

**#SHIFTHAPPENS**

# Trend #1

We need more data

Many activities impact in the Air Quality of cities

But official data is scarce

They need complementary & reliable Networks

**Trend #2**

**2021 is the year of IoT & Air Quality**

**New industries are investing in Air Quality**

**Air Quality it's no more a matter of specialists**



**Trend #3**

**Lack of regulation & standards**

**Thousands of AQ sensors have been deployed  
with little control**



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# BreezoMeter Closes Series C with \$30M

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Continuing to Improve the  
Health of Billions



**Kunak has just presented the new  
Kunak AIR Pro.**

**A cost-effective station, designed for  
type approval.**

**Scalable, accurate and easy to use by  
professionals and newbies.**

**kunak air**

# Involved in Projects with:



# USE CASES

# 50 Kunak Air Quality Stations



Ports de Balears

Autoritat Portuària de Balears

## 5 gases

CO, SO<sub>2</sub>, NO, NO<sub>2</sub>, O<sub>3</sub>

## particles

PM<sub>10</sub>, PM<sub>2,5</sub>, PM<sub>1</sub>

## noise

LAeq

## meteo

Veloc. y direc. del viento, Temp. Humedad relativa, presión atmosf.





WORLD ATHLETICS

2020

World Athletics Indoor Championships  
**NANJING**  
Next Event 13 Mar 2020 - 15 Mar 2020

World Athletics U20 Championships  
**NAIROBI (KASARANI)**  
Next Event 07 Jul 2020 - 12 Jul 2020

World Athletics Race Walking Team Championships  
**MINSK**  
Next Event 02 May 2020 - 03 May 2020



Covid-19



WORLD ATHLETICS HALF MARATHON CHAMPIONSHIPS  
**GDYNIA 2020**



WORLD ATHLETICS RELAYS  
**SILESIA 21**  
1-2.05.2021



WORLD ATHLETICS U20 CHAMPIONSHIPS  
**NAIROBI 2020**



TOKYO 2020

WORLD ATHLETICS CHAMPIONSHIPS  
**OREGON 21**



PARIS 2024

2021

1

2018

IAAF World Relays  
**YOKOHAMA 2019**  
セカイソレ-ヨコハマ

IAAF World Athletics Championships  
**DOHA 2019**  
بطولة العالم للالعاب القوي - الدوحة



MARATÓN DE LA CIUDAD DE MEXICO



IAAF Road Race GOLD Label



MARATÓN DE LA TRINIDAD ALFONSO



MONACO



SIDNEY



ADDIS ABABA



MEXICO



YOKOHAMA



# Tender in Warsaw

1. *The subject of the contract is:*
  - 1.1. *Delivery, installation, commissioning, maintenance and operation:*
    - 1.1.1. *152 pieces of Equipment for measuring particulate matter concentrations (PM10, PM2,5 and PM1) and measuring nitrogen dioxide (NO2) together with measurement of air temperature and relative humidity and atmospheric pressure;*
    - 1.1.2. *13 pieces of equipment in which, in addition to measuring the pm10, PM2,5 and PM1 dust fractions, the measurement of NO2 and air temperature, relative humidity of air and atmospheric pressure, ozone measurement (O3);*
  - 1.2. *Delivery and implementation of the System for data collection and sharing;*
  - 1.3. *Supervision of the functioning of the System for data collection and sharing, verification of data, evaluation of the correctness of the equipment indications for all measured meteorological parameters and air pollutants*

# Tender in Liverpool

**Buyer:** Merseytravel

**Title:** Supply, Installation and Maintenance of Air Quality Monitoring System **ID:** 523996

**Description:** This work package of the Liverpool City Region Combined Authority (LCRCA) is to supply, install and maintain (for an initial fixed period) air quality management sensors onto existing traffic signal poles at 37 key junctions and locations. The overarching requirement is that the sensors should have the ability to detect in real-time the levels of Nitric Oxide, Nitrogen Dioxide, Ozone and Particulate Matter (PM1, PM2.5 and PM10) and feed into the Local Authorities' traffic management systems via their 6 individual Siemens "Stratos" traffic control systems.



