

**«Norway digital» - a core fundament
for value adding**

*White paper about a public infrastructure
for geographic information*

Kari Strande

Statens kartverk

(Norwegian Mapping Authority)

Digital information = increased value

**Value of geographic
information in
digital form**

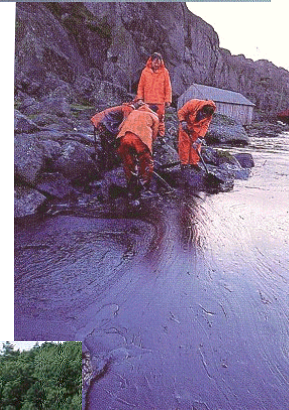
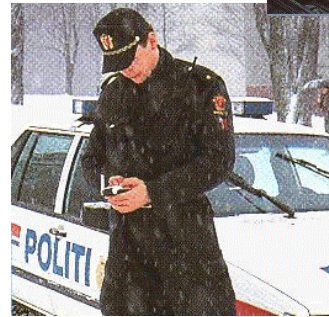
**Search, entry, analyse,
decision-making,
communication,
presentation,
storing**

**Value of
analogue
paper
maps**

GI-Value for Society

Many areas of applications for Geographic Information

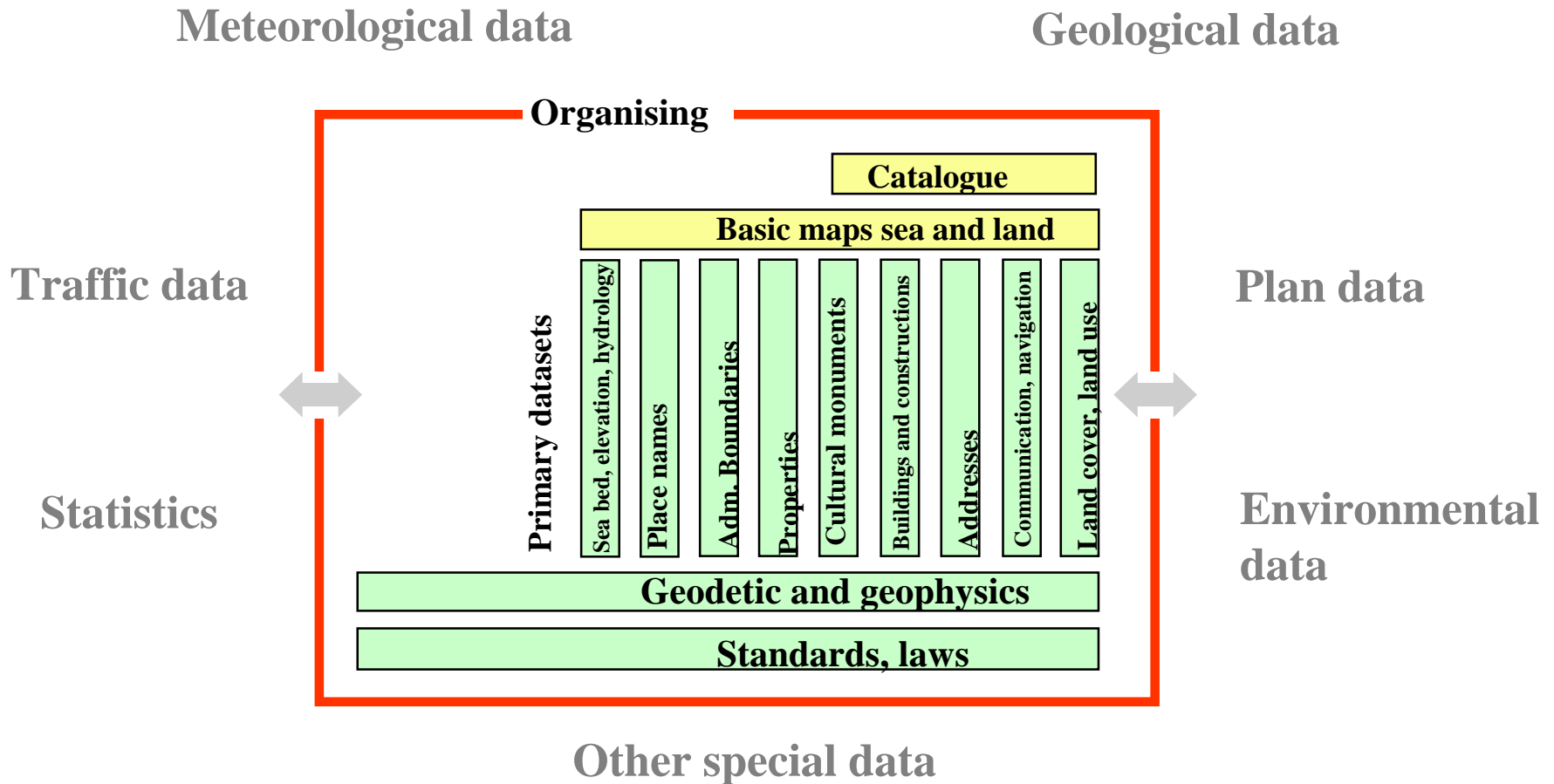
- **Municipal management**
- **Land transportation (route planning and fleet administration)**
- **Shipping and fisheries (navigation)**
- **Agriculture and Forestry (planning)**
- **Defence and crisis handling**
- **Telecomm, energy- and road administration**
- **Environmental and resource management**
- **Oil protection**
- **Property management**
- **Media**
- **Recreation**
- **Map production**



