



DWA Expertengespräch GIS und GDI in der Wasserwirtschaft

**Welche inhaltlichen Standards
sind auf dem Weg? - und ein paar Gedanken**

Berlin, 26. April 2013

Standards und Interoperabilität



Ein wichtiger Faktor für den Zugang zu verteilten Daten ist die Standardisierung. Damit ist die Definition allgemeingültiger und gemeinsamer Schnittstellen zu verstehen, die Interoperabilität ermöglichen.

Ebenen von Interoperabilität



Cooperating partners with compatible visions, aligned priorities, and focused objectives

Political Context

Aligned legislation so that exchanged data is accorded proper legal weight

Legal Interoperability

Legislative Alignment

Coordinated processes in which different organisations achieve a previously agreed and mutually beneficial goal

Organisational Interoperability

Organisation and Process Alignment

Precise meaning of exchanged information which is preserved and understood by all parties

Semantic Interoperability

Semantic Alignment

Planning of technical issues involved in linking computer systems and services

Technical Interoperability

Interaction & Transport

Source: European Interoperability Framework, Annex II, p 26

Was also macht das OGC?



Die OGC Vision

Eine Informationswelt schaffen, in der Geoinformationen und Geodienste über Netzwerk-, Applikations- und Plattformgrenzen hinweg integriert und bereitgestellt werden können.

Die OGC Mission

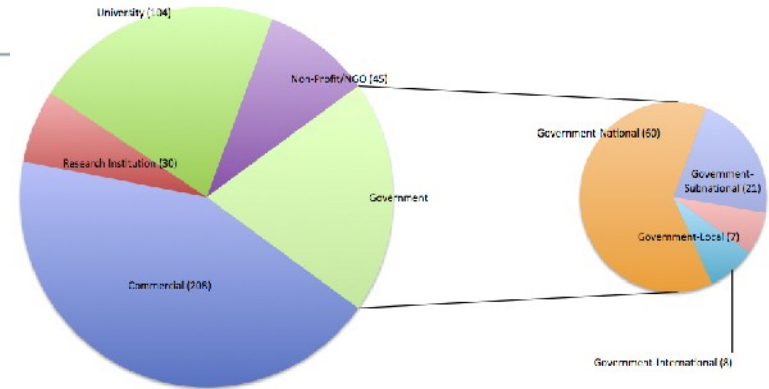
Unsere zentrale Aufgabe ist es, ein globales Forum für die Entwicklung, Förderung und Harmonisierung von offenen und frei verfügbaren raumbezogenen Standards zu sein.

OGC - Kurzüberblick



- Gegründet 1994, not for profit, konsens-basiert, freiwillig
- 475+ Mitglieder (Industrie, öffentlicher Verwaltung und Behörden, Wissenschaft) (April 2013) <http://www.opengeospatial.org/ogc/members>
- 23 Angestellte
- 30+ OGC Standards (einige sind ISO Standards) <http://www.opengeospatial.org/standards>
- OGC Standards in mehreren hundert Softwareprodukten implementiert <http://www.opengeospatial.org/resource/products>
- Große, weltweite Nutzer- und Entwicklercommunity
- Kooperation mit anderen (Standardisierungs-) Organisationen, z.B. CEN/TC 287, ISO/TC 211, OSGeo etc. <http://www.opengeospatial.org/ogc/alliancepartners>

Worldwide: OGC Member Types as at 31 Dec 2012





Beispiele und weitere inhaltliche Standards

Ground Water ML & WaterML (mehr von Roland Funke)



- „**WaterML2.0 part 2: Ratings, Gaugings and Sections**“ (OGC 13-021r1)
 - approved for release as an OGC Discussion Paper
 - next step approval as an OGC standard
- Active OGC ground water interoperability experiment.
 - activity (began on 23 October 2012) will develop & test the candidate standard **OGC Groundwater Markup Language (GWML) 2**
 - harmonizing and advancing existing initiatives such as GWML1, the EU-INSPIRE effort, GeoSciML, and others
 - later: advance toward adoption as the OGC Groundwater Markup Language 2 (GWML 2) Standard.

Beispiel – CHISP US-Kanadisches Pilotprojekt (1)



In November 2012, members of the Open Geospatial Consortium (OGC) began a project called the OGC **Climate-Hydrology Information Sharing Pilot, Phase 1**, or CHISP-1, to test solutions to these shared modeling and assessment challenges.

- Climatology-Hydrology Information Sharing Pilot, Phase 1 (CHISP-1)
- Sponsors



INTRODUCTION

Flashpoints and Collaboration: How problems can inspire innovative solutions for Canada, the US, and the governance of shared waters

The Canada-US border offers a leading example of transboundary water governance.

These two countries have worked together for more than one hundred years – through changing economic and social climates – to co-manage shared resources. With more than 8,800 kilometres (5,468 miles) of shared borders (including 2,475 kilometres (1,537 miles) with Alaska), and huge bodies of water to co-manage (from the Great



Source: Original map.
Cartographer: Eric Leinberger, Department of Geography, UBC.

Inhalte von Luis Bermudez (OGC)



CHISP Pilot Schedule

- Project Kickoff: 13-14 November 2012
- Preliminary Design: 18 January 2013
- Project Demonstration: 16 April 2013
- Project Complete: 26 April 2013



Main Goals

- Support Hydrologic Modeling
- Assessment of Nutrients Loading for Great Lakes (US and Canada)

Weitere Beispiele



- **WMO/OGC Hydro DWG Workshop** (17.-21. Juni 2013 in Quebec)
http://external.opengis.org/twiki_public/HydrologyDWG/QuebecWorkshop2013
- Kooperation mit einer neuen Initiative der ITU, die „**Smart Water**“ heißt
<http://www.itu.int/en/ITU-T/techwatch/Pages/smartwatermanagement.aspx>
- **Group on Earth Observation – Water Services for Societal Benefits**
http://www.ogcnetwork.net/system/files/AIP6_GEOSS_Water_Services_Proposal_final.pdf

Beispiele inhaltlicher Standards



- **GeoSciML – Interoperabilität im Bereich Geologie**
<http://www.opengeospatial.org/projects/groups/geoscimlswg>
<http://www.ogcnetwork.net/geosciml>
<http://www.geosciml.org/>
- **Meteorology & Oceanography Domain Working Group**
<http://www.opengeospatial.org/projects/groups/metoceandwg>
- **Energy & Utilities Domain Working Group**
<http://www.opengeospatial.org/projects/groups/energyutilities>
- **Emergency & Disaster Management Domain Working Group**
<http://www.opengeospatial.org/projects/groups/esswg>

Hürden, Herausforderungen und Chancen



- **Kommunikation**
- **Cross Community**
- **Sind Wasserdaten Geodaten oder Fachdaten mit Geobezug?**

**Vielen Dank für Ihre Aufmerksamkeit!
... und Fragen?**



Athina Trakas

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