Use of KPIs to show the impact of geospatial information

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My organization has strategic goals related to usage of spatial data...

How many users are effectively utilizing the spatial information available?

What are the different profiles of users?

What datasets are essential to maintain, and available at all times?

What indicators are relevant to my SDI operation/usage analytics?

How can I measure the value of my Spatial Data Infrastructure?

Difference in complying with standards (OGC & INSPIRE) vs providing high quality usage experience to users…
CRUCIAL INFORMATION AND INNOVATIVE SOLUTIONS FOR A SUSTAINABLE SOCIETY

- Respond proactively to society’s ever-changing information needs.
- To make a difference for decision-making in the public and private sector through our internationally recognized research and development activities and our high-quality expertise.
SYKE’s Open Data Services

• Open environmental data available since 2008
  • 6602 Spatial datasets
  • Environmental information systems
  • Web map applications
  • Web services (77*)
  • Satellite observations

• Usage of open data increases every year → impact?

• www.syke.fi/openinformation
Spatineo Impact

- Spatineo Platform
- Customer’s data
- Automated surveys
- Third party data (IPs)

Automated Data Collection

Assess Impact

- Real-time dashboards
- Automated reports
- Transparency

Strategic goals

Measurable indicators

Implementation

- Technology transfer
- Improvement of Indicators

Recommendations

- Evaluate all options
- Specific technologies
- Communication with stakeholders

Recognize your Success
Goal:
Citizens’ participate more widely in observing and collecting data from environment

Impact indicator:
Citizens’ activeness in providing observations

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Number of Users and Unique Pageviews vs previous year

<table>
<thead>
<tr>
<th>Page Title</th>
<th>Number of users</th>
<th>% ▼</th>
<th>Unique Pageviews</th>
<th>% ▼</th>
</tr>
</thead>
<tbody>
<tr>
<td>Järviwiki</td>
<td>33,099</td>
<td>-14.6 % ▼</td>
<td>46,964</td>
<td>-12.5 % ▼</td>
</tr>
<tr>
<td>Jäätilanne – Järviwiki</td>
<td>13,410</td>
<td>-29.3 % ▼</td>
<td>18,537</td>
<td>-28.9 % ▼</td>
</tr>
<tr>
<td>Levästianne – Järviwiki</td>
<td>12,370</td>
<td>-29.6 % ▼</td>
<td>17,248</td>
<td>-28.8 % ▼</td>
</tr>
<tr>
<td>Järven nimeet – Järviwiki</td>
<td>9,594</td>
<td>-10.9 % ▼</td>
<td>10,417</td>
<td>-17.9 % ▼</td>
</tr>
<tr>
<td>Levävähtii/Metsä turisti on suvila? – Järviwiki</td>
<td>5,653</td>
<td>-55.4 % ▼</td>
<td>7,427</td>
<td>-52.2 % ▼</td>
</tr>
<tr>
<td>Iläämä – Järviwiki</td>
<td>3,499</td>
<td>0.7 % ▼</td>
<td>0,230</td>
<td>-12.2 % ▼</td>
</tr>
<tr>
<td>Pientavuden lampulia – Järviwiki</td>
<td>5,101</td>
<td>-20.1 % ▼</td>
<td>6,759</td>
<td>-29.1 % ▼</td>
</tr>
<tr>
<td>Suomen kunmat – Järviwiki</td>
<td>3,334</td>
<td>-19.3 % ▼</td>
<td>3,763</td>
<td>-26.5 % ▼</td>
</tr>
<tr>
<td>Järviin asetettu/Syvimmät järvet – Järviwiki</td>
<td>2,832</td>
<td>-58.4 % ▼</td>
<td>2,982</td>
<td>-34.0 % ▼</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td>323,933</td>
<td>0.7 % ▼</td>
<td>908,124</td>
<td>-4.6 % ▼</td>
</tr>
</tbody>
</table>

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Monthly distribution of users of Talvisuurantalähetti vs. previous year**

Monthly distribution of users of Havaintolähetti vs. previous year**

Data source: Google Analytics data from Järviwiki
** See remark on last page
Goal:
Decrease the vulnerability of cities in climate change

Impact indicator:
All municipalities that have flood risk areas use data of flood risks
**Goal:**
Comprehensive information on built environment to authorities, companies and citizens

**Impact indicator:**
Who are the specific users of data on built environment

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**Who are the specific users of data on built environment? (F)**

**Amount of requests per user group**

<table>
<thead>
<tr>
<th>User Group</th>
<th>Number of Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISP (Private person or small company)</td>
<td>78,205</td>
</tr>
<tr>
<td>National level administration</td>
<td>28,672</td>
</tr>
<tr>
<td>N/A</td>
<td>23,088</td>
</tr>
<tr>
<td>Local level administration</td>
<td>14,794</td>
</tr>
<tr>
<td>Universities and educational institutions</td>
<td>4,894</td>
</tr>
<tr>
<td>Company</td>
<td>1,084,1</td>
</tr>
<tr>
<td>Hosting / cloud hosting provider</td>
<td>631</td>
</tr>
</tbody>
</table>

**Distribution of users in user groups**

- ISP (Private person or small company): 46.0%
- N/A: 21.5%
- Local level administration: 9.0%
- Company: 8.4%
- Universities and educational institutions: 4.7%
- National level administration: 4.1%
- Hosting / cloud hosting provider: 2.3%
- Regional level administration: 0.7%
- N/A: 0.3%

**Monthly distribution of Users and Unique Pageviews**

Data source: Google Analytics data and SYNE log files from LITERI
Who are the users and how much environmental information services are used? (F)

Goal:
Key information user groups use environmental information

Impact indicator:
Division of usage of environmental information in user groups
RECOMMENDATIONS AND FUTURE ACTIONS

• Ensure that all information from web maps, data downloads and citizens’ submissions of observations are collected
• A further study to understand why there are so significant differences in the amount of users of web maps
  • Natural? Potential users do not find web maps?
• Better communication of flood maps and flood information to municipalities
• Impact assessment can be developed based on user experience of SYKE:
  • Which indicators are most beneficial?
  • Do new information needs will arise along the year?
• Focus future work on the use of data
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