# we caire

# measuring air quality together



The CAIREBox™ is a service solution by means of a data subscription.

It is a sensor platform in which various sensors may be used to measure air quality.

Data validation takes place online. ECN then analyses the data, which occurs offline. The data can be used as input for a distribution model so that concentration levels can be converted to emissions and sources.

The data is presented online and in real time via the web application. The web application is secure but may also be set to make results available for others, such as local residents.

The system remains the property of ECN, which means that maintenance and monitoring of performance and quality is also carried out by ECN, so that the customer can focus on other things.

FCN

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## **CAIREBox™** standard features

- Particulate sensor PM10, PM2.5 and PM1
- Temperature sensor
- Relative humidity sensor
- GPS location determination
- Back-up battery (>18 hours)

# **Additional options**

- Nitrogen dioxide sensor (NO<sub>2</sub>)
- Ozone sensor (O₃)

# **Particulate Monitoring Service**

- CAIREBox™ rental
- Advice on measurement points (location)
- Data processing including models and bespoke alerting
- Access to web interface
- Service and regular maintenance
- Replacement of components due to normal use and wear and tear
- Software maintenance and updates
- Service desk for disruptions and questions
- Breakdown assistance within 48 hours (Mon-Fri)

#### **Additional options**

- Reports
  - Number of exceedances
  - o Average daily emission
  - Concentration analysis
- Training on the functioning and operation of the system
- Source determination (depending on type of network)



The CAIRECube™ focuses on monitoring of concentration levels of particulates, both outside, and in industrial buildings.

The CAIRECube™ can be used as a stand-alone system or in a network connected to the CAIREBox™ or the CAIREHome™ (depending on the network).

The data is uploaded via a Wi-Fi connection and can be accessed via the web application.

#### **CAIRECube™** standard features

- Particulate sensor PM10, PM2.5 and PM1
- Temperature sensor
- Relative humidity sensor
- Plug & Play system
- Wi-Fi connection or GPRS
- Back-up battery (for time memory)

# Free web application

- Participation in the CAIRE Community will provide access to information about air quality in your area
- Automatic software updates (via data sharing)

# Web application service (optional)

- Bespoke web application
- Easy-to-use dashboard with multiple CAIRECubes™
- Contour plot with surroundings of CAIRECube™
- Bespoke notifications and alerts (email and text message)
- Historical measurement data available for up to one vear
- Maintenance and automatic condition monitoring of the sensor



The CAIREHome™ is designed exclusively for indoor use and is aimed at single systems for displaying current measured levels.

Concentration levels are indicated on the display. The colour indicator shows at a glance what the current air quality is of the selected component (PM or CO<sub>2</sub>).

The concentration level can be read online via a Wi-Fi connection or with the app.

It is also possible to connect the CAIREHome™ in a network to the CAIRECube™.

# **CAIREHome™** standard features

- Particulate sensor PM10, PM2.5 and PM1
- CO<sub>2</sub> sensor
- Concentration levels on display
- Colour indicator on display
- Plug & Play system
- Wi-Fi connection
- Back-up battery (>8 hours)

# Free web application

- Online access to measurement data
- Air quality information in the vicinity (through data sharing)
- Automatic software updates (via data sharing)

# **Options**

 It is also possible to connect the CAIREHome™ in a network to the CAIRECube™, so that you can measure air quality both inside and outside.