

Infra**concrete**TM



engineered slopes for maximum utility.



At Infraconcrete™ Construction SDN BHD,
we help our clients unlock and maximize land value especially on difficult terrain. From retaining walls to slope protection, our engineered solutions not only create more usable land, but also safeguard your entire development from geotechnical risks. We collaborate closely with consultants to meet technical specifications, while giving developers cost-efficient, long-term stability.



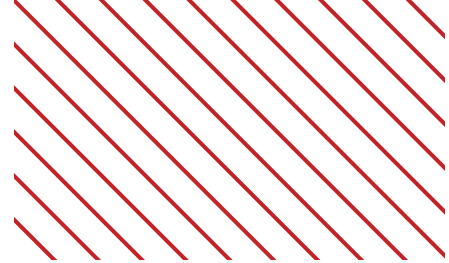
Company Vision

To be Malaysia's leading specialist in geotechnical slope solutions and land optimization, trusted for transforming complex terrains into valuable, buildable assets — enabling safer, smarter, and more sustainable development.

Company Mission

To engineer safe, reliable, and cost-effective slope and earth retention solutions that maximize land utility, protect infrastructure, and unlock development potential — serving developers, engineers, and the nation's growing need for smart land use.

Our Core Solutions



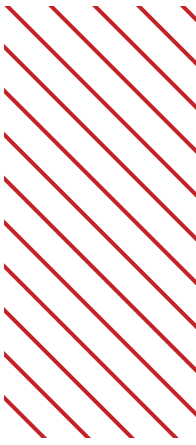
Slope Protection

Retaining Systems



Usable Land Creation

We Make Land Work for You



Serving Developers, Engineers & Infrastructure Contractors Across Malaysia



Unlocking Land Value with Engineering Precision

In Malaysia, land constraints and hilly terrains are a constant challenge. That's where Infraconcrete comes in. We specialize in creating safe, stable, buildable space — so developers can maximize land yield, and engineers can secure long-term performance.

From residential slopes to highways and industrial platforms, we transform sloped or failed ground into opportunities for growth.



We help developers convert challenging terrains into valuable, buildable land through reinforced slope systems—ensuring safety, compliance, and greater yield per acre.



We help you build where others can't — with engineered solutions that expand land use and protect your development.

Areas of Application

Our geotechnical solutions are applied across a diverse range of sectors and project types, including:



Transportation Infrastructure

Highways, railways, tunnels, and bridge abutments.



Urban Development

High-rise buildings, retaining walls, and basement excavations.



Mining and Quarrying

Open-pit mines, underground excavations, and quarry faces.



Environmental Projects

Landslide mitigation, riverbank stabilization, and coastal protection.



Energy Sector

Hydropower plants, wind farm foundations, and transmission line corridors.



Government and Public Works

Embankments, reservoirs, and military installations.

Understanding Our Core Services

What
is Soil
Nailing?



Soil nailing is a geotechnical engineering technique used to reinforce and stabilize existing slopes or excavations. It involves the insertion of slender, high-strength steel bars (nails) into the soil, which are then grouted to create a composite reinforced structure. This method **enhances the shear strength of the soil mass, preventing slope failure** and ensuring structural stability.

What is Guniting?

Guniting, or shotcreting, is the process of pneumatically applying a high-velocity mix of cement, sand, and water onto a surface to form a durable, high-strength concrete layer. In slope stabilization, guniting is used to protect exposed soil or rock surfaces, prevent erosion, and enhance structural integrity.



What is Rock Bolting?



Rock bolting is a reinforcement technique that involves installing steel bolts into rock masses to improve their stability. The bolts anchor unstable rock strata to competent rock layers, mitigating the risk of rockfalls or collapses in tunnels, slopes, and underground excavations.

Rock netting, or rockfall netting, is a protective system designed to contain and control falling rocks on steep slopes or cliffs. High-strength steel mesh is anchored to the rock face, preventing debris from endangering infrastructure, roads, or personnel below.

What is Rock Netting?



What is Slope Stabilization?



