

EGOVIS – Prague 2013

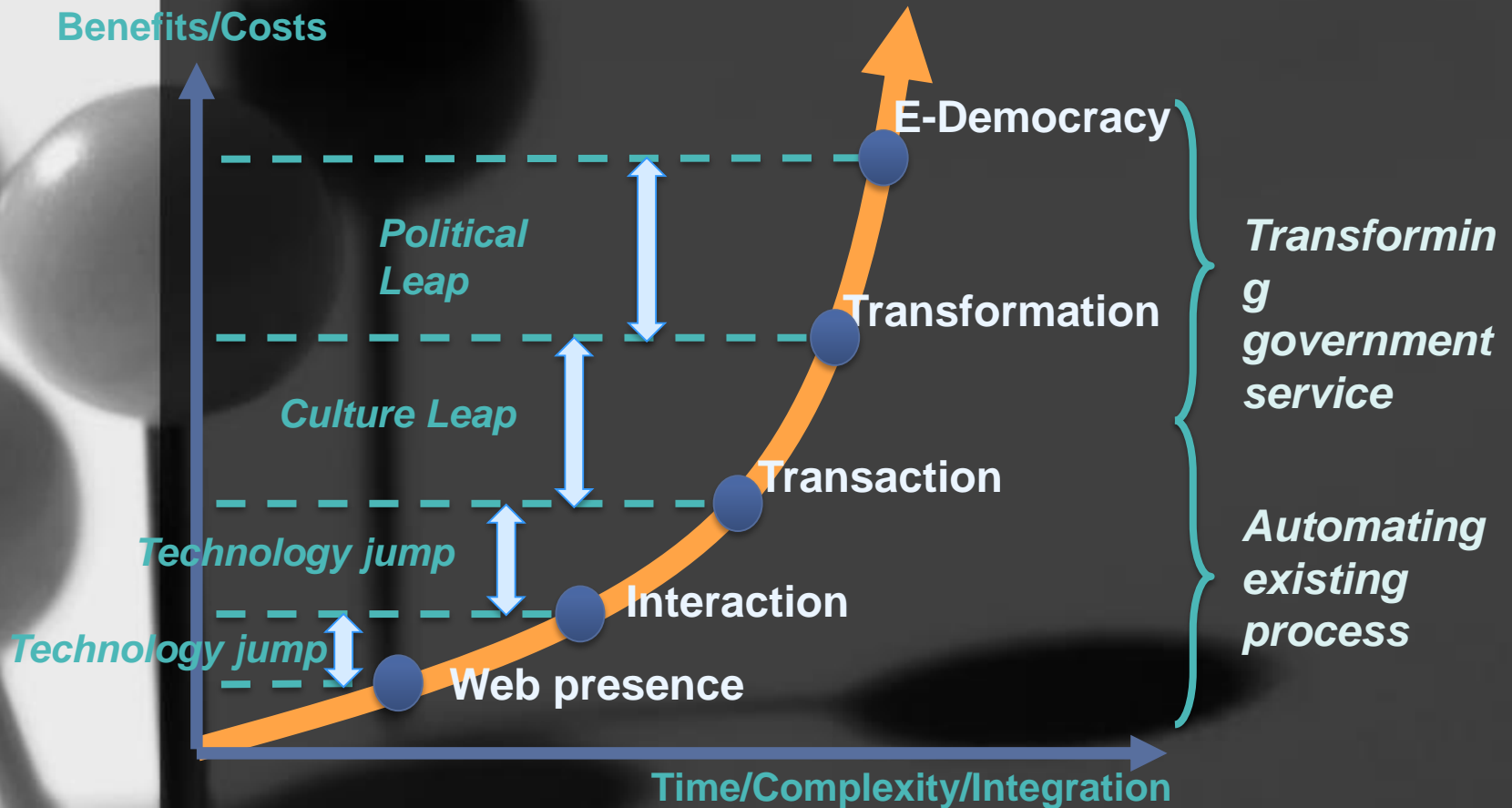
# Open Government Data – A key element in the Digital Society

