leapfrog | WORKS

SOLUTION BRIEF

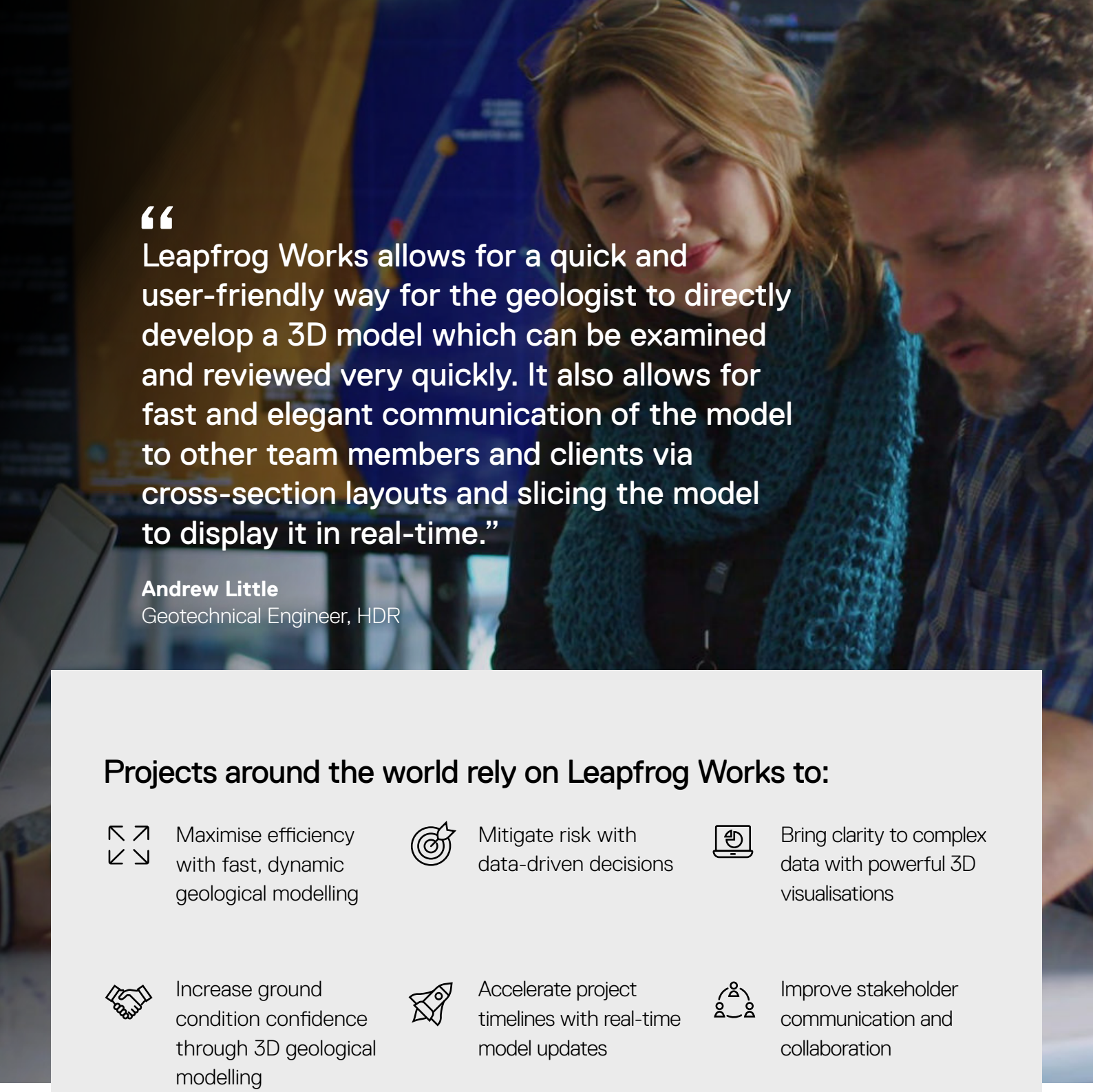
TRANSFORM GROUND DATA INTO INSIGHT WITH LEAPFROG WORKS

In civil engineering and environmental projects, understanding subsurface conditions is critical for reducing risk and driving project success. Whether it's during the planning or construction phase, project teams need efficient, reliable geological insights to make informed decisions and avoid costly surprises.

