

# AirQne

## Compact Air Quality Monitoring System

Innovation Meets Perfection – Air Quality Monitoring  
Next-Level !

$\text{SO}_2$

PM 2.5

$\text{O}_3$

PM 10

$\text{NO}_x$

BC

CO

$\text{CH}_4$

$\text{CO}_2$

BTX

AirQne

Ambient Monitoring Solutions  
USEPA and EN/TÜV certified

powered by



# AirQne Key Features

AirQne is a compact air quality monitoring station 4.0\* designed for maximum efficiency in minimal space. Its innovative design allows for precise environmental monitoring in urban, industrial, and remote locations with minimal infrastructure.

## Key Components:

-  Turn-Key-Solution
-  Modular configuration
-  Integrated data manager providing automated data validation
-  Web browser-data-access
-  Energy efficient heating and cooling to resist harsh weather conditions (high temperature and humidity)
-  Designed for easy maintenance supported by integrated software diagnostics
-  USEPA and EN/TÜV certified

*\*Industry 4.0, or smart manufacturing, is the digital transformation of production—enabling real-time decisions, greater productivity, and enhanced flexibility in how companies make and deliver products.*



# AirQne – not just a size, but a whole new innovation



|                                                                                               |                                                                            |                                                                            |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Cabinet:</b> Thermally isolated                                                            | <b>Cabinet:</b> Thermally isolated                                         | <b>Cabinet:</b> Thermally isolated                                         |
| <b>Dimensions:</b> 1000 mm x 800 mm x 1000 mm                                                 | <b>Dimensions:</b> 1000 mm x 800 mm x 1800 mm                              | <b>Dimensions:</b> 1100 mm x 1000 mm x 2200 mm                             |
| <b>Gas Analyzers:</b> 2                                                                       | <b>Gas Analyzers:</b> 5                                                    | <b>Gas Analyzers:</b> up to 8                                              |
| <b>Doors:</b> front and back                                                                  | <b>Doors:</b> front and back                                               | <b>Doors:</b> front and back                                               |
| <b>A/C:</b> 1,5 kW                                                                            | <b>A/C:</b> 2 kW                                                           | <b>A/C:</b> 2 kW                                                           |
| <b>Gas sampling system</b> including pump                                                     | <b>Gas sampling system</b> including pump                                  | <b>Gas sampling system</b> including pump                                  |
| <b>Power Supply:</b> 110/230V 50/60Hz                                                         | <b>Power Supply:</b> 110/230V 50/60Hz                                      | <b>Power Supply:</b> 110/230V 50/60Hz                                      |
| <b>IP 56 protection</b>                                                                       | <b>IP 56 protection</b>                                                    | <b>IP 56 protection</b>                                                    |
| <b>Particulate Analyzer:</b> indicative measurement with exceptional accuracy and reliability | <b>Particulate Analyzer:</b> USEPA and EN certified (ask for availability) | <b>Particulate Analyzer:</b> USEPA and EN certified (ask for availability) |

**All models equipped with aluminum sunshade for maximum protection & energy efficiency.**

- Prevention of device overheating
- Reducing overall power consumption
- Extra protection against environmental factors such as sun, wind, snowfall, rain

# Innovative Station Infrastructure

AirQne continuously monitors its own internal infrastructure to ensure maximum reliability and measurement quality even in hot and high humid weather conditions.

By tracking continuously parameters regarding the performance of the infrastructure, AirQne detects symptoms of technical challenges and helps to avoid failures before they happen. The AirQne healthcheck-system grants high quality and continuous data quality.

