



FIG
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06-11 MAY 2018
EMBRACING OUR SMART WORLD
WHERE THE CONTINENTS CONNECT:
ENHANCING THE GEOSPATIAL
MATURITY OF SOCIETIES



Report on the impact of open geographical data - Danish effect studies -

(Paper no 9603)



1. Intro – teaser
2. Basic digital infrastructure framework – DK
3. The Basic Data Program
4. The impact of the open geographical data – follow up study
5. Questions and answers / dialogue

” *Basic Data is a common digital resource*



01.01.2013

” *Free access to public basic data for everyone!*

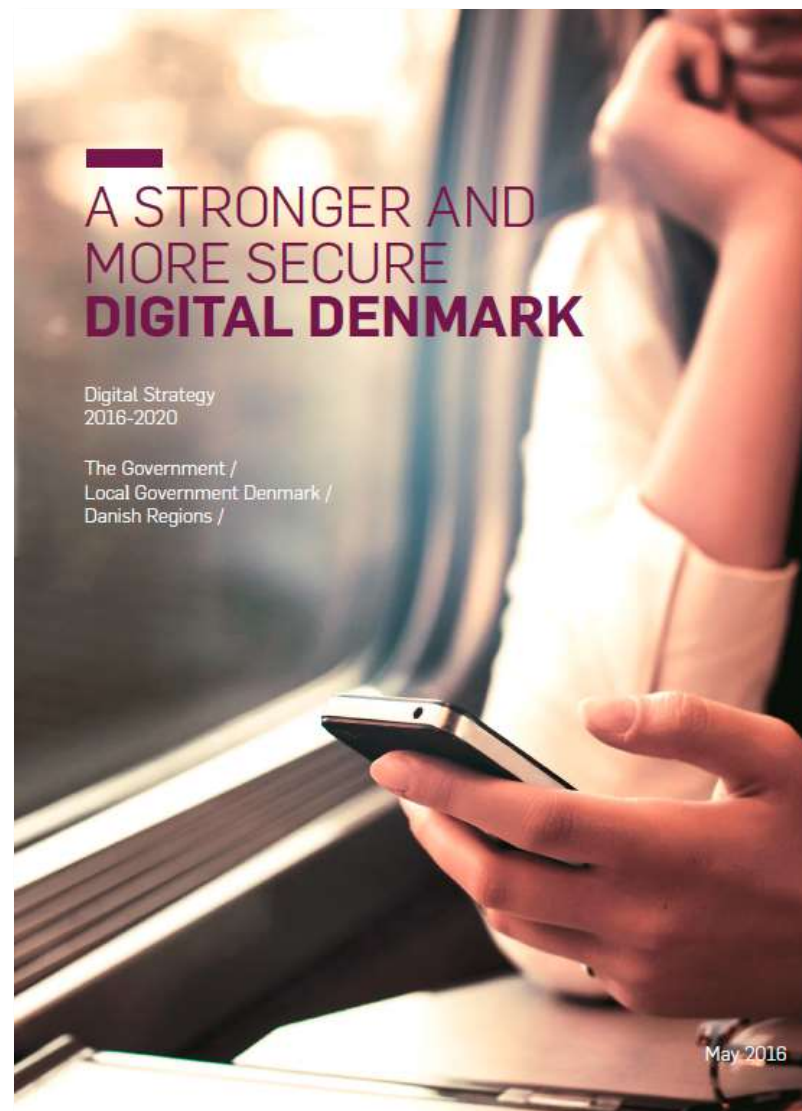
(Part of The Basic Data Program)