Seequent's Leapfrog Works is the industry-leading 3D geological modelling software built specifically for civil and environmental projects. Designed to deepen subsurface understanding, improve collaboration across teams, and simplify communication with stakeholders, Leapfrog Works helps organisations keep projects on time and on budget.

SEEQUENT

Seequent, The Bentley Subsurface Company



“Leapfrog Works allows for a quick and user-friendly way for the geologist to directly develop a 3D model which can be examined and reviewed very quickly. It also allows for fast and elegant communication of the model to other team members and clients via cross-section layouts and slicing the model to display it in real-time.”

Andrew Little
Geotechnical Engineer, HDR

Projects around the world rely on Leapfrog Works to:

- Maximise efficiency with fast, dynamic geological modelling
- Mitigate risk with data-driven decisions
- Bring clarity to complex data with powerful 3D visualisations
- Increase ground condition confidence through 3D geological modelling
- Accelerate project timelines with real-time model updates
- Improve stakeholder communication and collaboration

Successful projects are powered by Leapfrog Works

Maximise efficiency with fast, dynamic geological modelling

Advanced implicit modelling quickly transforms raw data into actionable 3D models, enabling teams to move from data to insights faster. Its intuitive workflows allow geologists to efficiently explore multiple scenarios at once, improving decision-making and minimizing risk. By streamlining the modelling process, Leapfrog Works helps keep projects on schedule while delivering better outcomes.

Mitigate risk with data-driven decisions

Civil engineering and environmental projects rely on understanding subsurface risks that can disrupt construction or lead to environmental damage. Leapfrog Works integrates a variety of data sources—from boreholes to geophysics—into a comprehensive model, enabling teams to make well-informed, data-driven decisions that minimise costly risks.

Communicate complex data with clear visualisations

Leapfrog Works lets you visualise your data through 3D models that make it easier to communicate complex geological data to non-technical stakeholders, including management, clients, and the general public. These visualisations help convey subsurface risks and opportunities clearly, fostering trust and understanding among stakeholders.

Increase ground condition confidence through 3D geological modelling

Accurately assessing subsurface continuity is critical to civil engineering projects such as tunnelling, dam construction, and large-scale road developments. Leapfrog Works provides reliable 3D models that allow teams to better understand geological continuity, reducing uncertainty and enabling confident planning, ensuring the safety and stability of infrastructure projects.

Accelerate project timelines with real-time model updates

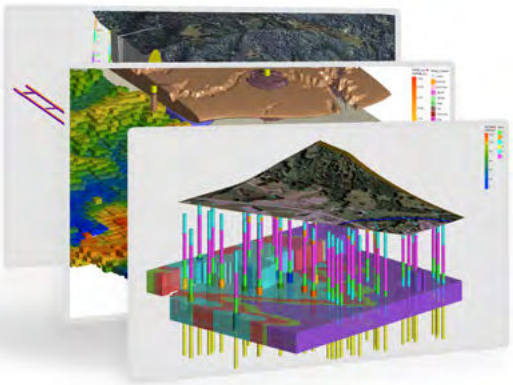
As new data becomes available throughout the project, Leapfrog Works dynamically updates models, ensuring they always reflect the latest information without the need for manual updates. This enables project teams to respond quickly to changing site conditions, reducing delays and avoiding costly rework.

Enhance collaboration across geotechnical workflows

Leapfrog Works is part of Seequent's connected geotechnical ecosystem, including OpenGround, Central, GeoStudio, and PLAXIS. By enabling team members to flow outputs through interoperable and complementary solutions, Leapfrog Works breaks down siloes and ensures geotechnical data is always up-to-date and accessible. This iterative, dynamic workflow reduces rework, keeps projects on track, and supports better decision-making, enabling teams to collaborate more effectively and deliver aligned project outcomes.

