A member of
Bouygues Construction

Capability Presentation

All Business Lines

2025

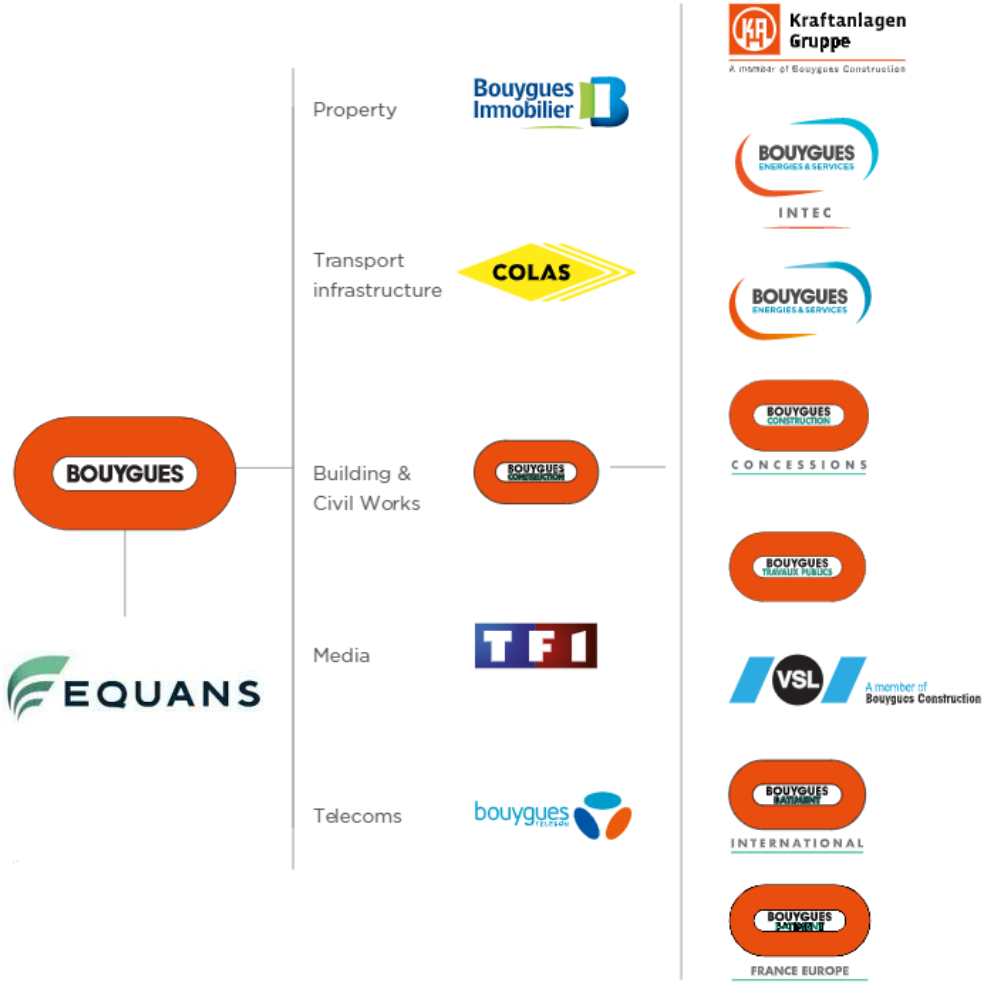
BUILDING FOR LIFE

CIVIL WORKS – SUMMARY

1 VSL AT A GLANCE

A SPECIALIST IN THE CONSTRUCTION & REPAIR OF POST-TENSIONED & CABLE-STAYED STRUCTURES, FOUNDATIONS & GROUND ENGINEERING.

A Bouygues Construction subsidiary, VSL combines global reach, local expertise and nearly 60 years of presence in Australia



- More than 60 years of experience as a post-tensioning company and specialised contractor
- World Wide Web
- +4,100 employees, including approx. 900 engineers in more than 25 countries
- 6 Technical Centres
- 4 Manufacturing Centres
- 370 patents
- 458M€ turnover in 2023

