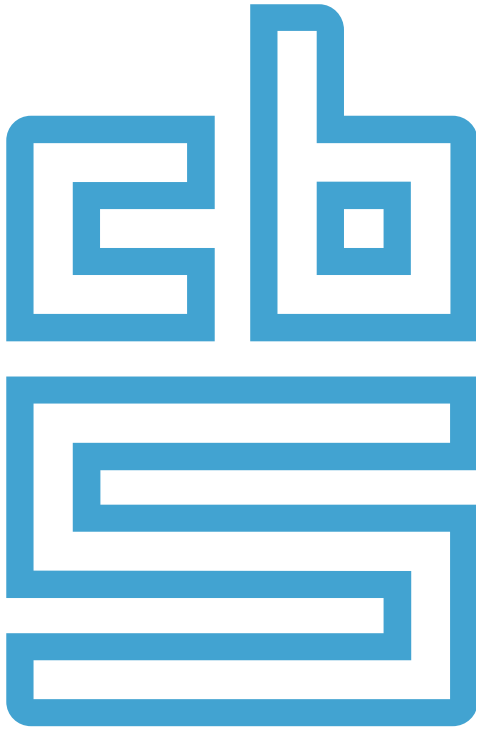


Air Inequity Dashboard

Insights on Pollution & Socioeconomic Disparities

Statistics Netherlands

10-02-2025

Air Pollution and Inequality in Europe

Air pollution in Europe worsens health inequalities, hitting vulnerable groups the hardest.

In 2022, air pollution above WHO limits caused an estimated:

- **239,000** premature deaths from **PM2.5**
- **70,000** from **ozone (O3)**
- **48,000** from **nitrogen dioxide (NO2)**

EU Policies for Cleaner Air and Equity

EU policies aim to reduce air pollution and its unequal impacts:

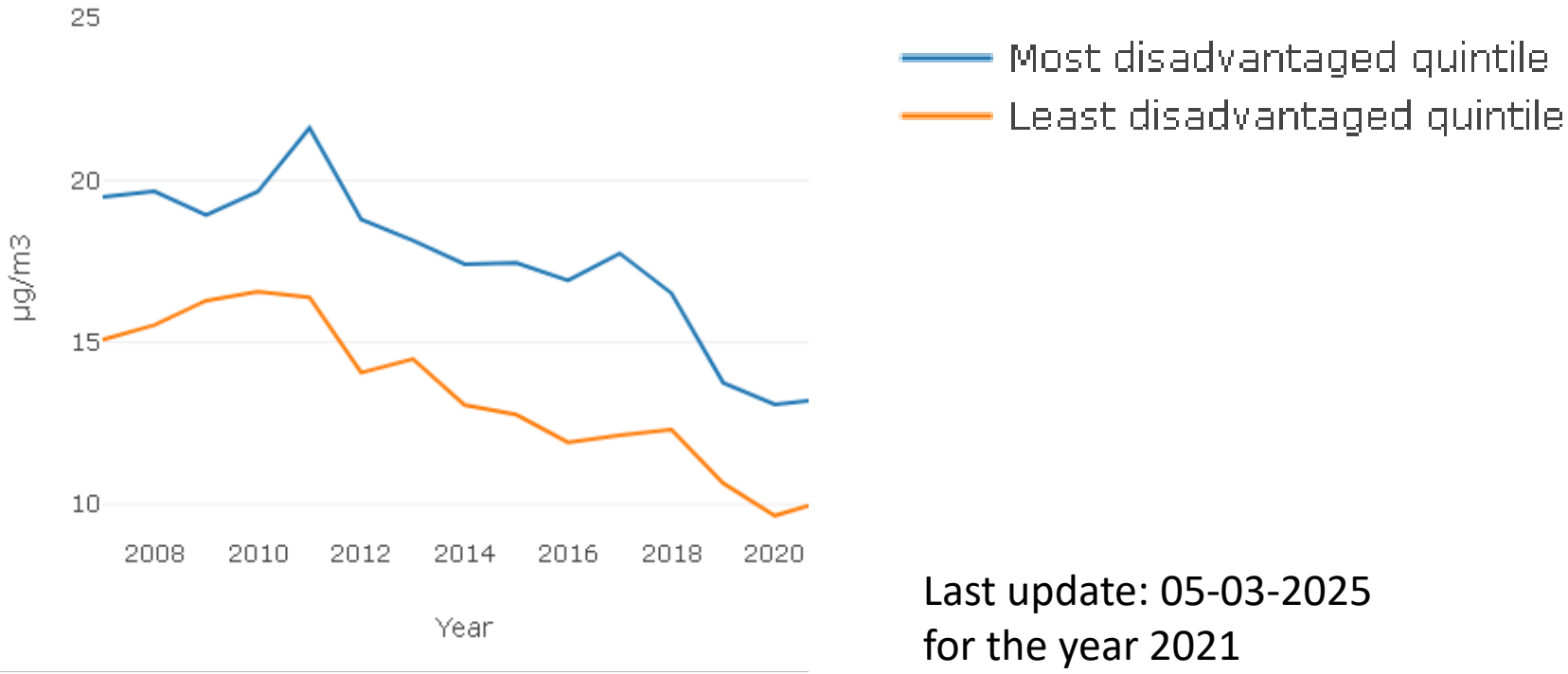
- **Ambient Air Quality Directive**
- **Zero Pollution Action Plan 2030**

