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…
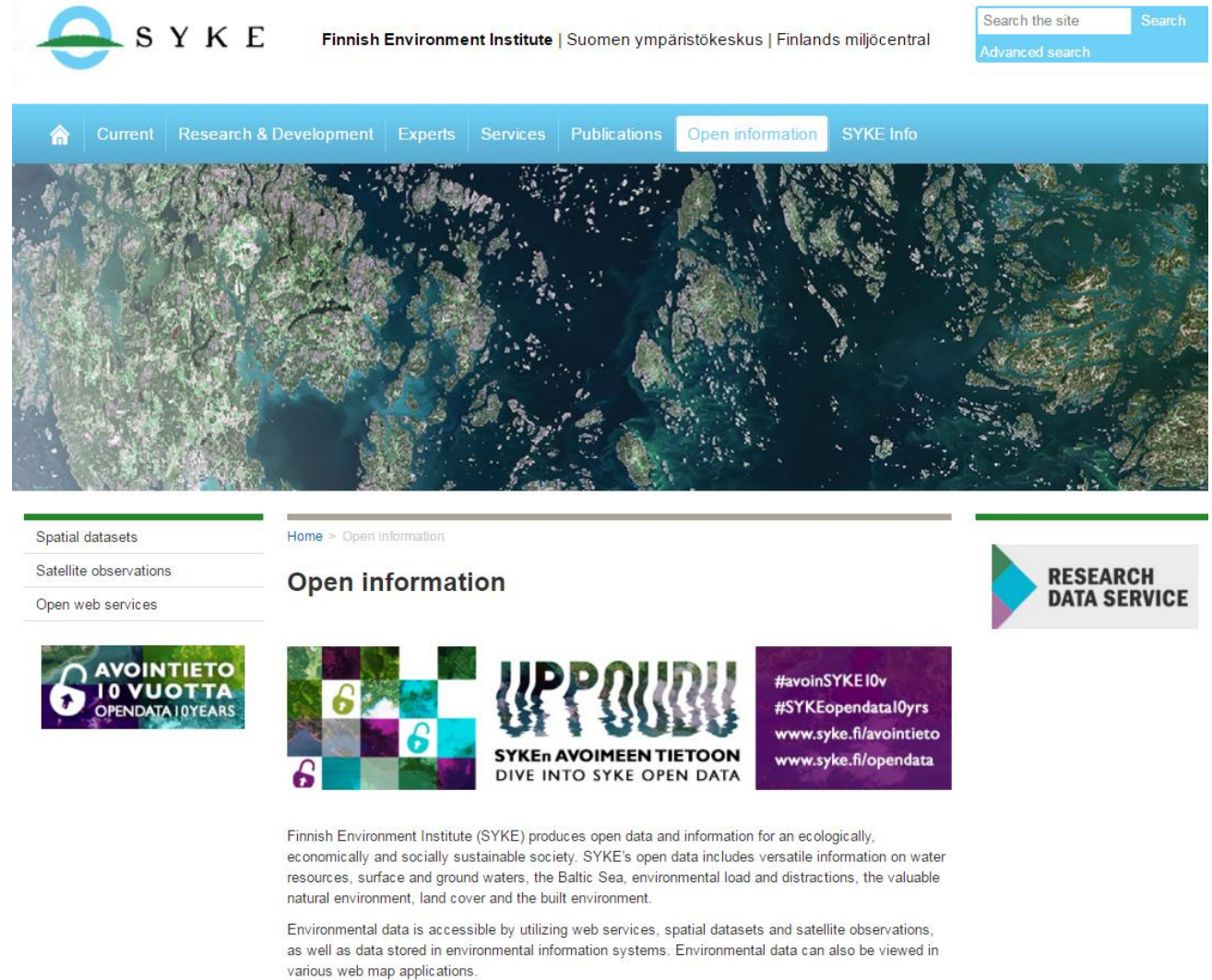
Crucial information and innovative solutions for a sustainable society

- 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.

