

BIG Data and the Swiss spatial data infrastructure

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**20 Jahre
20 ans**

「SOCIOLOGIE」

Schweizerische Organisation für Geoinformation
Organisation Suisse pour l'Information Géographique
Organizzazione Svizzera per l'Informazione Geografica
Swiss Organisation for Geographic Information



Geographic
Information
Systems



EUROGI Gründung
25./26.11.1993 in Luxemburg



SOGI Gründung 27.1.1994 in Zürich



**Use geodata to create added value
for everyone**

Geodata: Greatest treasure

GI: Key Technologie of 21th century



Big data is the term for a collection of data sets so large and complex that it becomes difficult to process using on-hand database management tools or traditional data processing applications.

The challenges include capture, curation, storage, search, sharing, transfer, analysis and visualization.

The creation of a National Spatial Data Infrastructure (NSDI) aims at a broader and more intensive use in addition to a significantly improved creation of value from existing geo-information.

Big data

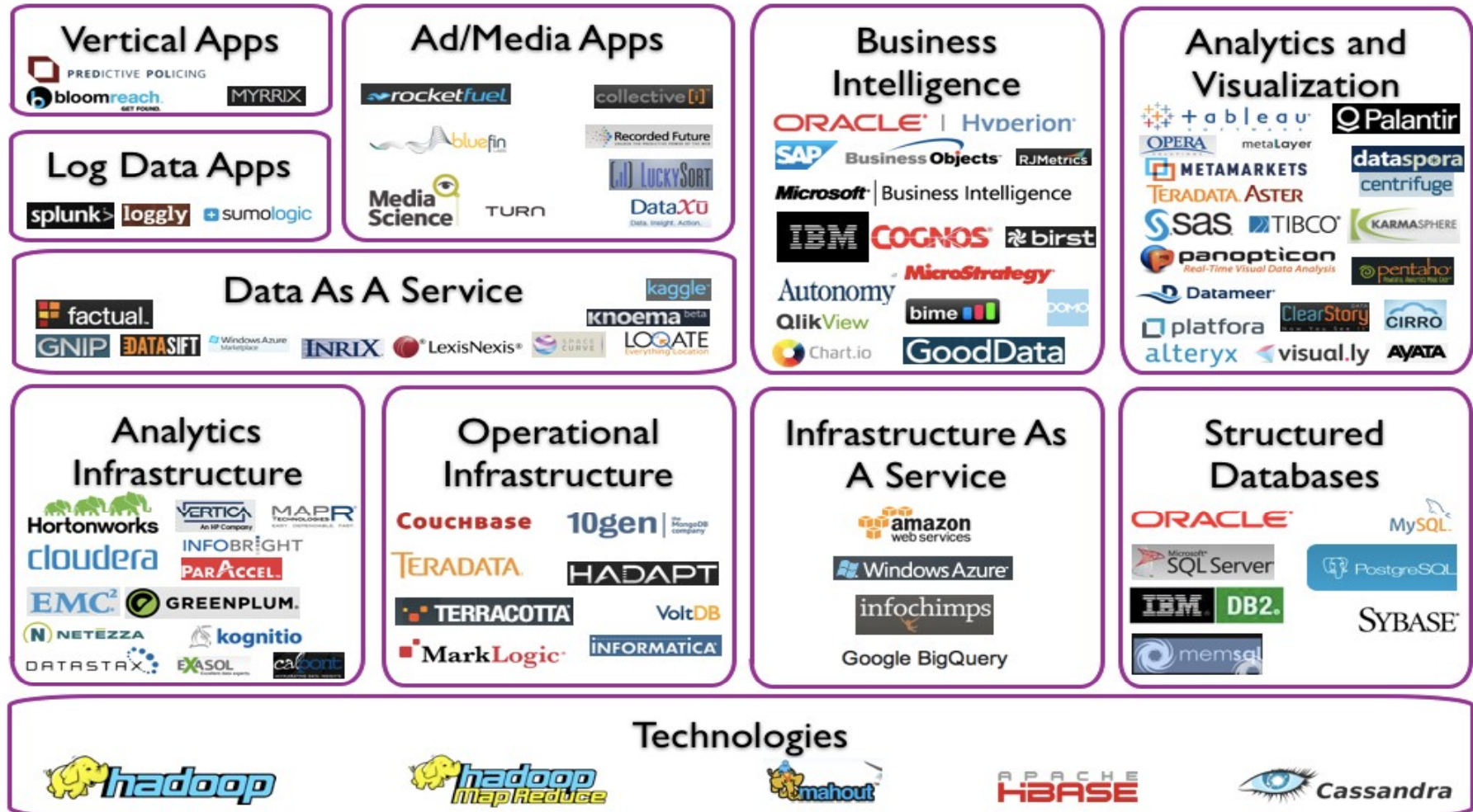


„Smart Everything“

Deutsche Bank Research: Big Data - Die ungezähmte Macht, 2014



Big Data Landscape



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dave@vcdave.com

blogs.forbes.com/davefeinleib

Companies, products, and technologies included
in the Big Data Landscape (Forbes www.forbes.com)



Unstructured data
Semi-structured data
Volume
Useful Metadata
BIG DATA
People driven
Decision making
Zettabyte
Framework
Smart content database
Unstructured content
Petabytes
Data analysis
Structured data
Text analytics
Concept extraction
Semantic Metadata
VAST DATA

