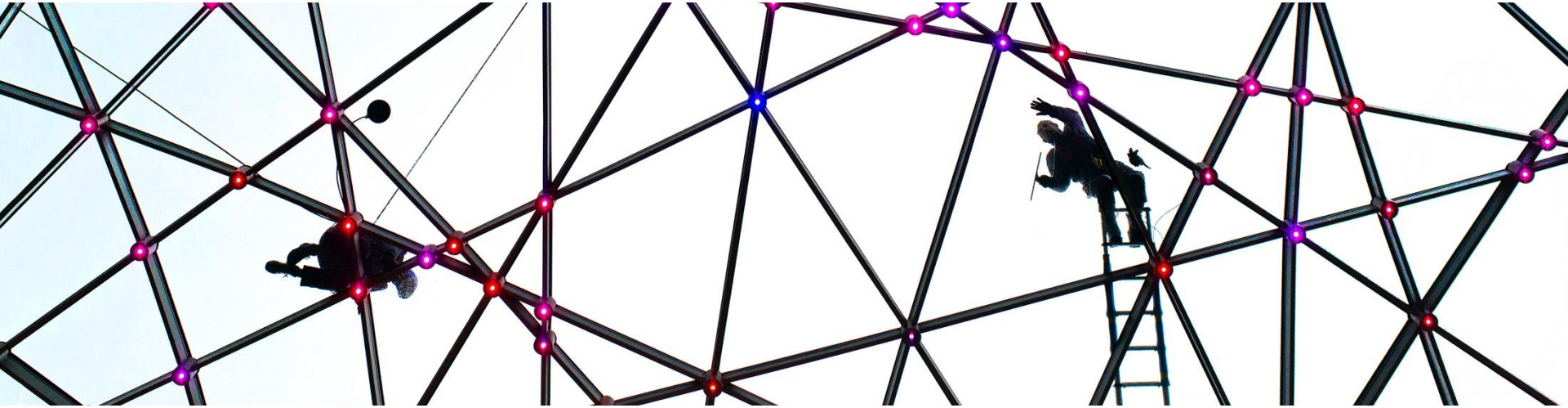
Algemene Rekenkamer



The Digital Revolution

Opportunities and Challenges for SAI's

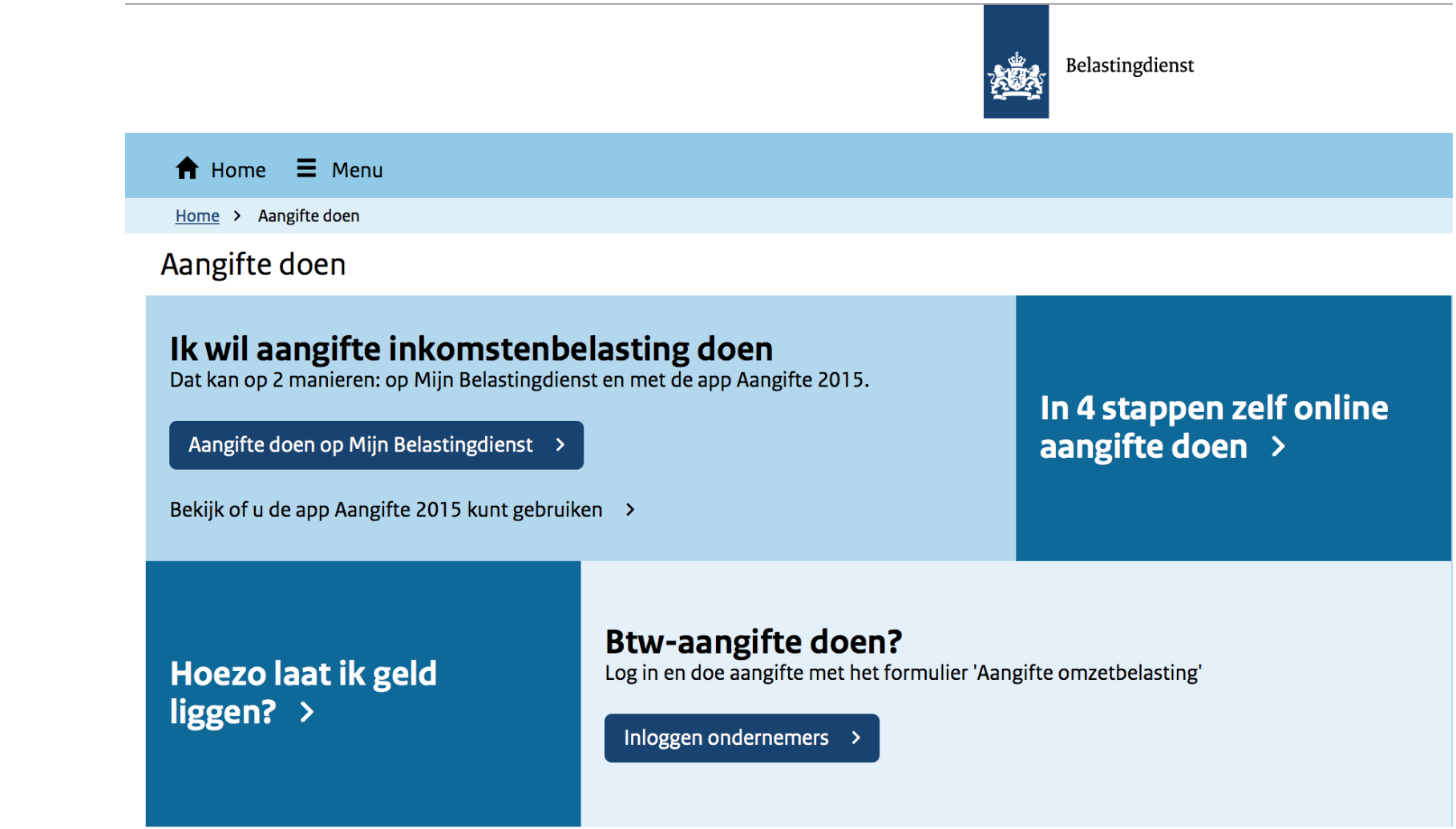
Dr. Ellen van Schoten, Secretary General of the Netherlands Court of Audit

