Use of registers for energy statistics in the Netherlands

Focus on data about companies

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Outline

1. Data collection
2. Data processing system
3. Business classification
4. Output examples
0. The basics: a legal framework

National level
- Statistics Netherlands act and Data Acquisition Decree
- Framework act on autonomous agencies
- GDPR-national implementation: personal data protection act

European level
- European Statistical Law (Regulation 223/2009)
- General Data Protection Regulation (EU 2016/679)
1. Data collection energy statistics

- Currently we use about 80 data sources
- About 20 are registers containing microdata (>10^6)
- For the critical ones we make written agreements
- The most relevant are:
  - Connections to public grids of gas and electricity (CAR)
  - Installed capacity solar panels (CERES)
  - Certified (for granting) renewable energy (CertiQ)
  - Investment and operating grants (SDE)
  - Construction destination, energy labels, feed-in of green gas, biofuels
2. Data Processing Systems

Microdata → Methodology → Results
2. Coherent use of standard interfaces

- Data collection
- Standardisation
- Checking and editing
- Integrate and estimate
- Valorize and disseminate

(1) Raw data
(2) Standardized data
(3) Processed data
(4) Statistical data
(5) Released data

For processing we’re using Python
For data storage we’re using SQL
3. Business consumption by NACE

1. Link grid connections to the Business Register (ABR)
   • ABR is constructed around ‘business id’s’: quality of addresses is limited, not actively maintained, can be addresses of “branche offices”/other buildings
   • Only 70% of business addresses match: multiple connections and/or companies per address

2. Use more data sources for NACE assignment
   • Retail trade, construction destination, branche registers
   • Final result: Assignment NACE >95% valid
4. Main output: national and local datasets

Natural gas (mln m³)

- U Extraterritorial organisations
- S Other service activities
- R Culture, sports and recreation
- Q Health and social work activities
- P Education
- O Public administration and services
- N Renting and other business support
- M Other specialised business services
- L Renting, buying, selling real estate
- K Financial institutions
- J Information and communication
- I Accommodation and food serving
- H Transportation and storage
- G Wholesale and retail trade
- F Construction
- E Water supply and waste...
- D Electricity and gas supply
- C Manufacturing
- B Mining and quarrying
- A Agriculture, forestry and fishing
4. Commissioned output

- Energy regions which were agreed upon for reaching the climate targets to monitor their goals

- Ministry of Finance: data by energy tax bands in order to estimate tax revenue

- The Netherlands Enterprise Agency (RVO): to check how many companies need to follow some energy saving rules