Towards a Planning portal for Sweden

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A planning portal for Sweden

A critical appraisal

Planning portal

- A portal
  - It is not a portal production for market (the idea of an information supermarket. Products for a large amount of users)
  - It is not a portal for production for a customer (to build an information system for a specific purpose, project)
- A portal for planning information
  - This is a portal for customer in a specific field (as planning)
  - To provide contact with data users
  - To provide contact with data producers
- A portal for geographic information
  - To develop an information system in the form of a series of qualified geographic layers.

The project?

”Conceptual and methodological development of a Geographical information system for national development”

(Statistics Sweden)

Work Packages

- DP1: Data users
- DP 2: Portal building
- DP 3: Case Study:
  - Wind energy for municipal general plans
- DP 4: Data infrastructures
- DP 5: Data providers
- DP 6: Business modells

Another perspective

- The web pages
- The WMS & WMS (map services)
- Search engines (metadata)

Some critical issues

- *The overriding project (objectives)*
  - No reflections on the overriding project and the portals role in this context
- *We produce Information systems for sustainable development*
- Data users / target group (DP 1)
- *Method used by target group*
- Data infrastructures (DP 4)
- Data & Data providers (DP 5)
- Business modell (DP 6)
- The Portal itself (DP 2)

1. Integrated Information systems

We ar contributing to the building of integrated geographical information system for sustainable development.

1. GIS or CIS?

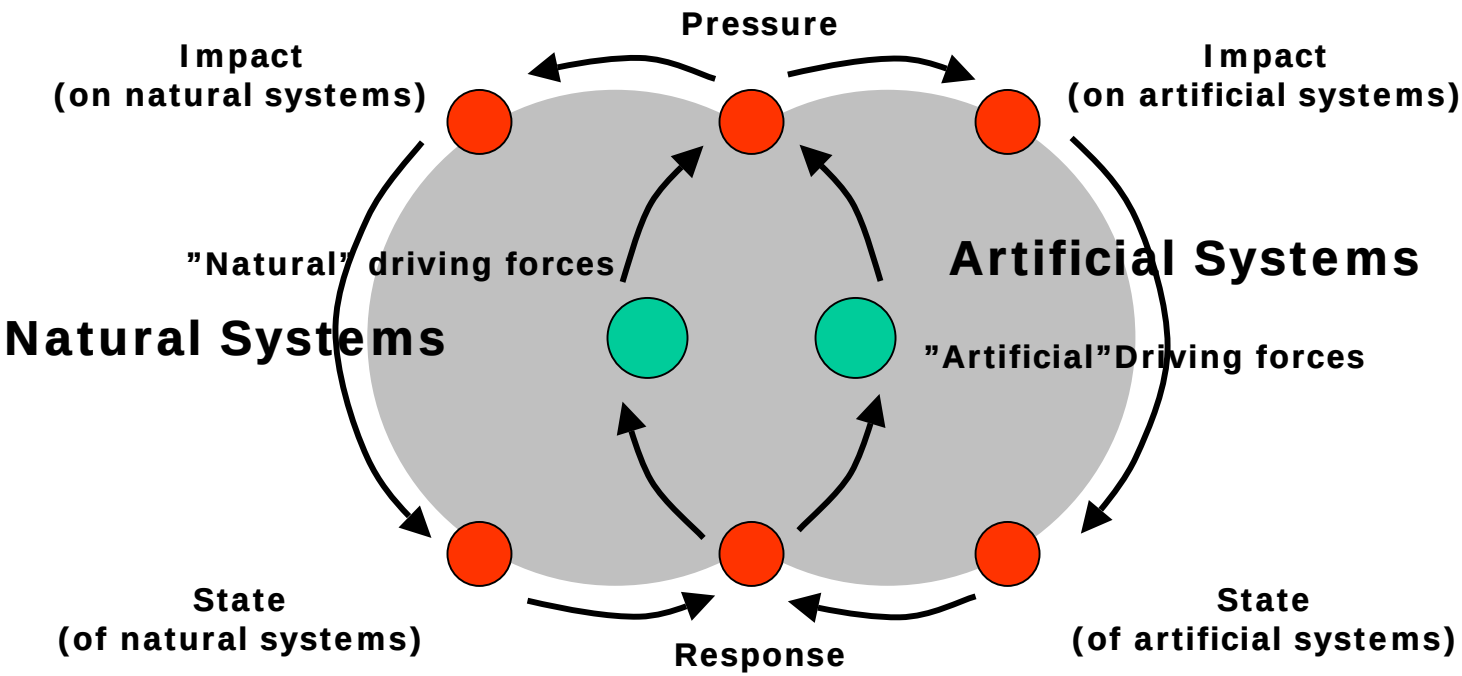
- GIS
  - To support our efforts to pursue the ideal of sustainable development we need qualified models that describe the spatial and temporal interaction of humans and their environment
- Geography not Cartography
  - Traditionally, geography as well as geographers has been viewed as the same as cartography and people who study place names. Although many geographers are trained in toponymy and cartography, **this is not their main preoccupation**. Geographers study the spatial and temporal distribution of phenomena, processes and feature as well as the interaction of humans and their environment.[4] As space and place affect a variety of topics such as economics, health, climate, plants and animals, **geography is highly interdisciplinary**. (Wikipedia 2007)
- Inspire & GeoDataRådet
  - Are they building a catogrphic information system

