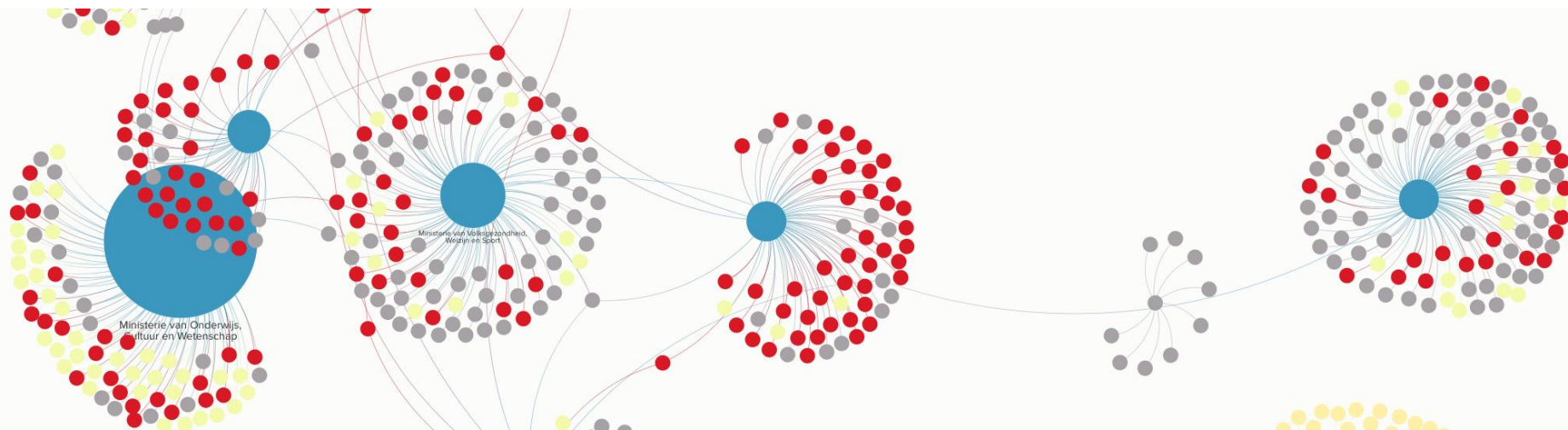# Data & Analytics at NCA

Performance Audit Subcommittee, Budapest, Hungary 18-19 April 2018

Why data? Opportunities for government

- Improve Public Services

- Contribute to Innovation and Economic Growth

- Detect Savings

- Increase Transparency

Algemene Rekenkamer

Why data? Opportunities for SAI's

- Improve transparency, open data, involve the armchair auditor
- New insights through data driven audits
- Data Visualization for stronger messages
- More real-time insights, at lower costs
- Cooperation (e.g. SDG's)