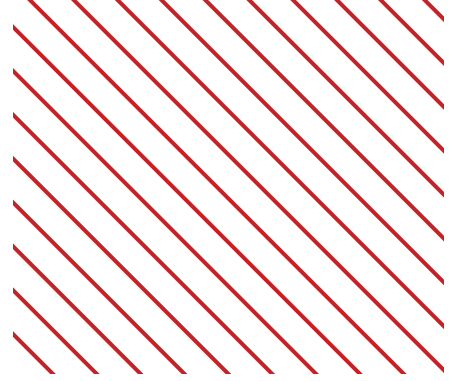
Slope stabilization encompasses a range of techniques, including soil nailing, guniting, rock bolting, and rock netting, to prevent landslides, erosion, and slope failures. These methods ensure the long-term stability of natural and man-made slopes, safeguarding infrastructure and the environment.

What is a Rock Fall Barrier?



A rock fall barrier is a **protective structure designed to intercept and stop falling rocks and debris on slopes or cliffs**, preventing them from reaching infrastructure, roads, or populated areas below. Typically **made of high-strength steel cables, nets, and energy-absorbing components**, these barriers are strategically installed along slopes to absorb the impact of falling rocks and dissipate their kinetic energy, ensuring safety and minimizing damage.

Methods of Construction



Soil Nailing

Site Assessment

Conduct geotechnical investigations to evaluate soil properties and slope conditions.

Drilling

Bore holes into the soil at predetermined angles and depths.

Nail Installation

Insert steel reinforcement bars into the holes and grout them to bond with the surrounding soil.

Facing Application

Apply a shotcrete or precast facing to the slope surface for additional protection.

Testing

Perform load tests to verify the stability and performance of the nailed structure.

Surface Preparation

Clean and prepare the target surface to ensure proper adhesion.

Mix Design

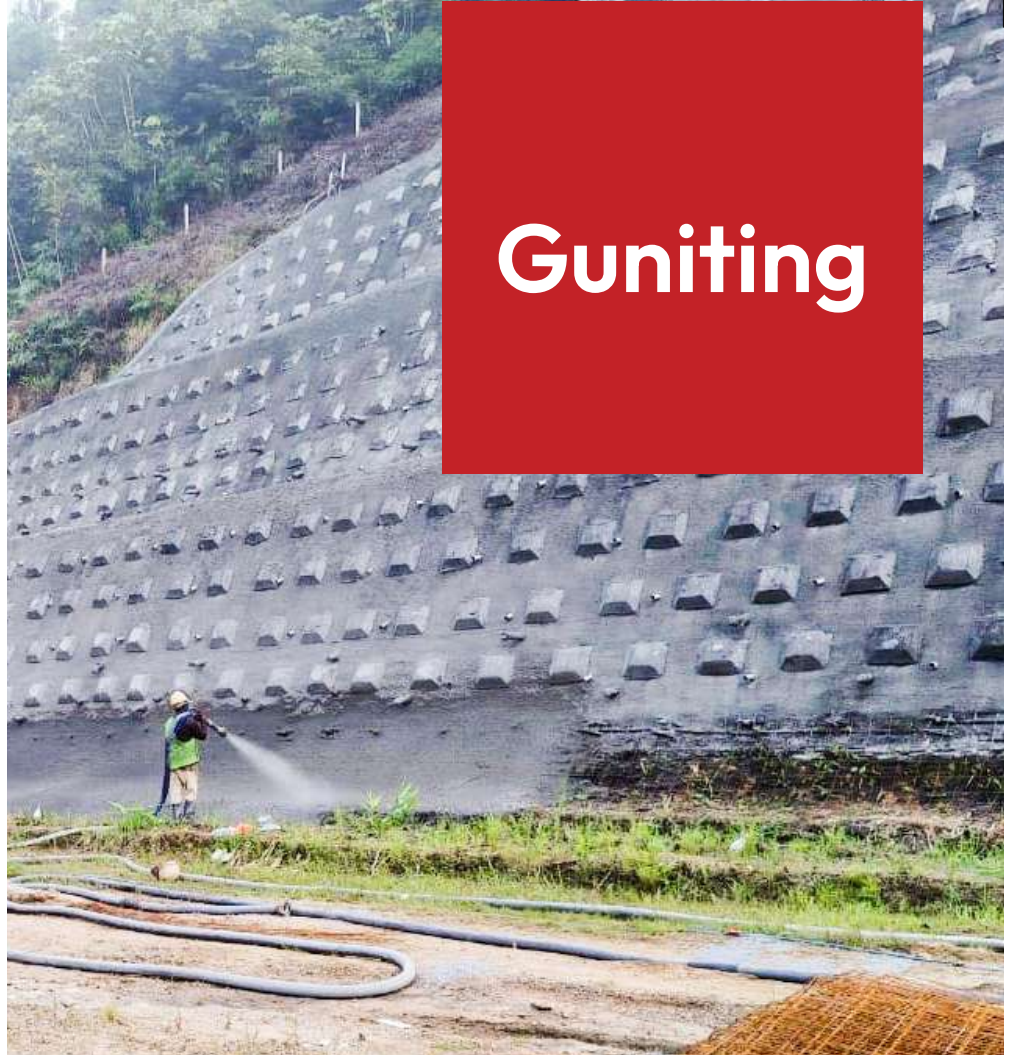
Formulate a high-strength concrete mix tailored to project specifications.