This presentation

- Digitisation and Datafication
- Opportunities for SAI's
- Challenges for SAI's
- Future developments

Digitisation

Government



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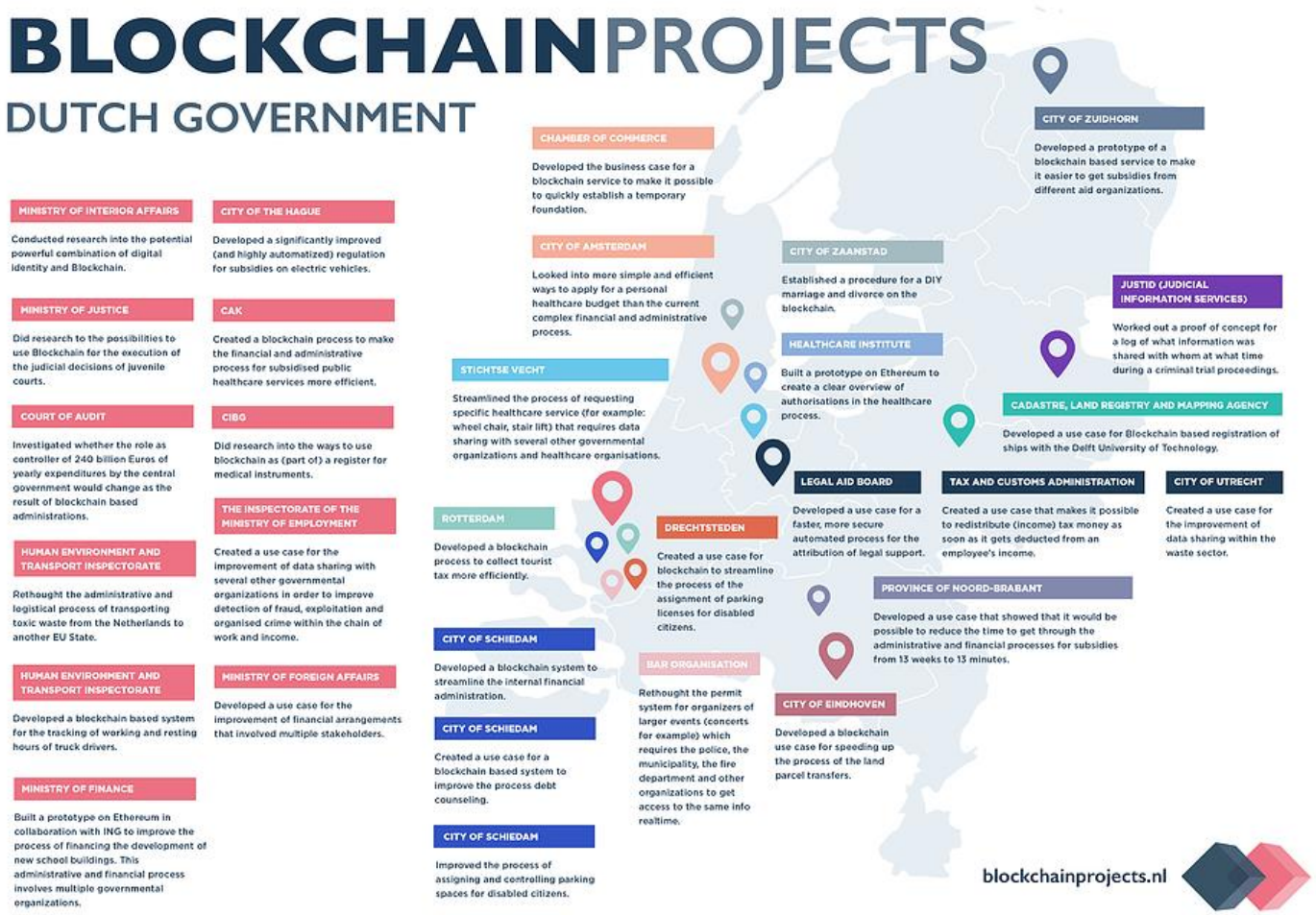
Digitisation