ALSO

BIG

EVERY

EXAMPLES

TOOLS

DISK

TARGET

APPLIED

SENSOR

DEFINITION

CURRENT

MAY

MOVING

WITHIN

THOUGHT

GENOMICS

COMPLEXITY

ABILITY

SIZE

MPP

QUALITIES

SAN

PARALLEL

MASSIVELY

GROW

SINCE

STORAGE

SYSTEMS

PETABYTES

INCLUDE

TOLERABLE

TERABYTES

CASE

SET

USE

LARGER

CONTINUES

SOCIAL

INDEXING

CITATION

COMPLEX

ANALYTICS

TENS

CONNECTOMICS

ORGANIZATIONS

RELATIONAL

UBIQUITOUS

PROCESSING

BIOLOGICAL

NOW

CAPACITY

BURIED

WORLD'S

HUNDREDS

DESKTOP

RECORDS

NETWORKS

DATABASES

SEARCH

DIFFICULTY

GARTNER

WORKING

OPPORTUNITIES

AMOUNT

TYPES

SOLID

CURRENTLY

MANAGEMENT

INTERNET

DESCRIBING

RADIO-FREQUENCY

DISTRIBUTED

BUSINESS

SETS

CAPTURE

PRACTITIONERS

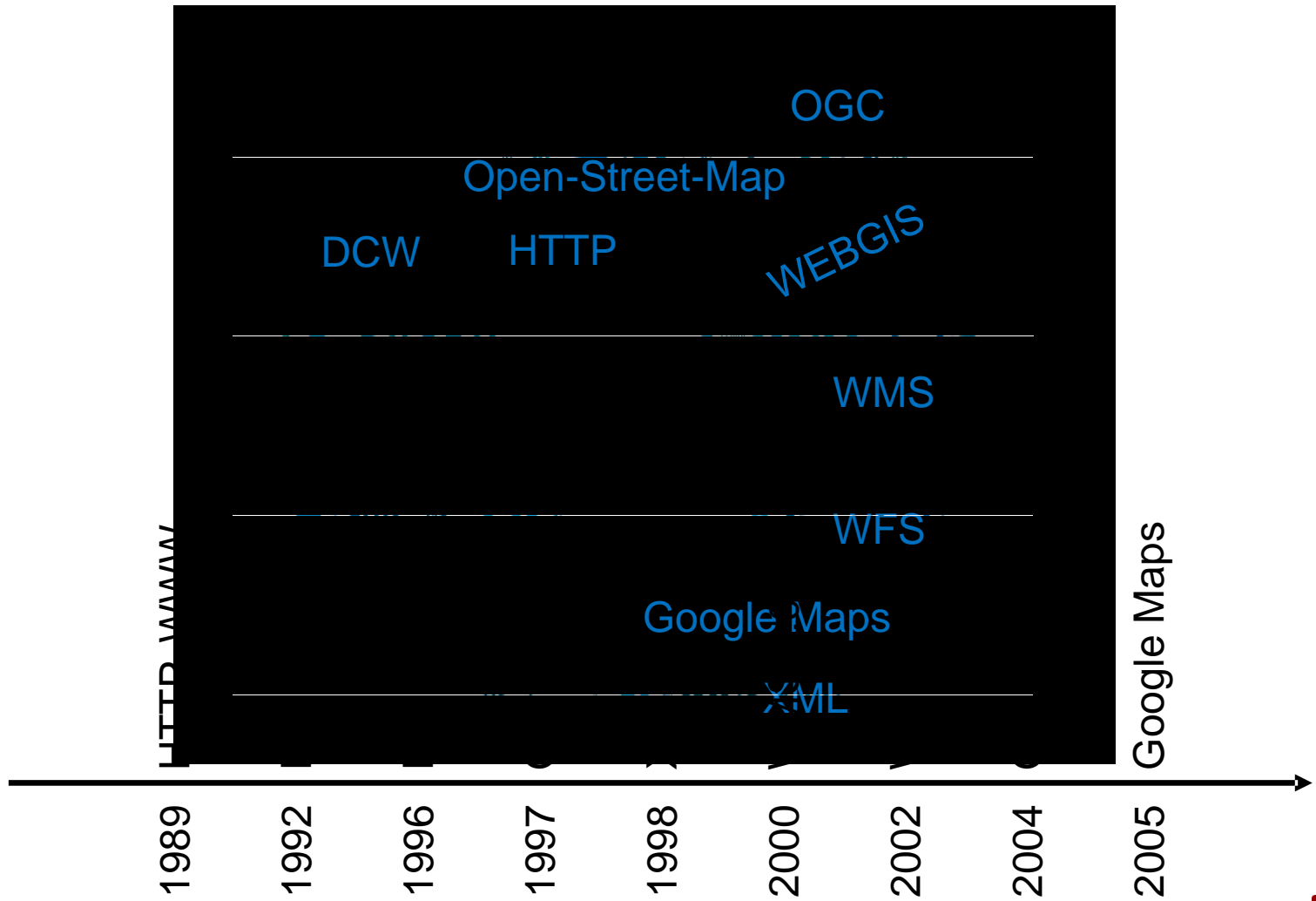
RECONSIDER

ZETTABYTES

[SOCI]
[OSIG]



Timeline



geodienste.ch

www.geodienste.ch

IKGEO

CIGEO

Portal schweizweit harmonisierter Geodienste der Kantone

Die Geodienste befinden sich zurzeit im Aufbau und werden momentan noch nicht vollständig und in vollem Funktionsumfang angeboten. Weitere Informationen zum Aufbau der schweizweiten Geodienste gibt es [hier](#).

Karten

Basiskarten

Amtliche Vermessung

Verfügbarkeit

Labels/Beschriftungen

Amtliche Vermessung (farb)

Amtliche Vermessung (s/w)

Gewässerschutz

Verfügbarkeit

Gewässerschutzzonen und

Legende

Verfügbarkeit

Geodienst ist im Aufbau

Geodienst ist zugriffsgeschützt

Geodienst ist öffentlich

1:1889764

549250, 175500

Login | DE | FR

Data CC-BY-SA by

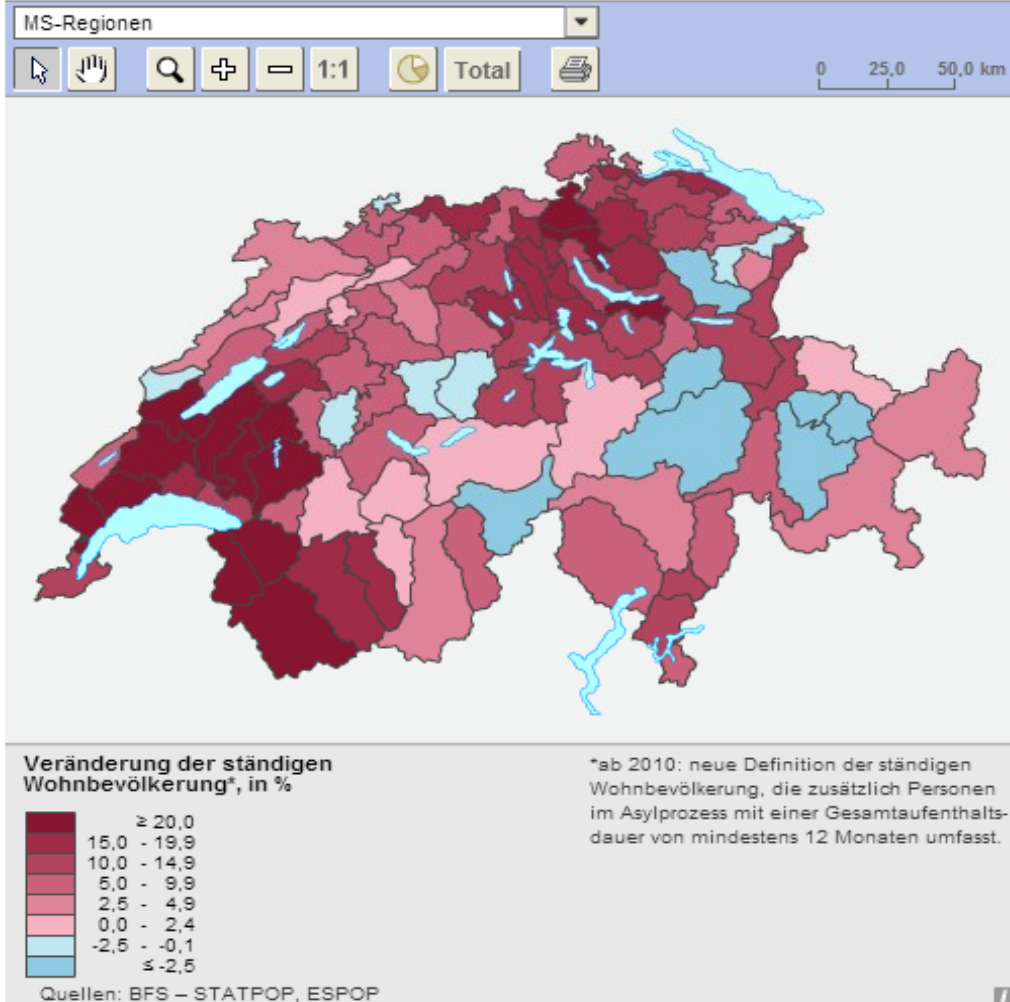
e-geo.ch

Die publizierten Daten haben keine Rechtskraft und es können keine rechtlichen Schritte davon abgeleitet werden.
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Sourcepole AG