Application

Spray the mix at high velocity using specialized equipment to form a uniform layer.

Curing

Allow the shotcrete to cure, ensuring optimal strength and durability.



Guniting



Rock Bolting

Geological Mapping

Assess rock mass characteristics and identify unstable zones.

Drilling

Bore holes into the rock to the required depth and orientation.

Bolt Installation

Insert steel bolts and secure them with resin or mechanical anchors.

Tensioning

Apply tension to the bolts to reinforce the rock mass.



Rock Netting

Site Evaluation

Analyze the slope to determine rockfall risks and netting requirements.

Anchor Installation

Secure high-strength anchors into the rock face.

Netting Deployment

Install steel mesh or netting, ensuring full coverage of the target area.

Inspection

Verify the system's integrity and performance under load conditions.

Site Assessment

Evaluate the slope to identify rockfall hazards, trajectory, and impact zones.

Barrier Design

Engineer a barrier system (steel cables, nets, and energy-absorbing components) tailored to site-specific energy and load requirements.

Installation

Anchor the barrier system to the slope or ground, ensuring secure placement and alignment to intercept falling rocks.

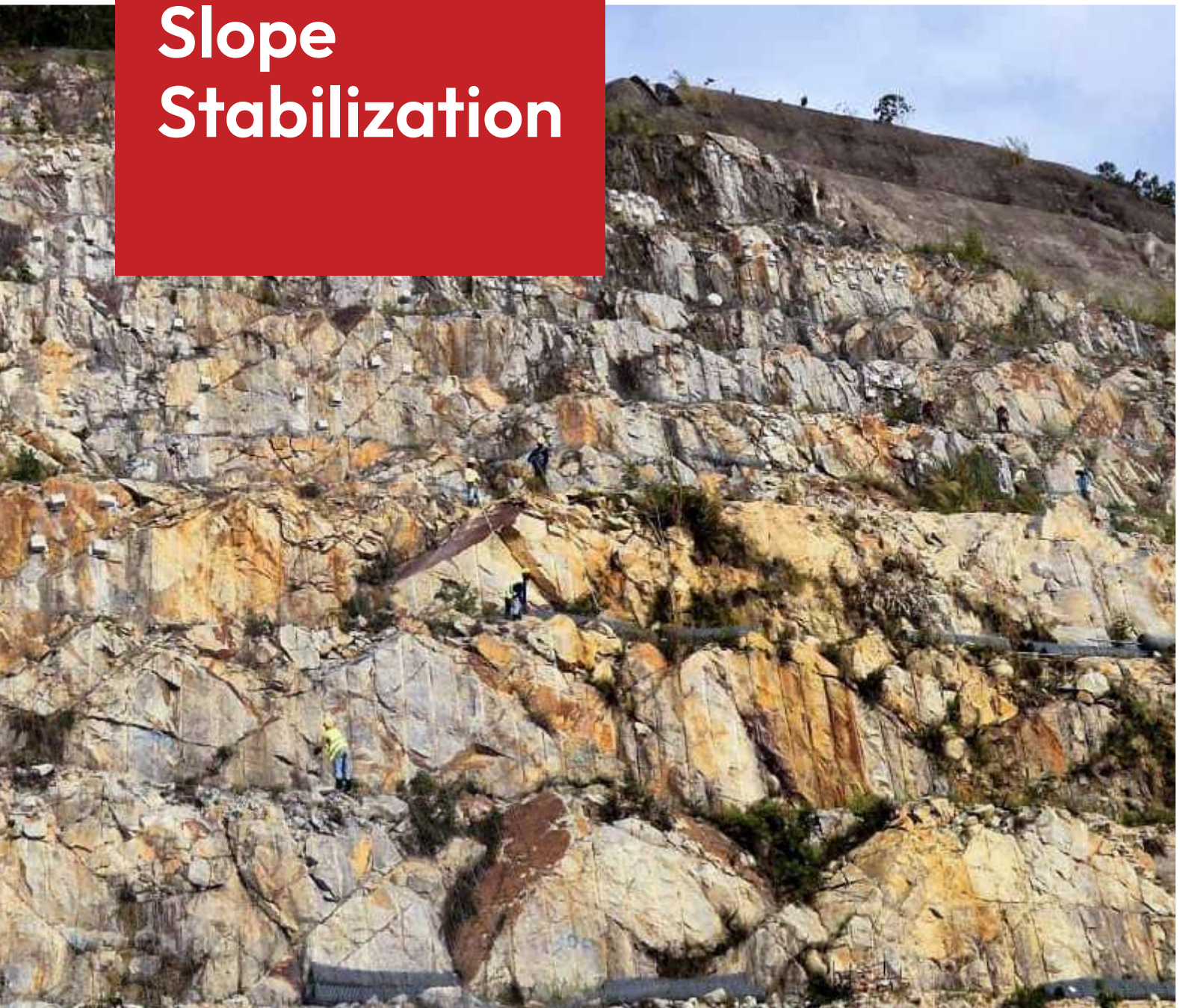
Testing and Maintenance

Test the barrier's performance under simulated loads and establish a maintenance schedule to ensure long-term reliability.



Rock Fall Barrier

Slope Stabilization



Geotechnical Analysis

Assess slope geometry, soil/rock properties, and environmental factors.

Solution Design

Select appropriate techniques (e.g., soil nailing, guniting, or netting) based on site conditions.

