

# HEALTHY PEOPLE IN HEALTHY BUILDINGS



# The company

**Nuvap provides its customers with an accessible and reliable platform for monitoring indoor pollutants and offers both institutions and the scientific world new data on indoor pollution.**

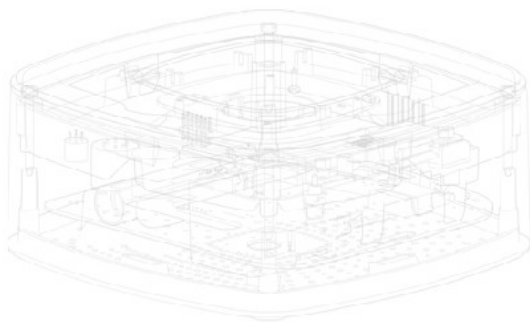
Nuvap's aim is to redefine the standards of quality of life and safety for all its customers, through an innovative platform for monitoring indoor pollutants.

Thanks to Nuvap's solutions, it is possible to detect and monitor, in a simple and comprehensive manner, the presence of both chemical and physical pollutants in workplaces, schools, hospitality and health care facilities or other private and public buildings where people spend regularly several hours per day.

The company's developments are focused on environmental data collection and analysis technologies. Nuvap's technology is protected by international patents, relating to the exclusive combined and constant monitoring of polluting agents in an indoor environment.

The technological partners who helped develop the Nuvap platform come from the Italian academic and research world. The Nuvap devices are manufactured entirely in Italy, as are some sensors such as those for monitoring Radon gas and for measuring electromagnetic pollution, in order to guarantee technological excellence.

The Nuvap engineering laboratories are in Pisa and the sales offices in Milan.



# Technology

**The Nuvap ProSystem solution consists of the My.Nuvap multi-tenant platform and a range of extremely compact, multi-sensor devices with a simple design and uncomplicated activation and management.**

The devices are connected to the company WiFi and require a simple discovery and registration procedure on My.Nuvap cloud platform. Once the connection is made, no further configuration is required.

All the environmental parameters are accessible in real time, via web and app. API are available to integrate Nuvap's data into third party platforms.

Each device has a coverage of about 80 square meters. The back up battery has an autonomy of 3 hours and the internal memory can store up to 60 days of measurements.

Nuvap guarantees the maintenance and recalibration of the sensors integrated into the devices and provides the calibration certificates.

Nuvap algorithms are based on advanced machine learning techniques, which allow the single device to automatically configure and calibrate itself, according to the information received from the various network devices.

Nuvap's technology is protected by international patents, relating to the exclusive combined and constant monitoring system for polluting agents, which may be present in the environments in which we live.



# Continuous active monitoring

Discover and monitor invisible and hidden enemies in offices, schools, day care centres, healthcare facilities or other private and public buildings where people spend a large part of their life.

Nuvap innovates the environmental analysis field, by both improving the service and greatly reducing its cost.

## 1. Innovation

Thanks to IoT technologies, it is simpler to implement some scenarios which were formerly extremely complicated to manage (i.e. environmental monitoring of large spaces or spaces distributed throughout the country).

Companies need a platform to monitor the quality of indoor environments, but they usually don't have the skills to manage the end-to-end application. Nuvap simplifies the entire process, without sacrificing either performance or reliability.

## 2. The Benefits

The benefits of continuous monitoring are obvious.

Traditional environmental analyses are often limited to taking an extremely accurate snapshot of the environmental situation at a given moment, or within a very short timeframe.

Nuvap instead provides a description of the dynamics of each monitored substance over time, for an in-depth analysis of the circumstances observed.

## 3. The Applications

The data detected by Nuvap are displayed in real time (also when monitoring environments with difficult access).

The data identified by Nuvap can be automatically gathered and filed. Some configurations allow customers and partners to export the data and integrate them into third party applications. This is particularly useful, for instance, to determine the concentration of pollutants with regard to the occupation time of the building.

Buildings with high concentrations of pollutants, but which are only occupied at certain times of the day, must be monitored during periods of occupation. Nuvap's continuous monitoring systems allow to separate information over time and determine the actual exposure

of occupants throughout the day.

Further, continuous and detailed environmental monitoring optimises any interventions necessary to resolve the problems encountered and favours proactive initiatives.

## 4. Data Quality

With respect to the quality of the data detected, it is useful to specify that:

- a. Nuvap devices are always connected and online, allowing constant and continuous checking of the sensors, and verifying data quality in real time;
- b. the duration of the measuring affects the accuracy of the data: the longer the measurement, the more accurate the data recorded;
- c. the automatic operation of the Nuvap solution allows minimum random errors and eliminates human ones.