1. Wo die Bevölkerung am stärksten wächst

Bevölkerungsentwicklung 2000–2012





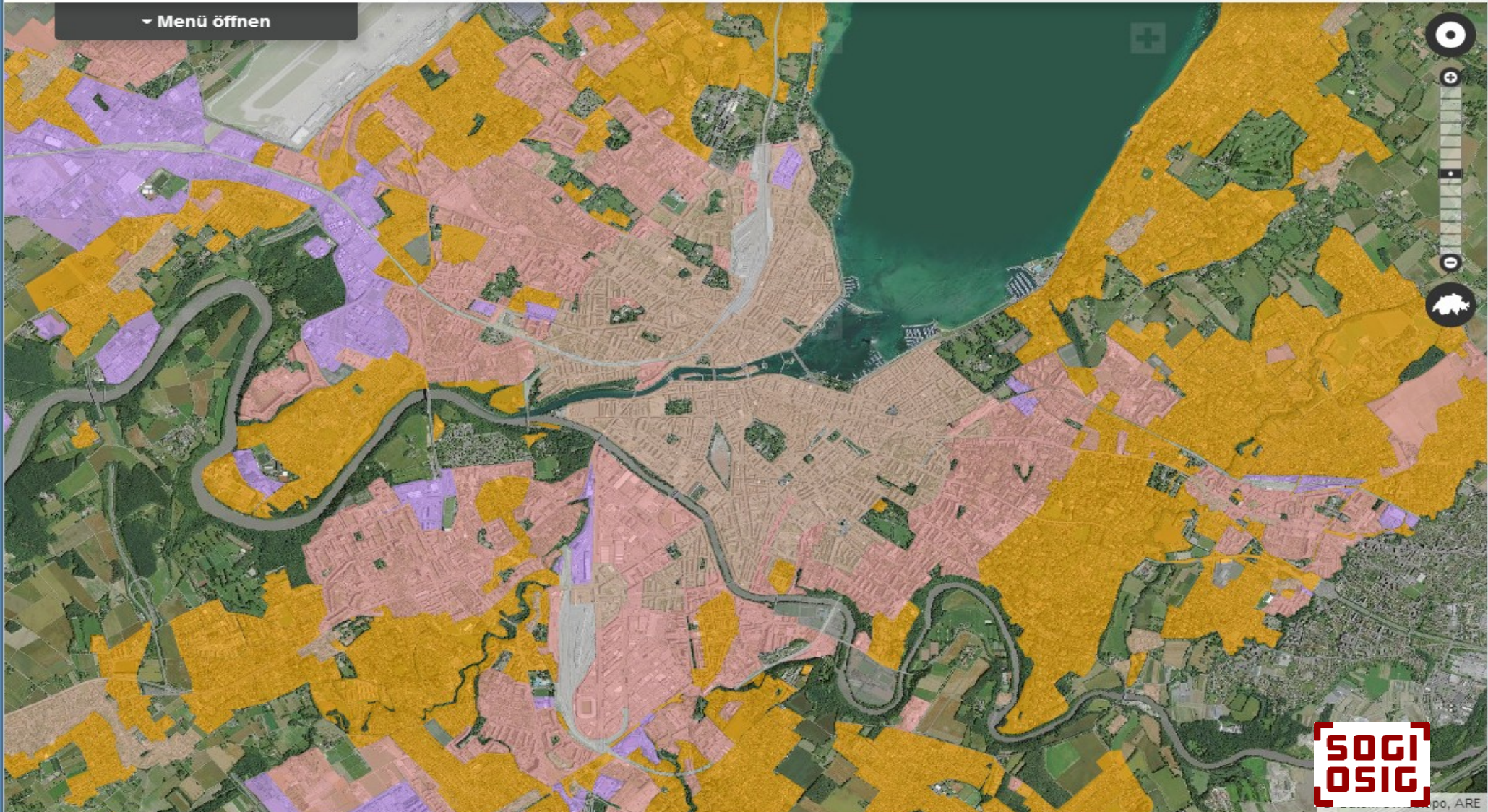
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
In Zusammenarbeit mit den Kantonen

Vollbild Problem melden Hilfe Mobile Version DE

Genf (GE)

