

STRUCTURE BEHAVIOUR DATA



ANALYSES
&
REPORTING

TRACK

Using continuous real-time tracking, we can detect the earliest stages of structural anomalies, meaning you can optimize your operations.

MANAGE

Prioritize your construction operations and make the best decisions regarding work to be done on your structures.

ANTICIPATE

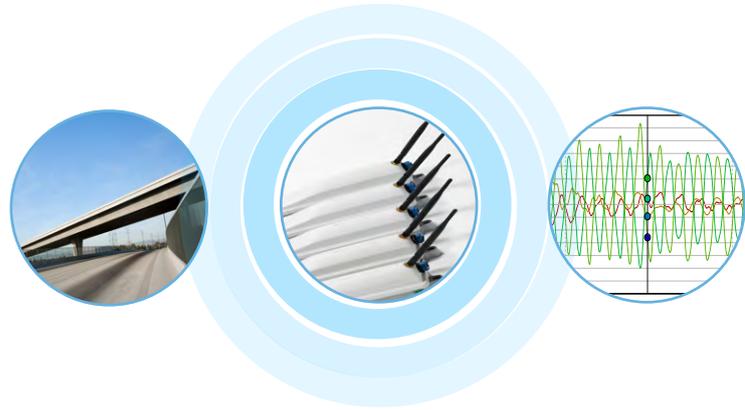
Thanks to our analyses, you can carry out maintenance and preemptive corrective work instead of reacting urgently.

osmos

STRUCTURAL HEALTH MONITORING

OSMOS is a company specialized in structural behavior analysis. We give structure managers the ability to continuously track the health of their structures in real time. Our fiber optic solutions help our clients reduce their costs through a predictive maintenance approach.

- Comprehensive view of structures tracked by OSMOS
- Customized reports and event alerts
- Support and assistance throughout the structure's life cycle



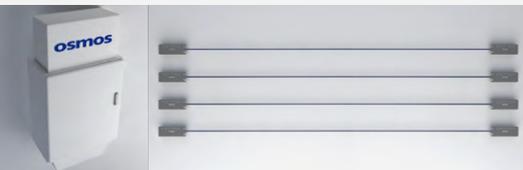
OSMOS provides key data on the health of your structures to help managers make decisions.

Our solutions let you detect stresses that may have a lasting impact on the structure. OSMOS primarily installs optical cable (proprietary technology) which detects any deformations.

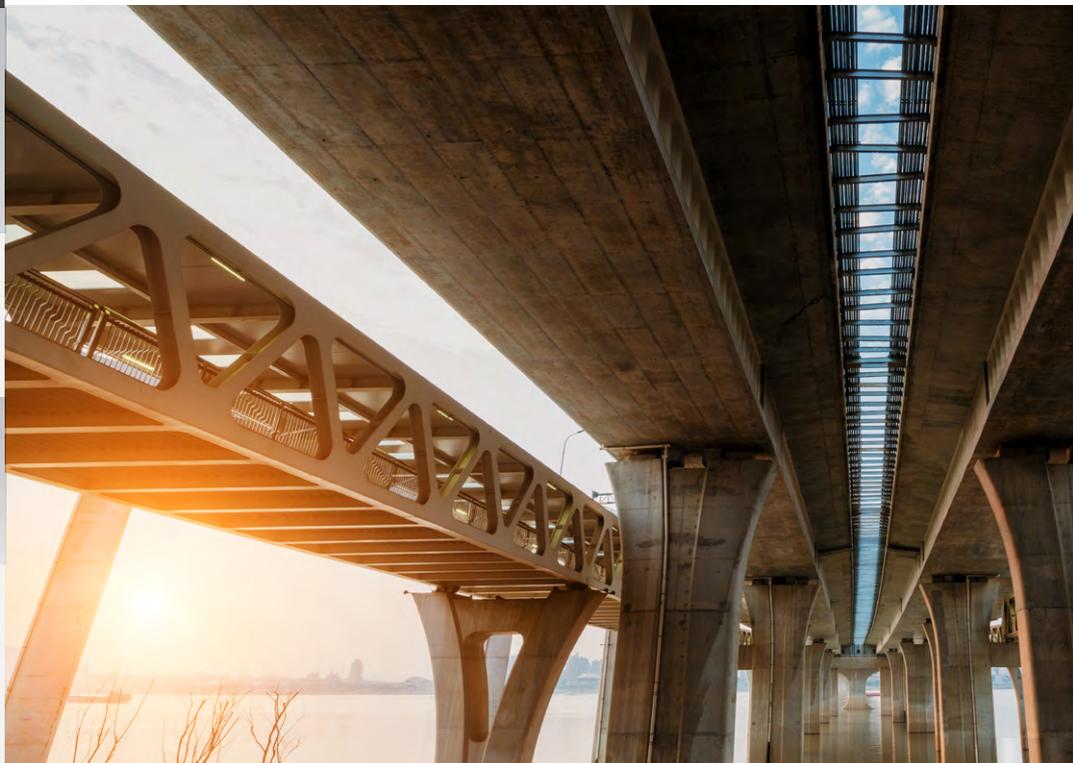
The data and signals are recorded using our solutions: The expert acquisition system and OSMOS LIRIS (wireless optical cable). The data is then interpreted and thoroughly analyzed using the mathematical and statistical tools designed by our teams.



