

Open
Geospatial
Consortium

OGC Meet & Greet

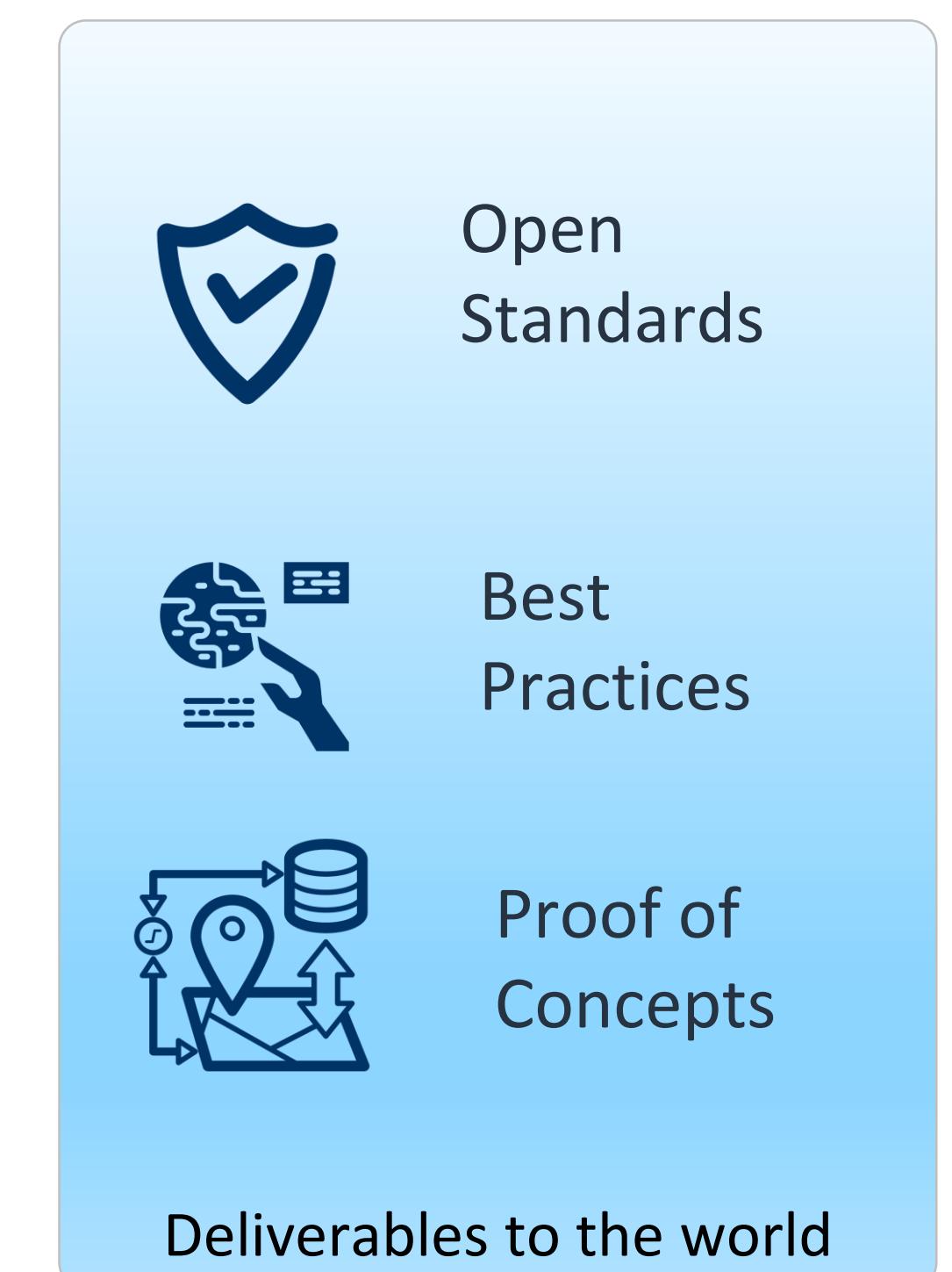
