leapfrog | EDGE

SOLUTION BRIEF

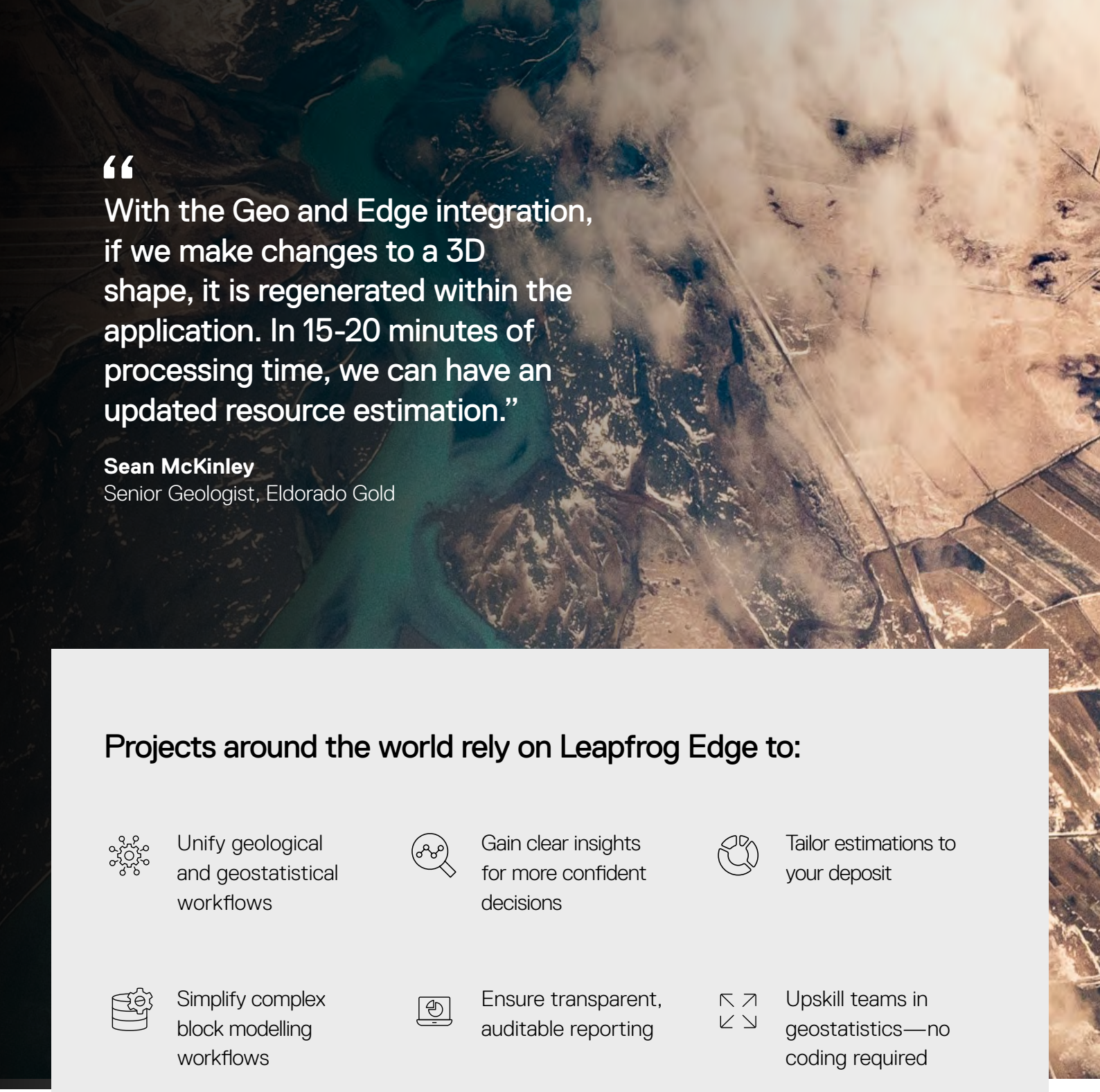
GENERATE RELIABLE MINERAL RESOURCE MODELS WITH LEAPFROG EDGE

Mineral resource estimates sit at the core of every high-stakes mining decision, from scoping studies to reserve statements. However, many resource geologists and geostatisticians still juggle hand-coded scripts, siloed datasets, and endless file exports. These version-prone workflows slow iteration, block audit trails, and make it harder to defend tonnage-and-grade numbers under NI 43-101 or JORC scrutiny. The result is uncertainty that ripples through drill budget approvals and mine plan schedules.