**Henning Sten Hansen, Line Hvingel & Lise Schrøder**

# Presentation overview

- Background
- The Danish implementation strategy
- The way forward
- Concluding remarks

# Transforming government – and society



Five-stage model of e-government  
(Siau & Long, 2005)

# The EU Digital Agenda

- The EU Digital Agenda is the first of 7 flagship initiatives of the Europe 2020 Strategy aiming at getting most out of digital technologies
- The Digital Agenda contains 7 pillars regarding the development of the digital society
- Pillar 1 addresses a European 'Digital Single Market'
- One of the actions (no. 3) hereunder is concerned with 'opening up public data resources for re-use'

# Implications of the PSI and INSPIRE directives

- The PSI Directive was implemented in July 2005 aiming at regulating and stimulating PSI
- Originally the idea was to make all PSI available for re-use
- Pressures from some member states lowered the ambitions to just encouraging freeing public sector information
- A key objective of the INSPIRE Directive is to make more and better spatial information available for Community policy-making
- A fundamental principle is that 'spatial data needed for good governance should be available on conditions that are not restricting its extensive'

# Open Government Data

- Project under the Open Knowledge Foundation
- Open for everyone interested in Open Government Data
- Has produced a Handbook on OGD December 2012



Open Government Data

- 'Open Data' means 'data free for anyone to use, re-use, and redistribute'
- 'Government data' refers to 'data and information produced or commissioned by government or government controlled agencies'

**Open Data Handbook Documentation**

*Release 1.0.0*

Open Knowledge Foundation



SDI Research Group

LISE SCHRØDER



AALBORG UNIVERSITY

# Advantages of OGD



Open Government Data

- Transparency and democratic control
- Public participation
- Self-empowerment
- Improved or new private products and services
- Innovation
- Improved efficiency and effectiveness of public services
- Impact measurement of policies
- New knowledge from combined data sources and patterns in large data volumes

# OGD Principles



Open Government Data

- Data must be complete
- Data must be primary
- Data must be timely
- Data must be accessible
- Data must be machine processable
- Access must be non-discriminatory
- Data formats must be non-proprietary
- Data must be license free
- Compliance must be reviewable



