



# CBS Internships

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# Innovation in Official Statistics

- Output
  - for central policy makers and policy evaluation
  - tailor-made publication for all kinds of institutions
- Data sources widened
  - surveys, admin data, unstructured data and sensor data
  - from single source to multisource statistics
- Challenge: innovative use of data while still
  - reliable estimates, CBS = quality stamp
  - transparent methods



# Bèta producten in ontwikkeling



**Sociale spanningen en emoties in de samenleving**

gisteren 11:50



**Innovatievormen bepalen met behulp van tekstanalyse**

gisteren 11:49



**CBS berekent toegevoegde waarde van de infrastructuur**

gisteren 11:48



**Hooikoortsindex**

gisteren 11:47



**Cybercrime achterhalen in aangiften**

gisteren 11:46



**Door schatting actueler beeld verhuizingen mogelijk**

gisteren 11:46

# Measuring in Official Statistics

Assume you aim to measure **crime** in the Netherlands

- What data sources?
  - survey on victims of crimes
  - police registration data
  - text mining
- What estimation problems?
  - memory effects
  - not everybody reports to police

Statistics is not about counting but about estimation



# Projects at CBS

- How to estimate changes with text mining, in situation of concept drift?
  - I. How to semi-automatically construct an ontology network to stabilise the concepts?
  - II. How to retrain models, to obtain accurate change estimates?
  
- Anonymising input files (GDPR):
  - III. How can we reliably recognise names, locations and so on in descriptions of input files? We wish to replace them by generic labels like #name, # location and so on.



# Furthermore, and contacts

- Requirements
  - Programming in Python and/or R
  - An admission interview is part of the procedure
- CBS provides
  - A stimulating environment with team of methodologists and students
  - Monthly internship allowance
- Contacts
  - Visit the website [www.cbs.nl](http://www.cbs.nl)
  - To learn about the projects: [a.vandelden@cbs.nl](mailto:a.vandelden@cbs.nl)

