

Linking data across domains and sources

– Danish Basic Data Programme & Data Distributor Platform

Conference of European Statisticians

Seventy-second plenary session
June 20th 2024



Agency for Data Supply
and Infrastructure

Olav Eggers
Principal Consultant

Tasks of SDFI – Data Distributor & Basic Data

- SDFI is part of the Danish Ministry of Energy, Utilities and Climate
- Responsible for Geospatial data/infrastructure - and regulating telecoms infrastructure
- Data Distributor:
 - Development of the Data Distributor
 - Documentation and support
 - Cooperation with the service provider and registry owners
- Basic Data programme:
 - Coordinate the Basic Data collaboration + secretariat for both the steering group and its underlying forums
 - Maintenance and further development of Basic Data

Overview - Distribution of Basic Data

Registration authorities provide and quality-assure data and establish terms for access to data.

 The Danish Property Assessment Agency

 DANISH BUSINESS AUTHORITY

cpr
The Danish Central Office of Civil Registration



Danish Gooddata Agency



Agency for Data Supply and Infrastructure



The Data Distribution Platform

The Data Distribution Platform operates and develops the joint public IT solution for data distribution.

Users must ensure that data is used within the current terms.



Authorities



Businesses



Institutions

The Basic Data Programme

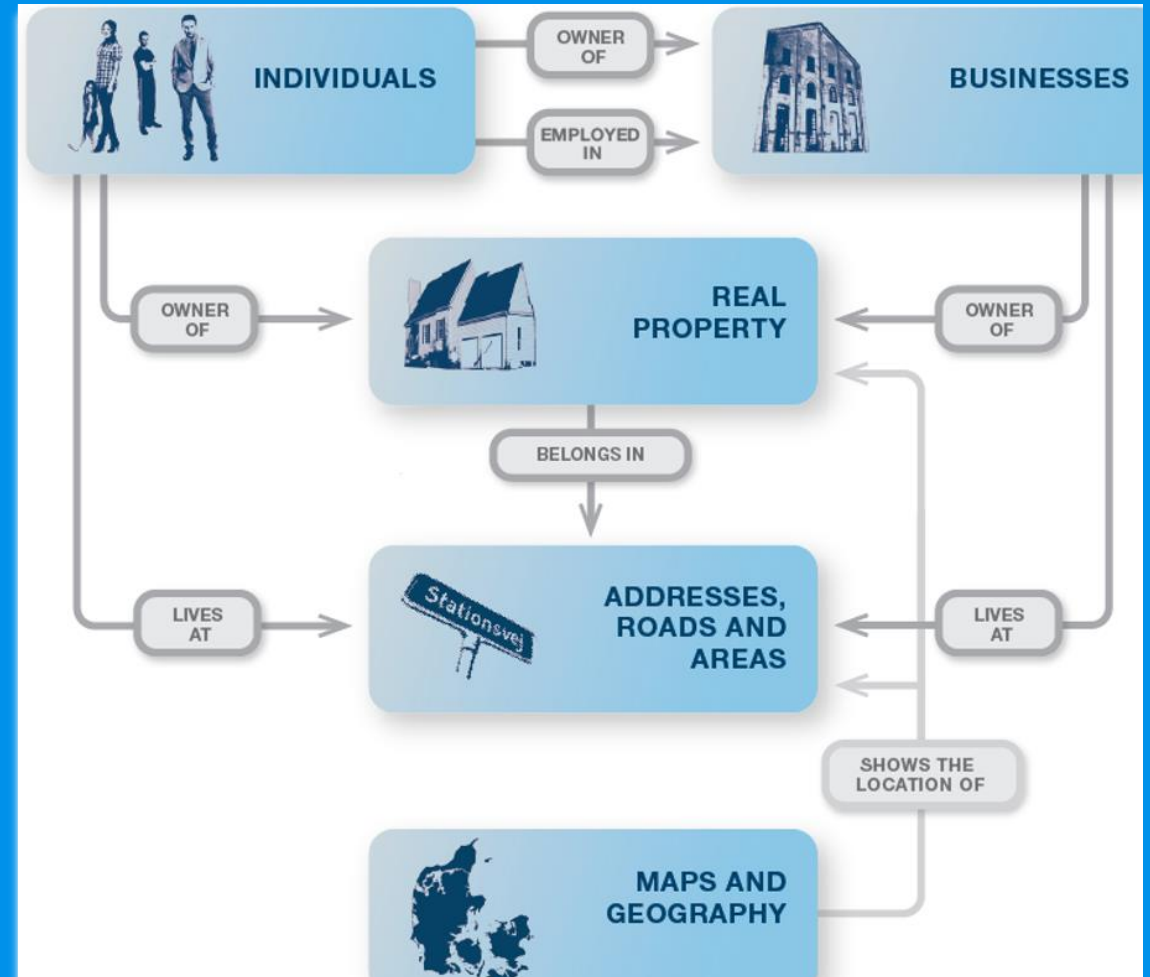
- Initiated in 2011 by the Danish Government, the municipalities and the Danish Regions
- Achieved through a series of sub-projects
- Fully implemented in 2020, development on-going
- The initiative has aimed to:
 - Secure free, fast and reliable access to Basic Data
 - Secure coherent Basic Data updated at one place
 - Increase effectiveness and modernise public administration
 - Increase innovation and growth - as well as costs reduction



