

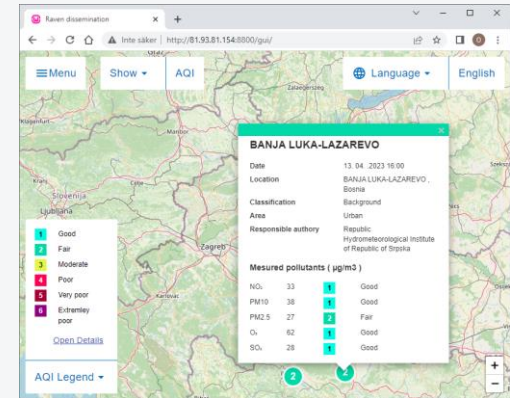
NETWORK MEETING III - 30 MAY 2024 – DURRËS

DATA PORTAL MONTENEGRO

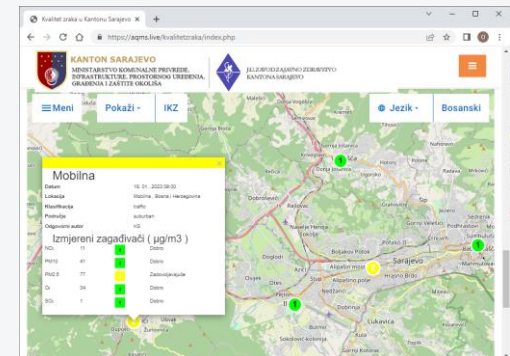
Increased public accessibility to AQ-monitoring

- Access to AQ-info in an **interactive map**
 - station info: real time data in a side bar
 - data portal: aggregate verified data
 - download
- **Basic user to expert user**
- Optimized data loading time
- Flexible screen size (responsiveness)
- Secure since rely on Raven-public-API

▪ <https://raven-tst.smhi.se/>



HMRZ: <http://81.93.81.154:8800/gui/>



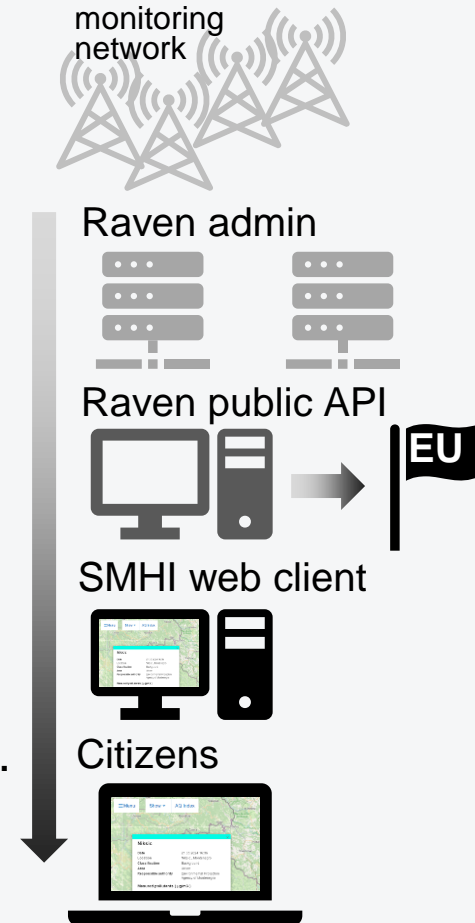
Sarajevo Kanton: <https://aqms.live/kvalitetzraka/index.php>