2. The overriding project

The nature and scope of the overriding project defines the structure and the components of the Information system

MES (Man- Environmental- System)

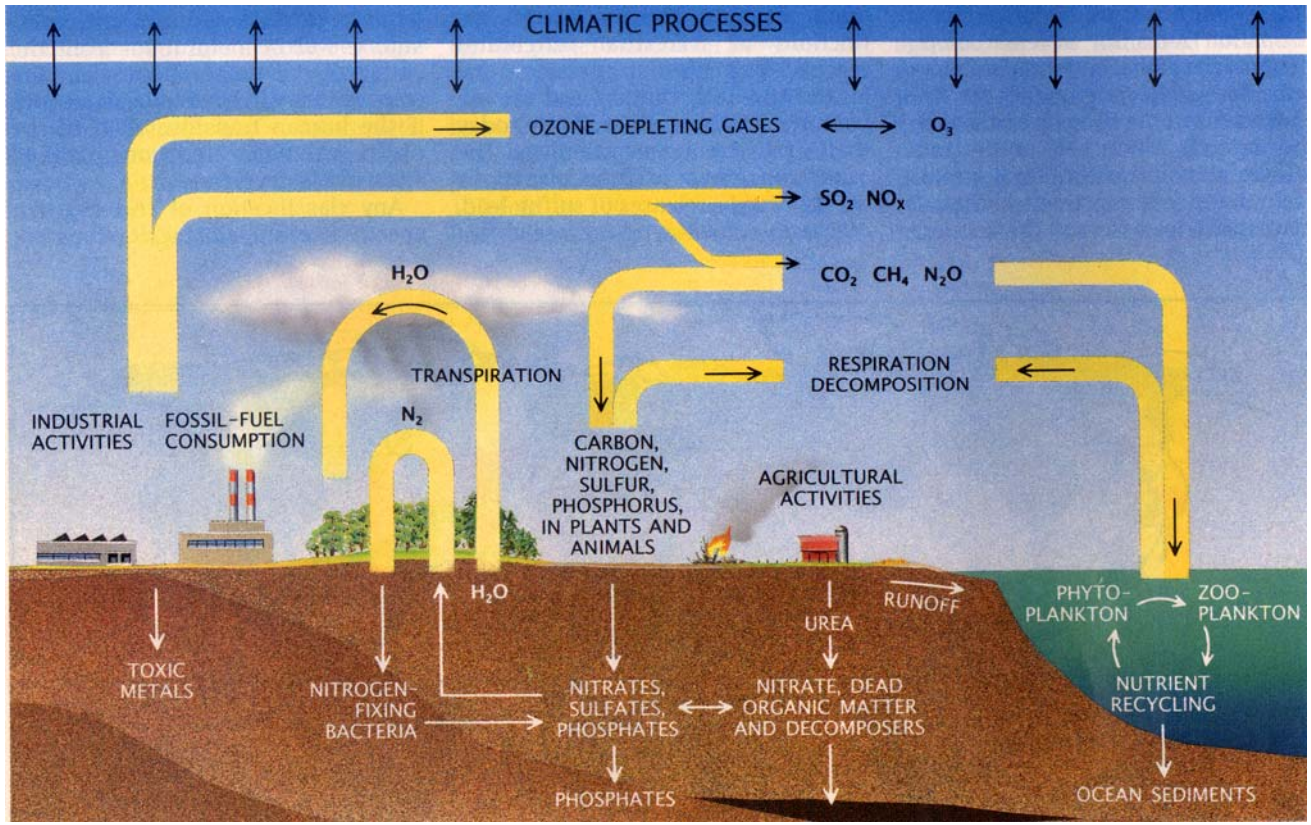
(according to DPSIR)



The environmentalists DPSIR

(Eco-logical)

