

Data-based decision-making - a case from Denmark



Services offered



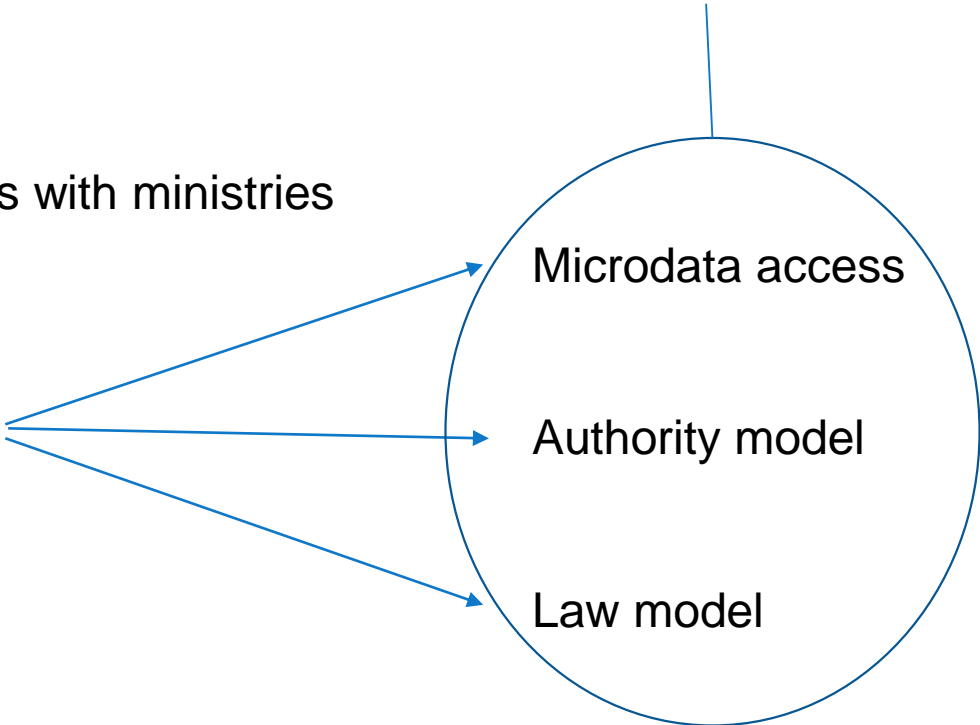
Tailored surveys

Tailored analyses (consulting)

Focus of my presentation

Tailored partnerships with ministries

Microdata services



The Danish law model system

- The Law Model was established by government decision in 1978.
- Currently 12 governmental institutions and 200 users has access to data through the Model.
- The main purpose is to investigate the economic and/or social impact of current or new legislation and to deliver knowledge to the policy planning process.
- Institutions apply for specific projects to cooperate across department areas – to evaluate or estimate an impact.
- Statistics Denmark provides model populations and administrative data and delivers the IT-setup such as servers, licenses etc.



Picture: Danish Parliament

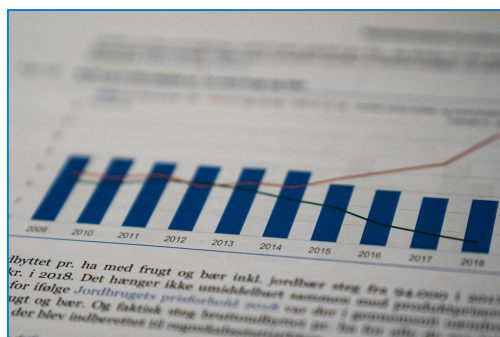
The authority model



Picture: Analysis/graph

- The authority model provides microdata for institutions that carry out regulatory tasks, i.e. departments, agencies and directorates, regions and municipalities.
- The main purpose is to meet the need for ad-hoc analysis with short deadlines. Therefore, authorities have quick and flexible access to the entire package of data relevant to their specific department area.
- The package of data and written agreement between Statistics Denmark and the authority is evaluated and renewed each year.