The Basic Data Programme – conceptually

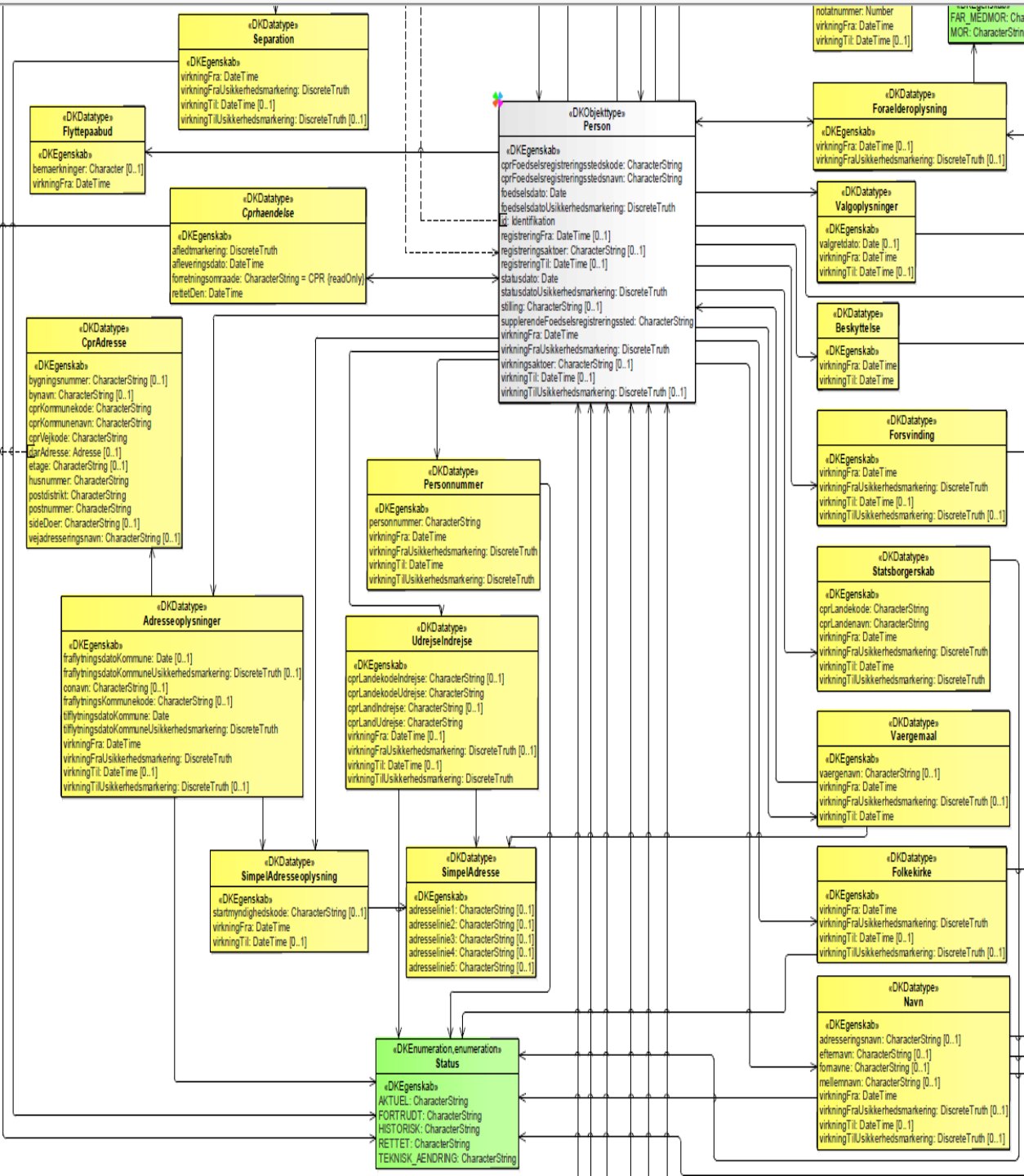
Through the Basic Data Programme, Danish public authorities deliver core information about

