



Danish Ministry of the Environment
Danish Geodata Agency

Data modelling and data distribution seen from a NMCA perspective

‘Data Modelling and Model Driven Implementation of Data Distribution’-workshop

Copenhagen, 28.-30. January 2015

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Danish Geodata Agency

Founded in 1989 as National Survey and Cadastre

Merger between

- Danish Cadastre
- Danish National Survey
- Danish Nautical Charting

Part of Ministry of the Environment

Approx 300 employees

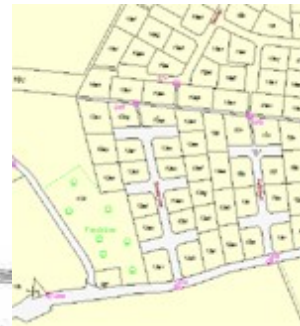
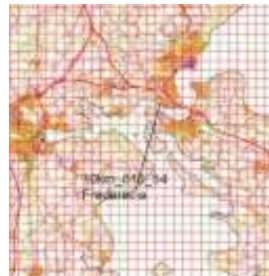
Yearly budget approx. 30 million €

Name change 2012 to Danish Geodata Agency

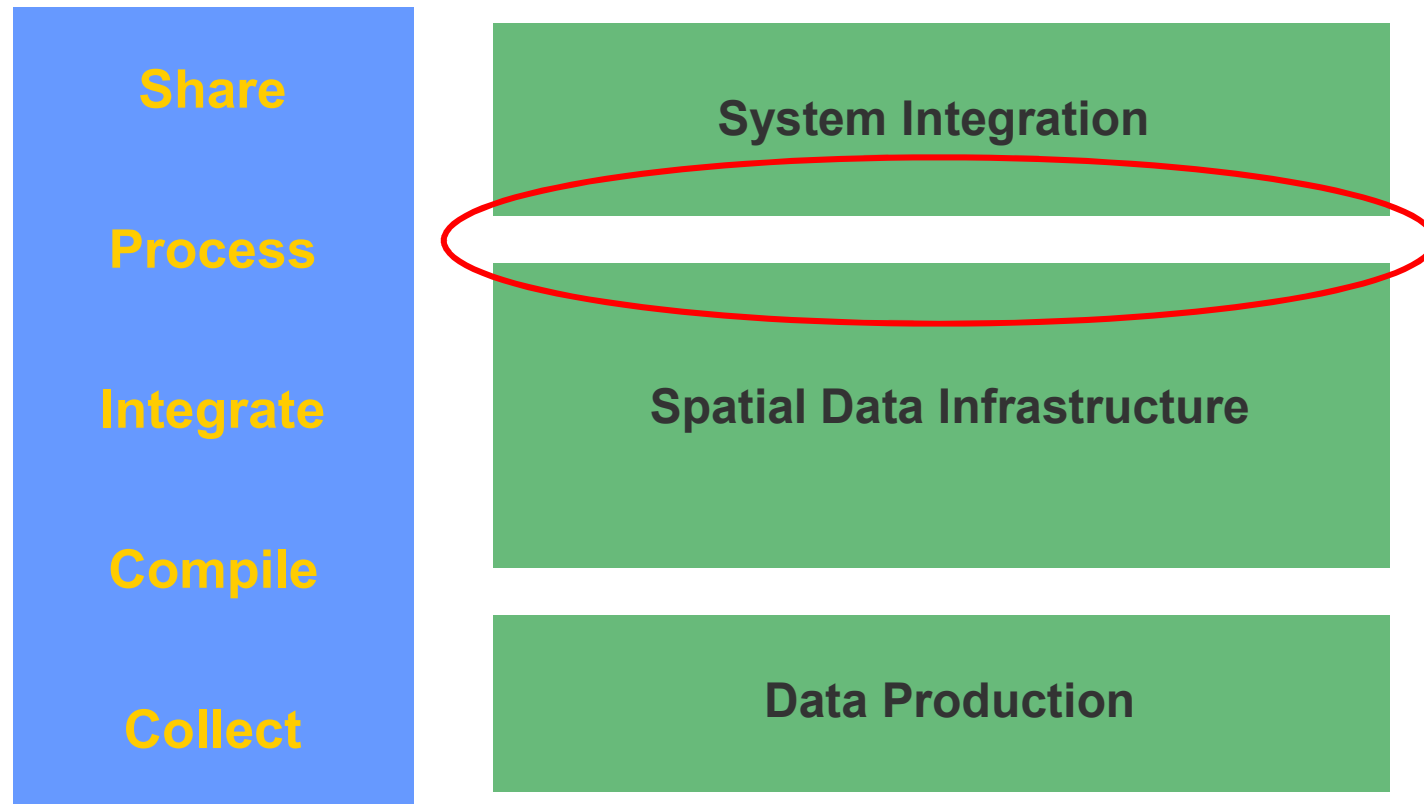


Areas of responsibility

- Geodetic network
- Cadastral system
- Topographic mapping
- Nautical charting
- National SDI