Private Sector

airbnb

UBER

Booking.com


BLOCKCHAINPROJECTS
DUTCH GOVERNMENT
MINISTRY OF INTERIOR AFFAIRS
Conducted research into the potential powerful combination of digital identity and Blockchain.
CITY OF THE HAGUE
Developed a significantly improved (and highly automatized) regulation for subsidies on electric vehicles.
MINISTRY OF JUSTICE
Did research to the possibilities to use Blockchain for the execution of the judicial decisions of juvenile courts.
CAK
Created a blockchain process to make the financial and administrative process for subsidised public healthcare services more efficient.
COURT OF AUDIT
Investigated whether the role as controller of 240 billion Euros of yearly expenditures by the central government would change as the result of blockchain based administrations.
CIBG
Did research into the ways to use blockchain as (part of) a register for medical instruments.
THE INSPECTORATE OF THE MINISTRY OF EMPLOYMENT
Created a use case for the improvement of data sharing with several other governmental organizations in order to improve detection of fraud, exploitation and organised crime within the chain of work and income.
HUMAN ENVIRONMENT AND TRANSPORT INSPECTORATE
Rethought the administrative and logistical process of transporting toxic waste from the Netherlands to another EU State.
HUMAN ENVIRONMENT AND TRANSPORT INSPECTORATE
Developed a blockchain based system for the tracking of working and resting hours of truck drivers.
MINISTRY OF FOREIGN AFFAIRS
Developed a use case for the improvement of financial arrangements that involved multiple stakeholders.
MINISTRY OF FINANCE
Built a prototype on Ethereum in collaboration with ING to improve the process of financing the development of new school buildings. This administrative and financial process involves multiple governmental organizations.
CHAMBER OF COMMERCE
Developed the business case for a blockchain service to make it possible to quickly establish a temporary foundation.
CITY OF AMSTERDAM
Looked into more simple and efficient ways to apply for a personal healthcare budget than the current complex financial and administrative process.
CITY OF ZUIDHORN
Developed a prototype of a blockchain based service to make it easier to get subsidies from different aid organizations.
CITY OF ZAANSTAD
Established a procedure for a DIY marriage and divorce on the blockchain.
JUSTID (JUDICIAL INFORMATION SERVICES)
Worked out a proof of concept for a log of what information was shared with whom at what time during a criminal trial proceedings.
HEALTHCARE INSTITUTE
Built a prototype on Ethereum to create a clear overview of authorisations in the healthcare process.
STICHTSE VECHT
Streamlined the process of requesting specific healthcare service (for example: wheel chair, stair lift) that requires data sharing with several other governmental organizations and healthcare organisations.
CADASTRE, LAND REGISTRY AND MAPPING AGENCY
Developed a use case for Blockchain based registration of ships with the Delft University of Technology.
LEGAL AID BOARD
Developed a use case for a faster, more secure automated process for the attribution of legal support.
TAX AND CUSTOMS ADMINISTRATION
Created a use case that makes it possible to redistribute (income) tax money as soon as it gets deducted from an employee's income.
CITY OF UTRECHT
Created a use case for the improvement of data sharing within the waste sector.
ROTTERDAM
Developed a blockchain process to collect tourist tax more efficiently.
DRECHTSTEDEN
Created a use case for blockchain to streamline the process of the assignment of parking licenses for disabled citizens.
PROVINCE OF NOORD-BRABANT
Developed a use case that showed that it would be possible to reduce the time to get through the administrative and financial processes for subsidies from 13 weeks to 13 minutes.
CITY OF SCHIEDAM
Developed a blockchain system to streamline the internal financial administration.
BAR ORGANISATION
Rethought the permit system for organizers of larger events (concerts for example) which requires the police, the municipality, the fire department and other organizations to get access to the same info realtime.
CITY OF EINDHOVEN
Developed a blockchain use case for speeding up the process of the land parcel transfers.
CITY OF SCHIEDAM
Created a use case for a blockchain based system to improve the process debt counseling.
CITY OF SCHIEDAM
Improved the process of assigning and controlling parking spaces for disabled citizens.
blockchainprojects.nl

