



Standardisation in Service-Oriented Maps

SOMAP Symposium
Vienna 22./23. November 2012



Symposium on Service-Oriented Mapping
SOMAP 2012
Vienna, November 22-23 2012

Athina Trakas
Open Geospatial Consortium
Director European Services
atrakas@opengeospatial.org
<http://www.opengeospatial.org>

The presentation is about...



- ... **why interoperability & open standards matter**
- ... **OGC as organisation**
- ... **Standards and cartography**

SOMAP 2012, Vienna

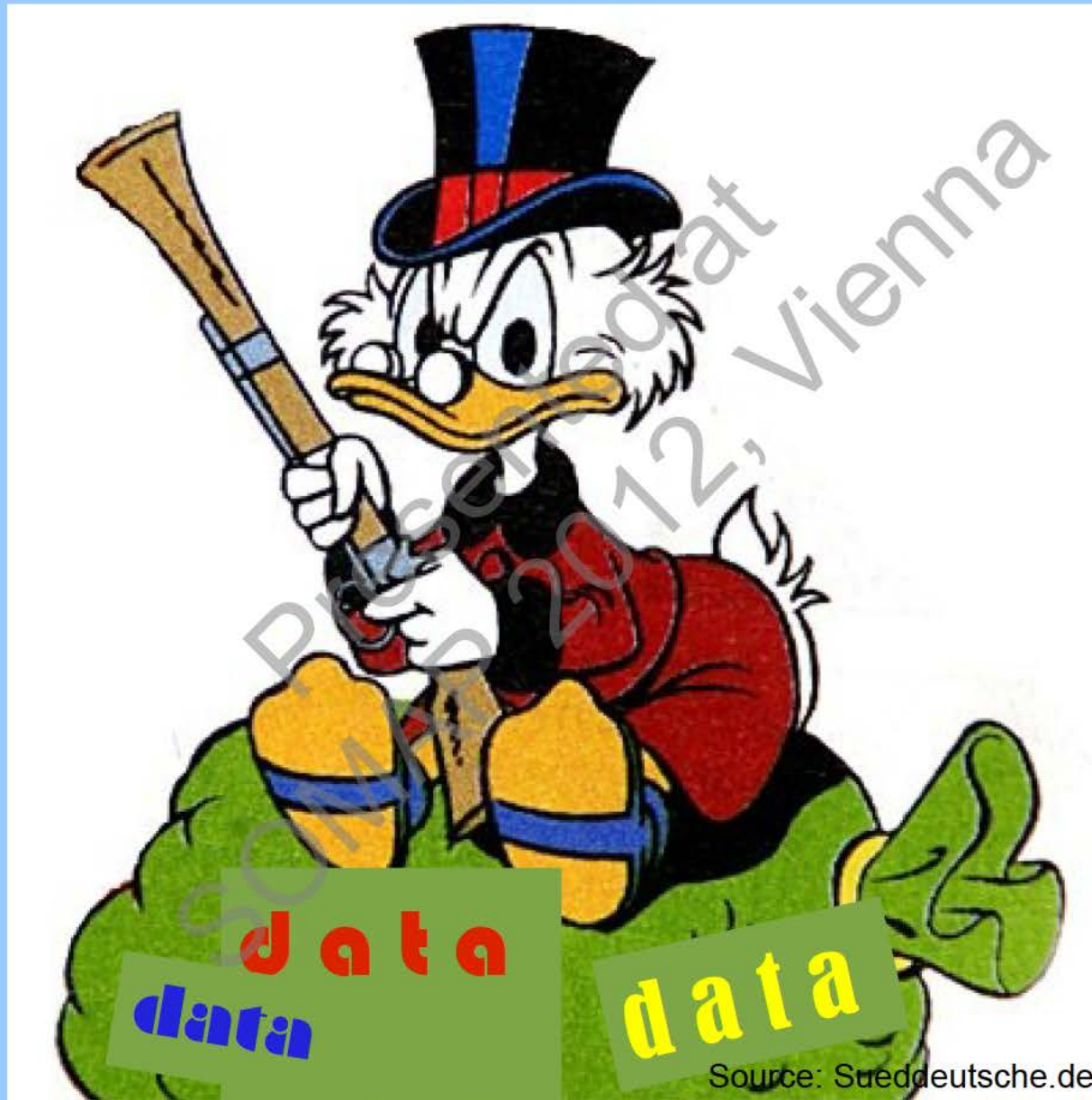


What is it all about?