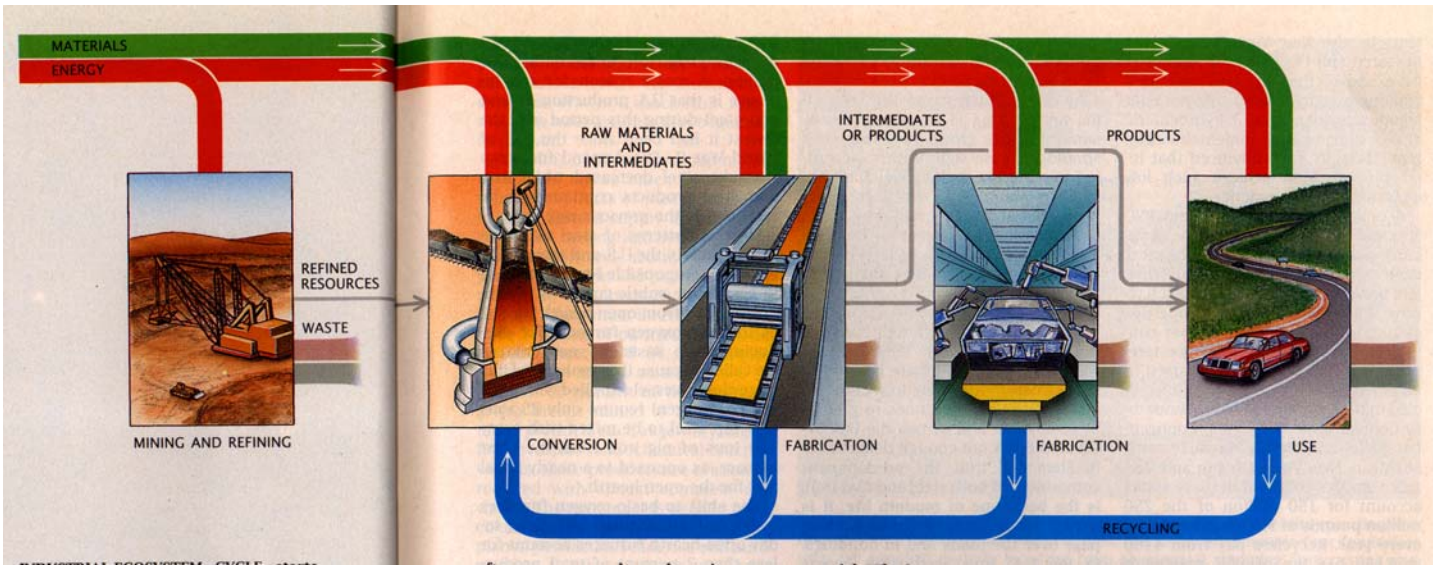
- Driving forces (from socio-economic system (and natural ecosystems))
- Monitoring based on an integrated model of MES
  - **Pressures (on natural ecosystems)**
  - **Impact (on natural ecosystems)**
  - **State (on natural ecosystems)**
- Spatial analysis based monitoring results
  - **Pressures (on natural ecosystems)**
  - **Impact (on natural ecosystems)**
  - **State (on natural ecosystems)**
- Reporting based on spatial analysis
  - **Pressures (on natural ecosystems)**
  - **Impact (on natural ecosystems)**
  - **State (on natural ecosystems)**
- Response (from socio-economic system (and natural ecosystems))


CLIMATIC PROCESSES
OZONE-DEPLETING GASES
O_3
SO_2 NO_x
CO_2 CH_4 N_2O
H_2O
TRANSPIRATION
N_2
RESPIRATION
DECOMPOSITION
INDUSTRIAL ACTIVITIES
FOSSIL-FUEL CONSUMPTION
CARBON, NITROGEN, SULFUR, PHOSPHORUS, IN PLANTS AND ANIMALS
AGRICULTURAL ACTIVITIES
RUNOFF
PHYTO-PLANKTON
ZOO-PLANKTON
UREA
TOXIC METALS
NITROGEN-FIXING BACTERIA
NITRATES, SULFATES, PHOSPHATES
NITRATE, DEAD ORGANIC MATTER AND DECOMPOSERS
NUTRIENT RECYCLING
PHOSPHATES
OCEAN SEDIMENTS

The socio-economic DPSIR

(Eco-nomical)

- Driving forces (From socio-economic system (and natural ecosystems))
- Monitoring based on an integrated model of MES
  - **Pressures (on socio-economic system)**
  - **Impact (on socio-economic system)**
  - **State (of socio-economic system)**
- Analysis based on qualified data (small area statistics)
  - **Pressures (on socio-economic system)**
  - **Impact (on socio-economic system)**
  - **State (of socio-economic system)**
- Reporting based on qualified data (large area statistics)
  - **Pressures (on socio-economic system)**
  - **Impact (on socio-economic system)**
  - **State (of socio-economic system)**
- Response (From socio-economic system (and natural ecosystems))


MATERIALS
ENERGY
REFINED RESOURCES
WASTE
MINING AND REFINING
RAW MATERIALS AND INTERMEDIATES
CONVERSION
INTERMEDIATES OR PRODUCTS
FABRICATION
PRODUCTS
FABRICATION
USE
RECYCLING

3. User needs

Differerent user groups use fifferent parts of awailable Information systems

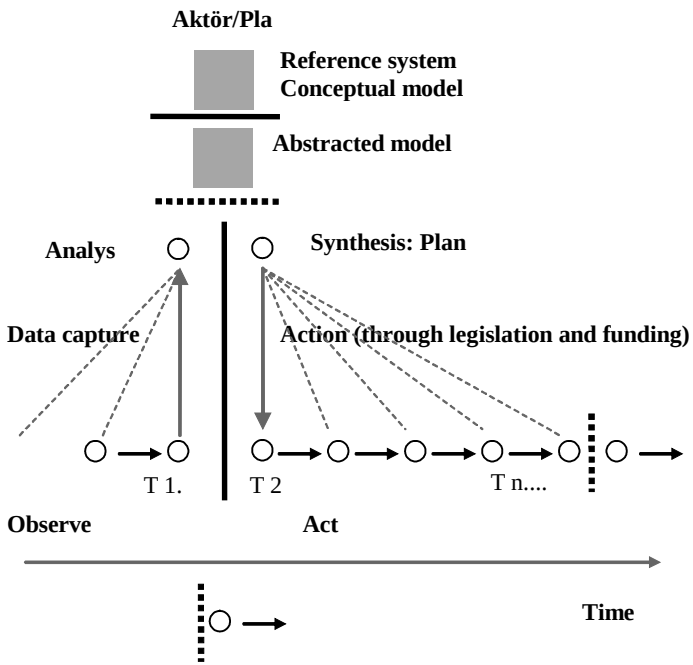
3. User needs (DP 1)

- We need to build efficient information systems
  - The least possible information that gives the best possible result
  - Depends on good knowledge of real user needs.
- The Deductive method
  - Data supermarkets
  - Production based on guesswork regarding user needs
  - Suited for markets with many (rel. small) customers
  - Results in heaps of unrelated components
- The Inductive method
  - Information from experts to experts.
  - Based on detailed understanding of users specific needs.
  - Results in few ut well suited component, that are further developed in cooperation with users.