Digitisation

Extinction?

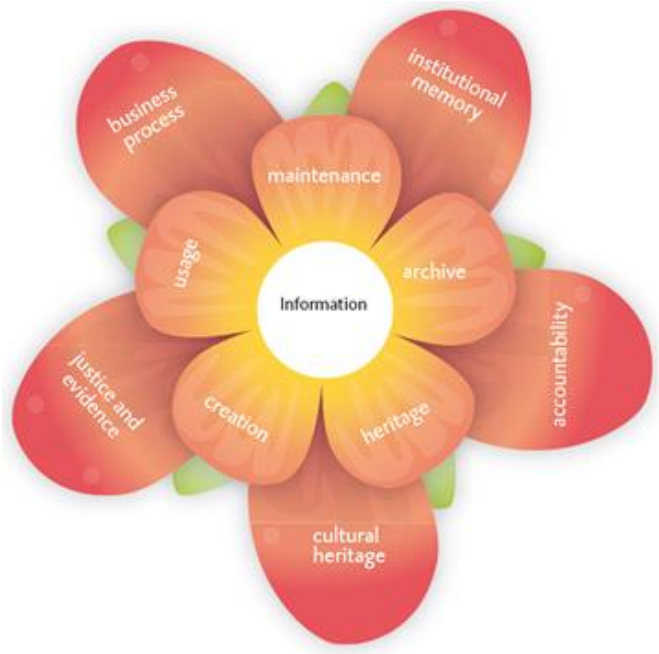
Datafication

Non linear

Traditional model

Creation → Usage and maintenance → Archive → Heritage

Current model



Datafication

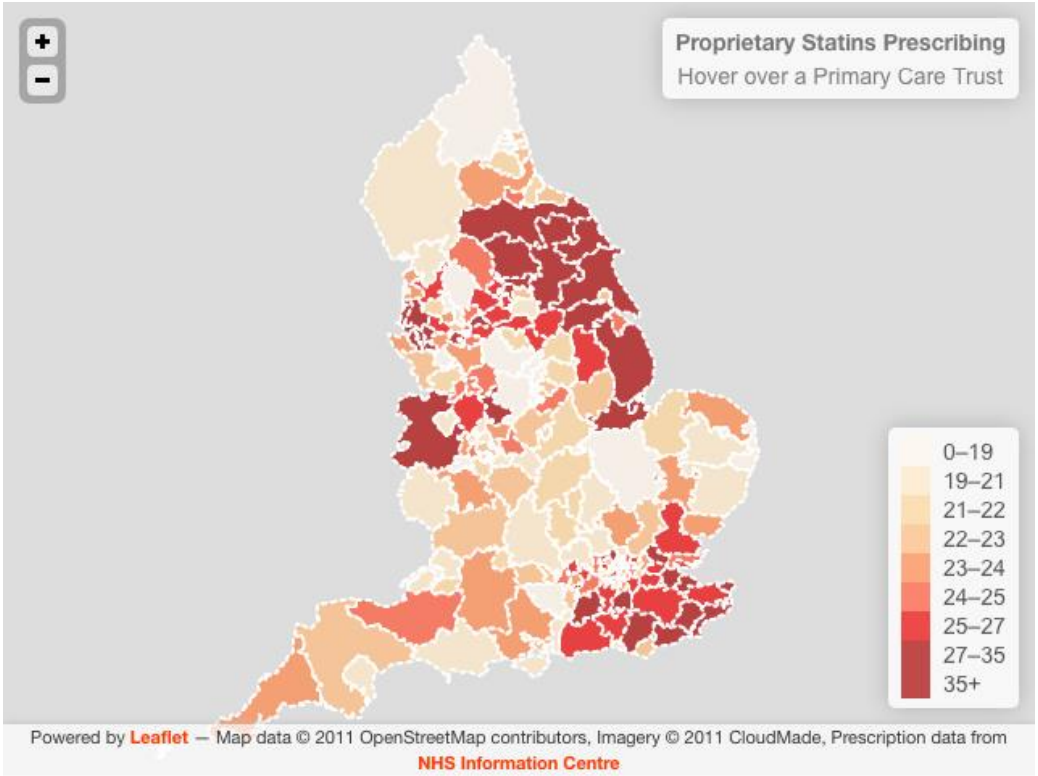
Data is oxygen for government

Opportunities for government

- Improve Public Services
