Bert Kroese



Centraal Bureau
voor de Statistiek

Drivers for innovation

Expectations of society

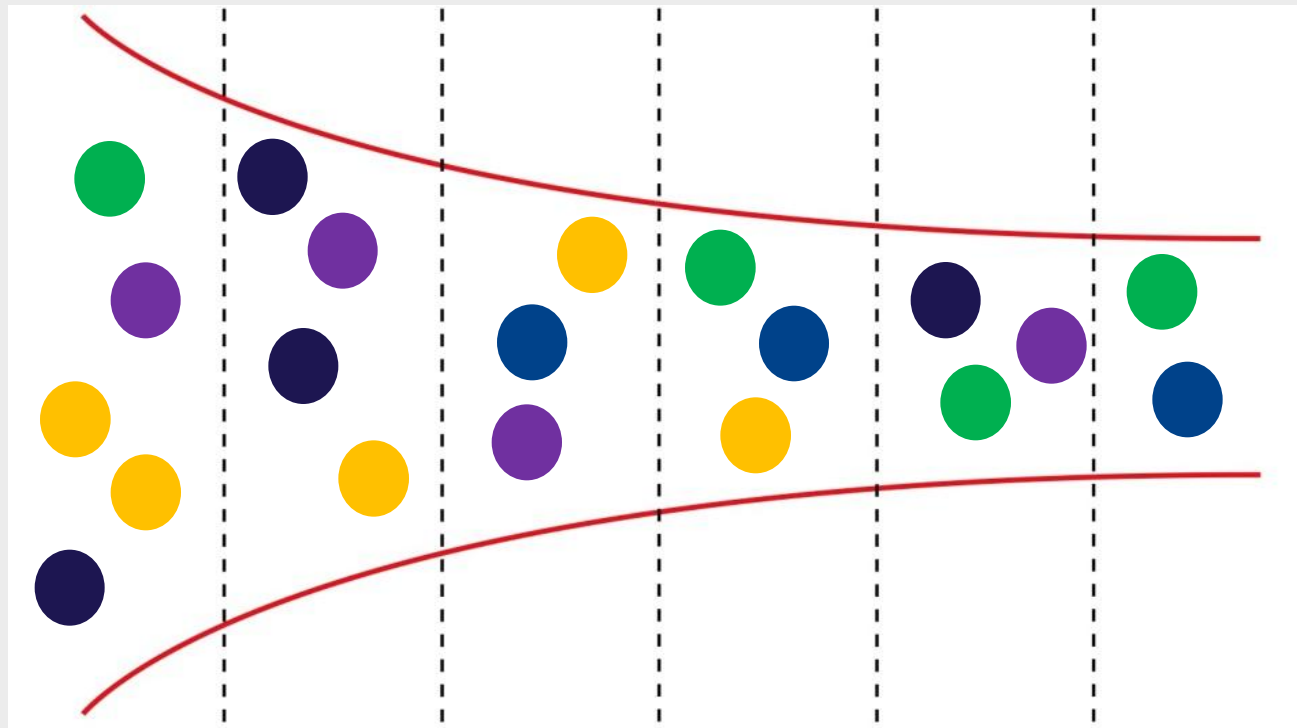
- New and more timely outputs
- Budget cuts
- Administrative burden targets
- Flexible data collection
- Open data