- individuals,
 - businesses,
 - real properties and buildings,
 - addresses, maps and geography.
- Use and re-use of Basic Data is now a foundation for public authorities and private companies



The Data Model

- Before the Basic Data Initiative, data was documented and modelled in different ways for each register, making them difficult to combine
- Solution: Creation of a coherent common model for all Basic Data
- The Data model secures relations between objects, and that objects and attributes are unique and can only be found in one Basic Data register

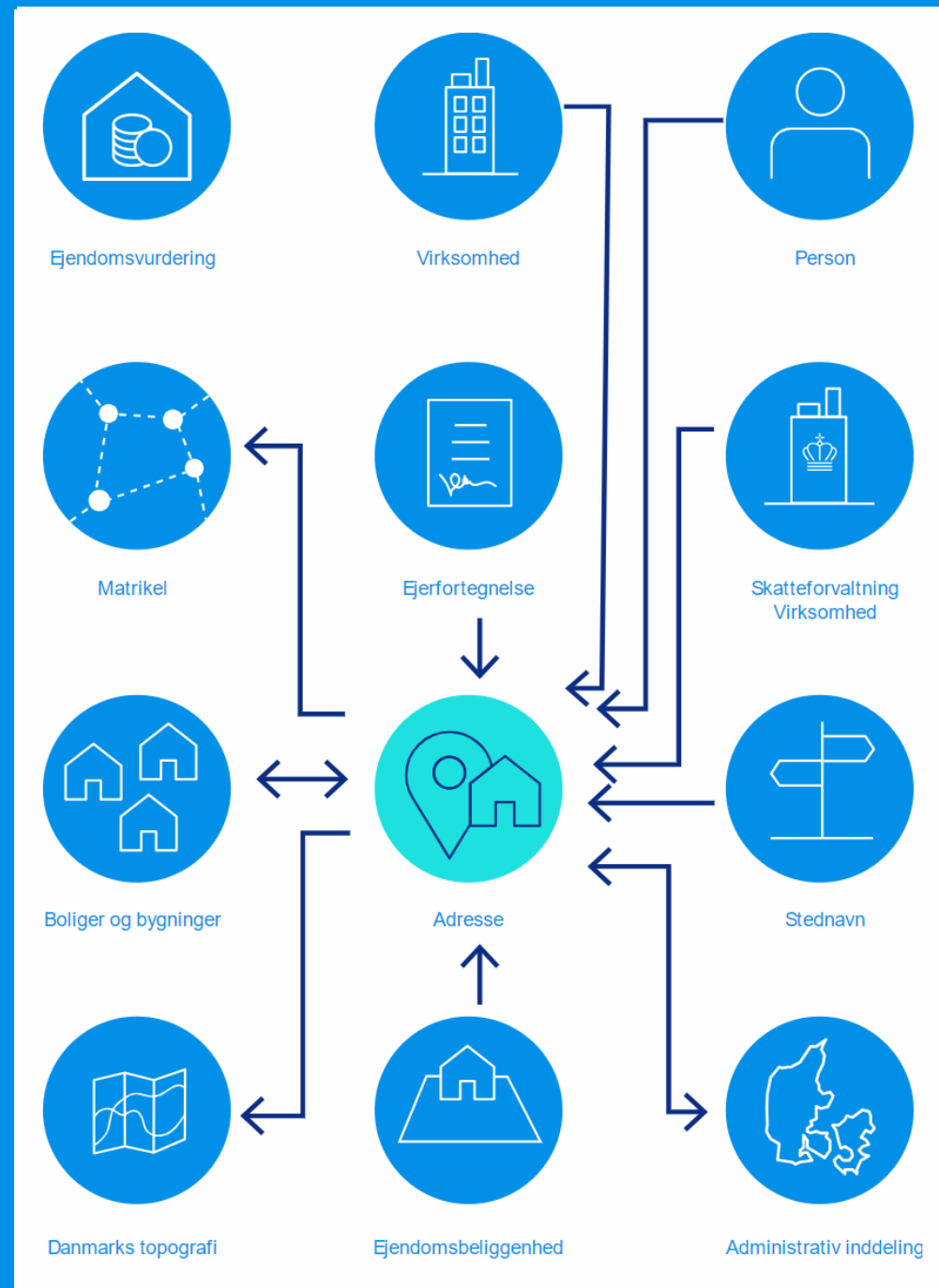


The links between Basic Data registers

Examples of relations/links between domain data models:

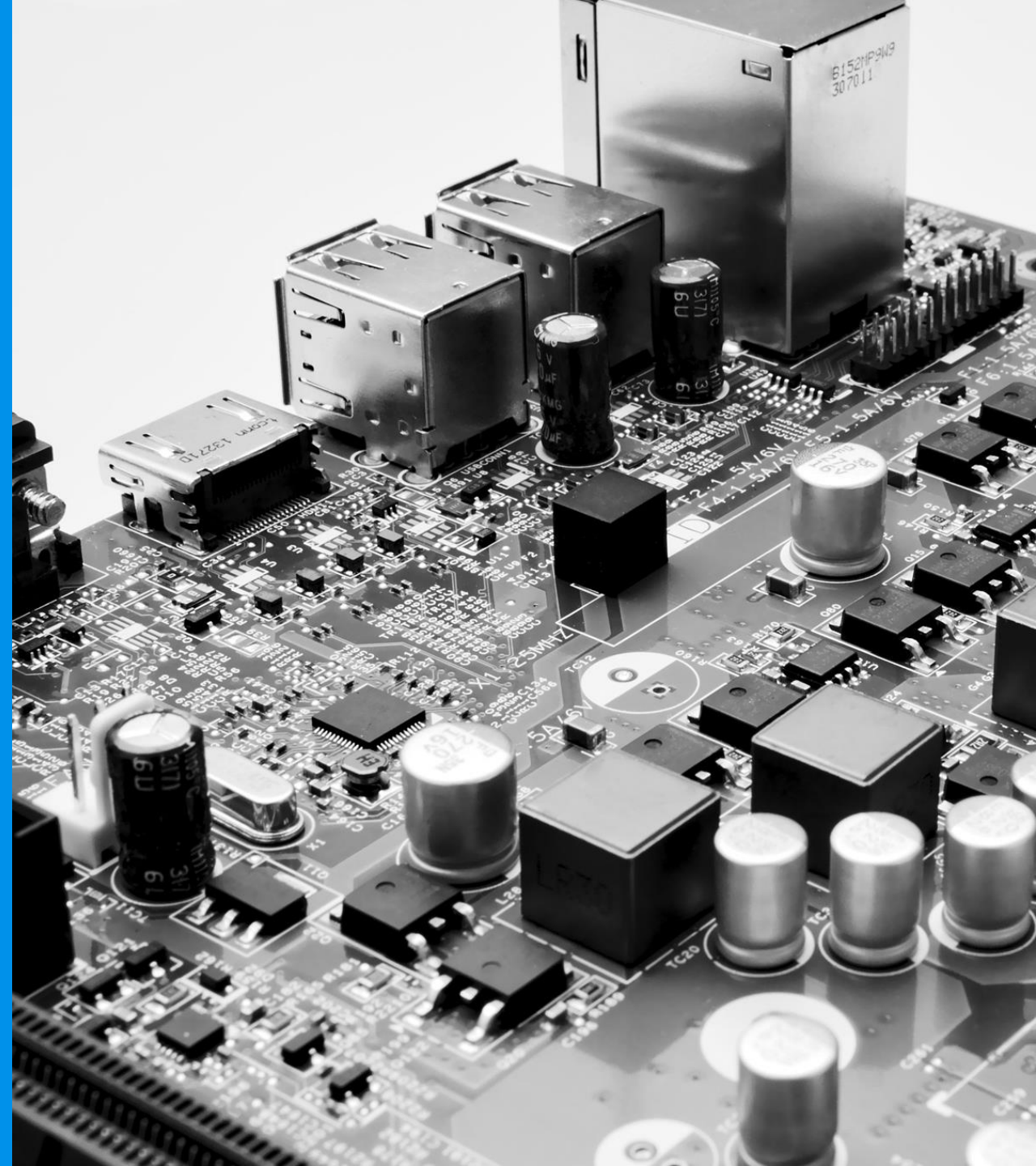
- Person
- Address (Adresse)
- Administrative division (Adm. Inddeling)

