

FROM CLIMATE INFORMATION TO CLIMATE SERVICES

Stakeholders Meeting, 25 September 2017

Session on Air Quality

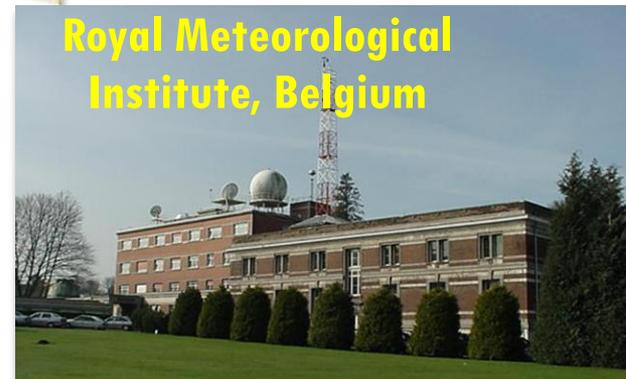
Jenny
Stavrakou

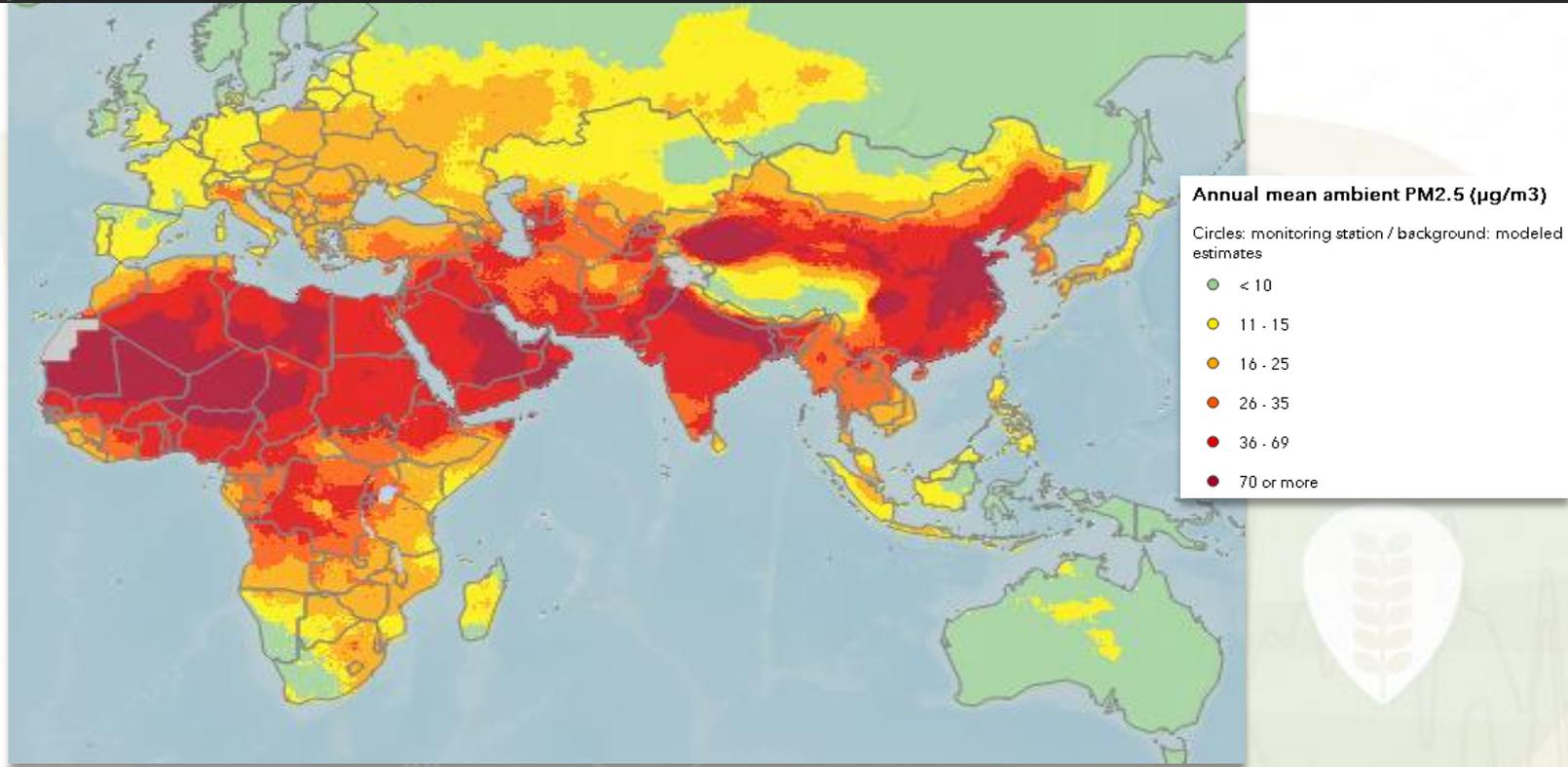


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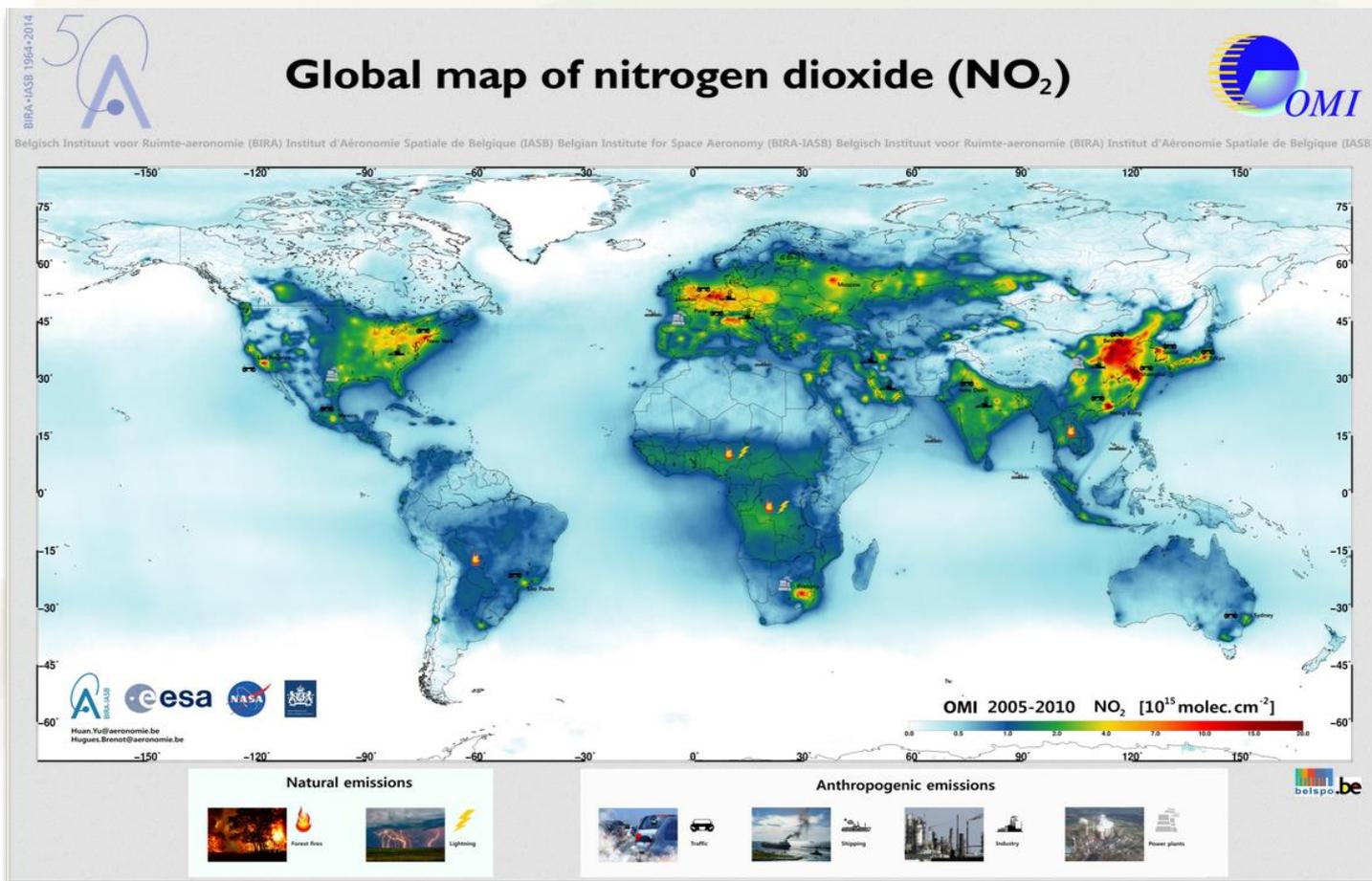
Royal Meteorological
Institute, Belgium





- *92% of world population lives in places where air pollution exceeds safe limits, WHO says*
- *Air pollution : 4th largest threat to human health, leading environmental cause of death*

- In Europe, air pollution causes $\sim 450,000$ premature deaths every year, EEA warns, EEA 2016 : NO_2 impact equivalent to 70,000 premature deaths a year, ground $\text{O}_3 \sim 17,000$ in EU



Long-term EU objective:
 “achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment”

- Cost of air pollution in Europe = 10% of Europe's GDP (\$1.6tn), in Belgium : 4.6% of GDP (\$20bn)

Speakers

Maite Bauwens (BIRA-IASB)



Biogenic Emissions into the Atmosphere in Past and Future Climate over Europe

Michael Gauss (MetNO)



From Air Quality Modelling to Air Quality Policy

An van Nieuwenhuyse (WIV-ISP)



Linking Air Quality to Public Health

DISCUSSION

- **Do we need measurements of biogenic VOC emissions in urban environments in Belgium ? Updated inventories of VOC fluxes?**
- **What measures should be taken to improve air quality during heat waves?**
- **Respective benefits from anthropogenic emission reductions and urban vegetation management? Co-benefits for human and ecosystem health?**
- **High resolution atmospheric models ? Ability to reproduce the observations of chemical compounds, contribution of biogenic VOCs to the levels of ozone and PM, predict future evolution**
- **What is needed from knowledge about health effects to actual measures, what is the price we are ready to pay for a better quality of life ?**
- **How can we improve the science-policy interface, e.g. through updated advise on air quality legislation (short/long-term measures, green scenarios, etc.)**