OBJECTIVES to «Norway digital»

- ❑ *More efficient private sector i. g. within transportation at land, sea and in air*
- ❑ *More efficient public sector, better service to the public, better decision-making, increased participation (LA 21)*
- ❑ *Better management of areas environmental and natural resources*
- ❑ *Increased safety and readiness*

Content of «Norway digital»



Meta data for the users

- ❑ Data content (what)***
- ❑ Data coverage (where)***
- ❑ Expanding plans***
- ❑ Quality (standard, format, updating etc)***
- ❑ Access***
- ❑ Deliveries , price, licensing***
- ❑ Product contact***
- ❑ Search keys***

Standards

- ❑ ***Terminology***
- ❑ ***Global and national reference system, co-ordinate system***
- ❑ ***Data descriptions***
 - ❑ ***(data types, - models, - format)***
- ❑ ***Interaction keys***
- ❑ ***Graphic presentation***
- ❑ ***Quality description***
- ❑ ***Metadata description***

IT-POLICY FOR MUNICIPALITIES

Municipalities and counties ought to take part in the development of national geographic information systems that can contribute to increased value for society. Establishment of such information systems must be based on agreements between municipalities and the national government where these are equal partners with equal rights to the use of data.

From the IT-policy of the Association of Municipalities

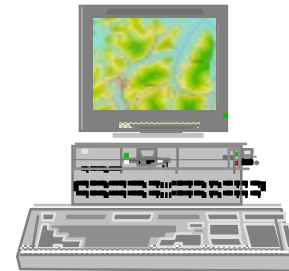
County Geodata Co-operation

Endeavour

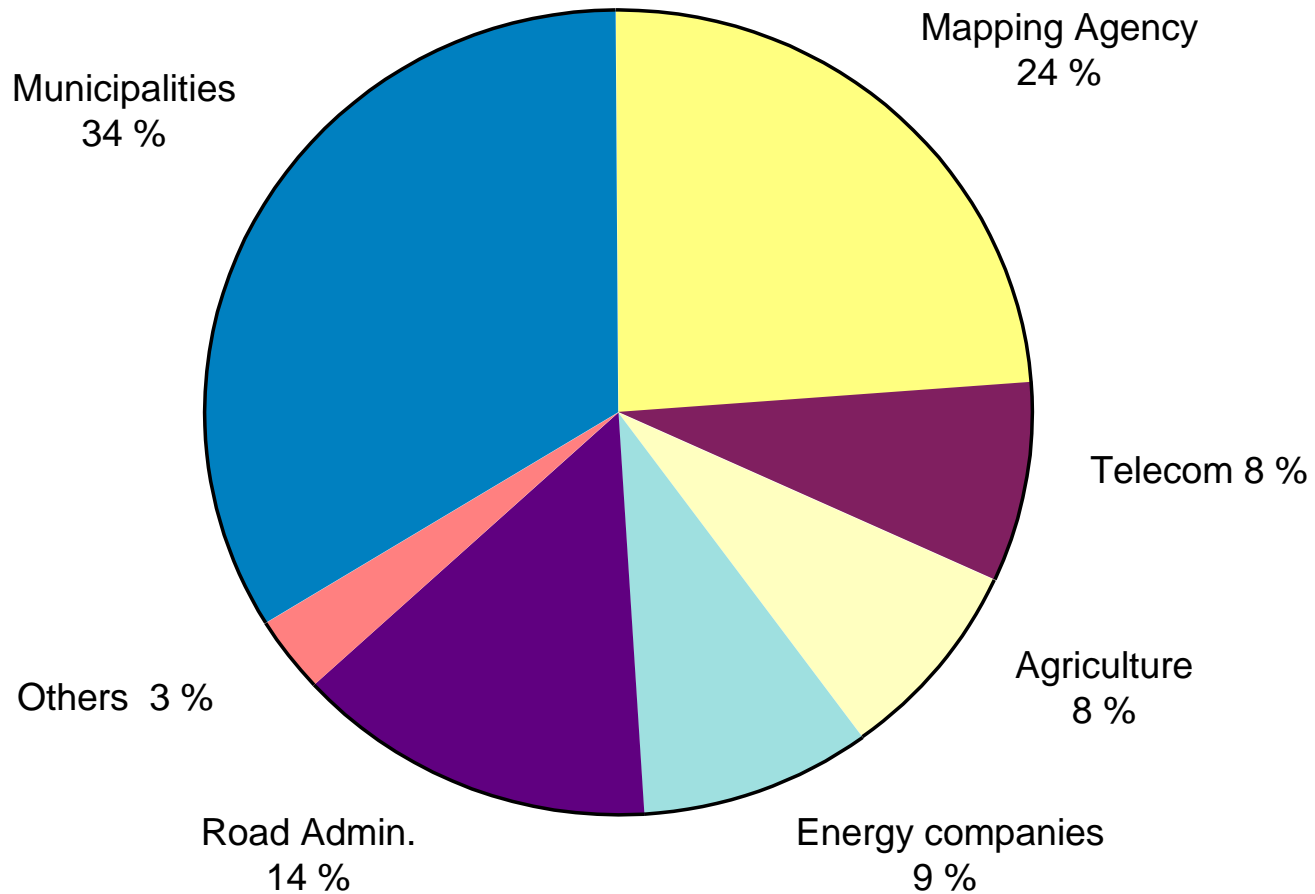
- ◆ **Joint mapping following annual geodata plans**
- ◆ **Establishing and updating of primary data according to Joint-use Map Database (FKB) standard**
- ◆ **Joint use of databases**
- ◆ **NOK 90 million (1999)**