- target a **55% reduction in pollution-related premature deaths** by 2030.

- **Other relevant policies:** European Green Deal, Just Transition Mechanism

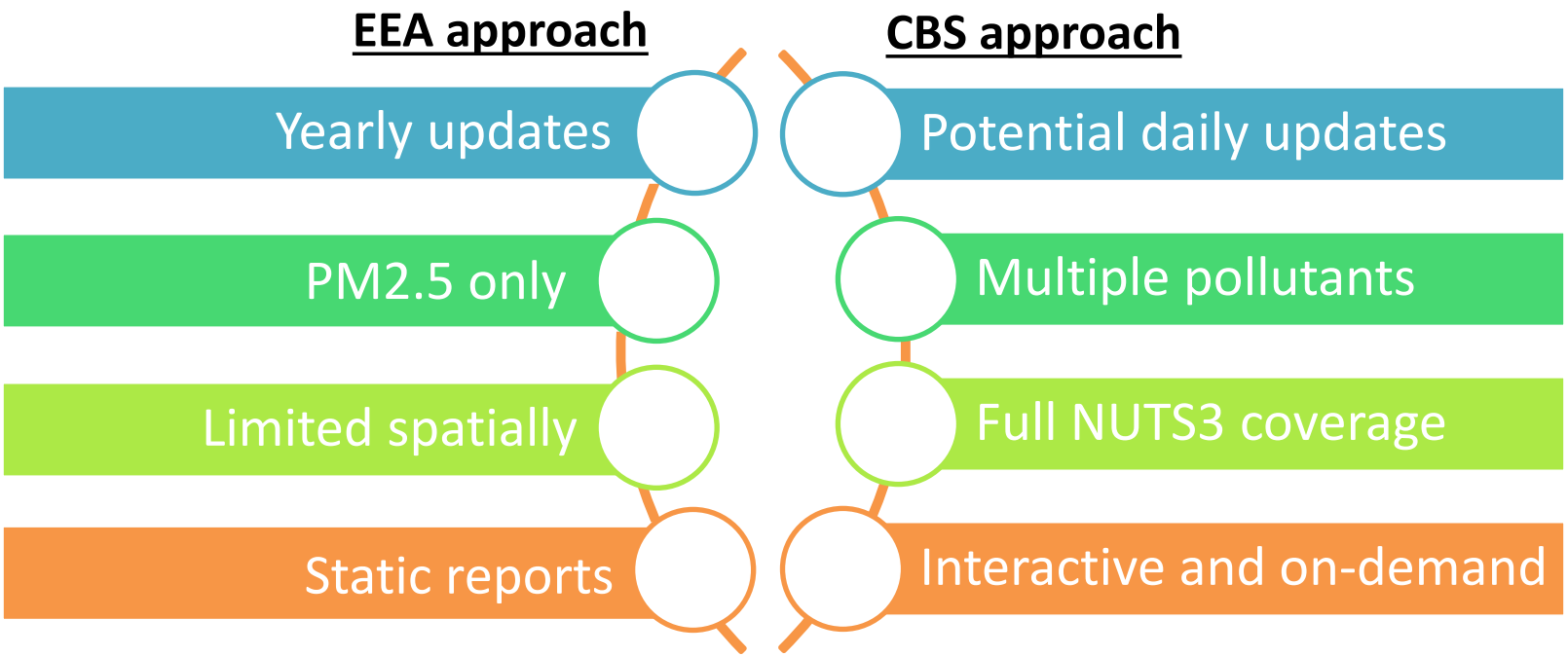
Air Inequity Dashboard

Inequity in exposure to air pollution (EEA)



