

# Establishing an Innovation lab for new data sources and techniques at Statistics Norway

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## Experiences so far

ANDERS HOLMBERG, 13 SEPTEMBER 2018



**Statistisk sentralbyrå**  
Statistics Norway

## Quotes from the past in new context

*“It is not necessary to change. Survival is not mandatory.”*

*\* On Challenges, Opportunities, Adaptability, Relevance of modern statistics, Design Re-engineering, Data Recycling and additional use of data*

*“Information is not knowledge let’s not confuse the two”*

*\* Data volumes will not be enough, Necessity of analysis, Numeracy skills, Statistical analytics and Quality assessments*

— [W. Edwards Deming](#)

# Official Statistics in One Slide

INPUT

THROUGHPUT

OUTPUT

### Sample Surveys

- Labor Force Survey
- Time use Survey
- International Trade
- ...



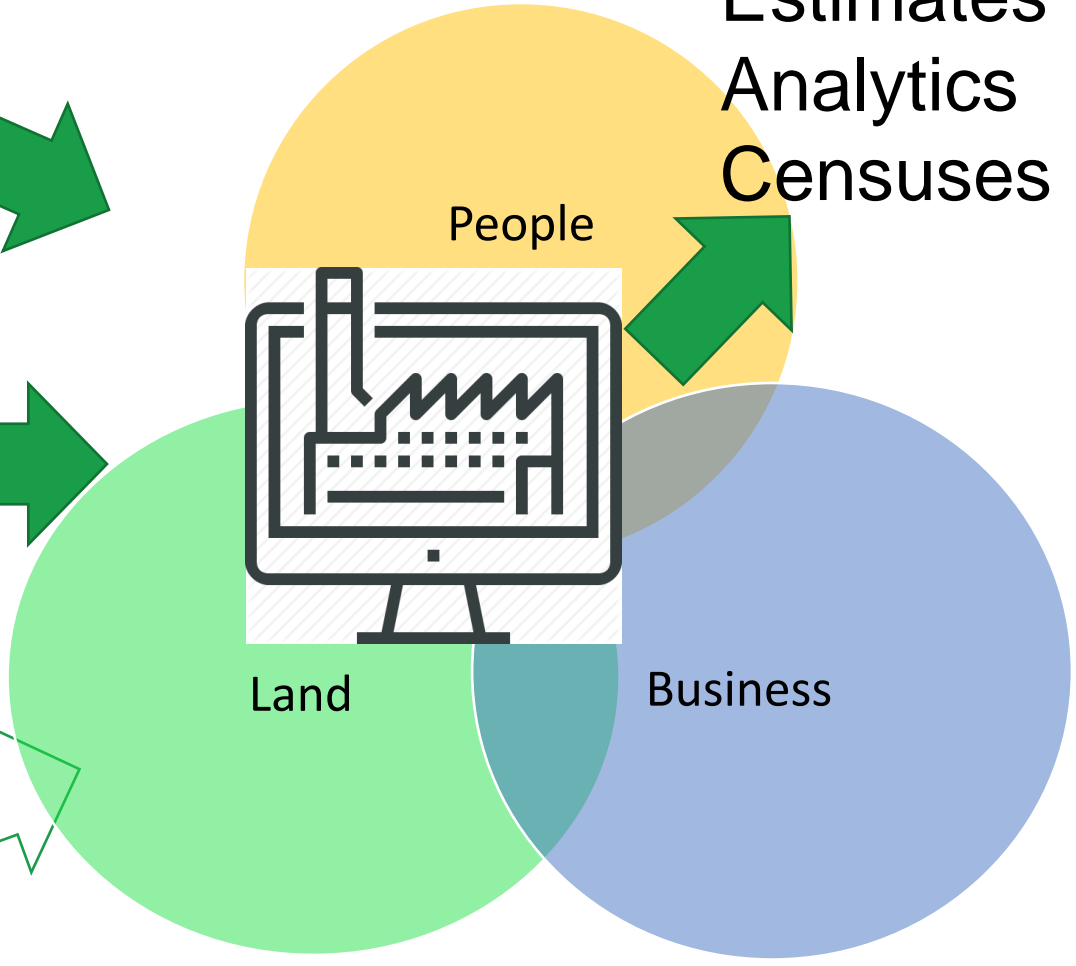

### Admin. Data Sources

- Tax Data
- Population Register
- Employment Register
- ...



