



Smart environment monitoring

ekoNET - know the air you're breathing

ekoNET combines **portable devices** and **cloud based functionality** to enable air quality monitoring (indoors and outdoors) in a very **granular manner, previously not possible due to high cost.**

Enables monitoring of concentration of

- PM (particles), CO, CO₂, SO₂, NO_x, Ozone, temp., humidity, noise
- in the air
- in real time
- air quality index calculated

People advised on how to behave in case of increased pollution.

Turnkey, cost-efficient, scale as you grow solution for monitoring a range of environmental parameters.



A city-wide granular view of air quality – the first step in combating air pollution health hazards

Powerful reporting

- Dashboard view to visualize real-time and historical measurements
- CAQI calculation and reporting
- Mobile app and web widget for more flexibility

Flexible configuration

- Multiple communication interfaces(WiFi, GPRS, 3G, 4G, LoRa, NB-IoT, BLE)
- Rich set of sensors to choose from (PM, NO_x, SO₂, CO, CO₂, O₃, temperature, humidity, air pressure, noise, etc.)

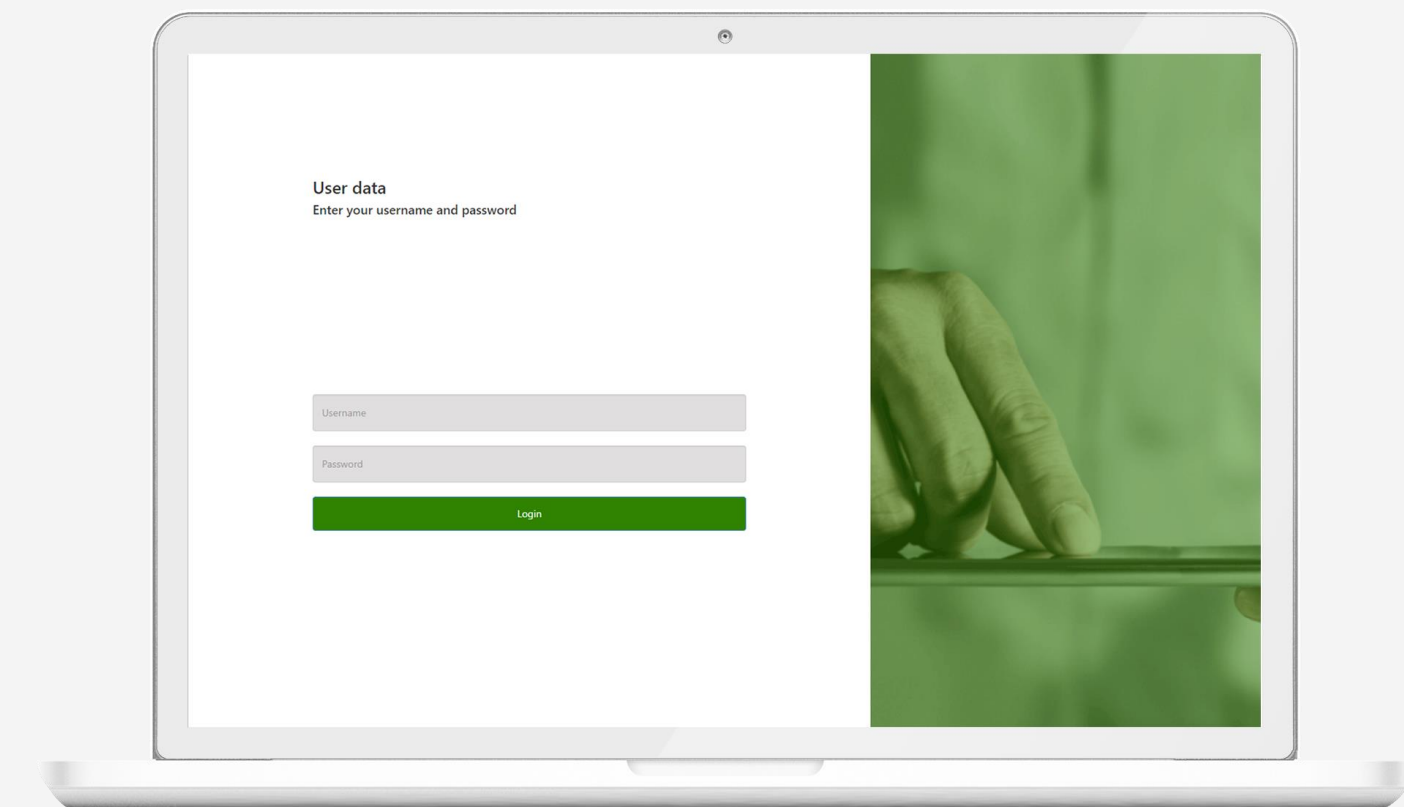
Secure, enterprise grade environment

- Deployed on MS Azure for security and reliability
- On ours or yours cloud subscription for increased control of private data
- GDPR compliance