Explore the key features that power Leapfrog Works

Leapfrog Works helps transform raw data into actionable insights with a range of advanced modelling and visualisation tools. Here's a look at the key features that support faster workflows, better collaboration, and more confident decision-making.



Dynamic 3D modelling

Spend less time building models and more time interpreting and sharing insights

- Explore various hypotheses and update them dynamically with your latest information
- New borehole data is dynamically updated
- Create static models for comparison and reference

Ground type classifications

Build 3D geological and numeric models from a wide variety of data sources

- Integrate data from boreholes, GIS, 2D grids, maps, and more
- Combine rock mass ratings, soil behaviour, or contaminant concentrations with geological domains
- Perform structural modelling and use borehole planning tools to improve accuracy

Engineering designs

Visualise and work with your engineering data directly in the geological context model to make better design decisions

- Import alignments, build surface topography, and create excavation volumes for design integration
- Create and manage longitudinal sections to inform project planning
- Understand tunnel, earthworks, bridge, dam, and foundation designs in geological context

Environmental insights

Assess environmental risks with dynamic geological models

- Combine geological models with geophysical data or water sample screens to visualise environmental risks
- Model contaminant plumes and saltwater intrusion in 3D
- Use the Hydrogeology Solution Kit to integrate geological and flow models for groundwater simulation

Industry interoperability Ensure seamless compatibility with industry standards and other common software	• Export data in industry-standard BIM formats such as DXF, DWG, and IFC • Import and export data from GIS software, including Esri and Map Info • Part of a connected workflow with OpenGround Cloud, GeoStudio, PLAXIS, and Seequent Central
Collaboration tools Effortlessly share geological insights and work in tandem with teams and stakeholders	• Export and share 3D scenes, movies, and cross-sections • Annotate scenes for enhanced clarity • Collaborate via Seequent Central for version control and team alignment
Cross sections Create and visualise cross sections from any angle to improve analysis and project planning	• Generate cross sections and update them dynamically as models evolve • Import historic sections and tailor outputs for reports and geotechnical analysis • Detect errors and identify correlations in your models faster
Intuitive interface Leapfrog Works is designed specifically for geologists, offering intuitive workflows that allow users to	• Learn the fundamentals in just days • Start modelling faster and spend more time on analysis • Navigate tools with ease, focusing on geological tasks
Hydrogeology extension Integrate hydrogeology models, reducing groundwater risks in your projects	• Create and visualise MODFLOW and FEFLOW grids/meshes directly from your geological models • Assign properties and update flow models dynamically • Share 3D models and grids with stakeholders using Leapfrog Viewer
Contaminants extension Characterise and visualise contaminants in land and groundwater environments	• Model contaminant mass and location in 3D • Create auditable estimates of contamination levels • Enhance environmental safety and remediation planning

A world of support at your fingertips

Beyond the powerful features of Leapfrog Works, Seequent offers comprehensive support and learning resources to help you get the most out of your investment.

Learning Centre

Maximise the value of Seequent's solutions with a range of flexible learning opportunities through the Seequent Learning Centre. Whether you prefer online learning paths, on-demand videos, or instructor-led courses, there are resources tailored to your needs.

Explore learning opportunities →

4.9/5
rating for Seequent e-learning from 16,000+ reviews

Community

Connect with a global network of geoscientists and professionals through the Seequent Community. Whether you're looking for peer support, insights from industry experts, or practical tips to get the most from Seequent's solutions, Seequent Community offers a space for shared learning and collaboration.