## Station Parameters Monitored:

Sampling System Status

Sampling System Flow

A/C Output Temperature

Line Voltage

Analog Inputs

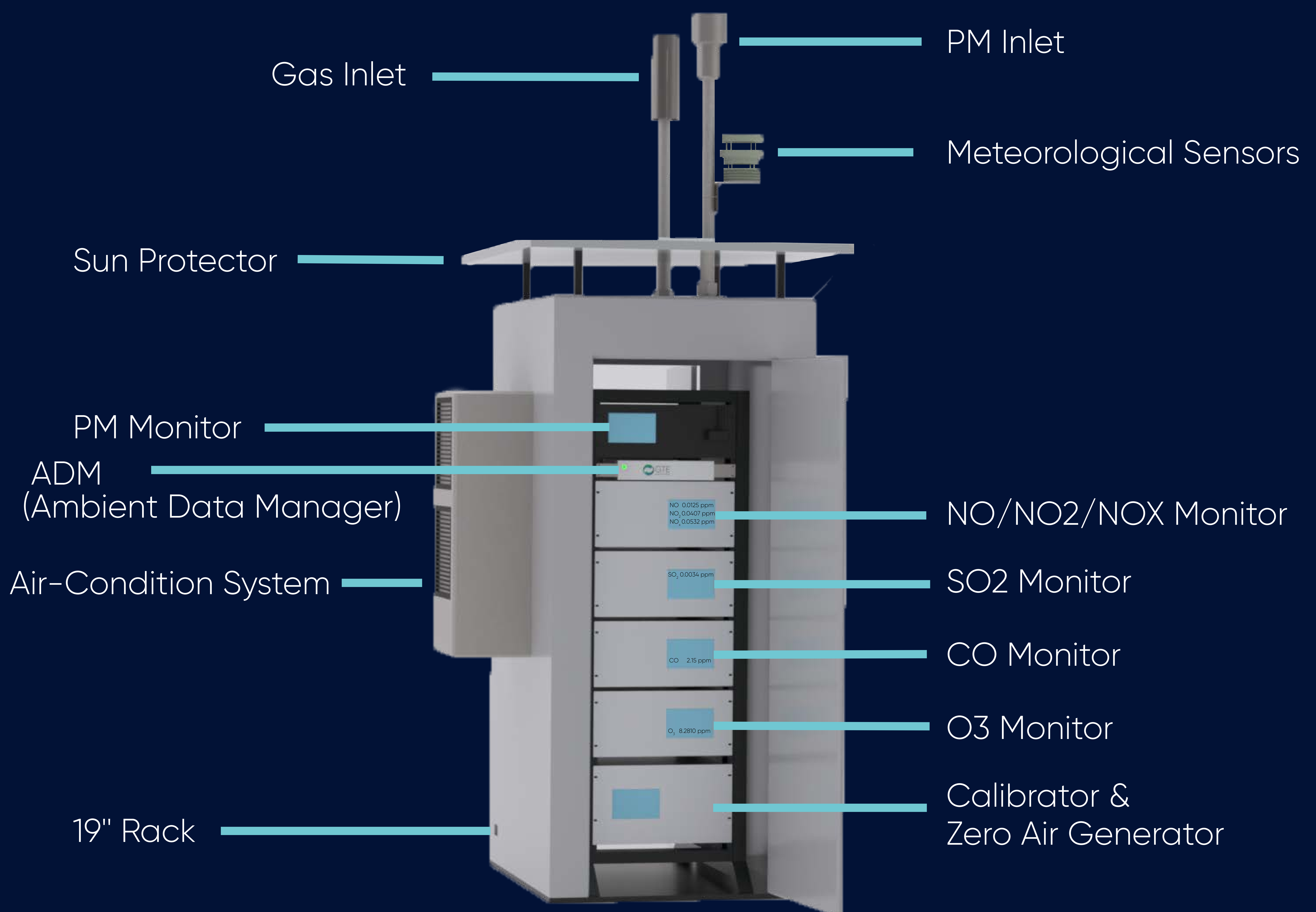
Door Contact

Station Room Temperature & Humidity



# AirQne core components

- ✓ Compact & Modular Design
- ✓ USEPA & EN type approved PM & Gas Analyzer
- ✓ ADM (Ambient Data Manager)
- ✓ Turn-Key Solution
- ✓ Additional Analyzers for measuring H<sub>2</sub>S, NH<sub>3</sub>, CO<sub>2</sub>, TVOC, NMHC, BTEX, Black Carbon, other ones on request



manufactured according to ISO Standards?:

# Ambient Data Manager



Remote diagnostics and maintenance of AirQne and its analyzers



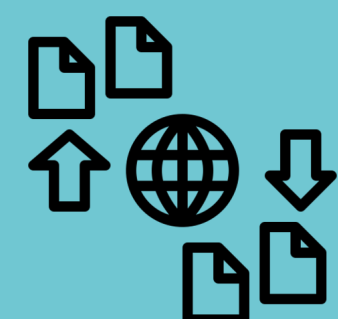
Geomapped data displayed on a graphical map



Environmental data validation engine powered by AI flagging automatically invalid data