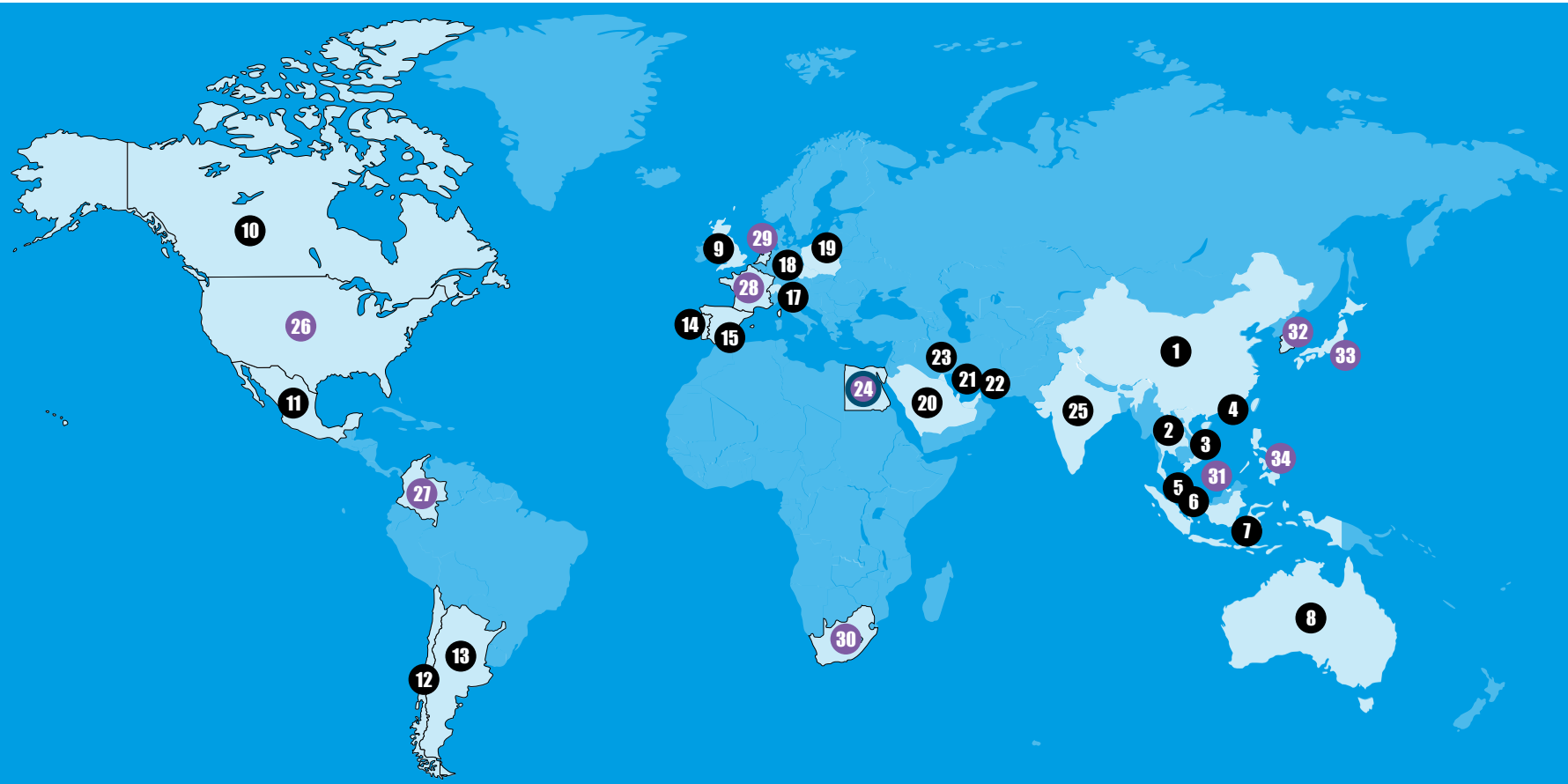
TECHNICAL CENTERS

Switzerland — Spain — Hong Kong — Singapore — Australia — UAE

MANUFACTURING CENTERS

Australia — Spain — China — Thailand

VSL IN THE WORLD



NORTH EAST ASIA

1. China
2. Thailand
3. Vietnam
4 .Hong Kong
(incl. VSL, Intrafor Hong Kong & FT Laboratories)

SOUTH EAST ASIA

5. Malaysia
6. Singapore
7. Indonesia
8. Australia

WESTERN EUROPE, AMERICA, AFRICA

9. United Kingdom
10. Canada
11. Mexico
12. Chile
13. Argentina
14. Portugal
15. Spain

CENTRAL EUROPE, MIDDLE EAST & INDIA

17. Switzerland
18. Czech Republic
19. Poland
20. Saudi Arabia
21. Qatar
22. United Arab Emirates
23. Kuwait
24. Egypt
25. India

10 VSL LICENSEES

24. Egypt
26. USA
27. Colombia
28. France
29. Netherlands
30. South Africa
31. Brunei
32. South Korea
33. Japan
34. Philippines

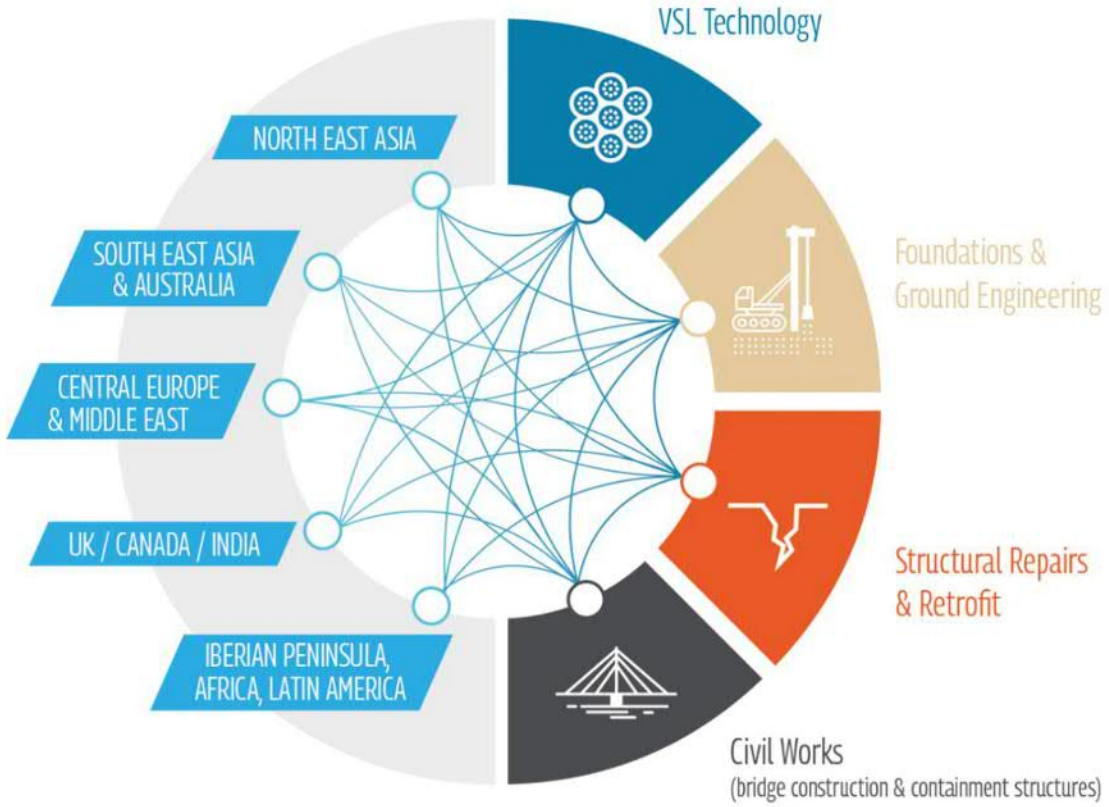
VSL structure: A global organisation structured by region and expertise

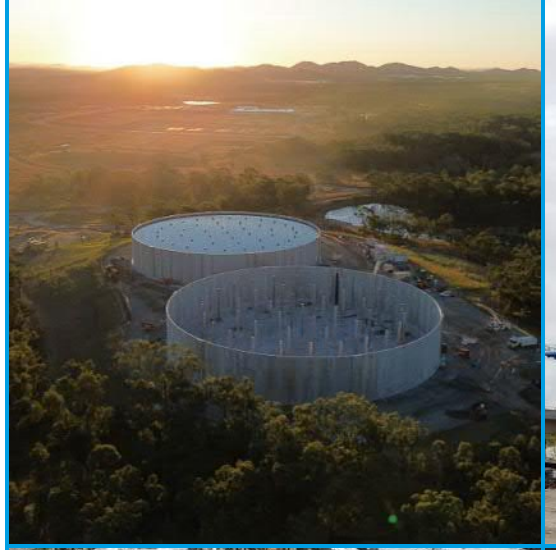
FIVE GEOGRAPHIC AREAS

They serve VSL's clients locally.

FOUR BUSINESS LINES

They support Profit Centres to manage and deliver projects both technically and operationally.





Our four business lines deliver expert solutions across construction systems, civil works, ground engineering, and structural repair

/ / / VSL TECHNOLOGIES

We ensure the development and constant improvement of our portfolio of in-house technologies.

