

## Measuring the internet economy in The Netherlands

Mesure de l'économie de l'internet: nouvelles définitions, nouvelles méthodes Barteld Braaksma/Lotte Oostrom

CNIS conference: digital economy, challenges for official statistics 07/03/2018 - Paris



## Aim of the study

Main research question:

"What is the importance of the internet to the Dutch economy?"

The aim of the research project was fourfold:

- 1. Determine a pragmatic definition of "the internet economy"
- 2. Show the importance and size of the internet economy in NL
- 3. Show the possibilities of new measurement methods
- 4. Explain differences from regular statistics/concepts





# Approach

- Project commissioned by Google
- Website information from Dataprovider
  (comprehensive database with 100+ attributes for each site; crawling 24/7)
- ✓ Statistical information from CBS

#### ✓ Analysis by CBS

- Conceptual work; pragmatic definitions
- Linking of websites to enterprises
- Statistical analysis
- ✓ External review board
- ✓ Published on <u>CBS innovation site</u>
- ✓ Discussion paper available <u>here</u>



### Press conference, 7 October 2016

-Report presented to Henk Kamp, -Dutch Minister of Economic Affairs

-Well received by press (extensive media coverage)

-Fears of possible criticism by journalists did not substantiate

-All's well that ends well 🙂



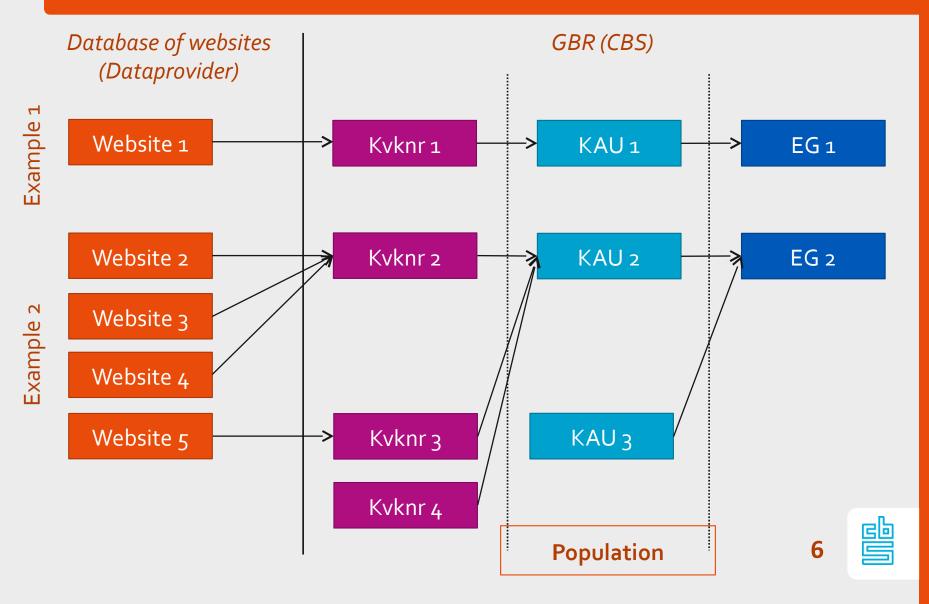


## **Definition of the internet economy**

	Category	Method	Examples
S	A. No Income generated: businesses without a website.	Businesses without a website	Hairdresser without website Bakery without website Freelancer without website
Inesse	B. Income generated <i>indirectly</i> through the internet (internet presence)	Businesses with a website but that do not belong to category C, D or E	Hairdresser with website Shell DSM
ch busine	C. Income generated <i>directly</i> through the internet: online stores.	Businesses with a website and a high ecommerce certainty	Bol.com Wehkamp Bijenkorf
All Dutch	D. Income generated <i>directly</i> through the internet: other online services.	Businesses with a website and that according to the most important keywords belong to this category	Relatieplanet Funda Spil games
∢	E. Income generated <i>with</i> the internet: Internet related ICT.	Businesses with a website and that according to the most important keywords belong to this category	Webdesigners Hosting Internet marketing

