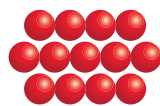
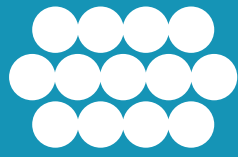




# OIL & GAS



**REINFORCED EARTH**  
SUSTAINABLE TECHNOLOGY



# REINFORCED EARTH

AN ACTIVE PARTNER FROM  
UPSTREAM TO DOWNSTREAM

## Delivering infrastructure solutions that are vital for your Oil & Gas Projects

### SITE ACCESS & LAND DEVELOPMENT

Together with the project stakeholders, we rise to the challenge of **building structures that allow access and workability for extraction, storage and production.**

- + Construction on poor and marginal soils
- + Straightforward construction at sites, even in remote areas regardless of weather constraints

### CONTAINMENT & RISK MITIGATION

Through their **intrinsic characteristics** our structures contribute toward mitigating environmental and industrial risks.

- + **Contain accidental flooding of aggressive liquids:** Reinforced Earth® structures are proven to withstand the drastic impact of the leakage and ignition of cryogenic volatile fluids.
- + **Resist fire & thermal shock:** Materials that constitute our structures are substantially nonflammable and fire-resistant.
- + **Absorb stresses induced by seismic activity** as a result of the inherent ductility and resilience of our structures.
- + **Protect against explosions:** Reinforced Earth® is a highly stable barrier that impedes the propagation of a blast at ground level and absorbs high levels of energy.

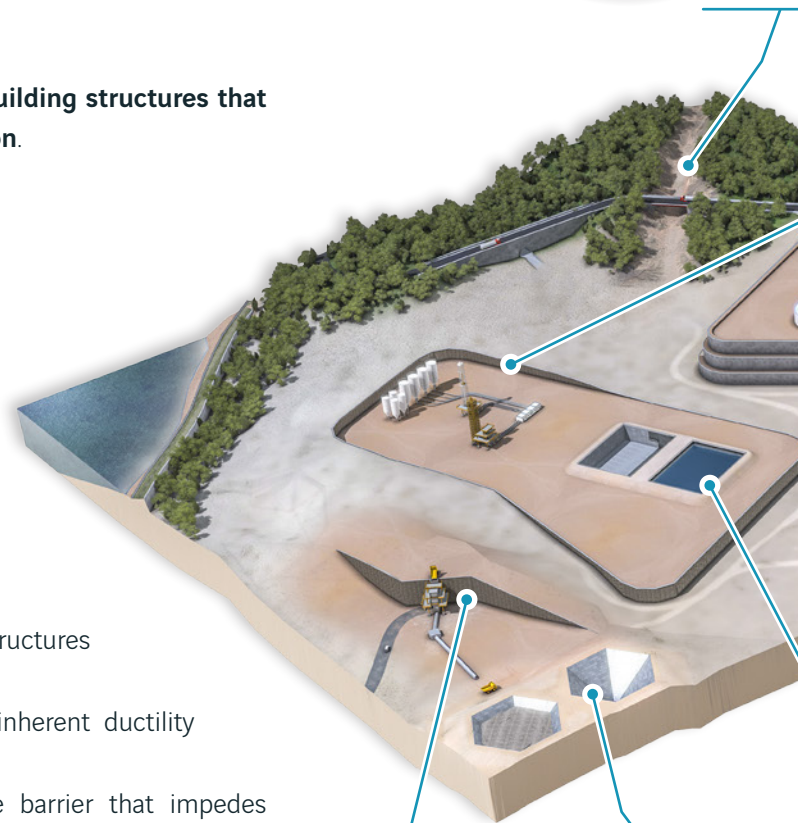
### PRODUCTION PROCESS & STORAGE

The versatility of Reinforced Earth® allows the design of **high-level-engineering solutions.**

- + **Support heavy loads:** Even for tall walls, our structures have the capacity to bear loads generated by cranes, piling rigs and other heavy equipment.
- + **Withstand vibrations:** Reinforced Earth® structures are resistant to the loads associated with industrial processes such as crushing, screening and fracturing.
- + **Constructive solution for storage:** Eventually combined with appropriate and adequate sealing materials, our structures are adapted to the storage of liquids, waste outputs and bulk materials.