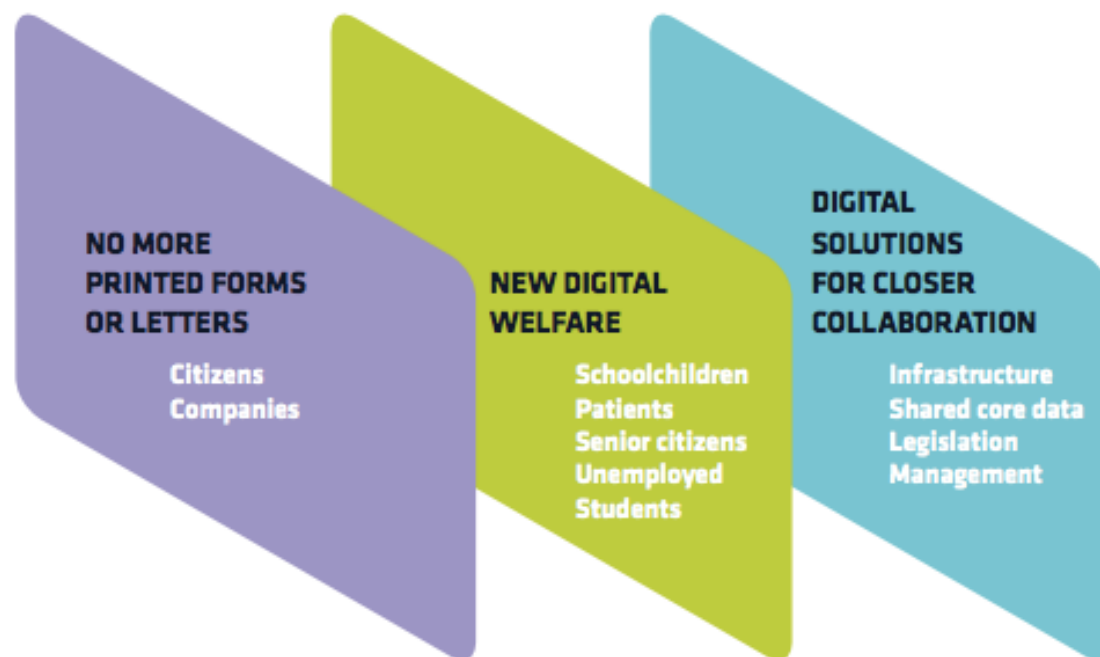
# The Danish e-Government Strategy

- No more printed forms or letters
- New digital welfare
- Digital solutions for closer public sector collaboration



# E-government strategy

## THE eGOVERNMENT STRATEGY – MAIN TRACKS



The strategy is divided into three main tracks.  
Each track covers various areas and targets  
different groups.



# Transition to mandatory self-service for citizens

AREAS IN FOCUS	Danish Tax and Customs Administration (SKAT), services for individual citizens such as management of student loans	Citizen-focused services provided by local authorities and the state	Employment, housing, construction and the environment	Employment, social services and integration
EXAMPLES OF TASKS	Moving Medical cards Self-service tax declaration (for submitting information to the Danish Tax and Customs Administration) Signing up for after-school clubs, daycare and schools Student loans Passports	Driving licenses Marriages Birth registration Name registration Admission to higher education	Town planning and roads Income support Construction Vehicle registration License plates	Benefit pre-validation for senior citizens and people with disabilities Reimbursement and social support services Maternity and paternity benefits Old age pension
	WAVE 1	WAVE 2	WAVE 3	WAVE 4
	2012	2013	2014	2015

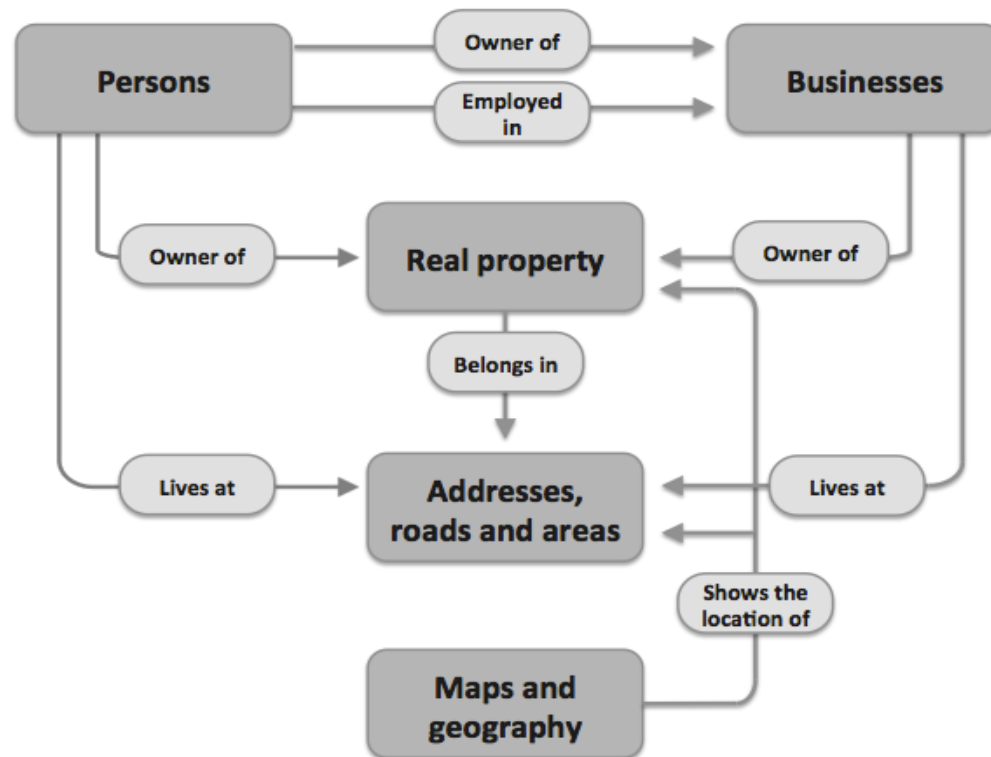
# Digital Solutions for closer public sector collaboration