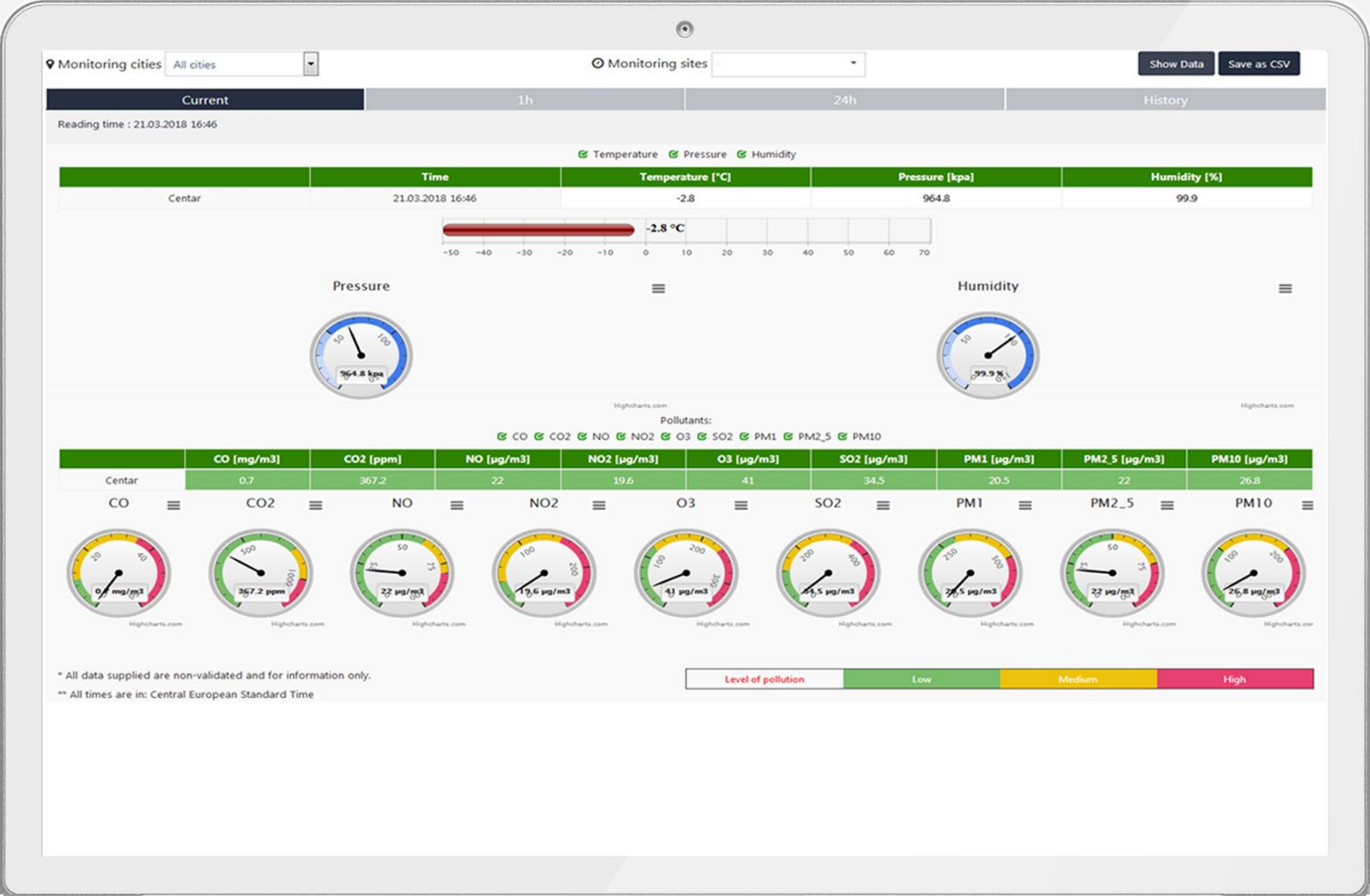


Main features

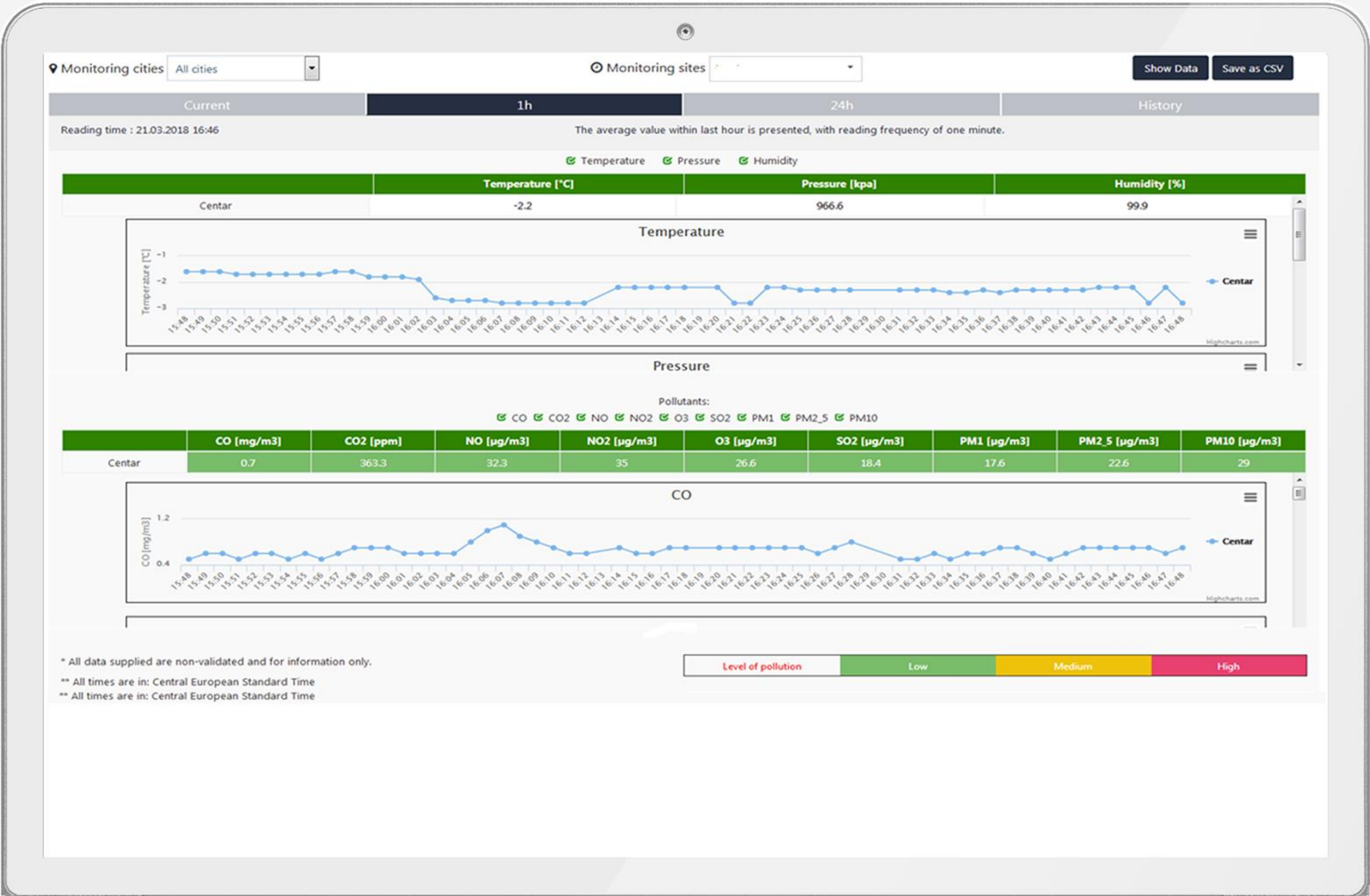
- Flexible device configuration
 - Multiple communication interfaces supported (3G, 4G, LoRa, NB-IoT, WiFi, GPRS)
 - Configurable set of sensors: PM, CO, CO2, NO, SO2, NO2, O3, temp, humidity, noise
 - High quality gas sensors
- Data visualization (map, list, graph)
 - Current values
 - 1h values
 - 24 values
 - Calculated CAQI-1h and CAQI-24h (Common Air Quality Index)
 - Historical values (over selected period of time)
- Notifications/alarms when values out of defined range
- Algorithms for data processing
- Export to CSV file (RAW, calibrated values, time, GPS ...)



