



Copernicus & COVID-19

Atmosphere Monitoring Service (CAMS)
Update 17 April 2020

Earth Observation unit
Directorate-General for Defense Industry and Space
European Commission

European Centre for Medium-Range Weather Forecasts
(ECMWF)



Space



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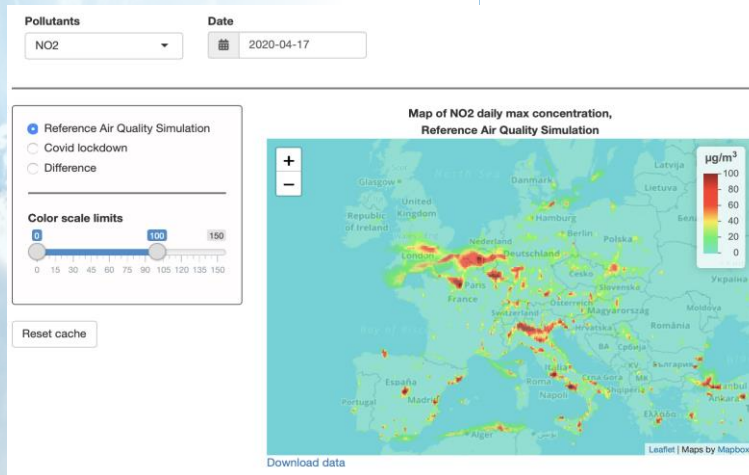


Atmosphere
Monitoring

COPERNICUS ATMOSPHERE MONITORING SERVICE: UPDATE

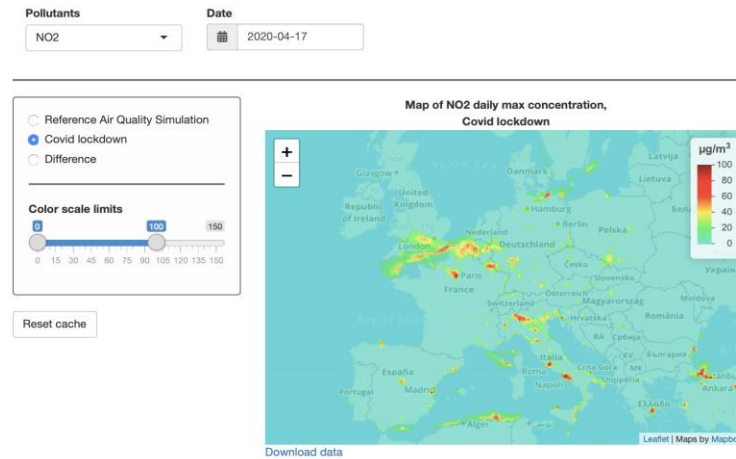
- Dedicated web site: <https://atmosphere.copernicus.eu/european-air-quality-information-support-covid-19-crisis>
- Continued strong interest from international media/press

Recent addition: daily “COVID-19 emissions” scenario runs + advanced “Air Control toolbox”

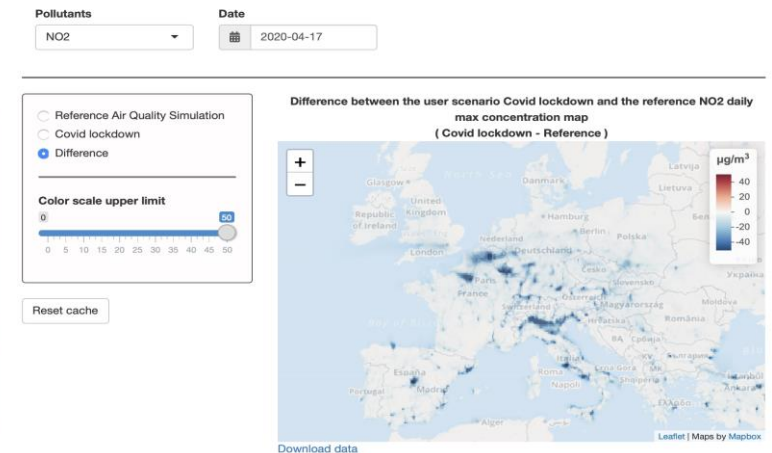


What would be today’s forecast of NO2 (PM10, PM2.5) under normal circumstances?