- Contribute to Innovation and Economic Growth
- Detect Savings
- Increase Transparency

Detect Savings

Improve Public Services



- **Over 200 million pounds** can be saved on medicines

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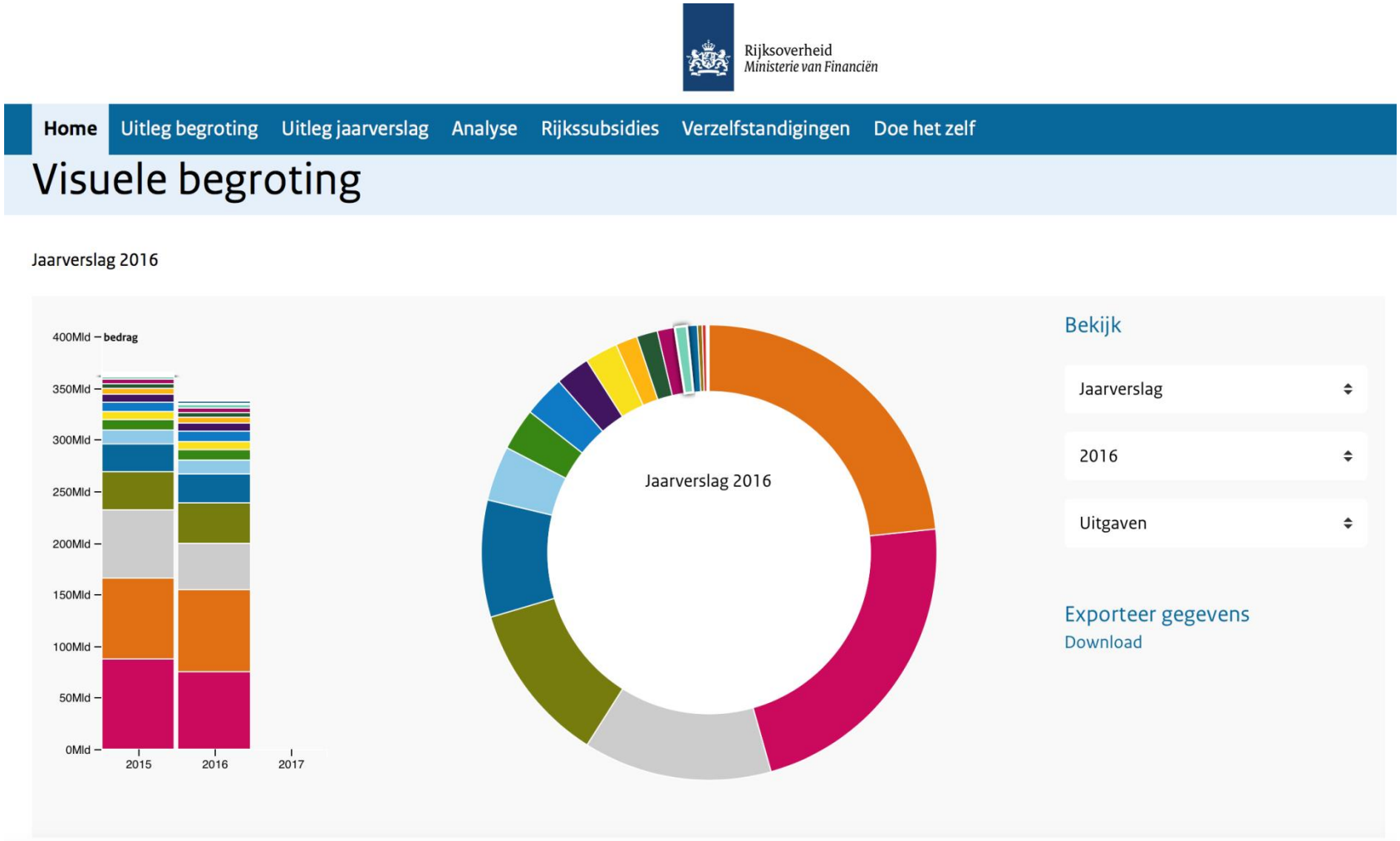
Increase Transparency

