The potential of National Statistical Institute data for reporting on the WEEE-Directive

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Contents of today's talk

- Introduction to Statistics Netherlands (CBS)
- Proof-of-concept: use of CBS data to estimate amounts of e-waste
  - Determination of amounts Put-On-Market
  - Use of statistical data for indicators in the WEEE Directive
  - Results from the study
- Outlook

Statistics Netherlands (CBS) - 1

- National statistical institute, est. 1899
- Produces 95% of the official statistics
- Annual budget approx. € 200 mln, 92% by government, 8% commissioned work

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Statistics Netherlands (CBS) - 2

- Staff 2011: 2018 ftu

- Data collection, IT, quality assurance, CCS, innovation divisions/groups, board & 2 statistical divisions:

    - Economic Statistics

    - Business, People, and Spatial Statistics

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Examples of recent developments

- XBRL, e-questionnaires, internet

- Supermarket scanner data, cell phone data, social network data

- Research programmes on Transport and logistics, Mobility, International Economic Relations

- Quick indicators (aggregates), Early warning indicators

- Visualisations, Website for respondents, Social media

Statistical Programme

- 5 yr programmes
- Central Committee on Statistics (CCS) *independently* decides on the programme (within budgetary limits)
- CCS is advised by committees that include users
- Relevant, coherent programme, which may change due to, e.g., changing information needs, new EU requirements
- By law: access to government registers – subject to statistical confidentiality (e.g. tax register, merchant register)
- Huge data availability – potential for correlative research

Note anyone may request commissioned work from CBS (e.g., correlations), or existing statistical data (for a fee or, often, free)

CBS has a large numbers of partners within and outside government, including PhD programs and full professors.

An estimation of apparent consumption from Statistics Netherlands data

*Step 1: Derive apparent consumption (amount **Put on Market)** for EEE from statistical data registers at Statistics Netherlands*

POM – 'apparent' consumption approach

Statistics Netherlands data used are

- Prodcom code (domestic production)
  - Mandatory survey at company level
  - 70 fte
  - Published per industrial branch
- Combined Nomenclature; CN (import and export)
  - Custom codes (in EU – standard). Relatable to HS codes (worldwide standard)

Appliances Put On the Market =

Domestic production + (Import – Export)

Prodcom code

CN code

Pro's and cons of this approach

Coverage
- All WEEE categories covered by international trade and Prodcom data
- Historical coverage: from 1996 onwards (microdata stored at SN)

Independence
- SN is unbiased and delivers undisputed, reliable and accurate data

Standardization readily achievable because:
- The national statistical institute holds all relevant data
- Classifications already internationally agreed upon, trade statistics and production data are unique

Possible issues
- *Microdata are confidential (non-disclosure by Dutch law)*
- *Results must be published publicly (Dutch law)*

Data collection

Company

Product description :
- *Household-type refrigerators
        (including compression-type,
electrical absorption-type) (excluding
built-in)*
- Laptop PCs and palm-top organisers
- Upright freezers of a capacity <= 900
litres
- Digital cameras
- Etc…

Measures:
€, Physical measure
(pieces and/or kg)

Codes per collection categorie

COLLECTION CATEGORY	NUMBER OF CN CODES	NUMBER OF PRC CODES
A LHA	18	10
B CF	19	9
C SHA	202	96
D IT	27	18
E Screens	19	8
F Lamps	14	9
G PROF	22	12
Total	323	163

Puzzle

• > 4600 PCC / 9000 CN codes each year

• Which are relevant?

