



GLOBEEMISSION

GlobEmission (ESA DUE program)

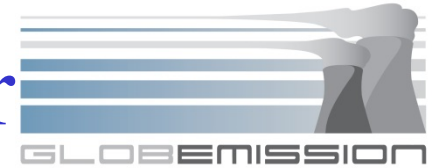
Project by KNMI, BIRA-IASB, FMI, TNO, VITO



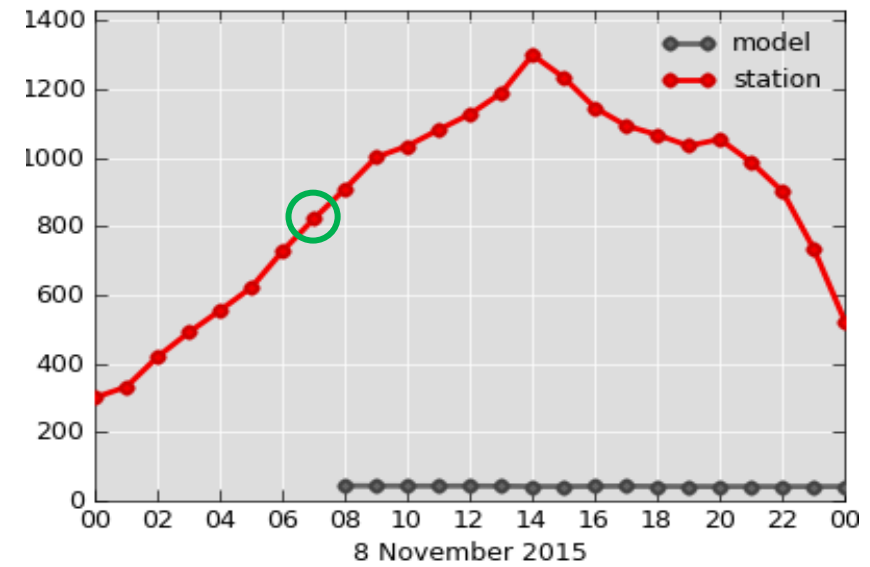
Royal Netherlands
Meteorological Institute



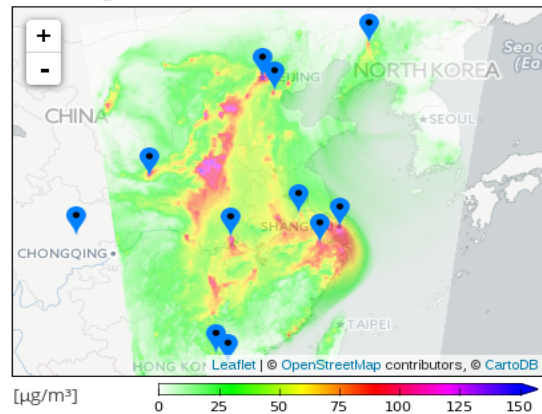
Air quality Shenyang 8 November



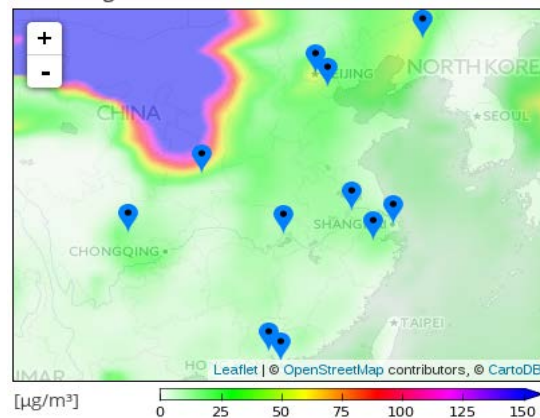
Xinhua News agency: Shenyang reported severe air pollution on 8 Nov., with the reading of PM2.5 at 7 a.m. was 864.