Interoperability & Open Standards

SOMAP 2012 Presented at Vienna

Making your treasures accessible & re-usable



Standards Development is not easy!



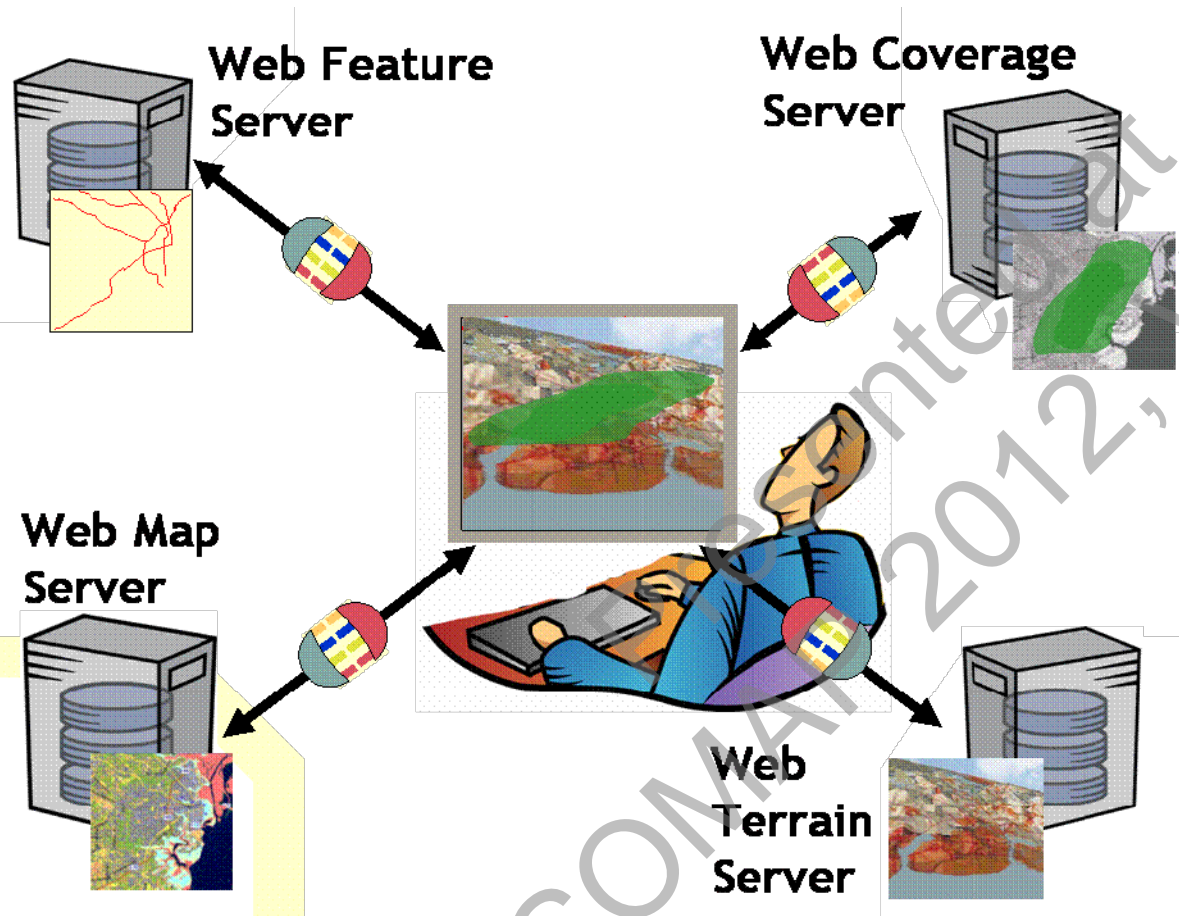


**Standards are
like parachutes:
they work best
when they're
open.** Mary Mc Rae, OASIS*

* "Minds, like parachutes, function better when open, but, like fists, they strike harder when closed." — L.E. Modesitt, Jr., *American Author* (1943 --)