Our services:

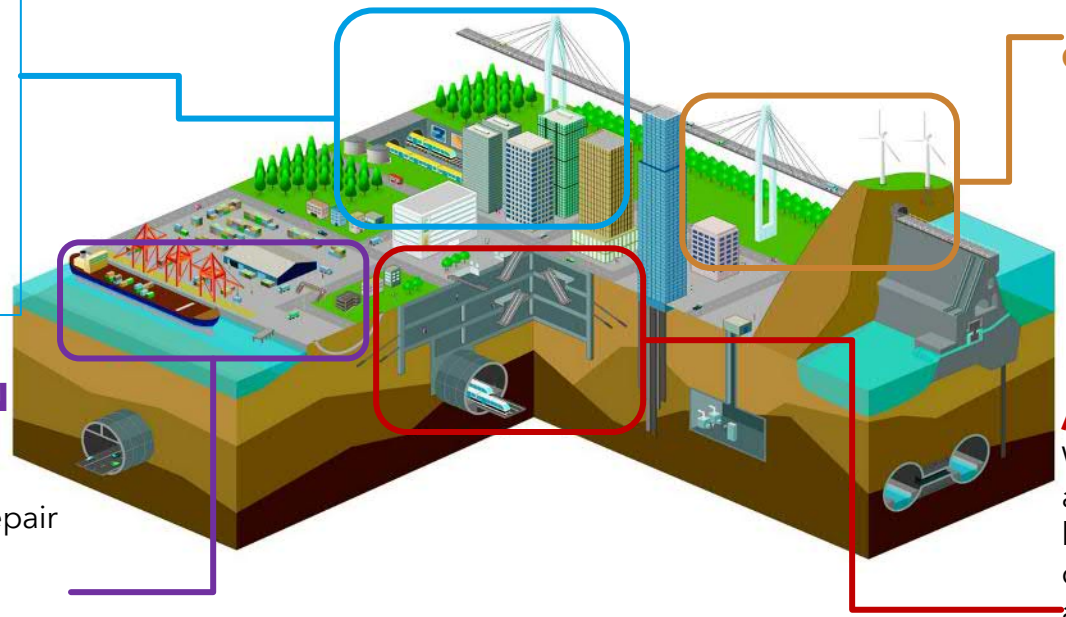
- Post-tensioning systems
- VSoL MSE walls
- Slab ofnGrade
- VSL Stress Bars
- Precast reservoir tanks
- Wind farm foundations/base

/ / / REPAIRS & PRESERVATION

We offer tailored services to ensure the stability of your structure's life cycle, from inspections and assessment through to repair works and upgrading.

Our services:

- Structural upgrade/strengthening
- Concrete repairs
- Bearing replacement
- Condition Assessment



/ / / CIVIL WORKS

We help our clients with construction designs and methods, providing operational skills for specific applications.

Our services:

- Bridge construction
- Heavy lifting & shift
- Containment structures
- Wind farms

/ / / GROUND ENGINEERING

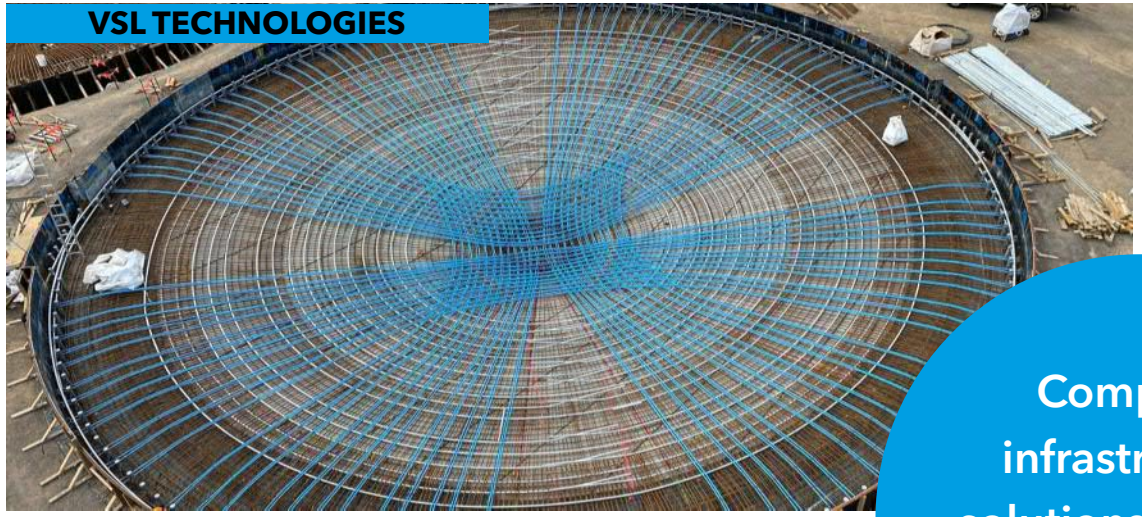
We are specialists in ground engineering and special foundations thank to our long history of proven design and build capabilities gained on the most complex and varied projects.

Our services:

- Diaphragm walls
- Micro-piling
- Ground anchors

VSL BUSINESS LINES

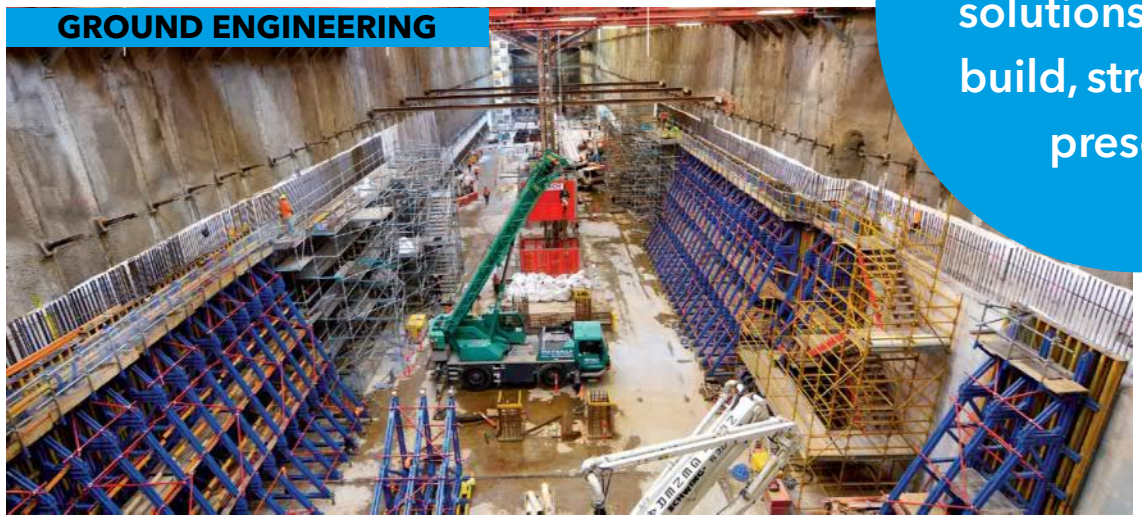
VSL TECHNOLOGIES



CIVIL WORKS

Complete infrastructure solutions: design, build, strengthen, preserve

GROUND ENGINEERING



REPAIRS AND PRESERVATION

2 FOCUS ON VSL TECHNOLOGIES

VSL TECHNOLOGIES

This is the historical core business of VSL as a pioneer of post-tensioning technology