Players

- ◆ **Municipalities**
- ◆ **Public Road Administration**
- ◆ **Telenor (telecom)**
- ◆ **Electricity companies**
- ◆ **Agriculture**
- ◆ **NSB (railways)**
- ◆ **Norwegian Mapping Authority**



Geovekst - co-operation for faster establishment of GI



Continuous updating of «Norway digital»

Occurrence

Treatment/
data recording

Datasets in
Infrastructure



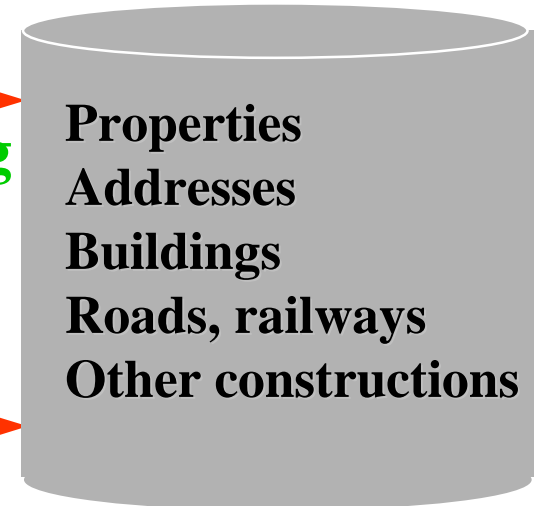
Reports

GIS

Updating

