

Öppna geodatatjänster – används dom?

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Karttdagar 2016

Bakgrund

- Programmet för öppen information 2013-2015 inleddes i Finland våren 2013
- När organisationen öppnar data, förlorar den informationen om “kunderna”
 - Vem använder öppna geodatatjänster?
 - Vilka geodata används mest?
 - Externa / interna användare
- Exempel från Finland: Lantmäteriverket, Finlands miljöcentral, Trafikverket

Öppna geodatatjänster

- Öppna datalager kan användas
 - utan användningsbegränsningar enligt öppna användningsvillkor
 - avgiftsfritt
 - enligt självbetjäningsprincipen via elektroniska gränssnitt eller nedladdade filer
- Visnings- och nedladdningstjänster (WMS, WMTS, WFS)

Finlands miljöcentral SYKE öppnade data år 2008 och Lantmäteriverket småskaliga kartor år 2011

Confidential

Antal nedladdade nationella datafiler

TIETOKESKUS

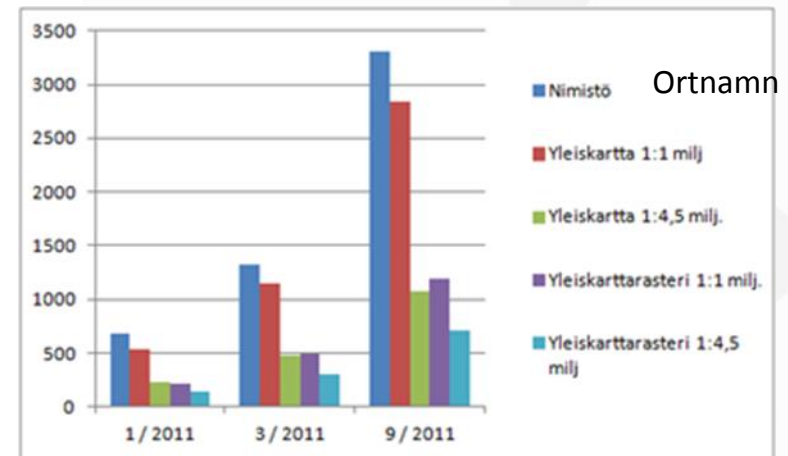
Valtakunnallisten aineistopakettien latausmäärät

	Avgift	2007 maksullinen	05/2008	2009	2010
*Pohjavesialueet		22	642	1486	1232
*Luonnonsuojelualueet		28	444	919	807
Natura2000		36	393	691	602
Valuma-aluejako		4	283	687	685
Arvokkaat kallioalueet		4	345	776	431
Suojeluohjelmat		17	236	382	362
Suokasvillisuusvyöhykkeet		2	154	207	129
Metsäkasvillisuusvyöhykkeet		2	152	287	210
*Rajoitusalueet		3	132	246	156
*Maakuntakaavat				276	309
Vesienhoitoalueet				44	359
Asuinalueet				355	364
Luonnon virkistyskäyttö				216	220
Yhdyskuntarakenne				355	272
Asemakaavoitettu alue				208	553
RakL mukaiset yleiskaavarajat				31	169
CORINE2000 (4 aineistoa)		41	82	92	72
CORINE2006					279
Meluselvitykset					25
Liikennealueiden riskiluokitus				173	220
Maisemamaakunnat				113	
yhteensä		159	2863	7431	7569

18.9.2004

* Päivitysväli kaksi kertaa vuodessa

S Y K E



Spatineo Monitor analyserar användare och användning

Spatineo Monitor
1113 services followed [Organize..](#)
Overview & reports **Monitoring & usage** Performance testing [Ja](#)

Service: INSPIRE_SYKE_Geologia #53
http://paikkatieto.ymparisto.fi/arcgis/services/INSPIRE/SYKE_Geologia/MapServer/WmsServer [Spatineo Directory page](#)

Assigned to service groups: SYKE [Edit groups](#) Stop following s

SYKE x

- INSPIRE_SYKE_Geologia**
WMS 1.3.0
- Pohjavesialue (EPSG:3067, 256x256...)
- Pohjavesialuerajat (EPSG:3067, 256...)
- INSPIRE_SYKE_Ortoilmakuvat**
WMS 1.3.0
- Image2000mosaiikki (EPSG:3067, 25...)
- Image2006mosaiikki (EPSG:3067, 25...)
- Image2012mosaiikki (EPSG:3067, 25...)
- SYKE_SCA2012**
WMS 1.3.0
- 116 (EPSG:4326, 256x256px, image/...
- SYKE_SWE2011**
WMS 1.3.0
- 0 (CRS:84, 256x256px, image/png, G...
- Kaukokartoitus_SYKE_SCA2011**
WMS 1.3.0
- 0 (CRS:84, 256x256px, image/png, G...
- Kaukokartoitus_SWE2011**
WMS 1.3.0
- [no title #1572]
WMS 1.3.0
- geo:NaturaKohde (EPSG:2393, 256x...)
- geo:NaturaKohde (CRS:84, 256x256...)

