

HYDRO



PROTECT WITH  
INTEGRITY

# COMPLETE COVERAGE = COMPLETE CONFIDENCE

In order to ensure the integrity of assets in the Hydro industry (from dams and dykes to marine monitoring and water pipelines) it is critical to detect and prevent the smallest leaks and movement in real-time by maintaining a precise understanding of events and changes.

Successfully achieving your goals starts with an absolute certainty at all times about what is really happening at every point along the length of your assets. Only Sensornet's Digital Monitoring solutions have the sensitivity, range and speed to give you the complete, continuous, real-time knowledge that you need.

**Close the monitoring gap** and you can move ahead with certainty.

## BE THERE

# CLOSE THE MONITORING GAP

As resources are stretched further and pushed harder than ever, only Sensornet's Digital Monitoring solutions are as good as being there yourself.

## GO FURTHER

With the sensitivity, speed and reach that gives you the knowledge you need to detect weak points, avoid detrimental seepage and movements and plan ahead with confidence.

## KNOW MORE

With effective analysis that turns data into useful information.

## GET CLOSER

With a collaboration that fully understands your business goals and the unique circumstances of your asset.

## PROCEED WITH CLARITY

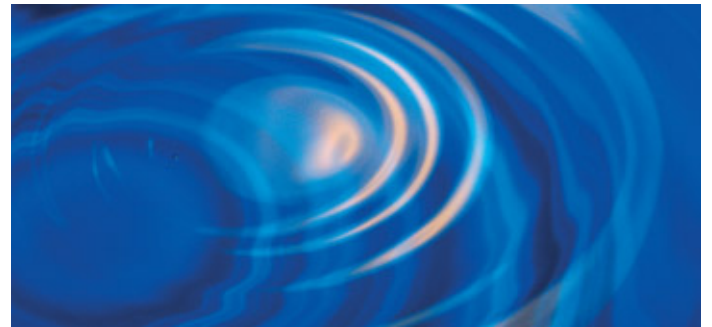
Today's extreme demands and distances call for advanced solutions that really put you in the picture.

From dams and dykes to marine monitoring and water pipelines; wherever your monitoring gaps are, we'll work with you to provide the certainty and integrity you need throughout your operation.

From design and installation to data delivery and analysis; by taking into account the unique context and physical circumstances of your assets, together we'll find the perfect alignment of your needs and our expertise.

ENSURE CONTINUOUS COVERAGE OF  
YOUR ENTIRE INSTALLATION EVERY

**60**  
KILOMETRES

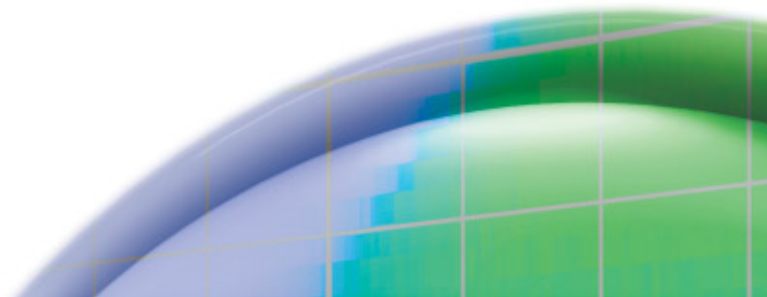


DETECT LEAKAGE RAPIDLY  
BEFORE POTENTIALLY DISASTROUS  
SITUATIONS OCCUR EVERY

**10**  
SECONDS

[www.sensornet.co.uk](http://www.sensornet.co.uk)

 **sensornet**



# PROTECT WITH INTEGRITY

## DAMS, DYKES AND LEVEES

Monitoring of seepage from dams, dykes and levees is crucial to supervise the structural condition and safety of your asset. Only Sensornet, together with our specialist industry partner companies can offer you the unique Digital Monitoring solutions that have the required 0.01°C sensitivity and advanced evaluation techniques to detect the smallest amount of water movement at every metre along the structure.

# 0.01°C

THE SENSITIVITY YOU REQUIRE TO DETECT THE SMALLEST AMOUNT OF WATER MOVEMENT

## PIPELINES AND CANALS

Leaks in pipelines and canals are costly, that's why knowing the exact location of every leak down to the nearest metre along the entire length of your asset is vital. With water becoming an ever-more critical resource, any leakage needs to be pinpointed immediately to allow fast remedial action to be taken. With Sensornet's Digital Leak Detection solution you can be sure you are effectively tracking leaks to conserve resources and to ultimately improve your environmental image and integrity.

## ENVIRONMENTAL

In today's world water is fast becoming a crucial resource. To monitor and detect environmental thermal trends and fully understand exactly what is happening and where, you need the sensitivity and real-time accuracy offered only by Sensornet's Digital Environmental Profiling solutions. We can provide you with the knowledge you need to prevent undesirable leakage and water movements and to plan ahead with confidence before events become catastrophic.

