Informing you on ambient air quality in the Belgian Regions

Flanders

VLAAMSE MILIEUMAATSCHAPPIJ

Vlaanderen is milieu

www.vmm.be

Brussels

BRUXELLES ENVIRONNEMENT
LEEFMILIEU BRUSSEL
- IBGE - BIM -

www.leefmilieubrussel.be

Wallonia

Air Climat
agence wallonne de l'air & du climat

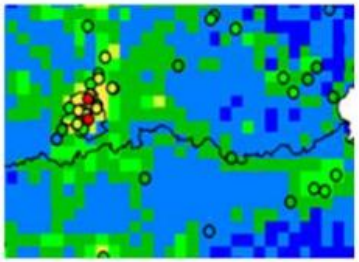
airclimat.wallonie.be

BE (IRCEL) : EU-reporting for the three regions

⟹ only Flanders uses model results for NO2

Model chain used is a street canyon model : ATMO-Street

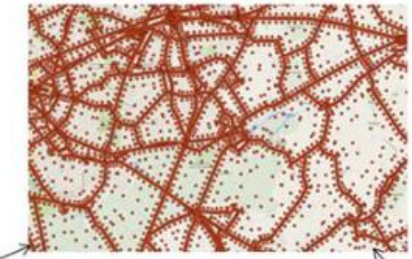
RIO +
"intelligent" interpolation
(measurements, landuse)



4x4 km²

+

IFDM
receptor model
(traffic and industial emissions)