All Dutch businesses

## **Merging to the General Business Register**



#### **Merging to the GBR: results**

+/- 2,5 million websites dataset Dataprovider

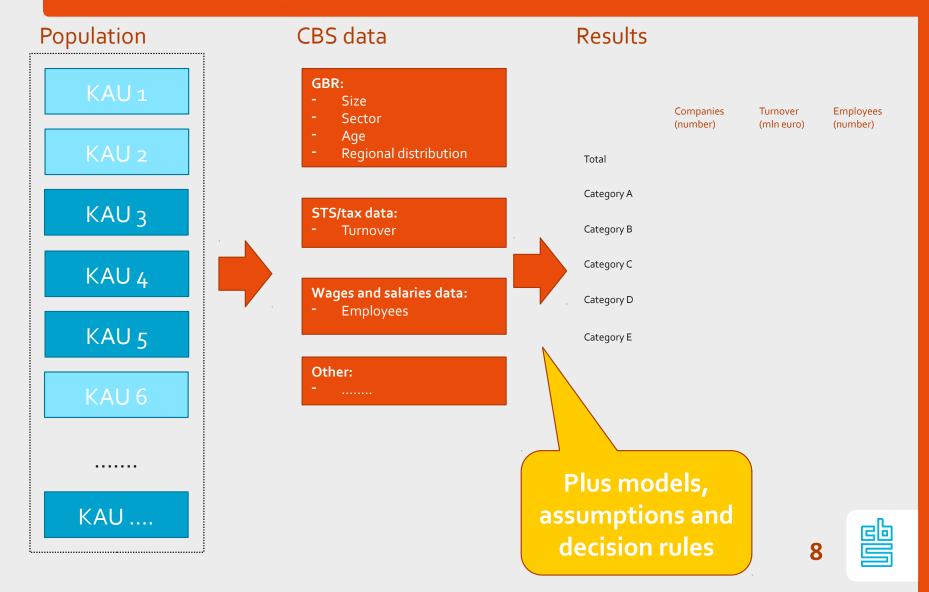
Around 900 thousand websites of companies (according to Dataprovider)

+/- 840 thousand websites merged to GBR

+/- 550 thousand unique business units in GBR with website



## **Calculating indicators**



## **Participation in the internet economy**

Internet category





# **Category C: Online stores (2015)**

- ✓ 28,500 companies with online stores (2% of all businesses)
- ✓ Together they run 70,000 web-shops
- ✓ Almost 75 % has only 1 employee
- ✓ Relatively 'young' companies
- ✓ Half of web-shops belong to retail, almost 15% to wholesale
- Over 30 per cent of online stores found in less obvious sectors like "Information and communication" or "Manufacturing"
- ✓ Important discrepancies from web-shops registered in GBR (!)