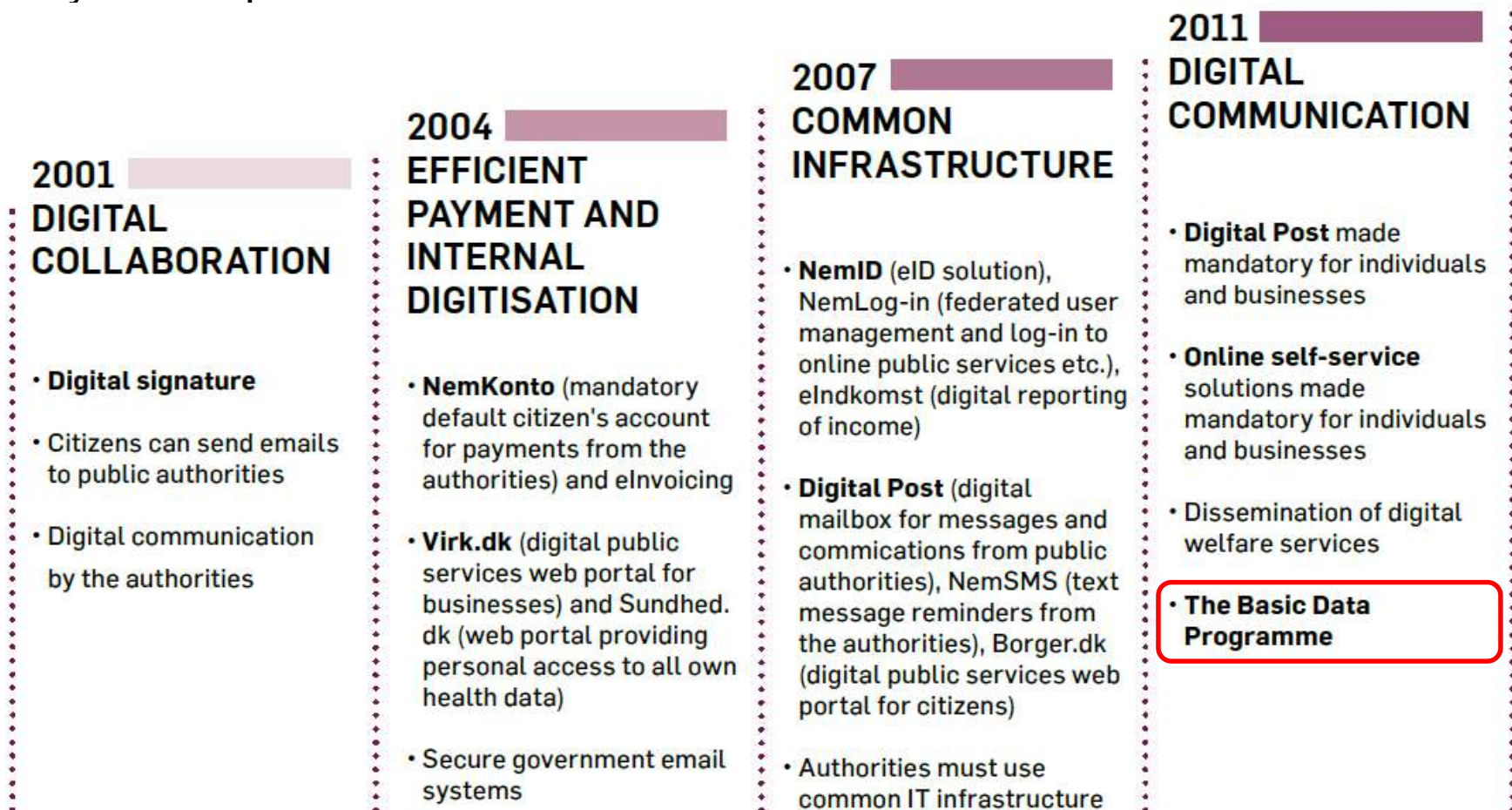
BREAKING

Common Public Digitisation Strategies – since 2001

” *94% of all Danes
are online daily (2017)*



Denmark on the **digital stairway** to a digital enabled and driven society – 17 years of political consensus



Data infrastructure:

” *Infrastructure – fundamental facilities and systems essential to enable, sustain, or enhance societal living conditions*



Data Infrastructure – general:

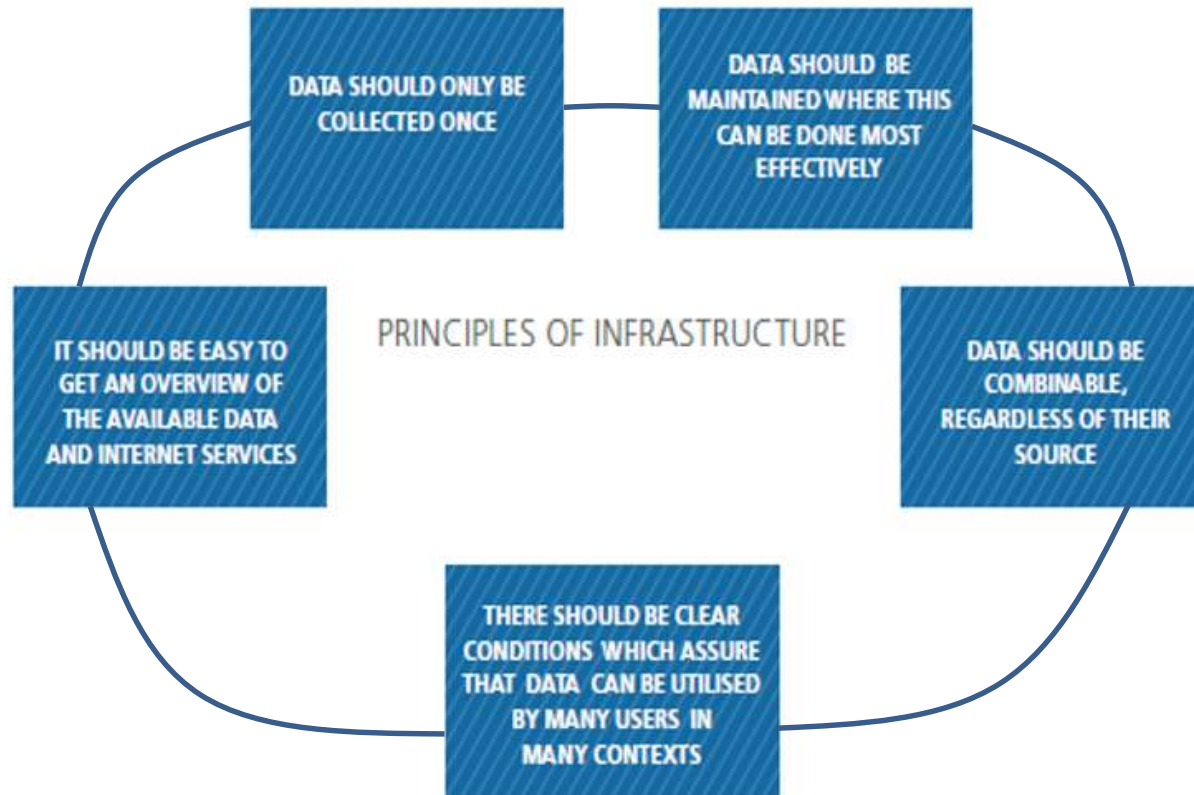
*“The **technologies, policies, standards and human resources** and related activities that are necessary for us to collect, process, store, distribute and improve the use of data.”*