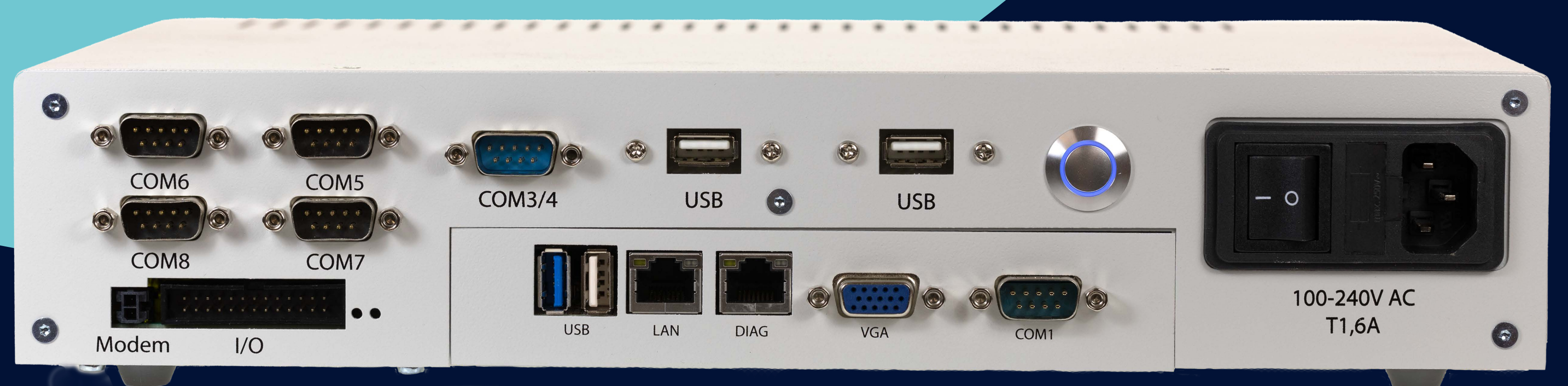
Graphs and reports used for analyzing and comparing multiple devices and parameters



Export of data in different formats (Excel, csv... )



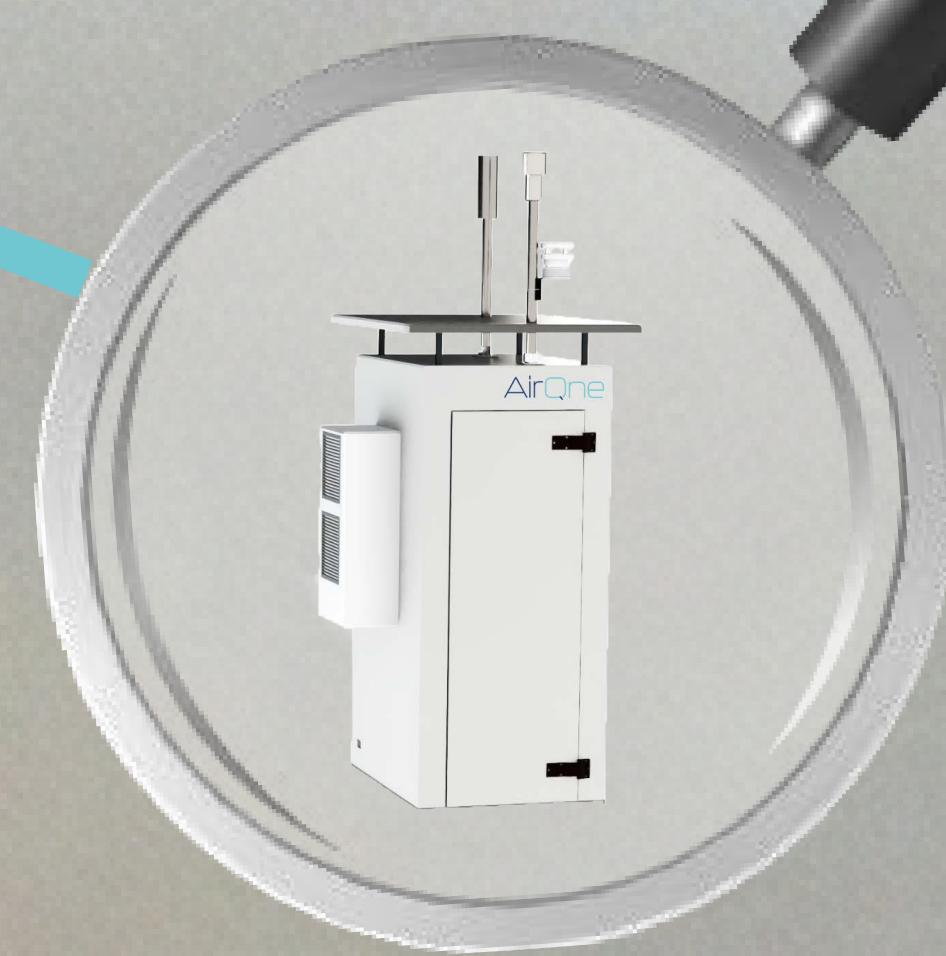
Web-based software accessible via all browser devices



