



SEAM SPATIAL



**ADVANCED
SURVEY
MONITORING**

MINING | CONSTRUCTION | LAND DEVELOPMENT | ENERGY



Stay ahead of safety, compliance, maintenance and planning requirements. SEAM Spatial's accurate monitoring surveys identify changes to your assets and measure their impact over time.



**Anticipate
challenges**



**Minimise
risk and hazards**



**Save time and
resource costs**

WHAT WE MONITOR

Our experts don't just set up the monitoring equipment and leave. They focus on **making your job easier** by ensuring that the management of your project continues smoothly. As an extension of your team, we're experienced in all types of monitoring scenarios.



Earthworks
progress and
slope stability



Retaining
structures



Roads, bridges
and tunnels



Railway
tracks



Dams



Flood defence
and coastal
structures



Surface mine
sites – including
tailings dams



Underground
mines and
drifts



Oil and
gas sites



Buildings
and other
infrastructure

OUR CAPABILITIES

Monitoring can be a **complex and challenging process**, requiring expertise in measurement, electronics, software programming, data communication and analysis. SEAM Spatial's specialists aren't just knowledgeable in their field. We're passionate about finding novel solutions to support your project.

Automated Monitoring

Our continuous and real-time monitoring pinpoints issues more quickly and accurately than manual monitoring. Active alerts (including email, SMS and local warning systems) let you know when movement exceeds individually defined limits.

Global Navigation Satellite System (GNSS) Monitoring

We use precise GNSS technology to monitor ground and structural movements over large areas. Our real-time or post-processed solutions focus on your asset's overall stability.

GNSS Review and Management

Our experts design and review GNSS site and network infrastructure for optimised and reliable RTK. We're proficient in UHF radios and licencing, NTRIP, 900 MHz, WiFi and other communication platforms.

Total Station (TPS) Monitoring

We employ the latest Total Stations for precise 3D positioning of targets for bridges, dams, structures and embankments over short and long ranges – from 2 to 6000 metres.

Water Level Monitoring

Our team specialises in Automated Floating Water Level and Ground Water Level solutions. Using advanced sensors, as well as NB-IoT and satellite technologies, we determine water depth and quality even in remote locations.

Continuously Operating Reference Station (CORS) Management

We install, maintain and coordinate GNSS Base Stations and GNSS Networks – alongside data analysis and processing to ensure the accuracy of all your positioning data.

HOW WE DO IT

SEAM Spatial adopts the latest technology to deliver a complete monitoring solution. Our specialists know that the right equipment and software **depend on your project and requirements**. Our goal is always to provide better monitoring results for lower costs.

Technology:

- GNSS
- Total stations
- Digital levels
- Strain gauges

Data outcomes:

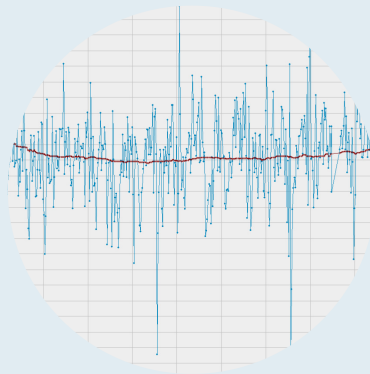
- Ground movements and deformation of foundations, embankments and slopes
- Stability and safety of infrastructure over time, especially around changes in elevation and angles

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- Extensometers
 - Inclinerometers
 - Crack and tilt meters
 - Distance sensors

- Object changes – such as convergence, crack and gap width and displacement
- Seismological events – like subsidence and earthquakes – above or underground

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- Piezometers
 - Barometers
 - Thermometers
 - Yabby sensors

- Water and pressure, pore pressure, atmospheric pressure and temperature



WHAT WE DELIVER

With equipment software from Leica Geosystems, a world leader in monitoring applications, SEAM Spatial integrates multiple measurement sensors into one database. We provide **real-time results, in-depth analysis and customised reporting** – all available 24/7.