Implementation

Execute the stabilization works with precision and adherence to safety standards.

Monitoring

Conduct post-construction monitoring to ensure long-term performance.

Advantages of Our Services

Our specialized geotechnical solutions offer the following benefits:



Enhanced Stability

Significantly improves the structural integrity of slopes, excavations, and rock masses.

Cost-Effectiveness

Minimizes the need for extensive earthworks or structural interventions, reducing project costs.

Versatility

Adaptable to a wide range of geological conditions and project requirements.

Rapid Installation

Streamlined construction processes ensure minimal disruption and faster project timelines.

Durability

Provides long-term resistance to environmental factors such as erosion, weathering, and seismic activity.

Environmental Compatibility

Low-impact techniques preserve natural landscapes and reduce ecological disturbance.

Safety

Mitigates risks of landslides, rockfalls, and structural failures, protecting lives and assets.

Company Management Philosophy

At Infraconcrete, our management philosophy is rooted in:



01

Excellence

Striving for precision and quality in every project, leveraging cutting-edge technology and industry best practices.

02

Integrity

Upholding transparency, accountability, and ethical conduct in all our operations.

03

Collaboration

Fostering strong partnerships with clients, engineers, and stakeholders to achieve shared goals.



04 Safety

Prioritizing the safety of our workforce, clients, and the public through rigorous risk management and compliance.