Expertise a  
of the world  
in **Mechanics**

Access R  
Underpa



Dump Wall &  
Bulk Storage Bunkers

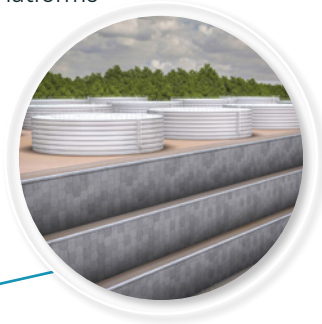


# and experience Global leader Locally Stabilized Earth structures

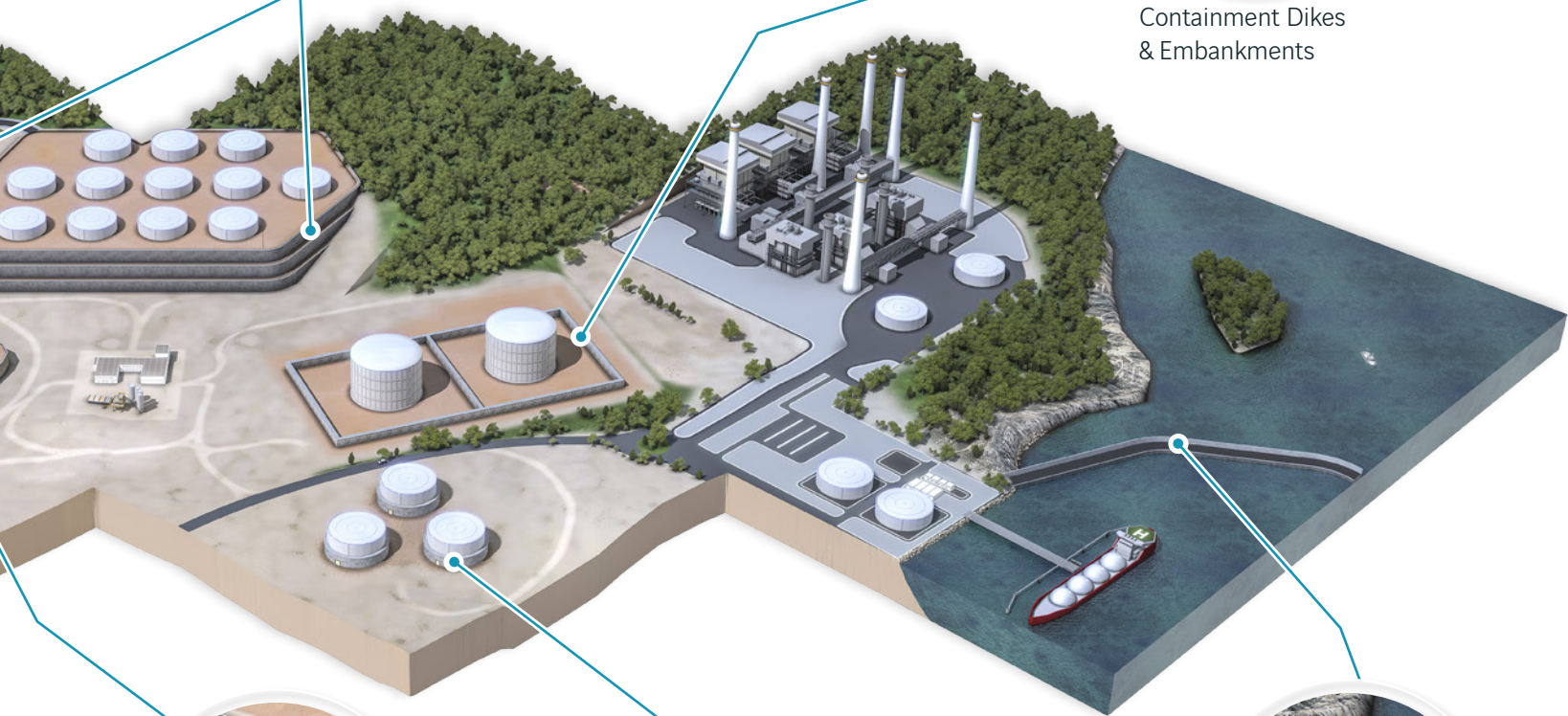
loads &  
presses



Platforms



Containment Dikes  
& Embankments



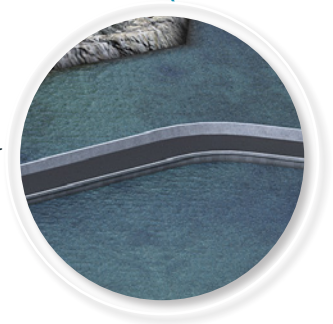
Reservoirs



Tank Ring Walls



Breakwater  
& Jetties





LOCAL  
EXPERIENCE  
WORLD  
EXPERTISE



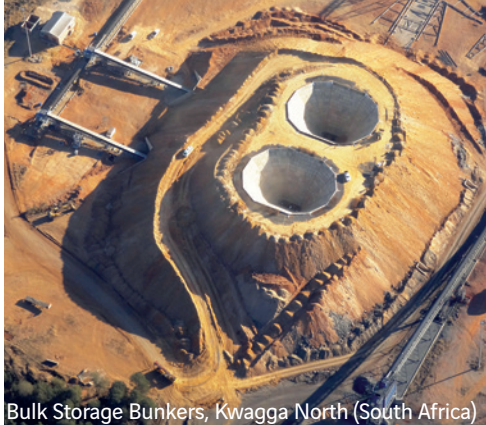
Valdez pipeline terminal - Alaska (USA)



Dump Wall - Alberta (Canada)



LNG tank farm containment dikes Stony Point, South Australia (Australia)