- Robust digital infrastructure
- Shared core data for all authorities
- Legislation in support of digital services
- Effective management of e-Government

# Shared core data for public authorities - Initiatives

- More detailed geographical data
- Re-using data on property, buildings and addresses
- Improvements of data in the Central Person Register
- Improvements of data in the Central Business Register
- Improvements of data regarding income

# The Basic Data Concept



# The Stepwise Approach to OGD

- Access to environmental information has been open and free since the late nineties (Aarhus Convention)
- The Building and Dwelling Register (incl. addresses with geographic locations) became 'freely' available for everyone in 2002
- Free flow of spatial information among central government agencies and institutions in 2009
- Free flow of spatial information within the whole public sector from 2010
- Shared production of technical (municipalities) and topographic maps (National Mapping Agency) came fully in operation from 2012
- Open and free government data from January 2013

# National Geoportals

**www.OIS.dk**  
Din genvej til ejendomsdata

Søg ejendom/adresse:  Søg

Kommune:  Ingen valgt

Vejnavn:  Nr.:  Etage:  Side/dækk.:

Tast evt. blot det første bogstav i vejnavnet og tryk søg/enter

**Forside** **Om OIS** **Dine søgninger** **Hjælp** **Log på**

**Hvad er OIS?**  
Den Offentlige Informationsserver, OIS, er en statlig database der samler en række oplysninger vedrørende ejendomme i Danmark.

**Hvordan fungerer OIS?**  
Du kan slå alle danske ejendomme op enkeltvis på OIS og se de offentligt tilgængelige oplysninger herom.

**Hjælp**  
Hvis du har problemer med at bruge OIS, så gå på menu-punktet **Hjælp**.

**Om OIS**  
De data du ser ejes og vedligeholdes ikke af OIS men af flere myndigheder. Oplysningerne på OIS opdateres løbende og data er ligeså aktuelle som hvor vi henter dem.

**Offentliggørelse af salgspriser på OIS**  
Læs mere

**OIS tinglysningsadgang forventes at opføres**  
Læs mere

**Renoveringspuljen**  
Læs mere

**OIS er nu tilsluttet NemLog-in og Nemadgang**  
Læs mere

**Vis alle nyheder**

**Seneste månedets driftsmål: 1. - 31. maj 2010**

Tidrum	Hverdage 09-16	Øvrig tid 06-24	Alle dage 00-06	Samlet
Målt oprettet	99,77%	99,02%	97,12%	

[Beskrivelse af driftsmål](#) [Årsregninger](#)

**Seneste nyheder**

11-06-2010 16:28:30  
**[PARTNER] Nyhedsbrev - tilmelding**  
Du har nu mulighed for at tilmelde dig kommende nyhedsbreve ved tilmeld dig via forside og læs evt. mere under Aktuel.

03-06-2010 12:46:37  
**[DRIF] Kortforsyningen er næsten ok igen**  
Alle tjenester fungerer nu igen, dog kan print-jenesterner hænge lidt.

03-06-2010 12:30:37  
**[DRIF] Ustabilt på Kortforsyningen**  
Der opstod et problem med kortforsyningen. Vi er ved at se tilbage igen indenfor kortere tid.