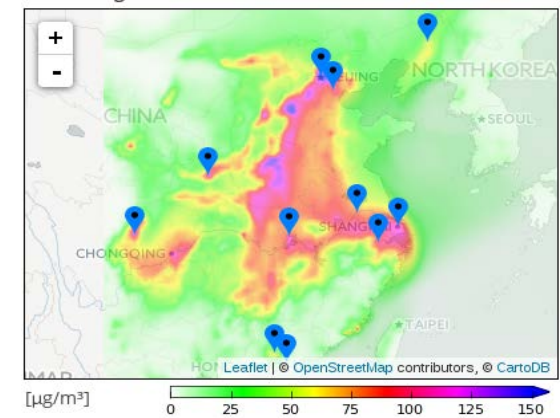
24h average of PM2.5



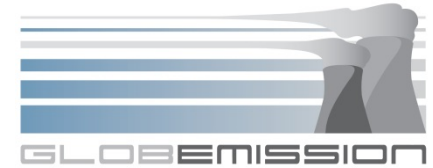
24h average of PM2.5



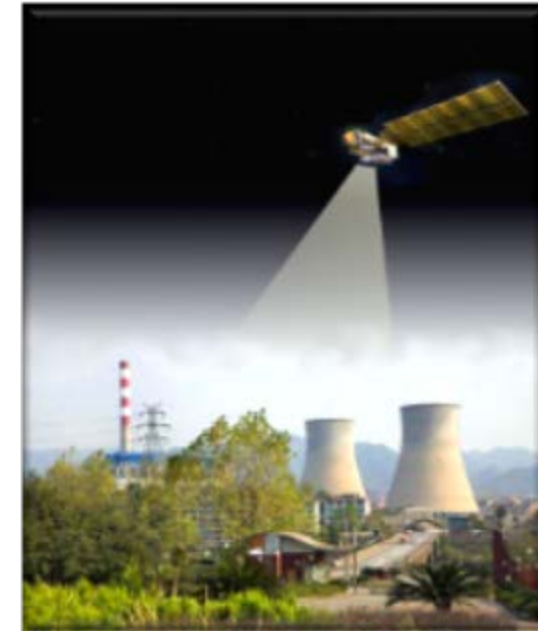
24h average of PM2.5



Scope of GlobEmission



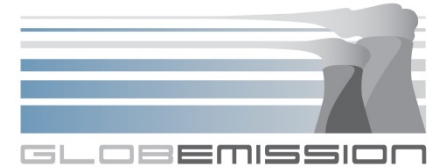
- Within GlobEmission emission estimates derived from satellite observations are developed.
- Main advantages:
 - spatial consistency and high temporal resolution
 - identifying flaws in existing inventories
 - monitoring of emission changes, trends & new spots
 - rapid availability to users
- They provide complimentary information to bottom-up emission inventories



DUE project in 2011-2016



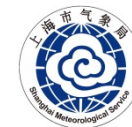
Committed end users



- European Environmental Agency ?
- LATMOS, France
- Satellite Environment Center of the Chinese Ministry of Environmental Protection
- Indian Institute of Tropical Meteorology
- South African National Space Agency + South African Weather Service
- National Institute for Environmental Studies, Japan
- Qatar Environmental & Energy Research Institute
- Inha University, Korea
- Shanghai Meteorological Service, China



