

Self financing mapping and cadastral agencies, data services and INSPIRE – Is there a conflict?

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Swedesurvey AB

- An **International Consultant company**, owned by the Swedish Government
- Provides **services** worldwide within **Land Governance, NSDI** and **Human Resource Development**
- Acts as the **Overseas Agency of Lantmäteriet**, the Swedish mapping, cadastre and registry authority

Agency for Real Estate Cadastre (AREC)

- The National Mapping and Cadastre Agency of the Republic of Macedonia
- Competences in: Geodesy - Information Technology – Legislation
- Cooperates with Swedesurvey in a capacity building project

Problem formulation

- Why a high degree of self financing (fees)
 - *Decision by the parliament (ministry of finance)*
 - *Promotes customer orientation*
 - *Less dependent on political decisions (budget cuts, ...)*
- Free data movement
 - *Growing tendency that INSPIRE services are available free of charge*
 - *Citizens expect services free of charge*
- How does this match?

Degree of self financing (Lantmäteriet, SE - 2011)

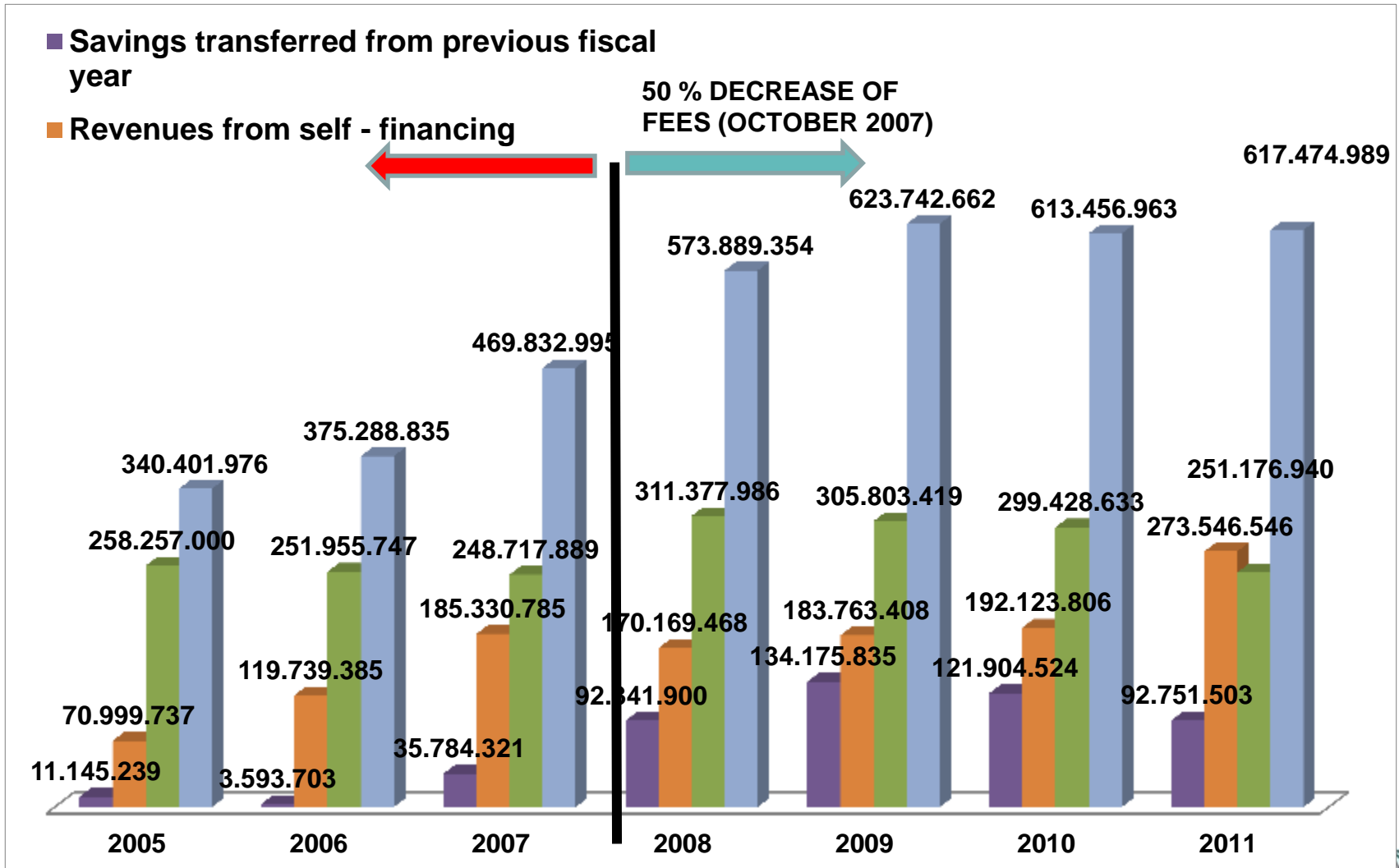
Division	Income (M€)	Self financing
Cadastral services	99	86.4 %
Land and geographic information	77	52.8 % *
Land registration	16	0.5 %
Other	37	99.6 %
Total	229	71.2 %