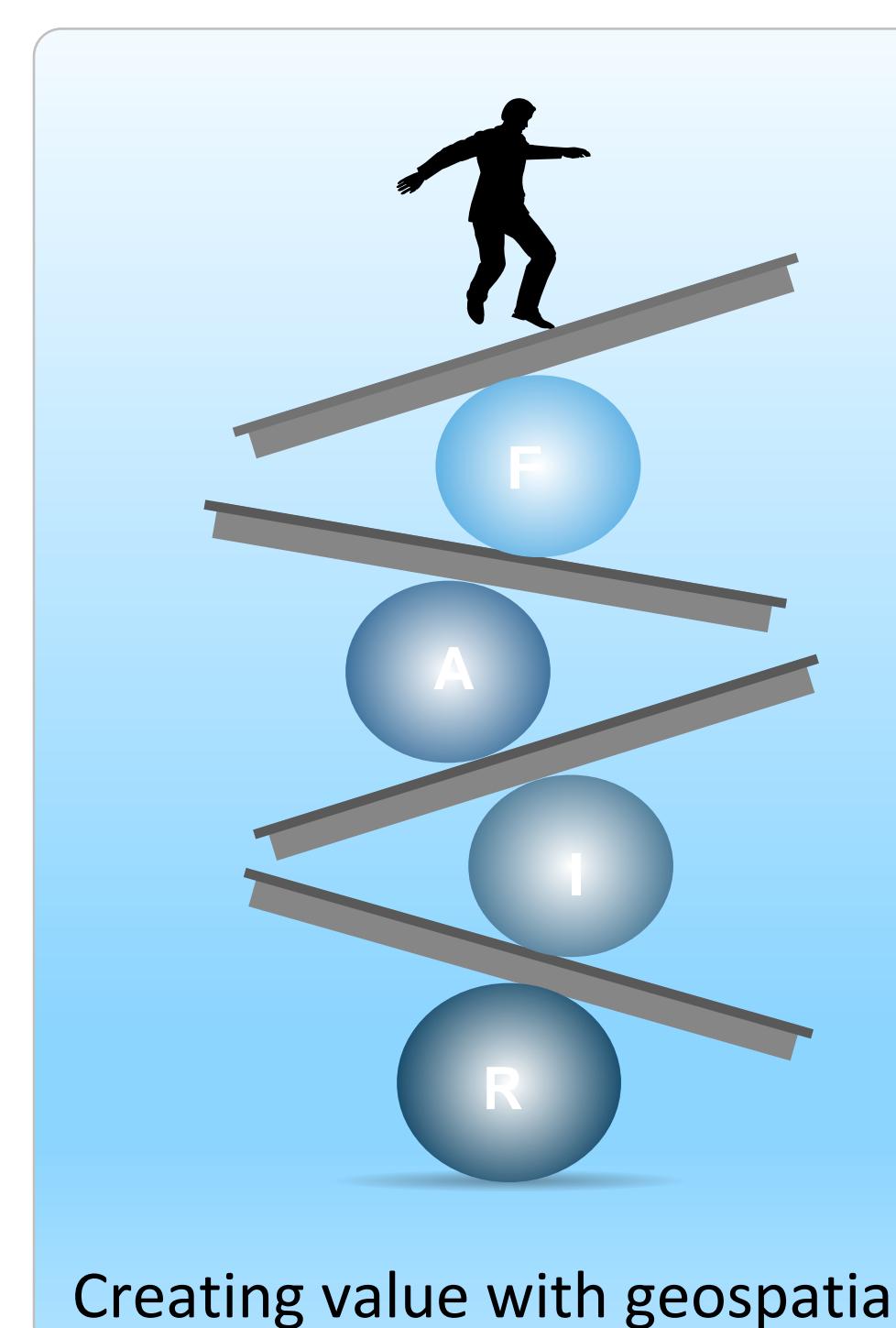
Nadine Alameh, Ph.D.
nalameh@ogc.org