The unique identifiers allow combination of data across registers



The Data Distributor Platform

- Basic Data is distributed through the Data Distributor Platform
- Secure, stable and scalable platform (January 2024 - 2.5 billion calls to the web services in total)
- High uptime (99,9%) and high performance
- Possible to compile data from different registers in a single service
- ...not just channel for distribution of data, also organisation (operator, data owners and users)



The Data Distributor Platform

- Well over 500 different services: web services, file download, events...
- Over 20 different registries

Working with the DD:

- Simple bulk downloads – register/geospatial
- Retrieve geospatial data about your municipality via your GIS client
- Make advanced integrations with register (tabular) data

The screenshot displays the Data Distributor Platform interface. At the top, there is a search bar labeled 'Søg' with a magnifying glass icon. Below the search bar, there are several filter categories, each with a list of services and checkboxes:

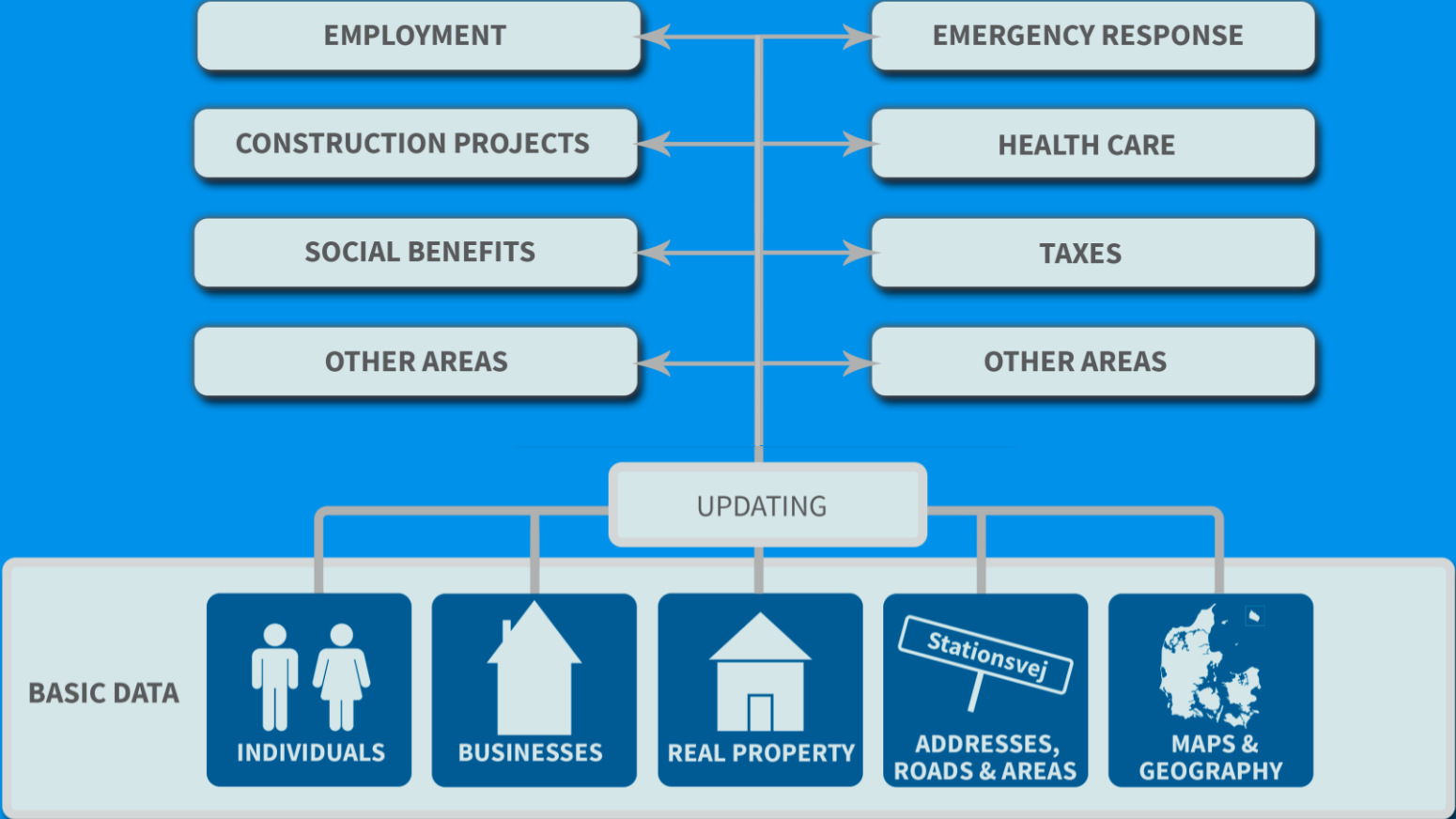
- EMNER**: Adresser, veje og områder; Fast ejendom; Landkort og geografi; Personer; Virksomheder; Vand og klima.
- TIJENESTE**: Filudtræk; Hændelser; Webservice.
- SERVICE**: REST; REST metode; WCS; WFS; WMS; WMTS; Abonnement; Prægenereret.
- ADGANG**: Åben; Adgangskode; Certifikat og IP; Anmodning; Anmodning og IP; Offentlig myndighed.
- FILFORMAT**: JSON; XML; JSON/XML; GML; SHAPE; TAB; GeoPackage; JPEG; JPEG/PNG; DWG; GeoTIFF; LAZ; Flere valg; ESRIASCIIGRID; ECW.