Improve Public Services



Challenges for Government

- Privacy / The Right to be Forgotten
- Interpretation of Freedom of Information Acts
- Standardisation
- Data Quality

What does it mean for SAI's?

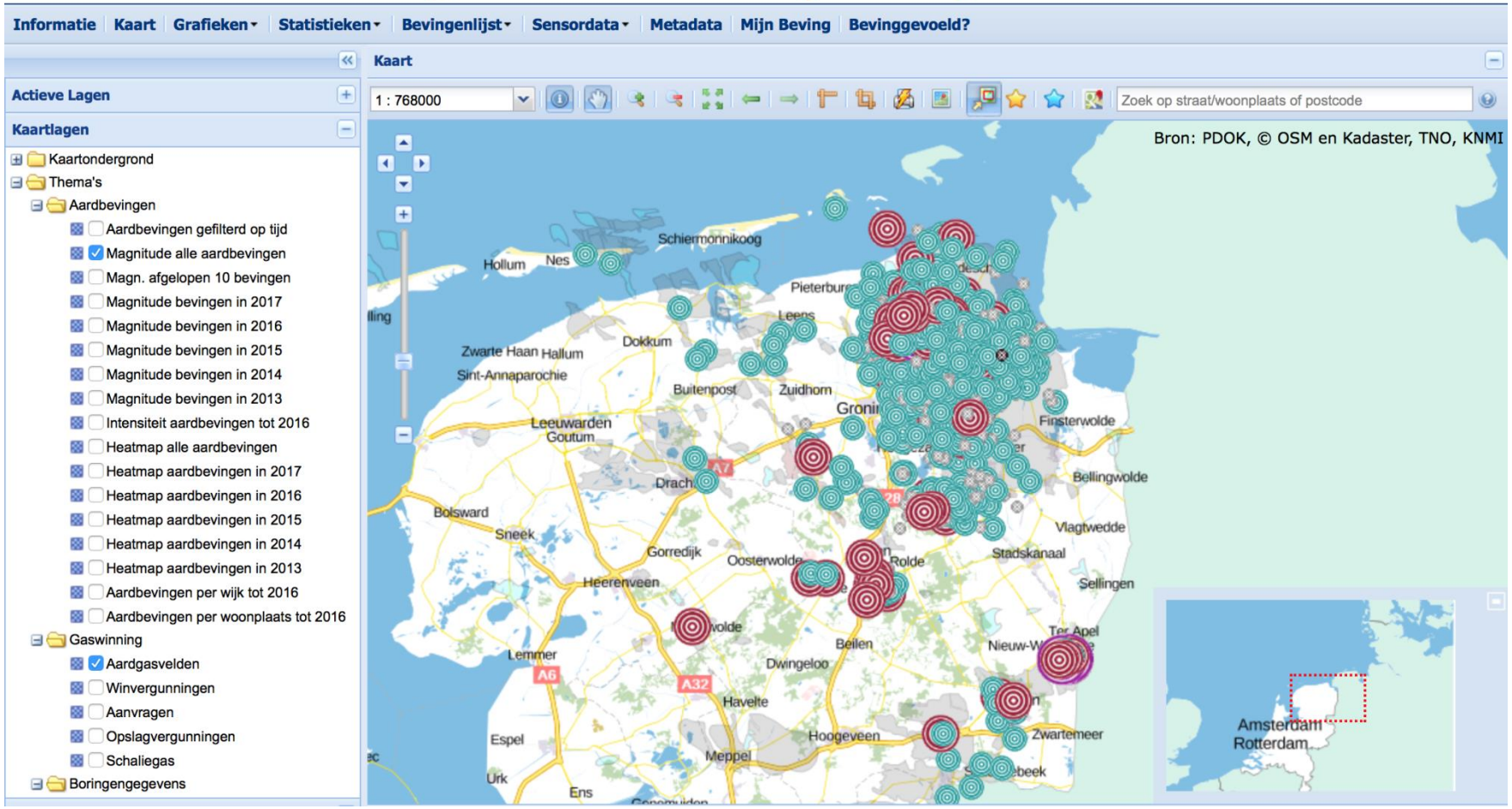
"I have to change to stay the same"

