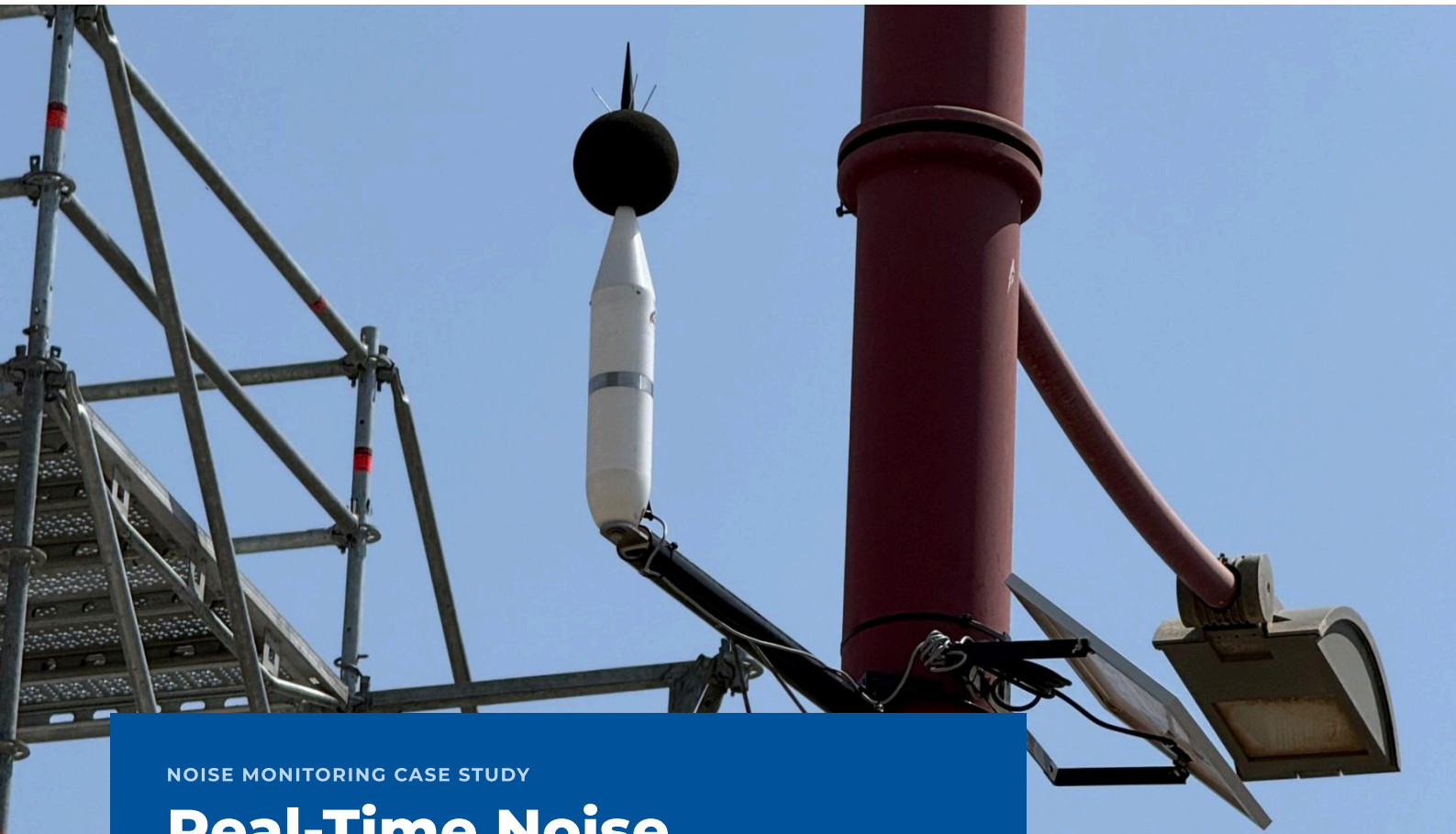




NOISE MONITORING CASE STUDY

Real-Time Noise Management at the Almería Fair 2026

CASE STUDY: Façade and stage noise monitoring with SVANTEK SV 307A stations and SvanNET to balance festivities with residents' night-time rest

CHALLENGE

Keeping nine days of concerts, attractions and street festivities compatible with the rest of the homes closest to the fairground – and having enough real-time data to detect deviations early and shorten the time to corrective action.