Search for a service

Service info
Standards compliance
Usage analytics
Meters & alerts
Sharing

Period: 1/1/2015 - 12/31/2015 Zoom out Last day Last week Last month

By segment

Organization/ISP	Addresses	Requests ↑	Avg req. ms
inet.fi	1,619	1,743,496	182
dnainternet.fi	773	1,110,771	144
kotinet.com	14	902,554	145
ramboll.fi	1	783,770	77
scansafe.net	3	615,688	92
destia.fi	1	577,376	101
elisa-mobile.fi	953	568,177	210
elisa-laajakaista.fi	643	538,505	165
194.89.193.x	1	484,877	161
pohjoiskarjala.net	12	477,186	71
Download	6,161	16,756,161	134

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Time User location **Request area**

Spatineo Monitor analyserar

Case: INSPIRE_SYKE_Hydrografia WMS

Period -

By segment

Country	Addresses	Requests ↑
Finland	6,221	9,461,380
Poland	14	100,912
Sweden	41	41,156
Germany	50	36,494
United Kingdom	22	34,885
Åland Islands	11	15,574
Norway	8	10,939
European Union	15	8,217
United States	65	6,461
Russia	11	5,811
Download	6,696	9,747,991

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Requested WMS offering

Layer name	Requests ↑	Transfer
PhysicalWaters.Catchments.DrainageBasin	3,261,926	
Jarvet	2,021,643	
PhysicalWaters.Catchments.RiverBasin	1,634,836	
Aluemaiset_joet	1,375,644	
Network.WatercourseLink	1,219,278	
Network.HydroNode	220,632	
PhysicalWaters.Catchments.RiverBasin,PhysicalWaters...	5,566	
PhysicalWaters.Catchments.DrainageBasin,PhysicalWa...	2,215	
Jarvet,Aluemaiset_joet,PhysicalWaters.Catchments.Riv...	1,192	
PhysicalWaters.Catchments.RiverBasin,PhysicalWaters...	764	
Download	9,747,991	

« < Page 1 of 6 > »

Period -

By segment

Country	Addresses	Requests ↑
Finland	23,423	14,917,634
European Union	72	254,947
Sweden	123	105,367
United States	178	42,934
Russia	34	31,372
Poland	22	25,293
United Kingdom	39	23,085
Denmark	35	20,454
Norway	28	11,593
Germany	57	10,799
Download	24,287	15,505,685

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Requested WMS offering

Layer name	Requests ↑	Transfer
PhysicalWaters.Catchments.DrainageBasin	4,542,563	5.4 GB
PhysicalWaters.Catchments.RiverBasin	4,127,988	5.0 GB
Jarvet	3,228,397	13.8 GB
Aluemaiset_joet	1,723,884	1.5 GB
Network.WatercourseLink	1,654,571	3.4 GB
Network.HydroNode	161,481	137.9 MB
Aluemaiset_joet, Jarvet	46,840	59.0 MB
PhysicalWaters.Catchments.RiverBasin,PhysicalWater...	4,532	24.0 MB
Network.HydroNode, Network.WatercourseLink, Physica...	3,221	15.6 MB
PhysicalWaters.Catchments.RiverBasin,PhysicalWater...	1,796	14.3 MB
Download	15,505,685	29.6 GB

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Lantmäteriverkets digitala terrängdata öppnades 1.5.2012 för avgiftsfri användning

- Terrängdata
 - terrängdatabasen
 - terrängkartmaterial i olika skalor
 - fixpunkter
 - höjdmodeller, laserskanningsdata
 - flygbilder och ortofoton
- Lantmäteriverkets avgiftsfria data är tillgängliga via WMS, WMTS och WFS tjänster

Lantmäteriverkets grundkarta och ortofoton var mest använda datalagern i senaste månaden

Confidential

Spatineo Monitor 1093 services followed Organize.. Overview & reports Monitoring & usage Performance testing Jaana Mäkelä