Source picture: <http://www.all-hd-wallpapers.com/wallpapers/sports/425236.jpg>

Geo* and Location* on the Web



Just as `http://` is the dial tone of the World Wide Web, and `html / xml` are the standard encodings, the geospatial web is enabled by OGC standards.



Some facts about the OGC



<http://www.youtube.com/ogcvideo>

→ more videos on OGC's Youtube Channel:
<http://www.youtube.com/user/ogcvideo/videos>

OGC Members (examples)

<http://www.opengeospatial.org/ogc/members>



- AIT Austrian Institute of Technology
- City of Vienna
- EOX IT Services GmbH
- Frequentis AG
- Salzburg University
- Technical University of Vienna, Institut Geoinformation
- United Nations Geographic Information Working Group (GIWG)
- Wikitude GmbH
- Australian Bureau of Meteorology
- Lantmatäriet Sweden
- Ghent University
- Technical University Munich
- Joint Research Centre
- FAA
- German Fed Agency for Cartography and Geodesy
- Geospatial Information Authority of Japan
- Con terra
- ESRI
- EuroGeographics
- ECMWF
- IGN France
- ITC-University of Twente
- Danish National Survey & Cadaster
- Dubai Municipality
- Ministerio de Bienes Nacionales Secretaria Ejecutiva SNIT
- Ordnance Survey
- US Geological Survey

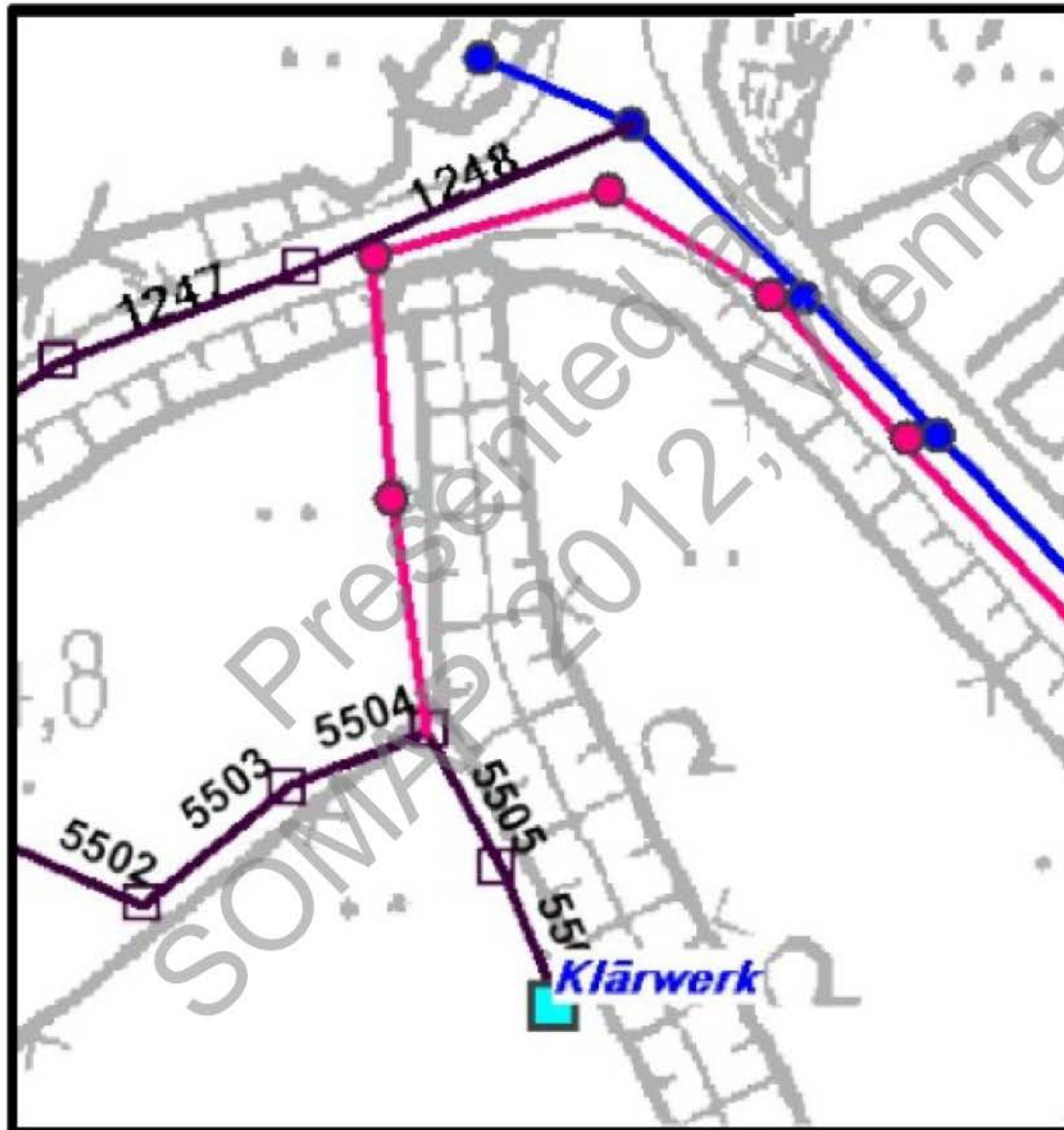
... and many more members...