Data flow and EU requirements

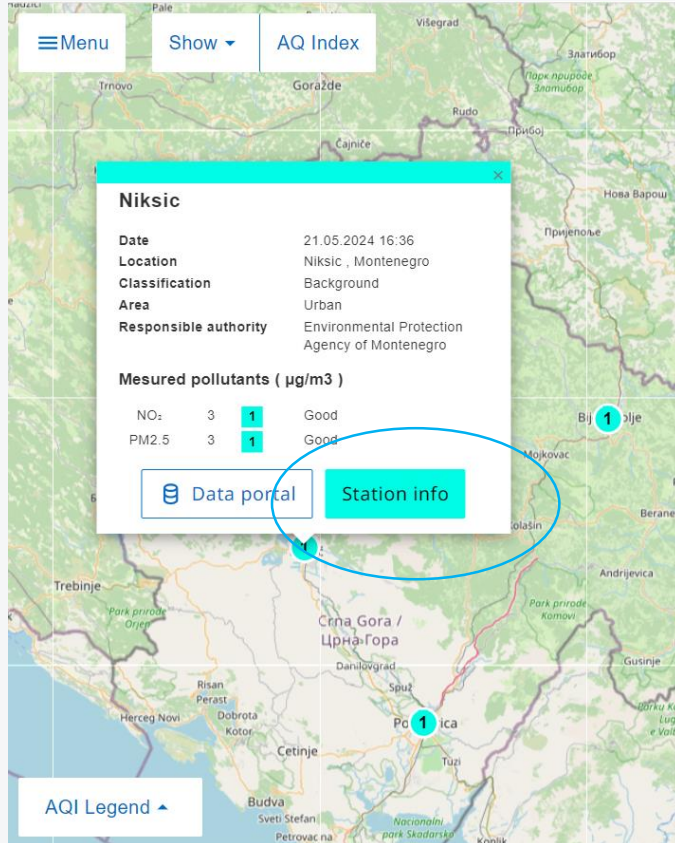
- A public **website**, ready to fetch **AQ-data** from the **Raven3 database***, free to use (open source) to be embed in national websites.
- The outcome will be User Friendly public availability of the Air Quality measurements data (NRT), as well as the AQ-index**
- Includes web content accessibility for disabilities (color blind, etc.)**

*Raven is developed by NILU and 4sfera on behalf of the EEA.

**EU requirements



Real-time AQI and concentration



Niksic

Station information

Date 21.05.2024 16:36
Location Niksic , Montenegro
Classification Background
Area Urban
Responsible authority Environmental Protection Agency of Montenegro

