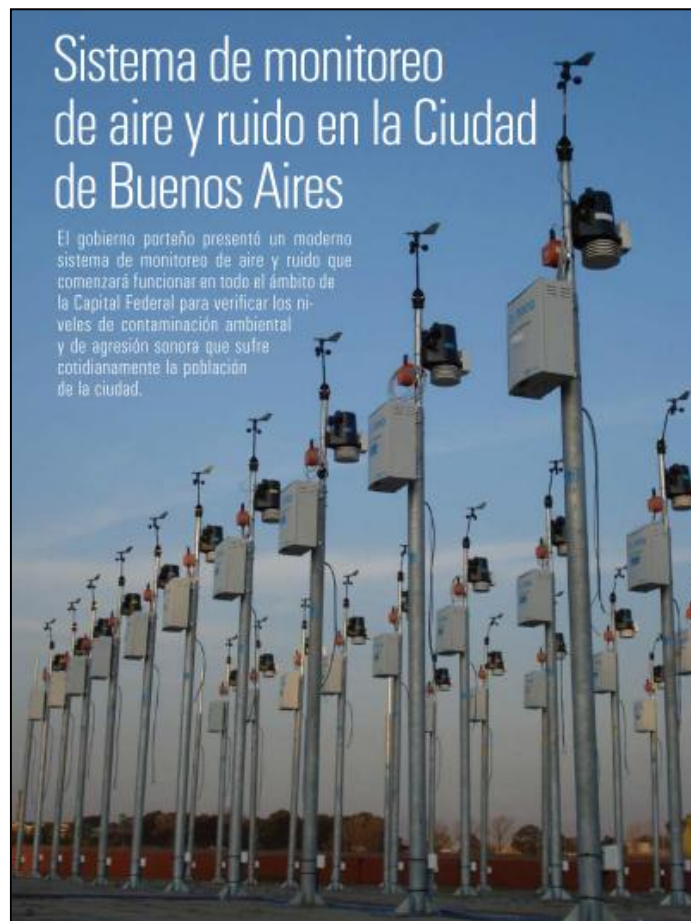


CASE STUDY AIR QUALITY AND NOISE MONITORING NETWORK IN BUENOS AIRES

ABSTRACT

The Government of Buenos Aires needed an air quality and noise monitoring system to know the pollution levels of the town and consequently be able to take decisions to improve air quality. Unitec supported the local authorities in the engineering and supply of a network including **41 ETL3000 units, 2 air quality conventional monitoring stations and data management software.**



EQUIPMENT

Unitec supplied in 2007 to the town of Buenos Aires a complete network with:

- qty. **41 x ETL3000** for the real time measuring of CO, O3, NO2, Methane, Benzene, noise, air temperature, relative humidity, barometric pressure, wind speed and direction, rainfall, solar and ultraviolet radiation
- qty **2x Air Quality Monitoring stations** (EPA stations) with conventional EPA approved gas analysers for the measurement of nitrogen oxides (NO-NO2-NOx), Ozone (O3), carbon monoxide (CO), and also PM10 real time monitor and sampler and meteorological station



- **EDAC2000** master station with software for data management

BACKGROUND



Unitec was chosen by the Government of Buenos Aires to supply a complete network of 41 ETL3000 units and 2 conventional Air Quality Monitoring (AQM) stations. The **sinergy between** the two type of technologies, ETL3000 with **thick film sensors** and AQM stations with **conventional EPA analysers**, allows the local authorities to get a map of air pollution in the complete town of Buenos Aires at an affordable price: ETL3000 can be easily moved from one site to another, mounted on a pole and require little maintenance.

SPECIFICATIONS

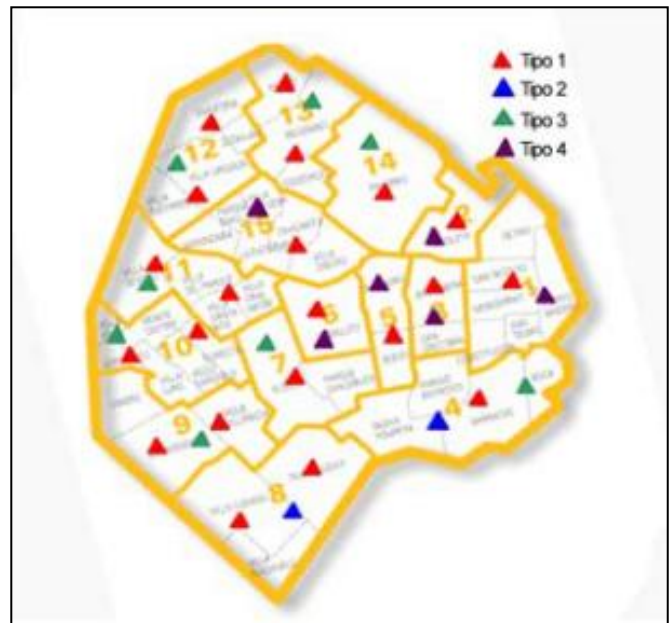
ETL3000 (qty. 41) :

Type 1 : ETL3000 with thick film sensors for **CO-NO2-O3, meteo** station (Air temperature, Rel. Humidity, barometric pressure, wind speed and direction, solar radiation, rainfall), **noise** , GSM modem.

Type 2 : ETL3000 with thick film sensors for **CO-NO2-O3- CH4, meteo** station (Air temperature, Rel. Humidity, barometric pressure, wind speed and direction, solar radiation, rainfall), **noise** , GSM modem.

Type 3 : ETL3000 with thick film sensors for **CO-NO2-O3- CH4-Benzene, meteo** station (Air temperature, Rel. Humidity, barometric pressure, wind speed and direction, solar radiation, rainfall), **noise** , GSM modem.

Type 4 : ETL3000 with thick film sensors for **CO-NO2-O3- Benzene, meteo** station (Air temperature, Rel. Humidity, barometric pressure, wind speed and direction, solar radiation, rainfall), **noise** , GSM modem.



AQM Stations (qty.2):

Shelter 3000 x 2400 mmx 2450(H),

Analysers: microparticle analyzer (**PM10**) mod LSPM10, nitrogen oxides chemiluminescence gas analyzer (**NO, NO2, NOx**), **O3** UV gas analyzer, **CO** IR gas analyzer , calibration system Unitec OGD 3000 & Air2000 air generator, MET3000 **meteo** station (wind speed, direction, temperature, humidity, atmospheric pressure), modem, data logger, and software.