POST TENSIONING

Global post-tensioning expertise: from design to installation to long-term durability

Global Expertise

- End-to-end solutions: design → installation → life-cycle
- Backed by in-house R&D & VSL Academy

System Variety

- Multistrand, slab, internal/external, Electrically Isolated Tendons (EITs)
- From thin slabs → bridges & containment structures

Sustainability & Durability

- Reduced carbon footprint, material efficiency
- Protection Levels PL1–PL3 to suit exposure conditions
- VSL PT-PLUS® ducts & EIT monitoring

Installation Excellence

- Trained specialists, standardised procedures
- Proven grouting, stressing & anchorage quality

Global Leadership

- Active in fib, PTI, and Eurocode development
- Trusted partner for complex infrastructure worldwide

SLAB ON GRADE

VSL offers design and construction of durable, joint-free post-tensioned slab-on-grade systems tailored for industrial, commercial, and heavy-duty applications. These slabs minimise cracking and maintenance, optimise performance, and reduce whole-of-life costs.

Scope of Services

- Site investigation, subgrade **preparation** & design
- **Post-tensioned** & conventional reinforcement installation
- **Concrete** supply, placement & finishing
- Custom **joint** layout & **tendon** positioning
- Durable surface **coatings** & **finishes**

Performance Benefits

- Supports **heavy loads**, aggressive environments & wide temperature ranges
- **Large joint-free areas** (up to 30,000m²), high flatness and abrasion resistance
- **Crack control**, reduced slab thickness, **faster construction**, and **sustainable concrete use**

DP WORLD, SWANSON DOCK (SEAPORTS), VIC

AUSTRAK SOMERTON INTERMODAL TERMINAL (~A$15M), VIC
DESIGN & CONSTRUCTION of 175,000m² HARDSTAND PAVEMENT

VSoL® RETAINED EARTH WALLS

The VSoL® Retained Earth system is a composite soil reinforcing system that uses welded wire mesh or polymeric strips to resist the horizontal forces generated within an earth backfill

The VSoL® Retained Earth System:

- Quality Precast Panels
- Reinforcing Elements
- Select Backfill Material

VSoL® Permanent Walls:

- Segmental Precast Walls
- Full Height Precast Walls
- Bridge Abutments
- Grade Separations
- Specialized Applications
- 2 Stage Walls

MERNDA GRASS, VIC

VSoL® Temporary Walls:

- Mesh Faced Walls
- Sheet Metal Faced Walls
- Staged Construction
- Mining Dump Stations
- Specialised Applications

THOMPSON ROAD, VIC

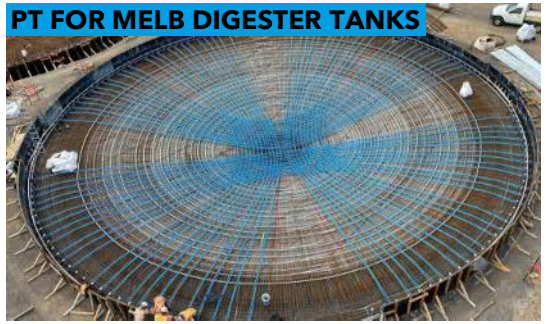
WATLAND ST TO SPORTS DRIVE, QLD

MOOLARBEN COAL MINE, NSW

TANK STRUCTURES

VSL provide Design and Construction solutions for liquid (LNG, water storage and treatment tanks) and non-liquid (grains, cement, etc.) containment structures. The containment structures can be either precast or in-situ concrete.

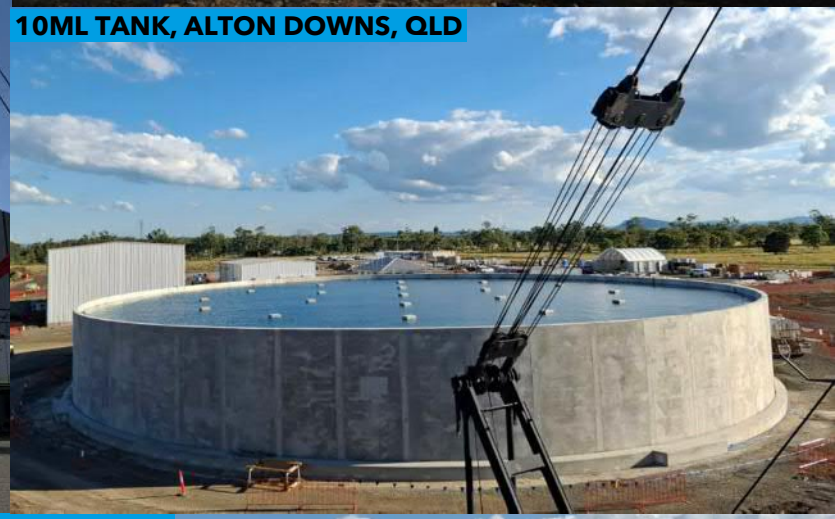
- **Design** of Containment Structures
- **Supply** & **Installation** of Reinforcement (Tensioned & Non-Tensioned)
- Supply & **Erection** of Precast Tank Wall Panels
- **Formwork** & **Concreting** Works
- Associated pipe works & Civil works
- Lift options to install units of unlimited weight and tower height