Opportunities for SAI's

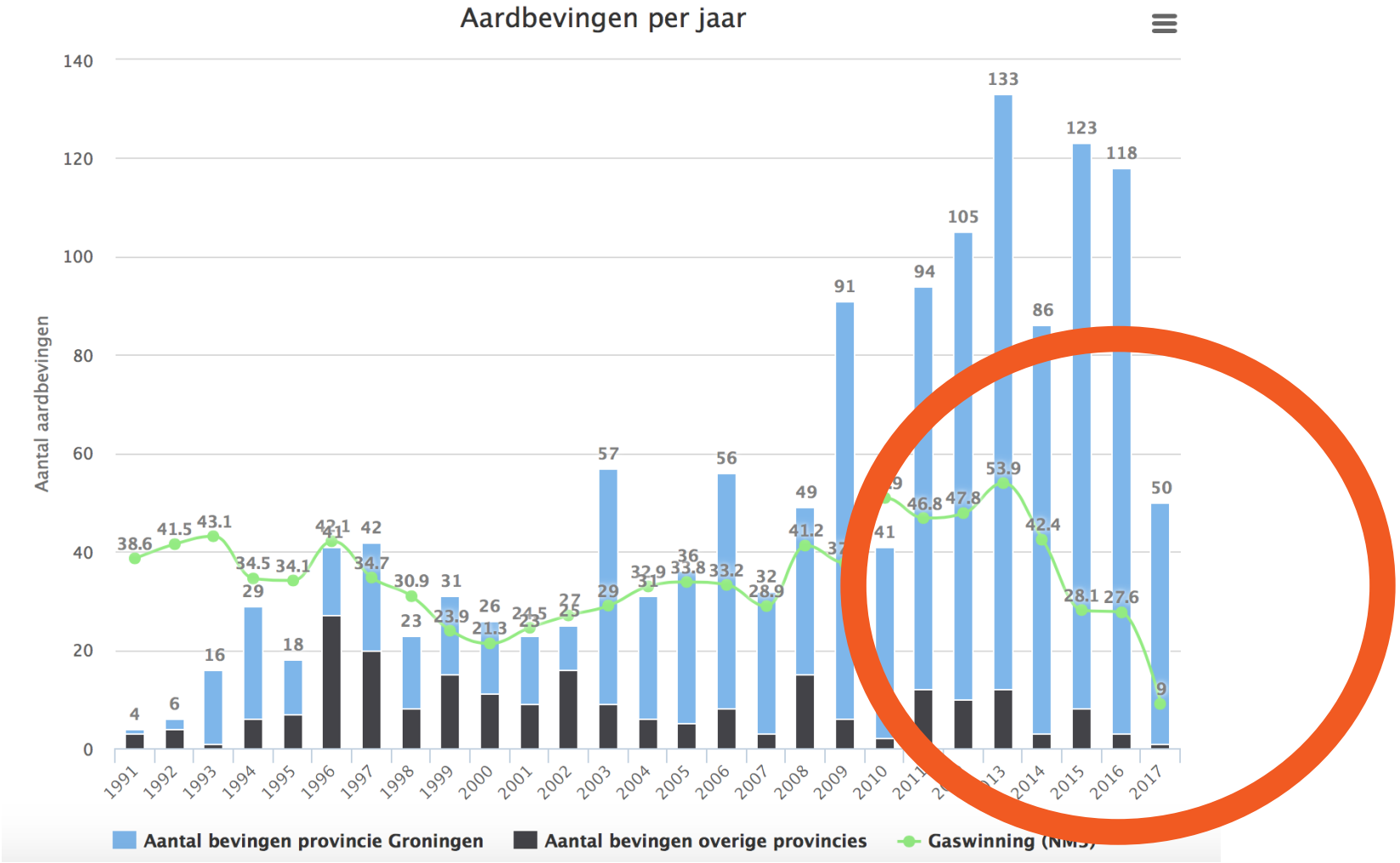
- Transparency, open data, involve the armchair auditor
- New insights through data driven audits
- Advanced Analytics, data and text mining
- More real-time insights, at lower costs
- Cooperation (e.g. SDG's)