Luftbild

Menü öffnen



1000m

CH1903+ / LV95

Koordinaten (m): 2'504'702, 1'121'141

geo.admin.ch Copyright & Datenschutzerklärung



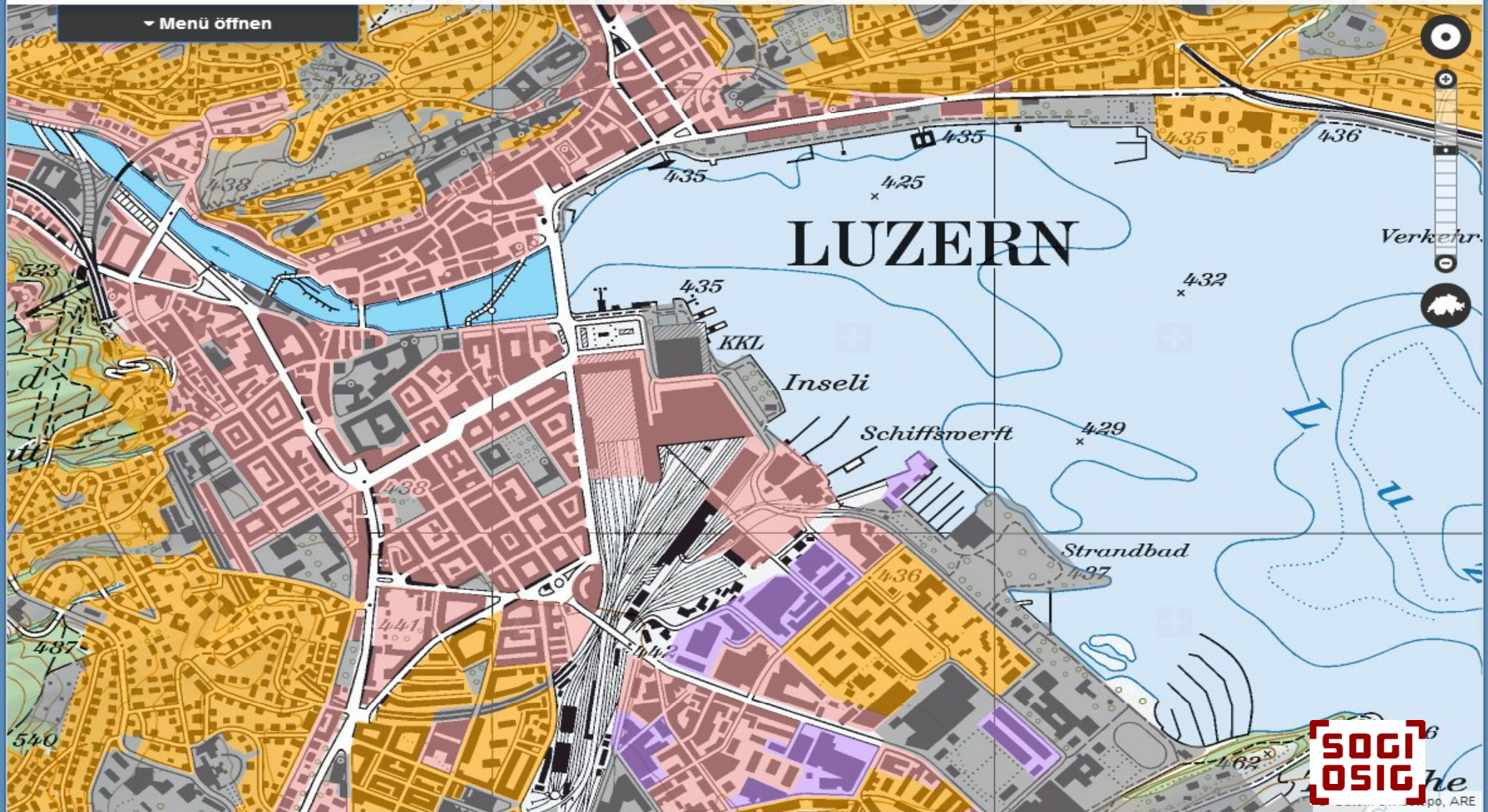
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
In Zusammenarbeit mit den Kantonen

Vollbild Problem melden Hilfe Mobile Version DE

Suche Ort, Karten, Koordinaten ...

Karte farbig

Menü öffnen





UNITED NATIONS





The program e-geo.ch

For easy and inexpensive access to geo-information

80 percent of all political and business decisions have spatial relevance.

The program «e-geo.ch» intends to create easy and inexpensive access to an optimal selection of geo-information by establishing a National Spatial Data Infrastructure (NSDI).

In order to reach this goal, it is essential to include all parties involved in geo-information.

Sponsors of e-geo.ch are: the federal government (its coordinating organ GCS-COSIG), the cantons (represented by "IKGEO", the coordinating organ for Geoinformation of the cantons), the municipalities and cities (represented by local authorities)

as well as the collective representatives of SOGI (Swiss Organisation for Geographic Information), i.e., private industry, educational institutions and non-governmental associations.

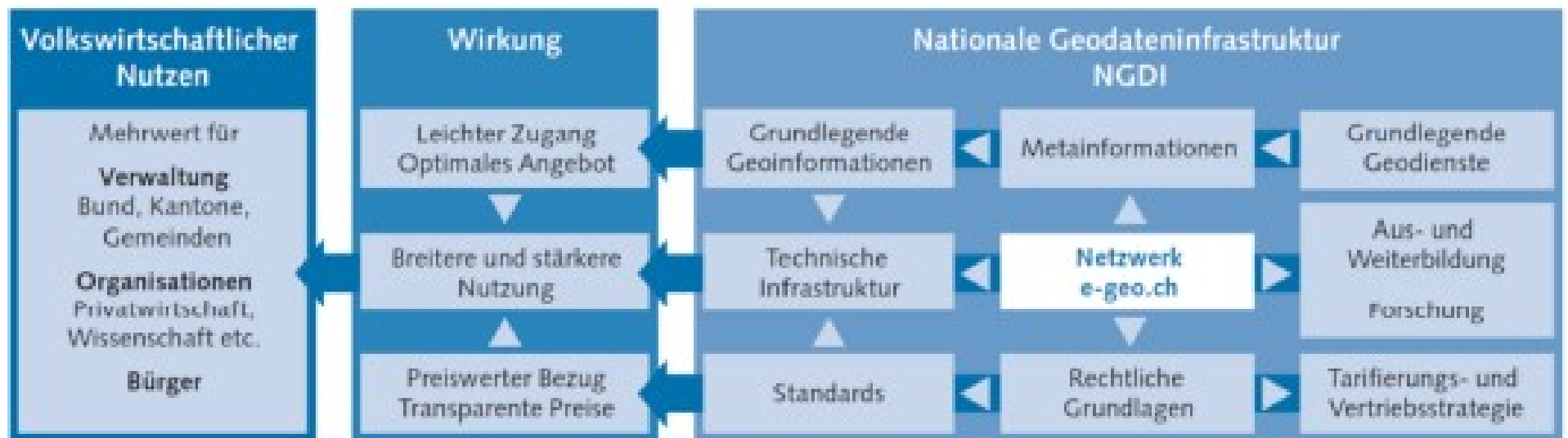
Use geodata to create added value for everyone

Geo-information is the basis for planning, measures and decisions of all kinds: in administration, politics, economy and science as well as in the private sector. It is a significant economic asset and an essential prerequisite for a well-functioning democracy.

In order to use geo-information effectively, it must be up to date, compatible and available on a broad basis. Coordinated policy as well as uniform standards and technologies are essential on the national and local levels.