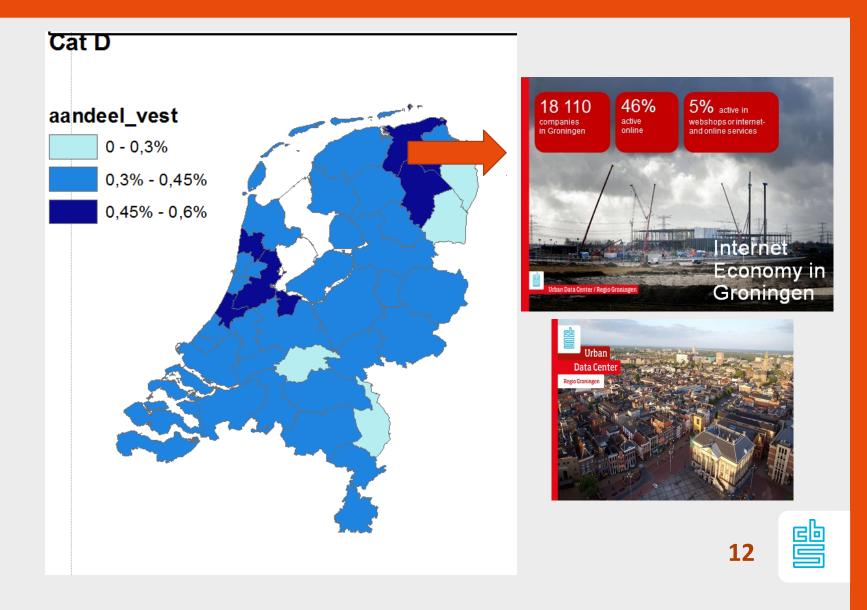


# **Category D: Online services (2015)**

- ✓ 5,700 companies with over 8,300 websites
- ✓ Relatively high productivity
- ✓ Companies are relatively small
- ✓ Total turnover €10 billion (1% of the Dutch business economy)
- ✓ They account for a total of 26,000 jobs
- ✓ Nearly 40% of all online services businesses are under five years old
- Relatively many based around Amsterdam and Groningen
- ✓ Category not covered in NACE classification (!)



#### **Regional distribution of online services**



#### **High-level interest...**



->

95

18:43 - 11 okt. 2016

Minister-president 🗇

Ö 💄 Följ

NL heeft bloeiende interneteconomie met een hoop veelbelovende startups. Het kabinet wil ze de ruimte geven. #TQAms #NLInnovatief

S Visa översättning



Minister-president Vind deze pagina leuk · 13 oktober · @ Prins Constantiin is sinds een paar maanden de voorman van de StartunDelta. Goed om daar vanochtend over bij te praten. Ik heb de afgelopen

week weer met eigen ogen kunnen zien dat we een hoop veelbelovende startups hebben in Nederland. In verschillende indexen staan we hoog genoteerd als aantrekkelijk land voor startende bedrijven. Wat we willen bereiken is dat startups vanuit Nederland groot kunnen worden, zodat ze voor veel groei e banen zorgen. CBS becijferde onlangs dat de Nederlandse interneteconomie nu al goed is voor 345,000 banen. We stimuleren dit op verschillend nanieren, in de begroting van 2017 hebben we bijvoorbeeld geld vrijgemaakt om startups sneller te laten groeien. En we zetten in op het verminderen van wet- en regelgeving. Want er zijn nog een hoop belemmeringen voor digitaal ondernemerschap, ook op Europees niveau. Deze sector moet zoveel mogelijk ruimte krijgen om te innoveren en ondernemen, ook over de grens heen. We werken nauw samen met de Startupdelta om van Nederland een nog aantrekkelijker startupland te maken. -MinPres

Foto door RVD



14 ke	er gedeeld	134 reacties
Vorig	e reacties weergeven	6 van de 134
S	Sonja Grondel hilarisch toch I bezig houden met start up ond bezig in Den Haag, alles onde aan Ard http://www.rthieuws ministerie-blundert 0 1 - 3 uur	ernemingen lekker r controle 😂 groetjes
Ω	Anja Oudenes Joh ,mensen h gang gezet !!!.en Mark weet di	

https://ejbron.wordpress.com/.../cyberoorlog-

**Prime minister Mark Rutte** and Prince Constantijn (twitter and facebook)



### **Future plans**

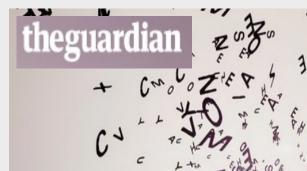
- ✓ Refine the definition of internet economy
- ✓ Obtain a time series for several years
- ✓ Turn into regular statistics?
- Repeat study in other countries
  (Dataprovider already has data on more than 40 countries!)



- ✓ Improve method by using machine learning/AI
- ✓ Include Facebook data?
- Use same method to study other phenomena
  (Cyber security, family-owned enterprises, R&D, platform society, ...)
- Compare website-based activity information to NACE classification
- ✓ Not a solution for all questions!



# Is the time of statistics over?



The long read

How statistics lost their power - and why we should fear what comes next

The ability of statistics to accurately represent the world is declining. In its wake, a new age of big data controlled by private companies is taking over - and putting democracy in peril by William Davies

# By combining the best of both worlds

**Barteld Braaksma** 

John Pullinger

 $\checkmark$  In a post-truth world, statistics could

provide an essential public service

https://www.thequardian.com/pol itics/2017/jan/19/crisis-of-sta tistics-big-data-democracy

#### Data, data everywhere

Information has gone from scarce to superabundant.