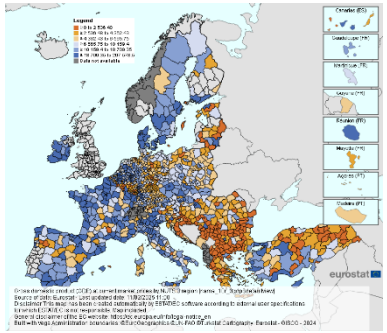
Last update: 05-03-2025
for the year 2021

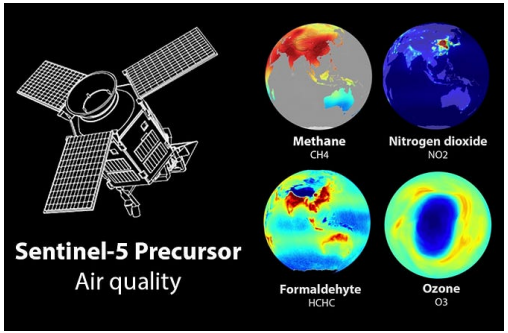
Improvement

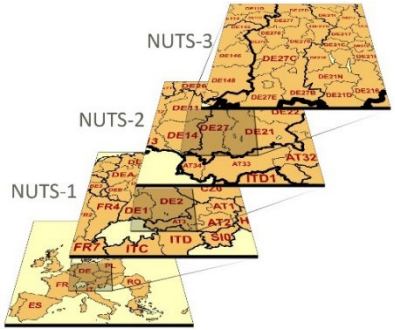


Datasets and Tools

Google Earth Engine







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Particules less than 2.5 µm ($PM_{2.5}$)	0-10	10-20	20-25	25-50	50-75	75-800

Note: PM10 and PM2.5 values are based on 24-hour running means

Pollutant	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Autumn (Sep-Nov)
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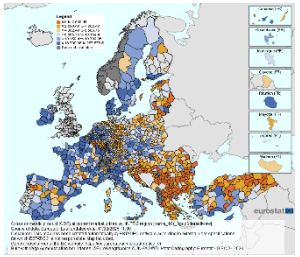
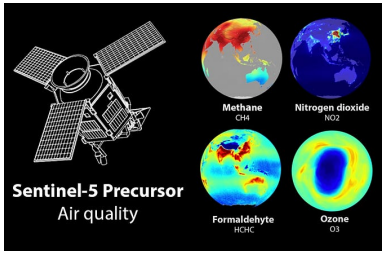
Datasets and Tools





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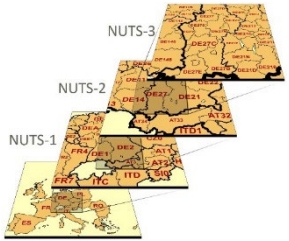