Operational
Latitude 42.781262
Longitude 18.9429

Current status

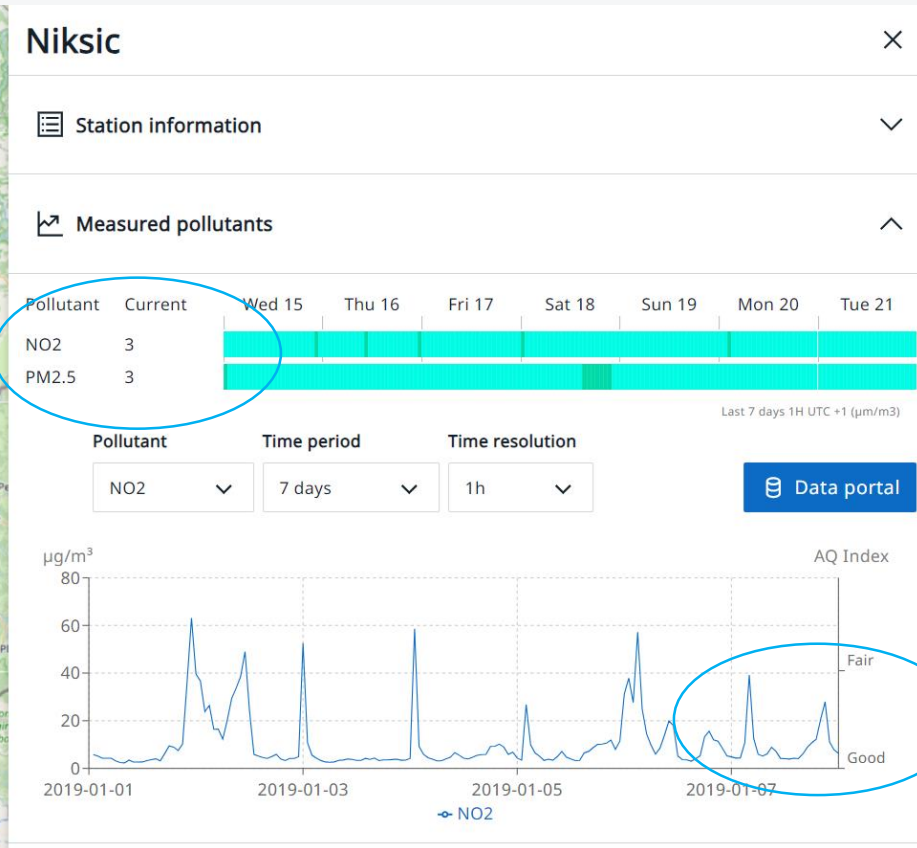
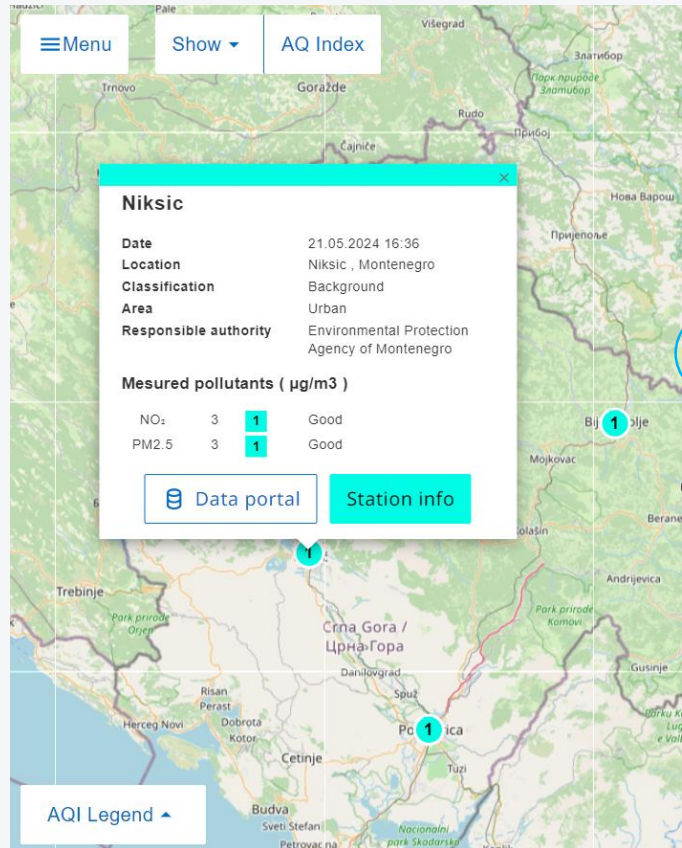
→ **1** Good (PM_{2.5})
2 Fair
3 Moderate
4 Poor
5 Very poor
6 Extremely poor
 Historical

