

# **Environmental Monitoring Systems Air quality**

# **AirQino Applications:**

# Government and Local Authorities

- √ Air Quality Networks
- √ Municipalities
- ✓ Public Administration
- √ Data Hosting
- √ Real Time Data
- √ Data Analysis



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









# **Government and Local Authorities**

AirQino empowers the public administration to deploy real-time, high-resolution air quality networks to monitor specific hotspots or cover extensive areas.

Monitoring stations can be configured with a wide set of sensors and are validated by Italian National Research Council (Istituto di Bioeconomia, CNR Firenze) using official EU reference stations (ARPA).

Data collected are centralized with an API application and smoothed with dedicated, proprietary algorithms to provide a user-friendly yet solid foundation for analyses that aim to identify pollution sources and study local dispersion dynamics.

Through its network of institutional trusted partners, the AirQino ecosystem aims at providing a multi-level solution. This starts with data and extends to targeted research, environmental assessments, and consultancy on actionable mitigation strategies such as Natured Based Solutions.

AirQino helps municipalities smoothly transition towards a Smart City paradigm.

Urban areas often feature several air pollution hotspots. These are typically the result of human activities, heating systems, traffic, heat islands and industrial activity.

A typical medium-sized town can typically rely on, at most, two or three official monitoring stations, yet the vast majority of EU municipalities completely lacks any sort of coverage.

Implementing an urban air quality monitoring system and collecting meaningful data is the first crucial step towards the definition of effective mitigation strategies. AirQino ecosystem was developed to provide a sustainable, yet scalable, solution to administrators that wish to embrace Smart Governance practices and leverage on the power of the Internet of Things (IoT).

Evidence suggests that deploying environmental monitors throughout town, around schools or other critical public facilities, allows local administrators to better promote initiatives aimed at raising awareness on the importance of air quality and enforce mitigating strategies such as vehicle traffic reduction, pedestrianization, low emission zone introduction and others







# **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, PM2.5, PM10, CO2 and much more. Specific solutions are available for any project. Select one of our standard configurations such as Base, Traffic Industry or request a custom sensors set-up.

## Base



# Urban Areas

Urban areas often feature several air pollution hotspots.

These are typically the result of human activities,
heating systems, and heat islands.

## **Industry**



### **Industrial Areas**

AirQino can be installed on the perimeter of an industrial plant, a refinery or a port area. It allows to detect pollutants such SOX (sulfur oxides)

### **Traffic**

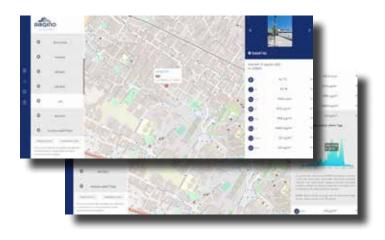


## **High Traffic Areas**

Vehicular traffic of light and heavy vehicles is the main cause of many pollutants such as NOX (nitrogen oxides) and high levels of PM2.5 and PM10 (fine dust).

# **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 trought **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.





# **Contacts**



## Quanta S.r.l.

Via Ferrarin n°19 - 23

50145 - Firenze - Italy

VAT N°: 04273220485

PHONE: + (39) 055 30 24 555

E-MAIL: airqino@quanta.it

WEB: airqino.quanta.it



