

Geoportal Server, Esri's Open Source Work & Open Source Licenses

What Does it Mean for You?

Marten Hogeweg

Benjamin Proß (52north)

Keith Ryden

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Esri's Open Source Work

Marten Hogeweg



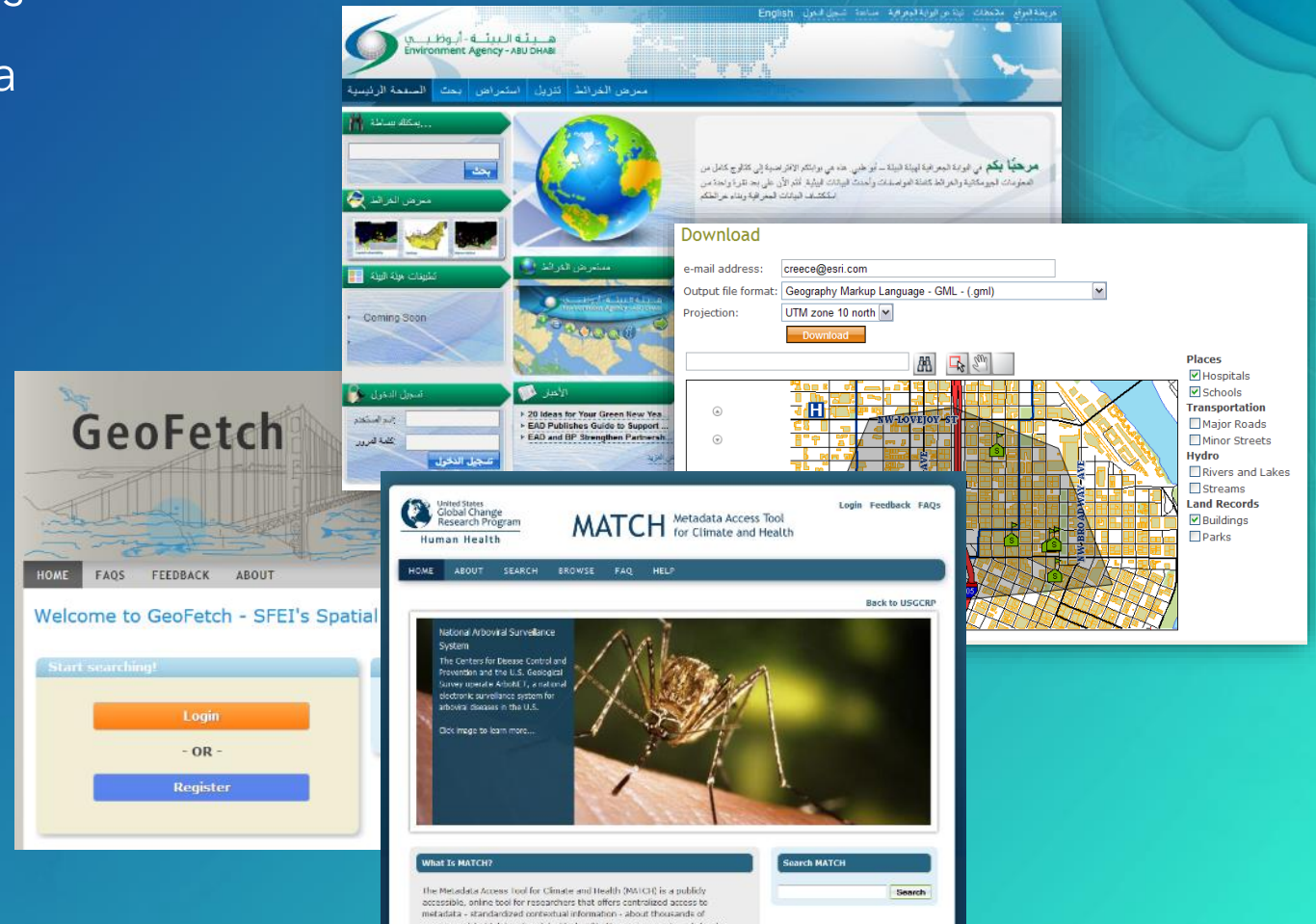
ArcGIS is an Open Platform for Data Sharing and Collaboration