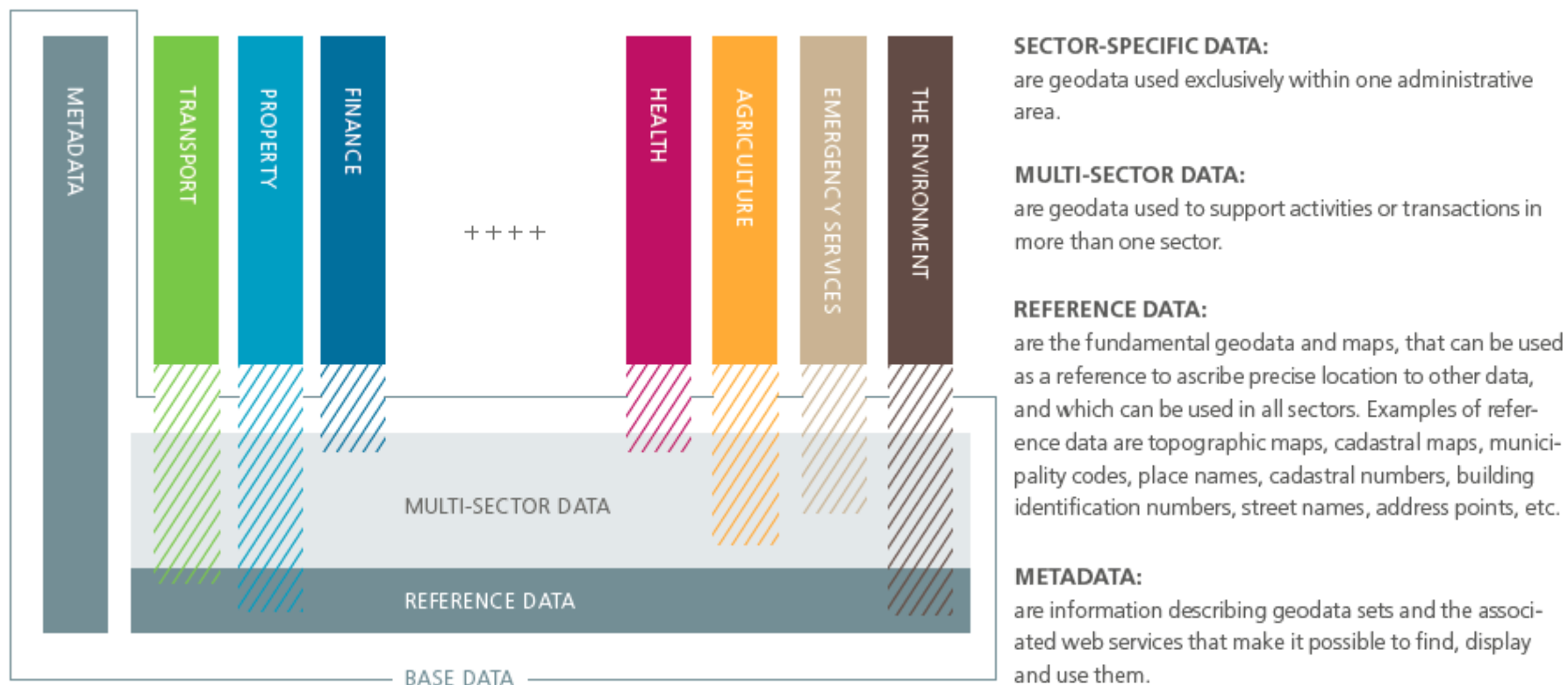
Spatial Data Infrastructure – special:

*“A **spatial data infrastructure (SDI)** is a data infrastructure implementing a **framework of geographic data, metadata, users and tools** that are interactively connected in order to use spatial data in an efficient and flexible way.”*

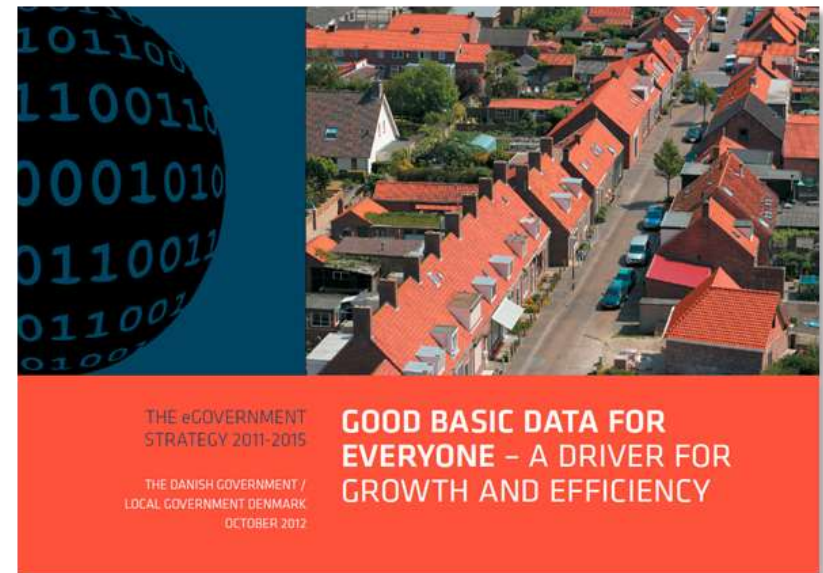
INSPIRE – Basic common principles for Spatial Data Infrastructure



NSDI – The Danish Spatial Data Infrastructure Model

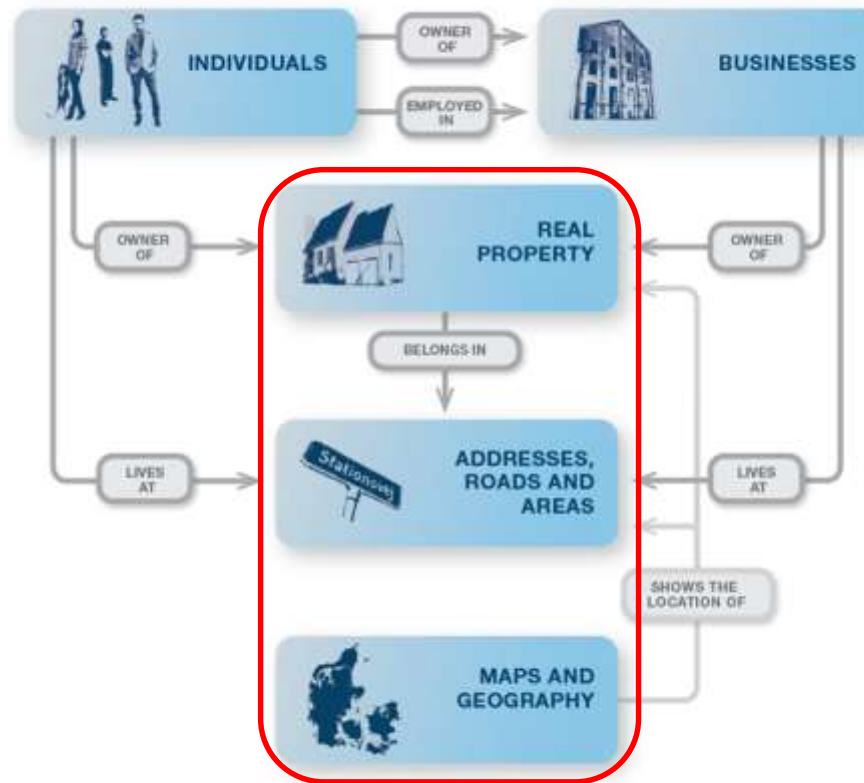


*” Basic data –
Denmark’s
digital raw material.
Has to be “in game”
to create value*



Basic Data in brief – especially geographical basic data

“Basic data is the core information authorities use in day-to-day processing to carry out its tasks”