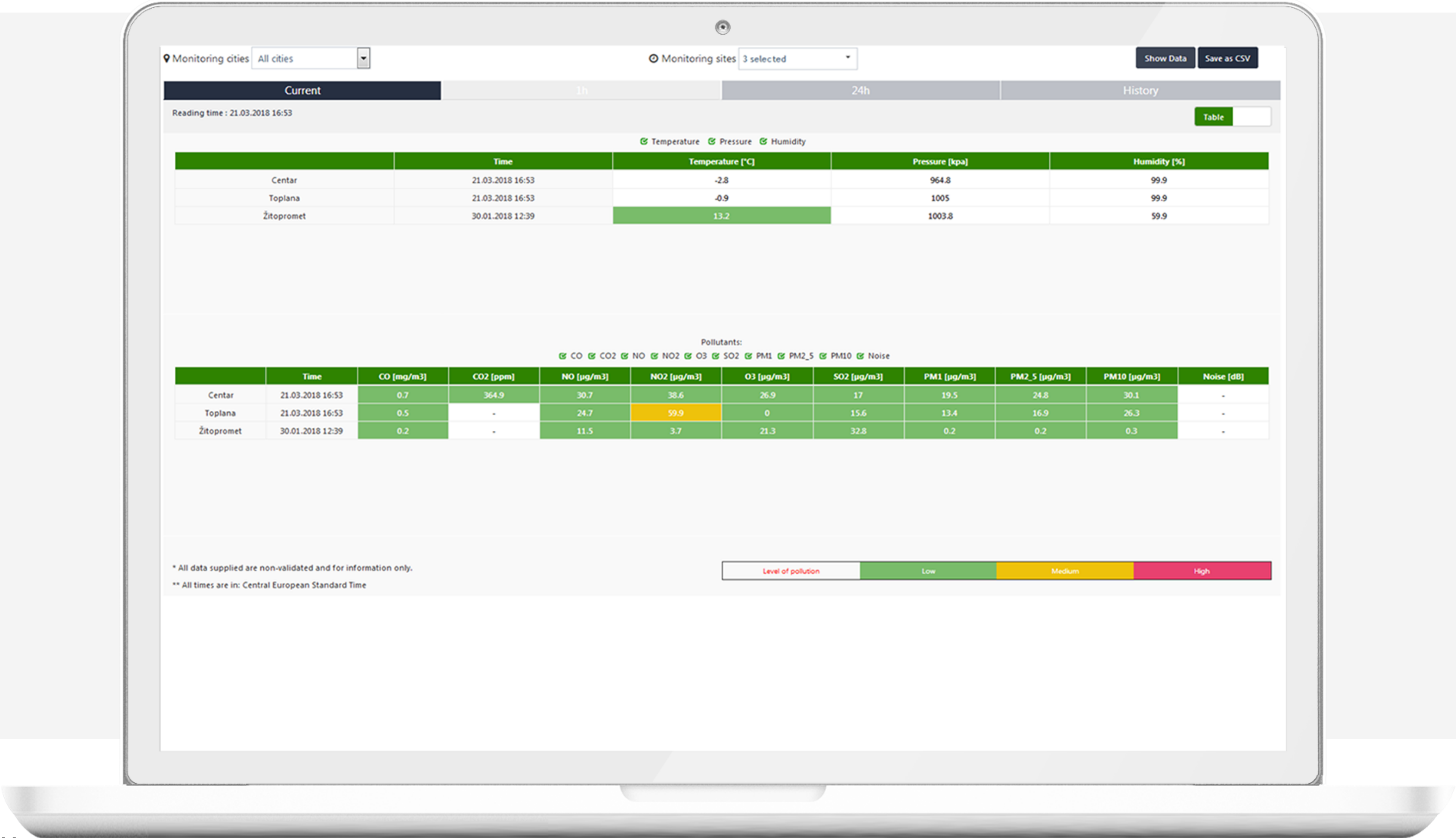
