SIBELONMAT®

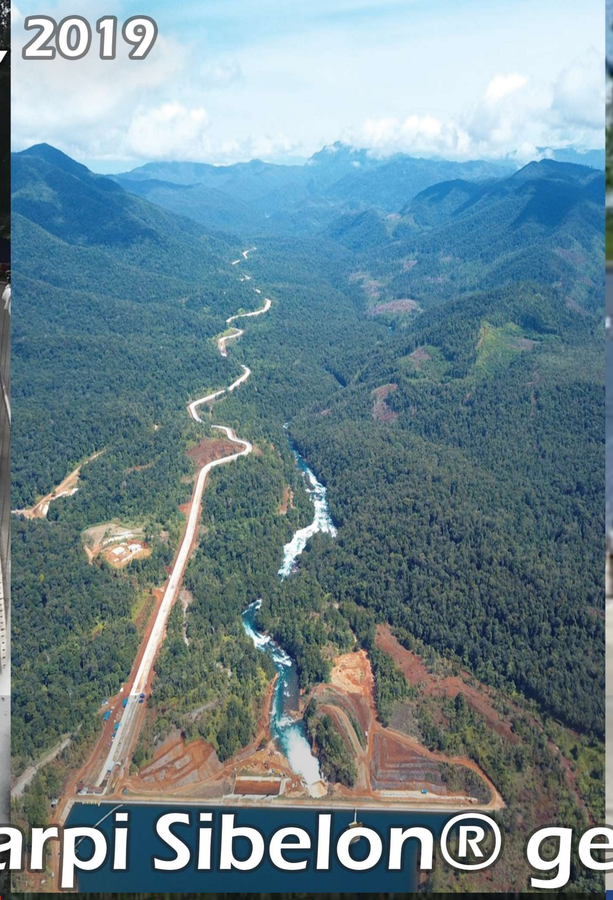
Underwater repair without stopping the flow

PROBLEMS

Deterioration over time causing:

- Water losses
- Reduction of water flow
- Reduction of Hydroelectric power generation