**more than 300 external sensors from leading air quality monitoring manufacturers are integrated in our software**

# Fenceline Monitoring

# AirOne



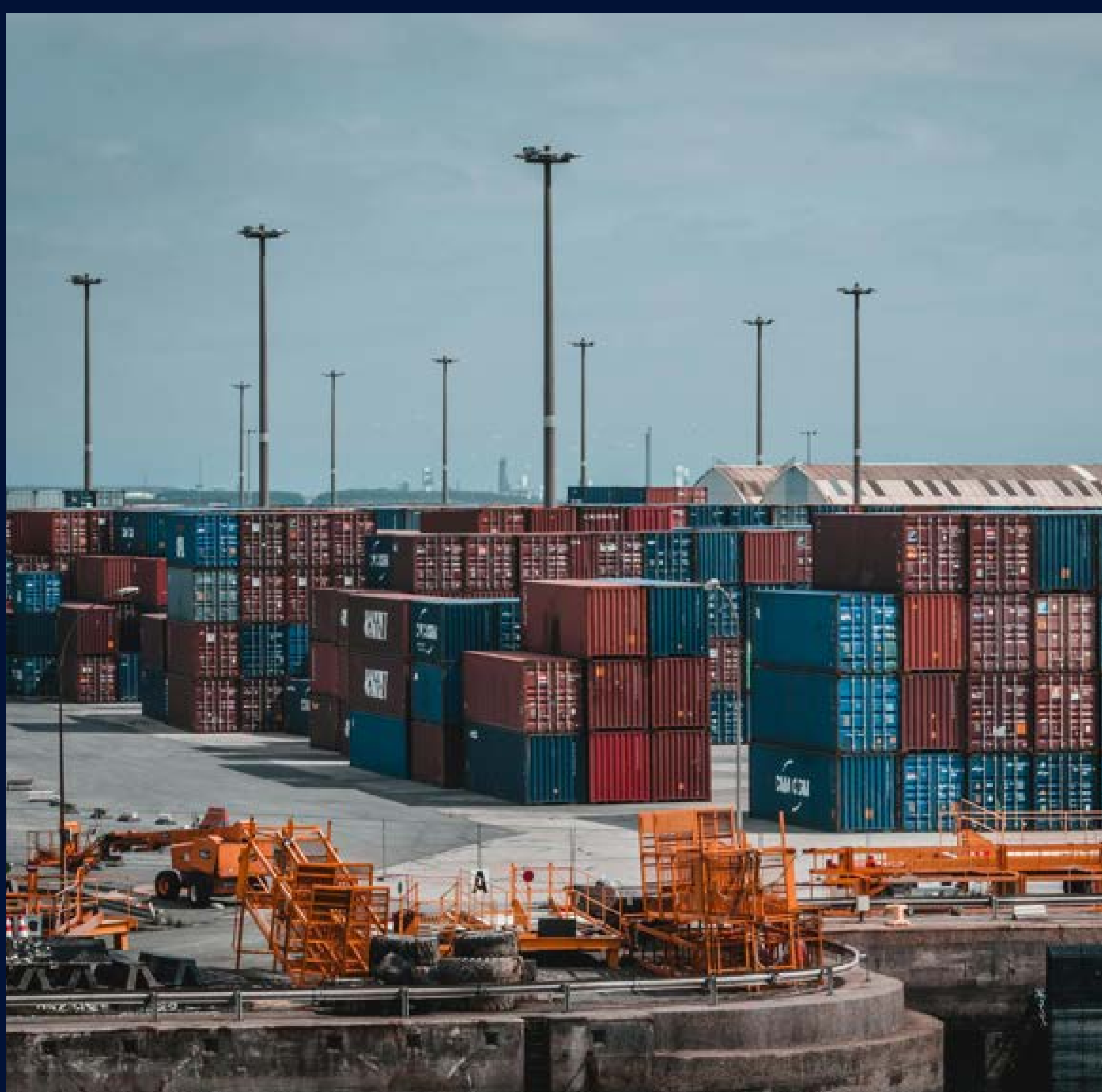
- **Continuous Monitoring of fugitive emissions and odour**
- **Covering the industrial area and all wind directions**
- **Mobile AQMS for hot spot and campaign measurement**
- **Real time leak detection**
- **Typically measured: BTEX, VOCs/ NMHC, SO<sub>2</sub>/H<sub>2</sub>S, NO<sub>x</sub>, CO, CH<sub>4</sub>, NH<sub>3</sub>, PM10/PM2.5, (BC) Black Carbon.**