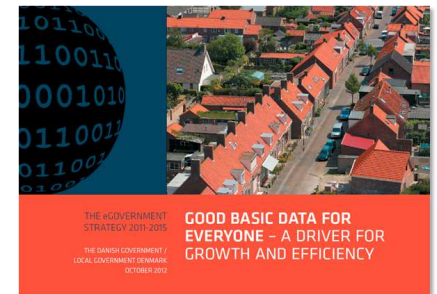


Key issues of the Basic Data Program:

Support the data driven society – Make digital public data available to create social value

Modernizing the public sector – Create a more efficient administration and reduce costs of administration

Innovation and growth in the private sector – Create better conditions for the private sector to develop new products and to create new jobs



Five processes forward the goals (“INSPIREd”):

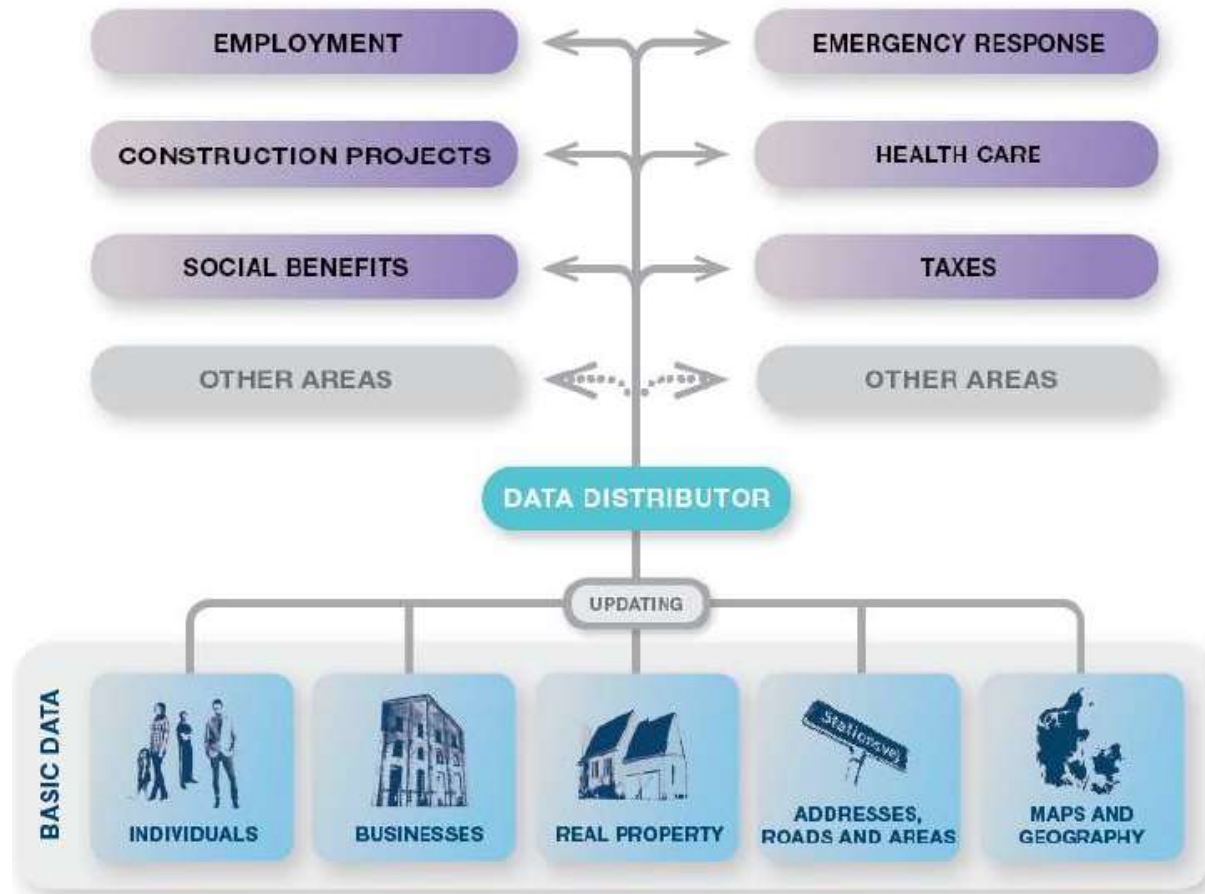
1. **Releasing public basic data for free use** – To ensure the re-use of data and to prevent double registration and shadow registers, there will be given open and free access to public basic data for everyone for freely use for commercial as well as for non-commercial purposes.

