



## European air quality data for 2019 (interpolated data and station points), Mar. 2022

The data set provides air pollutants concentrations at 1 km and 2 km grids combining monitoring air quality data in a 'regression-interpolation-merging mapping' methodology and the observational values of the air quality monitoring stations used in the interpolation. It covers Europe for the year 2019. It provides estimates for human health related indicators of pollutants PM10 (annual average, 90.4 percentile of daily means), PM2.5 (annual average), ozone (93.2 percentile of maximum daily 8-hour means, SOMO35, SOMO10) and NO2 (annual average), and vegetation related ozone indicators (AOT40 for vegetation and for forests) for the year 2019. The data set contains also Phytotoxic ozone dose (POD) for wheat, tomato and potato and NOx annual average grids for 2019.

This data set is used to estimate population and vegetation exposure to air pollution, as an input to the indicator AIR004 (Exposure of Europe's ecosystems to ozone: <https://www.eea.europa.eu/ims/exposure-of-europe-s-ecosystems-to-ozone>) and for the health impact assessments published in the Air Quality in Europe reports ([https://www.eea.europa.eu/publications#c7=en&c11=5&c14=air-quality-reports&c12=&b\\_start=0](https://www.eea.europa.eu/publications#c7=en&c11=5&c14=air-quality-reports&c12=&b_start=0)). The methodology and the corresponding maps can be found in the 2021 Eionet report "European air quality maps for 2019. PM10, PM2.5, Ozone, NO2 and NOx Spatial estimates and their uncertainties" (ETC/ATNI Report 1/2021) available at

<https://www.eionet.europa.eu/etc/etcs/etc-atni/products/etc-atni-reports/etc-atni-report-1-2021-european-air-quality-maps-for-2019-pm10-pm2-5-ozone-no2-and-nox-spatial-estimates-and-their-uncertainties>

This data set includes the station values and the gridded interpolated values in Shapefile format and the interpolated values in OVR and GeoTIFF formats. It can also be downloaded in Spatialite-Rasterlite. For convenience, the data set also includes the maps in TIFF and PNG format included in the report.

### Simple

|                                     |   |                 |   |
|-------------------------------------|---|-----------------|---|
| Date (Creation)                     | 2021-07-02  |                 |   |
| Date (Publication)                  | 2022-03-31  |                 |   |
| Edition                             | 01.00   |                 |   |
| Citation identifier                 | eea_v_3035_1_km_aq-interpolated-2019_p_2019_v01_r00   |                 |   |
| Point of contact                    | Organisation name<br>European Environment Agency<br><br>European Environment Agency   | Individual name | Electronic mail<br>sdi@eea.europa.eu<br>Website<br><a href="http://www.eea.europa.eu">http://www.eea.europa.eu</a><br>Role<br>Point of contact<br>Custodian |
| Maintenance and update frequency    | Annually  |                 |   |
| GEMET - INSPIRE themes, version 1.0 | <ul style="list-style-type: none"><li>• <a href="#">Human health and safety</a></li><li>• <a href="#">Environmental monitoring facilities</a></li><li>• <a href="#">Atmospheric conditions</a></li></ul>  |                 |   |
| Keywords                            |   |                 |   |
| Keywords                            |   |                 |   |
| GEMET                               | <ul style="list-style-type: none"><li>• atmospheric pollution</li><li>• atmospheric particulate</li><li>• tropospheric ozone</li><li>• nitrogen oxides</li><li>• atmospheric composition</li><li>• troposphere</li><li>• nitrogen dioxide</li><li>• traffic</li></ul> |                 |   |

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>• air quality monitoring</li> <li>• air quality</li> <li>• transboundary pollution</li> <li>• ozone</li> </ul>  |
| <b>Continents, countries, sea regions of the world.</b> | <ul style="list-style-type: none"> <li>• Andorra</li> <li>• San Marino</li> <li>• United Kingdom</li> <li>• Monaco</li> <li>• EEA38 (from 2020)</li> </ul>   |
| <b>Spatial scope</b>                                    | <ul style="list-style-type: none"> <li>• European</li> </ul>   |
| <b>INSPIRE priority data set</b>                        | <ul style="list-style-type: none"> <li>• Measurement and modelling data (Air Quality Directive)</li> <li>• Directive 2008/50/EC</li> <li>• Monitoring stations (Air Quality Directive)</li> </ul>  |
| <b>EEA topics</b>                                       | <ul style="list-style-type: none"> <li>• Air pollution</li> </ul>  |
| <b>Temporal resolution</b>                              | <ul style="list-style-type: none"> <li>• Annually</li> </ul>   |
| <b>Access constraints</b>                               | Other restrictions   |
| <b>Other constraints</b>                                | <a href="#">no limitations to public access</a>  |
| <b>Use constraints</b>                                  | Other restrictions   |
| <b>Other constraints</b>                                | EEA standard re-use policy: unless otherwise indicated, re-use of content on the EEA website for commercial or non-commercial purposes is permitted free of charge, provided that the source is acknowledged ( <a href="http://www.eea.europa.eu/legal/copyright">http://www.eea.europa.eu/legal/copyright</a> ). Copyright holder: European Environment Agency (EEA). |
| <b>Aggregate Dataset identifier</b>                     | 282ed4e9-d58a-44ae-8c48-e688bd fed281  |
| <b>Association Type</b>                                 | Cross reference  |
| <b>Spatial representation type</b>                      | Vector   |