# Smart Cities & Urban Planning

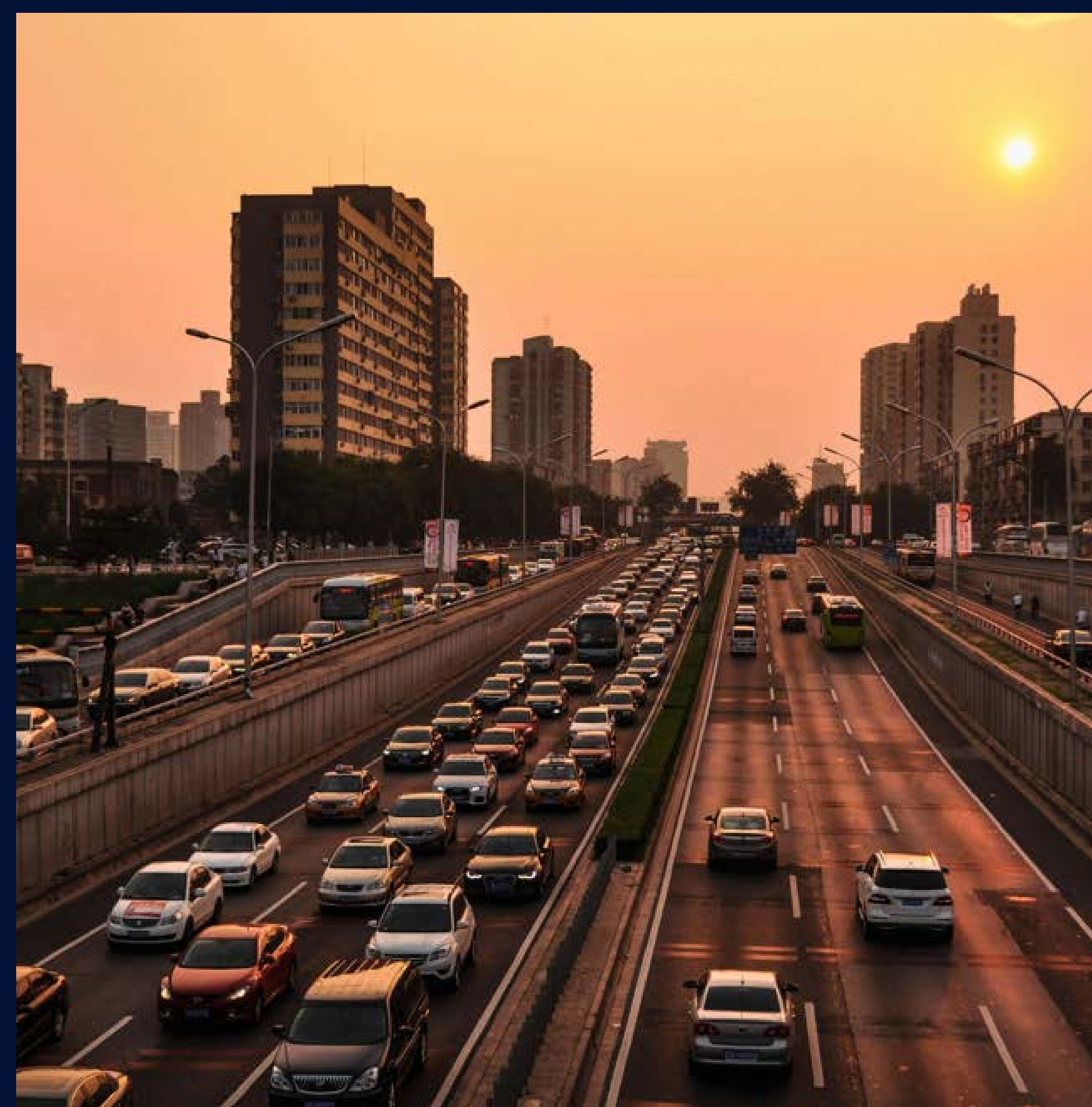
**Tunnel parameters:** CO, NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> and BC



**Airport:** CO, NO<sub>x</sub>, SO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, BTEX and BC



**Harbors:** NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> and BC



**City:** CO, NO<sub>x</sub>, SO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, BTEX and BC, UFP (research in high-traffic zones)

**"If you can't measure it, you can't manage it"**

- Peter Drucker (Management consultant and writer)

# Vessels' Compliance Monitoring

## 1. SHIP EMISSION MONITORING

We provide end-to-end solutions for air quality monitoring.



## 2. DATA PROCESSING

### Detection

1. Ship monitoring
2. Virtualization of ships on a map



### Action

3. GTE Compliance Evaluation
4. Automated alarming of harbour authorities



### Analysis & Results

5. Fuel sample analyzed in laboratory
6. Data Driven Actions

## 3. DATA DRIVEN DECISIONS



We use air quality data to trigger actions.

By implementing a compliance monitoring system the environmental pollution can be reduced by 50% and more proven in a showcase in northern Germany.

# One System, many benefits

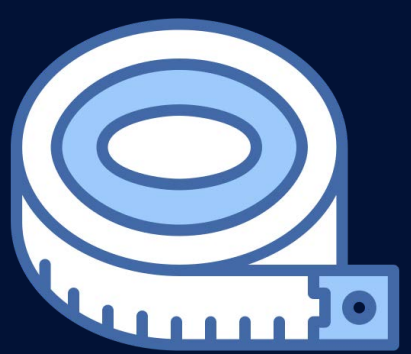
## Function

## Benefit



Turn key solution

plug and measure



10 times smaller than  
regular monitoring  
Stations

easy to relocate



Easy Installation

Can be installed with minimal  
effort or without the need for  
complex setup procedures.