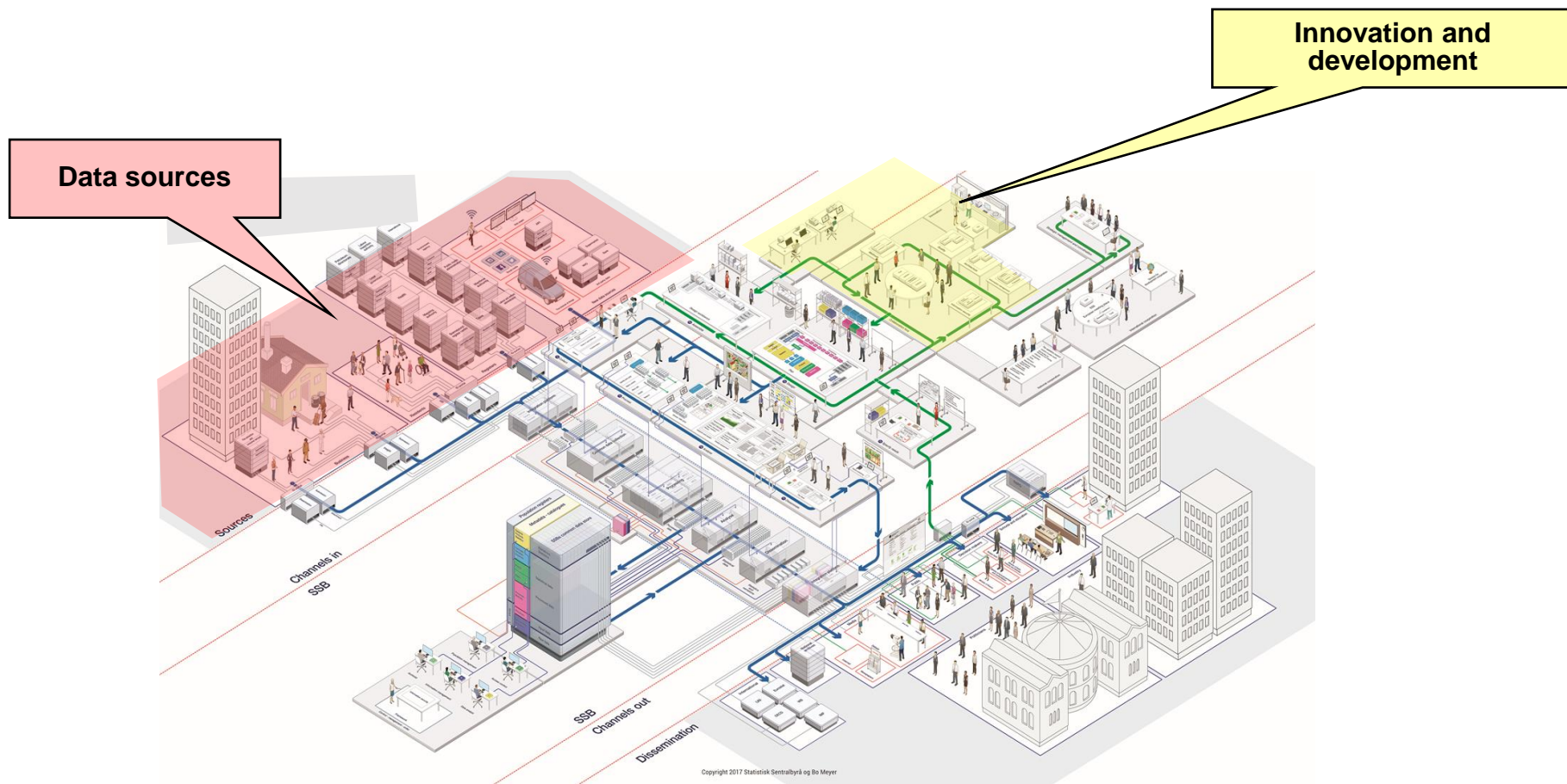
### Unconventional Data

- Sensor Data
- Transaction/Activity Data
- Web Data
- Satellite



Estimates  
Analytics  
Censuses

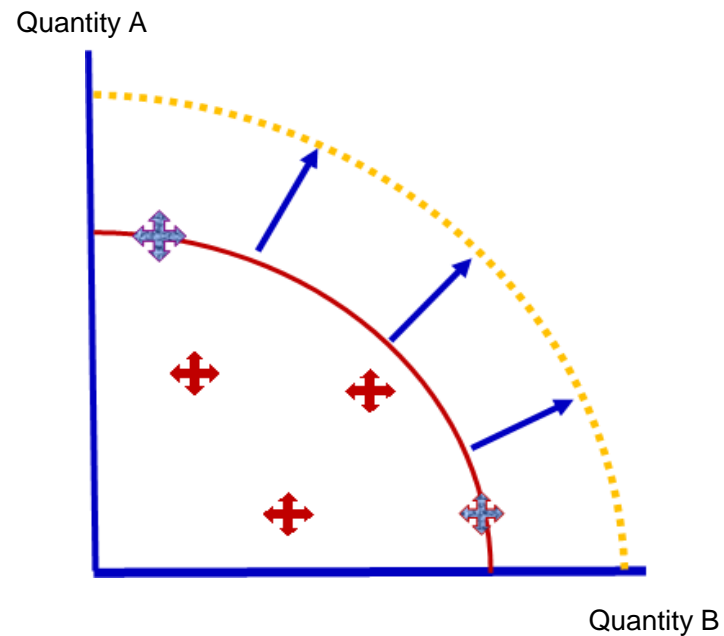
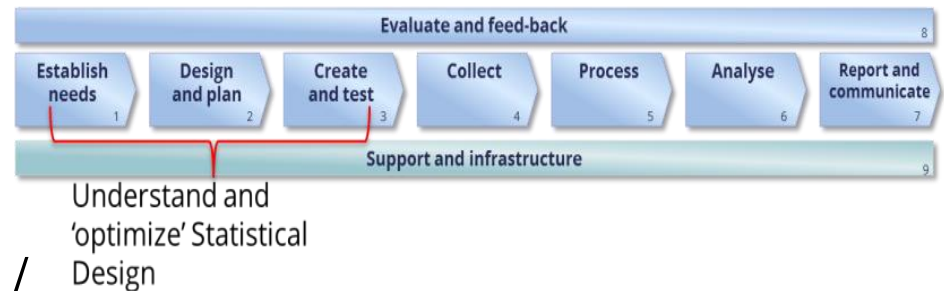
# SSBs 2022 Modernisation target



# Official statistics and Methodology

## Methodology

- Deliver a responsive consultancy / implementation service
- Manage the Organisation's "Production Possibility Frontier"
  - Research, Methods, Tools, Innovations
- Methodology strategy
  - Standardize
  - QA
  - Competence increase



# New measuring devices

- Collection of blood cholesterol, saliva cortisol, and waist circumference

- Internet bathroom scales
- (*weight & fat percentage*)



- Accelerometers
- (*physical activity*)