Google Earth Engine

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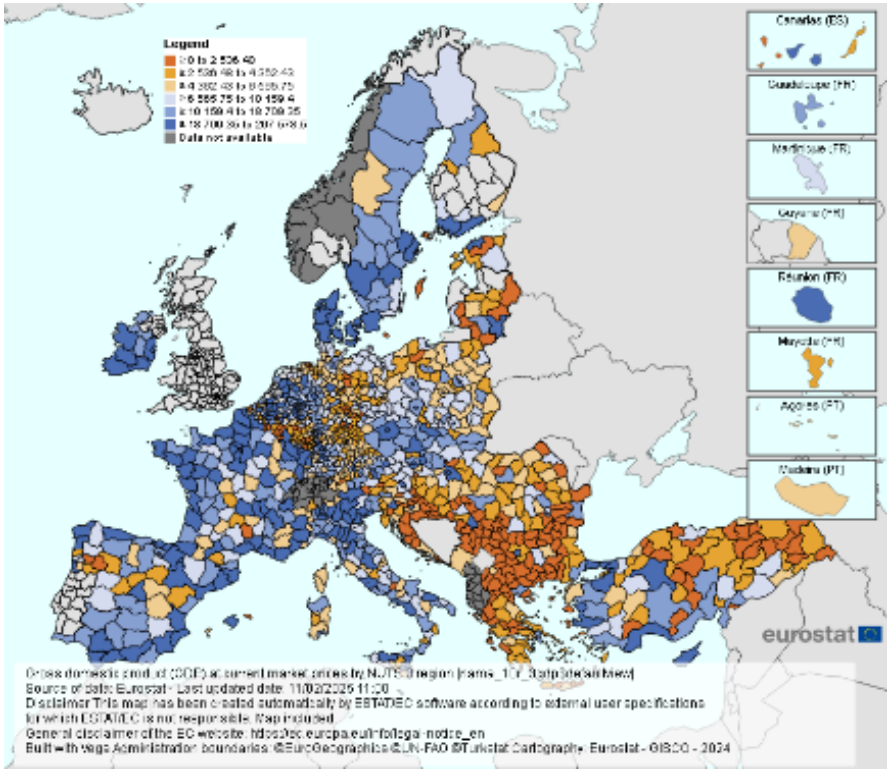
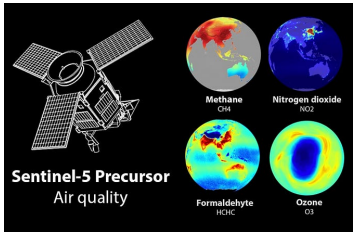
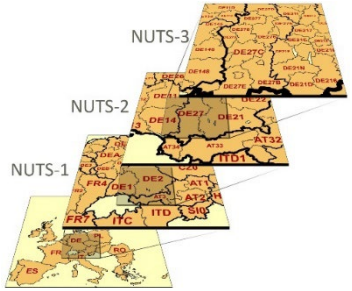
Datasets and Tools







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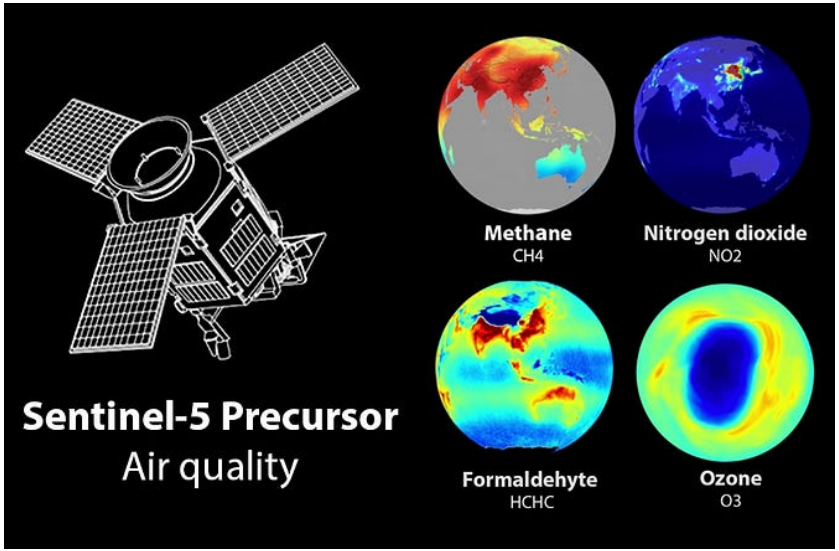