Use geodata to create added value for everyone

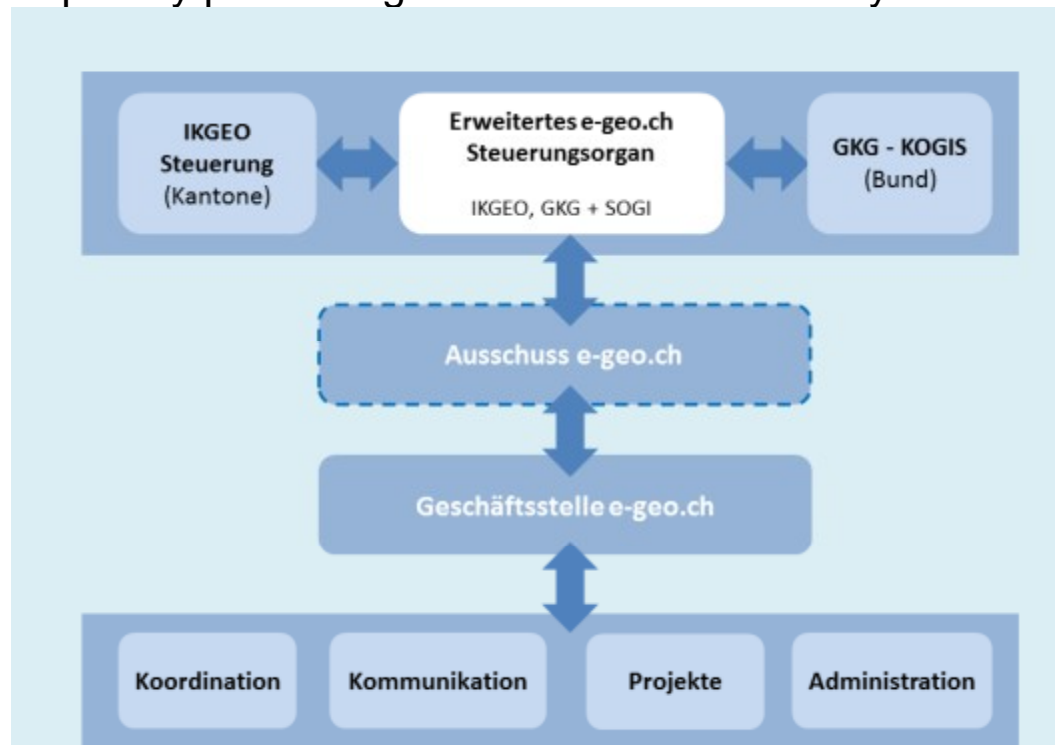
The creation of a National Spatial Data Infrastructure (NSDI) aims at a broader and more intensive use in addition to a significantly improved creation of value from existing geo-information. The result for all parties is a marked increase of the socio-economic use: for the administrations on the federal, cantonal and municipal levels, for private businesses and the scientific community as well as for private citizens.



Steering committee: All partners united in one committee

A steering committee, consisting of 15 representatives from the confederation (COGIS), the cantons (CCGEO), cities and municipalities as well as the Swiss Organization for Geo-Information (SOGI), is responsible for the e-geo.ch program.

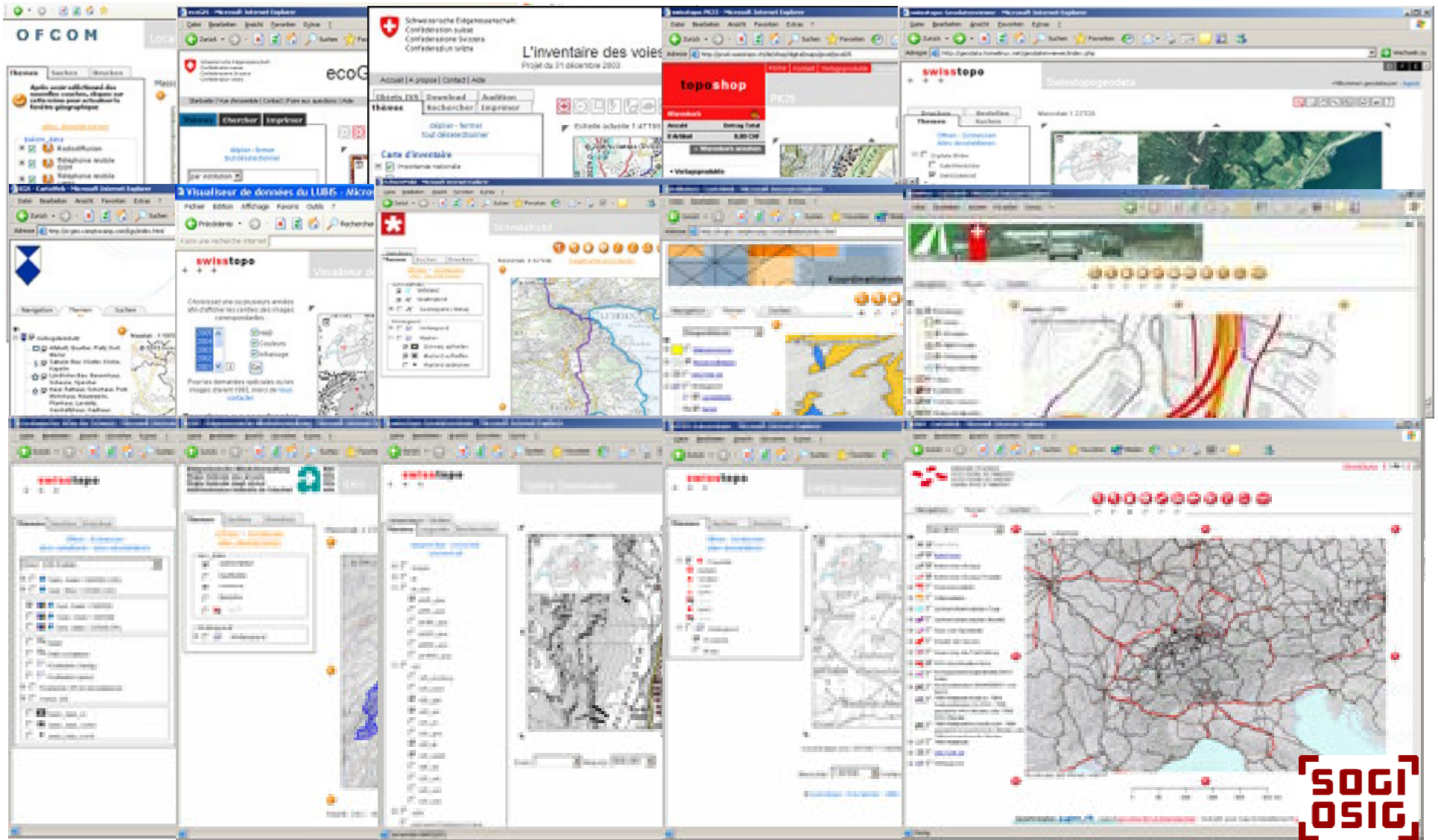
The steering committee determines the general direction and the strategies of the program. Its presidency is assumed by the president of the GCS-COGIS. The cooperation between the GCS-CODIS and e-geo.ch is thus guaranteed. In addition, there are two vice-presidents who are designated on the one part by the cantons and municipalities coordinated by the CCGEO, and on the other part by private organizations coordinated by SOGI.





Unterzeichneter Aktionsplan e-geo.ch 2005 durch Thomas Hösli (KKGEO), Rudolf Schneeberger (SOGI) und Erich Gubler (GKG-KOGIS).