Example: armchair auditor – natural gas extraction

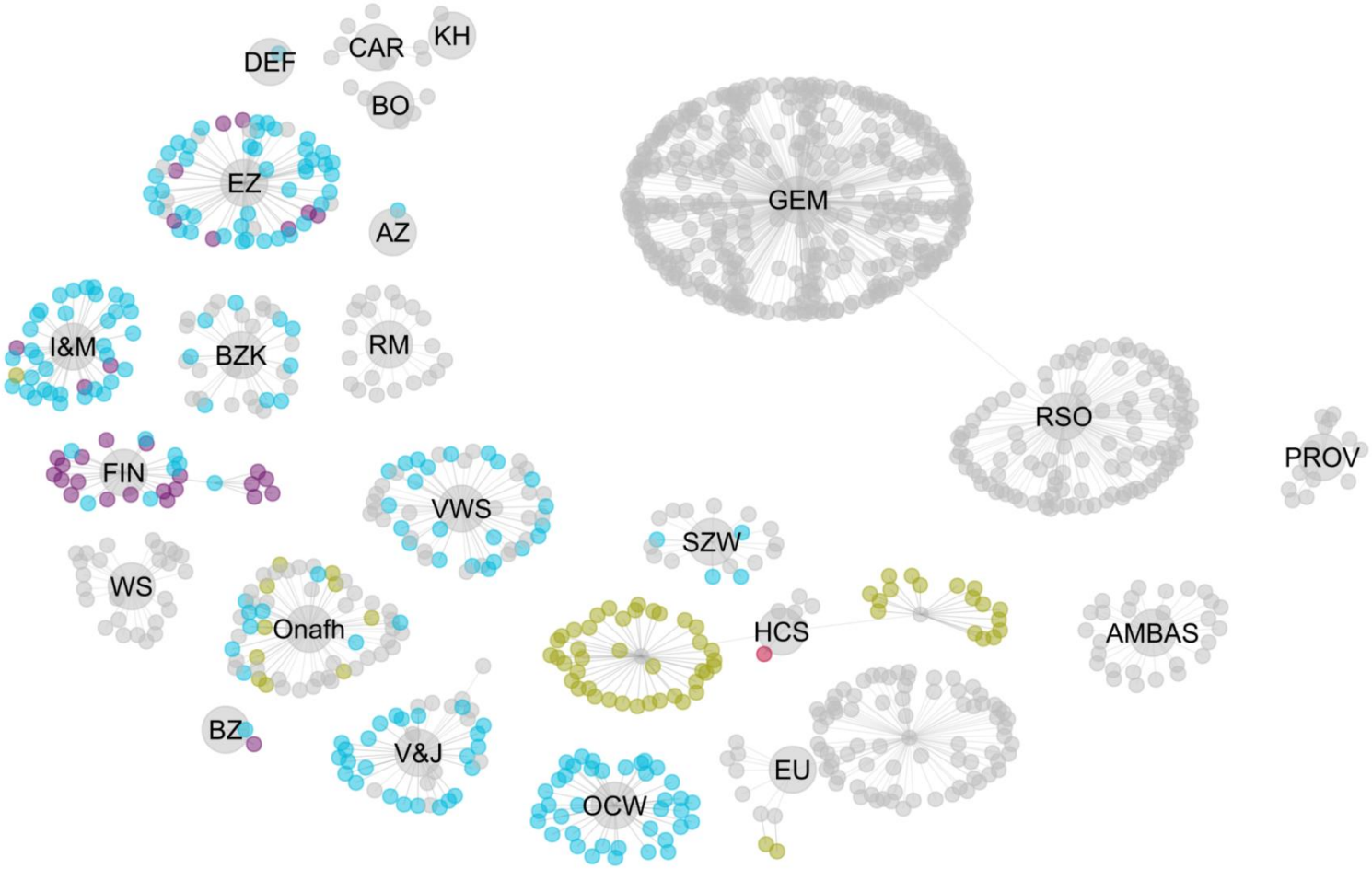
Gasbevingen Portaal (GBB)



Example: armchair auditor



Example: what is the Dutch government?



Challenges for SAI's

- Need for different hardware, software, and human ware
- Analytical Capabilities (*how to audit an algorithm?*)
- Data Quality (*can we identify alternative facts?*)
- Need for different approaches w.r.t. e.g. clearance, quality control, and publication

Future

- **Predictive analysis:**
  - Knowledge → Action
- **More real time:**
  - Timing ↔ Action
- **With others:**
  - Innovate
  - Ownership
  - More public value of SAI's

Thank you for your attention

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