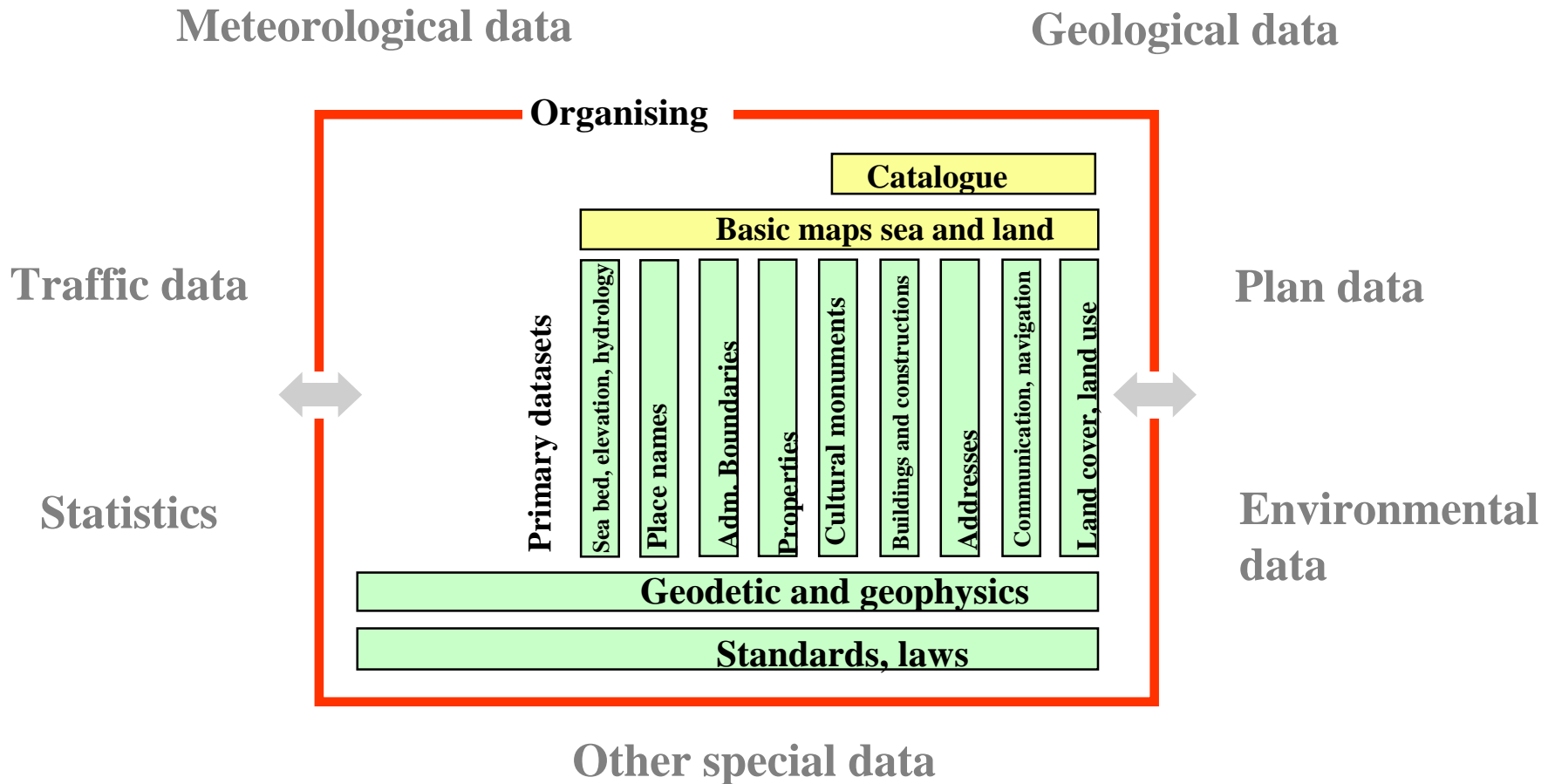
EWS

Updating



§ Plan and Building Act
§ Parcel dividing Act

Content of «Norway digital»



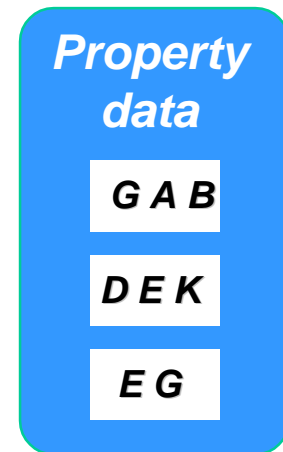
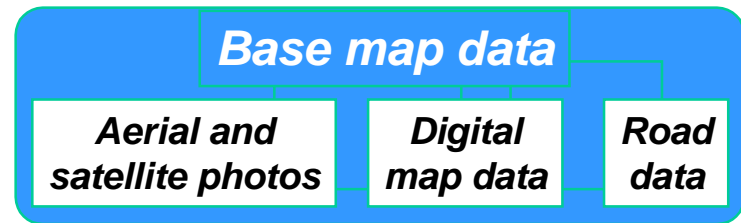
Area Information Systems

Ministry of Environment Area Documentation Program

Environmental/resource data

- Coastal zone
- Marine biology
- Geology
- Botany
- Zoology
- Historical monuments
- Landscape
- Soil types
- Agriculture