PT FOR MELB DIGESTER TANKS


2 X 50ML TANKS, ALDOGA, QLD


WALL PANEL ERECTION


2 X 32ML TANK, HARVEY, WA

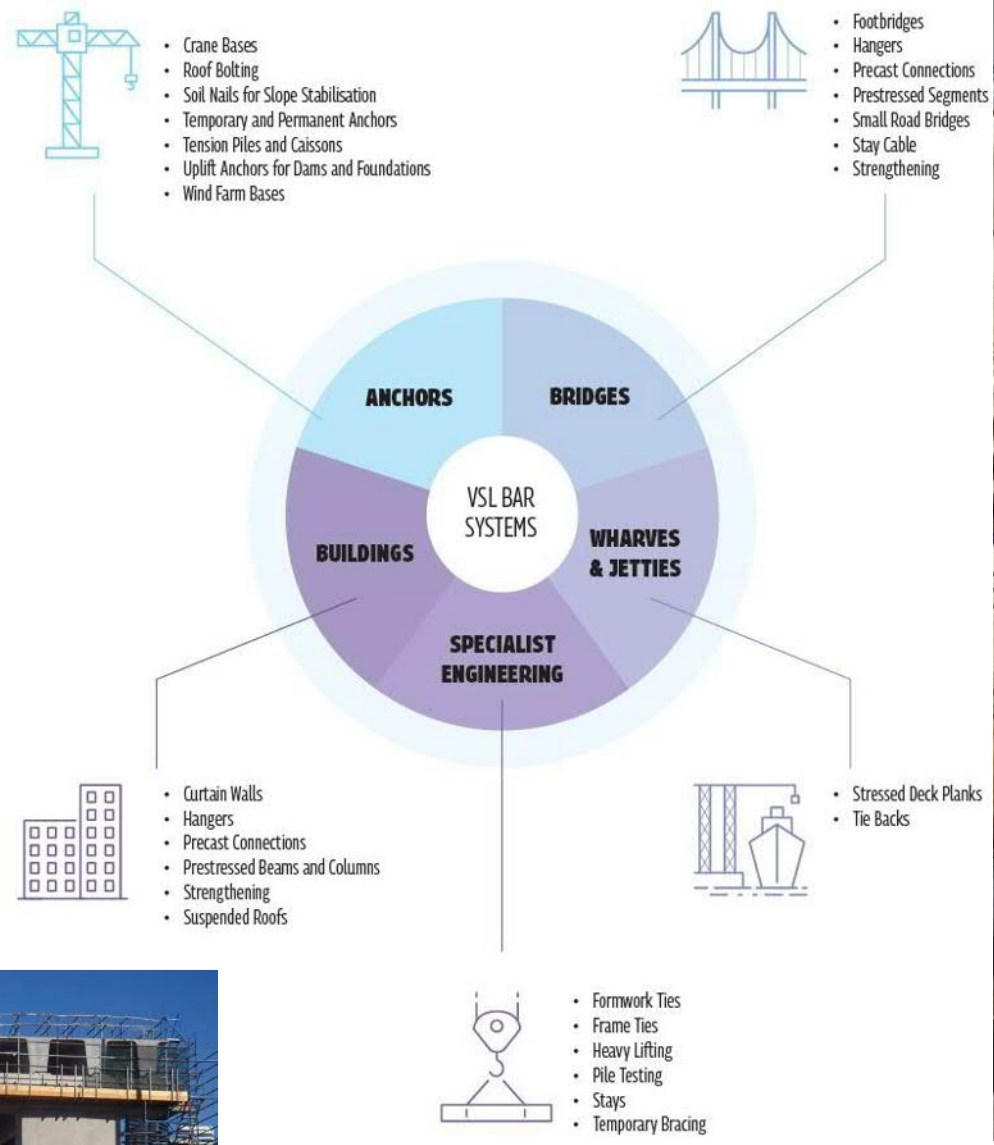

10ML TANK, ALTON DOWNS, QLD


2 X 50ML TANKS - BASE SLAB, ALDOGA, QLD

VSL STRESS BARS

VSLs renowned VSL CT Stress Bar and its associated products have grown to meet Australia's expanding demand for high quality performance grade products.

- Cold Rolled Threads – Hot Rolled & Heat-Treated Bars
- High Tensile (Grade 1030) / E : 200 GPa
- Fully Threaded & End Threaded
- Dia: 26mm to 75mm
- Supply bars and components (Local & International)
- Australian Made (Producer of local content)
- High level of stock, Customisation and Flexibility
- Proof load Testing



M1 WESTGATE FREEWAY UPGRADE

WIND FARM BASE

VSL delivers tailored design and construction of wind tower foundations using post-tensioned in-situ or precast systems, optimised with rock anchors or micropiles to suit ground and load conditions– reducing materials, speeding up construction, and minimising site resources.

Foundation Options

- Post-Tensioned **In-Situ** Mass Concrete
- Post-Tensioned In-Situ with **Rock Anchors/Micropiles**
- Post-Tensioned **Precast** Concrete
- Post-Tensioned Precast with Rock Anchors/Micropiles

Benefits

- Reduced concrete thickness and reinforcement
- **Faster** construction with offsite precasting
- Less labour, equipment, and material on-site
- **Optimised** tower–foundation interface for **cost efficiency**

Capabilities

- Load and geotechnical analysis
- Custom solution proposals and detailed design
- 3rd party certification
- Full construction and commissioning

WOODLAWN WIND FARM, NSW

WOODLAWN WIND FARM, NSW

ROCK ANCHORED FOUNDATION

WATABAK WIND FARM - 30 FOUNDATIONS (ENTIRE CONSTRUCTION), THAILAND

ROCK ANCHORED FOUNDATION

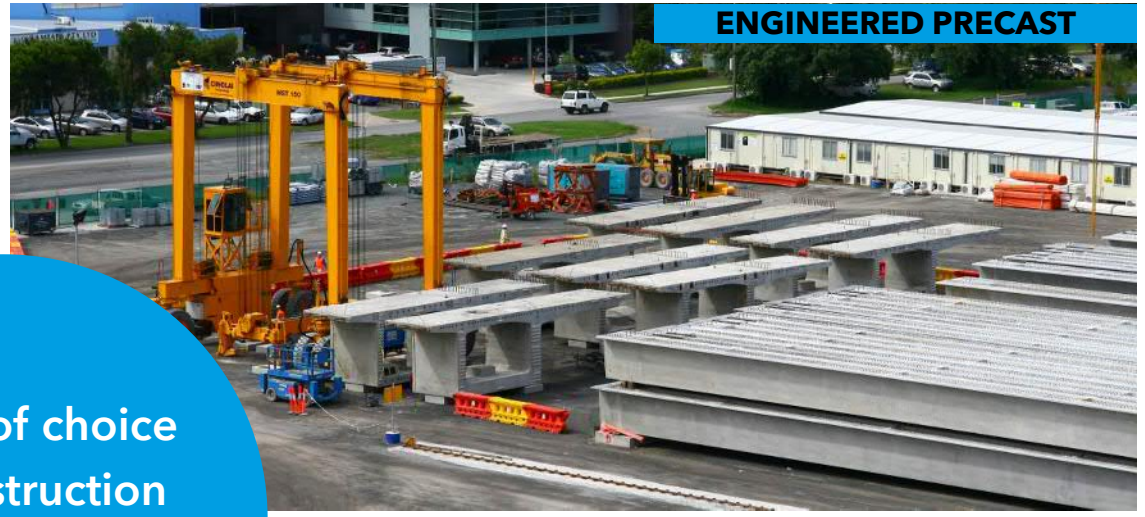
WIND FARM PT WORK

3 FOCUS ON CIVIL WORKS

CIVIL WORKS

BRIDGE CONSTRUCTION

ENGINEERED PRECAST



Partner of choice for construction engineering and method solutions

HEAVY LIFT & SHIFT

WIND FARMS

BRIDGE CONSTRUCTION

VSL: Delivering complex bridges with proven construction methods and full-scope expertise