CLIENT

Almería City Council (Ayuntamiento de Almería), Spain

MEASUREMENT OPERATOR

Noisecontrol ASD, S.L. – Acoustic Engineering

MEASUREMENT EQUIPMENT

- SV 307A Class 1 Noise Monitoring Station – stage / FOH reference
- SV 307 Noise Monitoring Stations – residential façades and stage area
- SvanNET AMS cloud platform with SvanNET AI noise source identification

A city festival next door to residential buildings

Every August, the Almería Fair brings nine days and nights of concerts, funfair attractions and open-air festivities to the city's fairground – a site bordered by residential streets. Almería City Council has worked with acoustic engineering company Noisecontrol for several years to reduce the acoustic impact of the event on the surrounding neighbourhood, without compromising the celebration itself.



SVANTEK noise monitoring stations installed on street-lighting poles around the fairground, facing the nearest residential façades. Each station is self-powered by a compact solar panel.

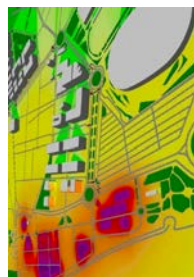
The challenge

Fair noise is anything but steady. Levels change from hour to hour with concert programmes, sound checks, crowd density and attractions starting and stopping – and the most sensitive period, the night, is exactly when the fair is busiest.

The project pursued three goals: reduce the acoustic impact on nearby homes, keep the ability to intervene while the event is running, and learn from each edition's data to plan the next one better.

The operational key

Collect as much reliable real-time data as possible, so that deviations are detected as they happen and the time between an exceedance and a corrective action is kept to a minimum.



Acoustic prediction model of the fairground used during planning to identify the most exposed receivers and to decide where to place the monitoring stations.

From the measurement point to the decision

Noisecontrol deployed a network of five SVANTEK noise monitoring stations covering both sides of the problem: where the sound is **received** and where it is **produced**.

Three stations were installed at the façades of the residential buildings closest to the fairground (Buildings 1–3). Two further stations supervised the concert area (Stages 1–2), including an SV 307A placed as the reference point at the front-of-house (FOH) position, next to the sound engineer.

Relating what the stages emit to what actually reaches the façades – supported by SvanNET AI source identification – shows the technical team immediately whether a rise at a receiver is caused by the concerts or by other activity, so they can act at the source.



Station on a lighting mast next to the main stage, photographed during stage set-up before the fair.



Live LAeq overview of the five SVANTEK stations (three façades, two stages) on the project dashboard.

About the instrumentation

The SV 307A is a Class 1 noise monitoring station built for long-term unattended outdoor operation: weatherproof housing, integrated diagnostics, built-in LTE modem and GPS. Mounted on existing lighting poles and powered by small solar panels, the stations needed no additional infrastructure.

Data flowed to **SvanNET AMS** for remote supervision, configuration and secure archiving, while **SvanNET AI** automatically recognised and classified noise sources, adding context to every measured level.



Noisecontrol's control centre combines SvanNET data with Noisecontrol's own supervision platform: time histories, station map and live levels from all points support one shared decision.

01

Predict

Study the site and sensitive receivers to guide planning.

02

Monitor

Link stage activity to façade levels; SvanNET AI identifies sources.

03

Act

Check alerts, verify the situation, coordinate the response.

04

Improve

Use each edition's records to evaluate and plan the next.

Noisecontrol's EVENT360 methodology, with SVANTEK stations and SvanNET providing the measurement data at every step.