Measured pollutants

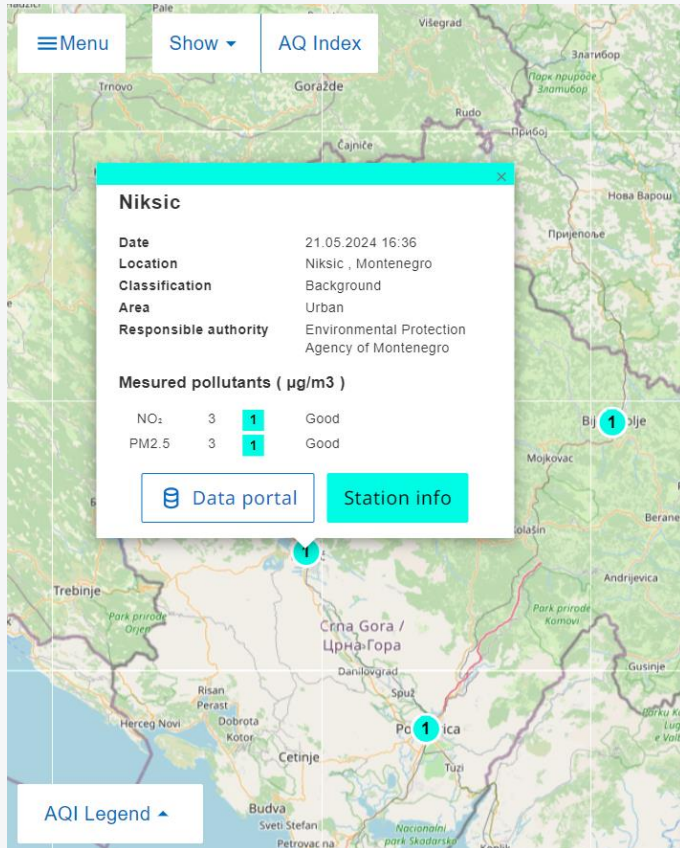
Language English

- English
- Bosanski
- Hrvatski
- Српски
- Срногорски
- македонски
- Shqiptare

AQI and concentration last week/month



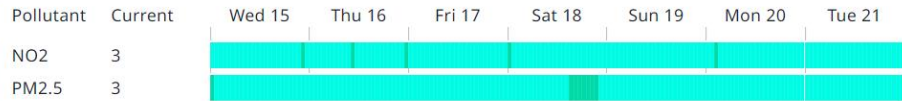
Measurements last week



Niksic

Station information

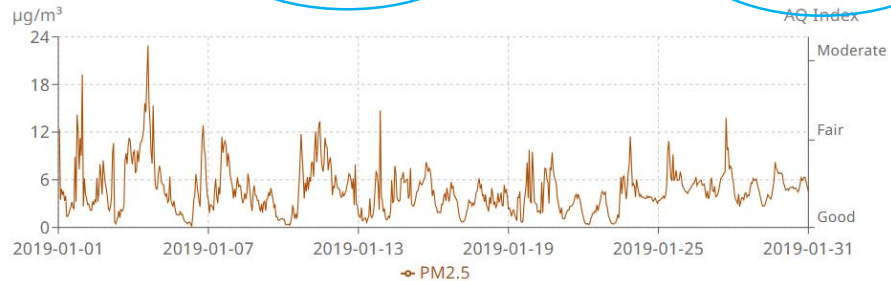
Measured pollutants



Last 7 days: 11-01°C +1 ($\mu\text{m}/\text{m}^3$)

Pollutant: PM2.5
 Time period: 30 days
 Time resolution: 1h

[Data portal](#)



Interactive graphics

- Max per call : 2 stations, 3 pollutants, 24 months
- Download: both graphs and Excel

Data portal ✕

Air quality zones

Central Montenegro

North Montenegro

Total air quality zones: 2

Stations * 2/2

Niksic

Pjlevlja

Podgorica UB

Rektorat

Total stations: 8

Pollutants * 1/3

NO2

PM10

PM2.5

SO2

Total pollutants: 4

Areas

Suburban

Urban

Total areas: 2


Classifications


Background

Traffic

Total classifications: 2



[Hide station information](#)

From* 

To*  Max 24 months

[Clear](#) [Go](#) [Download result](#)