OGC standards relevant for mapping

Presented at
SOMAP 2012, Vienna

Styled Layer Descriptor - Symbology Encoding





OGC standards relevant for mapping

The « Klärwerksplan » use case*

*http://geoconf.geosummit.ch/share/public/GEOSummit/web/2012/Vortraege/GEOSummit2012_WS3_gesamt_02.pdf

→ pages 18-21 in "3a. Portrayal interoperability and cartographic content sharing" by Olivier Ertz (HEIG-VD) and Erwan Bocher (IRSTV)



More examples

Presented at
SOMAP 2012, Vienna

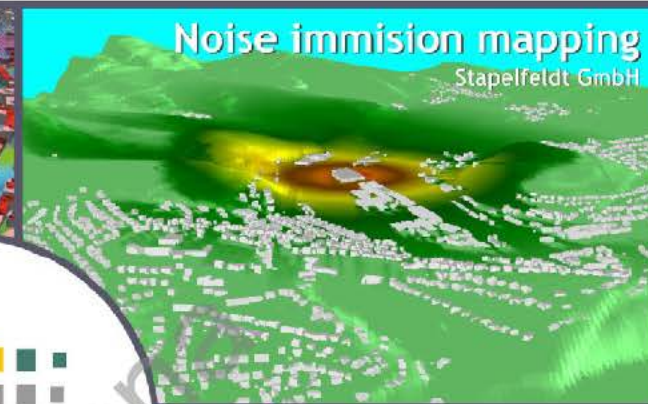
Disaster management
Kreis Recklinghausen