Seequent's Leapfrog Edge is an advanced estimation tool built on the familiar Leapfrog interface. It unifies geostatistical estimation in a single, intuitive workspace that dynamically links to geological models in Leapfrog Geo. Guided, no-code workflows automate routine setup, while every variogram fit, search ellipse, and cut-off is logged automatically for instant, Excel-ready compliance reporting. Teams can regenerate block models in minutes, validate assumptions in 3D, and share trusted numbers and models via Seequent Central or Evo, reducing bottlenecks, boosting transparency, and delivering faster, audit-ready resource estimates the entire business can rely on.

SEEQUENT

Seequent, The Bentley Subsurface Company



“With the Geo and Edge integration, if we make changes to a 3D shape, it is regenerated within the application. In 15-20 minutes of processing time, we can have an updated resource estimation.”

Sean McKinley
Senior Geologist, Eldorado Gold

Projects around the world rely on Leapfrog Edge to:

- Unify geological and geostatistical workflows
- Gain clear insights for more confident decisions
- Tailor estimations to your deposit
- Simplify complex block modelling workflows
- Ensure transparent, auditable reporting
- Upskill teams in geostatistics—no coding required



Successful mineral resource estimation is powered by Leapfrog Edge

Unify geological and geostatistical workflows

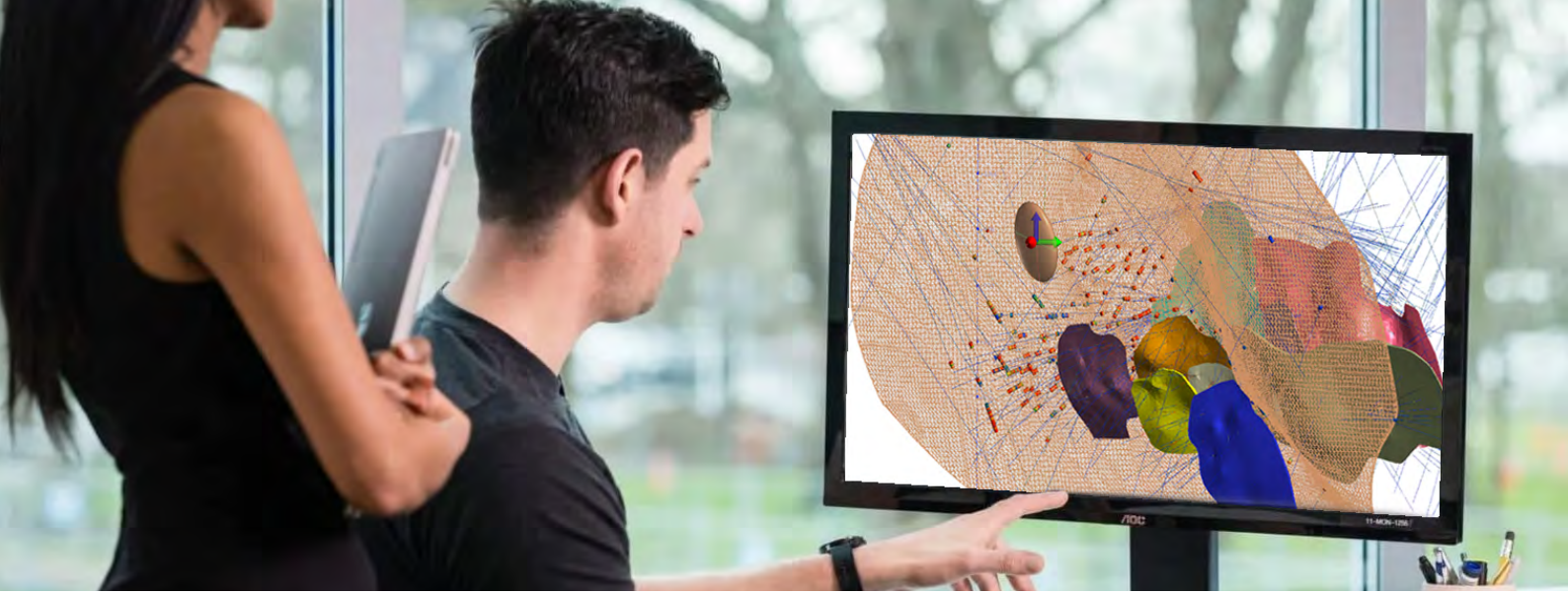
Leapfrog Geo interpretations such as domains, contacts, and relogged drillholes flow straight into Edge, regenerating block models without file exports or brittle scripts. A single project file and real-time data linking mean exploration, resource, and mine planning teams all see the same up-to-date numbers, wherever they're working. Faster cycles and fewer version conflicts translate into tighter scoping studies and smoother reserve updates.

