

AirQino Applications:

Construction and Demolition Sites

- ✓ Air Quality Networks
- ✓ Construction Sites
- ✓ Demolition Sites
- ✓ Data Hosting
- ✓ Real Time Data
- ✓ Data Analysis



Services offered in collaboration with the Italian National Research Council, responsible for calibration and data validation.



Construction and Demolition Sites

AirQino can be installed along the **perimeter** of a **construction site** to establish a virtual fence.

The monitoring system can be deployed to provide both a **real-time** and historical assessment of the state of outdoor air quality, fine **dust dispersion** or report potential gas leaks.

Construction sites represent crucial hotspot areas.

Evidence suggests that construction machinery such as cranes, bulldozers and generators is responsible for over a quarter of traffic related **particulate emissions**.

Establishing an air quality monitoring system on a construction site offers multiple advantages:

- **Monitor** the concentration of polluting agents to ensure compliance with legal limits;
- **Support** in the planning of construction activities, in consideration of the concentration limits imposed for compounds as NO₂, PM₁₀ and PM_{2.5};
- **Identify** the source of specific pollutants, especially in areas where more industrial activities coexist.

Carrying out air quality monitoring at the site also before any construction, is necessary.

The baseline data hence generated helps in making of the compliance report, Environment Impact Assessment (EIA) and Environmental Clearance (EC).

AirQino Monitoring System

AirQino is a high precision environmental monitoring system. A cost-effective solution designed to detect, store and analyze data about the most important **air pollutants** and **chemical compounds** present in the atmosphere.

AirQino was developed by the **Italian National Research Council (CNR IBE)** in collaboration with TEA Group for the production and Quanta Srl for distribution.



Monitoring Stations

Indoor or outdoor, detect weather conditions and the **concentration of pollutants**.



Real Time Data

The **modular structure** of AirQino allows to establish high-precision monitoring networks.



AirQino Cloud

AirQino web platform collects data and provides reporting and **analysis tools**.



Calibration

Monitoring stations can be configured with a wide set of sensors, calibrated by CNR® using **official ARPA stations**.



Data Analysis

AirQino Web platform provides in-depth data reporting and analysis tools. **Reports** are available upon request.



AirQino Stations

AirQino stations allow to detect a wide range of pollutants such as: **NO₂, O₃, O₃, PM_{2.5}, PM₁₀, CO₂** and much more. Specific solutions are available for any project. Select one of our standard configurations such as **Base**, **Pro** or request a custom sensors set-up.

Base



The basic version of AirQino detects temperature, humidity and monitors agents pollutants such as **CO, NO₂, O₃, PM 2.5** and **PM 10**, and the main one climate-altering gas: **CO₂**.

Pro



AirQino Pro is equipped with a set of additional sensors dedicated to the detection of **nitrogen oxides (NO_x)** and **sulfur dioxide (SO₂)**;

Data Hosting

Data detected by AirQino monitoring stations are transmitted to **AirQino Cloud**. Here they are adjusted with the respective calibration coefficients and **dedicated algorithms** to generate the final output data. Real Time Data are available through **AirQino Web** (your Air Quality Map) or **APIs** for the integration with other dashboards. Upon request, our team can develop a custom dashboard for your project.



Data Analysis

Upon request we are proud to offer detailed, **custom reporting** services. **Bulletins and detailed reports**, studies and environmental assessments elaborated on the base of the data collected by AirQino systems. The documentation is officially produced by the **Italian National Research Council** (Bioeconomia Firenze) thanks to the official collaboration with Tea Group.



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