

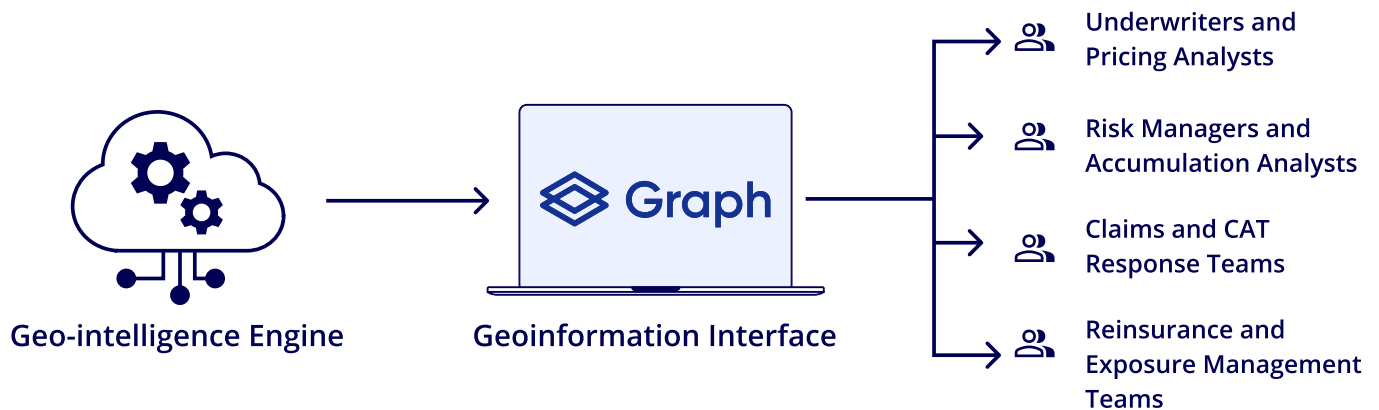


Product Brief

Graph

Cloud-Based Location Intelligence Application for Insurance

Graph is a cloud-native, SaaS location intelligence solution that enables rapid risk assessments, advanced accumulation analysis, and real-time portfolio management through an intuitive, enterprise-ready interface. From underwriting to catastrophe (CAT) response, Graph equips both technical and business teams to make faster, smarter decisions based on accurate and comprehensive geospatial insights.



Market Context

Insurers today face mounting challenges:

- ◆ Increasing frequency and impact of natural hazards alongside real-time event data needs.
- ◆ Integration of complex risk data, such as CRESTA zones and geopolitical risk datasets.
- ◆ Managing and normalizing vast, diverse portfolio datasets, including postal codes and social demographics.
- ◆ Meeting stringent compliance, risk mitigation, pricing accuracy, capital allocation, accumulation control, operational efficiency, and AI-readiness requirements.

Graph meets these demands by transforming raw, distributed geospatial data into actionable insurance intelligence within a unified platform, saving time and elevating precision across insurance workflows.

Insurers use Graph for:

→ **Underwriting and Pricing Analysis:**

Visualize current risk exposures, geographic concentrations, and portfolio accumulations instantly, accelerating data-driven underwriting and pricing decisions.

→ **Risk and Accumulation Management:**

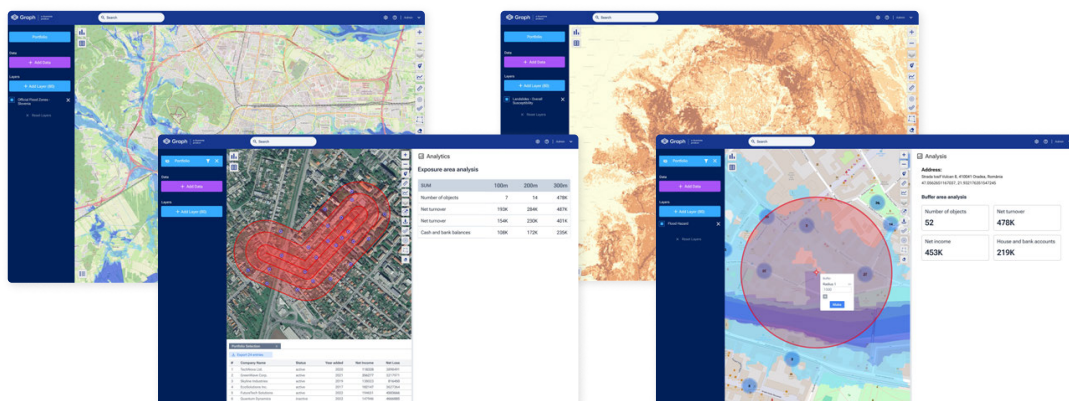
Monitor portfolio risk hotspots continuously by peril, policy class, or custom regions. Identify and mitigate accumulation and overexposure risks before losses occur.