• Changes over time

• Units not homogenous (kg, 1000 kg, pieces, thousands)
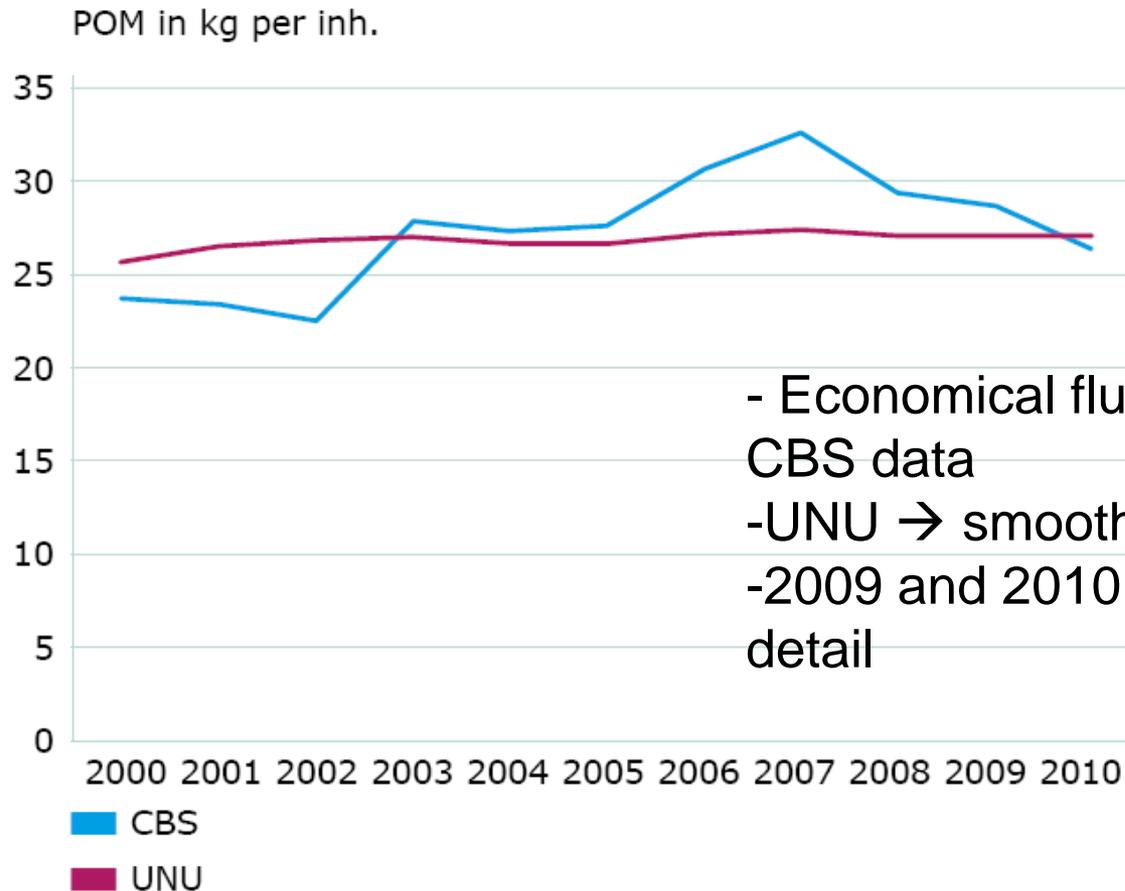
• <u>Average weights</u>

Challenges

- Assess the correct weights
  - Calculated from microdata in the international trade register
  - Cross-checked with other sources

- Additional fixes were made to improve data quality
  - Fix a few distribution centers in data
  - Price checks (2nd hand goods, or wrong entries)

- Delivered: Put on Market in kg and pieces for 1996 - 2010

Results: Put on market 2010 compared with UNU model

COLLECTION CATEGORY		STATISTICS NL	UNU (multiple sources)	Comments
A	LHA	6.7	7.9	In CBS, partly included in cat. G
B	CF	2.7	3.9	In CBS, partly included in cat. G
C	SHA	7.6	7.5	
D	IT	2.9	3.0	
E	Screens	1.9	2.5	
F	Lamps	0.9	0.3	In CBS difficult to separate fittings and lamps
G	PROF	2.3	1.5	See comments Cat. A and B
	Total	25.1	26.5	

Results: Put on market time series

POM in kg per inh.

- Economical fluctuations are visible in CBS data
-UNU → smoothed data
-2009 and 2010 are checked in more detail

Outlook (1)

- An efficient method was developed based on the use of databases available at Statistics Netherlands

- Agrees well with UNU method

- Small corrections were needed, involving all actors improves data quality

- Unbiased, independent results

Outlook (2)

- Results are based on international standard data => best chance for internationally comparable data

- Use existing UNU-keys as a basis

- Harmonization between countries is the major step to be made

Outlook (3)

- Method can be repeated in future (cost efficient, removes need for separate company surveys)
  - Small scope issues within current classification remain, further work desired

- Method can be transferred to other national statistical institutes.
  - Amount of work depends on quality of statistical databases.

The End

Thank you for your attention

More information on Statistics Netherlands:
www.cbs.nl
www.statline.nl