Micro data access



Picture: Analysis/graph

- The micro data access model offers access to microdata institutions in The Danish Kingdom, including private companies
- Users must describe the purpose of their analyses and the societal benefit.
- Possible to set up a wider project database with sub-projects.
- Each project must be approved.

The three models

Law model

DATA OCEAN

User: Controlled by the
Ministry of Finance

Purpose: prepare new
legislation, service ministers
and parliament etc.

Authority model

DATA LAKE

Users: public authorities

Purpose: analyses on a
specific authority's resort
area

Micro data access

DATA POOL

Users: originally
researchers, now also
public organisations,
companies etc.

Purpose: Analyses,
research and statistics.

Control of results – and actions

The main differences

Law model

No control of projects

Performers most work on their own.

Only data access needs to be approved.

Authority model

Data access checked annually

No control of projects

Fast track

Micro data access

Projects controlled individually.

Database possible, but divided into sub-projects

Some users also have access via an authority model

HPC-project

Price models differ

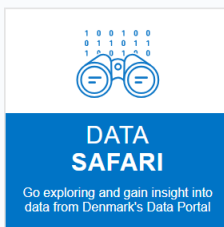
What do we offer access to?

DENMARK'S **DATA** PORTAL

About Denmark's Data Portal ▾ Data Safari Become a User Contact Log in Dansk

Welcome to Denmark's Data Portal

Denmark's Data Portal is an initiative by Statistics Denmark, which greatly benefits society by giving researchers and analysts easy and secure access to Danish data. The application includes over 350 registers classified by subjects such as business, health, education and economy. In "Data Safari", you can go exploring and get a general idea of the data that you can request as a user of Denmark's Data Portal.



Short cuts

[Data for research](#) [Data for authorities](#) [Customised statistics](#) [Surveys](#) [StatBank Denmark](#)

Partners

[Partners](#)

About

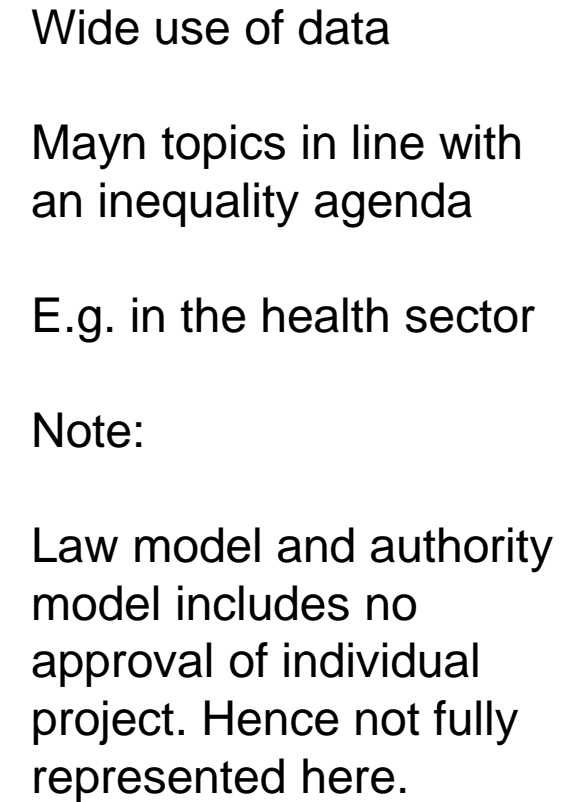
[FAQ](#) [Accessibility statement](#) [Contact](#)

Statistics Denmark
Sankt Kjelds Plads 11
DK-2100 Copenhagen

- "Amazon" for requesting data access – not used by the law model.
- 450+ registers available - plus user's own data