→ **Claims and CAT Response:**

Overlay live or historical hazard data, including floods, wildfires, and storms, against active policies for rapid impact assessments. Integrated Google Street View facilitates remote property inspections and risk evaluation.

→ **Compliance and Reinsurance Reporting:**

Automate audit-ready, detailed accumulation reports in CSV and PDF for regulators, reinsurers, and internal teams, reducing manual labor and speeding compliance workflows.



The Graph Experience



User-Centric Design for Effortless Risk Insights

Graph centralizes and consolidates vast, complex data silos into a unified, clear, and comprehensive risk overview tailored for insurance professionals. Its intuitive, user-friendly interface empowers professionals, regardless of their GIS expertise, to confidently access, interpret, and act on critical geospatial insights with ease.



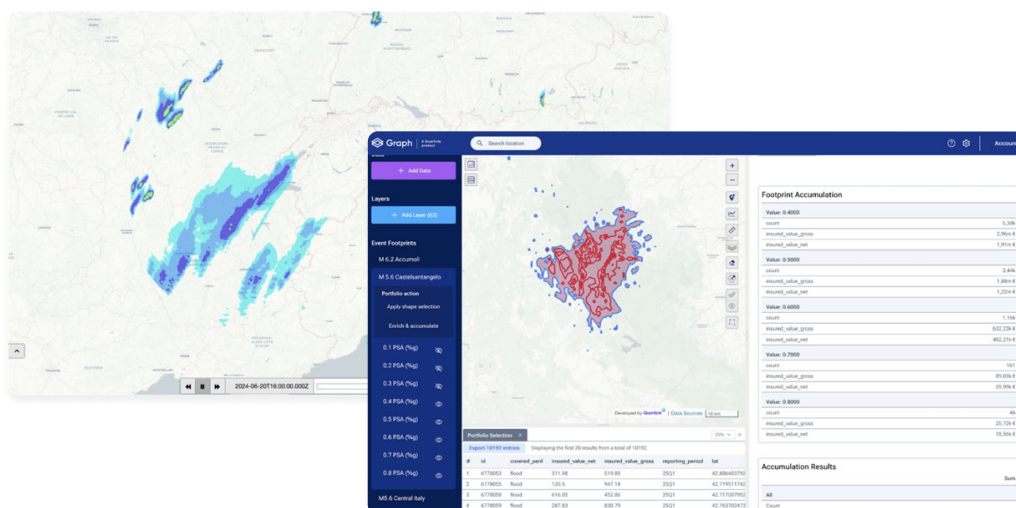
Optimized Performance for Time-Sensitive Insurance Decisions

Graph's advanced performance is a key advantage for insurance professionals who rely on timely insights. Powered by the robust Qarta™ geointelligence engine, Graph delivers fast loading times and rapid query responses, enabling insurance teams to access critical spatial data and make informed decisions without delay.



Direct Access to Live Event Footprints and GeoModels

Graph provides insurers with immediate access to authoritative live event footprints through EventHub and advanced GeoModels, bringing real-time hazard intelligence directly into portfolio analysis. Whether monitoring an unfolding flood, wildfire, or storm, professionals can overlay these datasets seamlessly onto active policies. This integration eliminates delays and ensures that underwriting and claims teams act on the most current event data.





Conversational AI Integration

Graph integrates advanced conversational AI capabilities featuring:

- Natural language interaction with geospatial risk models.
- Context-aware, multi-step dialogues with memory for iterative analysis.
- Human-in-the-loop control for reviewing and approving AI-driven recommendations.
- Dynamic map generation, overlay visualization, and report creation on demand.

This makes complex geospatial analytics accessible to all users, removing expertise barriers and enhancing decision agility.



Versatile Accessibility Across Insurance Workflows

As a web-based application, Graph offers unmatched versatility, allowing insurance professionals to securely access critical geospatial insights from any device with an internet connection. Whether in the office, field, or during a CAT response, professionals can stay connected and informed at all times.