Decision-makers
SYKE
Partners

SHARED EXPERTISE

SUSTAINABLE SOLUTIONS
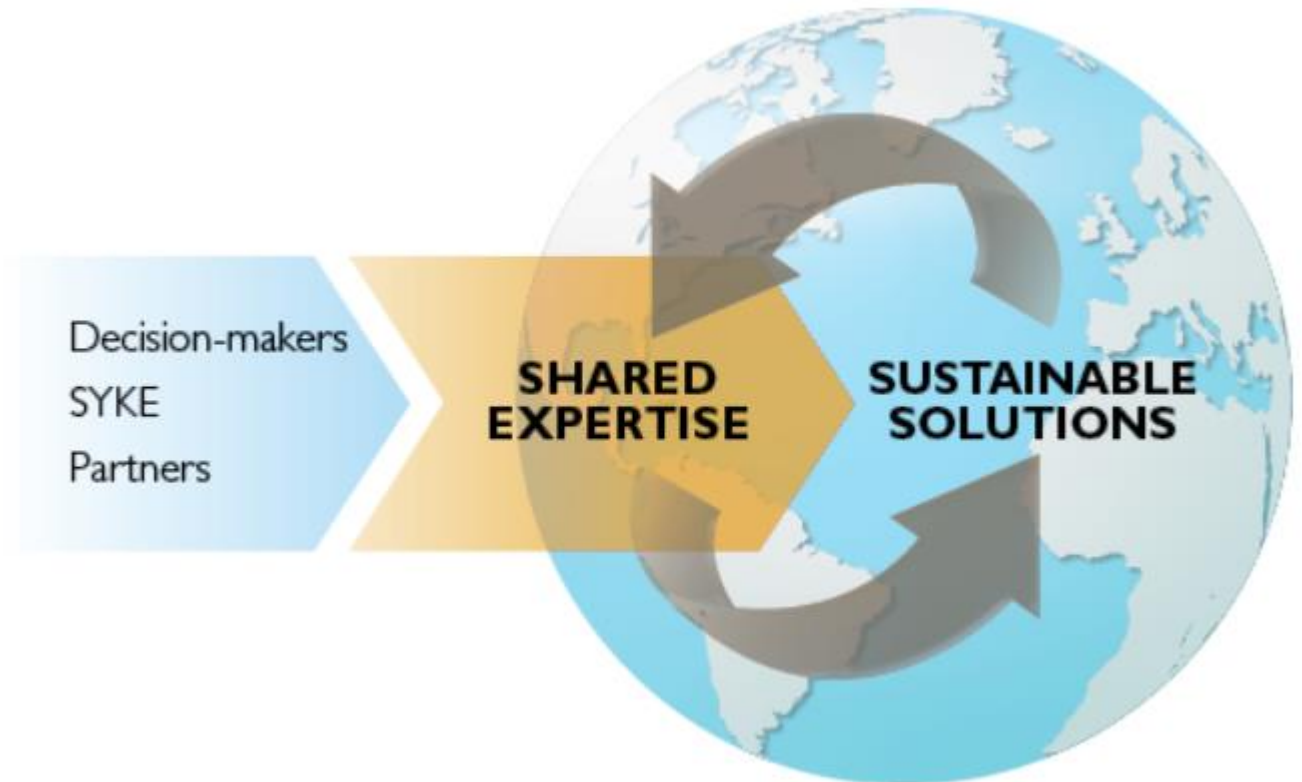
SYKE's Open Data Services

- 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

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

Automated Data Collection

Assess Impact

- Real-time dashboards
- Automated reports
- Transparency

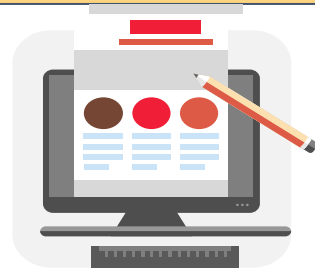**Strategic goals** → **Measurable indicators**

Recognize your Success

- Technology transfer
- Improvement of Indicators

Implementation

Recommendations

- Evaluate all options
- Specific technologies
- Communication with stakeholders

How actively citizens are contributing to monitoring, observing and producing of data on nature? (F)

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Number of Users and Unique Pageviews vs previous year