Algemene Rekenkamer

Stimulating Government:
Open Data trend reports 2014, 2015, 2016

Stimulate Data Use: Accountability Hack
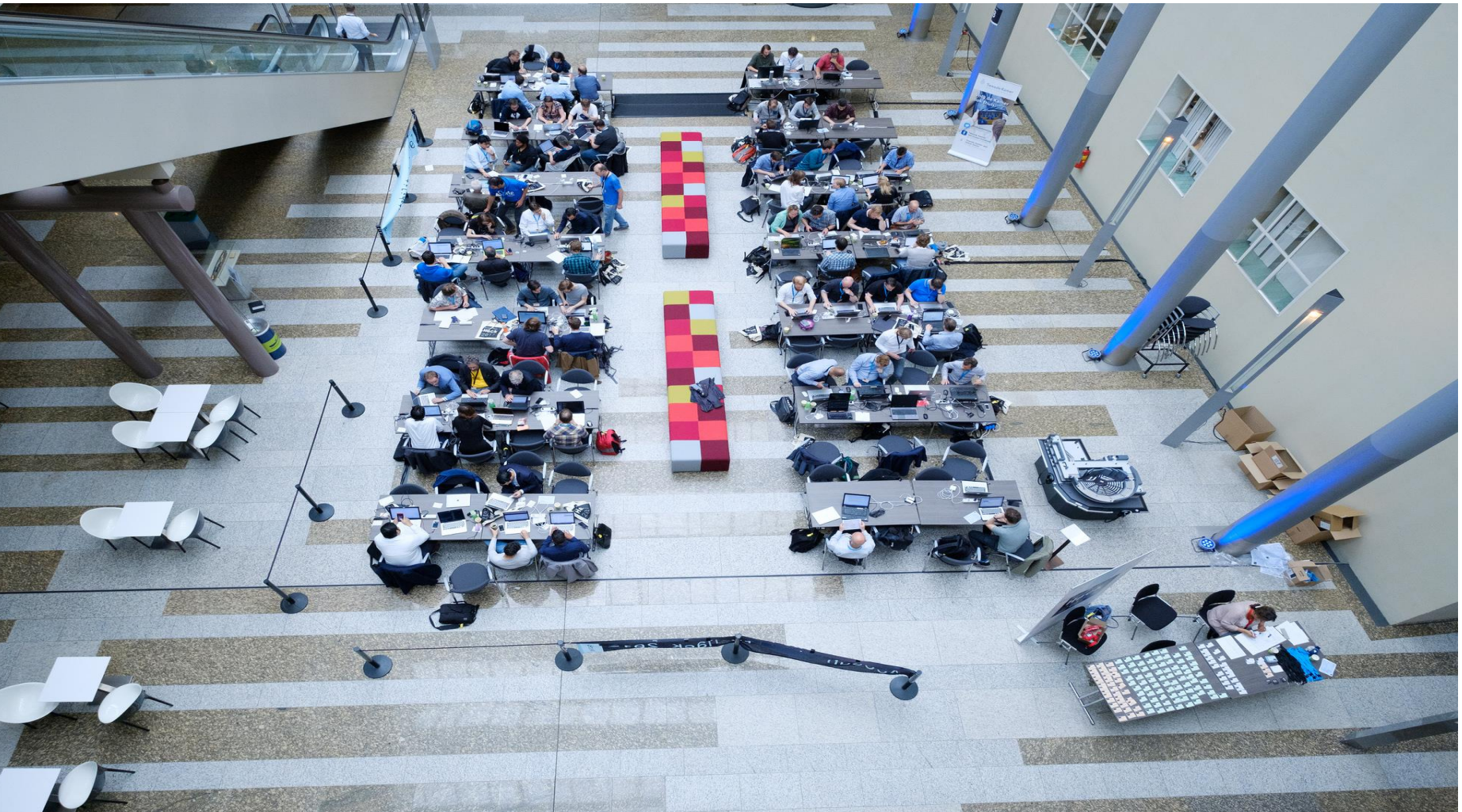
Stimulate Data Use: Accountability Hack

Stimulate Data Use: Stuiveling Open Data Award

2016: Energy saving options with the tool 'HuisScan', offering homeowners insight in possibilities to save energy on that specific address.

2017: Wat are the costs of heatlh care? Tool that give insight in the prices of medical treatments in different hospitals and with different health care insurances.