Service: Maanmittauslaitoksen Karttakuvapalvelu (WMS) #3659
https://ws.nls.fi/rasteriaineistot/image Spatineo Directory page

Assigned to service groups: MML Edit groups Stop following service

Service info Standards compliance Usage analytics Meters & alerts Sharing

By segment

Country	Addresses	Requests ↑	Avg req. ms
Finland	7,536	95,959,388	
Ireland	10	978,113	
France	2	143,387	
Germany	9	84,058	
United States	96	64,426	
Netherlands	3	13,463	
Canada	6	13,057	
Sweden	18	9,749	
United Kingdom	1	9,030	
Austria	2	3,775	
Total	7,725	97,288,989	

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Requested WMS offering

Layer name	Requests ↑	Transfer	Avg req. ms
peruskartta	28,190,624	394.1 GB	
ortokuva	26,278,027	507.5 GB	
ktj_kiinteistorajat	13,257,892	55.2 GB	
ktj_kiinteistotunnukset	10,291,070	26.4 GB	
maastokartta_50k	3,510,290	130.0 GB	
maastokartta_100k	2,410,525	148.3 GB	
taustakartta_160k	2,385,029	170.1 GB	
maastokartta_250k	1,629,040	80.0 GB	
ortokuva_vaaravari	1,100,393	194.8 GB	
taustakartta_5k	1,067,235	23.5 GB	
Total	97,288,989	2.0 TB	

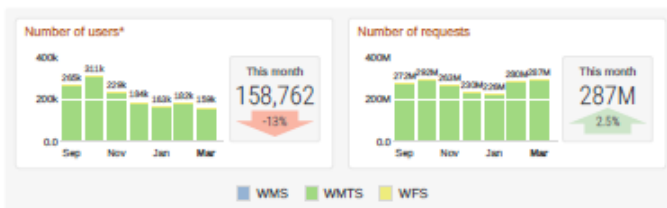
Time User location Request area

Map showing request locations across Europe. Markers indicate request counts for various countries: U.K. (87k), France (143k), Germany (84k), Austria (3.8k), Italy (803), Spain (10), U.S. (96), Canada (6), Sweden (18), Denmark (1), Norway (15), Finland (7.5k), Ireland (10), Poland (42), Czech Rep. (4k), Hungary (4k), Romania (7), Ukraine (7), Belarus (7), Lithuania (13k), Latvia (13k), Estonia (13k), Russia (18k), Moldova (18k), Greece (13k), Bulgaria (13k), Turkey (13k), Syria (13k), Lebanon (13k), Israel (13k), Jordan (13k), Morocco (13k).

'Executive report' visar de viktigaste KPIs av tjänsterna

Spatineo Executive report March 2016
 20 services included in the report, 11 with missing data

Users and service usage

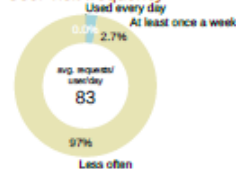


Usage compared to previous years

Yearly totals January - March

	Users	Requests
2016	504k +49%	793M +67%
2015	338k +54%	474M +153%
2014	220k	187M
2013	0.0	0.0
2012	0.0	0.0

User visit frequency



Most popular data sets

Name	Requests	Users	Service Type	Service ID
taustakartta	70M	85k	WMTS	#12048
maastokartta	61M	46k	WMTS	#12048
kiintolistojaotus	57M	42k	WMTS	#12047

Trending data sets

Biggest consecutive increase in user base in last three months, by layer name / feature type

Name	Users	change	Requests	Service Type	Service ID
peruskartta_jako_rk1	185	>+1000%	1,000k	WMTS	#13469
kantakartta	50	>+1000%	12M	WMTS	#27030
korkeusmalli_vrtnovalo	1.5k	+78%	2.9M	WMTS	#12048

Top origins for service requests

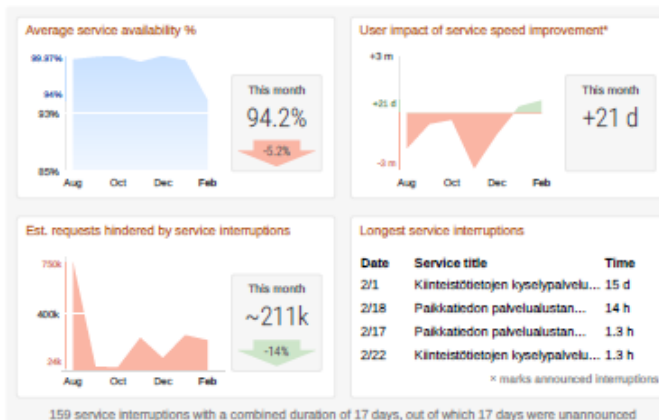
Requests from an unknown origin not included