Celebrating the rebrand



27 years of community, standards, and impacts



This is THE time for *Geospatial*

Future powered by data integration

- We are experts at data integration across disciplines
 - We have been dealing with big data (in time and space)
 - We are problem solvers and connectors
 - And honestly, the world needs us!



It's 2021



<http://mars.nasa.gov>

Here on Earth

SCIENCEINSIDER | CLIMATE

Europe's deadly floods leave scientists stunned

Despite improvements, flood forecasting sometimes fails to flag risks along smaller streams

20 JUL 2021 · BY WARREN CORNWALL



Flash floods caught many communities in Germany, including the town of Insul, by surprise, leading to at least 165 deaths. AP PHOTO/MICHAEL PROBST

Four days before deadly floods swept through western Germany and parts of Belgium last week, Hannah Cloke saw a forecast of extreme rain on a Europe-wide flood alert system to which she belongs. Researchers "were stupidly congratulating ourselves that we were forecasting something so early. ... The assumption was that would be really helpful," says the hydrologist and flood forecaster at the University of Reading. Instead, she was stunned to see scenes of devastation and death despite the ample warnings. "We

Share Like (2) Comment (1)

Apr 16, 2020 9:04 pm GMT 3200 views

Summary of a white paper prepared for the Geospatial Information & Technology Association by Geoff Zeiss and Dr. Sakura Shinoaki

Over the past two decades in the U.S. there have been over 400 fatalities and nearly 2000 injuries attributed to hitting underground infrastructure during excavations. For comparison over the past 20 years in the U.S., there have been about the same number of fatalities (403) resulting from major commercial airline crashes (excluding 9/11). In addition inaccurate and missing information about underground infrastructure increases the risk of construction project schedule and budget overruns. It has been estimated that unreliable location information about underground infrastructure represents a \$50 billion to \$100 billion drag on the U.S. economy, multiple £ billions in the U.K. and € 1 billion in the Netherlands. Comparing the United States and Japan reveals a startling difference in the number of incidents of underground utility damage during construction. In the U.S. the number of incidents is between 400,000 and 800,000 per year (roughly one or two every minute). For Japan the number of incidents in 2016 was 134. Clearly something can be done to reduce the risk for construction workers and the public.

<https://energycentral.com/c/pip/reducing-damage-underground-infrastructure-during-excavation-costs>

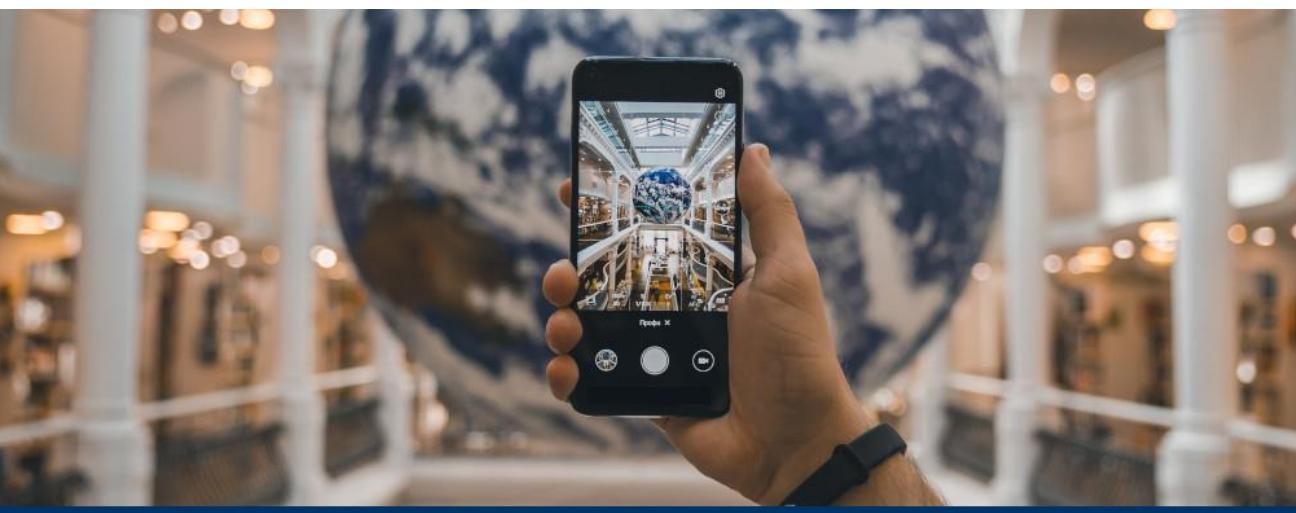


What are we doing about it?



Now Available: Engineering Reports documenting method for simple cloud-based EO Applications

OGC
ogc.org



New Community Standard Approved:
Indoor Mapping Data Format (IMDF)

OGC
ogc.org



OGC

Public Comment Requested:
Proposed MUDDI
Standards Working Group

New MUDDI (Model for Underground Data Definition and Integration) SWG seeks to create models, standards, and mappings to fully represent underground infrastructure



Integrated Digital Built Environment
Enabling Cities of the future.

Open Geospatial Consortium



Smarter Cities Through Use of Digital Twins
The Location Powers 2021 Report Preamble

OGC



OGC APIs | Building Blocks for Location

Icons include a handshake, a calendar with a dollar sign, a gear, and a person icon.