Small Footprint with  
High Performance

Optimized space to fit in  
two gas analyzers and  
other on request

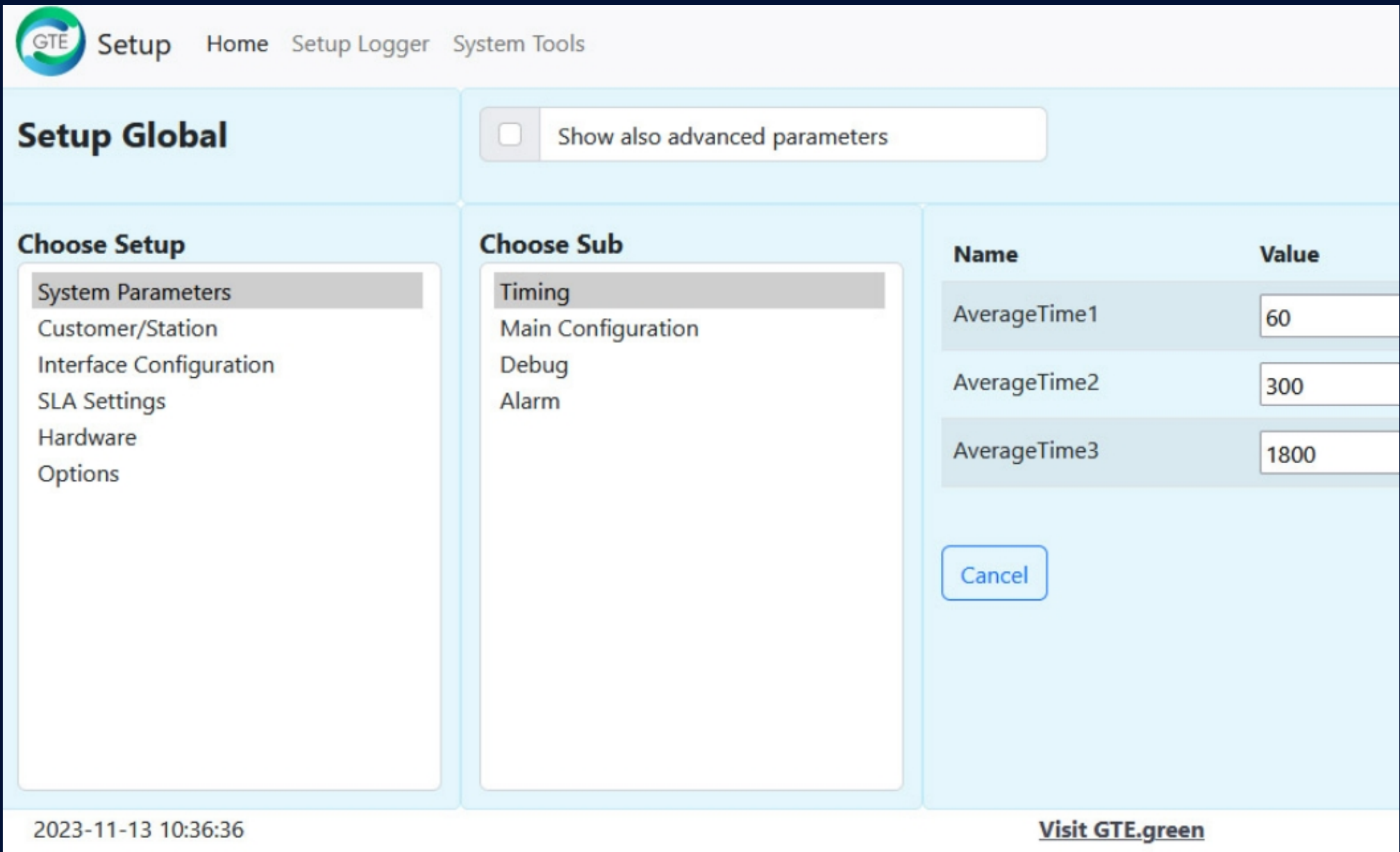


Compact & Modular  
System – designed to  
grow with your monitoring  
needs

easily extendable by type  
approved PM or gas  
analyzers such as CO<sub>2</sub>,  
BTEX, NMHC, H<sub>2</sub>S, NH<sub>3</sub>, VOC,  
and more upon request.