Algemene Rekenkamer
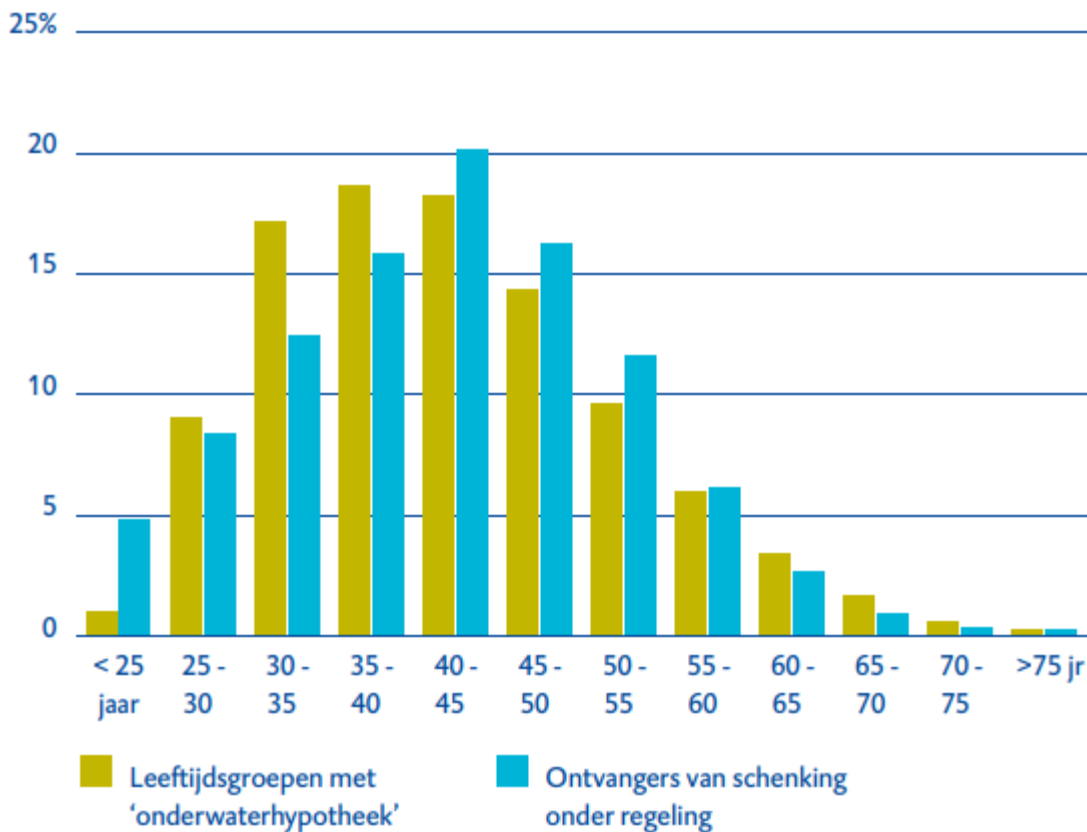
Giving the good example: Publish own Data

Algemene Rekenkamer

Data In Audits: Effect of tax exemption for donations on mortgages

Regeling 2013/2014 was niet toegespitst op groep met meeste onderwaterhypotheken

Legend:
- Leeftijdsgroepen met 'onderwaterhypotheek'
- Ontvangers van schenking onder regeling

Algemene Rekenkamer

Data In Audits: Effects of speed limit elevation

Data Capacity Building

Algemene Rekenkamer

Data & Analytics at NCA

- **Semi-structured team**:
  - 5 data analysts with social science / mathematics background
  - 1 data analyst with IT / engineering background
  - 1 data visualization expert
  - 1 manager with social science background
- **Tools**:
  - R (== Reproducible research & Audit trail)
  - Tableau (limited)
  - Excel (limited)
  - Adobe (for high end visualizations)
- **Objectives**:
  - Increase analytical capabilities at the NCA
  - More data-driven audits, also more in financial audit

Algemene Rekenkamer

What do we do?

1: Analysing
Analysing data as part of research teams

2: Data collection
Making datasets / scrapers / cleaning data

3: Consultations
Consultations on methods and research questions

4: Developing tools & knowledge
Teaching data courses and developing tools

Challenges for SAI's?

Yes, many like:

- Need for different hardware, software, and human ware

- Analytical Capabilities (*how to audit an algorithm?*)

- Access to Data (*competing laws & regulations*)

- Data Quality (*can we identify alternative facts?*)

Algemene Rekenkamer

Data & Analytics at NCA

THANK YOU

Algemene Rekenkamer