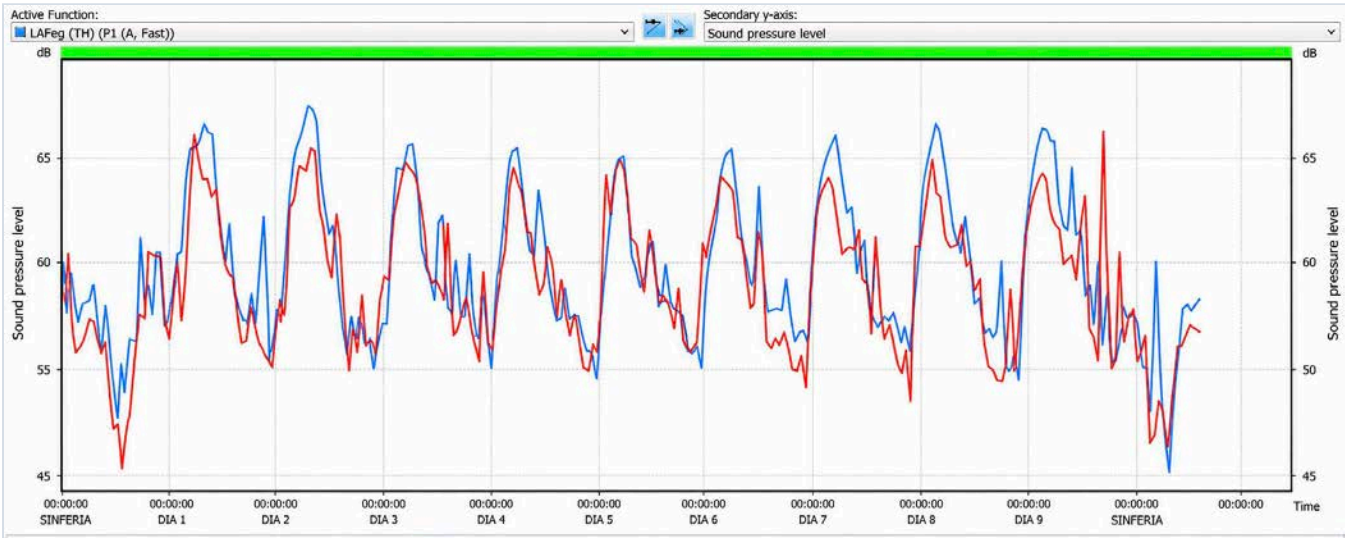
A comparison that shows the evolution

Façade records from the 2025 and 2026 editions, aligned by fair day, make it possible to follow how levels at the nearest homes have evolved from one edition to the next.

3.7 dB

Largest night-time decrease observed in the tables: Building 2, Day 7 – from 65.2 to 61.5 dB.

This value does not represent the average reduction for the event.



SvanPC++: façade LAeq time history over the whole fair, 2025 (blue) overlaid with 2026 (red) and aligned by fair day.

FAÇADE RESULTS 2025 VS 2026 · DB(A)

Fair day	Building 1 · 2026 (2025)			Building 2 · 2026 (2025)		
	Ld	Le	Ln	Ld	Le	Ln
Day 1	58.2 (57.2)	65.8 (66.1)	63.1 (65.8)	56.8 (56.5)	65.1 (64.8)	64.3 (67.3)
Day 2	55.2 (55.5)	65.0 (65.6)	64.4 (67.4)	54.8 (54.7)	66.2 (66.1)	65.2 (67.4)
Day 3	56.7 (57.4)	65.0 (65.4)	62.7 (65.3)	55.4 (55.8)	66.2 (66.5)	63.8 (66.7)
Day 4	57.0 (56.3)	61.5 (62.1)	62.7 (64.2)	54.2 (54.6)	61.5 (61.7)	62.4 (65.3)
Day 5	56.6 (57.8)	63.7 (63.6)	63.6 (63.7)	55.0 (55.6)	63.1 (62.9)	63.3 (65.5)
Day 6	57.3 (57.1)	63.1 (64.1)	62.4 (64.3)	54.5 (54.3)	63.6 (63.8)	63.1 (66.1)
Day 7	56.2 (57.3)	63.0 (63.2)	62.5 (65.6)	54.9 (54.7)	64.2 (63.8)	61.5 (65.2)
Day 8	56.4 (56.1)	62.7 (62.4)	63.2 (65.8)	55.2 (55.4)	64.5 (63.7)	63.9 (66.4)
Day 9	56.3 (55.3)	62.2 (62.1)	63.5 (66.1)	54.6 (54.8)	64.2 (64.7)	64.0 (65.8)