[Se alle udsendte nyheder](#) [Få nyheder via RSS-feeds](#)

**Seneste artikel**

29-04-2010 af Anna Brinch Thorsen & Julian Hollingsbery  
**Dokumentation af konsekvens af overgang til den fælles OIS**  
Tidspunktet for at indføre den fælles offentlige jordforureningsdata skal, vil kort & Matrikelstyrelsen ikke længere registrere udstrækning

**MILJØMINISTERIET**  
By- og Landskabsstyrelsen

**PlansystemDK**

Nyheder [Indberet planer](#) [Se og hent planer](#) [WMS / WFS](#) [Administration](#)

**Følgegruppe:**  
Servicekædetilbud for Godheds

**Links**  
[Standardisering af kommuneplaner \(PlanDK3\)](#)  
[Danmarks Miljøportal](#)  
[Geodata-info.dk](#)  
[GIS forum](#)  
[Abonner på nyheder](#)

**PlansystemDK indeholder planer efter planloven, dvs. lokalplaner, kommuneplaner mm.**

**Plandata i Tingbogen og i PlansystemDK:**  
Fr alle tinglyste planer indberettet til PlansystemDK?

**VisPlaner - NYHED:**  
Gratis, simpelt modul til visning af planer på internettet.

**OBST** [Indstillinger, tips, faldgruber mm.](#) Se også under menupunktet 'Alm. spørgsmål'

**Alle kan:**

- [Søge efter planer](#)
- [Se og hente planer](#)
- [Koble sig på systemet \(WMS / WFS\)](#)

**Kommuner kan (via password):**

- [Indberette planer](#)
- ["Uplade" planer \(GIS- filer\)](#)
- [Endre brugerrettigheder mm.](#)

**Nyt**  
[Retningslinier ved indberetning](#) 28. maj 2010

**Driftsstatus på PlansystemDK**

**Danmarks Miljøportal**  
Data om miljøet i Danmark

**Arealinformation**  
Miljødata på kort. Fredninger, beskyttet natur, landbrug, planlægning

**Naturdata**  
Dyr, planter, naturtyper: Natura2000, NOVANA, DEVAO

**Overfladevand**  
Data om miljøtilstand og belastninger i vandløb, søer og hav

**Grundvand**  
Geologi, borer, grundvand og drækvand

**Jordforurening**  
Kortlægning af forurenede arealer (V1 og V2), områdeklassificering

**Brugerstyring**  
Identificering, rettighedsstyring, sporbarhed, administration

**Driftsstatus**  
Under driftsstatus kan man se, hvis der er problemer med driften af de enkelte systemer samt varsel om planlagt systemarbejde. Hvis man oplever problemer, som ikke fremgår af driftsstatus kontakt da [Danmarks Miljøportal](#).

P.t. Kan webservice klienter opleve fejl på services fra Danmarks Miljøportal. Læs mere [her](#).

Vi kan for øjeblikket ikke aflytte telefonsvareren. Det skyldes systemarbejde på Miljøministeriets IP-telefoni (som Danmarks Miljøportal bruger). Der arbejdes på sagen.

**Nyheder fra Danmarks Miljøportal**  
Du kan løbende blive orienteret om, hvad der sker på Danmarks Miljøportal ved at abonnere på Nyt fra Danmarks Miljøportal - et nyhedsbrev, hvor du får aktuel og overskuelig information om udviklingen og mulighederne på portalen. Du kan også få de seneste nyheder i form af RSS-feeds.

[Abonner på nyhedsbrevet](#)

[Læs seneste nyhedsbrev](#)

[Abonner på nyheder - RSS](#)



# Organisation and Funding

- A cross-sectional Basic Data committee will be established to ensure efficient and coordinated development
- A common Data Distributor service will distribute data from the Digital map Supply and the Public Information server
- An agreement has been made between the Ministry of Finance and Local Government Denmark concerning sharing the costs of map maintenance and other derived tasks

# Cost benefit / Expected impact

- The direct societal benefits from the free and open access to addresses (2005–2009) were more than 60 M€
- The analysis assumes that the economic value corresponds to:
  - The price users earlier paid for addresses 78 M€
  - Reduced with 25% (19 M€) to reflect the general price lowering for data
  - Added with savings estimated to 5 M€ due to reduced time used for negotiations, agreements and delivery
- All together annual benefits at about 13 millions € - but not including derived benefits