meteo: ECMWF

industrial point sources

traffic emissions along major roads

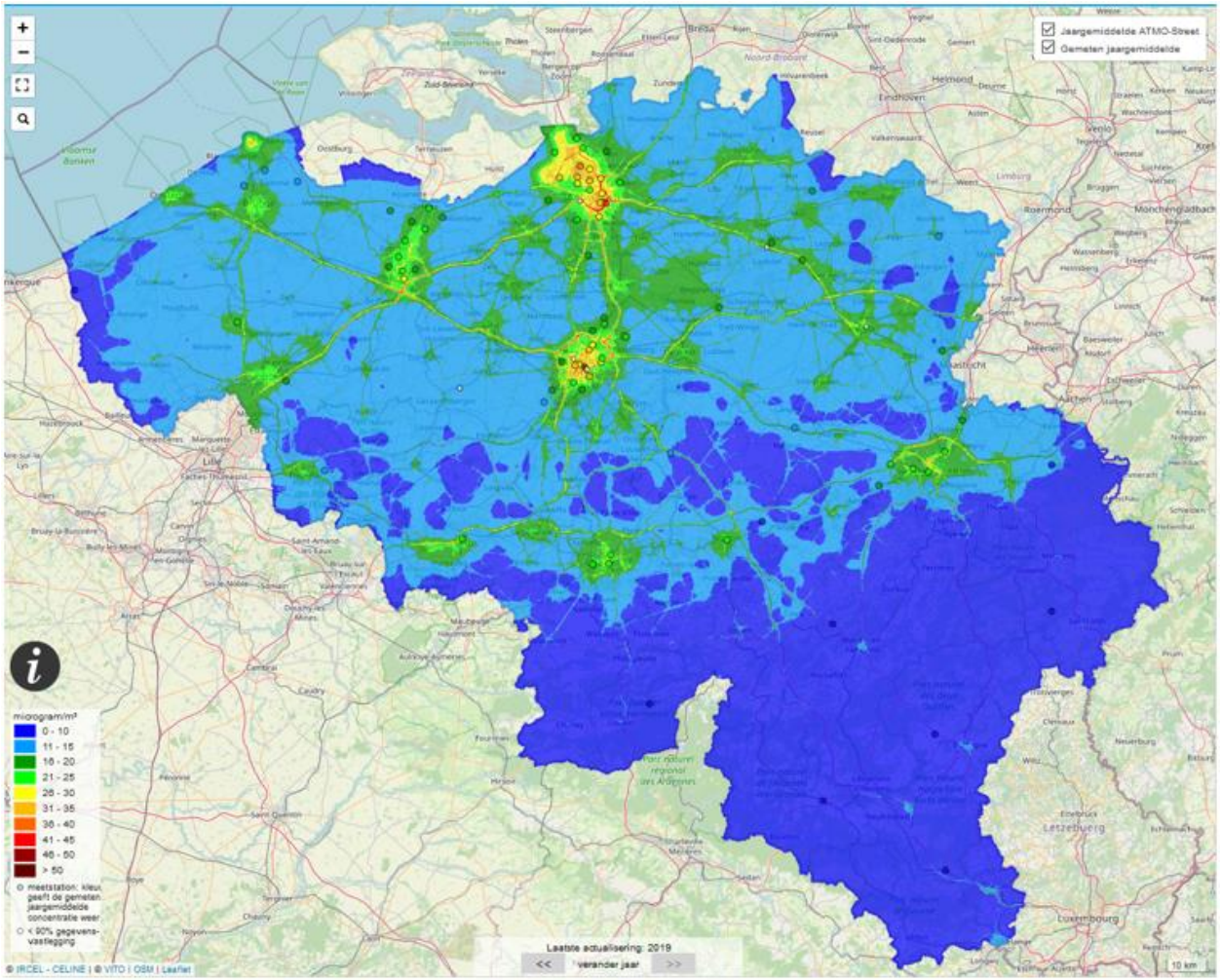
receptors interpolated up to 10 m

+ **OSPM**
streetcanyon model
(street configuration)

+

AtmoStreet model results for NO2 (2019)

https://www.irceline.be/nl/luchtkwaliteit/metingen/stikstofdioxide/historiek/no2_anmean_rioifdm



Figuur 2: Jaargemiddelde NO_2-concentraties ATMOStreet België 2019

How to determine the highest modelled concentration for reporting exceedances air quality zone EU COM

Highest modelled NO2 concentration **≠** de **maximum NO2** concentration in that zone.

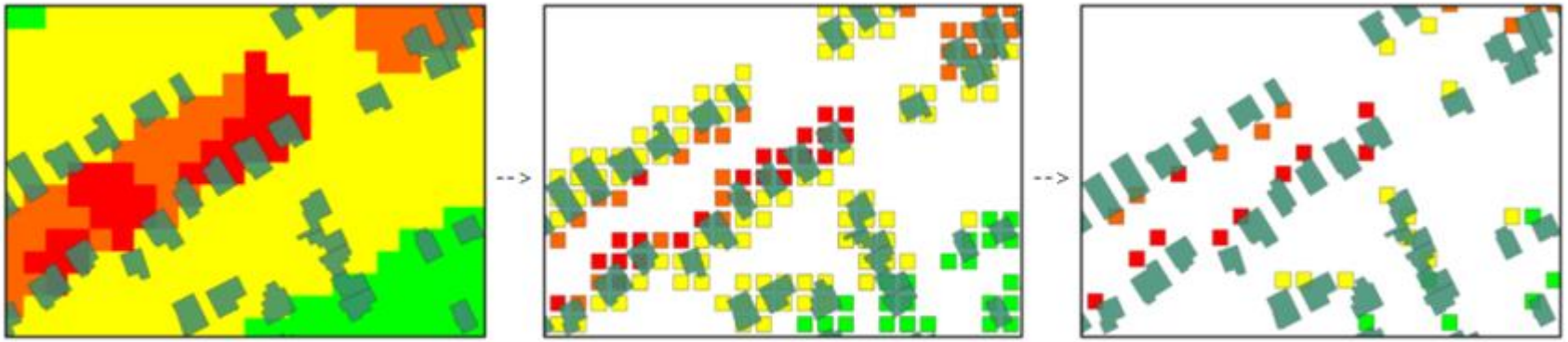
Method: Exceedance air quality zone:

1. Only cells (=model results 10m x 10m) where people live are considered
   - ⟹ highest concentrations adjacent to buildings
   - ⟹ cell with maximum concentration is used (figure next slight)

2. Classify all cells in the considered air quality zone from high to low concentrations

3. Use the 99.99th percentile concentration of this classification = this concentration determines if the air quality zone zone in exceedance

Same methodology used for indicators: calculation area and road length in exeedance (except that in this calculations all cells are considered not only populated cells).



NO2 model results

cells adjacent to buildings

maximum concentrations adjacent to building retained