Referring site	Total users	Number of requests			Total
		WMS	WMTS	WFS	
www.paikkatietokkuna.fi	72k	3.4k	145M	0.0	145M
kiintolistotietopalvelu.maanmittau...	6.2k	0.0	58M	0.0	58M
hkp.maanmittauslaitos.fi	13k	0.0	4.6M	0.0	4.6M

*) Unique IP addresses within a month are counted as the number of users for each service in the report

Spatineo Executive report February 2016
 20 services included in the report, 11 with missing data

Quality of Service and network traffic



*) Difference from the latest six-month average response time multiplied by the monthly request count for all included services

Most used services

Service title	Requests	Users	Transfer	Type	Service ID
MML Maasto	163M	121k	1.9 TB	WMTS	#12048
Maanmittauslaitoksen Karttakuvapalvelu (WMTS)	92M	52k	227 GiB	WMTS	#12047
Maanmittauslaitoksen Karttakuvapalvelu (WMTS)	13M	35	19 GiB	WMTS	#27030

Services with the biggest speed changes


Service title	Response time		No. of users	
	Current	% change	Current	% change
Nimistön kyselypalvelu (WFS)	309 ms	-13%		
GeoServer Web Feature Service	209 ms	-9.4%	56	+30%
Maanmittauslaitoksen Karttakuvapalvelu (WMTS)	448 ms	-9.1%	4.2k	+12%

Services with the biggest error rates

Service title	Error %		No. of users	
	Current	% change	Current	% change
Paikkatiedon palveluulustan WMS-palvelu	4.61	+739%	1.4k	-3.7%
Maanmittauslaitoksen Karttakuvapalvelu (WMTS) JuuKICLab-pilotti...	0.50	+797%	1.9k	+33%
GeoServer Web Feature Service	0.22	+48%	56	+30%



Lantmäteriverket – mars 2016

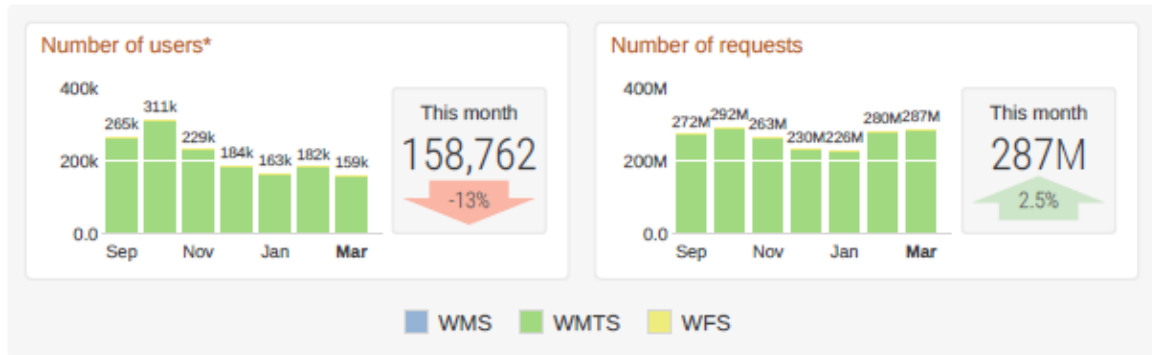

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20 services included in the report, 11 with missing data

Executive report
March 2016

Users and service usage

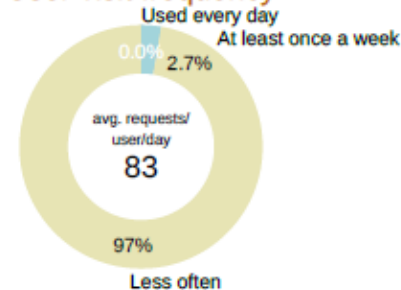


Usage compared to previous years

Yearly totals January - March

	Users		Requests	
2016	504k	+49%	793M	+67%
2015	338k	+54%	474M	+153%
2014	220k		187M	
2013	0.0		0.0	
2012	0.0		0.0	

User visit frequency



Lantmäteriverket – mars 2016

Most popular data sets

Name	Most requests by layer name / feature type			
	Requests	Users	Service Type	Service ID
taustakartta	70M	85k	WMTS	#12048
maastokartta	61M	46k	WMTS	#12048
kiinteistojaotus	57M	42k	WMTS	#12047