*) Around 56 % Land Information and 44 % GI

Self financing AREC (MK)

- Current self financing around 60%
- Main external source of income is cadastral services
- Geodata production financed by own resources (self financed and governmental budget), supported by WB project and JICA (Japan grant for TM 25K production)

Revenues AREC (MK)



Geodata services (SE)

- INSPIRE services: View services free of charge. Download services not there yet.
- Public services free of charge.
- Professional services: According to data sharing agreement
- 3rd party commercial services: Specific agreements



Example: Ortophotos

- Main quality elements: Age, spatial resolution, ...
- Main clients: Swedish Agricultural Board, Swedish Defence, Lantmäteriet, Commercial companies (Eniro, hitta.se, ...)
- Cost and quality
 - A third of the country updated every year
 - Spatial resolution: 0.25 / 0.48 meter
 - Total cost: Around 3.5 M€ annually
 - Self financing (fees): Around 70 %

Data sharing agreement - cooperation

- Geoportal – single point of access
- Too complicated to have many different types of agreements, controlling the access
- Many cities are also selling data to Lantmäteriet (updates of addresses and buildings)
- Solution: One agreement for all involved public agencies and authorities



Issues to be addressed by the data sharing policy

- **How to distribute the costs for information among users of the information?**
- **How to distribute the revenues among the suppliers of information?**
- All together some 23 agencies are pointed out to supply information according to INSPIRE, of whom only 4 must charge license costs
- Any public agency or municipality can join the agreement in order to use the information (approx. 350 users)

Basic principles

- Investigate and calculate the flow of money between involved parties at present
 - Approx. SEK 46 Million/year between governmental authorities and suppliers of information
 - Approx. SEK 55 Million/year between municipalities and suppliers of information
- The aim of the business model is not to increase the revenue but to distribute the current amount in form of fixed annual fees between users according to agreed principles



Basis for sharing of costs

➤ **Parameters which are:**

- Agreed in advance
- Stable over time, but adjustable
- Easy to understand to which category an organisation belongs

➤ **Joint parameters:**

- Need of geodata
- Geographic area of interest (municipality, region, nation)
- Benefit (back-ground, essential)

➤ **Additional parameters:**

- For state agencies: Turn over
- For municipalities: Number of inhabitants, total area, densely built-up area, population density

Underlying parameters for municipalities

Area (hectare)

Intervall	Faktor
Mer än 1 000 000	5
200 000 – 1 000 000	4
100 000 – 200 000	3
40 000 – 100 000	2
Mindre än 40 000	1

Population

Intervall	Faktor
Mer än 700 000	24
400 000 – 700 000	21
200 000 – 400 000	18
100 000 – 200 000	15
50 000 – 100 000	12
25 000 – 50 000	9
10 000 – 25 000	6
Mindre än 10 000	3

Population density (persons/hectare)

Intervall	Faktor
Mer än 10	10
3 – 10	8
1 – 3	6
0,3 – 1	4
0,02 – 0,3	2
Mindre än 0,02	0

Built up area %

Intervall	Faktor
Mindre än 2	5
1 - 5	4
5 – 20	3
20 – 50	2
Mer än 50	1

The underlying parameters are summed up and used as input for determination of the the over all municipality parameter.

Principles of data sharing policy

- **Revenue**

- Total revenue fixed over time.
- Revenues are shared according to required levels of self financing

- **Costs**

- Each partner get a cost “score”, updated annually
- Cost per score is determined by total revenue and total cost score for all partners
- If more parties joins the agreement, the cost per partner decreases

Geodata market development (Lantmäteriet, SE)

- INSPIRE services
 - Free view services: Too early to say anything about trends
- Free public services
 - Slight increase in number of services. Large increase in number of access
- Professional services
 - Large increase in parties joining the data sharing agreement
 - Large increases of downloads
- 3rd party Commercial services
 - Steady level of revenue and number of agreements
 - Large increase in access to 3rd party services

Geodata market development (AREC, MK)

- INSPIRE services
 - Not yet ready, planned for first half 2013 (discovery and view services)
- Free public services
 - Slight increase in number of services. Large increase in number of access.
- Professional services
 - Services for notaries and private surveyors introduced 2011
 - Any trends development following INSPIRE services
- 3rd party Commercial services
 - In the workplan for 2014

Self financing mapping and cadastral agencies, data services and INSPIRE – Is there a conflict?

- Lantmäteriet and AREC have both a high degree of self financing services (60 - 70 %)
- Free public services are increasing in number and importance
- Stable income from other types of services, which are also growing in number and usage
- Swedish geodata sharing agreement a success so far
- Free data movement has an impact on the development
- Cost / quality relationship important