Join the community →

7,400+
customers in 145+ countries

Support

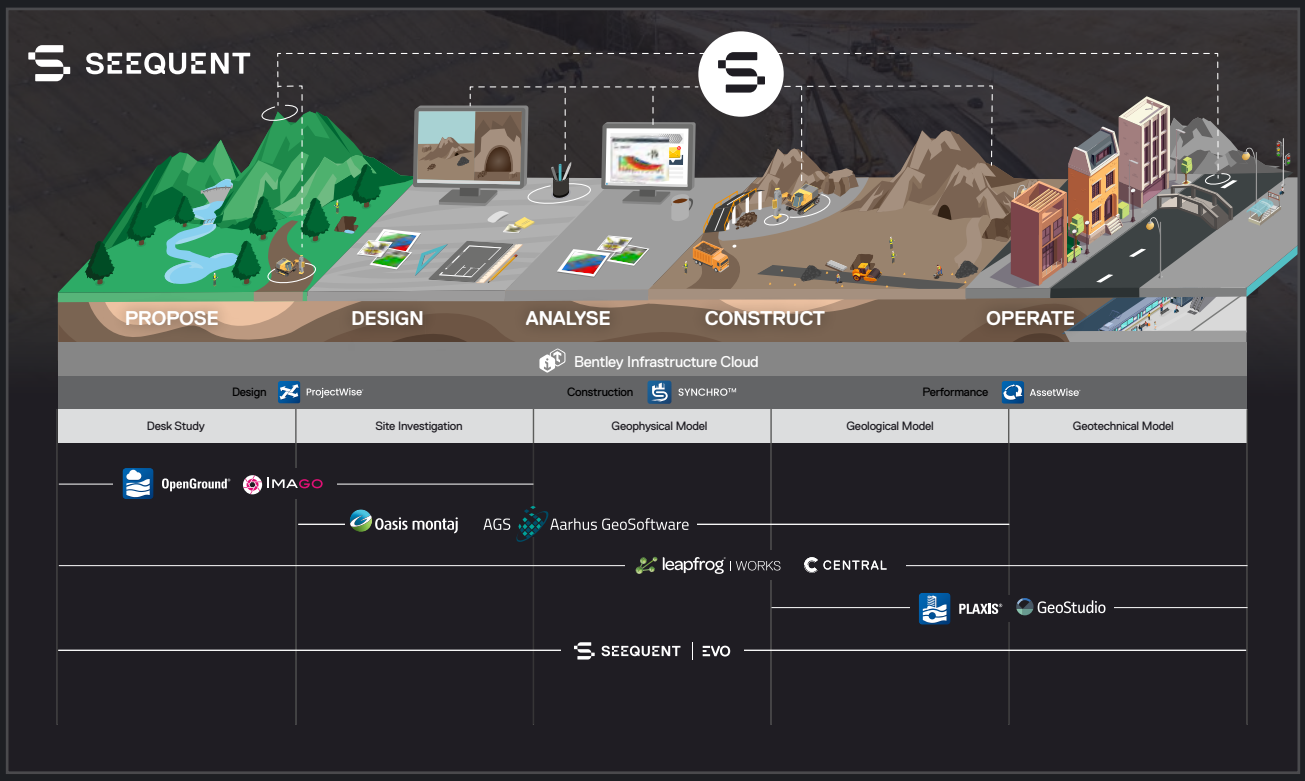
Get the most from your Seequent solutions anytime, anywhere. Access our knowledge base, connect with technical experts, or explore specific support options for all Seequent products, keeping your projects running smoothly and efficiently.