On the right side, the 'Dataoversigt' (Data Overview) section is visible. It includes a heading 'Brug filtre til at sortere tjenester og hændelser' and a count of '390 RESULTATER'. Below this, a list of services is shown, each with an information icon, the service name, and a dropdown arrow indicating the number of results:

- Bygnings- og Boligregistret (BBR) - 15 RESULTATER
- Danmarks Administrative Geografiske Inddeling (DAGI) - 32 RESULTATER
- Danmarks Adresseregister (DAR) - 19 RESULTATER
- Danmarks Fikspunktsregister - 5 RESULTATER
- Danmarks Højdemodel (DHM) - 59 RESULTATER
- Danmarks Topografiske Kortværk (DTK) - 8 RESULTATER
- Danske Stednavne - 10 RESULTATER
- Det Centrale Personregister (CPR) - 25 RESULTATER
- Det Centrale Virksomhedsregister (CVR) - 25 RESULTATER
- Ejendomsbeliggenhedsregistret (EBR) - 19 RESULTATER
- Ejendomsvurdering (VUR) - 26 RESULTATER
- Ejerfortegnelsen (EJF) - 42 RESULTATER
- GeoDanmark Ortofoto - 5 RESULTATER
- GeoDanmark Vektor - 16 RESULTATER
- Historiske kort og data - 14 RESULTATER
- Matriklen2 (MAT2) - 28 RESULTATER
- Matriklen (MAT) - 30 RESULTATER
- Skatteforvaltningens Virksomhedsregister (SVR) - 6 RESULTATER
- Skærmkortet - 5 RESULTATER

Basic Data use

Basic Data is used every day in a wide range of areas within the public administration as well as in the private sector:

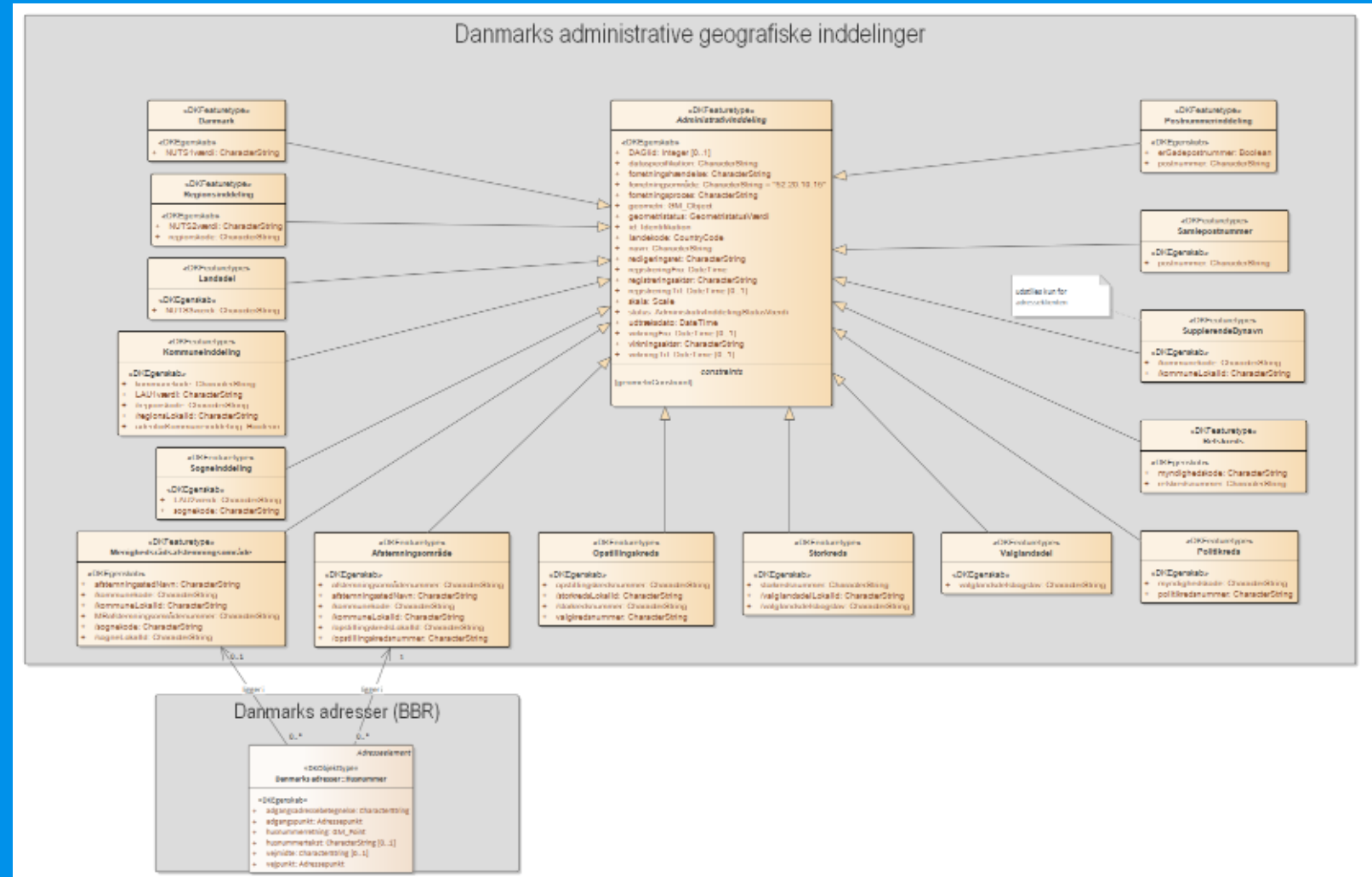


Statistics Denmark – use of Basic Data

- Statistics Denmark use a variety of Basic data, such as:

- Person register
- Owner register
- Cadastre register
- Place names and polygons
- Administrative division...