Esri Geoportal Server

Enabling discovery and use of geospatial resources in heterogeneous environments

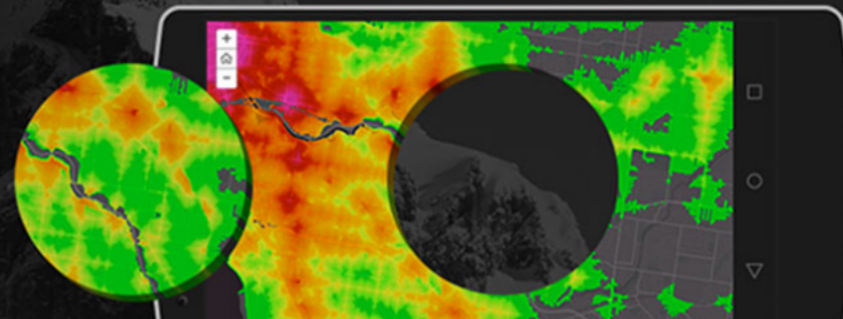
- Search and view geospatial resources
- Manage, publish, and store metadata
- View live map services
- Download data
- In business since 2003
- Licensed Code Access since 2003
- Open Source since 2010
- Used globally
- 75% outside US



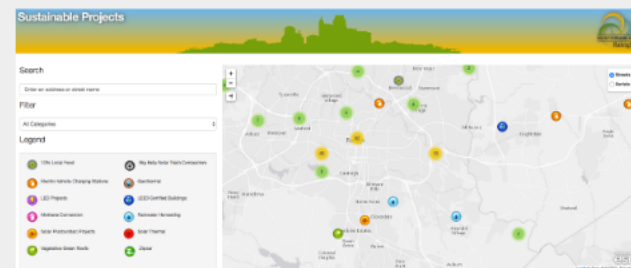
Esri Open Source

Thinking spatially, solving problems, together.

Explore over 400 geospatial projects

[View on GitHub >](#)

Web Development

[View All >](#)

City of Raleigh, North Carolina

The City of Raleigh uses Esri Leaflet to help citizens quickly find nearby electric vehicle charging stations, green roofs, and solar trash compactors.

Esri Leaflet

Leaflet plugins for the most popular ArcGIS web services

[Learn more >](#)

JavaScript

★691

Calcite Web

A Responsive HTML, CSS, and JS Framework.

[Learn more >](#)

CSS

★39

Cedar

Charts for ArcGIS GeoServices

[Learn more >](#)

JavaScript

★148

LERC

rapid encoding and decoding for any pixel type (not just RGB or Byte)

[Learn more >](#)

C++

★36

ArcGIS Code Sharing

Search, browse, and use code, scripts, models, add-ins, widgets, and more.

[UPLOAD SCRIPTS](#)

Show Me

All

Language

C++

Flex

Java

JavaScript

Objective C

Python

QML

Swift

Visual Basic

XML

Software Product

AppStudio for ArcGIS

ArcGIS Engine

ArcGIS Online

ArcGIS Pro

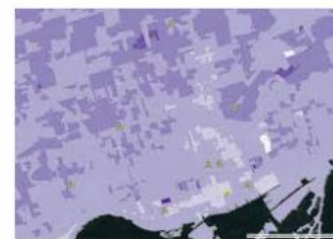
2005 results

[Leave Feedback](#)

ArcGIS Online Large Batch Geocoder
bruce_harold



Incidencia Criminal ZIP
PoliciaPR_Admin



FieldStatsQueryHelper_ProAddIn for Pro 2.0
MarkDAPL



FieldStatsQueryHelper_ProAddIn for Pro 1.4
MarkDAPL



BT1Vu
vinhpt_Esrivn



BT1Vu
vinhptesrivn



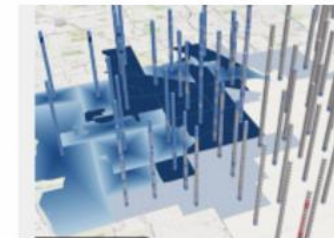
BaiTap1TA
vinhpt_Esrivn



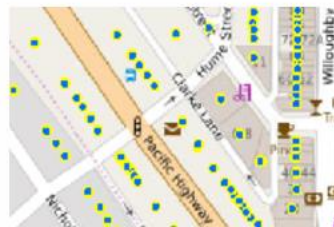
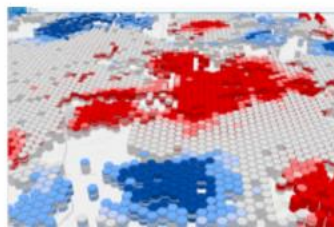
BaiTap1
vinhpt_Esrivn



Esri PYTH course code samples
tps



Space Time Cube Explorer Add-in for ArcGIS Pro 2.0
jenoradacosta



ArcGIS Developer Program Pricing

ArcGIS Developer Subscriptions

Access ArcGIS tools and GIS software for development

ArcGIS Online Deployment Plan

License and deploy apps built with ArcGIS Online APIs

ArcGIS Runtime Licensing

License and deploy apps built with the ArcGIS Runtime SDKs

ArcGIS Developer Subscriptions offer a cost-effective way to license ArcGIS products and developer tools for developing solutions.