Public Comment Requested on Proposal
for Revision to I3S Community Standard

OGC
ogc.org



Public comment requested for CDB SWG recharter
Providing location in modeling, simulation, and gaming

OGC
ogc.org



Leveraging Sensor Data and the Internet of Things

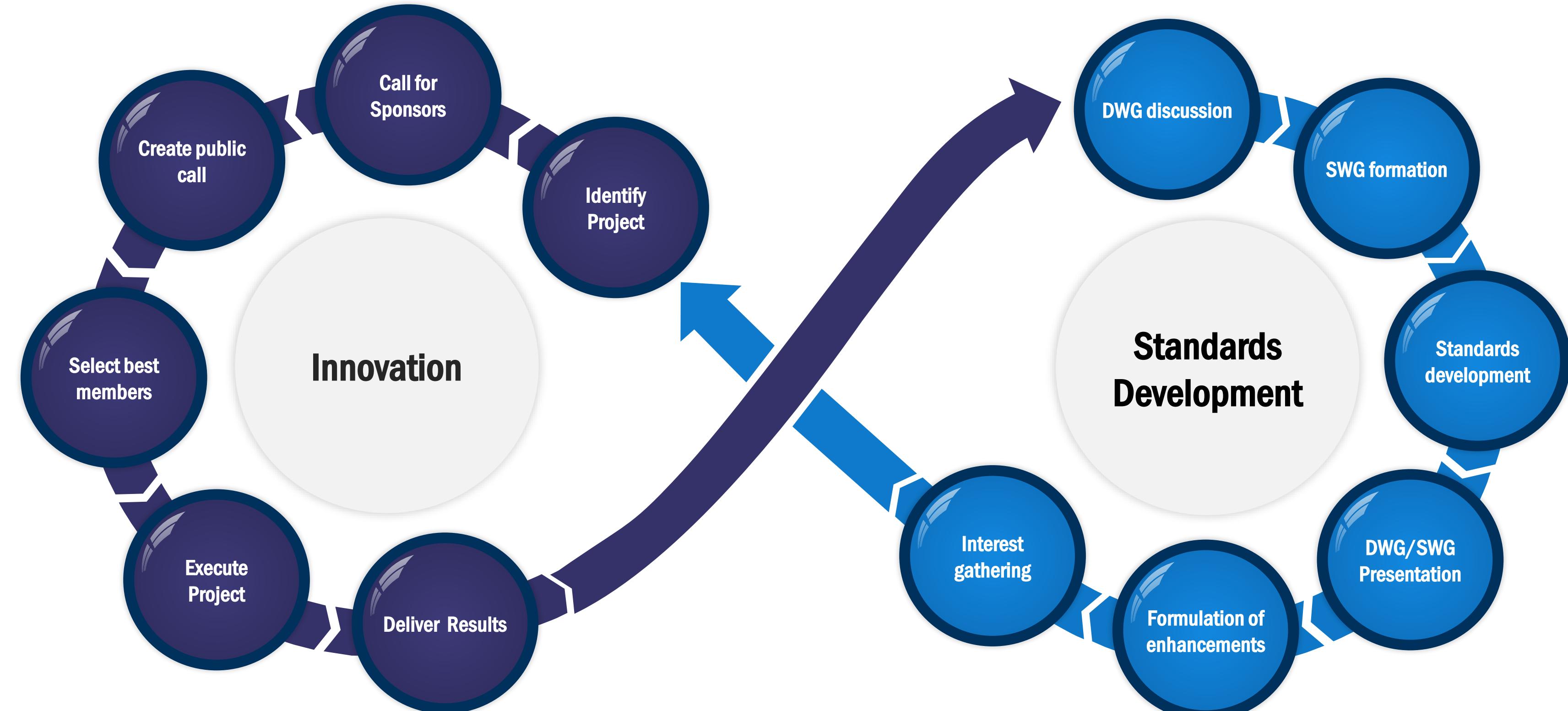
SENSORUP | **OGC**

<https://www.ogc.org/standards>



<https://www.ogc.org/projects/initiatives/active>

How can you engage?