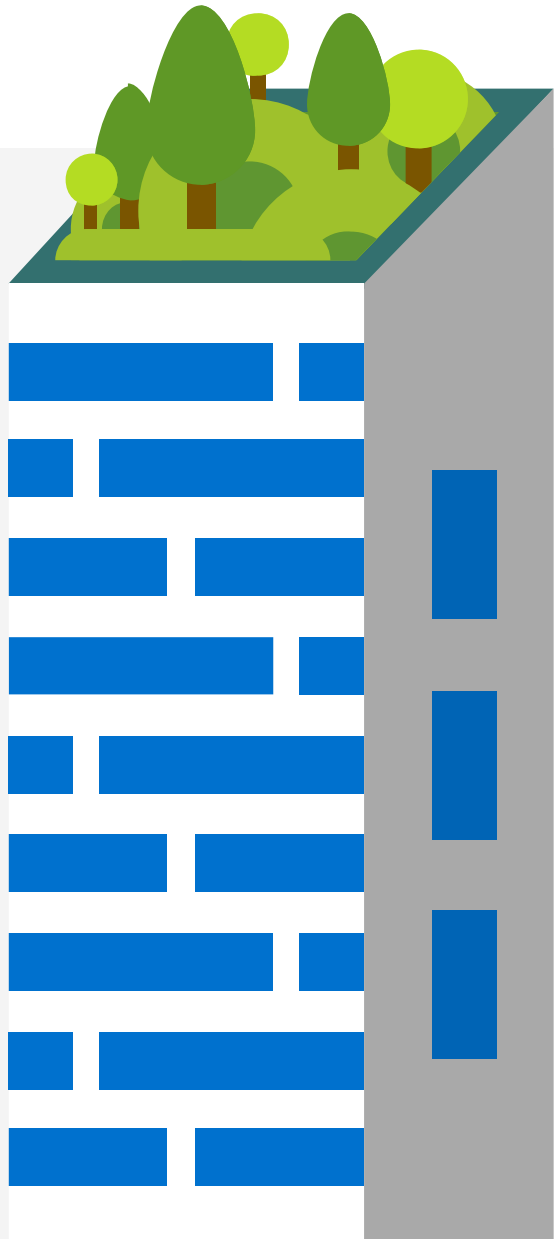
Data visualization