Jan 1, 2017 - Dec 31, 2017

Lake wiki

Ice condition

Algal situation

Surface water temperature

	Page Title	Number of users	% Δ	Unique Pageviews	% Δ
1.	Järviwiki	33,068	-14.6% ↓	46,964	-12.5% ↓
2.	Jäätilanne – Järviwiki	13,416	-28.5% ↓	18,537	-28.9% ↓
3.	Levätilanne – Järviwiki	12,370	-29.6% ↓	17,248	-28.8% ↓
4.	Järvien nimet – Järviwiki	9,694	-16.9% ↓	10,417	-17.9% ↓
5.	Levävahti/Miten tunnistan sinilevän? – Järviwiki	6,653	-55.4% ↓	7,437	-55.2% ↓
6.	Itämeri – Järviwiki	5,498	0.7% ↑	6,286	-1.2% ↓
7.	Pintaveden lämpötila – Järviwiki	5,101	-20.1% ↓	6,759	-20.1% ↓
8.	Suomen kunnat – Järviwiki	3,384	-19.5% ↓	3,763	-20.6% ↓
9.	Järvitilastot/Syvimmät järvet – Järviwiki	2,802	58.4% ↑	2,982	54.0% ↑
	Grand total	323,933	0.7% ↑	908,124	-4.6% ↓

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

— Users   — Users (previous year)

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

— Users   — Users (previous year)

Data source: Google Analytics data from Järvi&Meri wiki
** See remark on last page
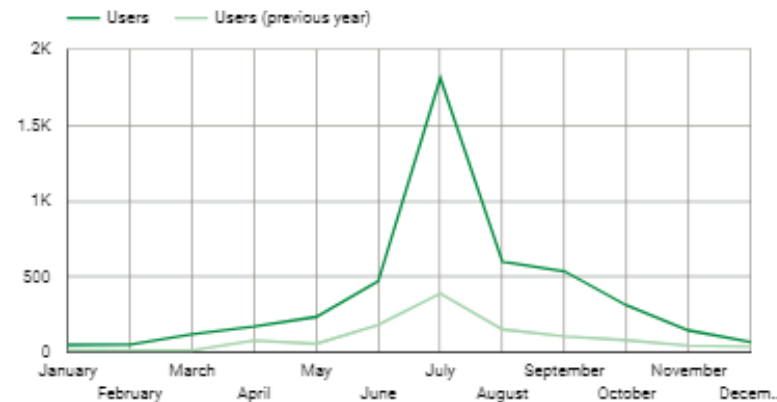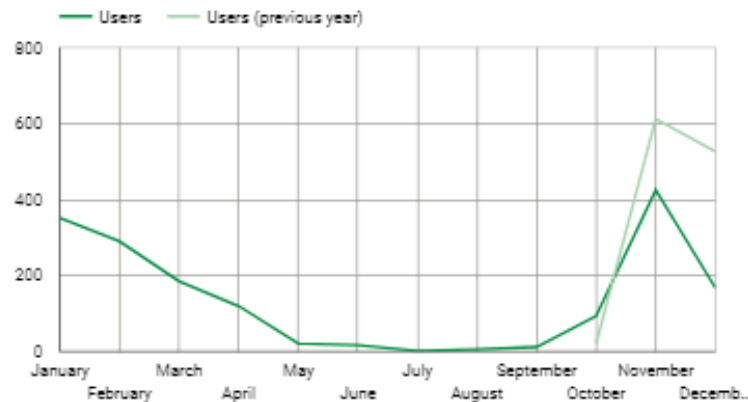
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Goal:
Citizens' participate more widely in observing and collecting data from environment

Impact indicator:
Citizens' activeness in providing observations

Are all the municipalities in the risk of flooding using flood risk data? (T)

Municipalities on the list TulvariskiKunnat using the data

Jan 1, 2017 - Dec 31, 2017

	Name	Number of requests (%) ▾
1.	Helsinki	46.9%
2.	Ylivieska	11.4%
3.	Pori	11.3%
4.	Vaasa	10.1%
5.	Seinäjoki	9.4%
6.	Jyväskylä	6.7%
7.	Kotka	1.9%
8.	Turku	1.1%
9.	Kirkkonummi	0.7%
10.	Sipoo	0.3%
11.	Lapua	0.1%