Thematic Geoportals



Swiss Map Mobile iPhone/iPad

Top iPhone Apps in Navigation (gekauft)

- Sortieren nach: Bestseller
1. **OffMaps 2**
Navigation
Aktualisiert 20.01.2011
+ 1.10FR KAUFEN
 2. **NAVIGON MobileNavigator E...**
Navigation
Aktualisiert 15.12.2010
+ 62.00FR KAUFEN
 3. **Swiss Map Mobile**
Navigation
Aktualisiert 28.10.2010
+ 4.40FR KAUFEN

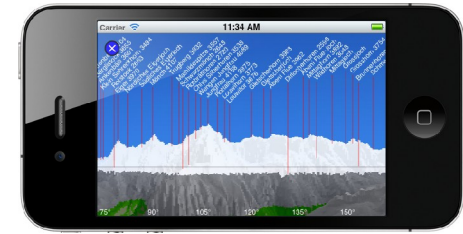
Umsatzstärkste Apps

- Sortieren nach: Bestseller
1. **NAVIGON MobileNavigator E...**
Navigation
Aktualisiert 15.12.2010
+ 62.00FR KAUFEN
 2. **TomTom Westeuropa**
Navigation
Aktualisiert 20.12.2010
+ 79.00FR KAUFEN
 3. **WhatsApp Messenger**
Soziale Netze
Aktualisiert 10.02.2011
+ 1.10FR KAUFEN

4. **Swiss Map Mobile**
Navigation
Aktualisiert 28.10.2010
+ 4.40FR KAUFEN

7. **Tap Zoo**
Spiele
Aktualisiert 23.12.2010
GRATIS

10. **TV Screen - Fernsehen auf de...**
Nachrichten
Aktualisiert 13.01.2011
+ 6.60FR KAUFEN



LUBIS-Viewer

Information system for aerial photographs

320'000 aerial photographs of Switzerland on Internet

The Federal Office of Topography swisstopo published the new LUBIS Data Viewer (Information system for aerial photographs) on map.lubis.admin.ch. It is possible to search, and to order all swisstopo aerial images and aerial strip from the 1920s until today.



“Journey through time” viewer

What did Bern look like in 1950, or the banks of Lake Zurich in 1940? How far did the Aletsch glacier reach 20 years ago?

To answer these questions and highlight national heritage in country maps, swisstopo has developed a viewer for topographical maps allowing a journey through time between 1938 and today.





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swisstopo Zeitreise

Suche Ort, PLZ, Koordinaten ...

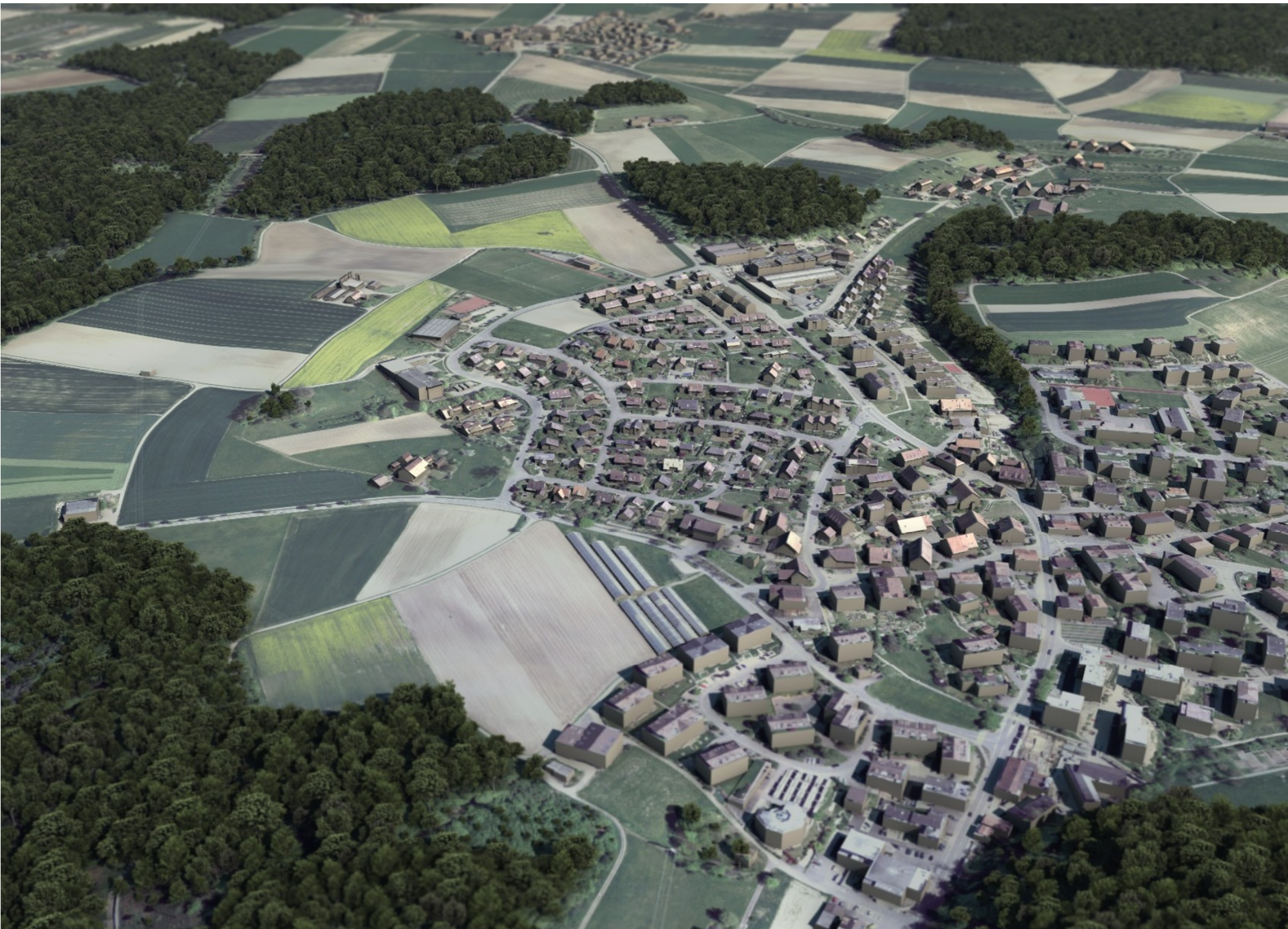
[Ein Problem melden](#) [Hilfe](#)

[Karte einbinden](#) [Zusatzfunktionen](#) [Drucken](#)