Trending data sets

Biggest consecutive increase in user base in last three months, by layer name / feature type

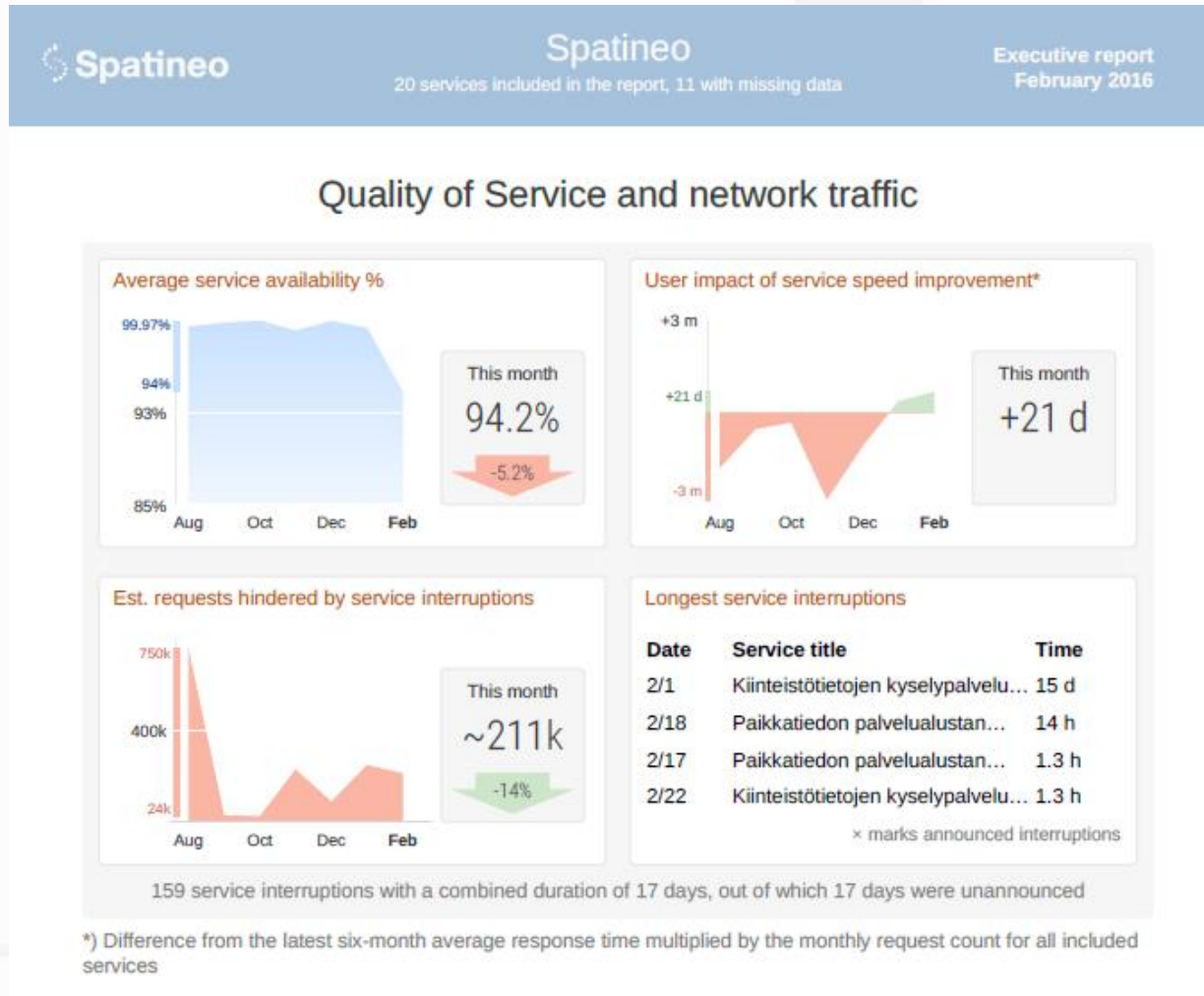
Name	Users	change	Requests	Service Type	Service ID
peruskartta_jako_rk1	185	>+1000%	1,000k	WMTS	#13469
kantakartta	50	>+1000%	12M	WMTS	#27030
korkeusmalli_vinovalo	1.5k	+78%	2.9M	WMTS	#12048