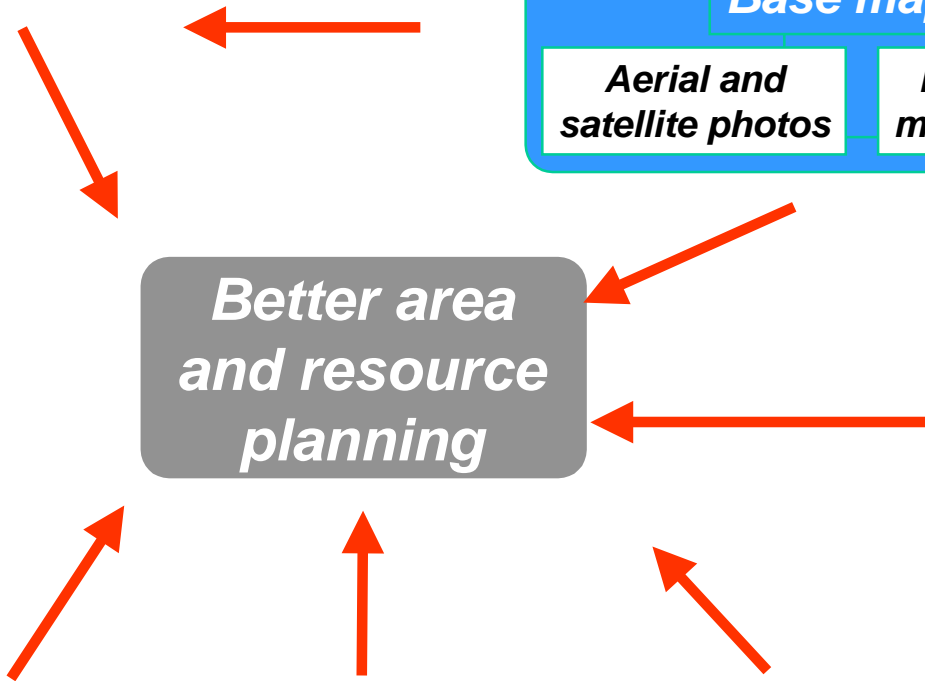
Geographic information



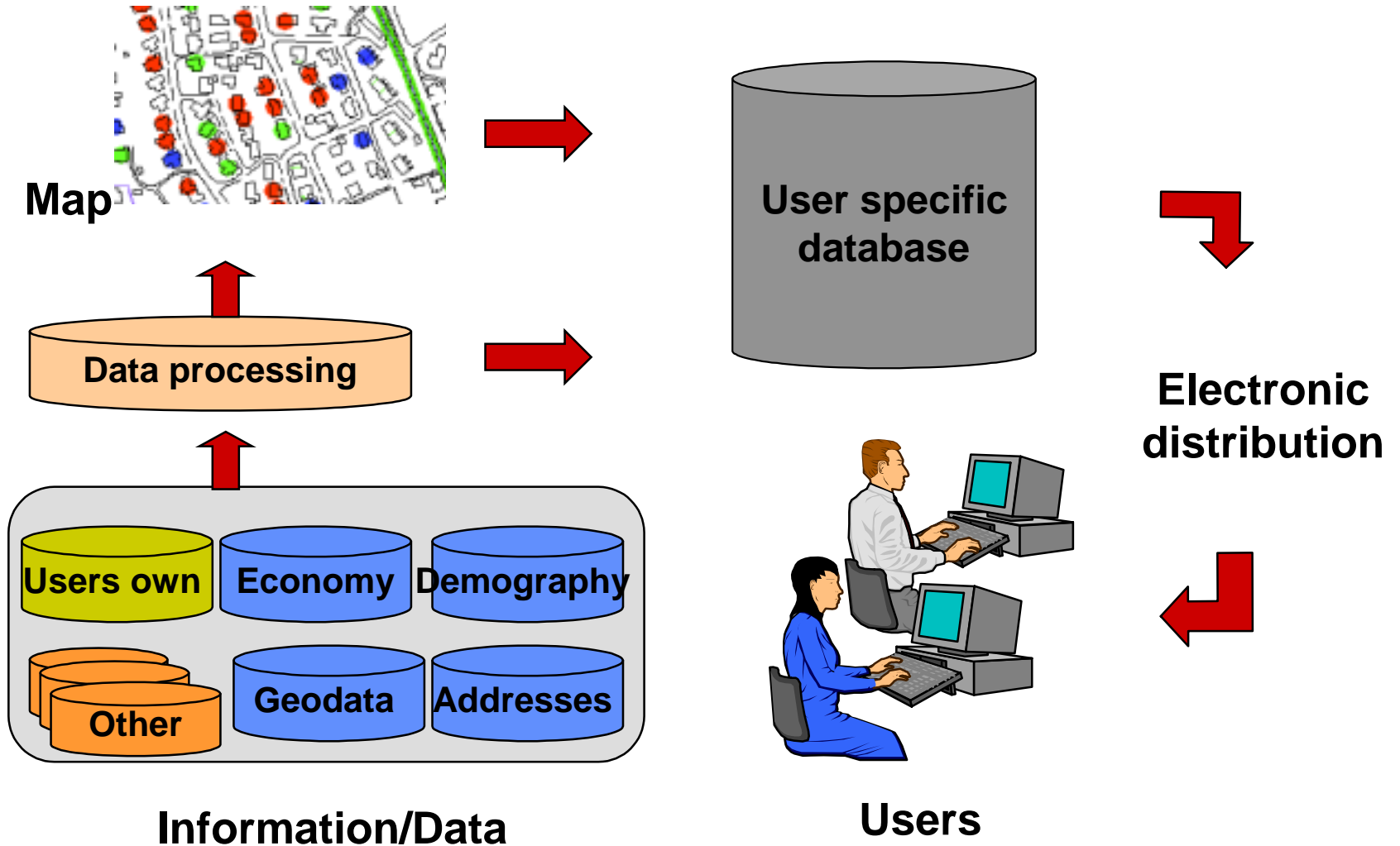
Better area
and resource
planning

Existing area plan
and preservation
measures

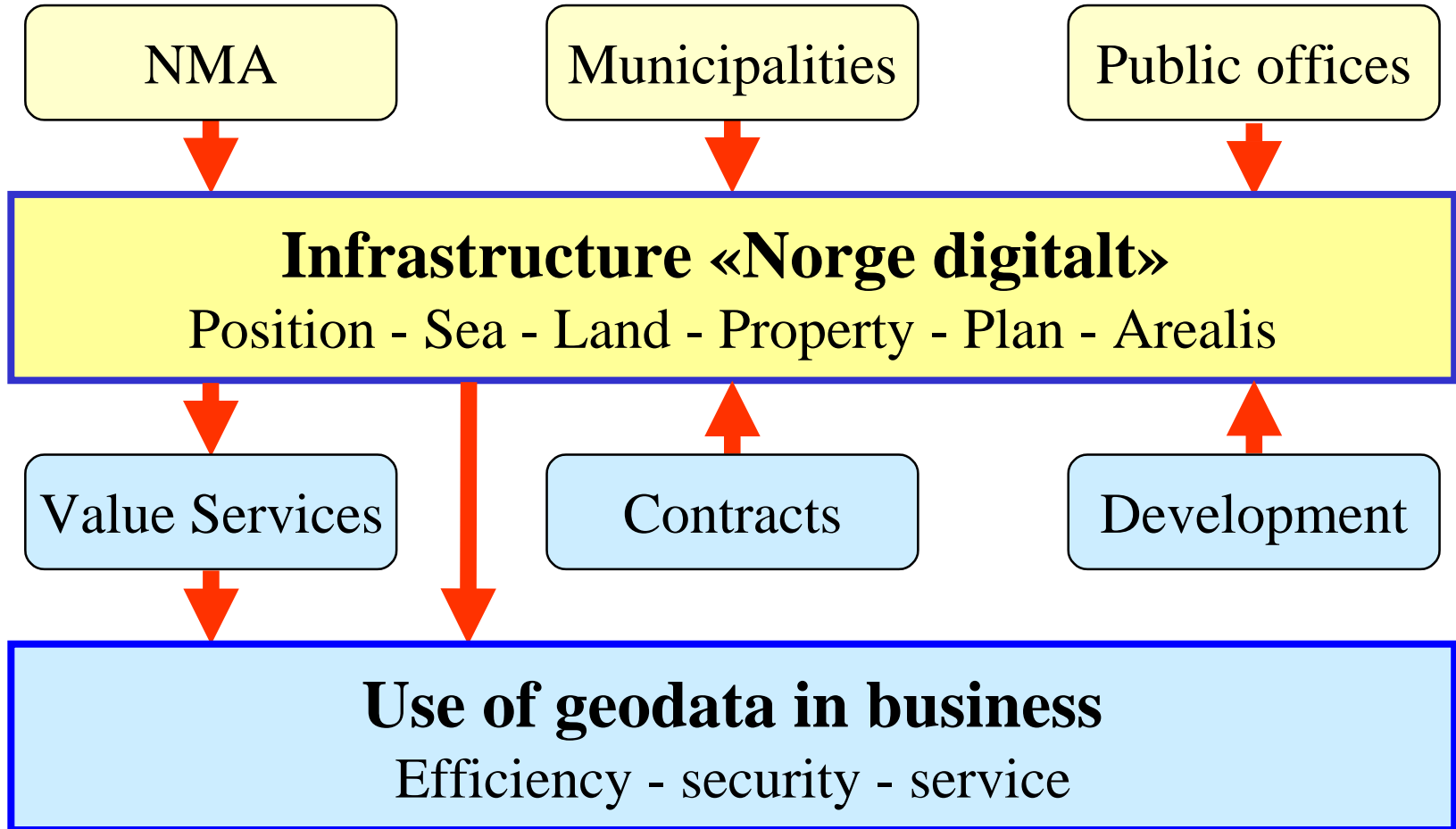
Positioning
data



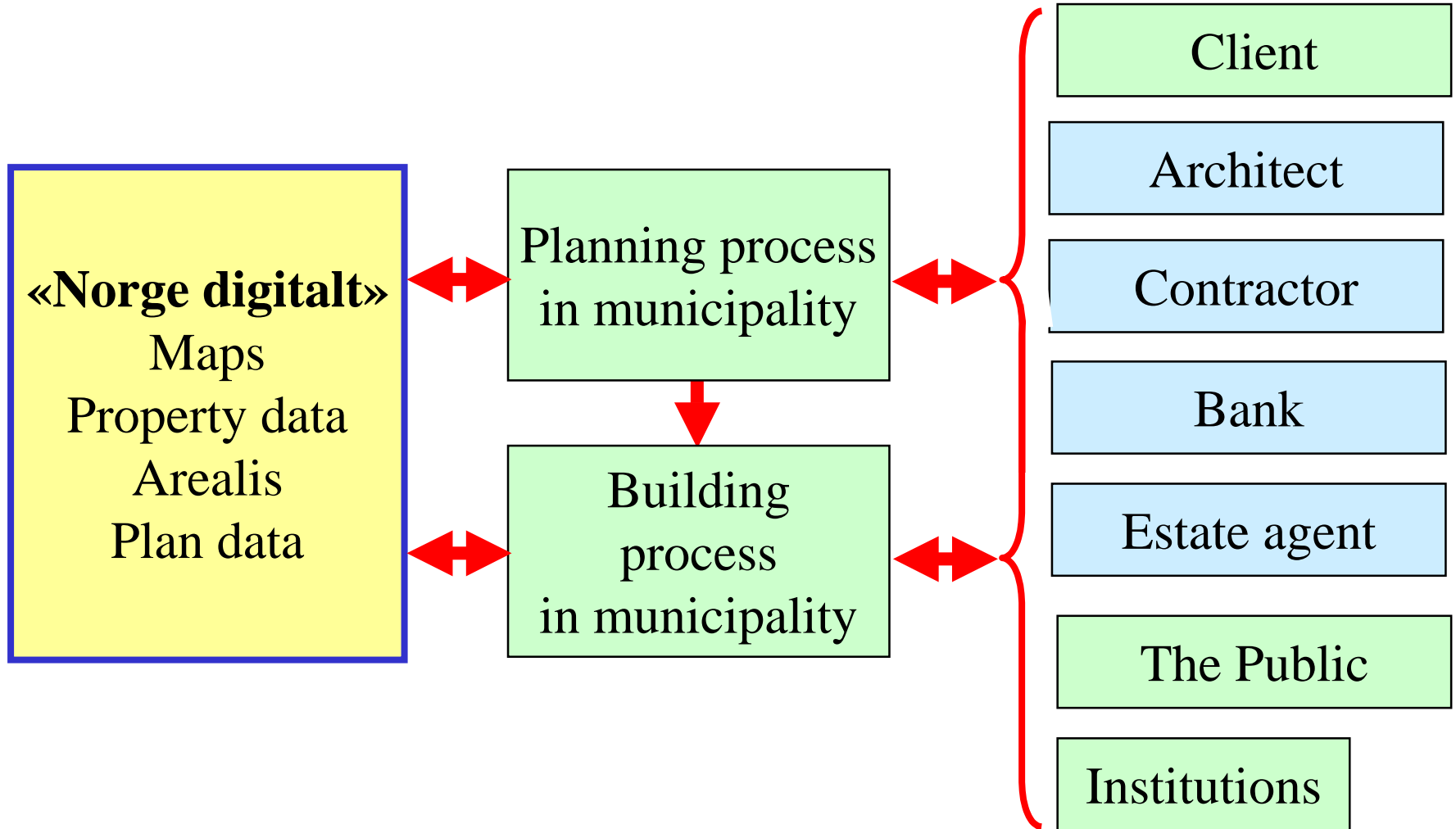
Value adding services



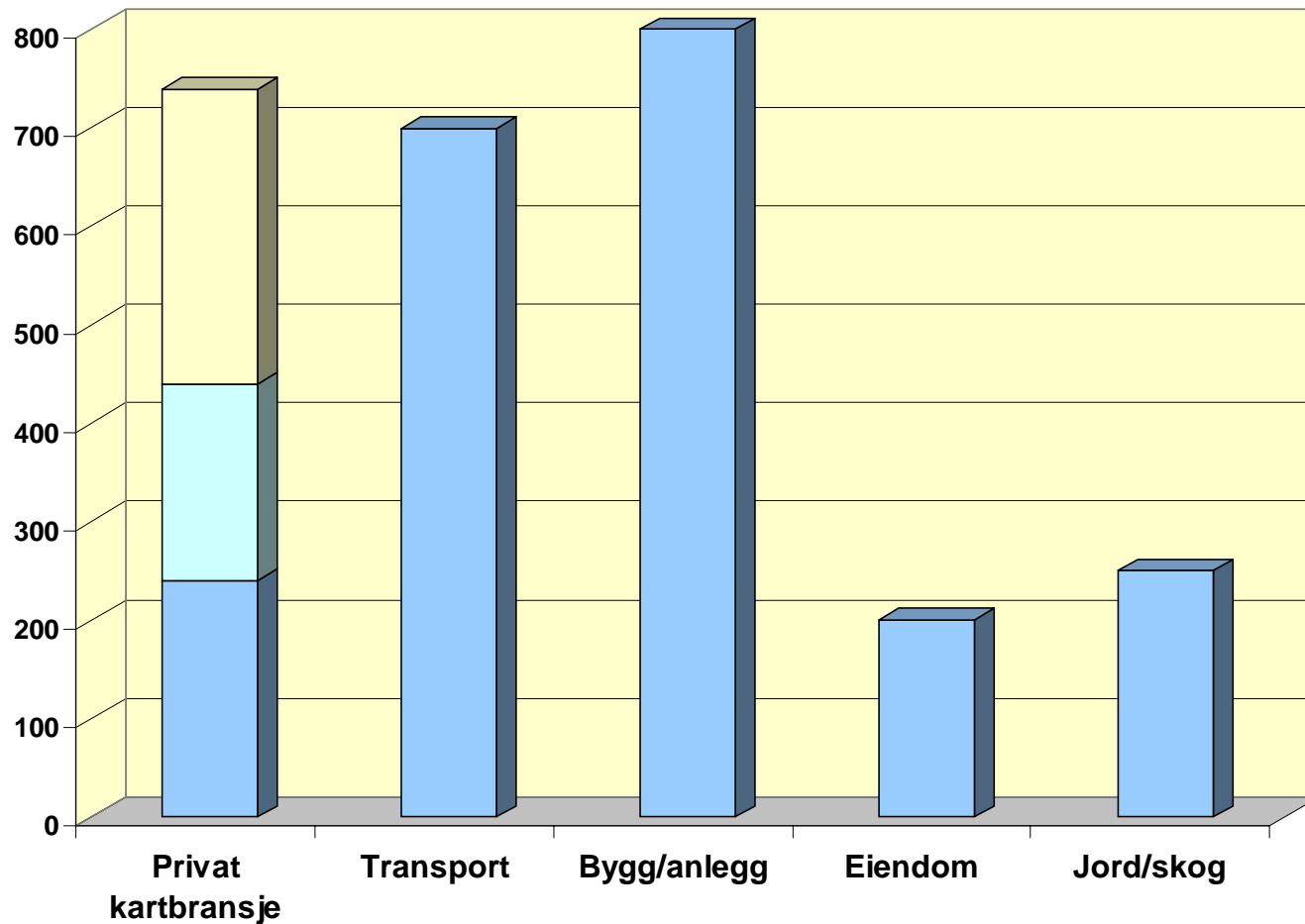
Value added services in business



Plan- and building process



Value to business



Estimates for the benefit to business by use of «Norge digitalt» due to increased efficiency, better security and better service. Figures in mill NOK p.a.

Critical factors to the infra structure

- ❑ Infrastructure does not develop at the speed of the users and the technological changes***
- ❑ Data capture based on administrative routines and reporting is not functioning***
- ❑ Quality secure work is not good, data is not reliable***
- ❑ Data is too hard to access for the users***
- ❑ Integration between different data sets is bad***
- ❑ Data does not match the demands from each user***
- ❑ Production is not efficient enough and cost too much***
- ❑ The price on data is too high***

«Norway digital»

**«Norway digital» - an infrastructure for the entire society
local - regional - national**

«Norway digital» will be a core database for everyone

Key data will kept continuously up to date

Data will be accessible on Internet

«Norway digital» can only be realised in co-operation between the municipalities, the state, and the largest users