4. Methods

Långsamma processer

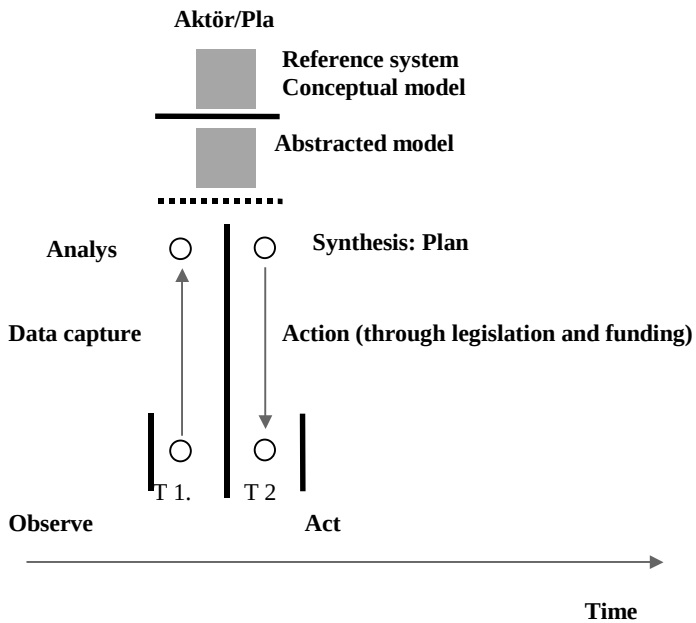
(Strategier)