GNSS Spider

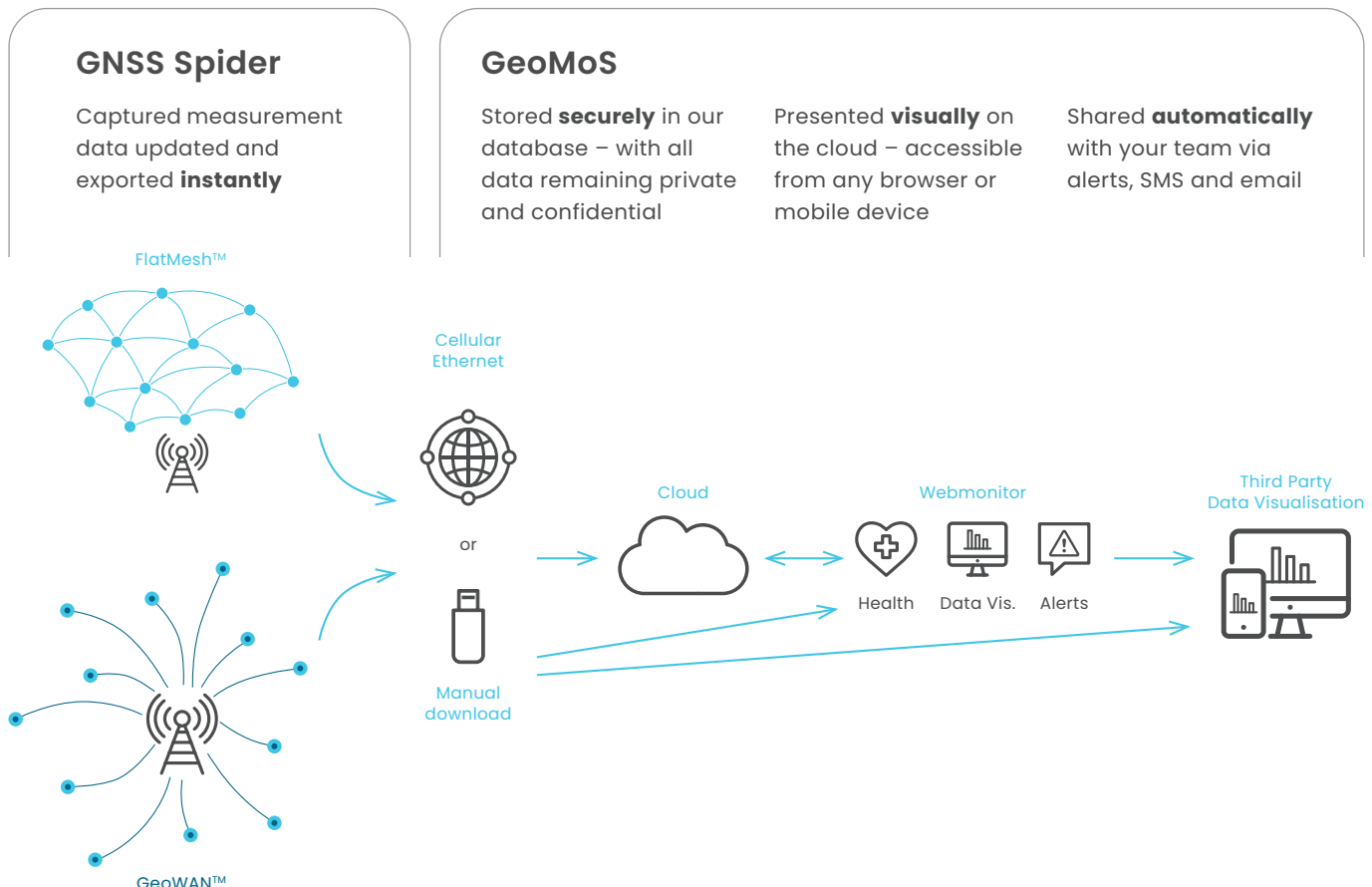
All-in-one solution for monitoring projects

- Allows precise GNSS data processing and network adjustment
- Supports all constellations, sensors and standards
- Processes the raw data collected from your network of GNSS receivers **to produce high-accuracy positioning solutions**

GeoMoS

Automated monitoring system – from sensor to browser

- Allows monitoring and analysis of data in real-time.
- Enables us to detect changes and alert you right away
- Guarantees seamless connection, sensor control and **instant data storage and analysis** for more efficient decision-making



HOW IT SUPPORTS YOU

When ongoing monitoring isn't performed correctly, your operation, personnel and the public are at risk. You **need to know** when a potential failure is imminent. SEAM Spatial's accurate monitoring surveys can identify changes and assess their impact over time.

Stronger safety and reliability

Constant online access to all relevant information, reducing risks and hazards.

Maximum flexibility and efficiency

Seamless integration with any sensors and into existing system.

Improved project understanding and maintenance

User-friendly data formats and analysis (graphs, tables, maps and scans).

Effective long-term asset monitoring

Low operating costs and downtime, with fewer site visits required.



WHO WE ARE

SEAM Spatial uses cutting-edge technology and a highly skilled team of specialist problem-solvers to deliver fast, accurate and valuable monitoring data. We understand your project and pay attention to all the moving parts to ensure **we know what's coming next**.

80+

Surveyors

9

Survey managers

5

Survey coordinators

Since SEAM Spatial began in 2010, our goal has been to challenge the status quo by offering:



Best service and follow-up



Extensive site knowledge



Talented team paired with latest technology

*"Our ethos is simple. **Enable our team to operate at their best**, so they can deliver the best for our clients."*

Mick Harris, Managing Director

WHAT MAKES US DIFFERENT

Supplying spatial solutions to construction and resources projects **for over 13 years**, SEAM Spatial knows that monitoring data is essential to your project's success. We manage the entire process, from installation and set-up to ongoing management and maintenance.

The experts at SEAM Spatial:

Understand which **technology and software** will get the best results.

Ask the **right questions** to solve problems before they happen.

Have the **expertise in monitoring** to get the most out of their equipment.

Manage varying atmospheric conditions to ensure **precise measurements**.

Know how to **interpret and analyse** data for accuracy and reliability.

Keep your collected data and valuable insights **private and secure**.



WHO TRUSTS OUR RESULTS

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Sunwater

Spillway monitoring for dams using total stations

Ventia

Structural monitoring for Albion railway bridges, Glenbrook Knapsack bridge, Sydney Airport rail tunnel and Melbourne Heaths

Anglo American

Longwall mining ground subsidence monitoring using GNSS

Evolution Mining

Headframe, highwall and underground monitoring at Ernest Henry Mine using GNSS, total stations and tilt sensors

Newhope

Highwall monitoring for the Jeebropilly Mine using total stations

MMG

Dam wall monitoring for the Dugald River using total stations

Multiplex

Crane monitoring using GNSS

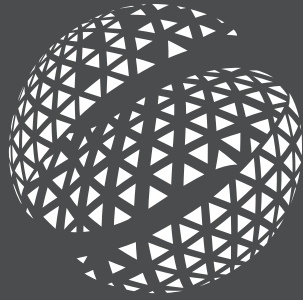
Arrow Energy

Subsidence monitoring of gas wells using GNSS

Glencore

Headframe, highwall and underground monitoring at the Ernest Henry Mine using GNSS, total stations and tilt sensors

READY TO TRANSFORM MONITORING ON YOUR PROJECT?



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