**CIRCULAR BY DESIGN**

# The dark side of IoT adoption

*IoT start-ups want us to deploy sensors on the streets.*

*Who is going to take care of them after their life-span?*



Karine LEGER  
CEO, AirParif

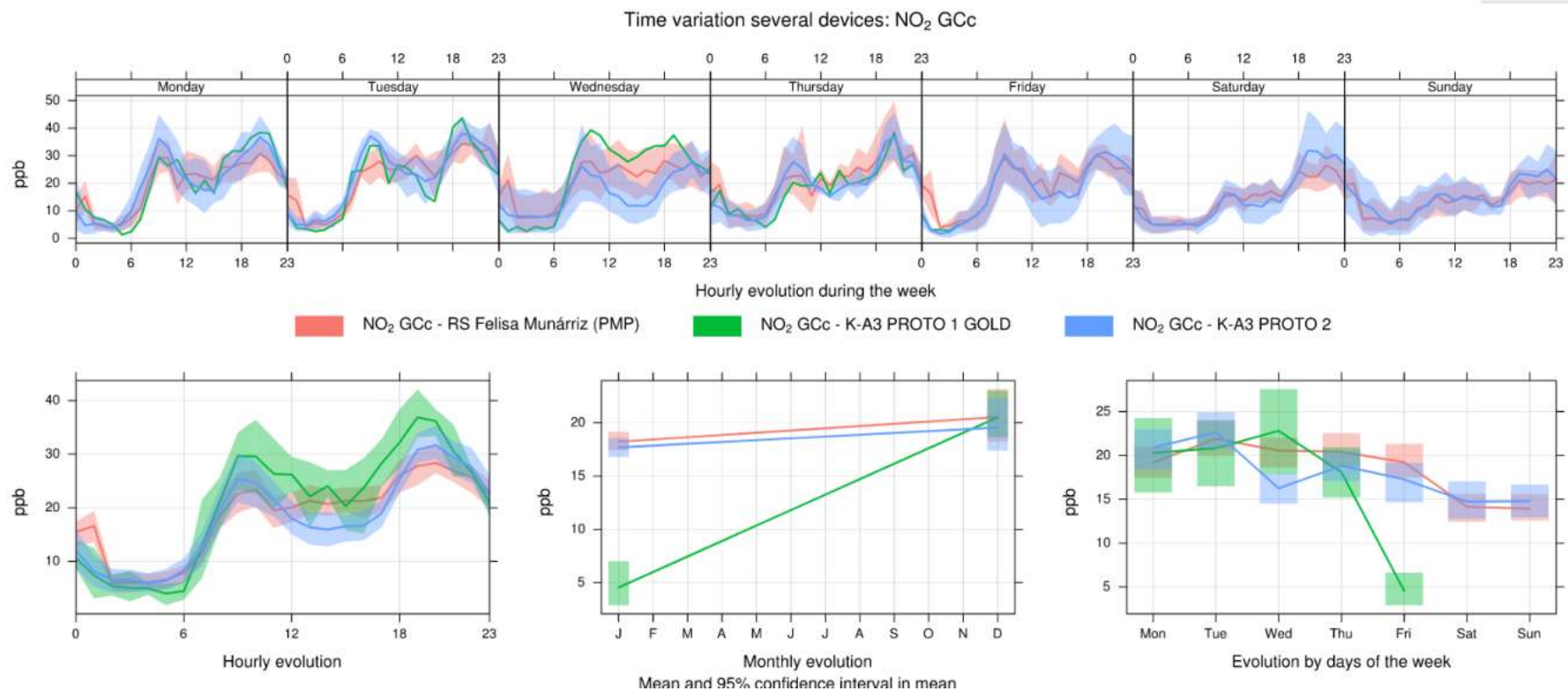


# Kunak AIR: Circular by Design



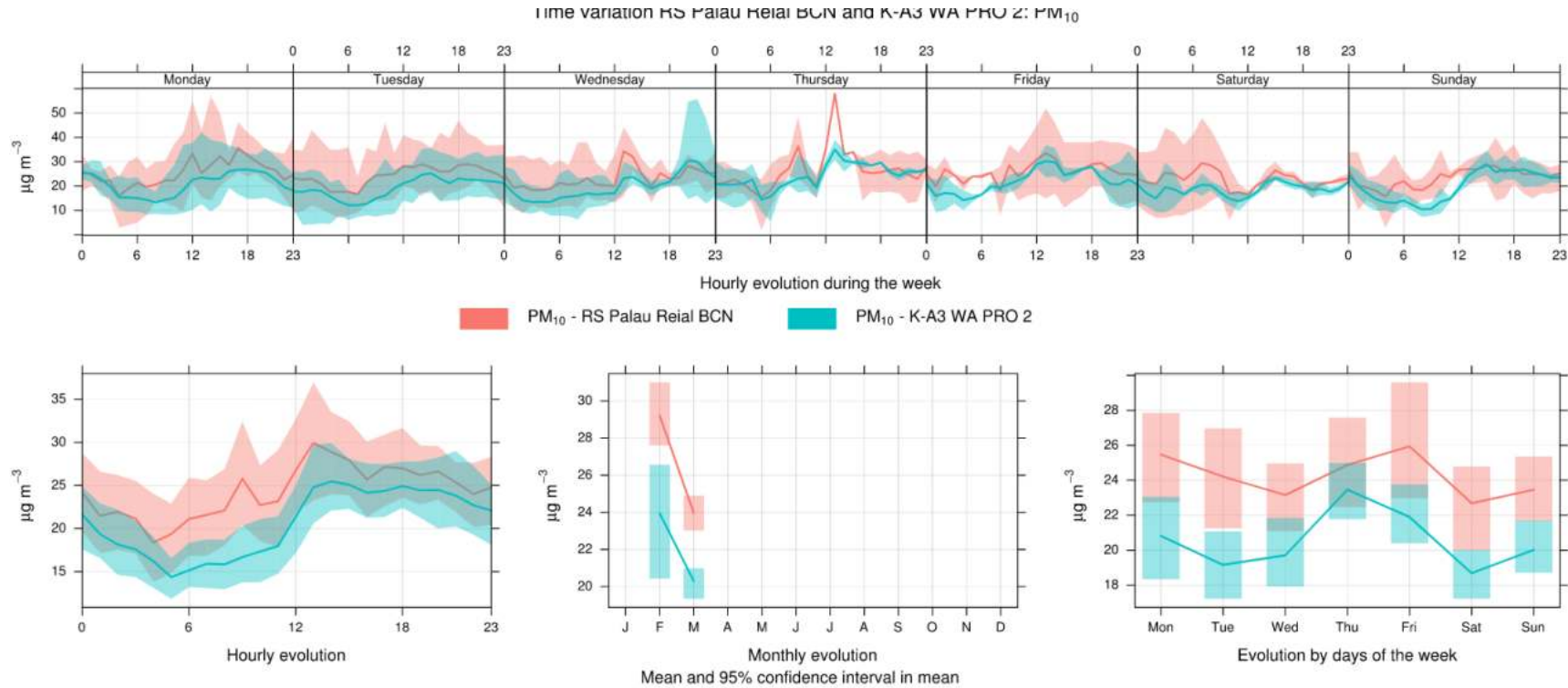
# CERTIFICATIONS & STANDARDS





DEVICE	R <sup>2</sup>	ACCY (PPB)	90% CONF. (PPB)	U(exp)/U(exp) cal (<25%)	N > LV (105 ppb)	AVG. GC. REF (PPB)	AVG. GC. DUT (PPB)	AVAILAVILITY REF/DUT
PROTO 1 GOLD	0.96	1.75	4.09	4.82% / 5.26%	0	15.17	16.23	100% / 100%

# PARTICLES (PM<sub>10</sub>), BARCELONA (SPAIN), FEB'21-MAR'21



R <sup>2</sup>	ACCY (µg/m <sup>3</sup> )	90% CONF. (µg/m <sup>3</sup> )	U(exp)/U(exp) cal (<50%)	N > LV (50 µg/m <sup>3</sup> )	AVG. GC. REF (µg/m <sup>3</sup> )	AVG. GC. DUT (µg/m <sup>3</sup> )	AVAILAVILI TY REF/DUT
0.54	6.79	13.37	49.8%/ 30.25%	6	24.24	20.48	100% / 98%



**Get in touch**

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**kunak** 

**Large data is the goal.  
But accurate data is the key.**