Bulk Storage Bunkers, Kwagga North (South Africa)



LNG tank farm containment dikes Cove Point, Maryland (USA)



Trekkopje reservoir (Namibia)



Techspan® Iron Ore Mine - Western Australia (Australia)

From early concept design through bankable feasibility to construction **our team is dedicated to your success**



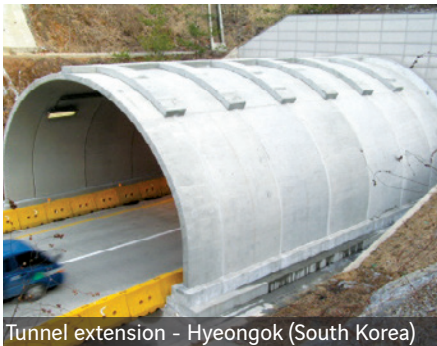
Bridge Abutment - New South Wales (Australia)



Containment dikes for ammonia tanks Montoir (France)



Oil sands separator tanks - Muskeg (Canada)



Tunnel extension - Hyeongok (South Korea)



Protective Dikes - Kagoshima (Japan)

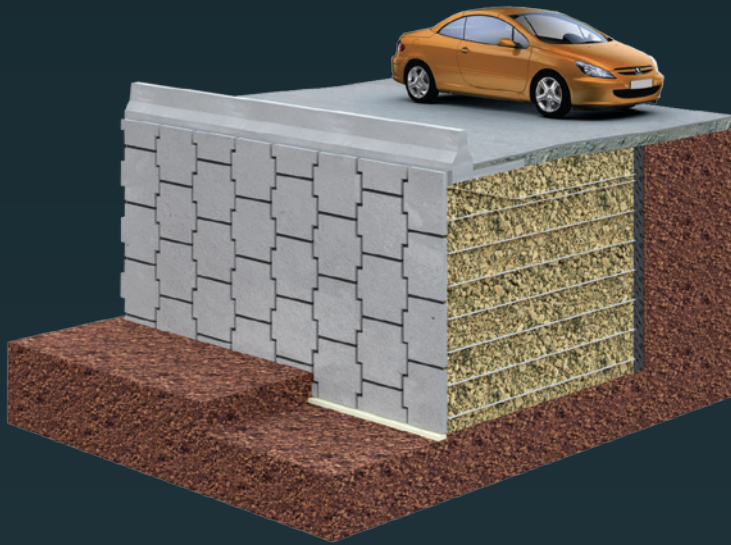


Bing Bong Wharf - Northern Territory (Australia)