## Spatial resolution

No information provided.

|                            |   |
|----------------------------|---|
| <b>Distance</b>            | 1 km  |
| <b>Distance</b>            | 2 km  |
| <b>Language of dataset</b> | English   |
| <b>Topic category</b>      | <ul style="list-style-type: none"> <li>• Environment</li> </ul> |

|  |   |  |   |  |   |  |   |
|--|---|--|---|--|---|--|---|
|  | N |  | S |  | E |  | W |
|--|---|--|---|--|---|--|---|



|  |   |   |  |
|--|---|---|--|
| Begin date                             | 2019-01-01  |   |  |
| End date                               | 2019-12-31  |   |  |
| Coordinate reference system identifier | <a href="#">EPSG:3035</a>   |   |  |
| Distribution format                    | <ul style="list-style-type: none"> <li>• SHP ( )</li> <li>• Spatialite ( )</li> </ul> |   |  |
| OnLine resource                        | <b>Protocol</b><br>EEA:FOLDERPATH<br><br>EEA:FOLDERPATH<br><br>WWW:URL                | <b>Linkage</b><br><a href="https://sd.eea.europa.eu/webdav/datastore/public/eea_v_3035_1_km_aq-interpolated-2019_p_2019_v01_r00/SHP/">https://sd.eea.europa.eu/webdav/datastore/public/eea_v_3035_1_km_aq-interpolated-2019_p_2019_v01_r00/SHP/</a><br><br><a href="https://sd.eea.europa.eu/webdav/datastore/public/eea_v_3035_1_km_aq-interpolated-2019_p_2019_v01_r00/spatialite/">https://sd.eea.europa.eu/webdav/datastore/public/eea_v_3035_1_km_aq-interpolated-2019_p_2019_v01_r00/spatialite/</a><br><a href="https://sd.eea.europa.eu/data/3c72b3a2-af82-4595-82b2-b205e74a90cf">https://sd.eea.europa.eu/data/3c72b3a2-af82-4595-82b2-b205e74a90cf</a> | <b>Name</b><br>Shape-and raster files<br><br>Spatialite<br><br>Direct download |
| Hierarchy level                        | Dataset   |   |  |

## Conformance result

|                    |                                  |
|--------------------|----------------------------------|
| Date (Publication) | 2010-12-08                       |
| Explanation        | See the referenced specification |