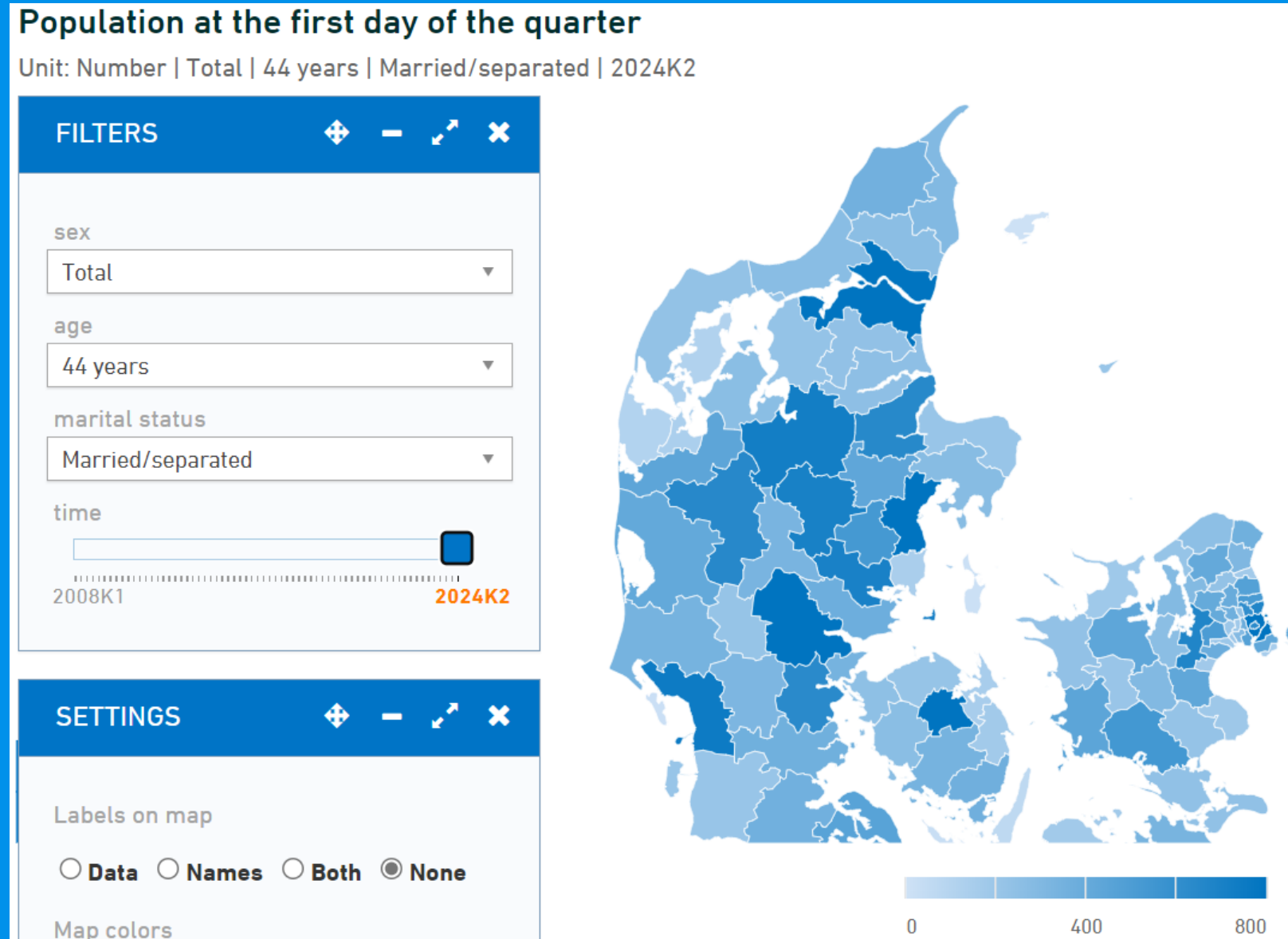
- The data model ensures that the individual datasets are linked with each other through reference keys



Overigtsdiagram DAGI : Logloal diagram

Statistics Denmark – use of Basic Data

- The Danish Administrative Geographical Division (DAGI) can be combined with other data
- The population is linked to an address, which is linked to the Administrative Geographical Division - and used to display the data from the selected tables.
- The DAGI data set contains the divisions: Denmark, Regional Division, Country Division, Municipal Division, Parish Division, Constituency District, Large District, Electoral District Division, Police District, Judicial District, Postcode Division, Supplementary City Name, Voting Area and Parish Council Voting Area.



Thank you
for your
attention!

Data Distributor:

<https://datafordeler.dk/>

Basic Data model:

<https://grunddatamodel.datafordeler.dk/>



Agency for Data Supply
and Infrastructure