Total number of Tulvariskikunnat

37

1 - 11 / 11   ‹   ›

Monthly distribution of data access requests by municipalities using flood risk data:

Jan 1, 2017: 3,268
Feb 1, 2017: 2,321
Mar 1, 2017: 2,137
Apr 1, 2017: 3,034
May 1, 2017: 1,369
Jun 1, 2017: 1,282
Jul 1, 2017: 464
Aug 1, 2017: 1,917
Sep 1, 2017: 4,733
Oct 1, 2017: 4,945

Goal:
Decrease the vulnerability of cities in climate change

Impact indicator:
All municipalities that have flood risk areas use data of flood risks

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Data source: usage analytics from Spatineo Monitor
* See remark on last page

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

Jan 1, 2017 - Dec 29, 2017 ▾

Amount of requests per user group

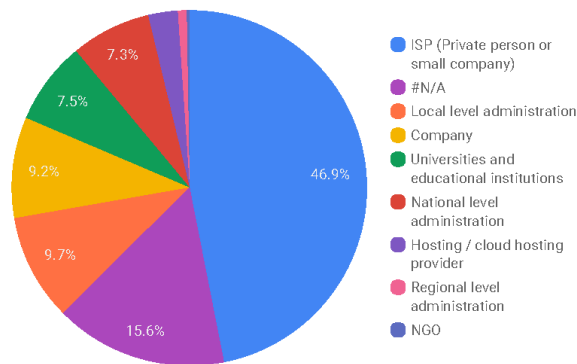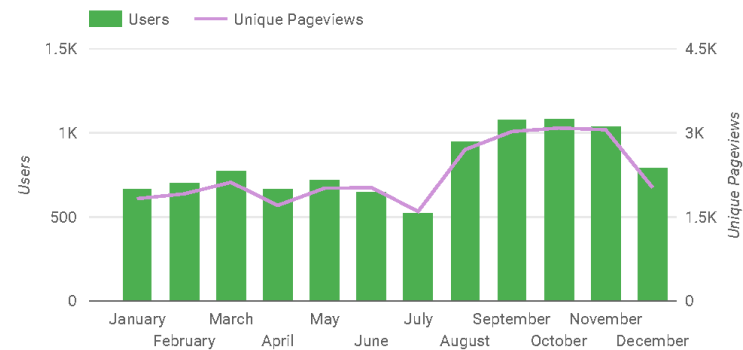| User group	Number of requests
ISP (Private person or small company)	70,275
National level administration	37,873
#N/A	28,729
Local level administration	25,188
Universities and educational institutions	16,794
Company	11,041
Hosting / cloud hosting provider	4,894
Regional level administration	631
NGO2	
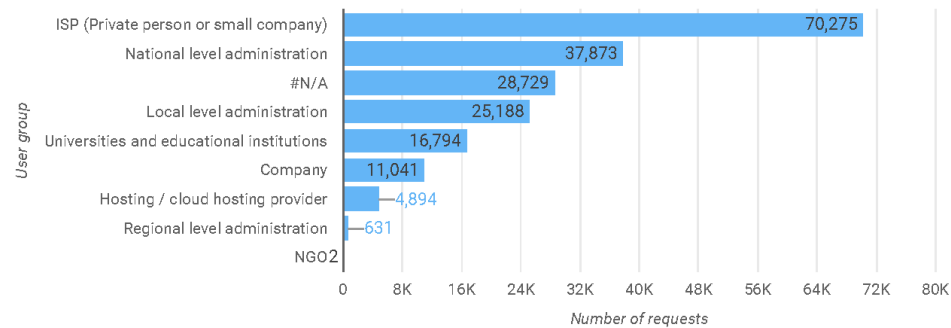
Goal:
Comprehensive information on built environment to authorities, companies and citizens

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

Distribution of users in user groups

- ISP (Private person or small company) — 46.9%
- #N/A — 15.6%
- Local level administration — 9.7%
- Company — 9.2%
- Universities and educational institutions — 7.5%
- National level administration — 7.3%
- Hosting / cloud hosting provider
- Regional level administration
- NGO

Monthly distribution of Users and Unique Pageviews

Data source: Google Analytics data and SYKE log files from LIITERI

Who are the users and how much environmental information services are used? (F)

