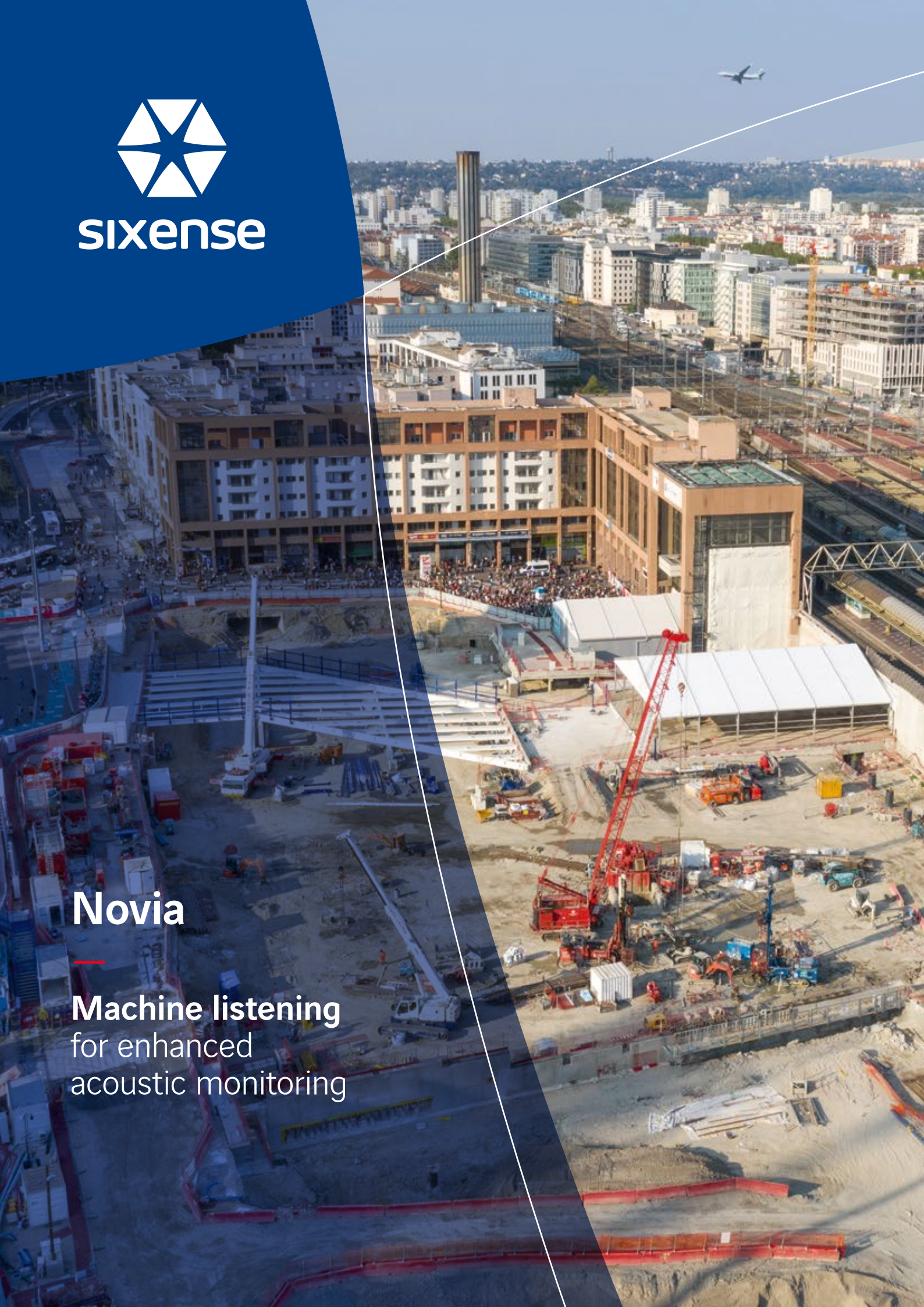![sixense logo]

Novia

—

Machine listening
for enhanced
acoustic monitoring

SMART NOISE MONITORING
CONTROLLING NOISE, DETECTING IMPACTS & IDENTIFYING THE PROBLEM

—

As demand to improve urban quality of life continues to rise, projects are becoming the focus of increasingly restrictive constraints, and **noise pollution is becoming a major issue**.

Existing noise monitoring solutions trigger alerts only when thresholds are exceeded, but make no distinction between noise events produced on your worksite and those coming from the surrounding area: the only option is to **manually listen** to audio recordings or view images and videos recorded at the time of the event. A time-consuming process!

Novia listens to and automatically recognises noise events 24/7, allowing you to identify the cause of a noise threshold breach, manage your noise and detect problems.

Novia gives you:

A clear indication of your compliance in real time

—

The information provided by Novia is immediately beneficial to project management: **"is the excess noise coming from my on-site activity or not?"**.