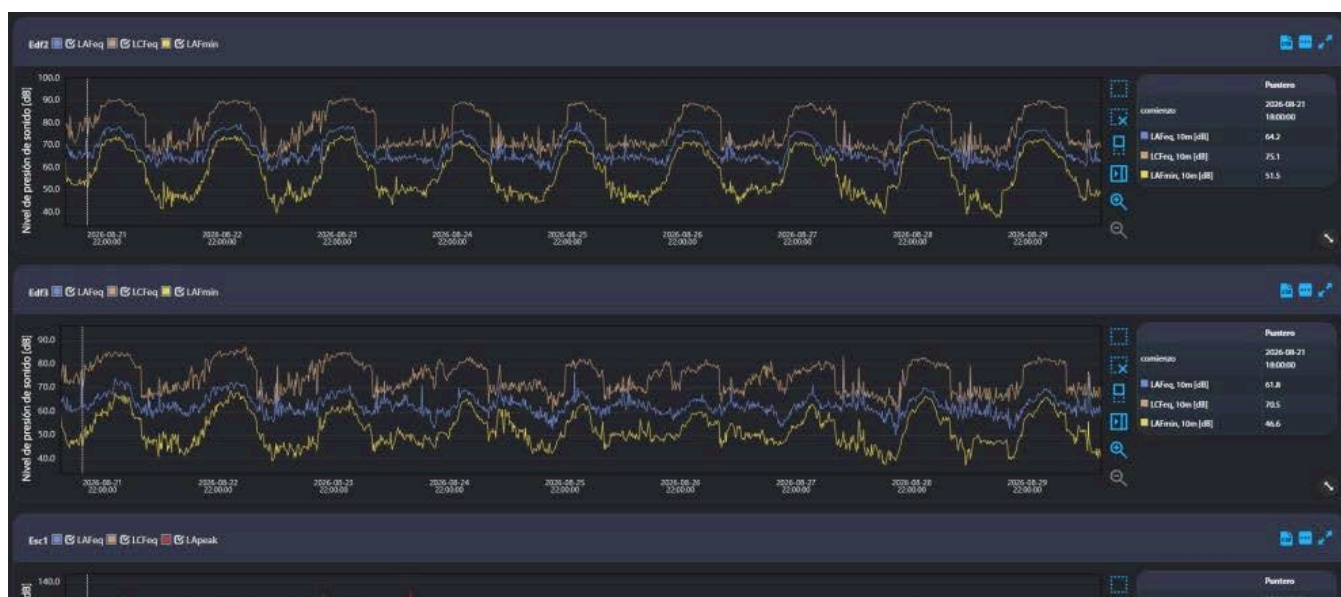
Ld (day), Le (evening), Ln (night). Green: 2026 value lower than 2025; red: higher. Values in brackets: 2025 edition.

A careful reading: there are decreases and increases depending on the period. The comparison describes the recorded data; on its own it does not isolate the effect of the intervention from other factors in the environment.

Conclusion

The Almería Fair 2026 shows how continuous, Class 1 noise monitoring supports the management of a large urban event. SVANTEK SV 307A stations at the stages and nearest façades, together with SvanNET, gave Noisecontrol a real-time picture of the whole site during the event – and a dataset that can be compared from one edition to the next.

For the City Council, the value goes beyond the decibels: the records allow episodes to be reviewed, trends to be analysed and the measures taken to be evaluated. For Noisecontrol, noise control combines reducing the impact on homes with the ability to respond during the celebration and to prepare improvements for future editions.



Acoustic monitoring panel: nine-day time histories from façade and stage stations, as reviewed after the event.

Key takeaways

- Continuous Class 1 data from source and receiver · real-time supervision via SvanNET · AI-based source identification
- records comparable between editions to evaluate decisions and prepare the next one.

“The objective doesn’t end when the noise level goes down. It also means understanding what is happening, maintaining control and turning the data into decisions that improve the next edition. With SV 307A stations and SvanNET, we have Class 1 data we can rely on, configured exactly the way we need it.

Antonio Solvas · Project Director, Noisecontrol



ABOUT THE OPERATOR

Noisecontrol ASD, S.L. is a Spanish acoustic engineering company specialising in noise control for events and urban environments. Its EVENT360 approach combines prediction, environmental monitoring, source control and on-site technical staff to make large events compatible with their neighbourhoods.



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Photos and measurement data courtesy of Noisecontrol.



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