Larona Canal, Indonesia, 2019



Perneg Canal, Austria, 2012

CONVENTIONAL SOLUTIONS

Installation of Carpi Sibelon® geomembrane

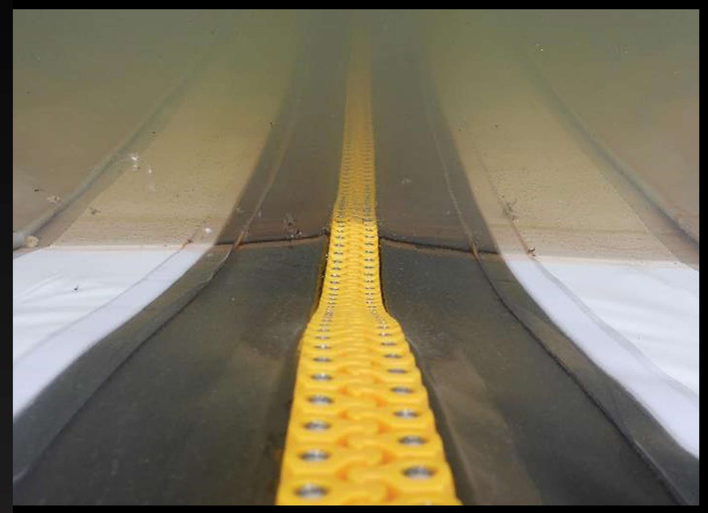
Dewatering of the structure mandatory

Kootenay Canal, Canada, 2018

Tekapo Canal, New Zealand 2013