Fully automated sound recognition

—

You no longer have to investigate the origins of noise level violations, because **Novia does it for you**.
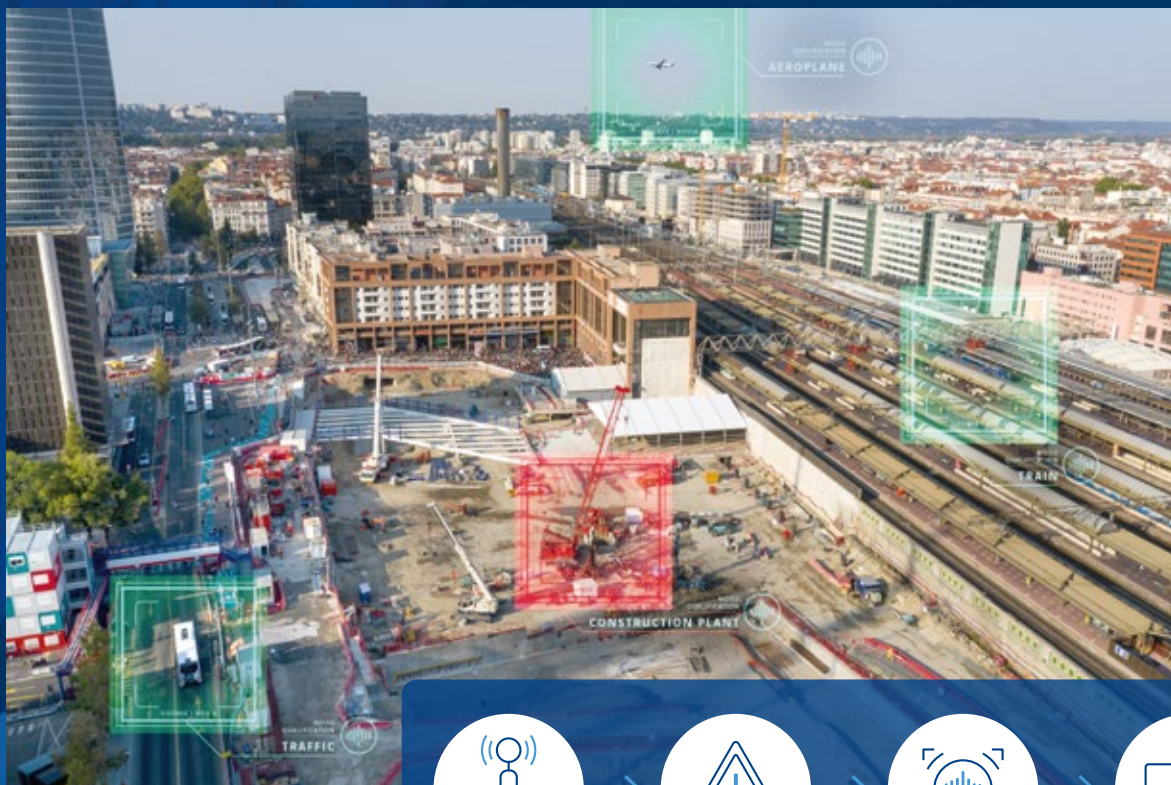
Greater transparency and accuracy

—

Towards **all stakeholders** (local residents, project owners and local authorities).

ARTIFICIAL INTELLIGENCE
THE HEART OF NOVIA

—

Machine learning technology allows Novia to automatically recognise sounds coming from the worksite or the wider urban area and process them in real time into twenty predefined or customised categories.

How Novia works

—

| Continuous noise monitoring | → | Detection of excess noise | → | Recognition algorithm | → | Reporting |

NOVIA KEY FEATURES

—

⊕ A single database of sound samples

Our database has been built using noise monitoring data measured on several major international projects and contains more than 15,000 labelled samples.

⊕ Easy-to-use data

A quick access, user-friendly online interface "Geoscope" that allows you to play back audio recordings.

⊕ Flexibility and adaptability

Novia works with standard (class 1 and 2) monitoring systems and can be activated whenever you think it can make a useful contribution to your project.

⊕ A dedicated virtual acoustician

You also benefit from having the added value of a virtual acoustician 100% dedicated to your project 24/7 at lower cost.

Eole project, Paris

Control of noise pollution from nearby construction works from within the basement of an occupied building. Automated detection and categorisation of construction noise transmitted into the neighbouring property. Checking and demonstrating compliance with the requirements governing the silencing of machinery reversing alarms.

Refurbishment work in an occupied building

Control and monitoring of work in progress on multiple floors of the building. Differentiating between alarms triggered by worksite activity (groundborne noise) and those triggered by office activities. Automated deactivation of audio replay for voice conversations.

Roland-Garros stadium

Noise monitoring of the stadium redevelopment works as part of facilitating communication with stakeholders and justifying the option of night-time working.

Quay Street, Auckland, New Zealand

Automated differentiation between noise from quayside strengthening works and noise generated by road and sea traffic. Implementation of proactive management for events where thresholds are exceeded.

Boralex Wind Farm

Detection and analysis of specific noise events caused by the braking systems of wind turbines.

Noise compliance check

Measurements with automated sound recognition in the vicinity of an industrial facility in response to complaints from local residents.

Visit our website for more information on previous and current projects

www.sixense-group.com

Your challenges are unique, so are our solutions

At Sixense, we support our clients throughout the life cycle of their sites and infrastructure, during the design, construction, operations and dismantling phases.

Our activities are organised around 4 areas of expertise:

ENGINEERING
Specialised engineering to secure and optimise your operations

MONITORING
Instrumentation and monitoring solutions for soil, structures and the environment

PLATFORM SOLUTIONS
Business digital solutions to enhance infrastructure and their life cycle

MAPPING
Solutions for digitising the existing: acquisition and 3D reconstruction

sixense

Transforming your infrastructure into living assets

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