



HydroGeoTwin

predictive water intelligence

Core Solutions

- **Water Forecasting & Availability:** Estimation of groundwater recharge, storage, and surface water dynamics by integrating satellite, in-situ, and climate data with AI-based models.
- **Land & Soil Dynamics:** Monitoring vegetation, soil moisture, and erosion to anticipate land-use impacts, optimize recharge, and reduce siltation.
- **Environmental Certifications & Water Sustainability:** Science-based indicators for ESG reporting, auditing, and compliance, ensuring traceability and transparency.
- **Data Management & Visualization:** Centralized organization, processing, and visualization of multi-source environmental databases through custom dashboards and KPIs.
- **Adaptive Analysis Modules:** From data-scarce regions to full digital twins, HydroGeoTwin adapts its modular architecture to integrate remote sensing, modeling, and simulations for diverse operational needs.

About the Company

HydroGeoTwin UG is a science-driven deep-tech startup developing AI- and satellite-powered digital twins for predictive water and environmental management. Supported by the European Space Agency Business Incubation Centre (ESA BIC) in Germany and co-founded by TIMGEO GmbH, HydroGeoTwin connects Earth observation, modeling, and IoT technologies to deliver real-time, actionable insights for sustainable water governance. Our mission is to transform fragmented environmental information into data-driven intelligence for groundwater, surface water, and land management. We believe water security starts with a clear and evolving understanding of the system and we turn that belief into a scalable, global solution.

Partners & Network

HydroGeoTwin collaborates with global leaders in science, technology, and innovation, including: ESA BIC, Green Space Center, TIMGEO GmbH, University of Tübingen, Wageningen University & Research (Netherlands), FMD Geologia Aplicada (Brazil), São Paulo State University (UNESP), and the Federal University of Sergipe (UFS).

Key Clients

- Mining and Energy Companies
- Public Water Agencies
- Agribusiness and Industries
- Environmental Consultancies
- ESG & Compliance Institutions

Office

Karlstraße, 3 72072 – Tübingen



info@hydrogeotwin.com



www.hydrogeotwin.com