Configurable to Align with Insurance Data Needs

Graph seamlessly integrates with a wide variety of data formats common in insurance workflows (including databases, CSV files, shapefiles, raster, vector, and point data). The platform's configurable settings allow users to customize language preferences, measurement units, and other metrics, ensuring it perfectly fits your organization's unique data standards and operational requirements.



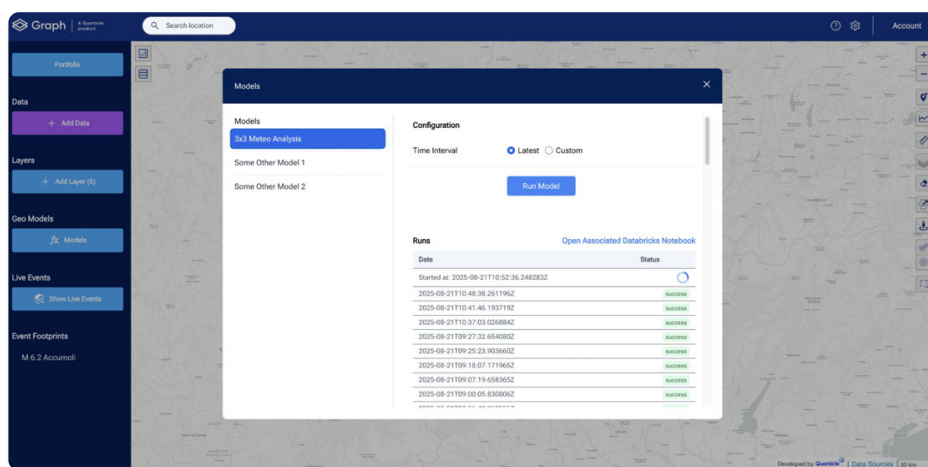
Intuitive Integration with Leading Mapping Services

Graph enhances your spatial analysis by superimposing your insurance data on industry-leading imaging services such as OpenStreetMap, Google Maps, and Bing Maps. Additionally, it supports integration with standard OGC map services, including WMS, WMTS, WFS, and WPS powered by Qarta™, to enrich your risk modeling and visualization capabilities.



Seamless Direct Integration with Databricks and Power BI

Graph connects directly with Databricks Notebooks and Power BI Visuals, enabling insurance professionals to work with geospatial insights inside their existing analytics and reporting environments. Whether running large-scale portfolio analyses in Databricks or presenting risk intelligence alongside business KPIs in Power BI, teams can streamline workflows, eliminate manual data transfers, and ensure decisions are always based on the latest spatial intelligence.



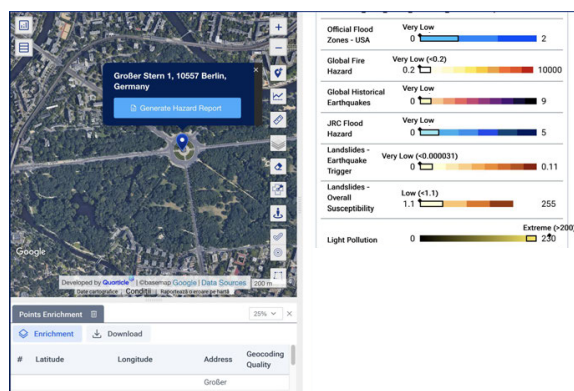
Interactive Insights for Collaborative Insurance Decision-Making

Designed for engagement, Graph provides an interactive experience that allows insurance professionals to explore and present geospatial data dynamically. Export actionable insights, including hazard analyses, as CSV or PDF reports, facilitating collaboration across underwriting, risk management, and compliance teams.

Product Capabilities

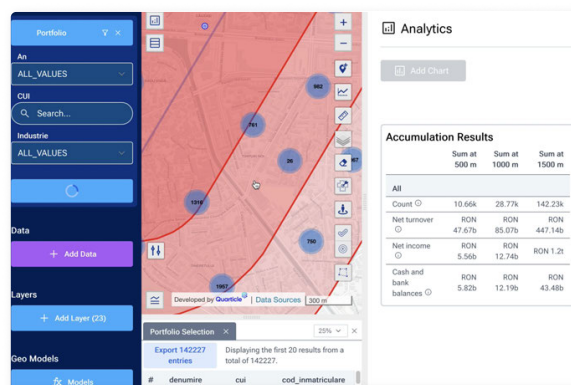
➔ Data Visualization

- Combine multiple internal insurance datasets with external hazard layers for rich, multi-faceted insights
- Visualize risk patterns and exposures through interactive charts and dynamic graphics
- Generate location-specific risk scores and capture screenshots for internal review or client presentations
- Create customized, professional PDF reports for streamlined sharing and collaboration across underwriting, risk, and executive teams