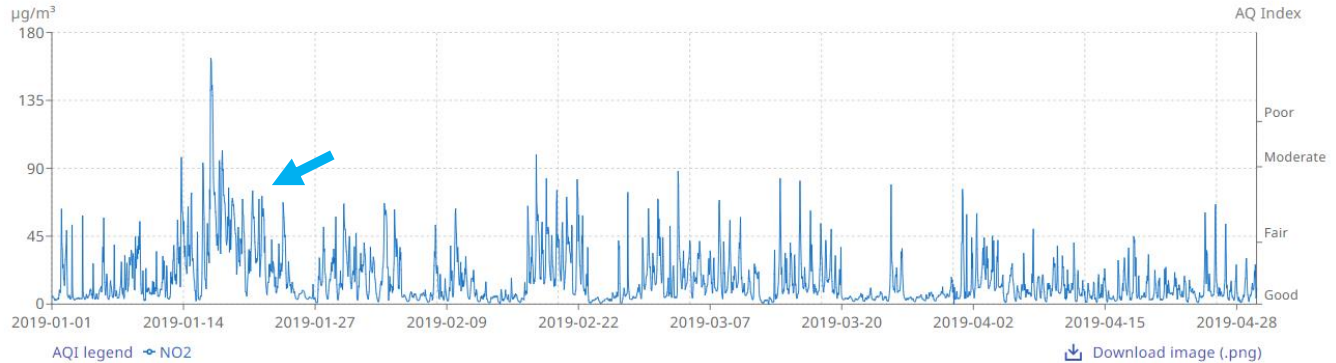
Time resolution

Data filter  

Comparison – two locations

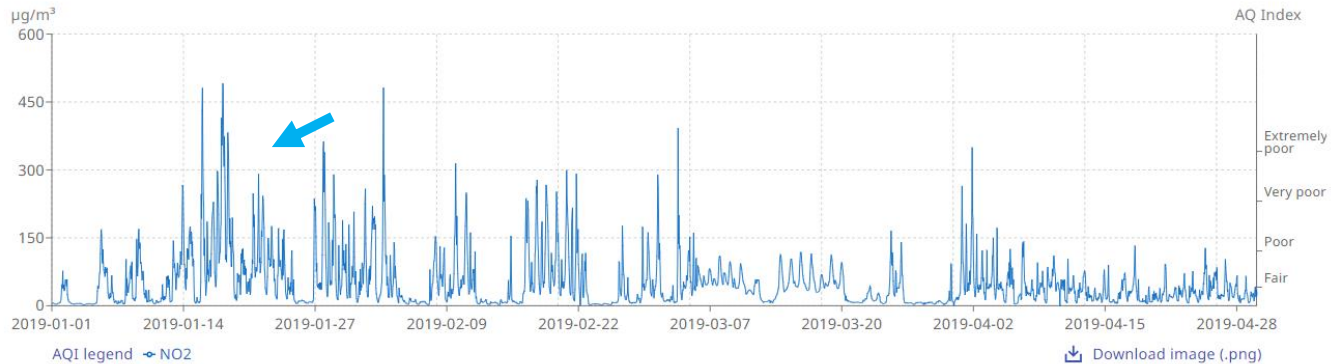
Niksic

| | | | |
|---|---|----------|-----------|
| Name | Niksic | | |
| Date | 21.05.2024 16:57 | | |
| Location | Niksic, Montenegro | | |
| Classification | Background | | |
| Area | Urban | | |
| Responsible authority | Environmental Protection Agency of Montenegro | | |
| Operational | | | |
| Latitude | 42.781262 | | |
| Longitude | 18.9429 | | |
| Current status ($\mu\text{m}/\text{m}^3$) | | | |
| | $\mu\text{g}/\text{m}^3$ | AQ Index | Active |
| NO ₂ | 3 | 1 Good | 2019-2020 |
| PM _{2.5} | 3 | 1 Good | 2019-2021 |



Pljevlja

| | | | |
|---|---|----------|-----------|
| Name | Pljevlja | | |
| Date | 21.05.2024 16:57 | | |
| Location | Pljevlja, Montenegro | | |
| Classification | Background | | |
| Area | Urban | | |
| Responsible authority | Environmental Protection Agency of Montenegro | | |
| Operational | | | |
| Latitude | 43.355 | | |
| Longitude | 19.3581 | | |
| Current status ($\mu\text{m}/\text{m}^3$) | | | |
| | $\mu\text{g}/\text{m}^3$ | AQ Index | Active |
| NO ₂ | 5 | 1 Good | 2019 |
| SO ₂ | 3 | 1 Good | 2019-2020 |



Comparison – two pollutants (PM)