- **Drive standards development and adoption**
 - OGC APIs and Cloud-native geo standards – geospatial for everyone
 - Models (underground, city, indoor, etc) – powering smart cities & the metaverse
 - Space standards – from tasking to data cubes to analysis to AI and decision-ready information

Domain Working Groups

- [3D Information Management DWG \(3DIM DWG\)](#)
- [Agriculture DWG \(Agriculture DWG\)](#)
- [Architecture DWG \(Arch DWG\)](#)
- [Artificial Intelligence in Geoinformatics DWG \(GeoAI DWG\)](#)
- [Aviation DWG \(Aviation DWG\)](#)
- [Big Data DWG \(BigData DWG\)](#)
- [Blockchain and Distributed Ledger Technologies DWG \(BDLT DWG\)](#)
- [Citizen Science DWG \(Citizen Science\)](#)
- [Coordinate Reference System DWG \(CRS DWG\)](#)
- [Covariances DWG \(Covariances DWG\)](#)
- [Data Preservation DWG \(PreservDWG\)](#)
- [Data Quality DWG \(DQ DWG\)](#)
- [Defense and Intelligence DWG \(D and I DWG\)](#)
- [Discrete Global Grid Systems DWG \(DGGS DWG\)](#)
- [Earth Observation Exploitation Platform DWG \(EO Ex Platform\)](#)
- [Earth Systems Science DWG \(ESS DWG\)](#)
- [Emergency and Disaster Management DWG \(EDM DWG\)](#)
- [Energy and Utilities DWG \(EnergyUtilities\)](#)
- [Geography Markup Language \(GML\) DWG \(GML DWG\)](#)
- [Geoscience DWG \(Geoscience DWG\)](#)
- [Geosemantics DWG \(Semantics\)](#)
- [Health DWG \(Health DWG\)](#)
- [Hydrology DWG \(Hydrology DWG\)](#)
- [Interoperable Simulation and Gaming DWG \(ISG DWG\)](#)
- [Land Administration DWG \(LandAdmin\)](#)
- [Land and Infrastructure DWG \(LandInfraDWG\)](#)
- [Marine DWG \(Marine DWG\)](#)
- [Metadata and Catalog DWG \(MetaCat DWG\)](#)
- [Meteorology & Oceanography DWG \(Met Ocean DWG\)](#)
- [Mobile Location Services DWG \(MLSDWG\)](#)
- [Perspective Imagery DWG \(PerspecImageryD\)](#)
- [Point Cloud DWG \(Point Cloud DWG\)](#)
- [Portrayal DWG \(Portrayal DWG\)](#)
- [Quality of Service and Experience DWG \(QoSE DWG\)](#)
- [Security DWG \(SecurityDWG\)](#)
- [Sensor Web Enablement DWG \(SensorWeb DWG\)](#)
- [Smart Cities DWG \(SmartCities DWG\)](#)
- [Statistical DWG \(Statistical DWG\)](#)
- [Temporal DWG \(Temporal DWG\)](#)
- [Uninhabited Systems \(UxS\) DWG \(UxS DWG\)](#)
- [University DWG \(Univ DWG\)](#)
- [Workflow DWG \(Workflow DWG\)](#)

Standards Working Groups

[3D GeoVolumes SWG \(3DGeoVol SWG\)](#)

[3D Portrayal SWG \(3DP SWG\)](#)

[CDB SWG \(CDB SWG\)](#)

[CityGML SWG \(CityGML SWG\)](#)

[Coverages SWG \(CoveragesSWG\)](#)

[CRS SWG \(CRS SWG\)](#)

[CRS Well Known Text SWG \(CRS WKT SWG\)](#)

[Discrete Global Grid Systems SWG \(DGGS SWG\)](#)

[Environmental Data Retrieval API SWG \(EDR-API SWG\)](#)

[EO Product Metadata and OpenSearch SWG \(EO PMOS SWG\)](#)

[Features and Geometries JSON SWG \(FeatGeoJSON SWG\)](#)

[Features API SWG \(FeatAPI SWG\)](#)

[GeoAPI SWG \(GeoAPI SWG\)](#)

[Geocoding API SWG \(GeocodeAPISWG\)](#)

[GeoPackage SWG \(GeoPackage SWG\)](#)

[GeoPose SWG \(GeoPose SWG\)](#)

[GeoSciML SWG \(GeoSciML SWG\)](#)

[GeoSPARQL SWG \(GeoSPARQL SWG\)](#)

[Geospatial User Feedback SWG \(GUFswg\)](#)

[GeoSynchronization 1.0 SWG \(Geosync SWG\)](#)

[GeoTIFF SWG \(GeoTIFF SWG\)](#)