Kris hantering

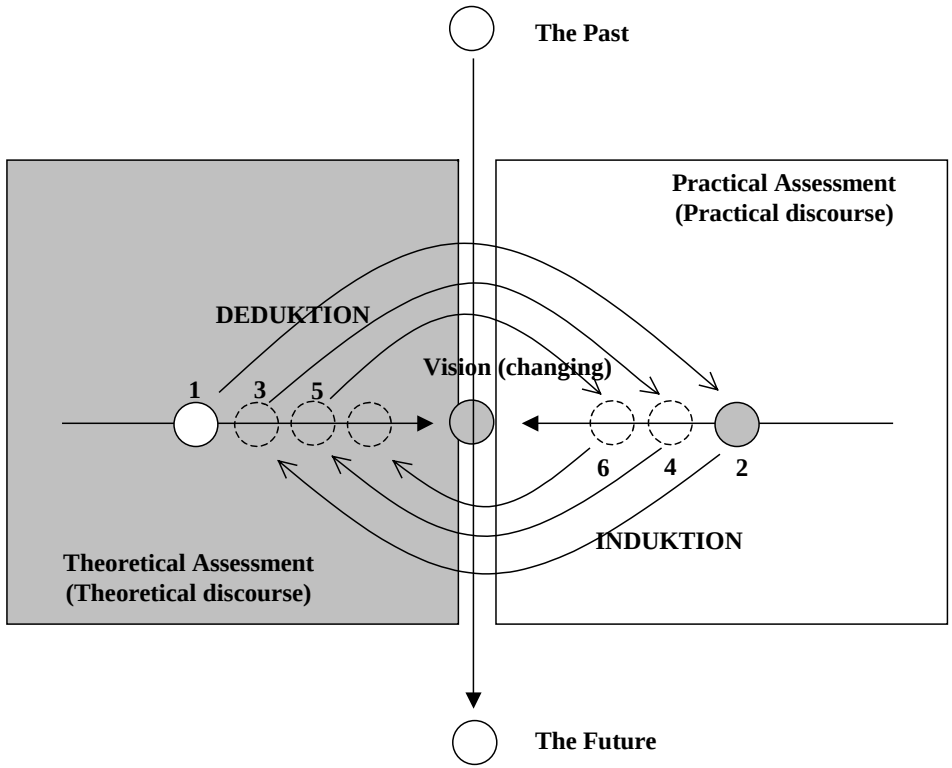
Snabba processer

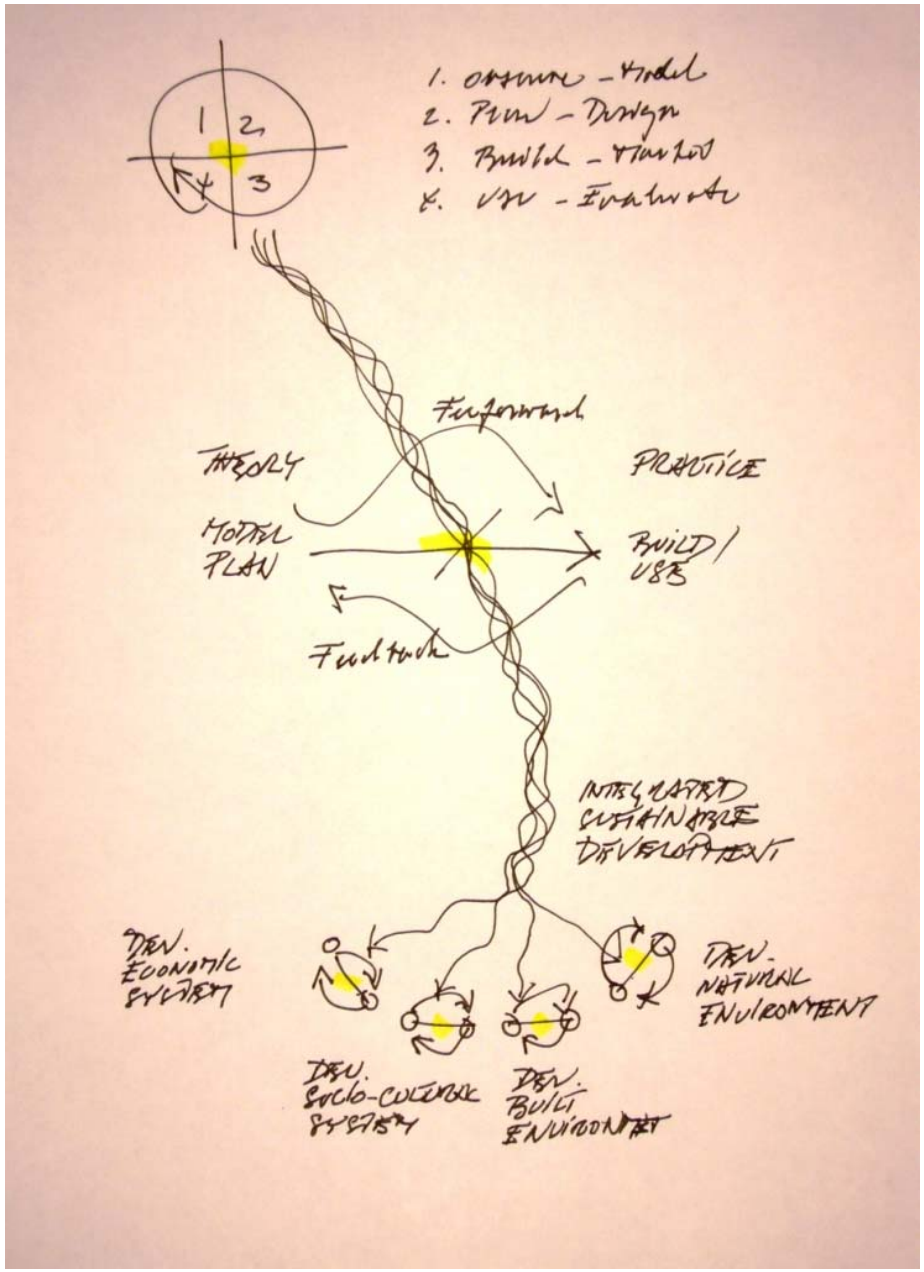
(Taktik)



En Iterativ process

Teorie / Praktik




1
2
3
4
1. observe - Model
2. Plan - Design
3. Build - Manage
4. Use - Evaluate
Feedforward
THEORY
PRACTICE
MASTER PLAN
BUILD / USE
Feedback
INTEGRATED SUSTAINABLE DEVELOPMENT
DEV. ECONOMIC SYSTEM
DEV. NATURAL ENVIRONMENT
DEV. SOCIO-CULTURAL SYSTEM
DEV. BUILT ENVIRONMENT