OSMOS LIRIS
Wireless battery-powered mini station



OSMOS E.A.S
Mains-powered optical acquisition station

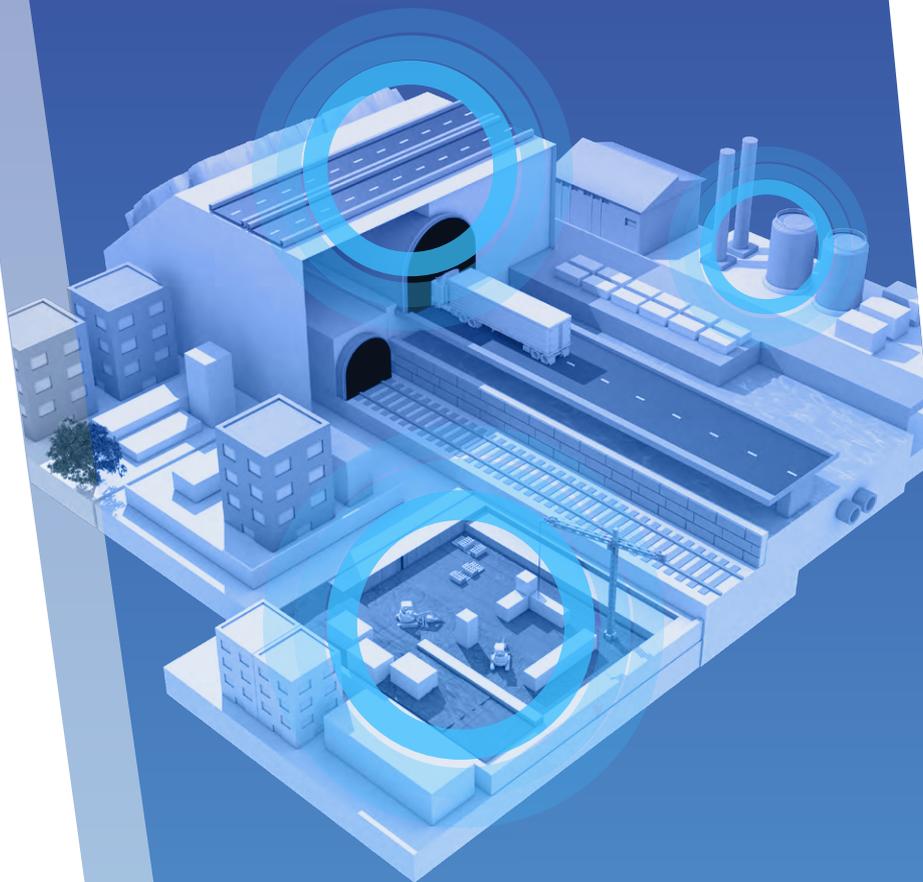


eren
GROUPE

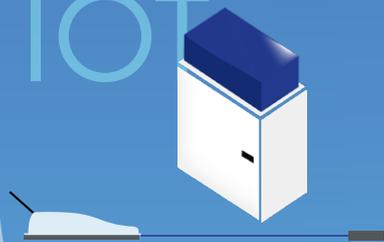
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OSMOS Group is a subsidiary of EREN Group, an expert in the natural resource economy with:





IOT



Thanks to the optical cord, our equipment boasts unique sensing ability and micron precision to detect phenomena that may impact the structure.

DATA



Structure tracking data are safely archived in a secure cloud and can be accessed at all times. Correlated by sector and period, they can be used to carry out comparison analyses.

ANALYSIS



The data are interpreted and analyzed by our analysts and dedicated mathematical tools in order to share decisive information with managers and decision-makers in the form of customized reports that are directly accessed on our client platform, SafeWorks.



STRUCTURE BEHAVIOUR REPORTS AND ANALYSES



OSMOS analysts and engineers work closely to go beyond basic analyses and implement algorithms that can distinguish the different effects acting on a structure to detect which ones are anomalies.

We aim to innovate and continuously improve our processes, which is why we develop and produce our own analysis tools, then test and validate new methods of data processing. Our tools include:

- **Thermal correction**
- **Fatigue analysis**
- **Stationarity tests**
- **Reverse modeling**



Our approach gives us an in-depth understanding of various structure types and enables us to establish statistical analyses used to estimate their life span and optimize their maintenance.

The behavior data provided to clients via our online SafeWorks platform enables them to adopt a predictive maintenance strategy to minimize malfunction risks and optimize resource allocation.

Unique interface designed for your structures



- Map of projects tracked by OSMOS
- Customized automatic behavior and event reports
- Shared calendar for stakeholders
- Document exchange platform

Check

- Check the health of all types of structures
- Check convoys and their impact on bridges
- Check load-bearing capacity
- Check the structure's aging and wear & tear
- Check risky operations in real-time