Top origins for service requests

Requests from an unknown origin not included

Referring site	Total users	Number of requests			
		WMS	WMTS	WFS	Total
www.paikkatietoikkuna.fi	72k	3.4k	145M	0.0	145M
kiinteistotietopalvelu.maanmittau...	6.2k	0.0	58M	0.0	58M
hkp.maanmittauslaitos.fi	13k	0.0	4.6M	0.0	4.6M

Lantmäteriverket – februari 2016



Trafikverkets öppna data innehåller information om trafiknäten

- Trafiknät: vägnät, bannät och farleder
 - **Digiroad** innehåller detaljerade uppgifter om det finländska väg- och gatunätet och vägnätets viktigaste egenskaper
 - **Farledsnätet** (farleder, säkerhetsanordningar, farledsområden osv.) öppnades i början av **2016**
- Trafikverket delar öppna data via visnings- och nedladdningstjänster

Trafikverket – mars 2016

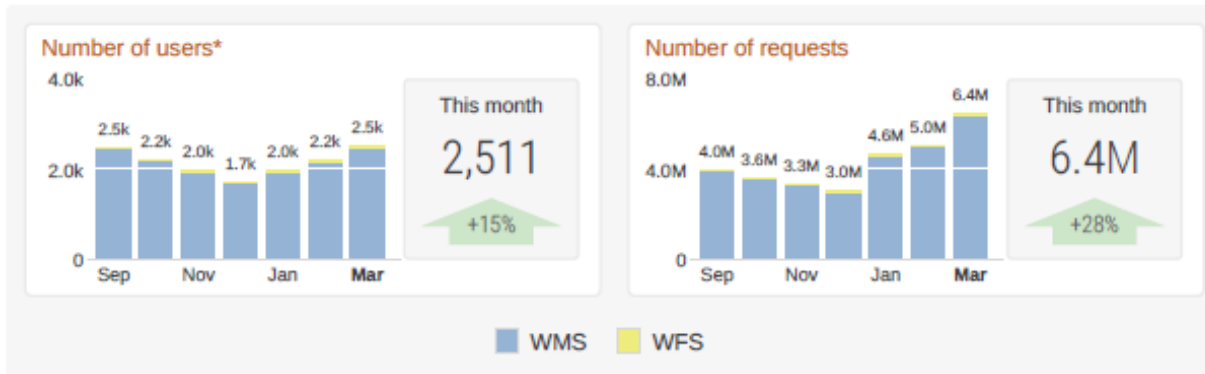


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10 services included in the report, 8 with missing data

Executive report
March 2016

Users and service usage

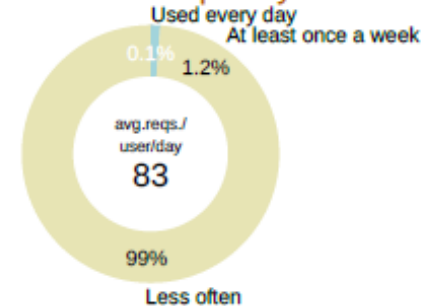


Usage compared to previous years

Yearly totals January - March

	Users		Requests	
2016	6.7k	+43%	16M	+113%
2015	4.7k		7.6M	
2014	0		0	
2013	0		0	
2012	0		0	

User visit frequency



Trafikverket – mars 2016

Most popular data sets

Name		Requests	Users	Service Type	Service ID
rajoitettu:syvyyskayra_v	Djupkurva	1.8M	5	WMS	#23168
rajoitettu:syvyyspiste_p	Djuppunkt	1.4M	5	WMS	#23168
rajoitettu:syvyysalue_a	Djupområde	631k	15	WMS	#23168

Most requests by layer name / feature type

Trending data sets

Name		Users	change	Requests	Service Type	Service ID
beta:dr_liikennevalo	Trafikljus	9	+350%	1.7k	WMS	#23168
rajoitettu:syvyysalue_a	Djupområde	15	+275%	631k	WMS	#23168
avoin:ajoradan_leveys	Bred av körbana	7	+250%	52k	WFS	#23170

Biggest consecutive increase in user base in last three months, by layer name / feature type

Top origins for service requests

Referring site	Total users	Number of requests		
		WMS	WFS	Total
www.paikkatietoikkuna.fi	1.3k	2.0M	0	2.0M
localhost	10	238k	0	238k
www2.liikennevirasto.fi	627	146k	0	146k

Requests from an unknown origin not included

Bra analysverktyg ger rätt information till ägaren av tjänsten

- Rikta resurser till geodata som används mest
- Gör användarnas interna processer mer effektiv
- Möjliggör pålitliga eService