The underlying trend in the geospatial market



Open access to spatial data infrastructure



Data modelling and data distribution – Drivers

Technology drivers

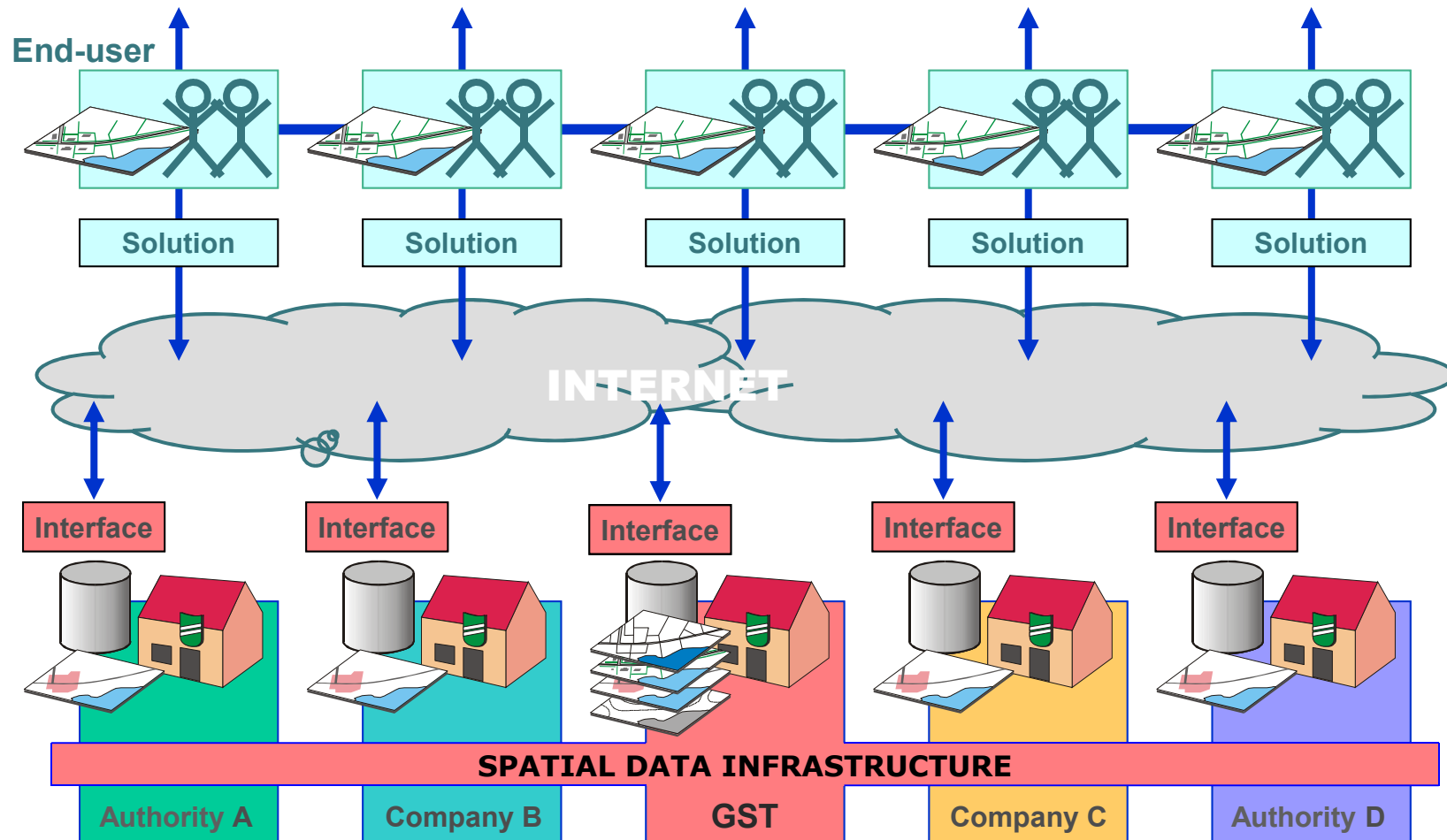
- Service Oriented Architecture (SOA)
 - heterogeneous it-environments consisting of loosely coupled systems
- Standards (it and data)
 - interoperability