Opportunities

How the programme works

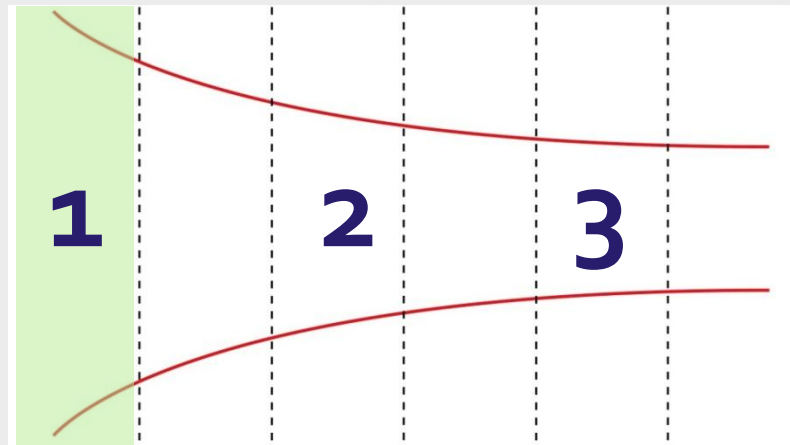
Innovation funnel



Collect lots of ideas based on strategic goals Statistics
Netherlands

How the programme works

Innovation funnel

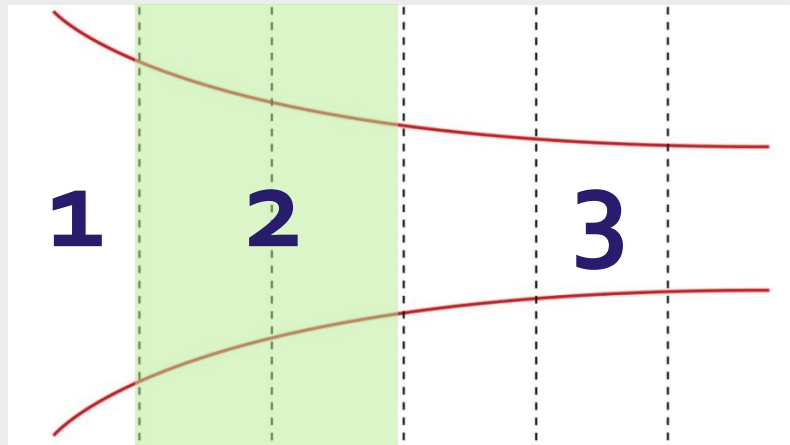


Central innovation support:

- Establish collaboration with external partners
- Finding internal sponsor (management commitment)
- Help preparing Proof of Concept (one-pager)

How the programme works

Innovation funnel



Proof of Concept

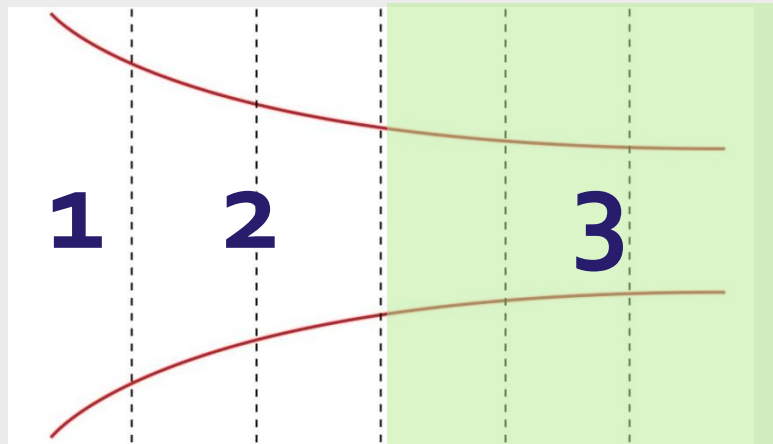
- Limited paperwork
- Just do it!

Our Innovation lab is used a lot!