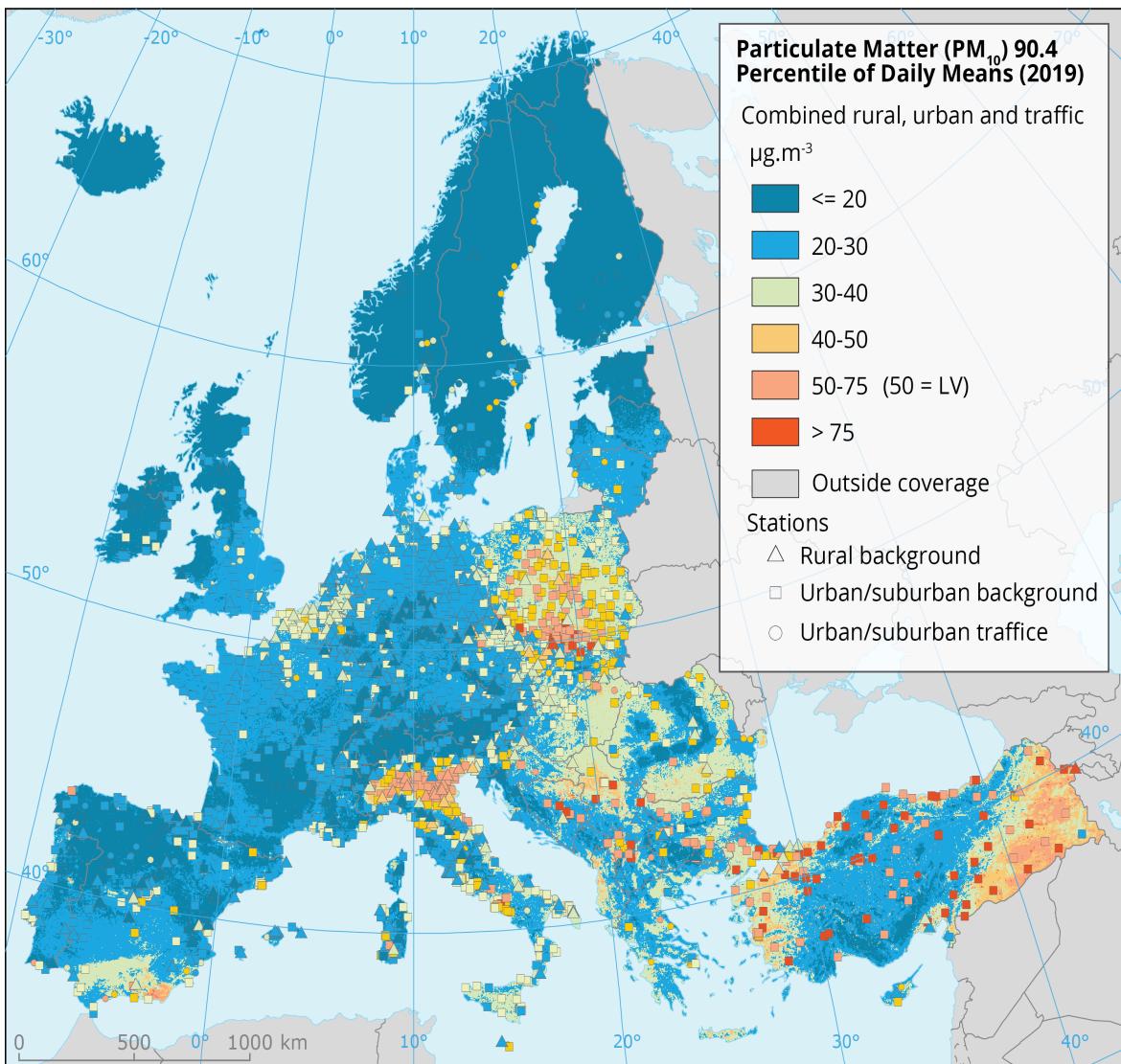
|           |  |
|-----------|--|
| Statement | <p>The data set and corresponding maps are derived primarily from the e-reporting Air Quality database, consisting of monitoring stations data reported to EEA, and some additional EMEP (European Monitoring and Evaluation Programme) station monitoring data, supplemented with, among others, altitude, meteorological ECMWF data, EMEP concentration modelling data and satellite data. These data sets and the corresponding maps are assessment tools for use at the European scale. They may show results which differ from assessments made at national scale and should not be used to check formal compliance with regulated standards.</p> <p>The methodology and the corresponding maps can be found in the 2021 Eionet report "European air quality maps for 2019. PM10, PM2.5, Ozone, NO2 and NOx Spatial estimates and their uncertainties" (ETC/ATNI Report 1/2021) available at <a href="https://www.eionet.europa.eu/etc/etc-atni/products/etc-atni-reports/etc-atni-report-1-2021-european-air-quality-maps-for-2019-pm10-pm2-5-ozone-no2-and-nox-spatial-estimates-and-their-uncertainties">https://www.eionet.europa.eu/etc/etc-atni/products/etc-atni-reports/etc-atni-report-1-2021-european-air-quality-maps-for-2019-pm10-pm2-5-ozone-no2-and-nox-spatial-estimates-and-their-uncertainties</a>.</p> |
|-----------|--|

## Metadata

|                   |  |
|-------------------|--|
| File identifier   | <a href="#">3c72b3a2-af82-4595-82b2-b205e74a90cf XML</a> |
| Metadata language | English  |

| Character set               | UTF8   |                         |                 |                         |         |      |                             |  |                   |  |  |
|-----------------------------|--|-------------------------|-----------------|-------------------------|---------|------|-----------------------------|--|-------------------|--|--|
| Hierarchy level             | Dataset  |                         |                 |                         |         |      |                             |  |                   |  |  |
| Date stamp                  | 2022-04-01T05:45:19.676Z   |                         |                 |                         |         |      |                             |  |                   |  |  |
| Metadata standard name      | ISO 19115/19139  |                         |                 |                         |         |      |                             |  |                   |  |  |
| Metadata standard version   | 1.0  |                         |                 |                         |         |      |                             |  |                   |  |  |
| Metadata author             | <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; width: 30%;">Organisation name</th> <th style="text-align: left; width: 30%;">Individual name</th> <th style="text-align: left; width: 10%;">Electronic mail address</th> <th style="text-align: left; width: 10%;">Website</th> <th style="text-align: left; width: 10%;">Role</th> </tr> <tr> <td>European Environment Agency</td> <td></td> <td>sdi@eea.europa.eu</td> <td></td> <td></td> </tr> </table> | Organisation name       | Individual name | Electronic mail address | Website | Role | European Environment Agency |  | sdi@eea.europa.eu |  |  |
| Organisation name           | Individual name  | Electronic mail address | Website         | Role                    |         |      |                             |  |                   |  |  |
| European Environment Agency |  | sdi@eea.europa.eu       |                 |                         |         |      |                             |  |                   |  |  |
|                             | Point of contact   |                         |                 |                         |         |      |                             |  |                   |  |  |

## Overviews



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