5. Data & Data providers (DP 5)

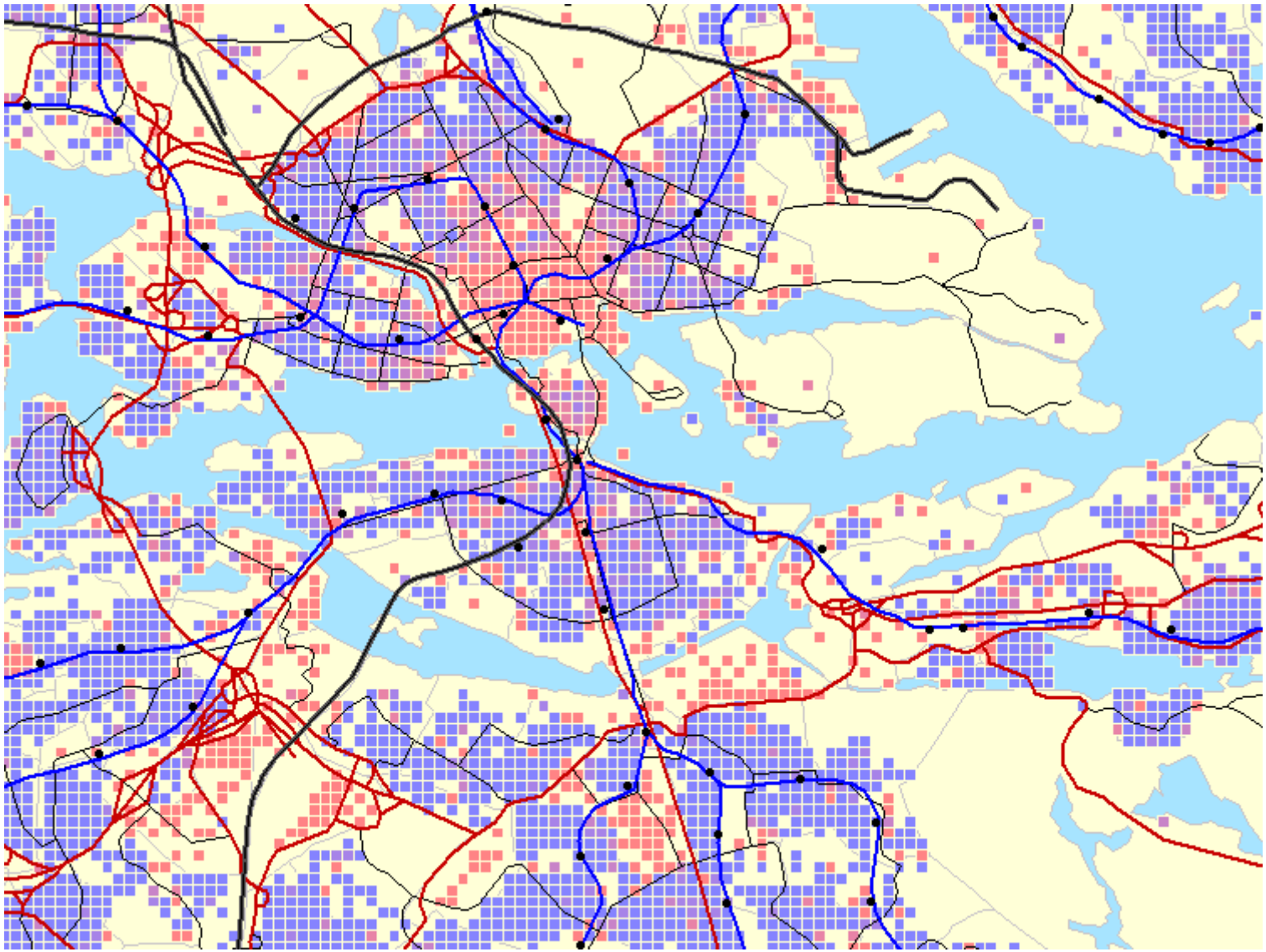
High resolution data

- All analysis for both monitoring/reporting and programs/plans/projects for sustainable development require neutral harmonised, high resolution data for spatial analysis.
- We believe that statistical data used for analysis must preferably be point-based data or aggregated to the smallest possible system of irregular tessellations.
- Datasets should be suited to the scale of the project in question (See here the discussion on windows)

