

4th Workshop on the use of GIS/OGC standards in meteorology
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Improving the Quality of Spatial Web Services with Spatineo Monitor

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Spatineo Inc.

A European start-up company focused in Spatial Web Services.

Founded in 2011, 6 employees, offices in Helsinki (Finland) and Berlin (Germany).

Two web-based (SaaS) products:
commercially licensed **Spatineo Monitor**
and free-of-charge **Spatineo Directory**

With Spatineo You Can

Monitor health and **analyze** usage of your spatial web services

Validate their standards compliance and test their **performance**

Keep the user communities **informed** and **engage** with them

Meteo

GeoServer WMS 1.3.0

● anjalank

GeoServer WMS 1.3.0

● eurooppa

Finnish Climate WMS 1.3.0

● climategu

NASA Global WMTS 1.0.0

● AIRS_CO

Finnish Meteorology WMS 1.1.1

● SSPI_20

ECMWF WMS 1.1.1

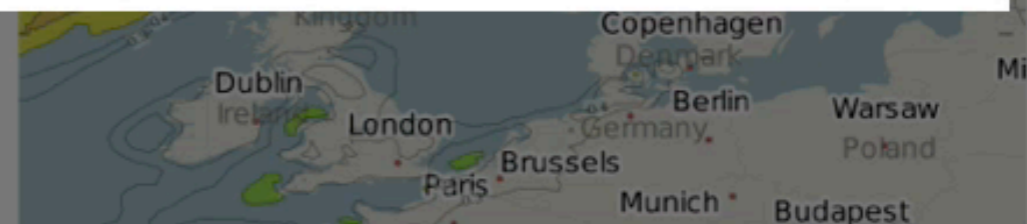
● 10m_fg...

Spatineo Monitor demo scenario 1

Server problem

300 hPa geopotential z300

← Page 2 of 11 →



Meters 2m temperature extreme forecast index

This offering has never been measured

Add new meter

Abstract 2m temperature extreme forecast index

Extreme forecast index (EFI) 2m temperature. The Extreme Forecast Index (EFI) measures how far away from the model climatic distribution the EPS forecast is. It scales from -1 to 1 (all members reach respectively unprecedented small and unprecedented large values). More details can be found; <http://www.ecmwf.int/publications/newsletters/pdf/107.pdf> http://www.ecmwf.int/contrib/pages/EFI_climate.html

Search for a service

Capabilities Validator

Existing validation test suites:

OGC Web Map Service 1.3.0

OGC Web Map Tile Service 1.0.0

INSPIRE View Services profiles for WMS & WMTS

In roadmap:

OGC Web Feature Service 2.0 & 1.1.0

OGC Web Map Service 1.1.1

INSPIRE Download Services profiles for WFS & Atom

Linked ISO 19115 Metadata record validation

Linked INSPIRE Metadata record validation

OGC Web Coverage Service 2.0

Service: Liikenneviraston WMS #6

<http://kartta.liikennevirasto.fi/maaliikenne/ows> [Spatineo Directory page](#)

Assigned to service groups: [Edit groups](#)

Service info	Standards compliance	Usage analytics	Meters & alerts
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Standards compliance targets for this service

This service is currently validated using following standardization test suites: [Edit..](#)

- INSPIRE View Services, INSPIRE profile of ISO 19128:2005 (WMS 1.3)

Validation results (Feb 19, 2013 at 10:27)

[Re-validate now](#)

✓ INSPIRE View Services, INSPIRE profile of ISO 19128:2005 (WMS 1.3): passed

General XML compliance tests

▶ 2 passed tests

Web Map Service tests

▶ 21 passed tests

INSPIRE View Service tests

▶ 5 passed tests

▶ 1 warning

Capabilities document source code

```

1 <?xml version="1.0" encoding="UTF-8" standalone="no"?>
2 <WMS_Capabilities xmlns="http://www.opengis.net/wms" xmlns:gco="http://schemas.opengis.net/
3   <Service>
4     <Name>WMS</Name>
5     <Title>Liikenneviraston WMS</Title>
6     <Abstract>Liikenneviraston WMS-palvelu sisältää tie-, rautatie- ja meriliikenneverkko
7     <KeywordList>
8       <Keyword>WMS</Keyword>
9       <Keyword>Rautatieverkko</Keyword>
10      <Keyword>Liikennevirasto</Keyword>
11      <Keyword>Katselupalvelu</Keyword>
12      <Keyword>Tiestö</Keyword>
13    </KeywordList>
14    <OnlineResource xlink:href="http://geoserver.sourceforge.net/html/index.php" xlink:t
15    <ContactInformation>
16      <ContactPersonPrimary>
17        <ContactPerson/>