Bridge Construction Expertise

- **Full-scope bridge delivery**, including sub-structure works
- **Match-cast precast segment** manufacturing
- **Cast in-situ balanced-cantilever** construction using form travellers and voided slabs
- **Incremental launch bridge decks** – formwork design & supply, FRP, and launching of concrete and steel bridges
- **Span-by-span segmental** construction
- **Balanced cantilever segmental** construction
- **Stay cables** – strand and bar systems
- Design & supply of **complex temporary works**
- **Integrated specialist construction teams** providing end-to-end expertise

CAULFIELD TO DANDENONG, VIC

WESTCONNEX NEW M5, NSW

HEAVY LIFT & SHIFT

VSL can provide the most effective solutions for projects where excessive weight, dimensions or space limitations exclude the use of cranes or other conventional handling equipment, optimising prefabrication into larger, heavy, and more complex pieces.

VSL engineers and manages tailor-made solutions ensuring the highest levels of safety, performance, and reliability. We achieve this using precision-controlled hydraulic jacks and strand systems for lifting, lowering, rotating or sliding of very heavy loads in multiple applications, including:

- Roofs, framed structures, sky-decks (e.g. stadia roof)
- Offshore structures (e.g., oil platforms)
- Industrial facilities and plants
- Box jacking tunnels and underpasses
- Tunnel Boring Machines

ENGINEERED PRECAST

VSL: Has a long history and track record in precasting complex structures for the construction industry

Project Specific pre-casting services for infrastructure projects:

- Viaduct substructure & superstructure pre-casting & erection
- Design & establishment of project specific casting yards
- Piles, Super-Tees, noise wall panels, and parapet Pre-casting
- On-site pre-casting

Other Precasting Experience

- Owned and operated VSL's in house precast yard until 2020
  - In this facility VSL cast VSoL (MSE) panels, match-cast bridge piers, water tank panels, parapets, water treatment facility elements, and more.

Industry leader in Australia for segmental pre-casting from 2006 to 2025:

- Precast >7,000 bridge segments
- Involvement in design and establishment of 10 tailor-made casting yards
- Almost unbroken continuity of match-cast segmental projects throughout this period

NEW BRIDGEWATER BRIDGE, TAS

GATEWAY BRIDGE UPGRADE, QLD

WIND FARMS

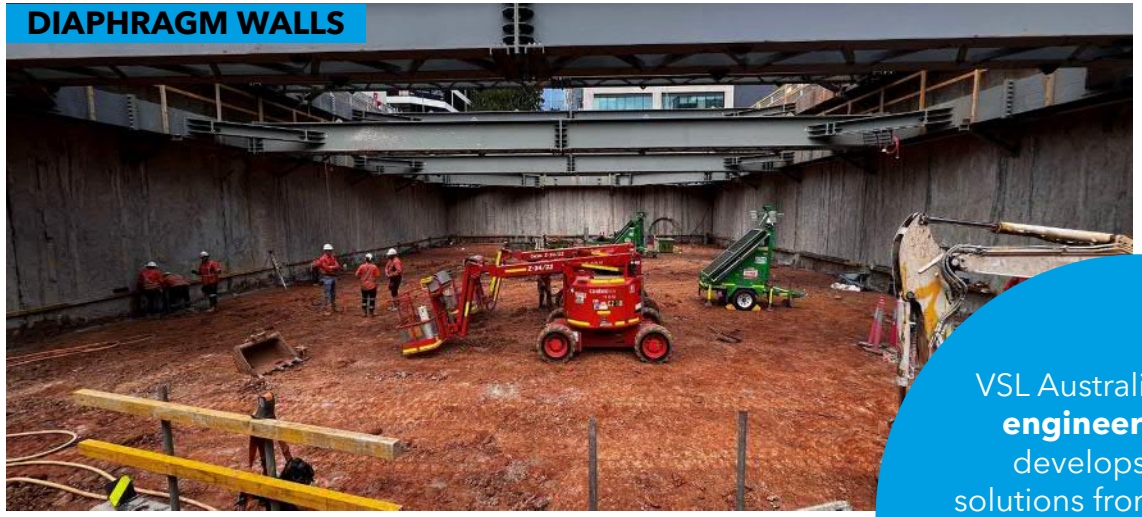
VSL provides unique solutions to deliver material quantity advantages, improve constructability and tackle site constraints.

- Post Tensioning for in-situ concrete foundations
- Vertical Post Tensioning for the tower
- Rock anchors/micro-piles for the foundations
- Heavy lift solutions for turbine installation
- Pre-cast foundations
- Stress bars for tower anchoring
- Pre-cast Concrete Windfarm Towers (Supply & Erection)
- Horizontal Directional Drilling (HDD) of power cable conduit holes
- Lift options to install units of unlimited weight and tower height

4 FOCUS ON GROUND ENGINEERING

GROUND ENGINEERING

DIAPHRAGM WALLS



GROUND ANCHORS

VSL Australia's **ground engineering team** develops tailored solutions from concept to execution, offering a wide range of techniques for both temporary and permanent works.

MICRO PILING

GROUTING

DIAPHRAGM WALLS

Delivering precision and performance with Diaphragm Walls

Diaphragm walls are essential for deep excavations in constrained environments. VSL offers end-to-end solutions, from design to installation, ensuring precision, quality, and safety.

Having participated worldwide on some of the most challenging projects, VSL is one of the major Diaphragm Wall specialist contractors.

- **Diaphragm walls** and **barrettes** constructed to depths of up to 100m
- Stop-end, water-stop, or milled panel joints ensuring optimum water tightness in complex ground conditions
- Expertise in circular, binocular, and caterpillar shaped **diaphragm walls** to minimise internal strutting requirements
- Proven track record in constructing **diaphragm walls** for metro stations and deep basements for high-rise buildings

SYDNEY METRO WEST, NSW


NORTH EAST LINK (NEL), VIC

GROUND ANCHORS

Ground anchors for permanent and temporary stability

Ground anchors are used for stabilization of structures against sub-surface forces induced by internal & external elements. Ground anchors come in varying types and VSL have experience in the design, supply, and installation of all these techniques

VSL has been designing, fabricating and installing post-tensioned ground anchors since 1957, and using bar anchors since the early 1970s.