Business drivers

- Civil
 - INSPIRE
 - eGovernment
- Military
 - Network Based Operations (NBO)



Interoperability and sharing



Driver – INSPIRE



*Flooding in Central Europe
August 2002*



Driver – eGovernment

Strong political mandate for digitization in Denmark

Challenges for Danish economy:

- Productivity has grown too little
- Demographic profile – ageing population
- Tight public sector

Vision for eGovernment:

- Digital methods must contribute to a more efficient and coherent public sector with a high quality in service, and focused on serving citizens and enterprises

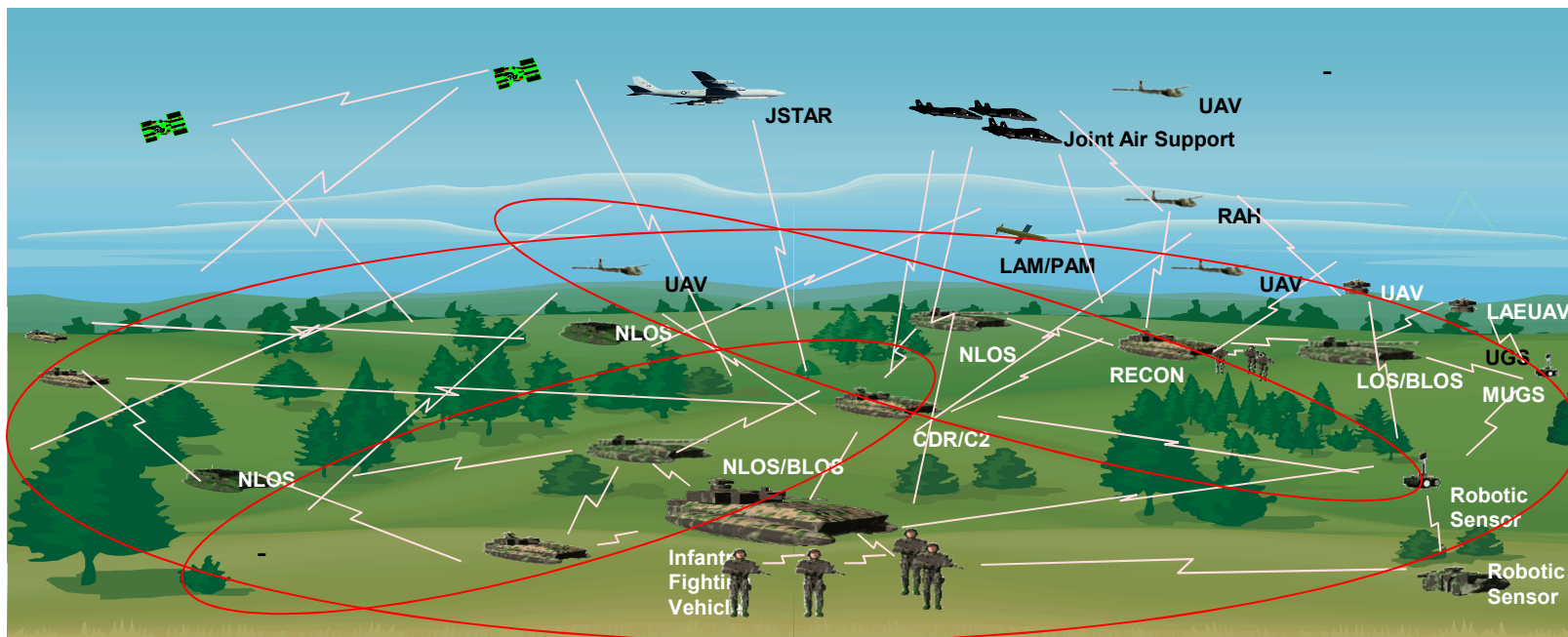
Ministry of Finance in charge



Driver - Network Based Operations

”an information superiority-enabled concept of operations that generates increased combat power by networking sensors, decision makers, and shooters to achieve shared awareness, increased speed of command, higher tempo of operations, greater lethality, increased survivability, and degree of self-synchronization”