```

All followed services ▼

hki_wms

WMS 1.1.1

Kantakartta (EPSG:2392, 256x256px, ima

Bergbau_Internet

WMS 1.1.1

● Erlaubnisse Erdwaerme (EPSG:31466, 25

Öffentliche Einrichtungen - Gemeinde V

WMS 1.3.0

wild_poi (EPSG:4326, 256x256px, image/)
poi_wildau (EPSG:25833, 256x256px, ima

Liikenneviraston WMS

WMS 1.3.0

katselupalvelu:Ajoradan leveys (EPSG:3067, 256x256px, image/png)
katselupalvelu:Tien paallyste (EPSG:3067, 256x256px, image/png)
katselupalvelu:Tierekisterin osoitelisto (EP
katselupalvelu:Valaistus (EPSG:3067, 256x256px, image/png)
katselupalvelu:bussipysakit (EPSG:3067, 256x256px, image/png)
katselupalvelu:digiroad (EPSG:3067, 256x256px, image/png)
katselupalvelu:liikennemaarat (EPSG:3067, 256x256px, image/png)
katselupalvelu:lisakaistat (EPSG:3067, 256x256px, image/png)
katselupalvelu:nopeusrajoitukset (EPSG:3067, 256x256px, image/png)
katselupalvelu:palvelualueet (EPSG:3067, 256x256px, image/png)
katselupalvelu:rataverkko (EPSG:3067, 256x256px, image/png)
katselupalvelu:talvinopeusrajoitukset (EPSG:3067, 256x256px, image/png)
katselupalvelu:tasoristeykset (EPSG:3067, 256x256px, image/png)
katselupalvelu:tieluokat (EPSG:3067, 256x256px, image/png)

Mavin julkinen paikkatietopalvelu

WMS 1.3.0

Peltolohkot2008 (EPSG:3067, 256x256px, image/png)

FIS-Broker WMS-Service SenStadt Berlin

WMS 1.1.1

0 (EPSG:3068, 256x256px, image/png)

Search for a service ▼

INSPIRE View Service tests

▼ 5 passed tests

GetCapabilities and GetMap operations are mandatory

The following ISO 19128 operations shall be implemented for an INSPIRE View service: GetCapabilities and GetMap.
Implementation Requirement 3, Technical Guidance View Services 3.1, page 16

INSPIRE extended capabilities is mandatory

Capabilities document must contain INSPIRE Extended capabilities element.
Implementation Requirement 4, Technical Guidance View Services 3.1, page 17

Mandatory INSPIRE metadata element must be given

All mandatory INSPIRE metadata elements must be given either embedded or by a link to an INSPIRE Service metadata record.
Implementation Requirements 6 and 7, Technical Guidance View Services 3.1, page 19

GetMap must support PNG or Gif

PNG or Gif image format must be supported by GetMap request.
Implementation Requirement 31, Technical Guidance View Services 3.1, page 30

Capabilities document source code

```
211         <Format>image/png</Format>
212         <OnlineResource xlink:href="http://paikkatieto.ympari
213         </LegendURL>
214     </Style>
215     <MaxScaleDenominator>18898809.523810</MaxScaleDenominator>
216     <MinScaleDenominator>9449.404762</MinScaleDenominator>
217 </Layer>
218 <Layer queryable="1">
219     <Name>Reporting.WFDLake</Name>
220     <Title><![CDATA[VPD Järvi]]></Title>
221     <Abstract><![CDATA[VPD Järvi]]></Abstract>
222     <CRS>CRS:84</CRS>
223     <CRS>EPSG:4326</CRS>
224     <CRS>EPSG:2393</CRS>
225     <CRS>EPSG:4258</CRS>
226     <CRS>EPSG:3034</CRS>
227     <CRS>EPSG:3035</CRS>
228     <CRS>EPSG:3046</CRS>
229     <CRS>EPSG:3047</CRS>
230     <CRS>EPSG:3048</CRS>
231     <CRS>EPSG:3067</CRS>
232     <EX_GeographicBoundingBox>
233     <westBoundLongitude>16.384607</westBoundLongitude>
234     <eastBoundLongitude>33.079527</eastBoundLongitude>
235     <southBoundLatitude>59.724297</southBoundLatitude>
236     <northBoundLatitude>70.035181</northBoundLatitude>
237 </EX_GeographicBoundingBox>
238     <BoundingBox CRS="CRS:84" maxx="33.079527" maxy="70.035181" minx="16.
239     <BoundingBox CRS="EPSG:4326" maxx="70.035181" maxy="33.079527" minx="
240     <BoundingBox CRS="EPSG:2393" maxx="7773112.500000" maxy="3732599.3370
241     <BoundingBox CRS="EPSG:4258" maxx="70.035181" maxy="33.079527" minx="
242     <BoundingBox CRS="EPSG:3034" maxx="70.035181" maxy="33.079527" minx="
```


In Roadmap, Spring 2013

Followed service status overview (dashboard)

Communication with user community: announce service interruptions & publish notifications

Auto-generated weekly/monthly/yearly reports

Full WFS support for monitoring & analytics

Web Services stress testing: Spatineo Performance

Give us a try

Grab my sleeve for a **live-demo** at any time during this meeting

Request a **30-day free trial** at
<http://www.spatineo.com/spatineo-monitor/>

Go and find thousands of Spatial Web Services and communities in our **free Spatineo Directory**
<http://www.spatineo.com/>