Smartphones

(*time use, travel behavior / m*)



- Navigation, Sensors,
- Tachograph systems



Statistisk sentralbyrå

Statistics Norway

Source: Marcel Das Tilburg university

# Environment

- **DATA ENVIRONMENT**
  - Digitalisation
  - Unconventional data  
(Big, Combined and New sources)
- **Production Environment**
  - More input sources
  - Data herding, combining, analyzing, adding value, validation
  - Multiple uses of the same source
  - Fit for use? Quality evaluations and development
- **Methodological and tech. environment**

# New Demands New methodology, New Survey Design

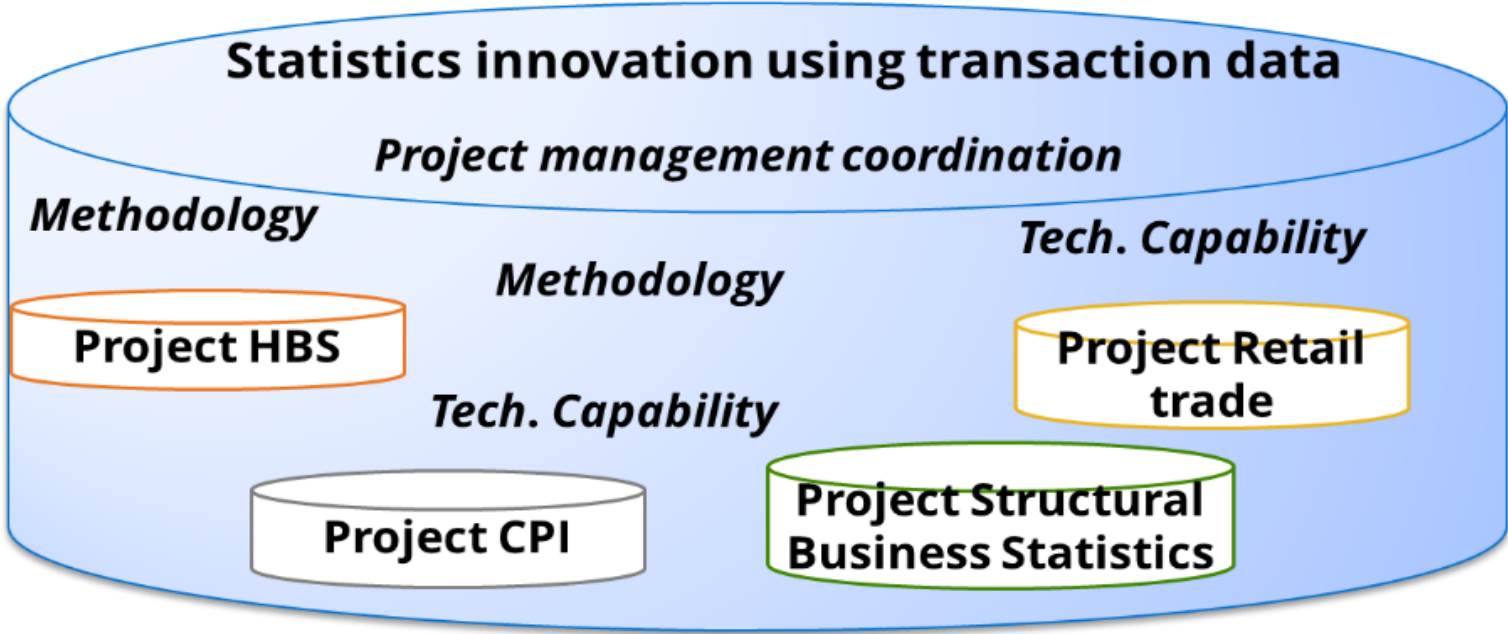
- I. Statistics Norway annulled the 2017 Household Budget Survey.
- II. Statistics Sweden pulled an emergency break during data collection their HBS