# AirQne Interface

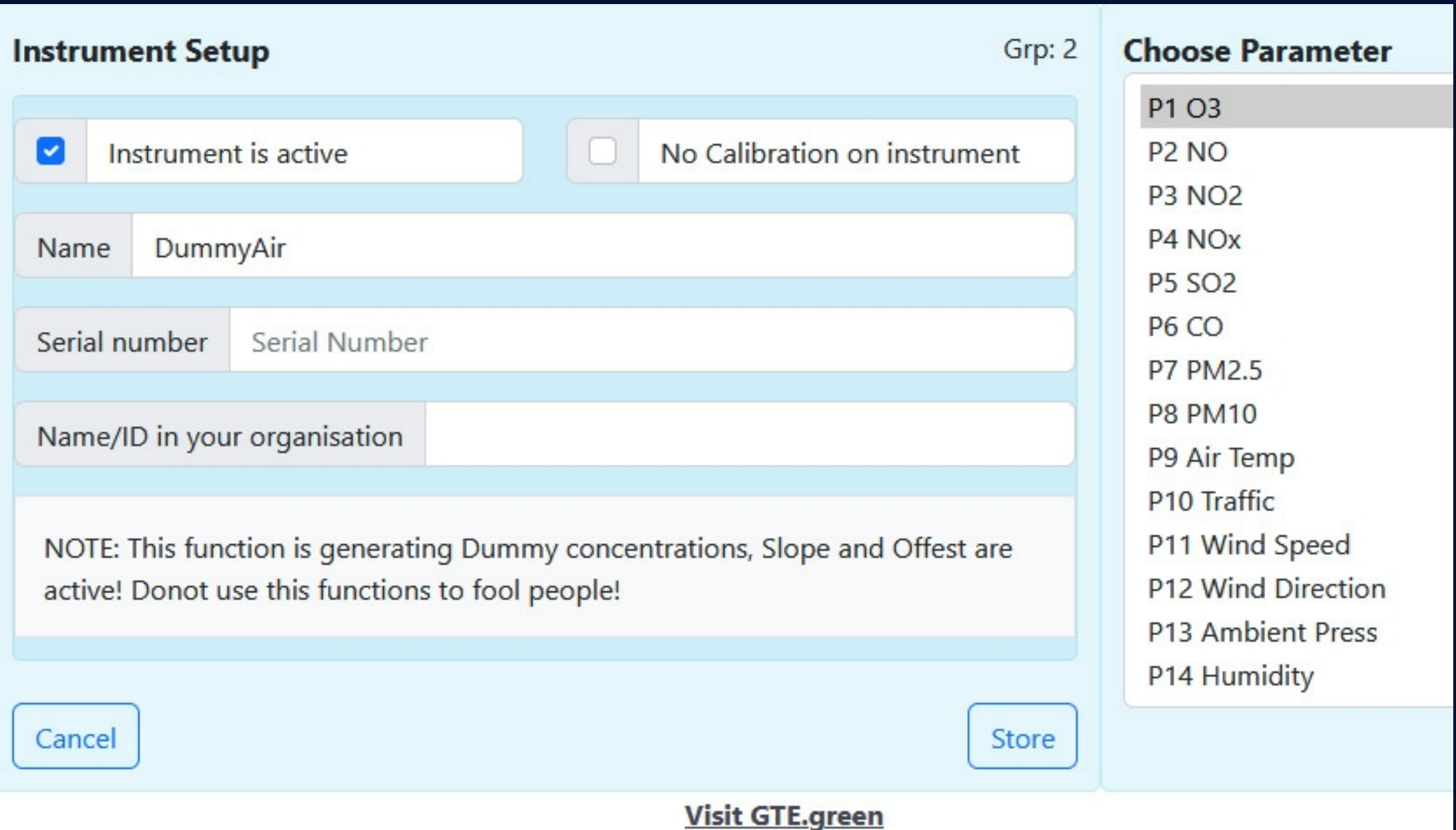


## SETUP

Setup is used for settings in general. You can choose the brand, instrument COM port or you can also simply choose LAN, IP depending on the instrument.

## CONFIGURATION

Add new analyzer with just two clicks.  
All major brand ambient air measuring instruments are predefined and can be configured with only a few clicks.



## MEASUREMENT DATA DISPLAYED IN A TIME DIAGRAM

One to six parameters are displayed in a clearly arranged graphic. Zoom function allows to have a detailed viewing.