2. **Enhancing the quality of data** – Improvement of coherence in the basic data registers

3. **Make it possible to link data** – Efforts will be made to ensure that data conforms to the same technical requirements

4. **Establishing of a cross-institutional basic data Committee** – To ensure efficient, effective and coordinated development and use of basic data

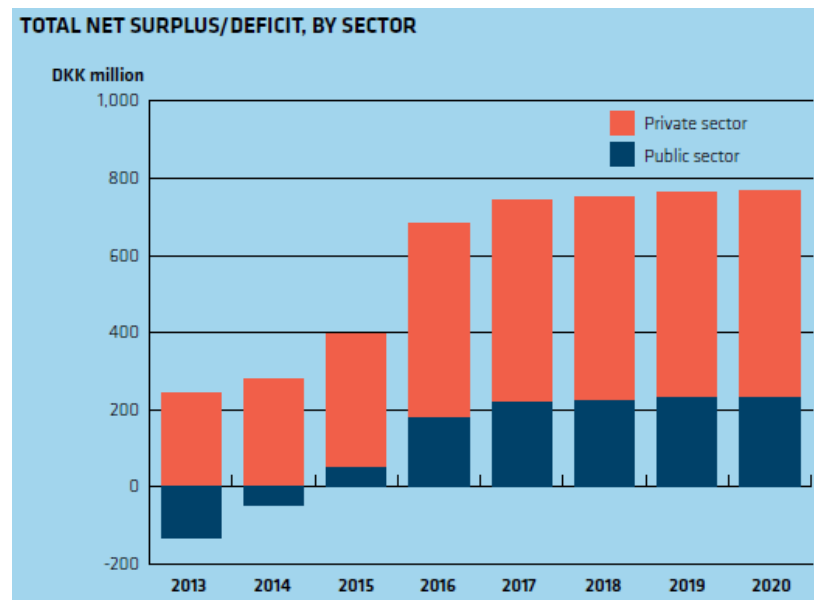
5. Improve the distribution of data – Establishing of a common single distribution solution The Data Distributor



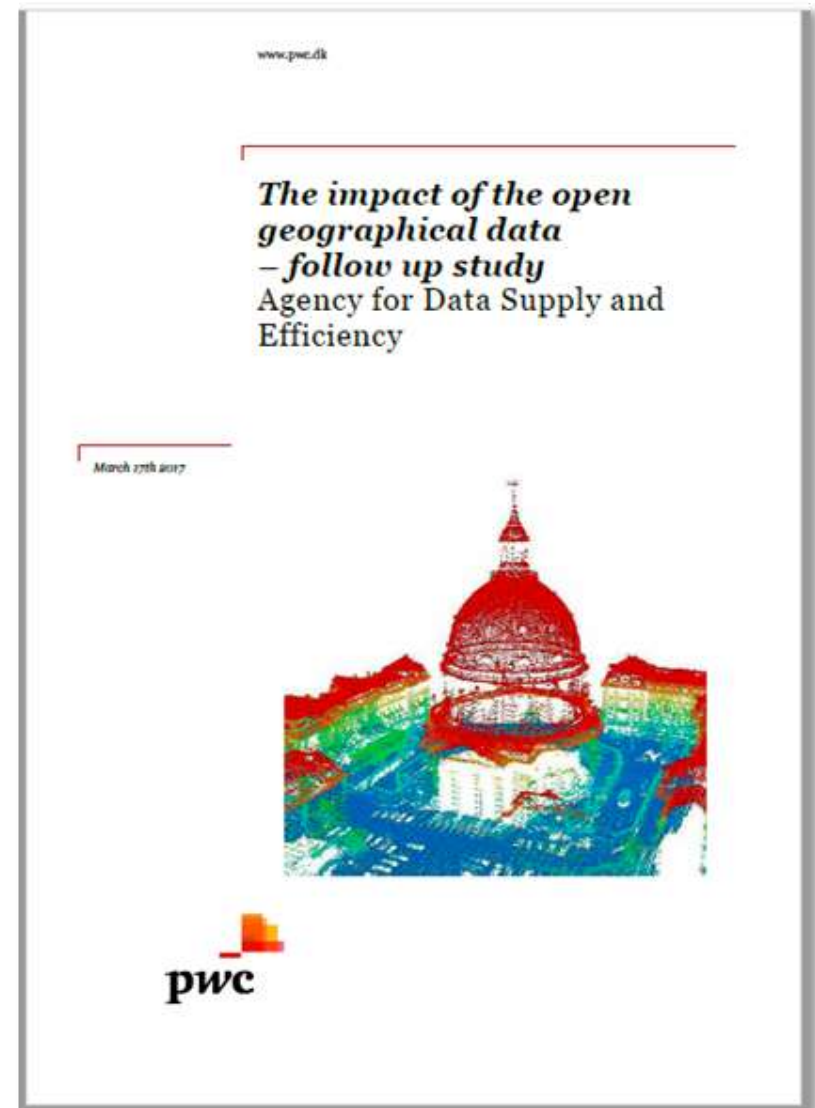
The Financing – **business case**:

Cost savings internal savings – less IT, less administration reduced costs of updating data