Alberts, Garstka, and Stein, 2000



The Digital Map Supply

- The framework used by the Danish Geodata Agency to share spatial information via the internet
- Addresses both technical and business issues for sharing
- Decreases technological and economical barriers for using spatial data and functionality
- Increases availability of updated spatial data and functionality
- Interface between the SDI data content and its utilization
 - Standards for technology and data
 - Business model
 - Data and functionality
 - Service and support
- Launched in 2001 – in full service since 2002



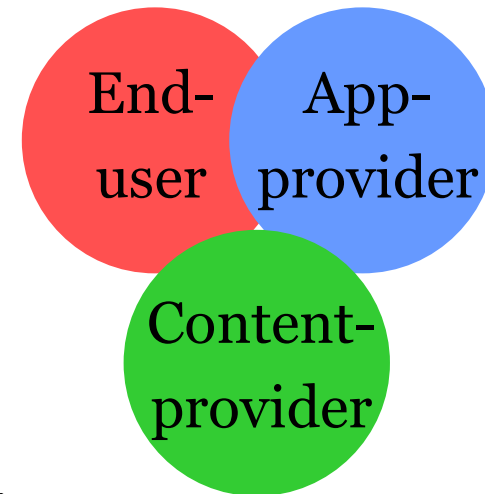
The Digital Map Supply – Business Model

Players

- Content providers
- End-users
- Application providers

Fundamentals:

- A shared resource embedded in multiple solutions
- Open access on equal terms
- Market competition on development of solutions