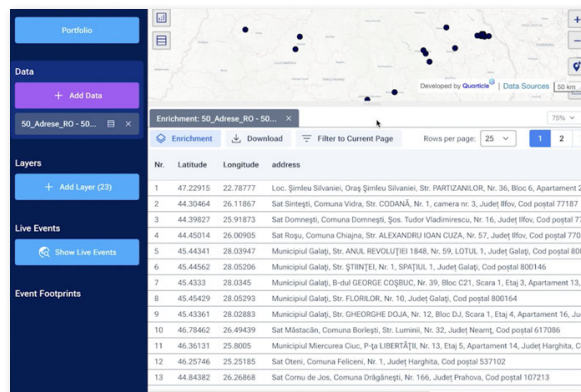
➔ Accumulation Control

- Seamlessly switch to map view to analyze your entire insurance portfolio spatially
- Visualize policies, insured assets, and real estate locations directly on interactive maps
- Utilize aggregation tools such as districts, concentric circles, polygons, and shape selection to identify risk concentrations and accumulation hotspots
- Apply interactive filters and multiple data layers to deeply explore portfolio risk exposures by peril, geography, or policy class



→ Risk Assessment

- Quickly analyze risk scores at individual locations to identify vulnerable properties or portfolio weak spots
- Generate and verify accurate geographic coordinates and addresses with integrated geocoding and reverse geocoding tools
- Assign hazard scores automatically to large datasets via batch enrichment, accelerating underwriting and portfolio reviews
- Import, enrich, and export CSV files rapidly to support data-driven workflows
- Visualize tabular data alongside maps for comprehensive spatial correlation and risk insight



The screenshot shows a web application interface for risk assessment. On the left is a dark sidebar with navigation options: Portfolio, Data (with '+ Add Data'), Layers (with '+ Add Layer (23)'), Live Events (with 'Show Live Events'), and Event Footprints. The main area features a map with several black dots representing data points. Below the map is a table titled 'Enrichment: 50_Adresse_R0 - 50...' with columns for 'Nr.', 'Latitude', 'Longitude', and 'address'. The table contains 13 rows of data. At the bottom right of the table, there are controls for 'Filter to Current Page', 'Rows per page' (set to 25), and page numbers '1', '2', '3'.

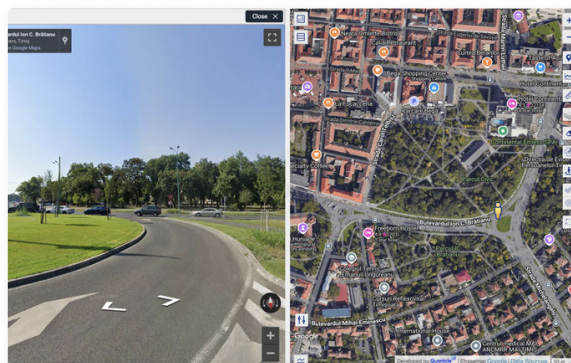
Nr.	Latitude	Longitude	address
1	47.22915	22.78777	Loc. Șimleu Silvaniei, Oraș Șimleu Silvaniei, Str. PARTIZANILOR, Nr. 36, Bloc 6, Apartament 2...
2	44.30464	26.11867	Sat Sânteghi, Comuna Vidra, Str. CODANĂ, Nr. 1, camera nr. 3, Județ Bihor, Cod postal 77187
3	44.39827	25.91873	Sat Domnești, Comuna Domnești, Șos. Tudor Vladimirescu, Nr. 16, Județ Bihor, Cod postal 77042
4	44.45014	26.00905	Sat Rospu, Comuna Chagna, Str. ALEXANDRU IOAN CUZA, Nr. 57, Județ Bihor, Cod postal 77042
5	45.44341	28.03947	Municipiul Galați, Str. ANUL REVOLUȚIEI 1848, Nr. 59, LOTUL 1, Județ Galați, Cod postal 8001
6	45.44562	28.05206	Municipiul Galați, Str. ȘTIINȚEL Nr. 1, SPAȚIUL 1, Județ Galați, Cod postal 800146
7	45.4333	28.0345	Municipiul Galați, B-dul GEORGE COSBUC, Nr. 39, Bloc C21, Scara 1, Etaj 3, Apartament 13, Județ Galați, Cod postal 800144
8	45.45429	28.05293	Municipiul Galați, Str. FLORILOR, Nr. 10, Județ Galați, Cod postal 800144
9	45.43361	28.02883	Municipiul Galați, Str. GHEDORGHE DOJA, Nr. 12, Bloc D1, Scara 1, Etaj 4, Apartament 16, Județ Galați, Cod postal 800144
10	46.78462	26.49439	Sat Măstăcăn, Comuna Borlești, Str. Lumini, Nr. 32, Județ Neamț, Cod postal 617086
11	46.36131	25.8005	Municipiul Miercurea Ciuc, P-ța LIBERTĂȚII, Nr. 13, Etaj 5, Apartament 14, Județ Harghita, Cod postal 537102
12	46.25746	25.25185	Sat Otnei, Comuna Felicești, Nr. 1, Județ Harghita, Cod postal 537102
13	44.84382	26.26868	Sat Cornu de Jos, Comuna Drăgănești, Nr. 166, Județ Prahova, Cod postal 107213