Radio network planning
T-Mobile



Noise immision mapping
Stapelfeldt GmbH



for 3d city models



Police simulator
Rheinmetall Defence Electronics



Business development
& tourism
Google



Münsterplatz
Navigation



Facility management



Urban planning



Architecture
Architekturwerkstatt SenStadt Berlin

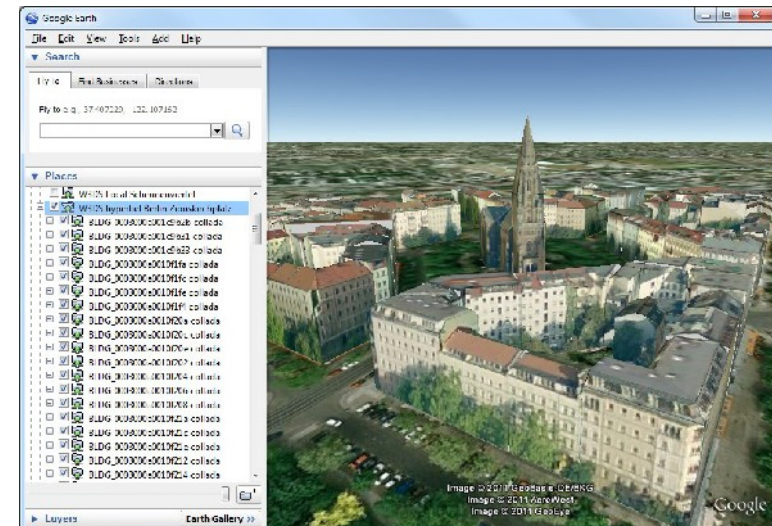
3D Portrayal Interoperability Experiment

<http://www.opengeospatial.org/projects/initiatives/3dpie>



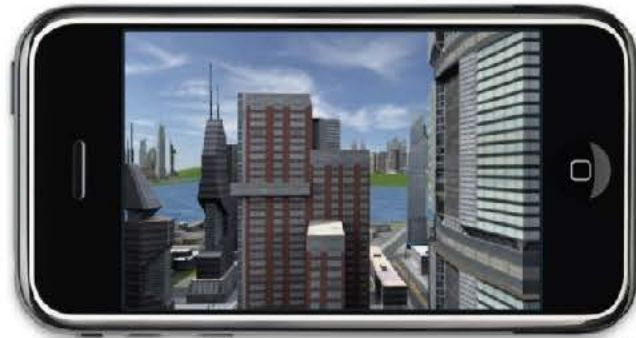
Describes the results of an Interoperability Experiment (IE) on the portrayal of 3D geospatial information. The report contains technical details on processing 3D information in an OGC service environment as well as best practices on how to portray large data sets in urban planning scenarios, taking into account architectures and capabilities of interactive 3D graphics.

- Represents hundreds of hours of research, development, and experimentation



Augmented Reality

<http://www.opengeospatial.org/projects/groups/arml2.0swg>



<http://www.webviewservice.org/>



Augmented Reality Markup Language (ARML) under development as a profile of OGC KML



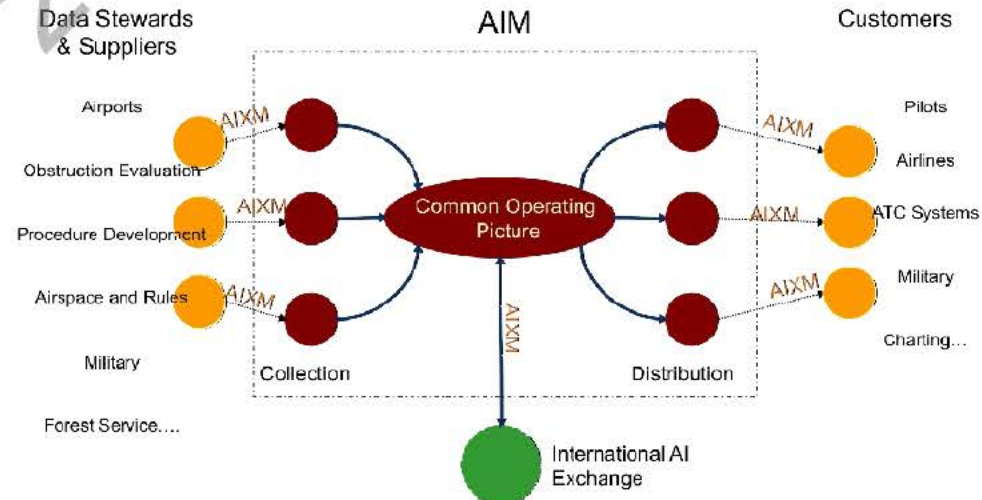
Source: <http://en.wikipedia.org/wiki/File:Wikitude.jpg>