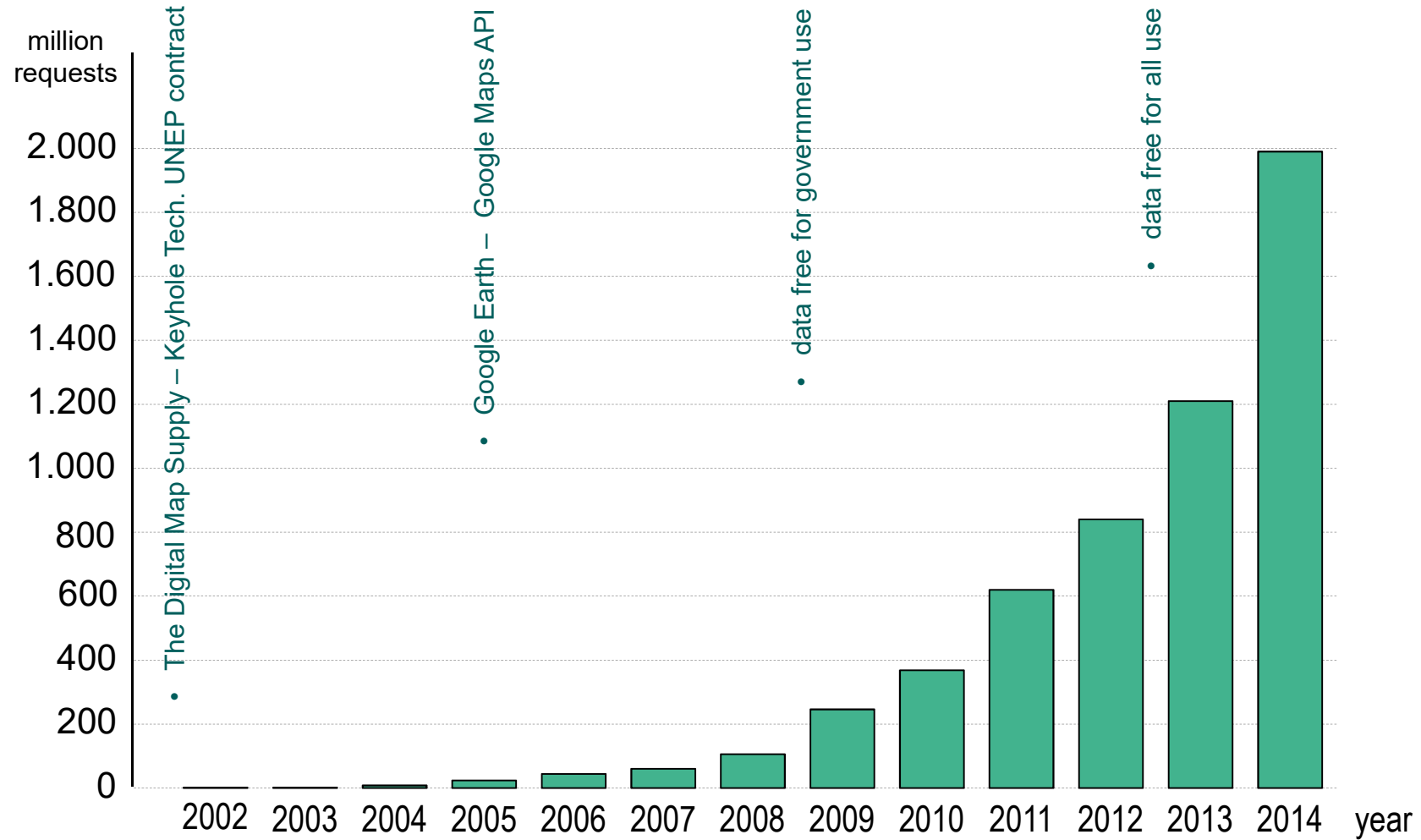


Application Provider Partner Program

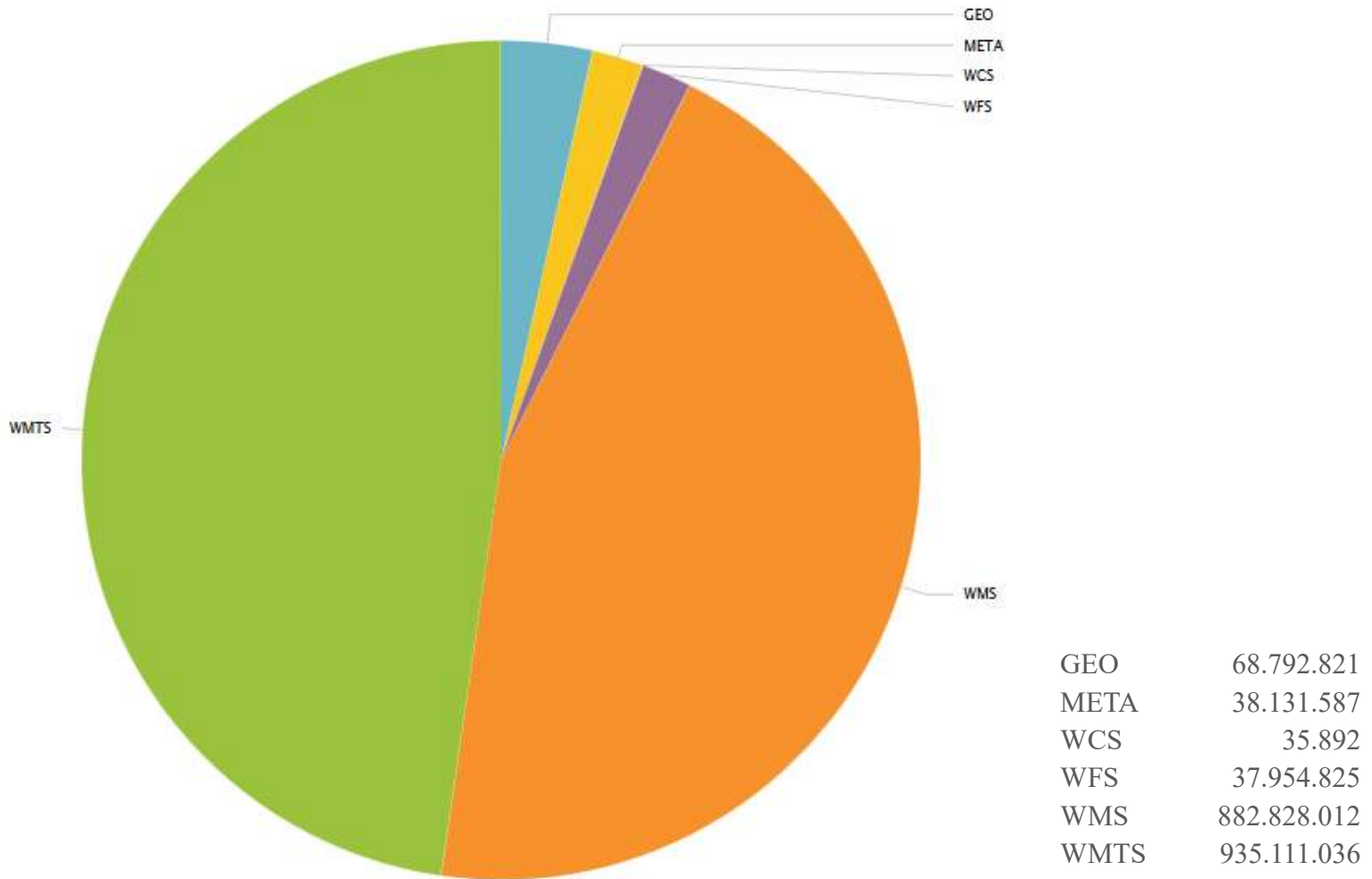
- Access to development environment
- Access to support
- Annual business/technical seminar
- Developer homepage
- Access to demo environment
- Access to marketing materials
- Promotion on GST's homepage