Gain clear insights for seamless visual storytelling

Edge turns raw statistics into geology you can see. Interactive 3D variogram modelling, graph highlighting, and swath plots reveal grade continuity, anomalies, and bias in seconds. It also makes geostatistical decisions transparent by linking inputs to outcomes in an intuitive, visual way. Create traceability views that clearly illustrate how data and choices impact block model estimates, and use rich visual diagnostics to build confidence and trust in your results.

Tailor estimations to your deposit

Whether you're tackling a narrow vein, porphyry, or industrial-mineral lens, Edge offers ordinary, path, anisotropic kriging, inverse-distance, and radial-basis-function estimators. Interactive search-neighbourhood tools let you compare smoothing and selectivity live, then switch methods mid-workflow to validate assumptions, so no rebuilds are required. Optional Evo simulations add uncertainty analysis for strategic scenario planning.



Simplify complex block modelling workflows

Edge streamlines traditionally complex block model workflows. Sub-blocking and variable orientation honour folded or faulted geology without exploding file sizes, while rapid scenario testing lets you compare cut-offs or domaining strategies side by side. Direct integration with BlockSync speeds hand-off to scheduling and optimisation packages, reducing dilution and reconciliation headaches downstream.

Ensure transparent, auditable reporting

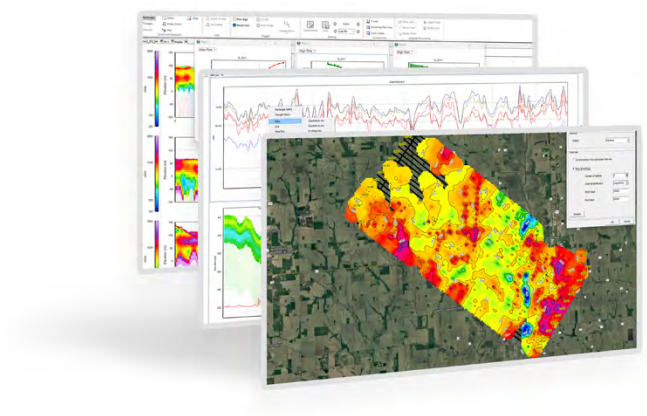
Every variogram fit, search ellipse, cut-off, and top-cut is captured automatically in an Excel-ready parameter report, complete with a time-stamped change log. NI 43-101 Qualified Persons and JORC Competent Persons can follow the full estimation breadcrumb trail without deciphering custom code, thereby boosting compliance and investor trust while reducing administrative time.

Upskill teams in geostatistics—no coding required

Leapfrog Edge uses the same ribbon, scene controls, and undo/redo logic as Leapfrog Geo, so geologists move from modelling to estimation with almost no learning curve. Guided, code-free workflows handle compositing and validation automatically, while on-demand Learning Centre courses speed onboarding. That means junior staff add value sooner, senior geostatisticians stop policing scripts, and everyone spends more time interpreting results instead of configuring workflows.

Integrate resource estimation with your geological modelling through Leapfrog Edge

Leapfrog Edge is an advanced estimation tool that unifies geostatistical estimation in a single, intuitive workspace that dynamically links to geological models in Leapfrog Geo.



Integration with Leapfrog Geo

Keep geology and estimation in the same intuitive workspace

- Use shared ribbon, scene controls, and undo/redo
- See domain edits in Geo instantly in Edge with no data exports or scripts
- Simplify archiving, hand-offs, and audit requests with time-stamped change logs

Flexible estimation methods

Choose the right algorithm for any orebody without switching tools

- Test simple and ordinary kriging, and anisotropic kriging alongside IDW and RBF
- Toggle methods mid-workflow to compare selectivity, smoothing, and run times
- Use optional Evo simulations to add uncertainty analysis for scenario planning

Audit-ready parameter reporting

Instant Excel logs track every estimation setting for full regulatory compliance

- Capture variogram fits, search ellipses, cut-offs, and modifiers automatically
- See who edited what and when with a time-stamped change log
- Satisfy NI 43-101, JORC, and internal governance with zero extra admin

Highly visual 3D variogram modelling

See spatial continuity and bias before you commit to an estimate

- Fit and tweak structures directly in the scene with real-time feedback
- Overlay experimental and model curves in 3D to validate fits intuitively
- Link variogram edits to grade patterns and drillholes

Real-time data linking Dynamic connections eliminate version-control headaches across teams	▪ Refresh block models automatically when contacts, veins, or drill data change ▪ Access the latest estimate remotely through Central or Evo workspaces ▪ Version audit history for block model data management and governance with BlockSync integration
Sub-blocking and variable orientation Honour complex geology without inflating file sizes	▪ Capture narrow veins, folded lenses, and faulted zones with precision ▪ Align sub-blocks to local dip and plunge angles with variable orientation tools ▪ Export regularised models straight to scheduling, dilution, and reconciliation workflows

A world of support at your fingertips

Beyond the powerful features of Leapfrog Edge, 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, the 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.