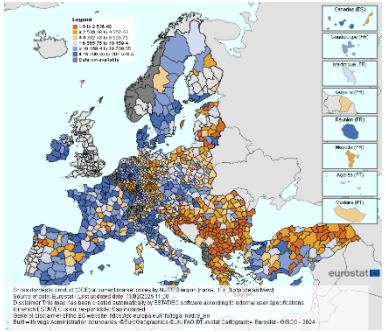

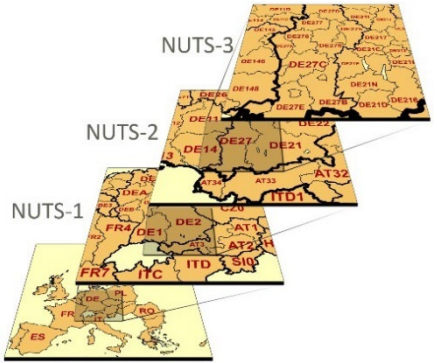

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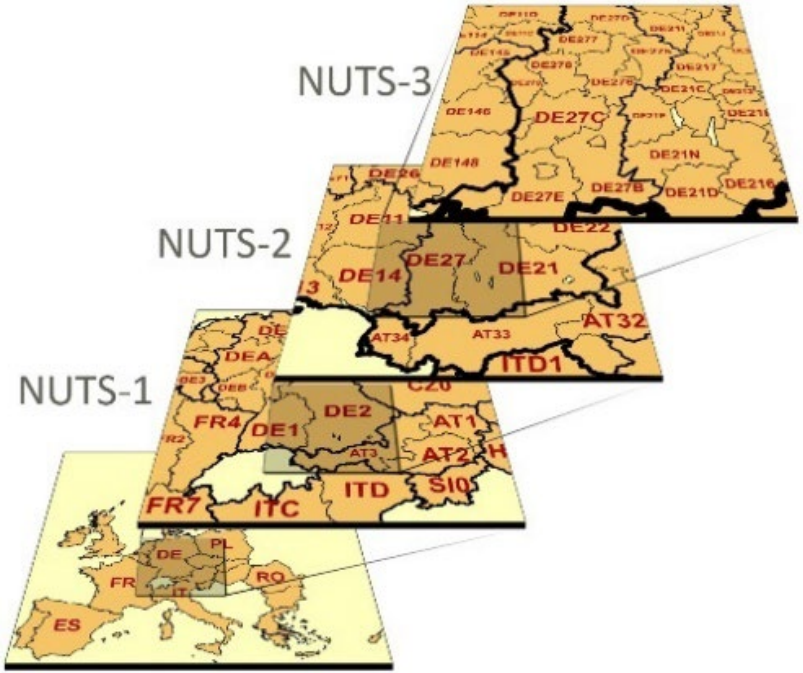

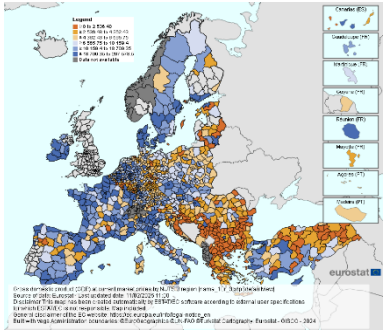

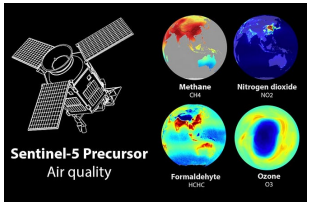

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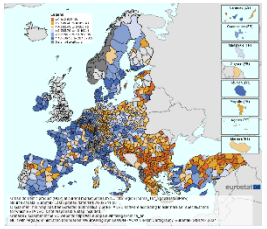

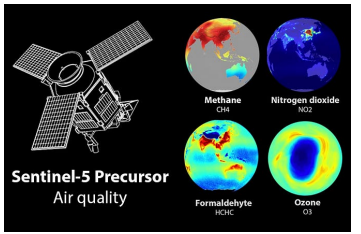

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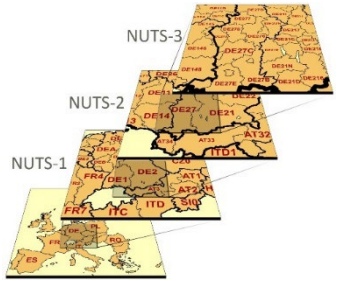

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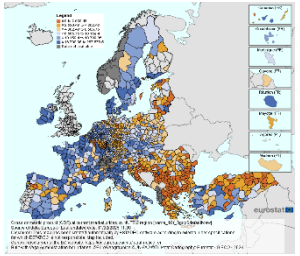

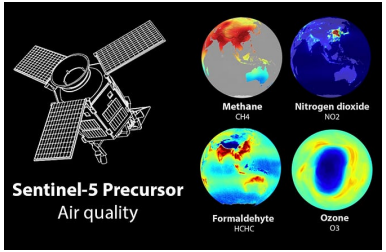

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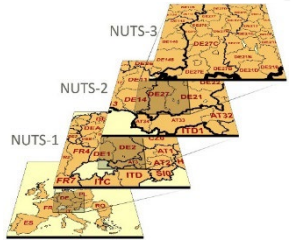

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Methodology

$$API = \sum (AQS_{Pollutant,i} \times Weight_{Month,i})$$

$$GDP' = 1 - \frac{GDP_{NUTS3} - GDP_{Min}}{GDP_{Max} - GDP_{Min}}$$

$$AII = API \times \frac{GDP'}{population}$$

Dashboard demo

Go to dashboard:

Thank you for listening!

Chris, Athithya and Shaya
Statistics Netherlands