Gains efficiency gains in the public sector product and efficiency gains in the private sector



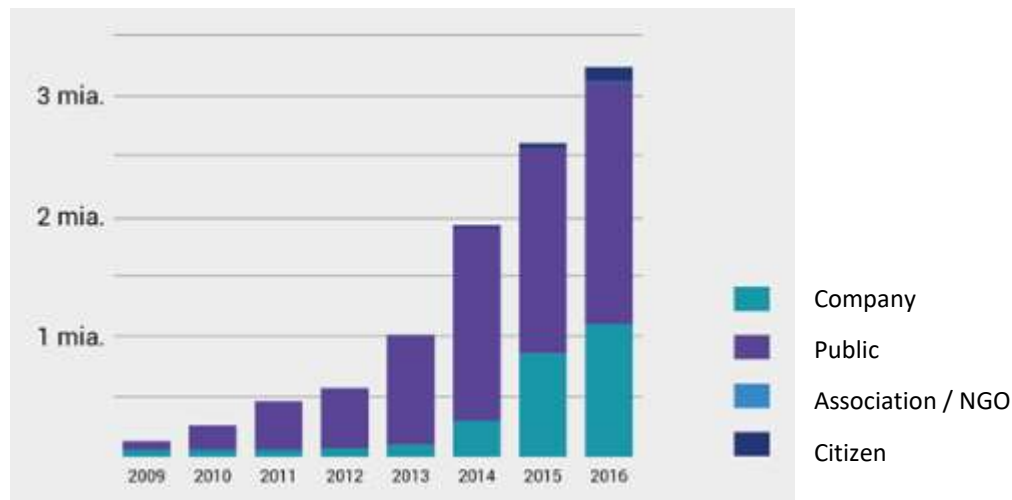
” Open geographical data generates a socio-economic value



Statistics – The Danish Agency for Data Supply and Efficiency (ADSE):

Inquiries on geographical data (real property, maps and geography) has increased from 0,8 bil. to 3,3 bil. requests per year – from 2013 to 2016 (latest news 4,4 bil. requests in 2017)

Numbers of users has increased from 800 to 60.000 – from 2013 to 2016

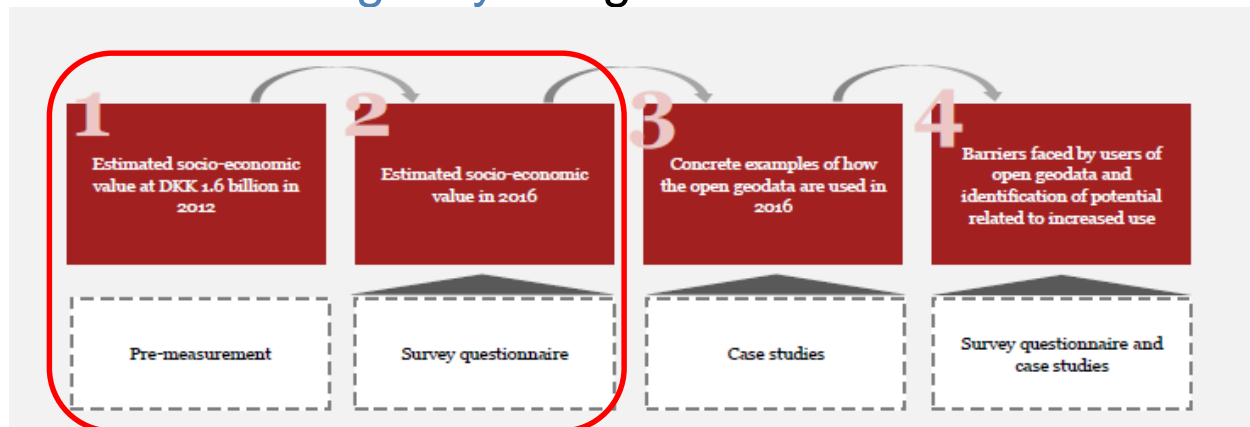


Follow up study "The impact of open geographical data" made by PwC:

Purpose – throw light on the value-generative role of geodata in the public and private sector

Scope – “Comparable” analysis (Q/A) of the total socio-economic value of the open geodata in 2012 and in 2016 on geodata distributed by