- "Open" and "secured" IT-environment
- Brainstorming and working together

How the programme works

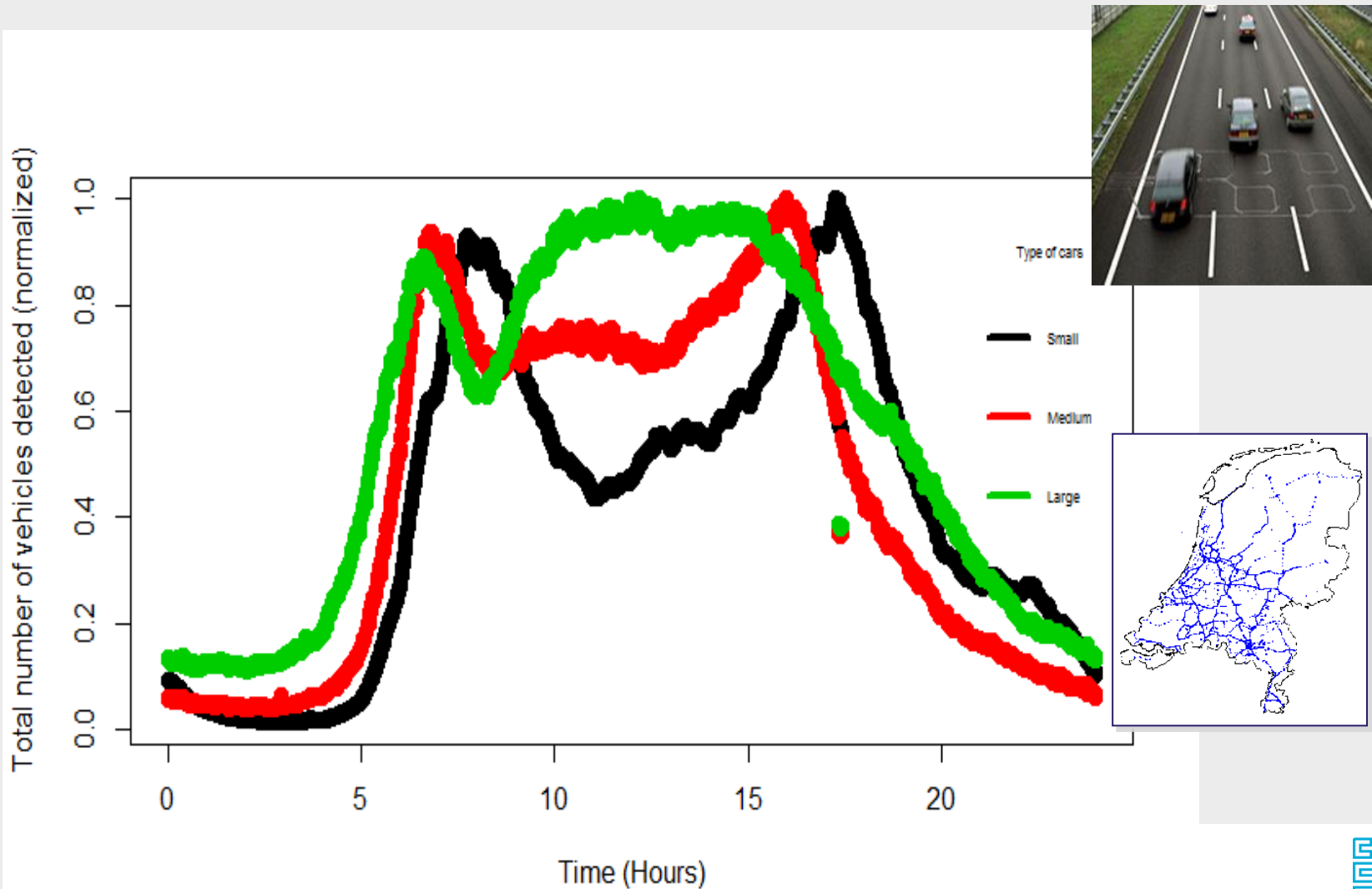
Innovation funnel



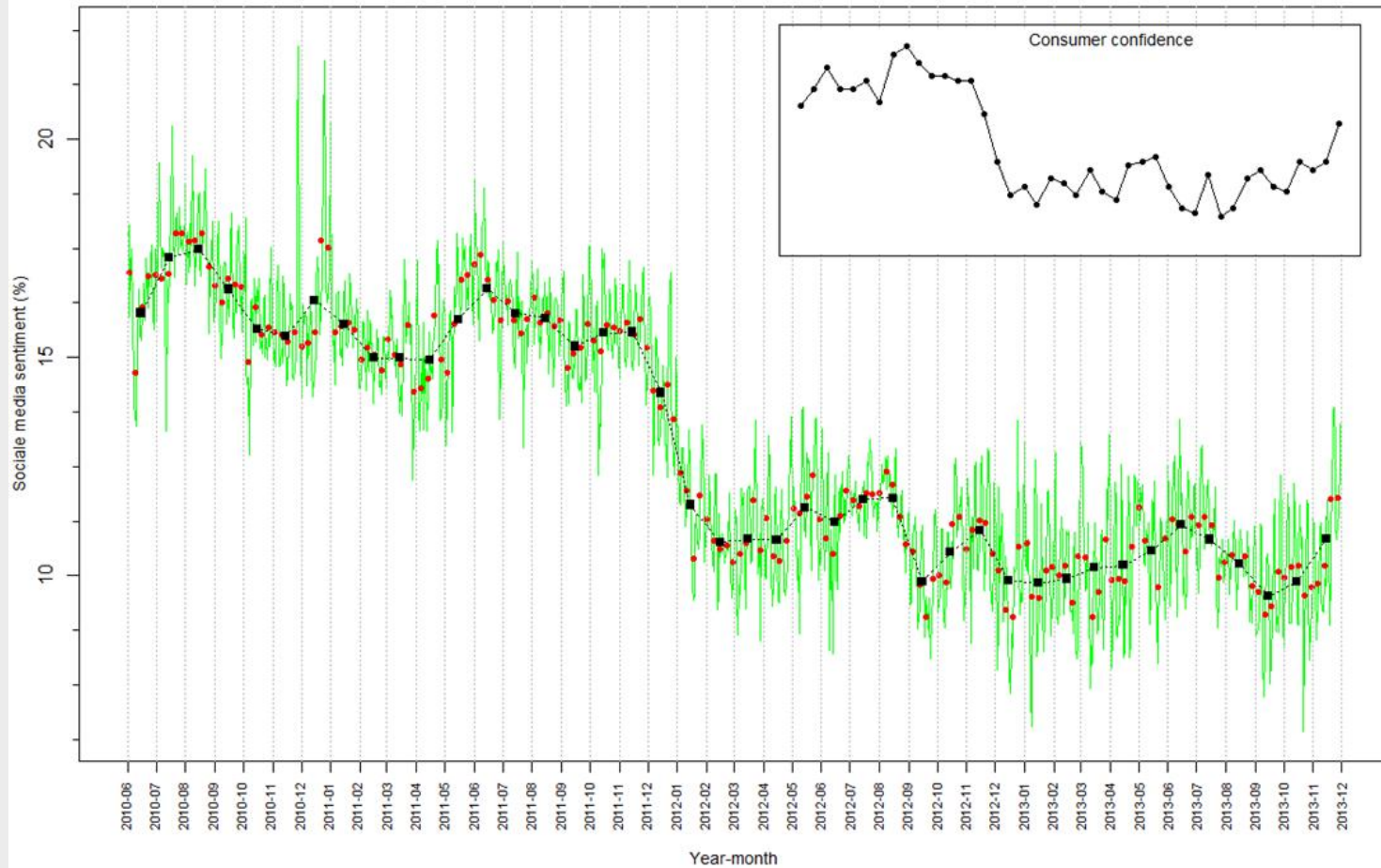
Implementation

- So far >100 ideas,
>50 Proofs of Concept

Traffic detection loops: daily pattern



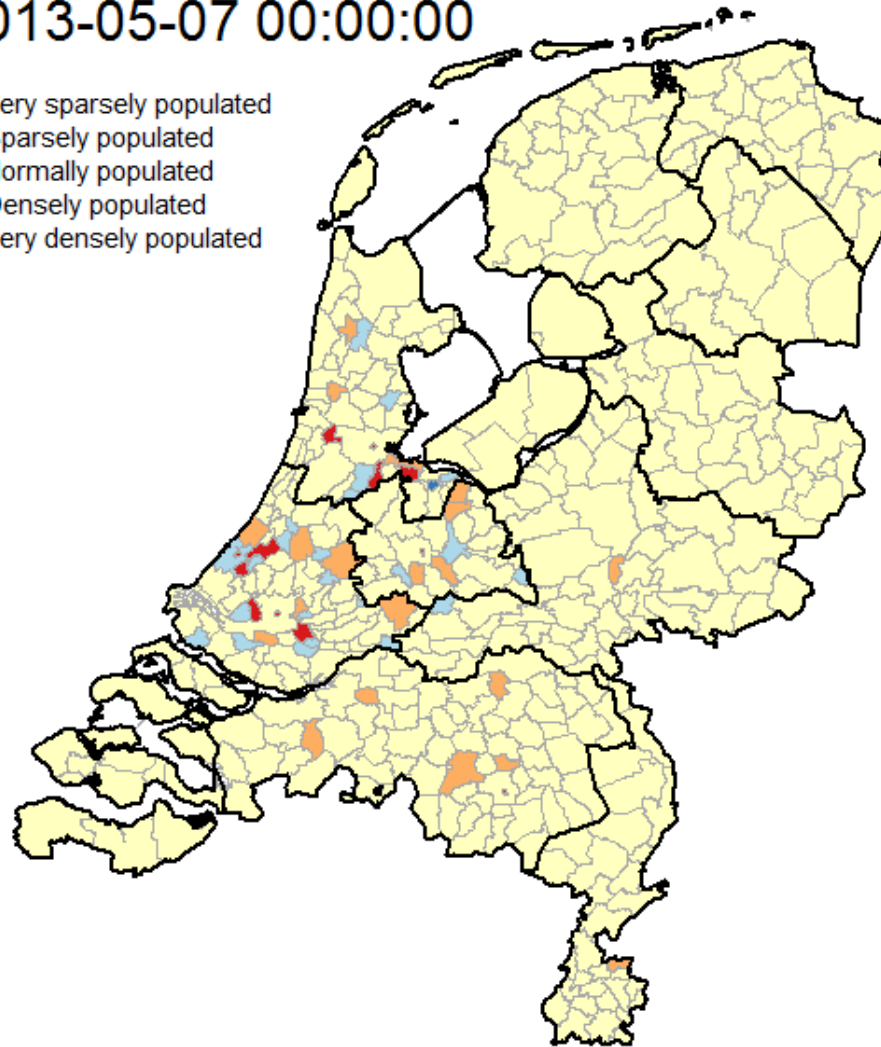
Sentiment indicator using social media



Daytime population: 24-hour animation

2013-05-07 00:00:00

- Very sparsely populated
- Sparsely populated
- Normally populated
- Densely populated
- Very densely populated



Roadmap approach to Big Data

- Position paper for Board of Directors
- Roadmap Big Data:
 - *Identify outputs to be based on Big Data*
 - *For each output, define time target and ownership*
 - *Let owner identify conditions to be fulfilled*
 - *Commit supporting services to fulfilling the conditions*
 - *Prioritize other activities (eg methodological research, HR)*
- External validation of the Roadmap
- Roadmap updated twice a year for Board of Directors, and monitored monthly
- Deputy Director General responsible at strategic level
- Coordination group for Big Data

Roadmap: Current data activities

Focus projects:

- traffic loop data for transportation statistics
- mobile phone data for daytime population statistics

Other data projects:

- internet data for price statistics
- use of bank and credit card transactions for statistics
- social media for detecting trends in social cohesion
- internet data for encoding enterprise purchases and sales
- use of smartcards of public transport for statistics
- internet data for statistics on job vacancies

Roadmap: Accompanying measures

- HR
- IT infra
- Data collection
- Methodological support
- Privacy
- Etc.

Lot of national and international collaboration!

The future

