The Assessment of Organisation’s GIS Maturity Gives a Push to the Use of Spatial Data – The Finnish Environment Institute as a Case Study

Kaisu Harju / Finnish Environment Institute (SYKE)
Jaana Mäkelä / Spatineo Inc.
Riitta Teiniranta / Finnish Environment Institute (SYKE)

INSPIRE – Geospatial World Forum, Lissabon 25.5.2015
The Finnish Environment Institute (SYKE) is both a research institute, and a centre for environmental expertise.

A part of Finnish environmental administration

The focus is on six key themes:

1. Climate change mitigation and adaptation
2. Sustainable management of the Baltic Sea and freshwater resources
3. Sustainability of consumption and production
4. Maintaining ecosystem services and biodiversity
5. Sustainability of land use and the built environment
6. Production and utilization of environmental information
SYKE & spatial data

- One of the biggest INSPIRE data producers in Finland
- Also a significant spatial data user - GIS is valuable for all SYKE’s key themes
GIS maturity indicates the capability to utilize spatial data

- SYKE’s GIS maturity was assessed in 2014 to find out how well spatial data and GIS tools are adopted in organisation
- The GIS maturity indicates the organisation’s capability and readiness to utilise spatial data to reach objectives of the organisation
- In a mature organisation spatial data and spatial data solutions have been integrated into the organisation’s key processes
- Organizations benefit from comprehensive utilisation of spatial data: better quality of research, decision-making, productivity and customer services
- The GIS maturity model was created at Aalto University in co-operation with the Finnish Inspire Network*

The GIS maturity model was developed further to a product: Spatineo Roadmap

- Use the relevant indicators of a GIS maturity assessment
- Examine the visualised and analysed results
- Recognise the strengths and areas that need development
- Set the future goals for the development of the utilisation of spatial data

Spatineo Roadmap
- A web-based tool to assess the current state of the utilisation of spatial data in your organisation
- Sets a roadmap for organisational improvement for enhancing the utilization of spatial data
Five key areas of the maturity assessment

- Relevant indicators for each key areas are used for the maturity assessment
GIS maturity level summarizes the results of the assessment

1. Results of the assessment
   - The maturity level of each of the five key areas
   - Visualisation of the results of the query
   - Analysis of the strengths and areas to be developed
   - Organisation decides which level is a relevant goal
Some results: Maturity values of internal SDI

- Shows up those areas that have been invested in
- Helps to allocate resources to relevant areas
Analysis of the strengths & areas to be developed

**Internal SDI**
Centralized coordination of spatial data, GIS software and applications

**SYKE’s input to national SDI (INSPIRE)**

**Personnel’s technical GIS skills**

**Availability of SYKE’s GIS services**
Free data policy, network services

**Knowledge about possibilities of GIS**
is inadequate among organisation’s management level

**Communication**
Both internal and external

**Visibility of SYKE’s GIS services at organisation’s web site**

**Co-operation between different departments**
Actions based on the results of the assessment

For better co-operation and sharing information
Infos & discussions with management groups of SYKE’s different departments
Regular infos for internal GIS users
Collecting illustrative examples of spatial data usage to demonstrate the possibilities of GIS
Project initiative to improve the visibility and availability of SYKE’s GIS services in co-operation with SYKE’s communication unit
Impact to SYKE’s Data management strategy

To increase knowledge about possibilities offered by centralized SDI
To develop external impact
To have GIS integrated in all key processes and to set it as a strategic goal
Some considerations on the assessment

- Things that where known intuitively were made visible
- High diversity of the answers – both positive and extremely critical views
- Revealing information about GIS user’s level of knowledge (e.g. network services)
- Not only results, but the whole process is useful
- Clear results to be presented for the management
- Presents how organisations will benefit if spatial data is utilised effectively
Additional Information:

About SYKE’s Spatial Data Services:
Kaisu Harju, Riitta Teiniranta
Kaisu.Harju@ymparisto.fi
Riitta.Teiniranta@ymparisto.fi

About Spatineo Roadmap and GIS maturity model:
Jaana Mäkelä
Jaana.Makela@spatineo.com

See also:
syke.maps.arcgis.com

Thank You!