Essentials

Build Geospatial Apps
Script and Automate ArcGIS
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ArcGIS Online Tools
Advanced App Dev Tools
ArcGIS Online Organization
Extend the ArcGIS Platform
Edit Enterprise Geodatabases
Advanced Server Capabilities
Dev Summit Registration

Free
\$0

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ArcGIS Online Organization
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Advanced Server Capabilities
Dev Summit Registration

Yearly Subscription
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[Purchase](#)

Open Research

Benjamin Proß



52°North

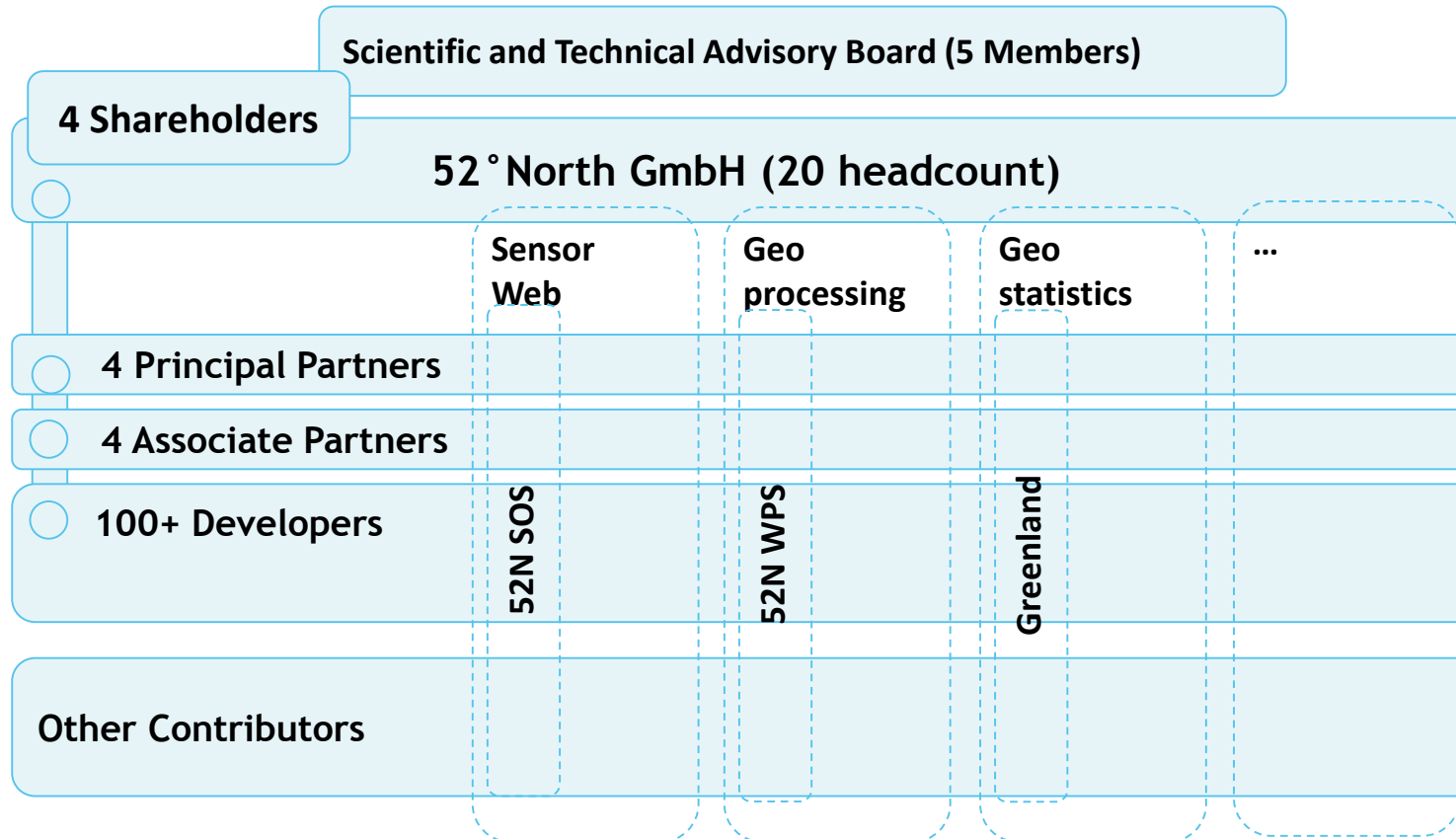
Initiative for Geospatial Open Source Software GmbH