The third dimension and cadastral surveying



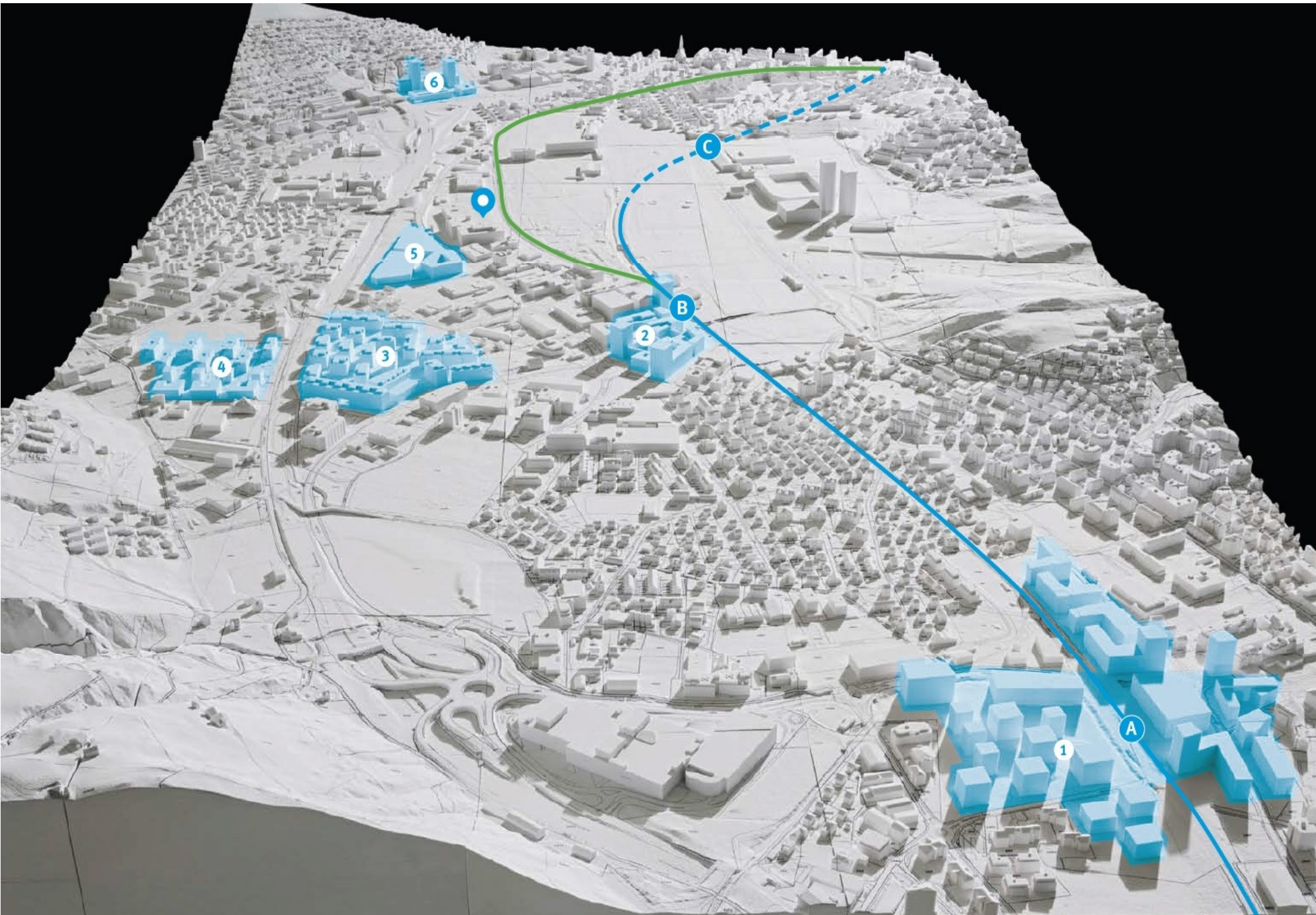


Topographic Landscape Model data printed in 3D

The Federal Office of Topography, swisstopo, created its first true three-dimensional printout with data of the Topographic Landscape Model, swissTLM3D. Together with an associate partner, a monochromatic as well as a colored (roofs, walls and terrain in different colors) mock-up of the historic city center of Aarau were realized. The printouts at a 1:2'000 scale visualize buildings (swissBUILDINGS3D 2.0) and the terrain surface (swissALTI3D) information.

The print of the mock-up of the historic city center of Aarau has a dimension of 25 cm x 20.3 cm. It was manufactured directly out of the provided vector data with a high performance professional 3D powder printer. Roof overhangs were eliminated due to technical constraints.



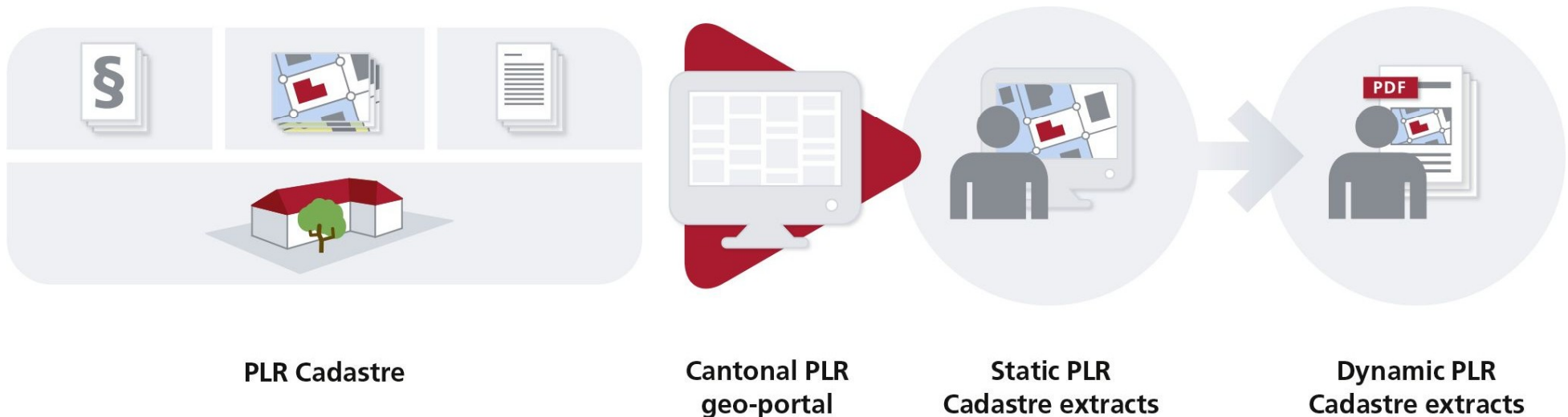


Swiss Cadastre of Public Law Restrictions on Landownership (PLR Cadastre)

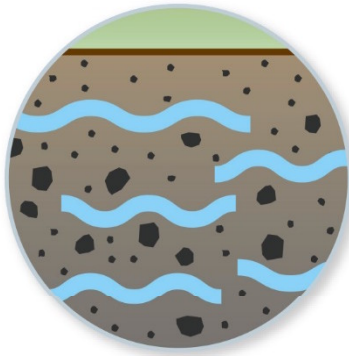


Swiss Cadastre of Public Law Restrictions on Landownership (PLR Cadastre)







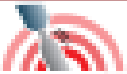

In Switzerland there are more than 150 different public law restrictions on landownership. In the initial phase of its development, at the federal level the 17 most important restrictions from eight sectors will be incorporated into the PLR Cadastre.