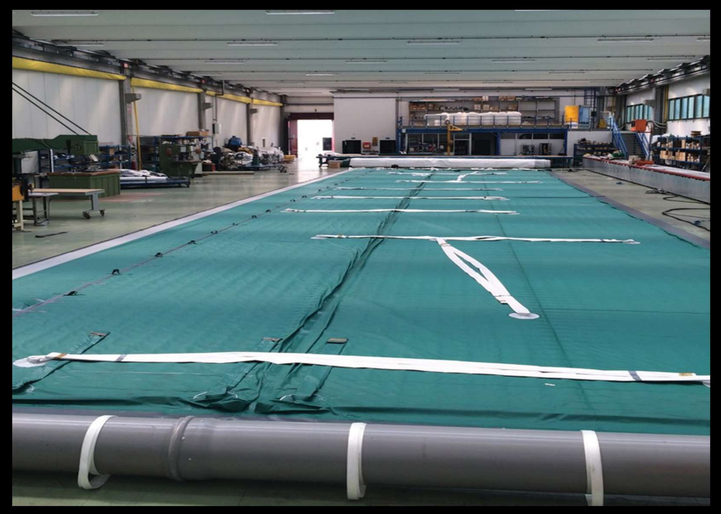
SIBELONMAT®
- THE CONCEPT

NO NEED TO DEWATER

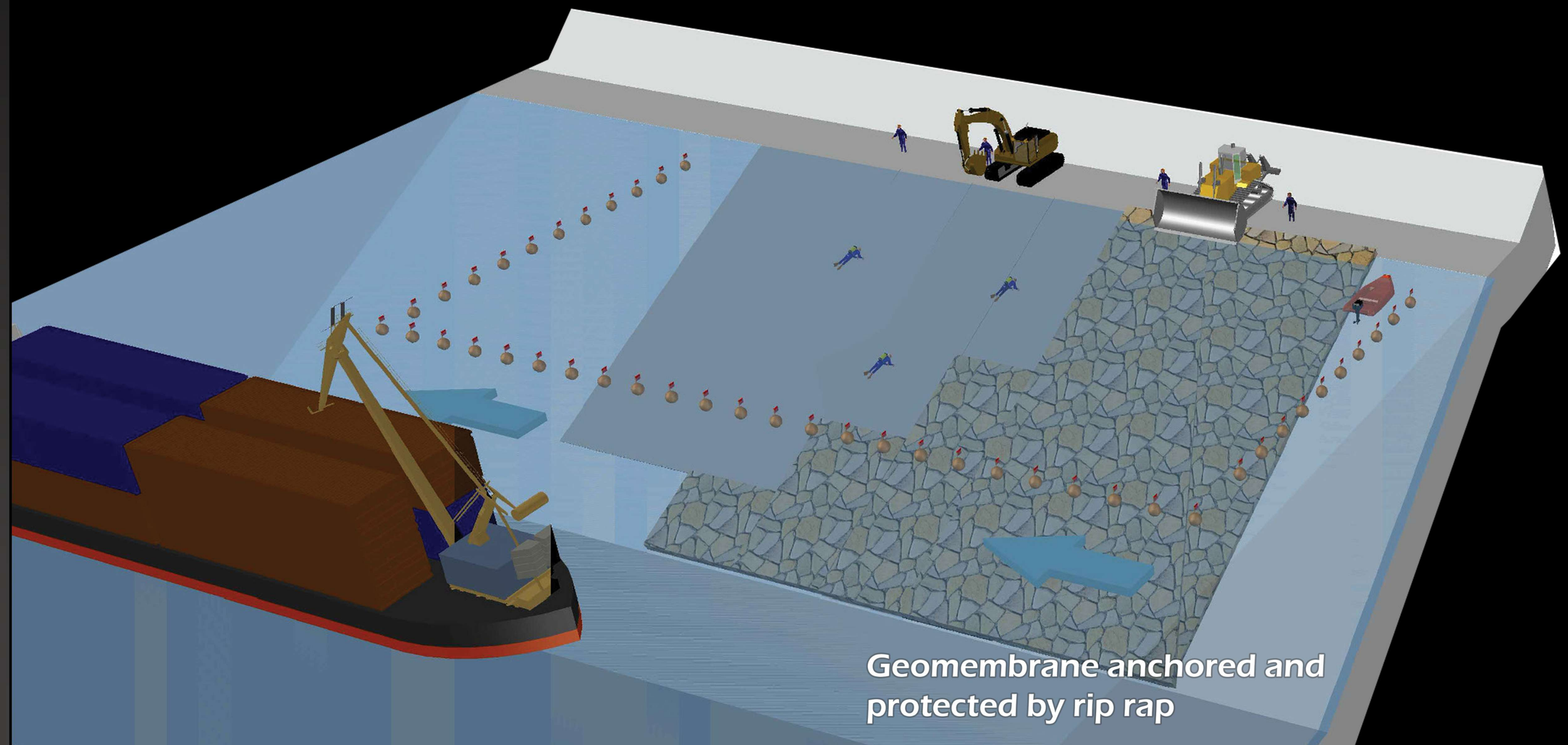


Watertight Zip

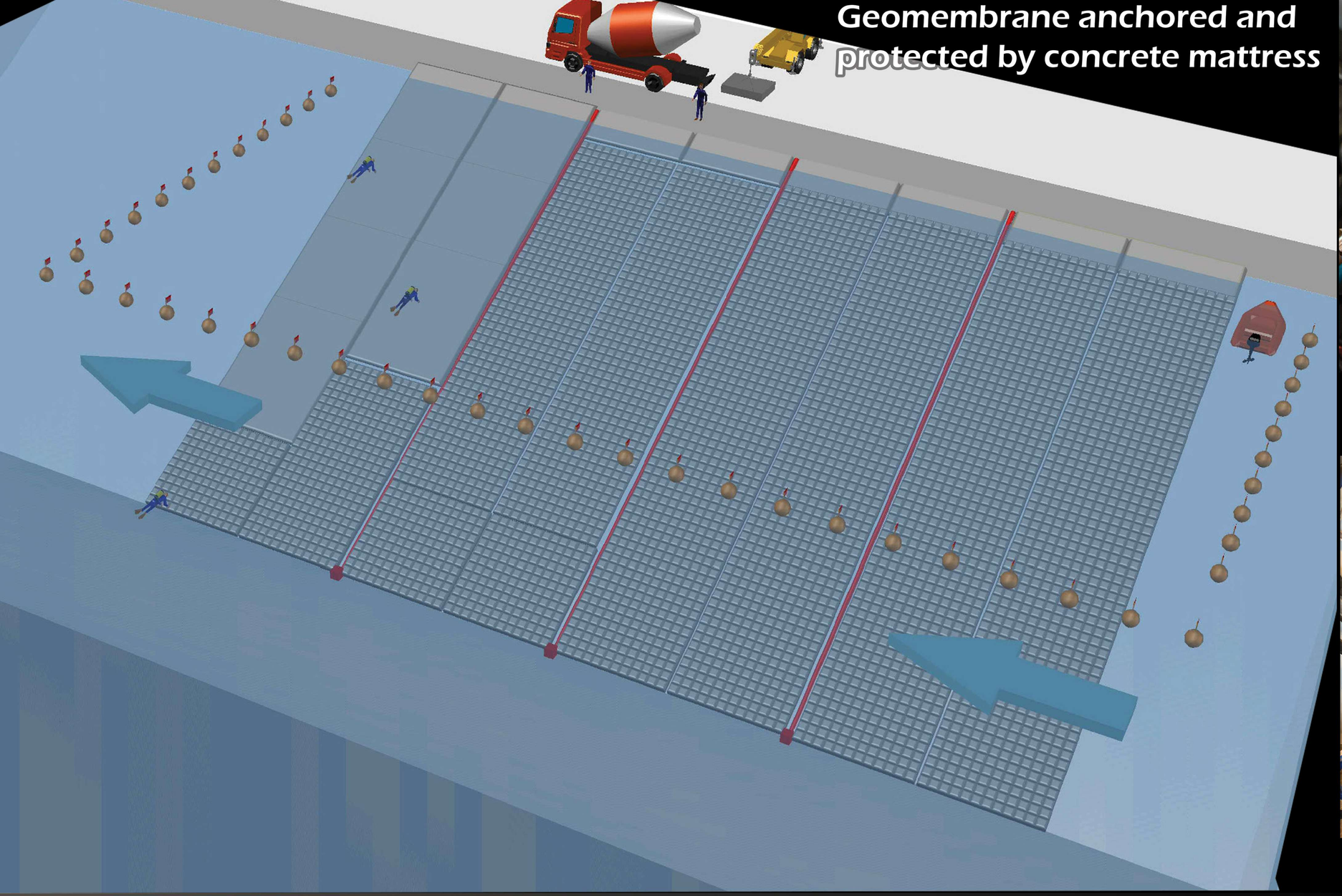
Carpi Sibelon® geomembrane



Factory production 100% tested