Crude hypotheses at this stage: -60% for road traffic, -30% for industrial, +20% for residential, and no change for agricultural activities or maritime shipping as well as for natural sources. Powered by Ineris (France).



What would be today’s forecast of NO2 (PM10, PM2.5) with emissions changed because of COVID-19 related measures?

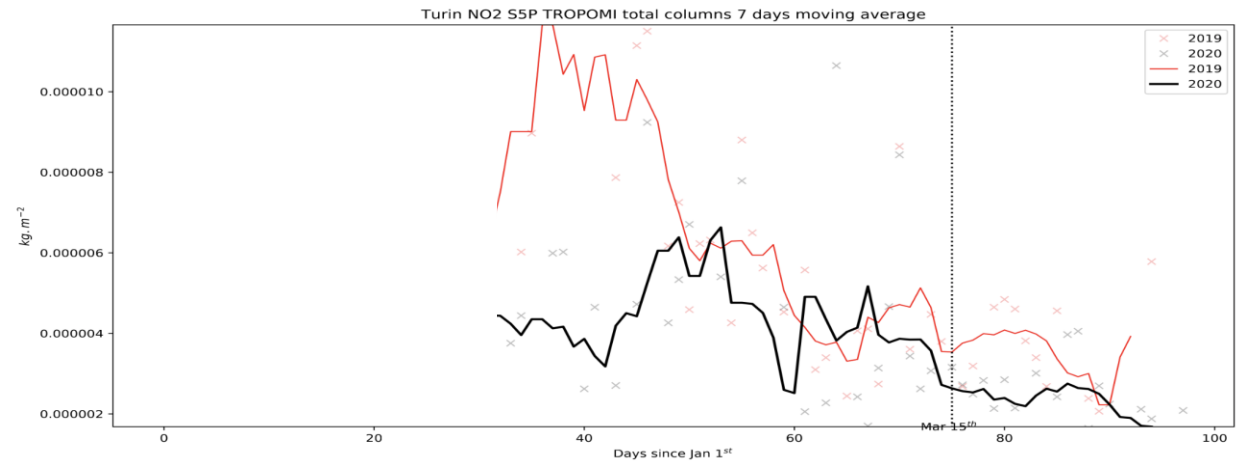
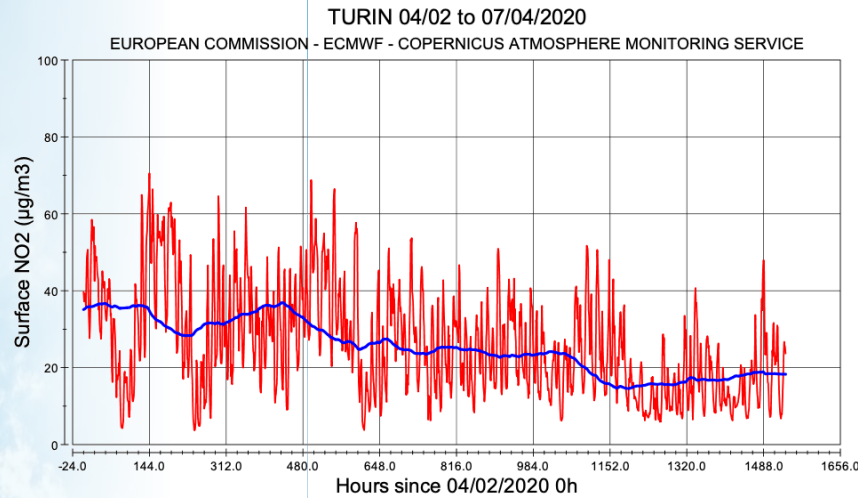


What is the difference between the two?



COPERNICUS ATMOSPHERE MONITORING SERVICE: IN PROGRESS

- How does surface NO₂ and Copernicus S5P/Tropomi satellite tropospheric columns NO₂ compare?



- Work with the London School of Hygiene and Tropical Medicine (LSHTM) on the health impacts (+/-) of the COVID-19 situation due to changes in air quality.
- Work on a reference/high-quality “COVID-19 period” emissions dataset (pollutants and greenhouse gases) for Europe, based on existing CAMS regional emissions and additional efforts using proxies and a range of data indicative of sectoral activity.
- Looking for further partnerships to work on other pollution and COVID-19 topics: PM as a vector?; effect of long-term and short-term exposure to development of COVID-19?...