05 Sustainability

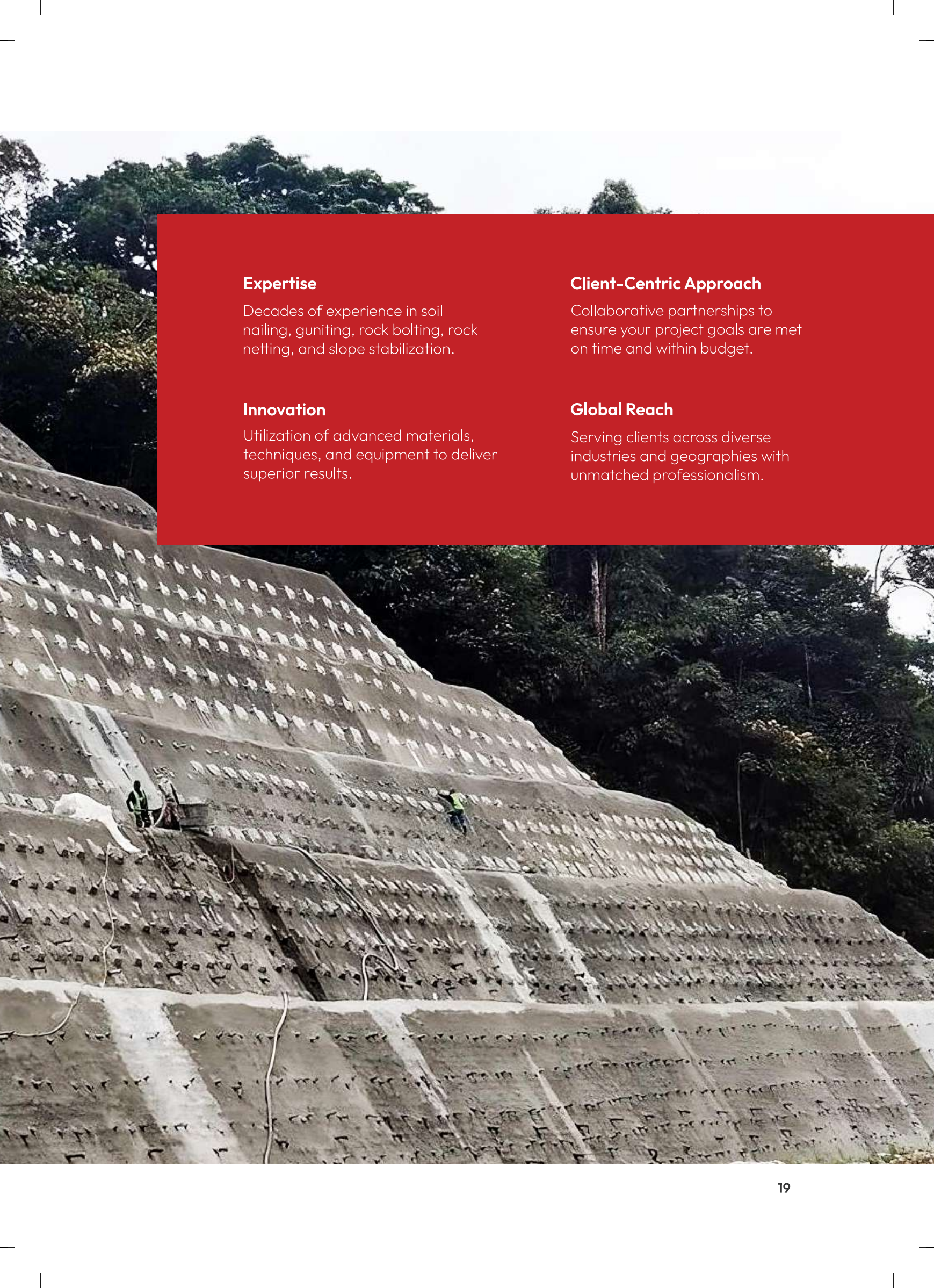
Integrating environmentally responsible practices to minimize our ecological footprint and promote long-term project durability.

Partner with Us for Your Next Project

At **Infraconcrete Construction Sdn Bhd** we understand the critical importance of stable foundations for your infrastructure and development projects. **Our team of highly skilled engineers, geotechnical experts, and construction professionals** is dedicated to delivering tailored, high-quality solutions that meet your specific needs.

Whether you are a government agency seeking robust landslide mitigation, a contractor requiring reliable retaining wall systems, or a property developer aiming to ensure the safety of your site, we are your trusted partner. Our proven track record, cutting-edge technology, and commitment to excellence make us the preferred choice for geotechnical stabilization worldwide.





Expertise

Decades of experience in soil nailing, guniting, rock bolting, rock netting, and slope stabilization.

Client-Centric Approach

Collaborative partnerships to ensure your project goals are met on time and within budget.

Innovation

Utilization of advanced materials, techniques, and equipment to deliver superior results.

Global Reach

Serving clients across diverse industries and geographies with unmatched professionalism.

Get in Touch Today



Contact us to discuss your project requirements or request a consultation. **Let us help you build a stable, secure, and sustainable future.**

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