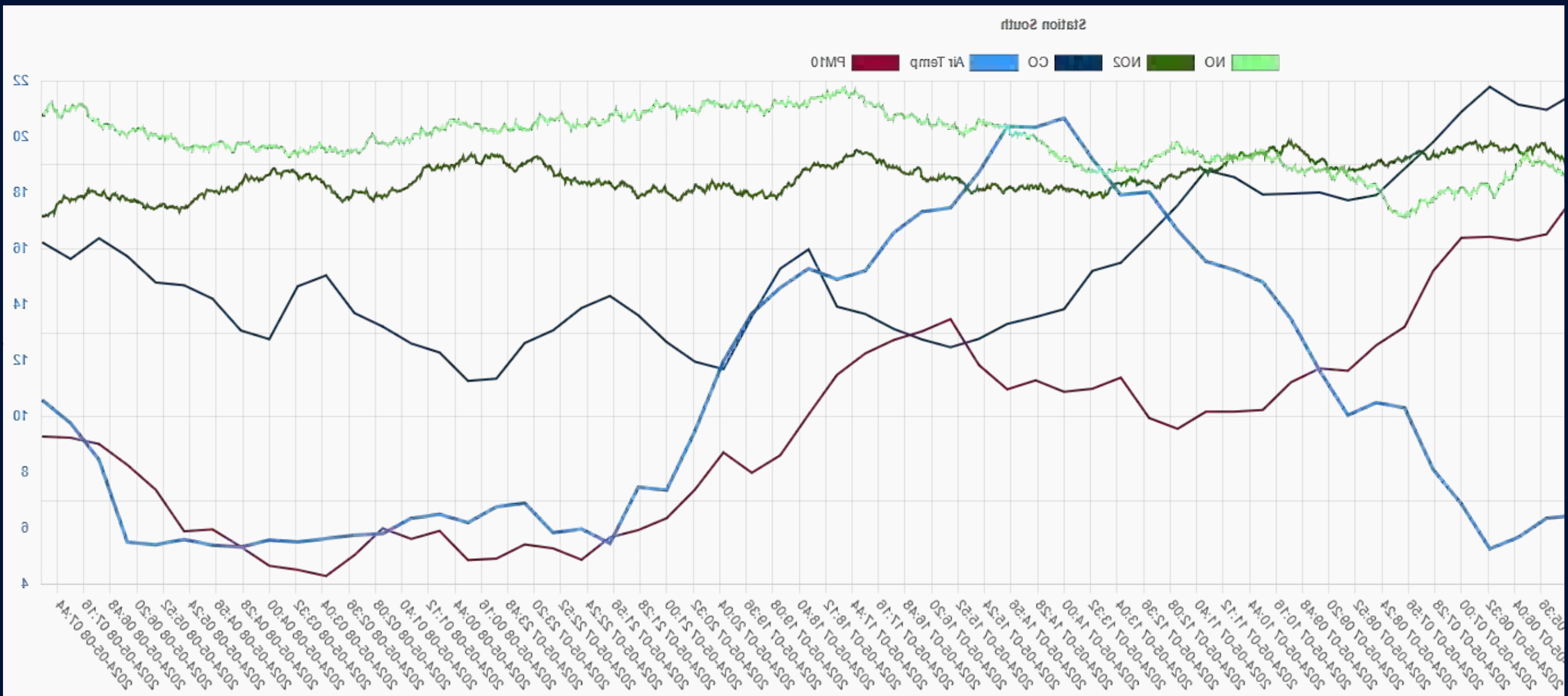
## REPORTS ON REQUEST

Reports can also be generated for special needs on request. They may be defined and automatically created. The results can be converted into pdf and excel files such as csv, xml.

| POLLUTANT 1 Ozone              |                                       |   |
|--------------------------------|---------------------------------------|---|
| PARAMETER 1 O3                 |                                       |   |
| Arithmetical Avg 1h            | 20231113 09:00:00 - 20231113 10:00:00 | - |
| Arithmetical Avg 8h            | 20231113 00:00:00 - 20231113 08:00:00 | - |
| POLLUTANT 2 Particulate Matter |                                       |   |
| PARAMETER 1 PM2.5              |                                       |   |
| Arithmetical Avg 1days         | 20231112 00:00:00 - 20231113 00:00:00 | 6 |
| PARAMETER 2 PM10               |                                       |   |
| Arithmetical Avg 1days         | 20231112 00:00:00 - 20231113 00:00:00 | 8 |
| POLLUTANT 3 Carbon Monoxide    |                                       |   |
| PARAMETER 1 CO                 |                                       |   |
| Arithmetical Avg 8h            | 20231113 00:00:00 - 20231113 08:00:00 | 2 |
| POLLUTANT 4 Sulfur Dioxide     |                                       |   |
| PARAMETER 1 SO2                |                                       |   |
| Arithmetical Avg 1h            | 20231113 09:00:00 - 20231113 10:00:00 | 0 |

## GRAPH DESIGN

For the purpose of clarity, you may present the measurement data in different forms and various colors, e.g. as a line, a filled line, a step or a bar diagram.





**Decades of Expertise in one Team of Chemists, Physicists,  
IT professionals, Electronics & Mechanics.**



**"Committed to quality and  
sustainability, for the future  
of generations"**

**Martin Schubert  
CEO**

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