Get support →

95%
satisfaction with our front-line help and support

Intelligent geoscience for mining: See deeper with Seequent

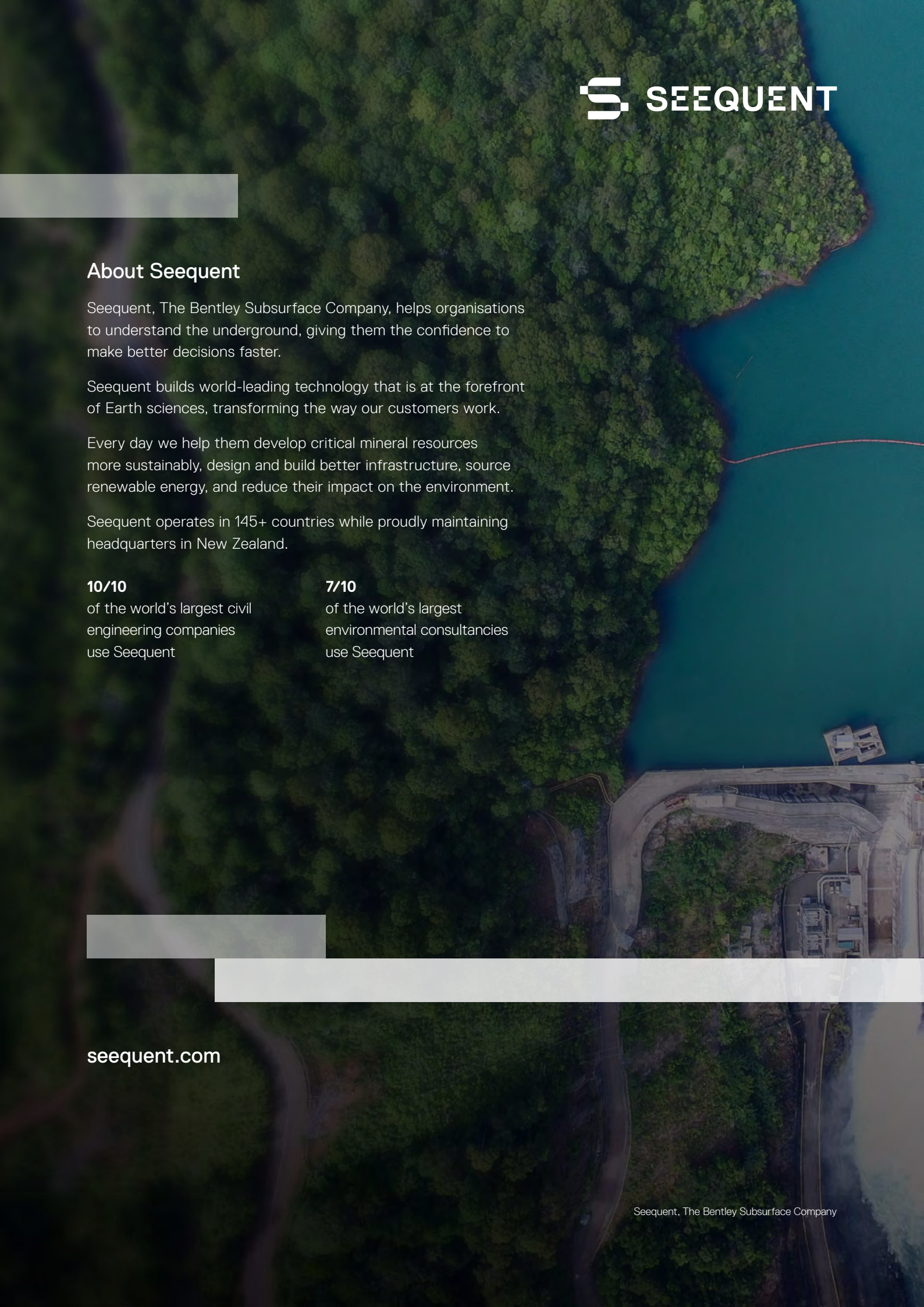
Build better infrastructure and manage environmental risks with Seequent. From site investigation to project close-out, Seequent's geoscience solutions help teams make smarter decisions and minimise subsurface uncertainty.



Discover the power of Leapfrog Works today

Leapfrog Works is available for purchase through Bentley's eStore →

Visit seequent.com/leapfrog-works to explore product videos, customer success stories, or request a free 14-day trial or live demo.



SEEQUENT

About Seequent

Seequent, The Bentley Subsurface Company, helps organisations to understand the underground, giving them the confidence to make better decisions faster.

Seequent builds world-leading technology that is at the forefront of Earth sciences, transforming the way our customers work.

Every day we help them develop critical mineral resources more sustainably, design and build better infrastructure, source renewable energy, and reduce their impact on the environment.

Seequent operates in 145+ countries while proudly maintaining headquarters in New Zealand.

10/10
of the world's largest civil engineering companies use Seequent

7/10
of the world's largest environmental consultancies use Seequent

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