- Open Research and Innovation Network in the field of Geoinformatics
- 52°North GmbH (non-profit) is the legal body and service center of this network
- Main activities are applied research and knowledge transfer
- All results of joint R&I activities are published as Open Source Software
- 52°North has revenues from Partnership-Fees, European and national R&D budgets, professional services



52°North

Organizational Structure



52°North

Topics

- Sensor Web
 - Sharing, analyzing, and visualizing observation data
 - Internet of Things technologies
- Web-based Geo-Processing
 - Interoperable sharing of geospatial data processing and analysis functionality
- Geostatistics
- Earth Observation
 - Handling (potentially large) earth observation data sets
- Citizen Science
 - E.g. the enviroCar platform for the crowd-sourced collection of traffic data

Cooperation with esri

- Sensor Observation Service for the GeoEvent Extension
- WPS Client for ArcGIS

Motivation

- Sensor Web technologies are increasingly used
 - Several sensor data providers and SOS instances
 - NOAA, IOOS, NANOOS
 - USGS
 - German Federal Waterways Administration
 - Air quality measurements in Europe
- Accessibility of near real-time sensor data for the ArcGIS platform is required

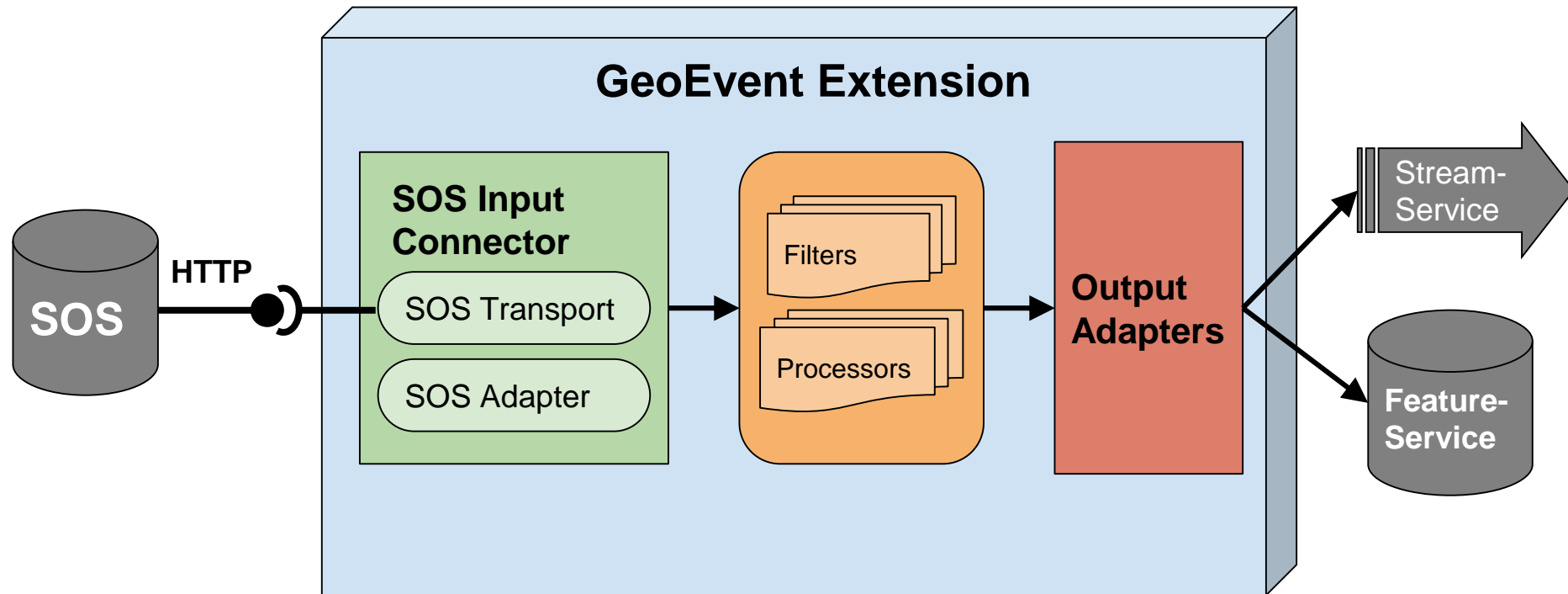
Sensor Observation Service

- Pull-based access to observations
- Mediator between:
 - client \Leftrightarrow data archive / simulation / real-time sensor system
- Hides the heterogeneous structure of proprietary sensor data formats and protocols
- Data formats: O&M and SensorML
- Versions: 1.0 and 2.0