- **Dam** upgrades / reinforcement
- **Bridges**
- Cable cars and cable **railways**
- Ground excavation
- **Tunnels** & **Portals**
- Ground Support
- Structure support & stabilisation
- Landslide prevention
- Uplift restraint
- Static & dynamic load tests
- Grout Curtain
- **VSL Strand Anchors** (up to 91 x 15.7mm)
- **VSL Stress Bar Anchors** (up to 75mm)
- Rock Bolts
- **Soil Nails**

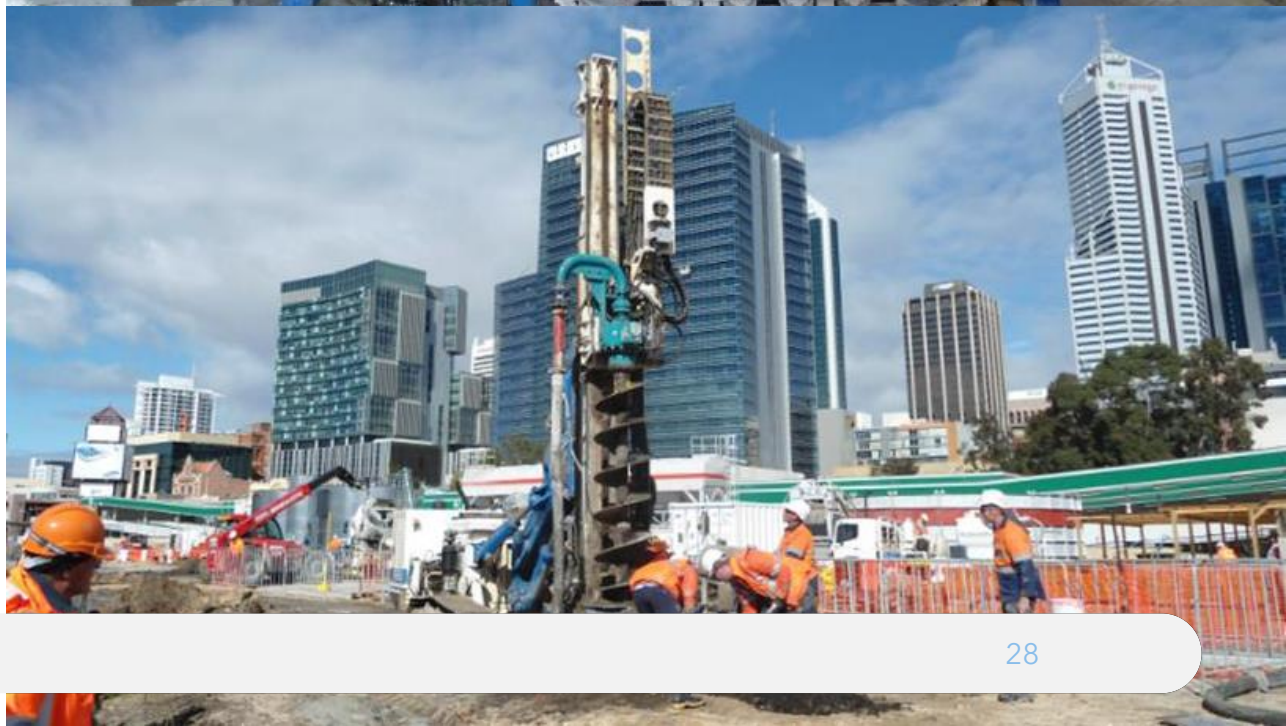
MICRO PILING

Efficient micro piling solutions for constrained and complex sites

Micropiles are small-diameter piles designed to provide structural support by transferring loads from buildings, bridges, and other structures into the ground, or by resisting uplift forces.

They can be installed using conventional drilling methods or continuous flight auger (CFA) techniques, making them versatile in a wide range of soil and site conditions.

- **Replace** deteriorating foundation systems
- Provide extra support for structures
- **Provide pile foundations** where access, geology or environment prevent the use of other methods
- **Support** structures affected by adjacent excavation, tunnelling or dewatering activities
- Provide a **fast, effective alternative** to more traditional underpinning methods



5 FOCUS ON REPAIRS AND PRESERVATION

REPAIRS AND PRESERVATION

Engineered solutions enhancing whole of life **serviceability**, **durability** and **structural improvement** of existing assets

CONCRETE REPAIRS

Preserving what matters: Concrete repairs that last.

To face Australia's aging infrastructure and harsh climate, VSL delivers smart, durable repair solutions by combining decades of expertise with advanced technologies.

Our approach is built around four key pillars: 1) The repair, rehabilitation and protection of both buildings and civil structures; 2) Full compliance with modern standards; 3) Monitoring and life-cycle analysis to ensure long-term performance; and 4) Structural strengthening to meet current and future load demands.

- **Crack injection** (rigid, semi-rigid, flexural)
- Concrete **patching** to address spalling, impact damage, movement and material deterioration
- **Protective coatings** and **cathodic protection** systems (impressed, sacrificial, hybrid) to mitigate corrosion risks
- **Repair** of construction defects

WEST GATE BRIDGE PIER 13, VIC

STACEY STREET RAIL OVERPASS, NSW

BEARING REPLACEMENT

Extending structural life through bearing replacement

Bearings are critical for ensuring load transfer and accommodating movements in bridges and other structures. Over time, they may deteriorate due to ageing, corrosion, or fatigue, compromising safety and structural integrity.

VSL provides turnkey bearing replacement services, including structural assessment, jacking design, temporary works, removal, and precise installation of new bearings

- Structural **analysis** and site **investigation**
- **Design** and implementation of safe jacking systems
- Controlled **lifting** of superstructures
- **Removal** of damaged or obsolete bearings
- **Installation** and alignment of new bearings (elastomeric, pot, spherical, etc.)
- **Testing**, **monitoring** and post-installation **inspection**