→ Embedded Map Sharing

- Customize risk maps fully to meet specific analysis needs
- Share interactive maps as embedded content to enhance transparency and stakeholder engagement

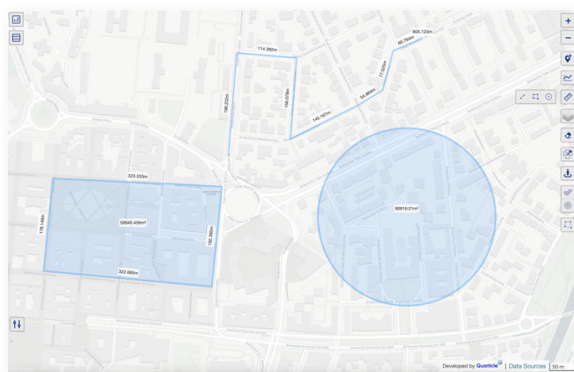
→ Integrated Street View

- Leverage embedded Google Street View for remote property inspections and enhanced risk evaluations, saving time and improving decision accuracy



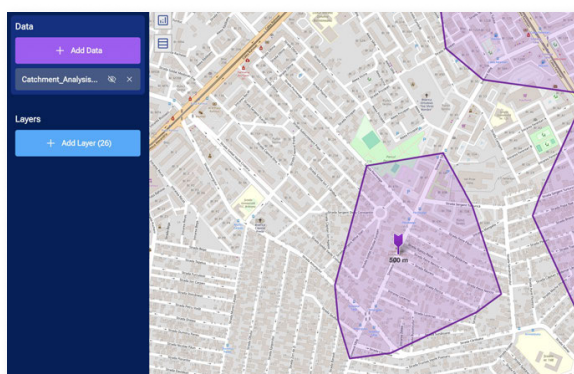
→ Robust Map Tools

- Access and navigate standard background maps and high-resolution aerial or satellite imagery
- Use precision tools for measuring distances, areas (rectangle, polygon, circle), and profile elevation, which are crucial for underwriting and site assessment



→ Live Catchment Area Analysis

- Create multiple manual catchment area analyses to evaluate geographic reach or risk concentration
- Customize distance parameters according to business or regulatory needs
- Save analyses individually or bundle several together for convenient sharing with stakeholders

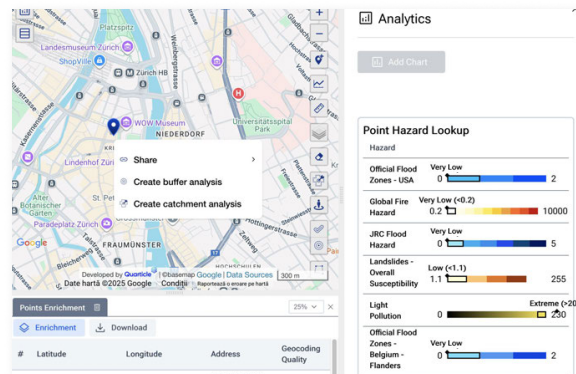


→ User Management and Security

- Create and manage user accounts with the ability to assign roles and control access to sensitive data layers
- High-level administrators can review detailed access logs, action histories, and monitor usage metrics, ensuring regulatory compliance and protecting sensitive insurance data.