Aeronautical Information Management (AIM)

(OGC Web Services Phase 6, 7, 8 & 9 Testbeds)



- Develop and test standards-based service-oriented architecture to support the provision of aeronautical information directly to flight decks and Electronic Flight Bags (EFB)
- Support vision for Aeronautical Information Management
 - Interconnected systems with many actors and many users
 - Need for real-time information used in flight planning, navigation, rerouting, etc
 - Right information at the right time at the right place to the right user
 - End-to-end management of information
 - aviation styling and portrayal tasks (including ICAO guidance for SLD)





In the end...

Presented at
SOMAP 2012, Vienna

Communication & Participation in our work



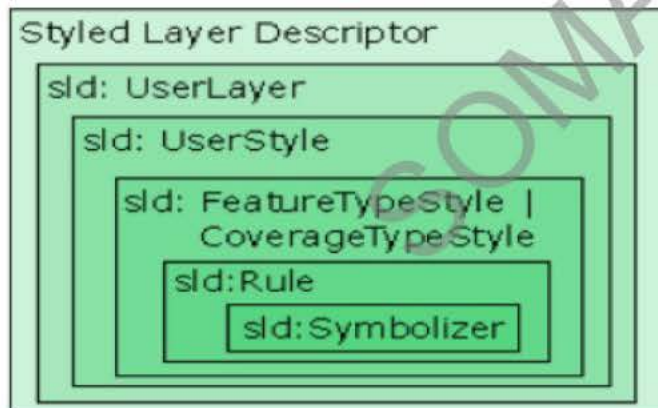
Interested?



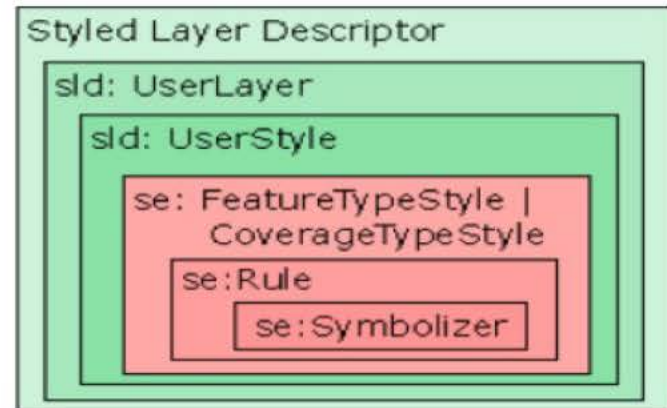
Olivier Ertz and Erwan Bocher are trying to build a local (~Europe) research group on the topic, with support and really active people. „If you catch people at SOMAP willing to actively help to give structure to such a research group and join a potential OGC SE SWG, that would be great.” (contact: Olivier.Ertz@heig-vd.ch)

From SLD 1.0.0 to SLD 1.1.0 + SE 1.1.0

SLD-Schema Version 1.0.0



SLD-Schema Version 1.1.0
und SE-Schema Version 1.1.0



Summarizing



- Lack of interoperability is lowering value of data
- need for cross boundary & cross community communication and cooperation
- OGC standards enable the geospatial web
- Separate style from data
- Use services...

SOMAP 2012 Presented at Vienna

**Thank you for your attention
... and questions!**



Athina Trakas

**Director European Service
OpenGeospatial Consortium, Inc.**

**Heerstr. 162
53111 Bonn**

Tel.: +49 – 228 – 54 88 99 42

Mobil: +49 – 173 – 211 2623

eMail: atrakas@opengeospatial.org

web: <http://www.opengeospatial.org>