MONITOR MOVEMENT OF YOUR ASSET WITH CONTINUOUS AND COMPLETE PRECISION TO

# 10µε

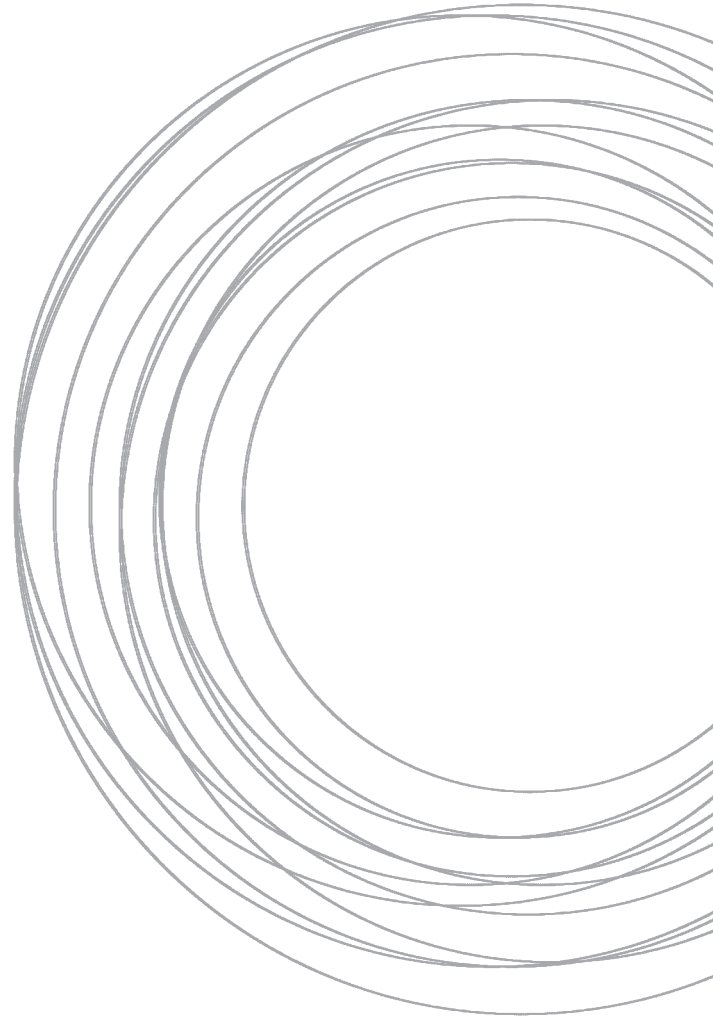


# SENSORNET DIGITAL MONITORING SOLUTIONS

	ISSUES	MONITORING GAPS	MONITORING SOLUTIONS	RESULTS
<b>Dams</b> (embankment, tallings, concrete, RCC...), <b>dykes and levees</b>	<p>Early warning and immediate detection of weak points</p> <p>Changes in seepage flow patterns leading to internal erosion</p> <p>Structural movement in dam</p> <p>Understanding cement curing process</p> <p>Structural condition and improving safety</p>	<p>Lack of continuous permanent monitoring able to accurately locate seepage or movements at any point in the structure in real-time</p> <p>Delays in locating leak risking environmental catastrophes</p> <p>Limited understanding of structural integrity</p>	<p>Digital Seepage Monitoring</p> <p>Digital Structural Monitoring</p>	<p>Improved safety and complete understanding of the condition of your asset</p> <p>Knowledge and confidence to prevent undesirable seepage and plan ahead effectively</p> <p>Improved environmental image and integrity for dam owner</p>
<b>Pipelines and canals</b>	<p>Resource conservation and effective leakage tracking</p> <p>Planning effective preventative maintenance</p>	<p>Lack of continuous permanent monitoring able to accurately locate seepage in real-time</p> <p>Limited understanding of structural integrity</p>	Digital Leak Detection	<p>Improved safety and understanding of asset condition and effective maintenance planning</p> <p>Rapid and accurate response to events</p> <p>Improved environmental image and integrity for asset owner</p>
<b>Environmental</b> (marine, river, glacier, waste landfill sites, mines...)	<p>Ever-increasing environmental concerns</p> <p>Pollution of ground water</p> <p>Immediate and accurate detection of water flows</p>	<p>Delays in locating events risking environmental catastrophes</p> <p>Monitoring and detection of environmental thermal trends (global warming)</p>	Digital Environmental Profiling	<p>Real-time updates on live events</p> <p>The knowledge required to prevent undesirable leakage and water movement</p> <p>Planning ahead with confidence to avoid catastrophic events</p>

## THE SENSORNET STORY

Launched in 1998, Sensornet provides the world's most advanced monitoring solutions, using next generation fibre-optic temperature and strain measuring equipment, to provide the complete Hydro monitoring package. Our proprietary technology is supported by a highly qualified technical, operations and management team. We provide the initial application design input, system installation and commissioning, evaluation and data interpretation. We work with leading partners such as HydroResearch to transform your ability to monitor mission-critical infrastructures, obtain meaningful and valuable information, and provide consultation to allow your asset to be as effective, environmentally robust and safe as it can be.



### EUROPE (HEAD OFFICE)

T: +44 20 8236 2550

F: +44 20 8236 2551

### NORTH & SOUTH AMERICA

T: +1 403 313 8304

F: +1 403 220 1389

### MIDDLE EAST

T: +971 4 886 5450

F: +971 4 886 5451

### ASIA-PACIFIC

T: +60 3 7949 9718

F: +60 3 7954 6953

[www.sensornet.co.uk](http://www.sensornet.co.uk)



BE THERE