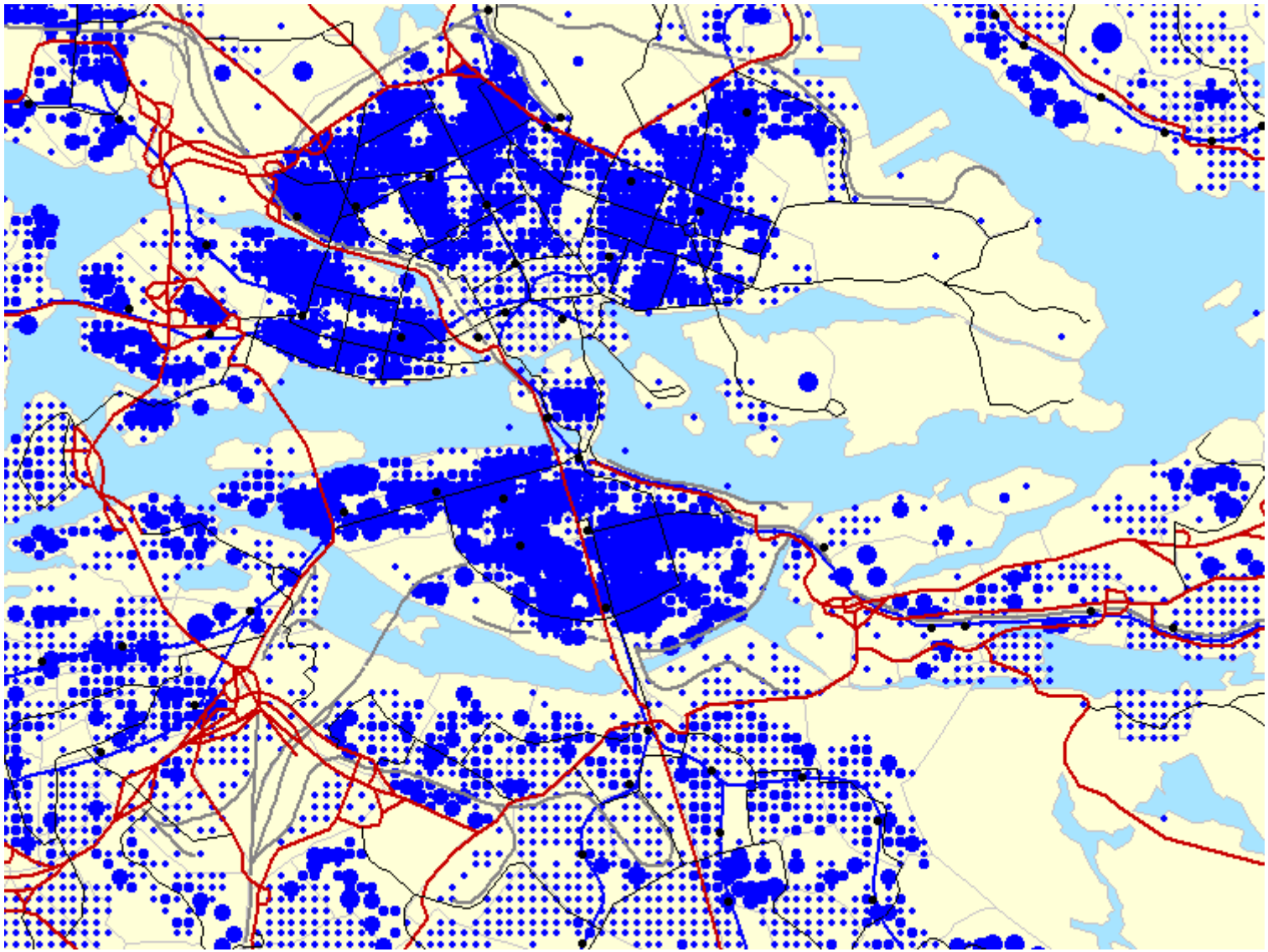
Hierarchial structure

10^1	Frame:10mx10m Houses	depicting object in the scale of min 10cm to max 1m. Collapsing point 10cm (use 10cm grids)
10^2	Frame: 100mx100m Urban Blocks	depicting object in the scale of min 1m to max 10m Collapsing point 1m (use 1m grids)
10^3	Frame: 1000m x 1000m Urban Neighbour-hoods	depicting object in the scale of min 10m to max 100m Collapsing point 10m (use 10m grids)
10^4	Frame: 10 km Large Urban districts to small Urban system	depicting object in the scale of min 100m to max 1000m (1km) Collapsing point 100m (use 100m grids)
10^5	Frame: 100 km Large Urban system to small national Region	depicting object in the scale of min 1km to max 10km Collapsing point 1km (use 1km grids)
10^6	Frame: 1000 km International Region	depicting object in the scale of min 1km to max 10km) Collapsing point 10km (use 10km grids)

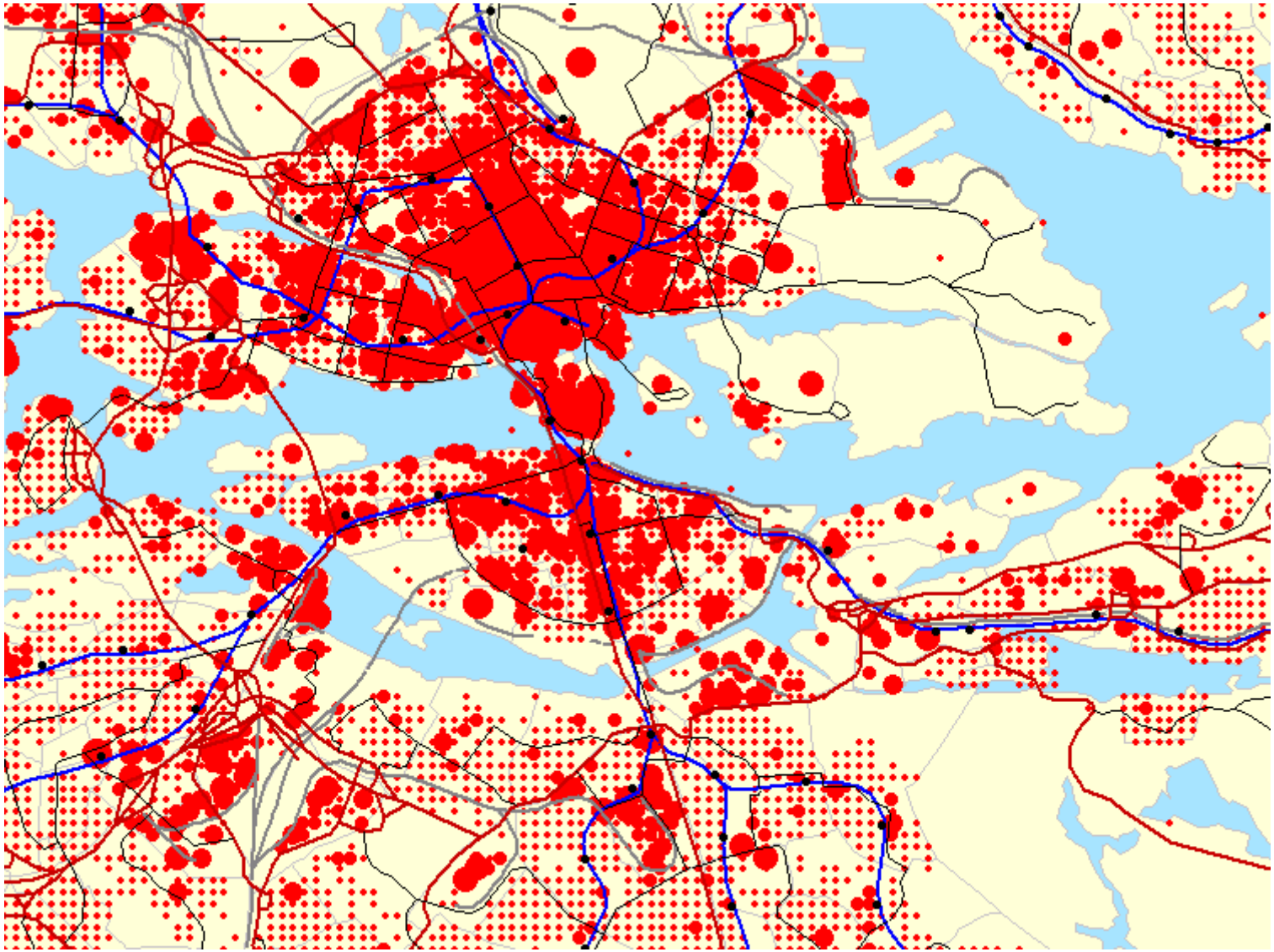
- The 1:100 Rule
  - smaller (both grids and windows by powers of 10)
  - 1m Grids for the 100m Window
  - 10m Grids for the 1km Window
  - 100m Grids for the 10km Window
  - 1km Grids for the 100km Window
  - 10km Grids for the 1000km Window
  - 100km Grids for the 10000km Window
  - and larger. (both by powers of 10)