INHA UNIVERSITY



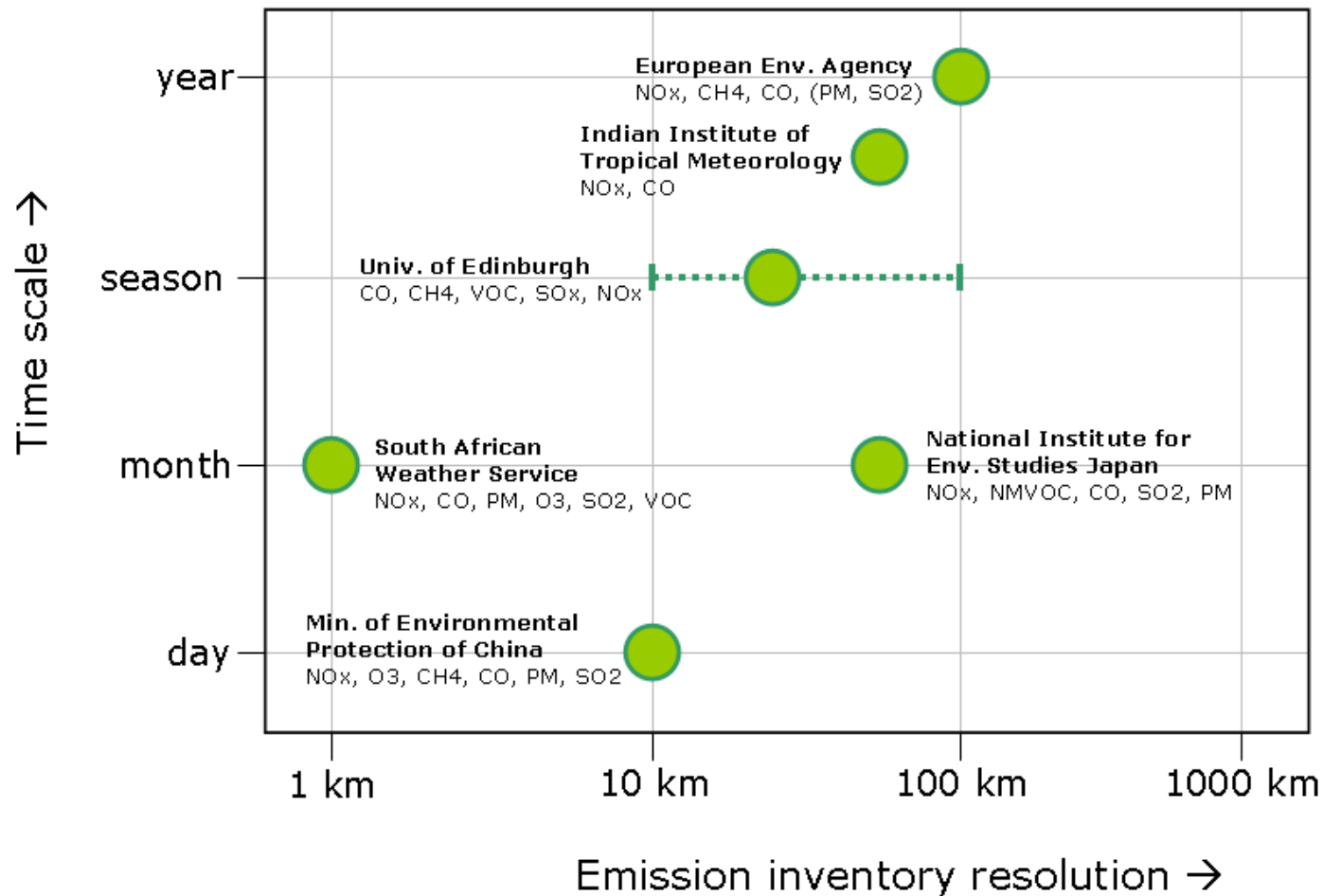
New interest to participate as user:

- Main Geophysical Laboratory (Russia)
- Environmental Defense Fund (USA), methane emissions
- GEIA: inclusion of GlobEmission in ECCAD
- ...