# TECHNIQUE

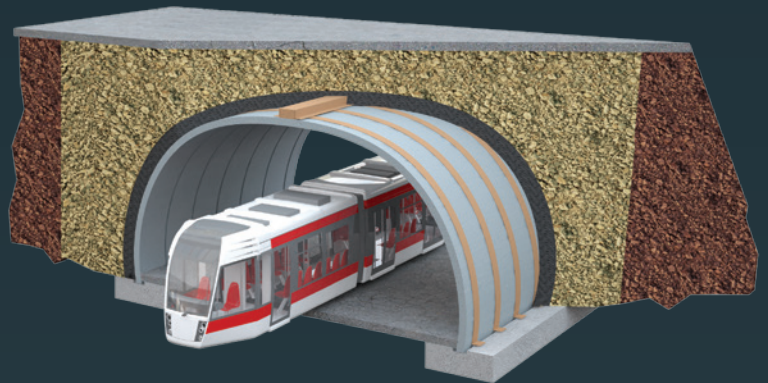
## Reinforced Earth®



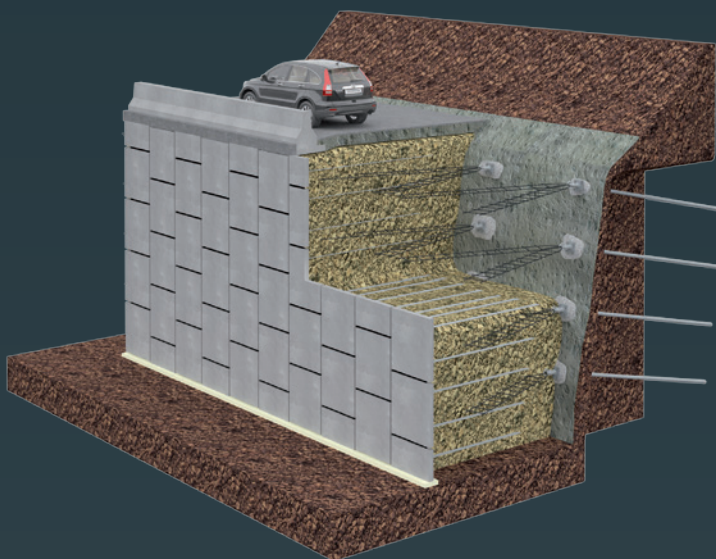
The original Reinforced Earth® technique combines select granular, engineered backfill with steel or synthetic tensile reinforcements and a modular facing system. This ideal combination creates a durable, mass gravity retaining wall.

## TechSpan®

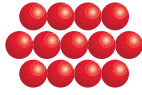
TechSpan® is a precast concrete arch system associated with an engineered backfill.



## TerraLink™



TerraLink™ allows building new Reinforced Earth type walls connected to retaining structures such as slopes stabilized by nailing or existing retaining wall.



**REINFORCED eARTH**  
SUSTAINABLE TECHNOLOGY

## A WORLDWIDE NETWORK OF EXPERTS FOR YOUR PROJECTS

Our engineers provide their assistance at every stage of the project:

- + Conception and feasibility
- + Design
- + Procurement
- + Construction
- + Maintenance
- + Upgrade

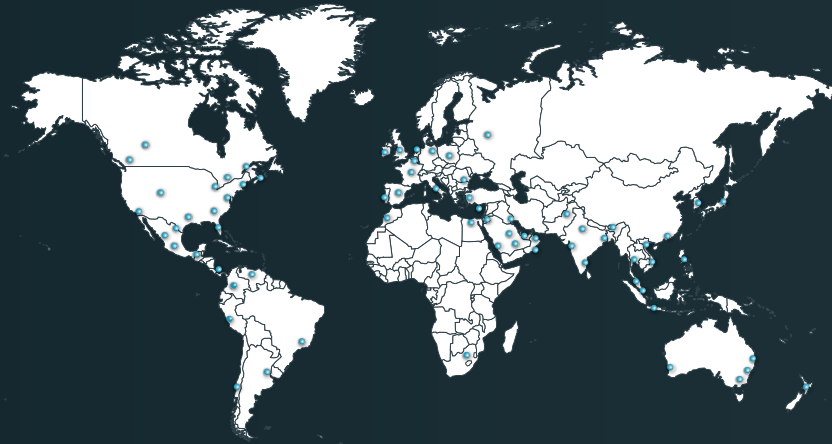
Reinforced Earth enables projects stakeholders, owners, consulting engineers, architects and main contractors, to benefit from the experience collectively accumulated for more than half a century.

Experience

Reliability

Solution  
Provider

Presence in more 40 countries on 5 continents



[www.terre-armee.com](http://www.terre-armee.com)

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Cover photo: LNG tank farm containment dikes Cove Point, Maryland (USA)

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