Dag- och Natt- befolkningen på 100m rutor

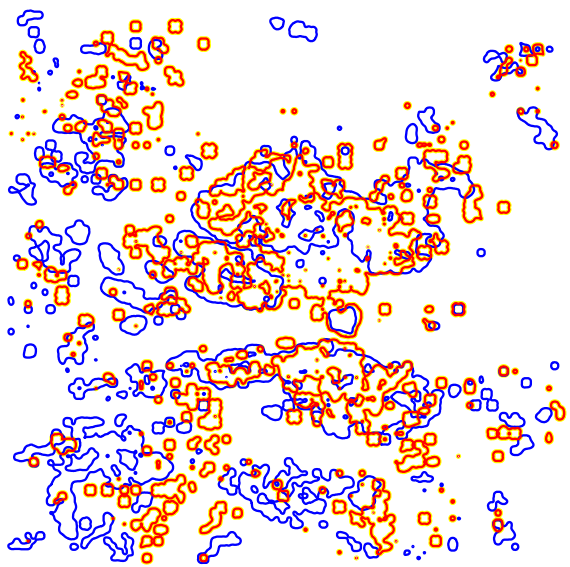


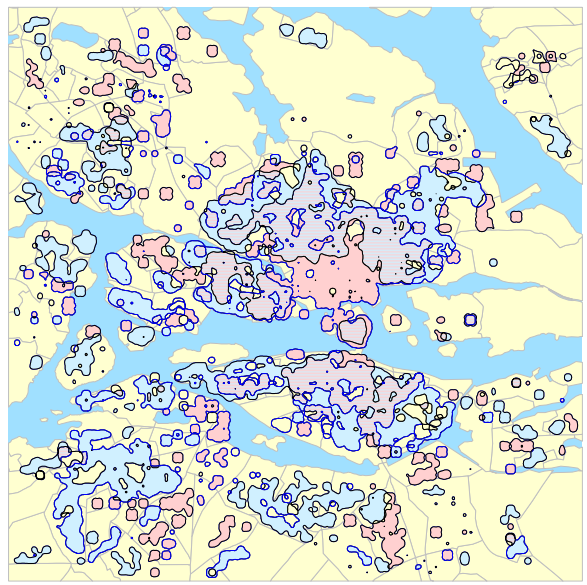
Nattbefolkningen på 100m rutor



Dagbefolkningen på 100m rutor

Attribut information





5. Data infrastructures

Data infrastructures (Dp 4)

- Problems with access to the results of the data infrastructure group
- Inspire seems to be building an infrastructure for cartographic information.
- Especially problems with metadata, catalogues do not seem to fit statistical and other information.

8. Case Studies (DP 3)

Case studies

- One subproject dedicated to a case study to supply the user community with information to plan windmills for energy production.
  - Information for a municipal general study for the implementation of windmill estates.
- Future studies planned for:
  - Regional development planning
  - Municipal general plans
  - Detail plans or larger urban projects

7. Business modell (DP 6)

Business modells

- Data offered
- Services offered
- Agreements between parties
- Costs
- Confidentiality
- Problems related to international agreements (f.inst The Århus convention)
- Other.

9. The Portal (DP 2)

Two kinds of Portals

- Portals according to the “data supermarket” concept
  - Here data providers publish their metadata and give access to WMS /WFS services according to situation..(One general portal for the general (nonspecialist?) user
  - No contact with real user needs
- Portals according to the “information system” model
  - Here real user needs are in focus
  - Data provided according to professional knowledge on the kind of information system the customer uses. (A specialised series of subportals for specialist users)
- We seem to be building accorsding to a hybrid concept

Thank you!

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