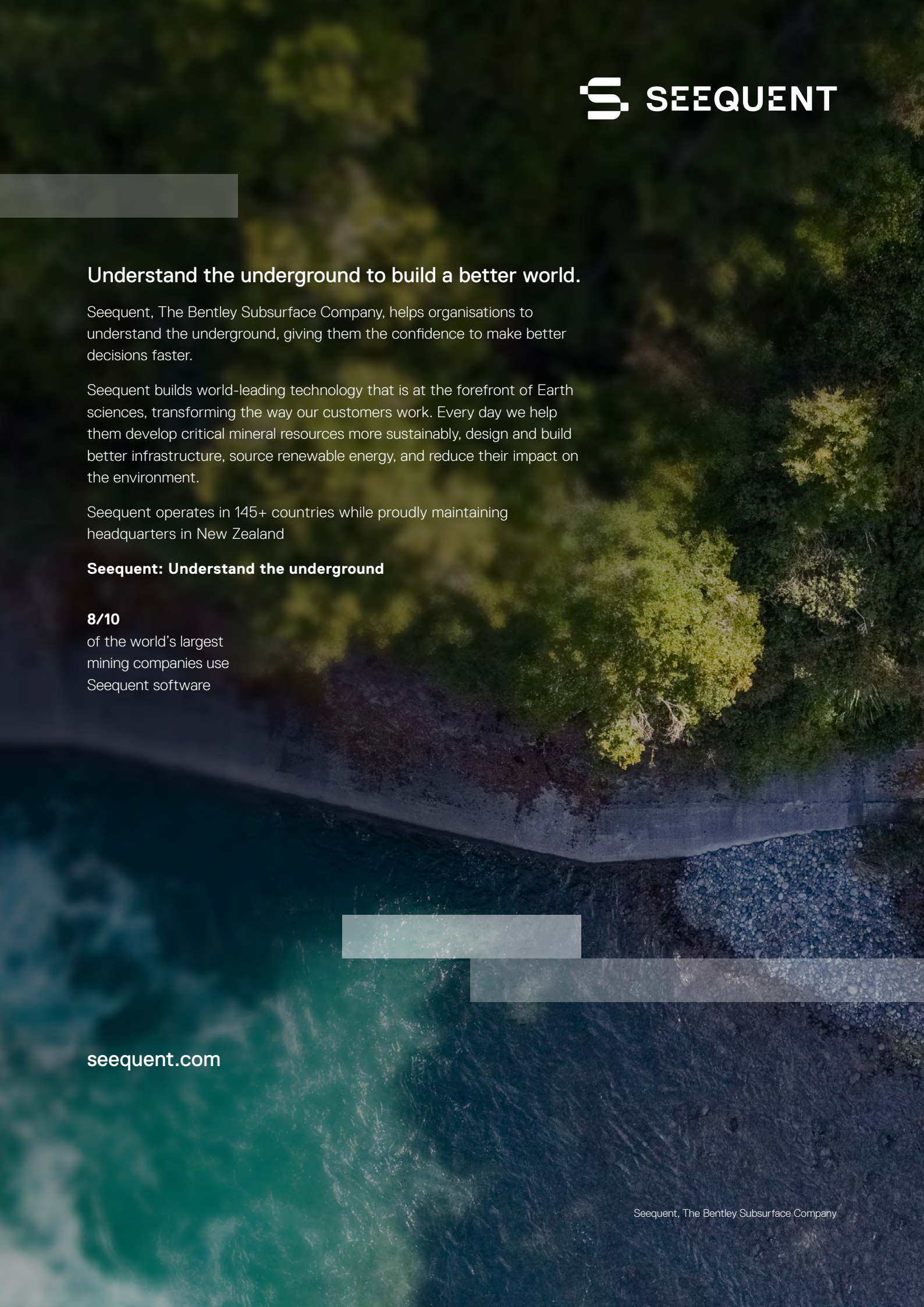
Get support →

95%
satisfaction with our front-line help and support



Discover the power of Leapfrog Edge

Visit seequent.com to explore product videos, customer success stories, or request a live demo.



SEEQUENT

Understand the underground to build a better world.

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

Seequent: Understand the underground

8/10
of the world's largest mining companies use Seequent software

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