→ Sharing and Collaboration

- Share location-based analyses and maps using unique links with role- and layer-based permission controls
- Facilitate seamless collaboration across underwriting, risk, claims, and compliance teams



→ API Token Creation

- Generate API tokens that function like user credentials, enabling secure integration and access for specific departments or users
- API token capabilities include server authentication, location search, geocoding/reverse geocoding, data enrichment, and map layer viewing

Graph is Suited For



**Underwriters and
Pricing Analysts**



**Risk Managers and
Accumulation Analysts**



**Claims and CAT
Response Teams**



**Compliance and
Regulatory Reporting
Teams**



**Reinsurance and
Exposure Management
Teams**



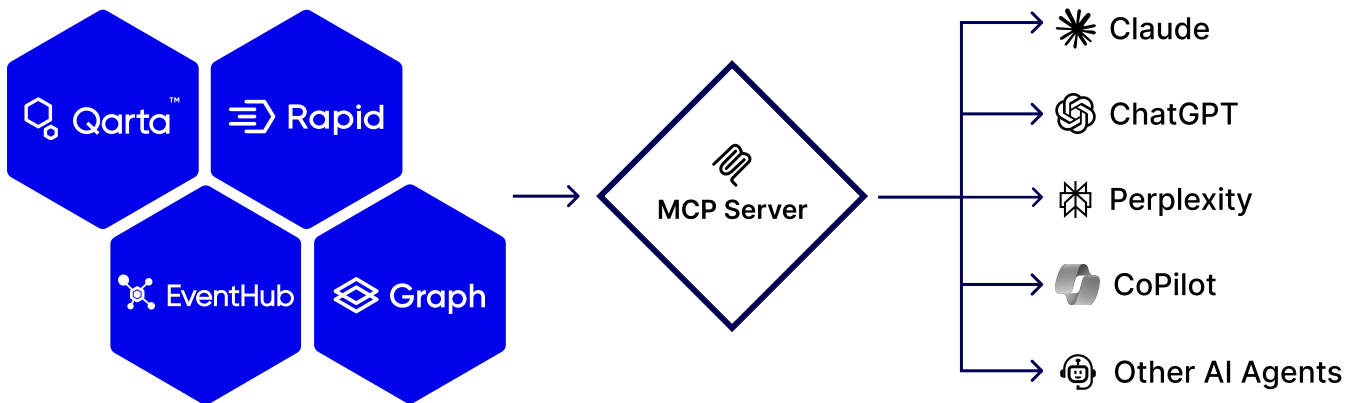
**GIS Analysts and Data
Science Teams**



**Portfolio Managers and
Executives**

AI Integration & AI Readiness with MCP Server

The Model Context Protocol (MCP) unifies Quartile's product ecosystem (Qarta™, Graph, RAPID, and EventHUB) through a single, secure AI integration layer.



What MCP Delivers:



Seamless integration:

Single AI integration layer across all Quartile products.

Real-time, context-rich AI:

AI models gain access to live organizational data.

Efficiency and scalability:

Removes redundant integrations and reduces maintenance.

Future-proof and Secure:

Modular, extensible, enterprise-grade privacy and compliance.

This fully AI-enabled platform empowers insurers to harness AI-powered spatial analytics tailored to their unique needs, driving smarter decisions and unlocking greater business value.



Quarticle delivers next-generation, cloud-native geo-intelligence solutions that empower organizations to manage, analyze, and distribute geospatial data at scale—securely, flexibly, and with industry-leading performance. Founded by experts from SwissRe, Oracle, HPE, Google, and ESRI, we specialize in delivering the fastest, most reliable geo-intelligence solutions for demanding enterprise projects.



Ready to See Graph in Action?

Learn how to future-proof your insurance workflows with our powerful, cloud-native location geoIntelligence application.



[Schedule a meeting](#)

Company Information

Headquarters: Baden, Switzerland
Development Centers: Arad and Timișoara, Romania
Founded: 2018
Core Expertise: Cloud-native
GeoServer-as-a-Service in any environment

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