Data visualization



Data visualization



Notifications and alarms



ekoNET MORE...		CRITICAL VALUES
BUCHAREST - BUCHAREST		Temperature
DRONE MOBILE UNIT - STATION 2		CO2
AQ-TMOBILE0 - AQ-TMOBILE0		Temperature
AQ-TMOBILE6 - AQ-TMOBILE6		Temperature
AQ-TMOBILE7 - AQ-TMOBILE7		Temperature
AQ-TMOBILE8 - AQ-TMOBILE8		Temperature
AQ-TMOBILE1 - AQ-TMOBILE1		Temperature
RIYADH4 - RIYADH4		Temperature
AQ_BELIT1 - AQ_BELIT1		NO2

CAQI – common air quality index



CAQI		NO2	PM 10 (1h)	PM 2.5 (1h)	CO	O3	SO2	CAQI-1h	PM 10 (24h)	PM 2.5 (24h)	CAQI-24h
📍	AQ_Belit1	>400	31	48.5	19.1	-	-	48.5	-	-	-
📍	AQ_Belit2	20.4	31.7	42.7	52.8	-	-	52.8	64.5	52.3	64.5
📍	AQ-TMobile0	-	17.3	21.6	-	-	-	21.6	37.2	40.3	40.3
📍	AQ-TMobile1	-	0	0	-	-	-	0	0	0	0
📍	AQ-TMobile10	-	3.7	6.1	-	-	-	6.1	21.4	27.7	27.7
📍	AQ-TMobile2	-	3.2	5.4	-	-	-	5.4	20.3	26	26
📍	AQ-TMobile3	-	0	0	-	-	-	0	0.2	0.2	0.2

Administration



- Registration/update of access credentials
- User role privileges
- Monitoring sites
- Device parameter settings
- Alarms (SMS and emails)

The screenshot displays the ekoNET administration interface. The top navigation bar includes 'Settings' and 'Super admin' menus, along with language and user information. A dropdown menu for 'Users' is open, showing options like 'User role', 'Devices', 'Monitoring Sites', and 'Alarm categories'. The main content area is divided into two panels. The left panel, titled 'Setting parameters', shows configuration for a device named 'Stanica1' using an 'SO2' sensor with units in 'µg/m3'. It includes a 'Measuring range' table with three scopes (L, M, H) and their respective min/max values and colors. The right panel shows a table of user activity with columns for 'Last activity date', 'Approved', 'Locked', and action buttons ('Delete', 'Edit', 'Change password').

Last activity date	Approved	Locked	
12/21/2015 10:15:57 PM	✓	🔒	Delete Edit Change password
10/13/2015 9:19:46 AM	✓	🔒	Delete Edit Change password
5/12/2015 11:32:24 AM	✓	🔒	Delete Edit Change password
2/14/2016 10:14:10 AM	✓	🔒	Delete Edit Change password
10/16/2015 8:43:30 AM	✓	🔒	Delete Edit Change password
8/13/2015 12:32:34 PM	✓	🔒	Delete Edit Change password
8/6/2015 11:33:28 AM	✓	🔒	Delete Edit Change password
5/7/2015 9:39:05 AM	✓	🔒	Delete Edit Change password
5/11/2015 11:17:23 AM	✓	🔒	Delete Edit Change password
	✗	🔒	Delete Edit Change password
6/23/2015 2:07:26 PM	✓	🔒	Delete Edit Change password

Setting parameters

Device: Stanica1

Sensor: SO2

Unit: µg/m3

Measuring range

Scope	Name	Min	Max	Color
1.	L	0.00	125.00	Green
2.	M	125.00	350.00	Yellow
3.	H	350.00		Red

Calibration

Formula: A * conc + B

conc - vrednost dobijena primenom kalibracionih formula Alphasensa i lookup tabela

Coefficient A: 315.31

Coefficient B: 2.16



More info:
ekonet.solutions
dunavnet.eu