Geomembrane anchored and protected by rip rap



Geomembrane anchored and protected by concrete mattress

Carpi specialized diving team

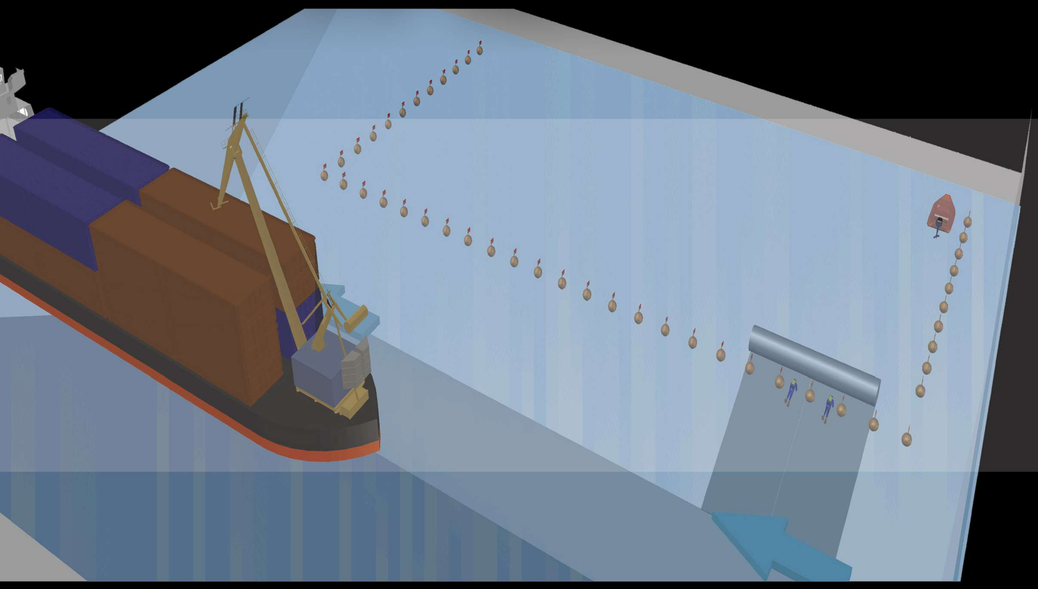
Zip waterpoofed up to 15 bars

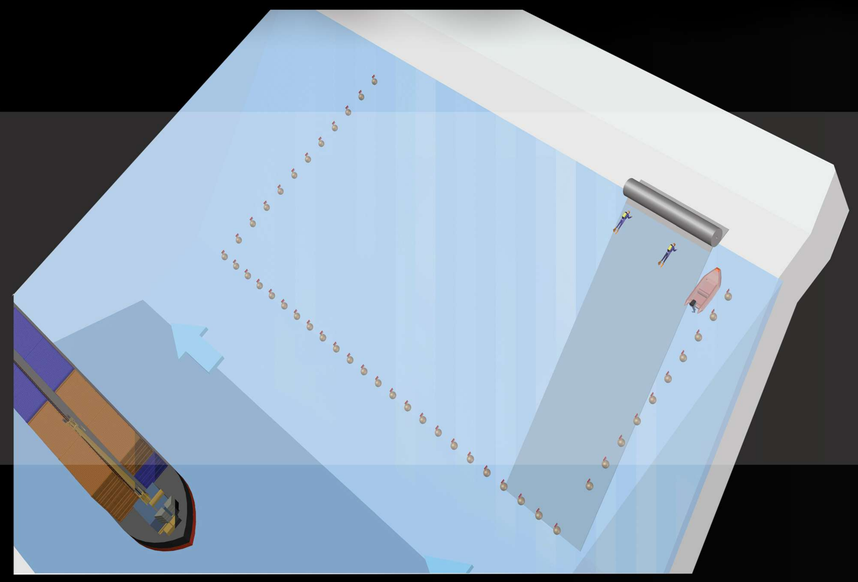
A SUSTAINABLE SOLUTION:

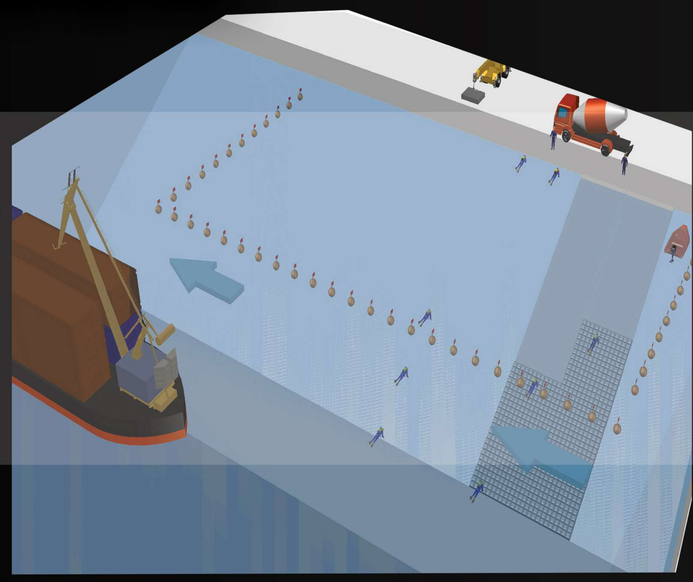
- Underwater installation
- Installation possible with flowing water
- Minimum intervention of divers:

SAFE AND COST EFFICIENT

INSTALLATION SEQUENCE



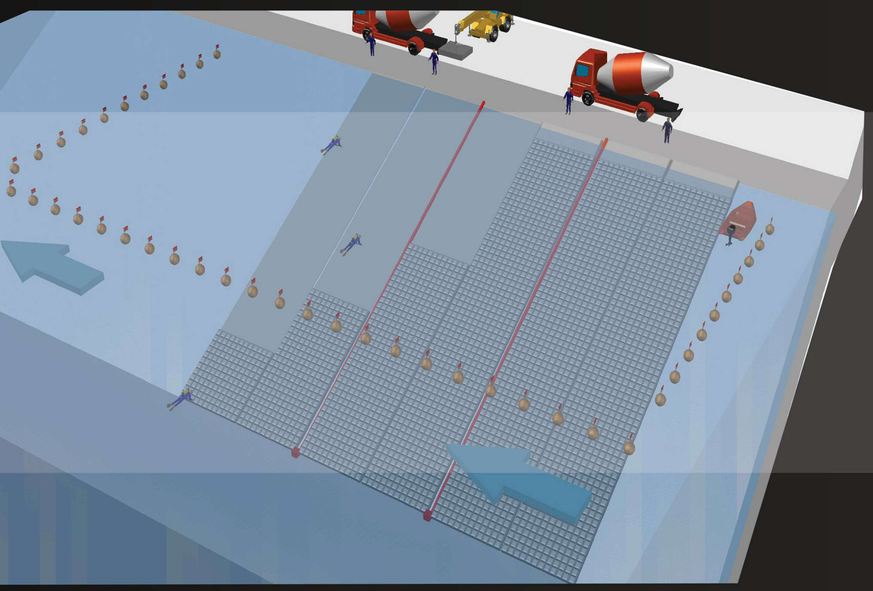


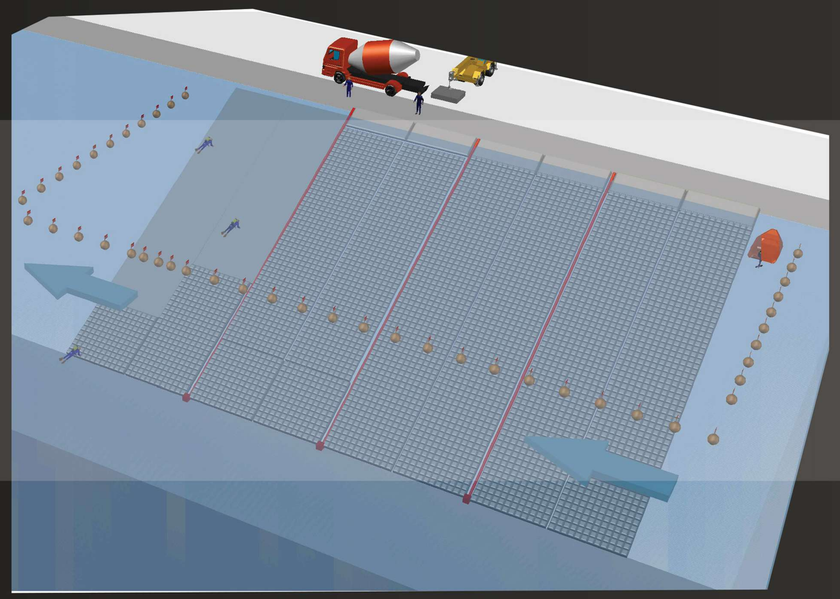


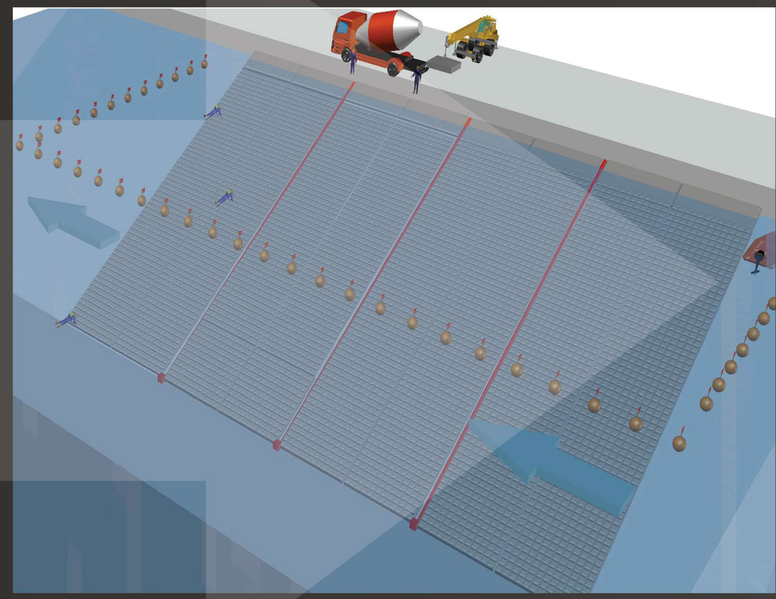
Sibelon® geomembrane unrolled underwater by deploying device

REFERENCES

Cavour Canal, Italy, 2015







TAILOR-MADE DESIGN

Carpi Tech Sibelonmat® soluttions engineered specifically for each project:
- Ballasting by concrete mattress, rocks, concrete blocks, punctual anchors...
- Type of perimeter seal
- Specific monitoring...

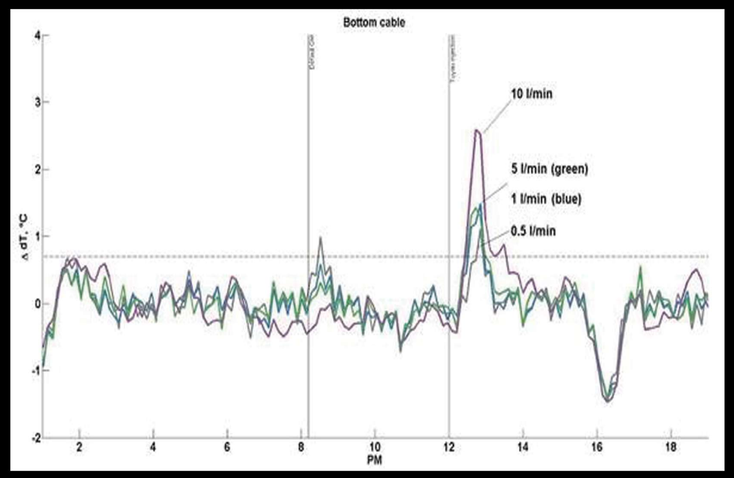
Ismailia Canal, Egypt, 2016

Link to video ▶

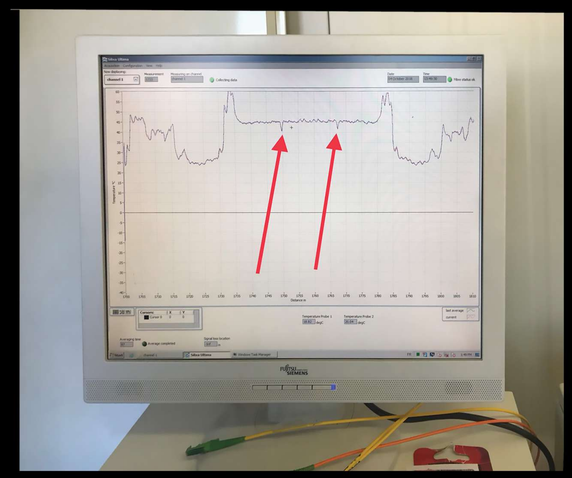
SIBELONMAT®

- Monitoring

Leak detection system by optical fiber



Detecting leaks of 0.5 l/min



Reading of the infiltration

Tests done on real-scale model in France

Waterproofing Hydraulic Structures in the World

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