Approach

- Use of the ArcGIS GeoEvent Extension for Server
 - Requesting sensor data from an OGC Sensor Observation Service (SOS)
 - Processing and filtering sensor data
 - Transfer sensor data to different endpoints (e.g. Feature-Service, Stream-Service)
- Requirements:
 - Development of an Input Connector for requesting a SOS

Architecture



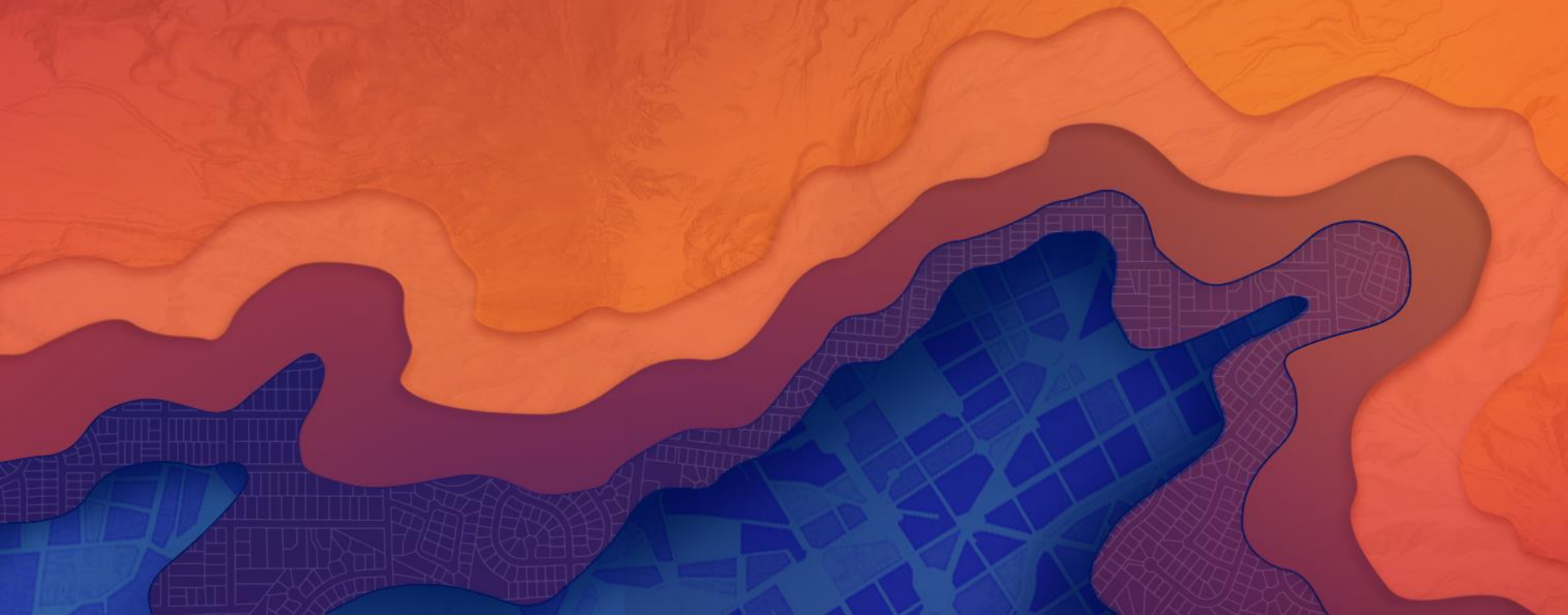
Next Steps

- Integration with additional SOS instances available for public use
 - NOAA Oceanology data
 - IOOS Oceanology data
 - European Air Quality data
- Making the SOS Adapters **Open Source**
 - requires additional testing



Using 3rd Party Code

Keith Ryden



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Version 2, December 2004

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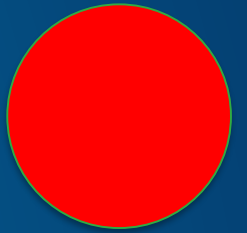
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