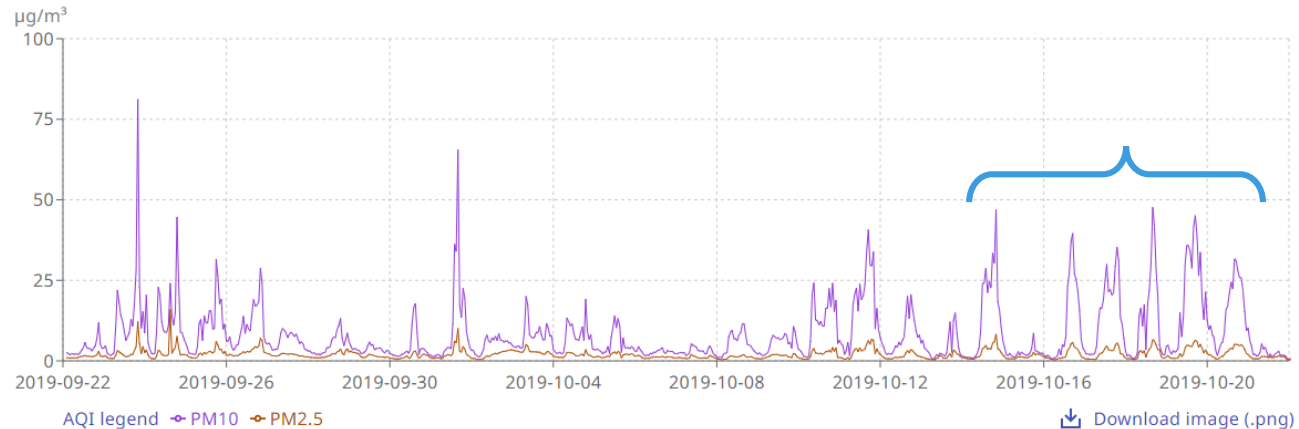
Podgorica UB

Name Podgorica UB
Date 21.05.2024 16:56
Location Podgorica UB ,
 Montenegro
Classification Traffic
Area Suburban
Responsible authority Environmental
 Protection Agency of
 Montenegro

Operational
Latitude 42.441
Longitude 19.2566

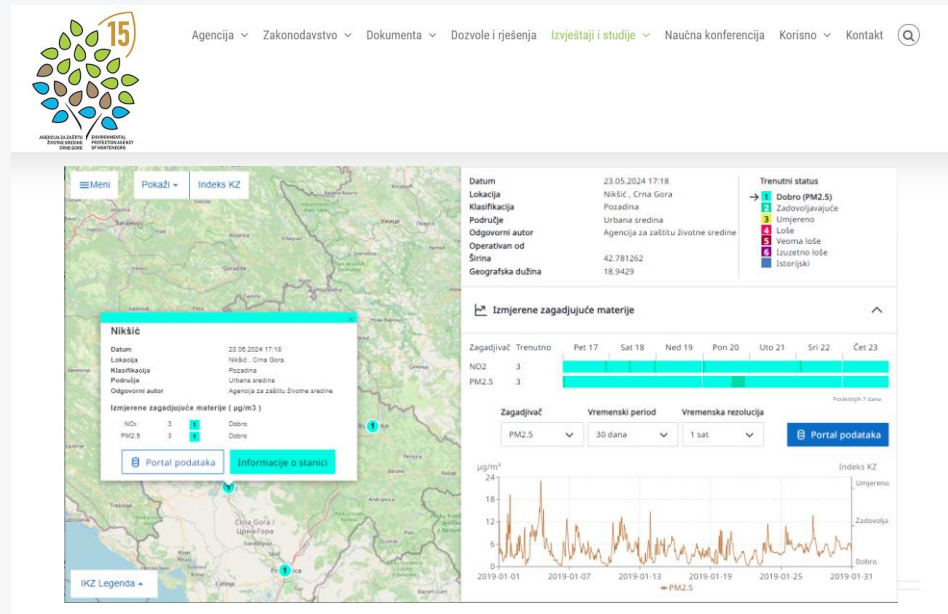
Current status ($\mu\text{g}/\text{m}^3$)

| | $\mu\text{g}/\text{m}^3$ | AQ Index | Active |
|-----------------|--------------------------|----------|-----------|
| NO ₂ | 17 | 1 Good | 2019-2021 |
| PM10 | 9 | 1 Good | 2019-2023 |
| PM2.5 | 2 | 1 Good | 2019-2021 |



Status in Montenegro

- Raven 3 installed
- Raven 3 online
- Raven 3 with historical data
- Pending :
 - Raven 3 being connected to monitoring network
 - Web-client being tested against Raven 3 Montenegro
 - Web client installed on EPA webserver & embed
 - Data-portal publicly available
 - Communication on Data-portal





THANK YOU FOR LISTENING!