# Cost benefit / Expected impact

- Based on the previous calculations the Ministry of Finance tried to estimate to costs and benefits from the new open government initiative
- After full implementation in 2020 the yearly public benefits are expected to be around 36 M€
- Private benefits are expected to be about 65 M€

	2013	2014	2015	2016	2017	2018	2019	2020
The Ministries	-14	-11	-7	-3	1	1	4	6
The Municipalities	-3	3	11	19	22	23	23	24
The Region	0	1	3	4	6	6	6	6
Net effect	-17	-7	7	20	29	30	33	36

# PPP-innovation and open data

- <http://codeunited.dk/kulturarv/>



## KULTURARV

Kulturarv (Cultural Heritage) is an open source augmented reality app on Android guiding you through Denmark's protected and preservation-worthy buildings.

[Download from Google Play](#)

### THE APP

*Augmented reality* (AR) is a live view of a physical, real-world environment whose elements are augmented by computer-generated sensory input such as graphics or GPS data. In the smartphone world that typically means an app employing the built-in camera and tagging recognized objects in some graphical way during the live view.

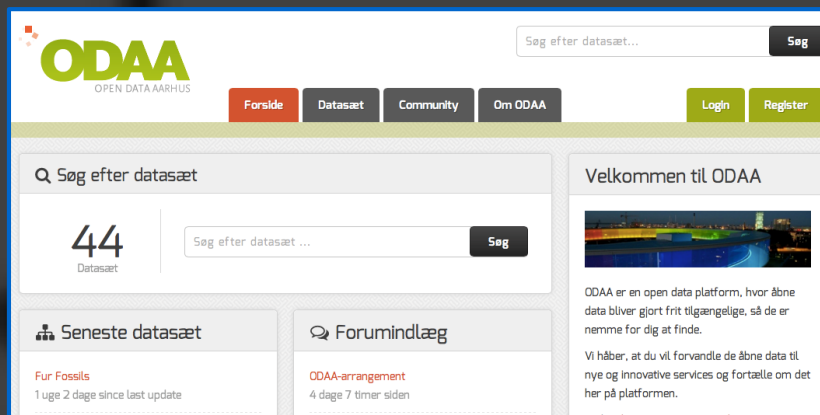


# The smart approach – Aarhus

- <http://www.smartaarhus.dk>



- <http://www.odata.dk>



# The way forward

- A stepwise plan for the coming years until 2015 is outlined as part of Digital Government Strategy
- Milestones for 2015
  - High quality and cohesive core data
  - All authorities re-use core data
  - Core data is distributed more smoothly and efficient than today

# OGD Principles – comparison

OGD principles	DK	FIN	IS	NL	UK	ES
Data must be complete	✓✓	✓✓	✓✓	✓✓	✓	✓✓✓
Data must be primary	✓✓	✓✓	✓✓	✓✓	✓	✓✓
Data must be timely	✓✓	✓✓	✓✓	✓	✓	✓✓
Data must be accessible	✓✓	✓✓	✓	✓	✓	✓
Data must be machine processable	✓✓	✓✓	✓✓	✓	✓	✓
Access must be non-discriminatory	✓✓	✓✓	✓	✓	✓	✓
Data formats must be non-proprietary	✓	✓✓	✗	✓	✓	✓✓
Data must be license free	✗	✗	✗	✓	✓	✗

*On going research*



# Conclusion and further research

- There is a major moment towards open and free government data in Europe as part of a more transparent and innovative government
- The approach and extent varies from country to country
- The Danish example illustrates the importance of having top ministries like the Ministry of Finance as the driving force
- On-going research analyses and compares the different open government data strategies between 6 European countries



SDI Research Group - Aalborg University

Henning Sten Hansen,  
Bent Hulegaard Jensen,  
Line Hvingel & Lise Schrøder

Thank you for your attention

Mail: [lisesch@plan.aau.dk](mailto:lisesch@plan.aau.dk)