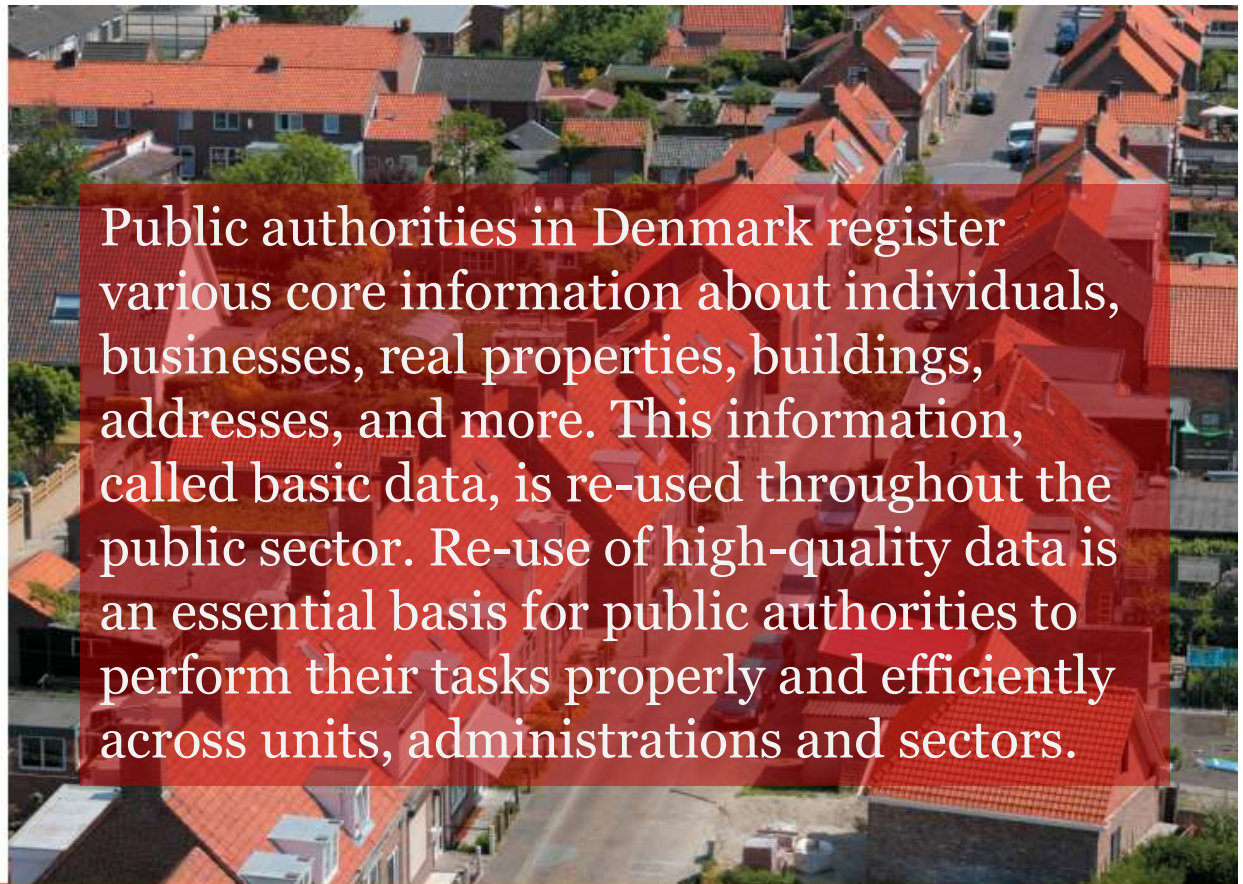
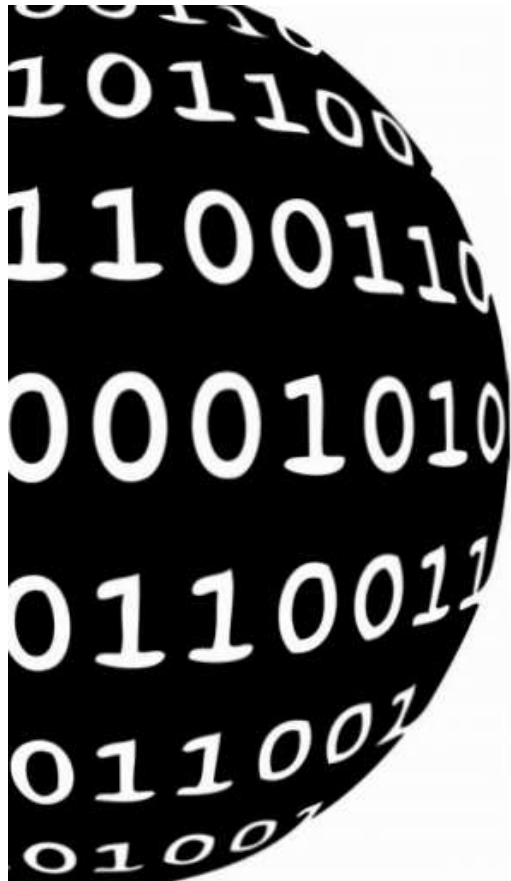