Arbejde, indkomst og formue	Work, income, fortune	Registers 64 ▾
Befolkning og valg	Population and elections	Registers 34 ▾
Eksterne data	External data	Registers 7 ▾
Erhvervslivet på tværs	Business – cross sector	Registers 53 ▾
Erhvervslivets sektorer	Business sectors	Registers 15 ▾
Geografi, miljø og energi	Geography, environment and energy	Registers 30 ▾
Kultur og kirke	Culture and church	Registers 3 ▾
Levevilkår	Living standards	Registers 88 ▾
Penge og kapitalmarked	Money and capital markets	Registers 1 ▾
Priser og forbrug	Prises and consumption	Registers 12 ▾
Sundhed	Health	Registers 106 ▾
Uddannelse og viden	Education and knowledge	Registers 50 ▾
Udenrigsøkonomi	Foreign trade etc.	Registers 5 ▾

www.danmarksdatavindue.dk



Law model and authority model includes no approval of individual project. Hence not fully represented here.

Step 1 Authorisation Certification



Supplementary
process for the
authority
model.

Step 2 Project approval



Data combined via keys – e.g. personal numbers.
Available in all registers to tie it all together.

User can see pseudo-anonymised data.
Necessary for quality assurance
AI can be used – we work to improve possibilities.

Control module has
ben developed.
Supports users as well.

User sends data request to FSE
– via the Danish Data Portal.

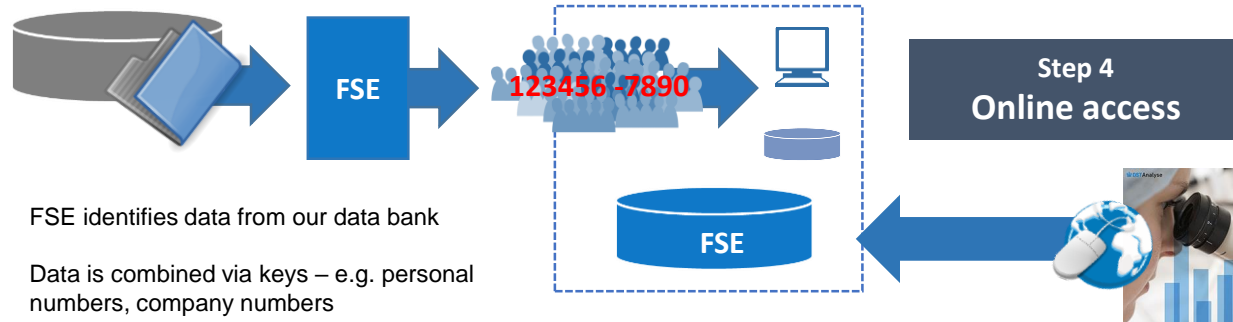
Must describe:

- 1) Purpose (science, statistics)
- 2) Relevance to society
- 3) Data needed – possibly own data or external data included.

FSE approves

Mean time: 20 days from first contact to delivery (4 days from approved project to delivery)

Trin 3 Data work



FSE identifies data from our data bank

Data is combined via keys – e.g. personal numbers, company numbers

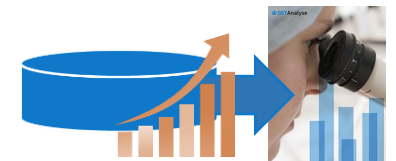
Pseudo-anonymisation. One key per project.

FSE stiller et sikkert miljø til rådighed, hvor projektdata Z opbevares og bearbejdes af Forsker X.

Step 4 Online access

Step +5 Control and sanctions

Step 5 Results can be taken home



Confidentiality – two main principles

Principle 1

Data can only be used
for science and
statistics.

Commercial purposes
are ok, e.g. development
of products.

But NOT:

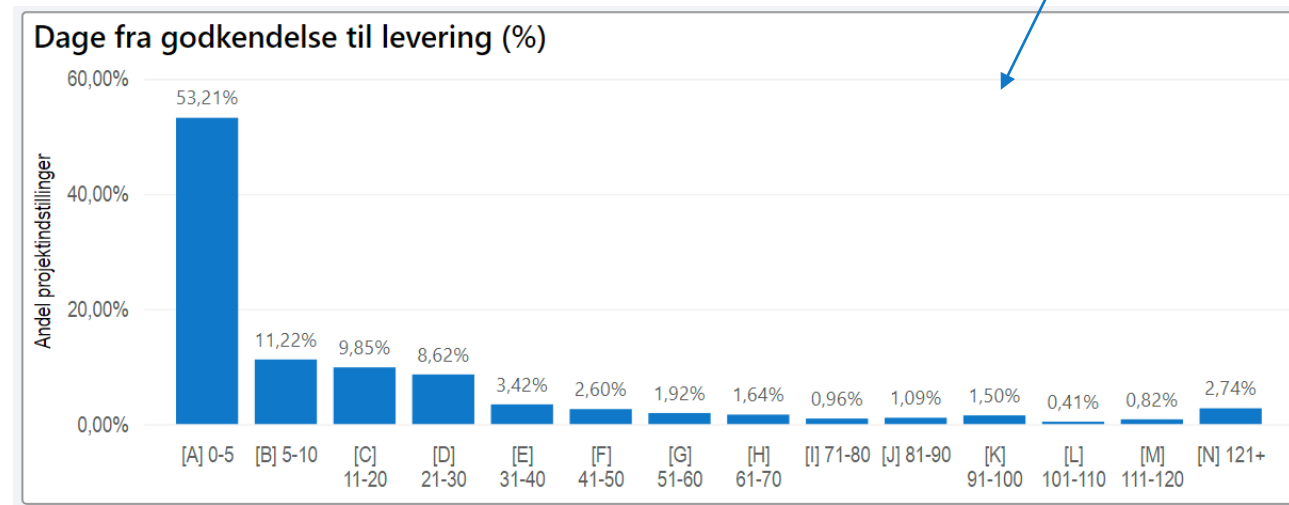
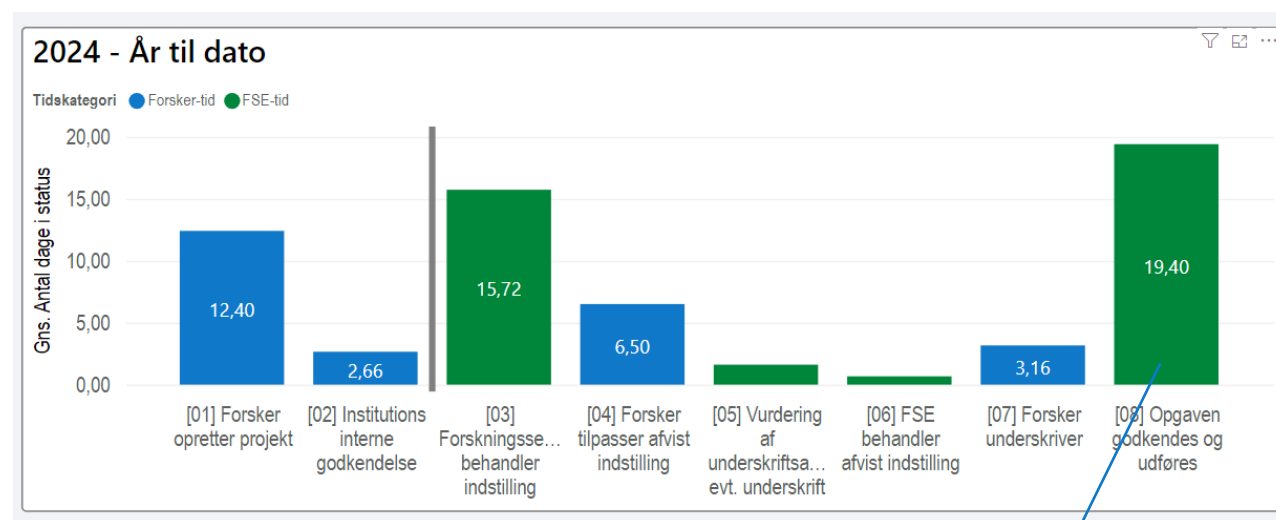
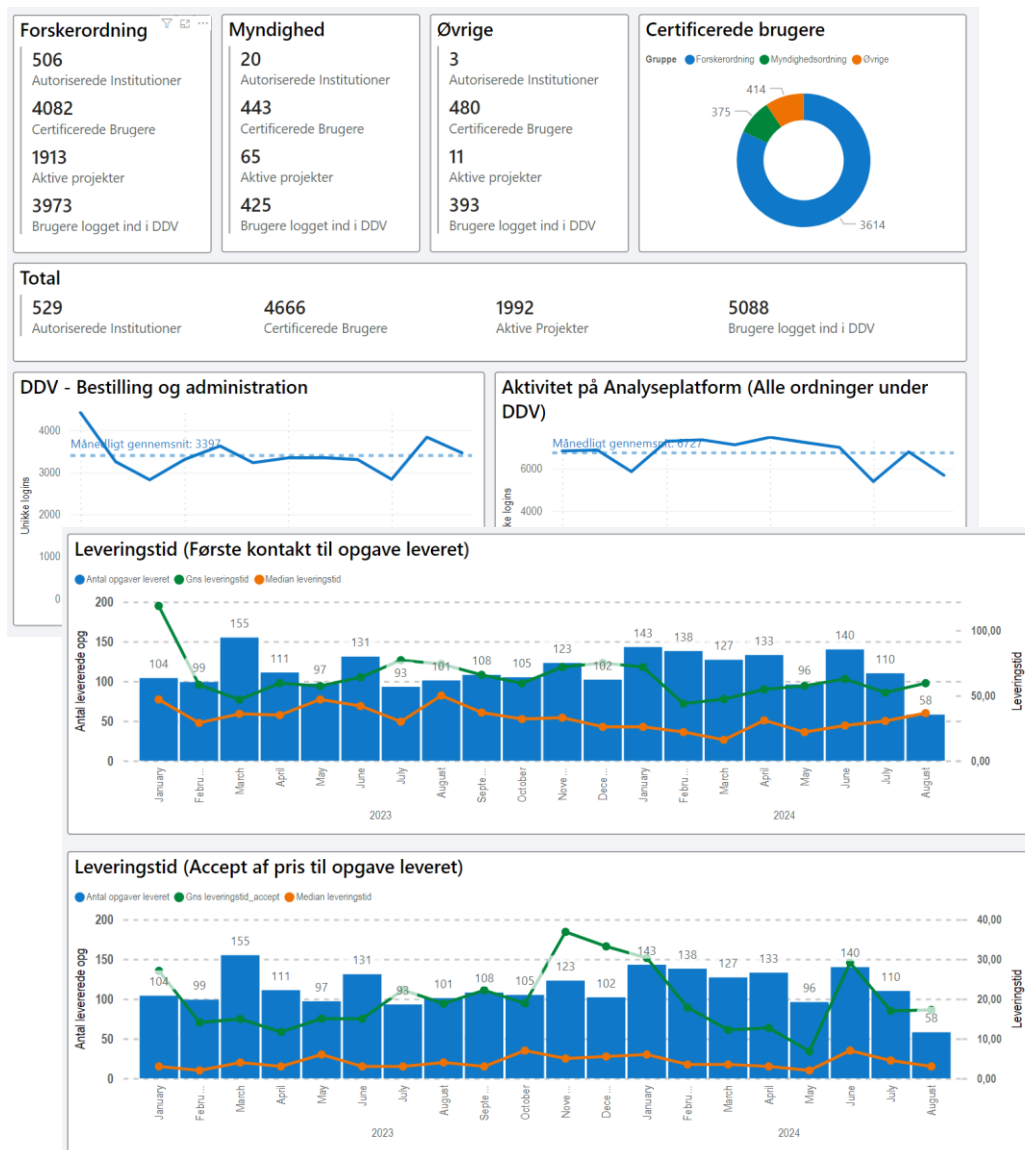
Administrative purposes
Marketing etc.

Principle 2

Knowledge on individual
persons or individual
companies must not be
subtracted.

Only aggregated results.

A few numbers on use of the platform



Authority model not included. Delivery times do not include the law model (fast track) and the authority model