[GeoXACML SWG \(GeoXACML SWG\)](#)

[GML 3.3 SWG \(GML 3.3 SWG\)](#)

[GMLJP2 SWG \(GMLJP2-SWG\)](#)

[Groundwater SWG \(GroundwaterSWG\)](#)

[HDF SWG \(HDF SWG\)](#)

[Hydrologic Features SWG \(HydroFeat SWG\)](#)

[IndoorGML SWG \(IndoorGML SWG\)](#)

[KML 2.3 SWG \(KML SWG\)](#)

[Land and Infrastructure SWG \(LandInfraSWG\)](#)

[Moving Features SWG \(MovFeat SWG\)](#)

[MUDDI SWG \(MUDDI SWG\)](#)

[NetCDF SWG \(NetCDFSWG\)](#)

[O&M SWG \(OM SWG\)](#)

[OGC API - Common SWG \(OGC API-Common\)](#)

[OGC API - Maps SWG \(OGC API - Maps\)](#)

[OGC API - Processes SWG \(OAPIProc SWG\)](#)

[OGC API - Records SWG \(API Records SWG\)](#)

[OGC API - Styles SWG \(Styles API SWG\)](#)

[OGC API - Tiles SWG \(OAPITileSWG\)](#)

[OWS Common - Security SWG \(ComSecuritySWG\)](#)

[OWS Context SWG \(OWScontextSWG\)](#)

[PipelineML SWG \(PipeML SWG\)](#)

[Points of Interest SWG \(PoI SWG\)](#)

[PubSub SWG \(PubSub SWG\)](#)

[Routing SWG \(Routing SWG\)](#)

[Sensor Model Language \(SensorML\) 2.0 SWG \(SensorML2.0SWG\)](#)

[SensorThings SWG \(SensorThings\)](#)

[Simple Features SWG \(SF SWG\)](#)

[Styles and Symbology Encoding SWG \(Styles SE SWG\)](#)

[Temporal WKT for Calendars SWG \(TemporalWKT\)](#)

[TimeSeriesML SWG \(TimeSeriesML\)](#)

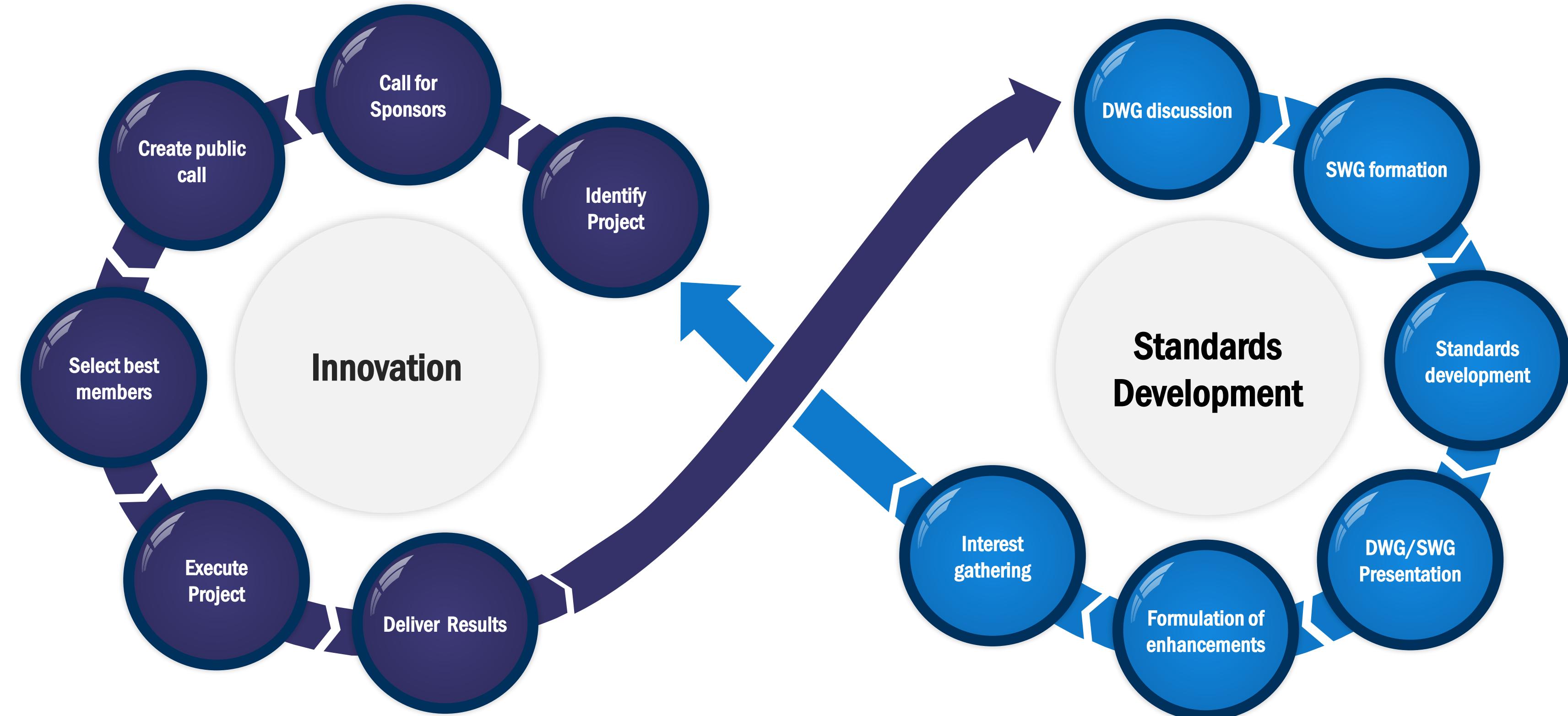
[Training Data Markup Language for AI SWG \(TrainingDML SWG\)](#)