The Digital Map Supply – requests per year



Requests by type – 2014





Public authorities in Denmark register various core information about individuals, businesses, real properties, buildings, addresses, and more. This information, called basic data, is re-used throughout the public sector. Re-use of high-quality data is an essential basis for public authorities to perform their tasks properly and efficiently across units, administrations and sectors.

THE eGOVERNMENT
STRATEGY 2011-2015

THE DANISH GOVERNMENT /
LOCAL GOVERNMENT DENMARK
OCTOBER 2012

**GOOD BASIC DATA FOR
EVERYONE – A DRIVER FOR
GROWTH AND EFFICIENCY**

Main points in the basic data agreement

Yearly benefits of approx. € 35 million in public sector and € 65 million in the private sector

Government investments for approx. € 125 million up to 2016

Free access to public sector basic data for everybody – citizens and businesses

Improved quality for basic data regarding real property, addresses, geography, individuals and businesses

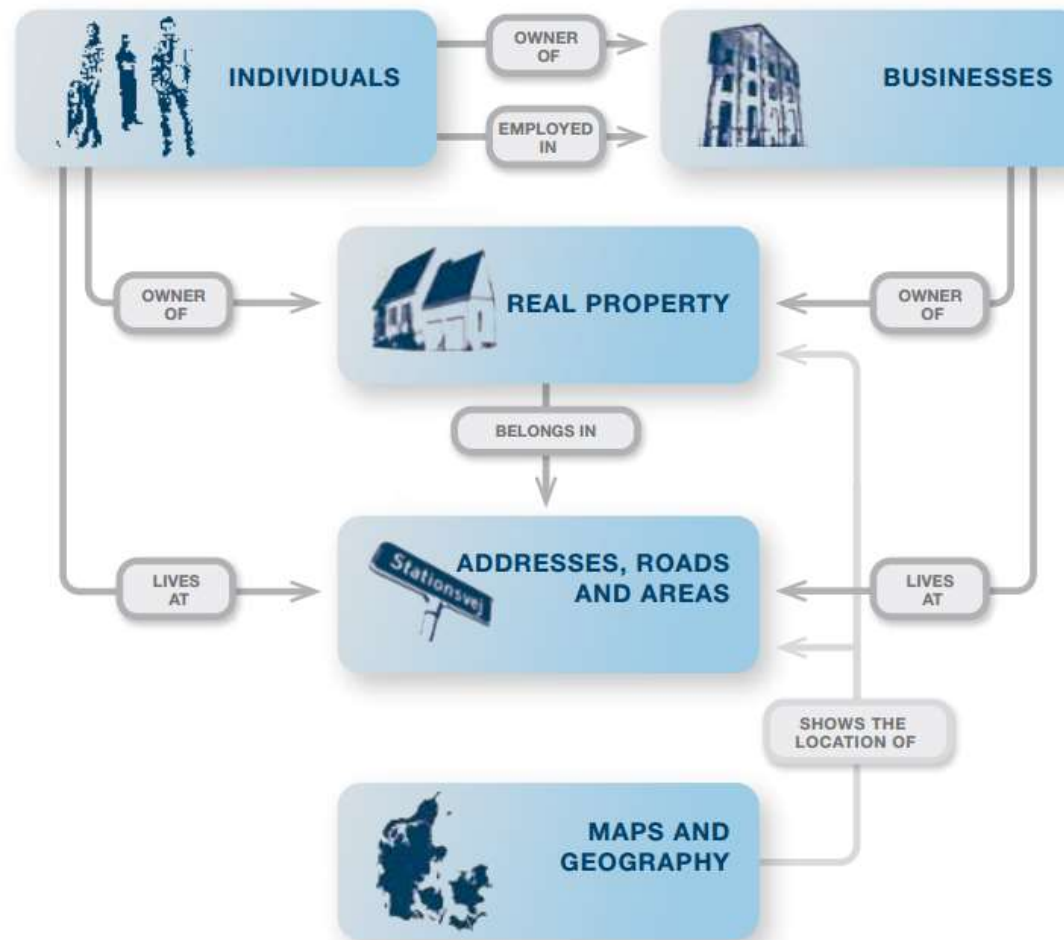
Effective, joint distribution of basic data