Swiss Cadastre of Public Law Restrictions on Landownership (PLR Cadastre)



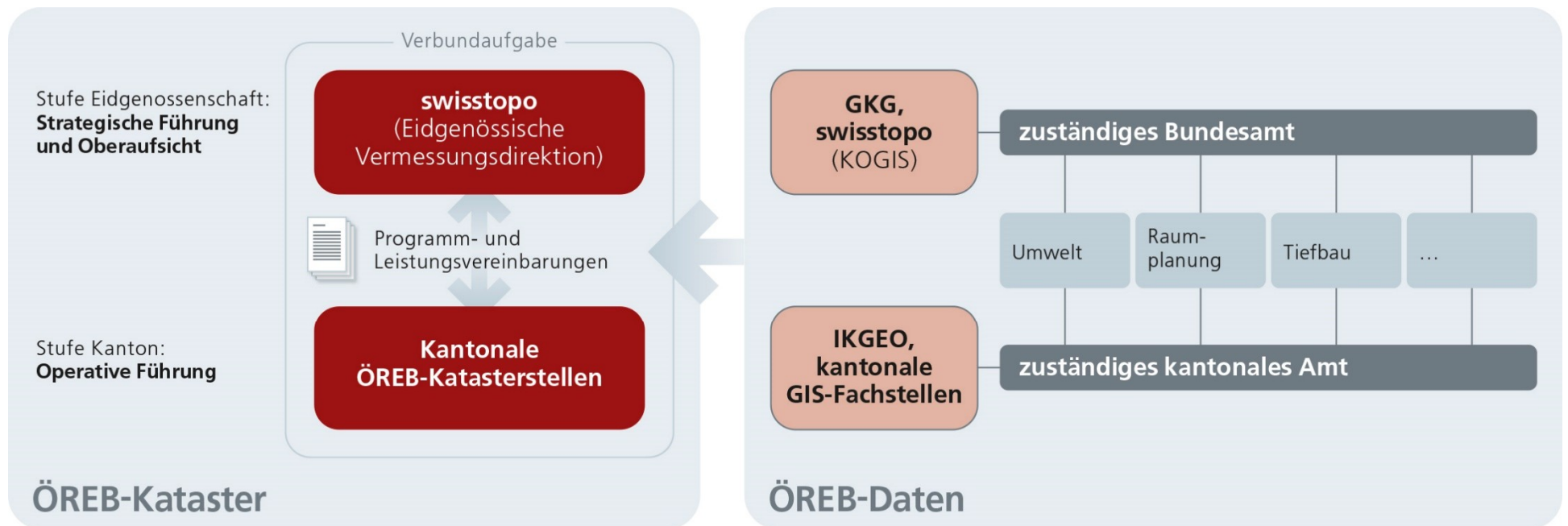
The 17 PLRs at the federal level

Level		Description
	Spatial planning	<ul style="list-style-type: none"> • Use planning (cantonal / municipal)
	National roads	<ul style="list-style-type: none"> • Project zones for national roads • Building lines for national roads
	Railways	<ul style="list-style-type: none"> • Project zones for railway installations • Building lines for railway installations
	Airports	<ul style="list-style-type: none"> • Project zones for airport installations • Building lines for airport installations • Aeronautical obstacle map and directory
	Contaminated sites	<ul style="list-style-type: none"> • Cadastre of contaminated sites • Cadastre of contaminated military sites • Cadastre of contaminated sites at civil aerodromes • Cadastre of public transport contaminated sites
	Groundwater protection	<ul style="list-style-type: none"> • Groundwater protection zones • Groundwater protection area
	Noise	<ul style="list-style-type: none"> • Noise sensitivity levels (in use zones)
	Forests	<ul style="list-style-type: none"> • Forest limits (in building zones) • Forest distance lines

Swiss Cadastre of Public Law Restrictions on Landownership (PLR Cadastre)



Swiss Cadastre of Public Law Restrictions on Landownership (PLR Cadastre)





Bundesrat Samuel Schmid (Mitte) mit Erich Gubler und Jean-Philippe Amstein



Alt- und Neu-Präsident der SOGI am Jubiläumsauftakt „100 Jahre AV“: Erich Gubler (links) und Christoph Käser

Members of SOGI

sia

SWISS
ENGINEERING
STV UTS ATS

VSE
AES

SVGW
SSIGE

10 Verbände

e-gen.ch

SIK/CSI

KK+
+CC
GEO

(((KKVA)))
(((SM)))

5 nationale
Konferenzen

ETH Eidgenössische
Technische Hochschule
Zürich

EPFL
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

int>e>gis

6 Hochschulen

Hochbaudepartement

LIBERTÉ
ET
PATRIE

+ swisstopo
+
+

20 Amtsstellen

esri Schweiz

swisscom

Autodesk

TOMTOM

52 Unternehmen

88 Einzelmitglieder

SOGI
OSIG



Schweizerische Organisation für Geo-Information
Organisation Suisse pour l'Information Géographique
Organizzazione Svizzera per l'Informazione Geografica
Swiss Organisation for Geographic Information

Einladung

SOGI Feierabend Forum

xx. August 2014, 16.15 Uhr, Sargans
Auditorium

Infrastruktur und GIS

Das SOGI Feierabend Forum zeigt Infrastruktur-Herausforderungen für Gemeinden und gibt Inputs zur Nutzung von Geoinformation zur Lösung von Infrastrukturaufgaben.

Das SOGI Feierabend Forum ist ein Anlass zur Vernetzung von Fachleuten aus verschiedenen Branchen.

Besuchen Sie Sargans – und knüpfen Sie Kontakte!

Wir freuen uns auf Ihren Besuch
SOGI Vorstand

Program m

Begrüssung

Christoph Käser, Präsident SOGI
Ruedi Küntzel, Präsident geosuisse

Mel-GIS Rheinebene im St.Galler Rheintal

Matthias Kreis, Leiter Melioration Rheinebene

Gemeinde-GIS

xx, Kreis AG Sargans

GIS Graubünden

Daniel Buschauer, Amt für Landwirtschaft und Geoinformation

Gemeinde-Tool Infrastrukturmanagement

Martin Surka, Astra

Apéro (ab 18.00 Uhr)

Der Anlass ist kostenlos.
Anmeldung: info@sogi.ch





GEO+Summit
Messe und Kongress
für Geoinformation

Bern, 3. bis 5. Juni 2014



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Für Aussteller

Presse



Lösungen für eine Welt im Wandel
Solutions pour un monde
en évolution



GEONews 01/2014
Themen u.a.:
Roundtable und 20
Jahre ... [→ weiter](#)



Kongressprogramm
online!
Wir präsentieren Ihnen
das diesjähr...
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VIDEOS

News, Statements, Roundtable: Aktuelle Berichte zum diesjährigen GEOsummit



-  **GEONews 01 | 2014** 06:54
Themen: Roundtable 2014, 20 Jahre SOGI...
-  **20 Jahre SOGI** 06:07
Videobericht SOGI-Jubiläum
-  **GEOsummit Roundtable...** 05:24
Der Roundtable zum GEOsummit 2014 in...
-  **Dr. Rade Hajdin (VSS):...** 00:41
Dr. Rade Hajdin zum Dienst, den...
-  **Dr. Rudolf Dieterle (ASTRA):** 01:00



geowebforum