[WaterML 2.0 SWG \(WaterML2.0SWG\)](#)

Regional Forums

The location community represents OGC in regions from across the globe:

- Asia Forum
- Australia and New Zealand Forum
- Canada Forum
- [China Forum](#)
- Europe Forum
- France Forum
- ILAF (Iberian and Latin-American Forum)
- India Forum
- Korea Forum
- Middle East and North Africa Forum
- Nordic Forum
- North American Forum
- UK & Ireland Forum



- **Participate an Innovation Initiative**
 - Testbed 18
 - Integrated Digital Built Environment Pilot
 - Climate Change Pilot
 - Disasters and Health Spatial Data Infrastructure

- **Drive standards development and adoption**
 - OGC APIs and Cloud-native geo standards – geospatial for everyone
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 - Space standards – from tasking to data cubes to analysis to trusted AI and decision-ready information

Value of OGC

Community – Innovation - Standards

Value of standards

- Increase trust in my product/solutions
- Reduce risk for my customers
- Lower costs of integration
- Open new markets/ops

Agility Growth Impact

Value of community

- Increase credibility & visibility
- Enhance competitiveness
- Grow customer & partner base
- Collect BD intel

The value proposition

- Collaborate in OGC to advance standards and interoperability to:
 - Support user's demand for rapid integration of new / additional capabilities, freedom from architectural "lock in"
 - Understand customer pain points and influence outcomes
 - Ease implementation and reduce development/deployment cost of industry offerings into customer environment
 - Demonstrate corporate leadership in promoting FAIR principles
 - Be early to market with latest standards desired by users
 - Advance business development, establish partnerships
 - Gain insight into market and technology trends
 - Gain experience in application of OGC and complementary standards

You would make an effective participant in OGC

- If you believe in FAIR data => geospatial as the "glue"
- If you have a business need/a pain that needs addressing => requirements
- If you want to get from data to decision-ready information => interoperability
- If you believe in collective problem solving => collaboration
- If you are willing to roll your sleeves, experiment and iterate => agile
- If you have or want to keep up with innovative ideas => innovation
- If you believe in quality and tested results => accelerated impact



What is OGC?

A hub for thought leadership, innovation, and standards for all things related to location

Our Vision

Building the future of location with community
and technology for the good of society

Our Mission

Make location information Findable, Accessible,
Interoperable, and Reusable (FAIR)

Our Approach

A proven collaborative and agile process combining consensus-based
standards, innovation project, and partnership building



Thank You

Community

500+ International Members
110+ Member Meetings
60+ Alliance and Liaison partners
50+ Standards Working Groups
45+ Domain Working Groups
25+ Years of Not for Profit Work
10+ Regional and Country Forums

Innovation

120+ Innovation Initiatives
380+ Technical reports
Quarterly Tech Trends monitoring

Standards

65+ Adopted Standards
300+ products with 1000+ certified implementations
1,700,000+ Operational Data Sets
Using OGC Standards



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