Usage of services and distribution by user groups***

Year 2017
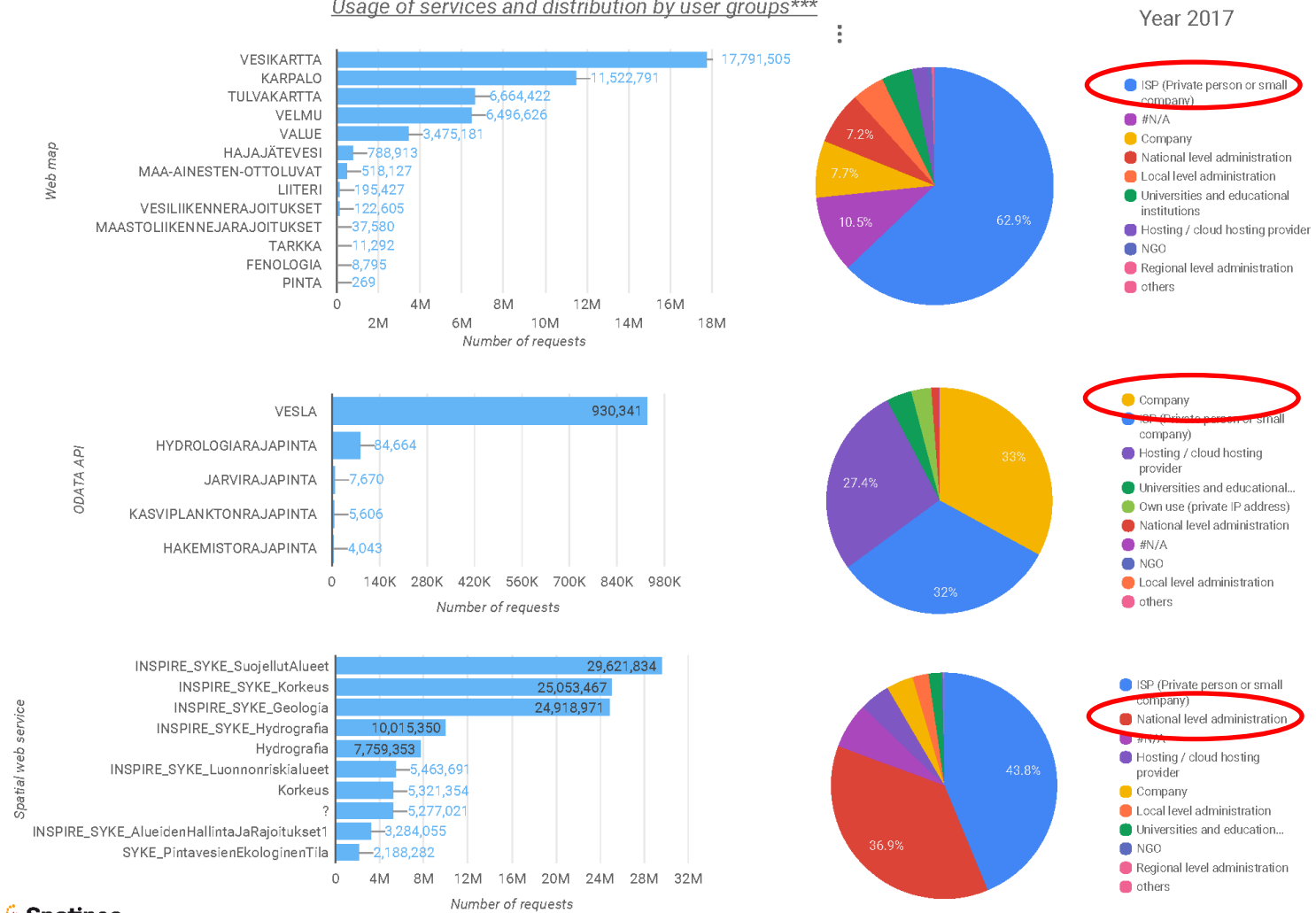
Goal:
Key information user groups use environmental information

Impact indicator:
Division of usage of environmental information in user groups

Data source: SYKE log files from web maps and ODATA, usage analytics from Spatineo Monitor
***See remark on last page

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- 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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