React

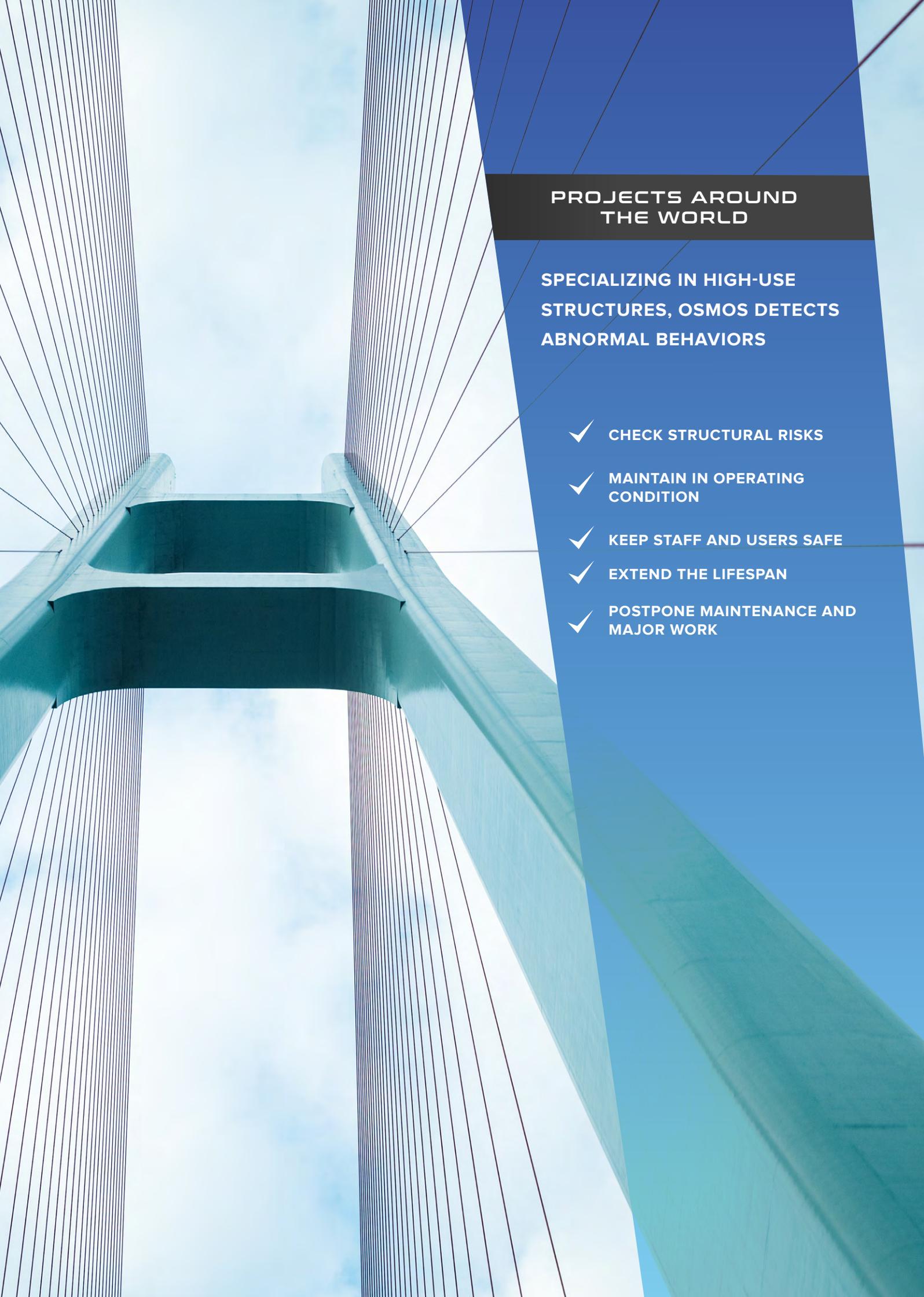
Receive customized alerts that help with decision-making

Anticipate

- Anticipate upstream risks
- Anticipate future damage
- Anticipate future behavior

Your structure management toolbox





PROJECTS AROUND THE WORLD

SPECIALIZING IN HIGH-USE STRUCTURES, OSMOS DETECTS ABNORMAL BEHAVIORS

- ✓ CHECK STRUCTURAL RISKS
- ✓ MAINTAIN IN OPERATING
CONDITION
- ✓ KEEP STAFF AND USERS SAFE
- ✓ EXTEND THE LIFESPAN
- ✓ POSTPONE MAINTENANCE AND
MAJOR WORK

OUR ADDED VALUE HELPS KEEP YOUR STRUCTURES IN SERVICE

Lodi Bridge, Italy

Monitoring a high-use road structure, estimating vehicle weight and analyzing the effect of exceptional convoys.



Yara Le Havre berth in France

Tracking the structural behavior of support girders on the structure, after deterioration was noted, to ensure the structure's stability before undertaking the replacement of the PHB loader and installing a new loading arm to keep the industrial tool in service.



Industrial site in France

Tracking the structural behavior of the industrial site's floors after the heavy load (storage, machines, etc.) zones were reorganized in the factory.

Beauvais Saint-Pierre Cathedral, Beauvais, France

Monitoring the monument's structural behavior, specifically that of the pillars supporting the front struts, with a view to possible strut-removal work.



Résidence Gaston Pinot, Paris, France

Verification after swaying was noted in one of the buildings, by describing the ground-related issues and identifying risk zones.

Raised access road to cruise ship pier at Port Atlantique La Rochelle

Checking the access road's structural behavior before dismantling the land section.



Batignolles urban development zone, Paris, France

Tracking the construction of an apartment block on an SNCF train track covering slab which required section lamination detection then verification of fissures that appeared during construction and, at the same time, tracking deformations in the stretched fiber at the bayonets.

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All of our products are designed, developed and manufactured in France.

