

# Use of non-survey data in official statistics

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# Abstract

- The submitted paper focus on Statistics Norway's use of existing data sources that were not originally intended for official statistics, but which can be processed and reused for such purposes.
- This includes both administrative and other data and is referred to in international literature as "non-survey data". Such data differ from data collected via statistical surveys.



# A brief overview of data sources

Type of source	Example of data
Register	Vital events, diagnoses Wage, income tax, VAT, welfare payments
Transaction	Scanner data price, point-of-sales receipt Bankcard or giro payment B2B or B2P invoice Property sales contracts, ownership registration
Remote sensing, fixed	Smart meter readings Weather station readings Traffic loop signals
Remote sensing, mobile	Satellite images, drone images Airborne laser scanning Maritime AIS, lorry tracking signals Mobile phone signals
Internet	Web pages Social media posts



# Status (1)

## Register data

- Used in statistics for decades.
- From 2012 we have formalised agreements and so far, with 29 public data owners.

## Transaction data

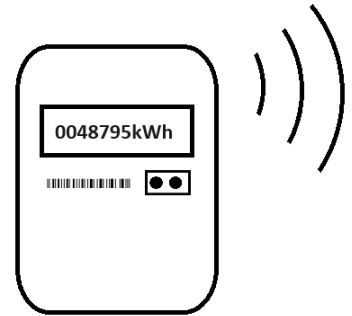
- Scanner price data from various industries, sales receipt data from grocery chains and card transactions from acquirers.
- Sales receipt data and card transactions have great potential for use in statistics on individuals, but the processing of the data also raise privacy issues.
- The collection of such detailed transaction data has therefore been temporary suspended. On the other hand, aggregated card transactions still have considerable statistical value in business statistics, considering that privacy challenges are minimal or non-existent.



# Status (2)

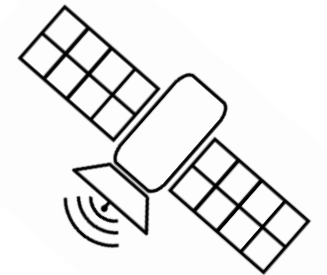
## Remote sensing, fixed

- Electricity consumption and production from smart meters, received monthly.
- Used in electricity statistics and may also have potential for use in other areas.
- We also aim to develop statistics based on vehicles passing electronic toll gates.



## Remote sensing, mobile

- Ongoing work to see if we can use satellite images to find out when construction takes place.
- Project to see if aggregated mobile positioning data can be linked to other data sources and used in official statistics.



## Internet

- Using webscraping to get hold of price data.



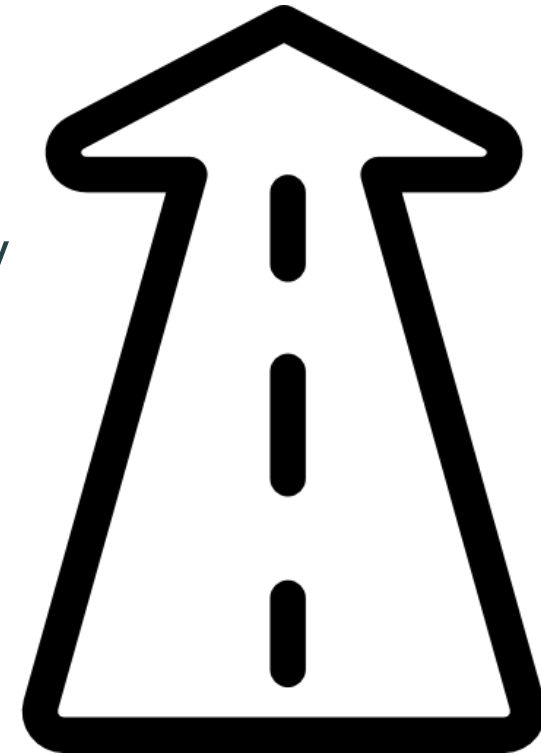
# Experiences/lessons learned

- Statistics Norway has extensive experience with the use of non-survey data in the form of administrative data and registers collected from public data owners.
- The principle of equality is important when collecting data from commercial data owners.
- There is a significant privacy threshold for collecting data on individuals from private companies.
- Data quality is not always sufficient for statistical purposes.
- Linking with Statistics Norway's statistical registers or other data sources is usually necessary.



# The way forward

- Focus on business statistics and economic statistics, i.e. to utilize as many sources as possible for this purpose as quickly as possible. Examples of such sources are:
  - Card transactions aggregated by merchant.
  - Giro transactions at enterprise-level.
- Methods to minimize privacy and data protection concerns for individuals and at the same time make data better suited for statistical production.



# Thank you!