Danish population:
5 million people

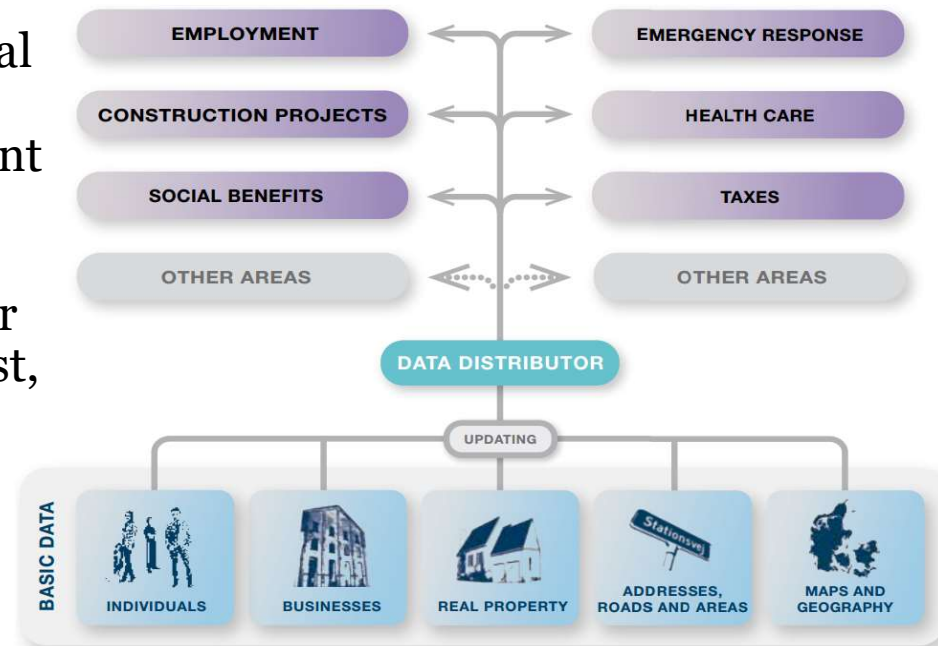


Basic data – the content



The Data Distributor

- conveys updated and authentic information from base registers on to the relevant public and private sector users
- based on the same conceptual thinking as the Digital Map Supply – which is also content provider for INSPIRE data
- will fulfil the requirement for accessing data in an easy, fast, reliable and cost-effective manner
- will save resources for data responsible authorities



The goal: A national data infrastructure ...

- that contains a complete, correct and current basic registration of all objects important for public administration
- that is maintained in a cost-effective manner
- that is coherent, modelled uniformly and fully documented
- that is freely and fully available – technically, legally and economically
- that is used by all major public and private players
- that contributes to efficiency and productivity in the public and private sector





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