KANGAROO VALLEY PIPELINE STAGE 1, NSW

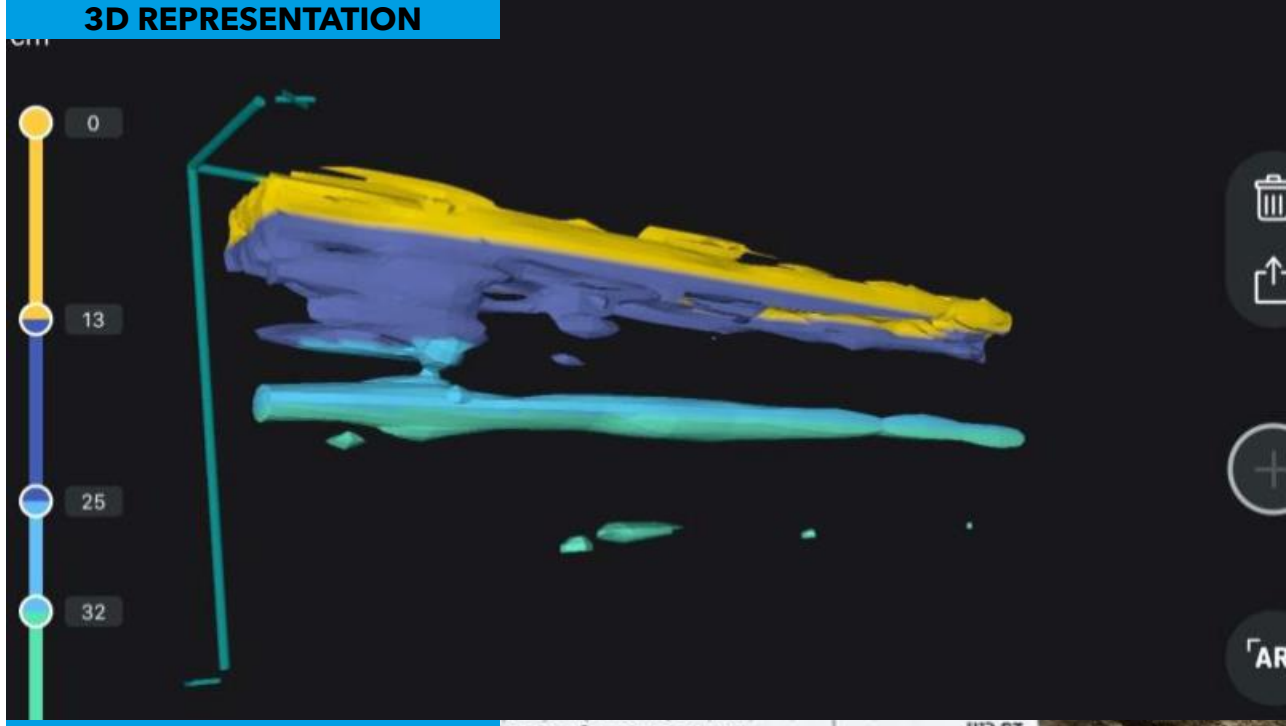
WEST GATE TUNNEL, VIC

MONITORING SOLUTIONS

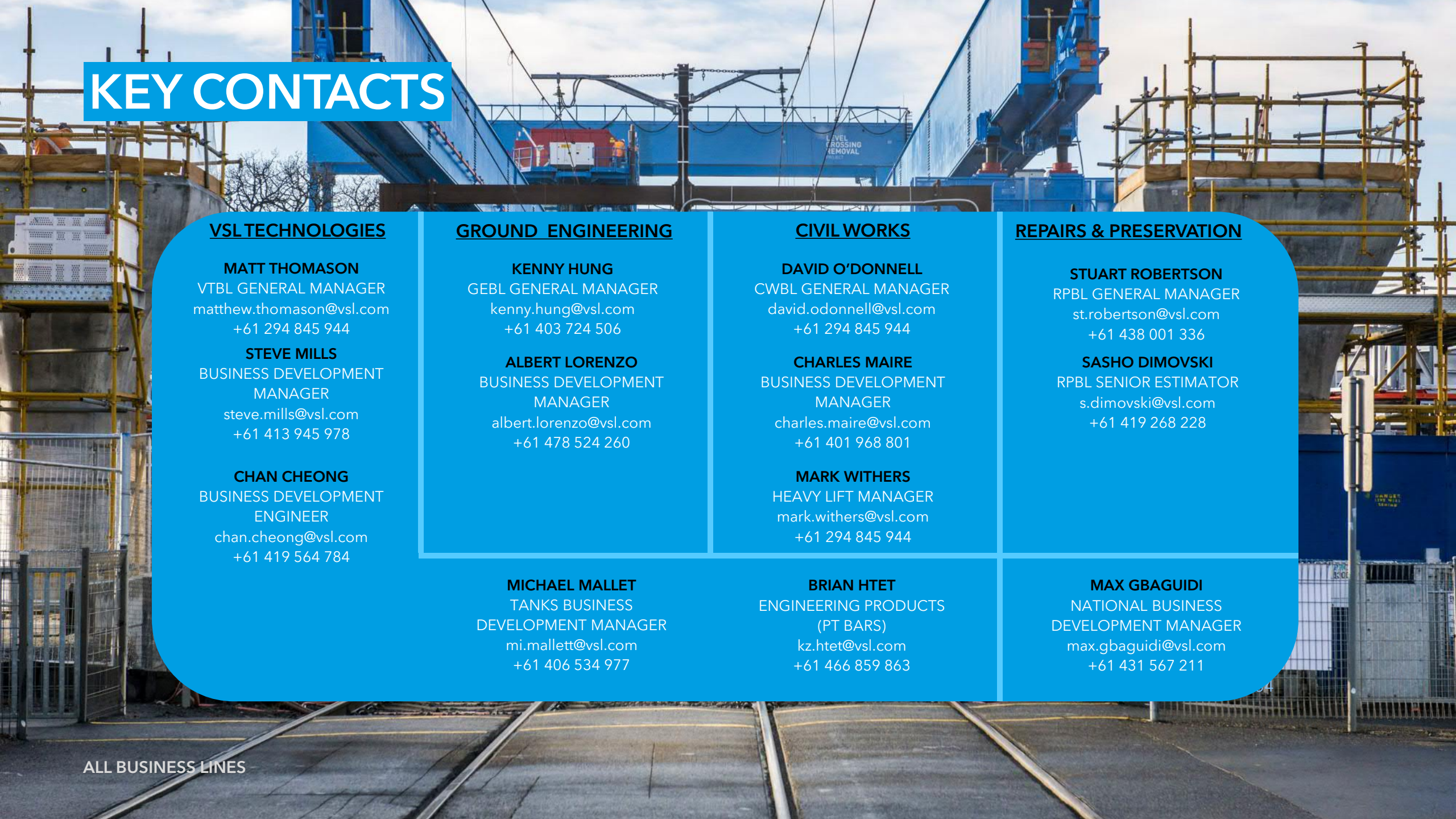
Smart monitoring solutions to inform structural decisions and optimise asset life

VSL specializes in structural monitoring systems, enabling asset owners and engineers to make informed, value-driven decisions. With deep expertise and local insight, VSL delivers tailored sensor solutions, collects reliable data, and supports life-cycle modeling for performance-based maintenance. Its in-house systems form the core approach but can also integrate with third-party technologies.

- **A turnkey service** tailored to the needs of the client (**design** and **engineering** services, monitoring hardware and software, data **collection**, **analysis** and **reports**) recommendations, support and action plans
- A range of **complementary solutions** is also available to increase the **durability** and **effective** use of your structure (**inspection**, preventative **maintenance**, **repairs**, **upgrading**)



KEY CONTACTS



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THANK YOU

vsl.com

BUILDING FOR LIFE