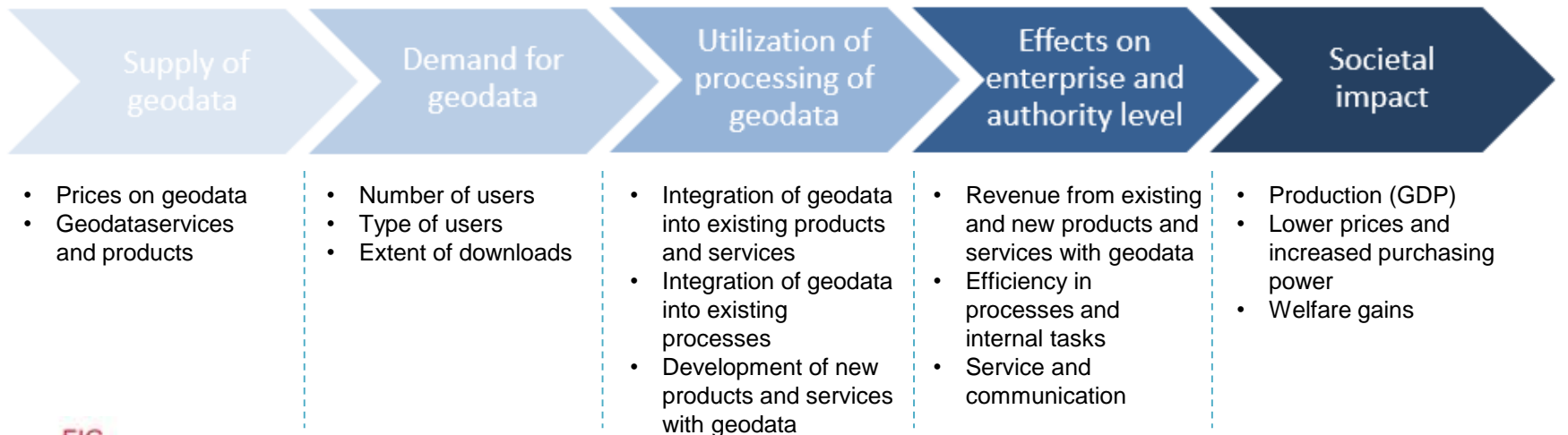
- ADSE – e.g. national orthophotoes, DK-Height Model, topographic maps
- The Danish Geodata Agency – e.g. cadastral data and cadastral maps



Socio-economic value of geodata – the impact of geodata in the community in terms of contributions to social activity or production (GDP).

The calculation is based on the premise that the open geodata generate a **market / production** and **efficiency effect**.

Effect chain – from the release of geodata to an effect on the socio-economic level



Private sector socio-economic value of the open geodata 2012 and 2016:

Resulting from **processing** of geodata in products and services and through **efficiency** of internal workflows

Market / production effect – the added value of developing and selling new products and services

Efficiency effect – cost savings due to the use of geodata for own use in work processes and the performance of internal tasks

Private sector	2012	2016
Production effect mio. dkr.	116	446
Efficiency effect mio. dkr.	40	726
Sum	156	1172

Public sector socio-economic value of the open geodata 2012 and 2016:

Resulting from the authorities' **use** of geodata in relation to **internal work processes**

Production effect – the average value added per employee who is critically dependent on the free basic data and geo solutions

Efficiency effect – cost reductions due to the use of geodata for own use in work processes and internal tasks

Public sector	2012	2016
Production effect mio. dkr.	1286	2096
Efficiency effect mio. dkr.	150	273
Sum	1436	2369

The socio-economic value of open geodata in 2012 and 2016

DKK in millions	2012	2016
Production effect of the open geodata	1.402	2,542
Private enterprises	116	446
Government agencies	321	373
Municipalities		1,376
Regions	965	151
Independent institutions, etc.		196
Efficiency effect of the open geodata	190	999
Private enterprises	40	726
Utility companies	100	229
Government agencies		22
Municipalities		18
Regions	50	2
Independent institutions, etc.		2
Total socio-economic value of the open geodata	1.592	3,541

Source: The questionnaire survey has been performed among private enterprises, utility companies and public authorities and pre-measurement (2012)



Contact Information

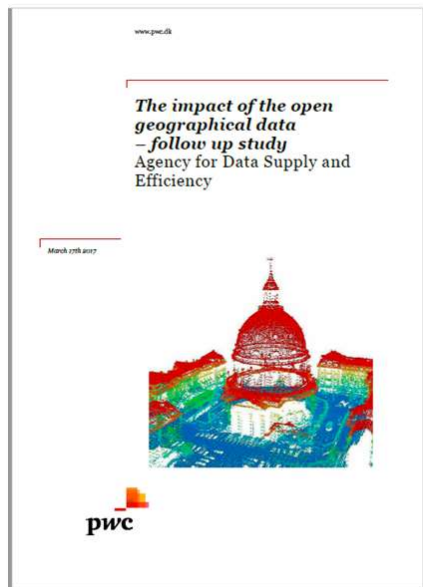


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https://en.digst.dk/media/14139/grunddata_uk_web_05102012_publication.pdf



<http://sdfe.dk/media/2917052/20170317-the-impact-of-the-open-geographical-data-management-summary-version-13-pwc-qrvkvdr.pdf>