# Financial Transaction Data

- A case for Cross Domain Innovation Activities

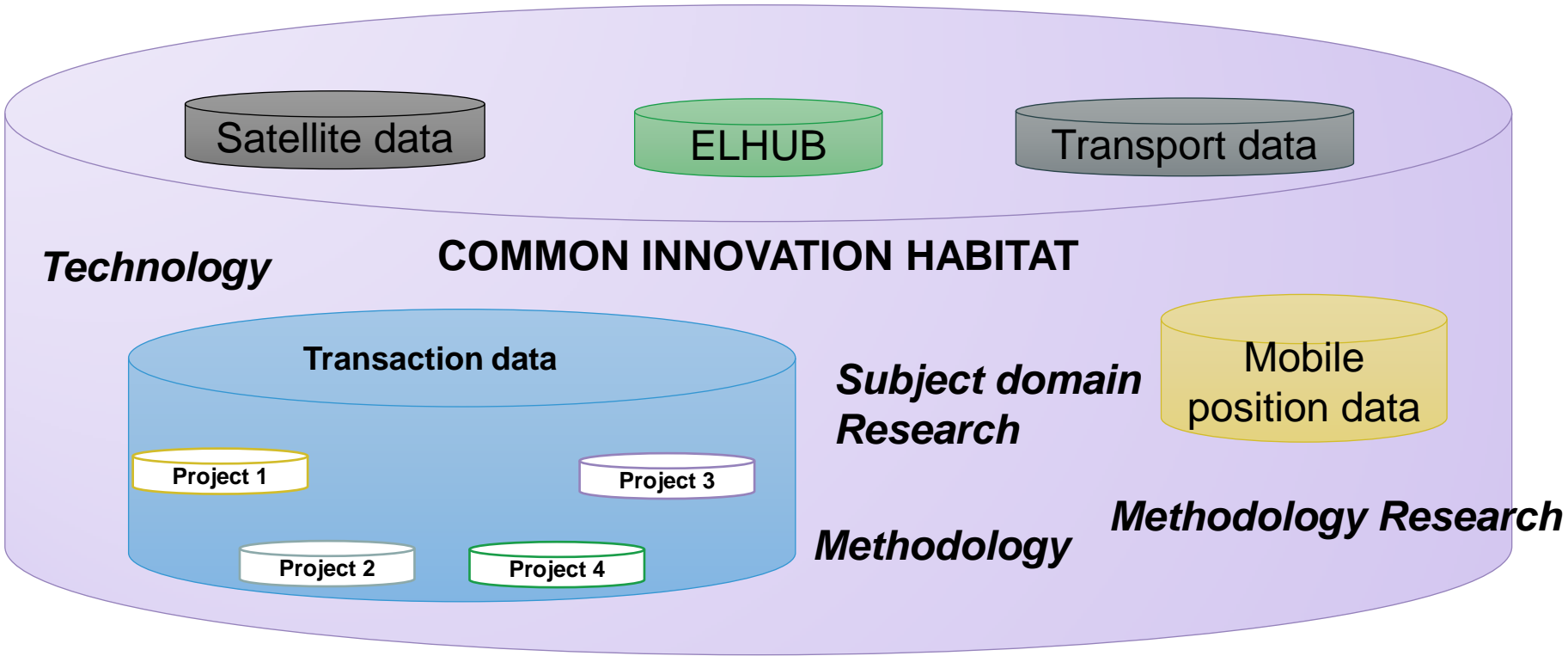


# Statistics Norway's Innovation Environment

## - Principles

- Steering group responsible for content and resources allocation
- Purpose and output driven
- Staff rotation
- Communication and Results Dissemination
- Information and Data Management principles

# Expansion opportunities



## Experience Future Outlook

- Low level investment, try and fail fast
- Good collaboration spirit, new constellations,
- New and broadened knowledge
- It is an experiment! Future resource allocation is uncertain.

# Takk!

ssb.no