User Requirements: Temporal/Spatial



- Species: NO_x, CH₄, CO, NMVOC, SO₂, PM, O₃
- Accuracy: better than 30% - 80 %

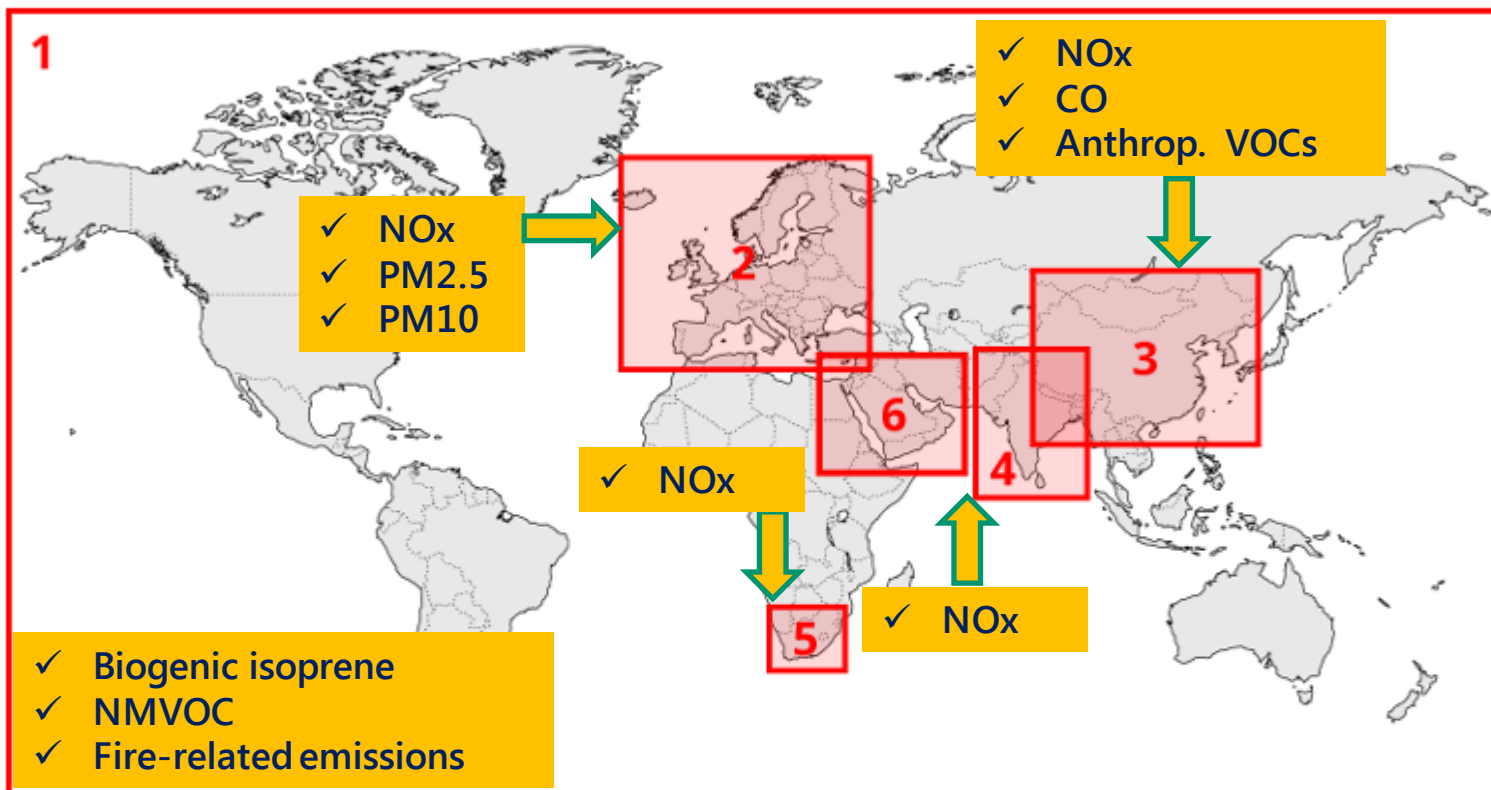


Data portal: www.globemission.eu



Select emission data area:

[View all datasets](#)



World
[fire-related emissions](#),
[NMVOC](#), [biogenic isoprene](#)



Europe
[NO_x](#), [PM_{2.5}](#), [PM₁₀](#)



East Asia
[NO_x](#), [VOC](#), [agricultural CO](#)



India
[NO_x](#)

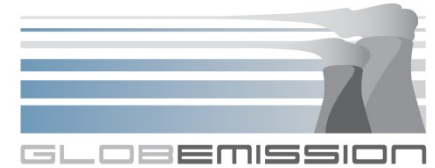


South Africa
[NO_x \(hires\)](#)



Middle East
[NO_x](#)

Themes



- Global emissions
 - Fires and Biogenic
 - Aerosols
- Regional emissions
 - Europe
 - East Asia
 - South Africa
 - Middle East (day 2)