emep

Co-operative programme for monitoring and evaluation of the long-range transmissions of air pollutants in Europe

Norwegian Meteorological Institute

CAMS urban increment

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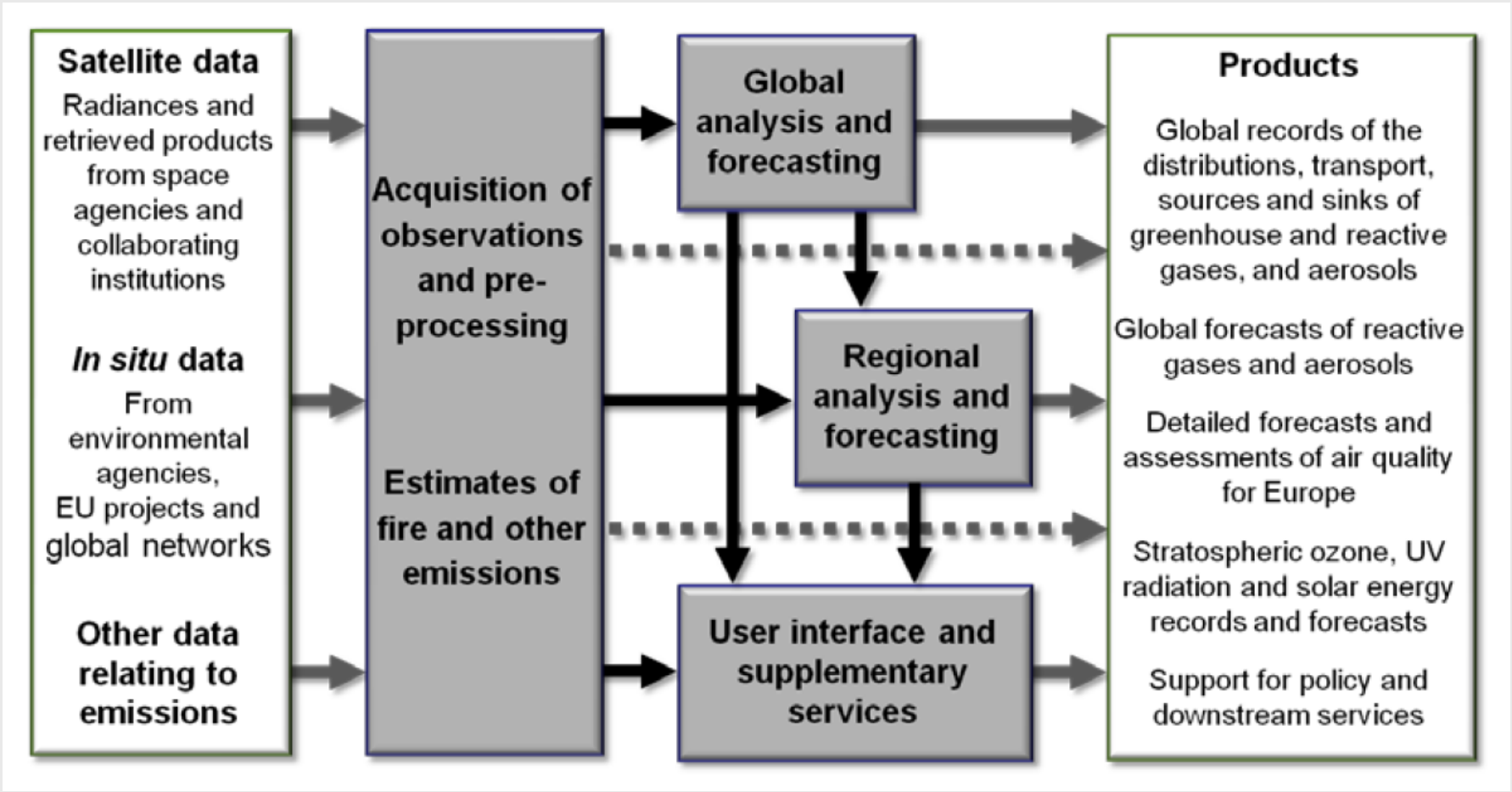
What is CAMS? (Copernicus Atmosphere Monitoring Service)

Input *CAMS* *Output*



Air Quality & Atmospheric Composition

Climate Forcing

Ozone Layer & UV

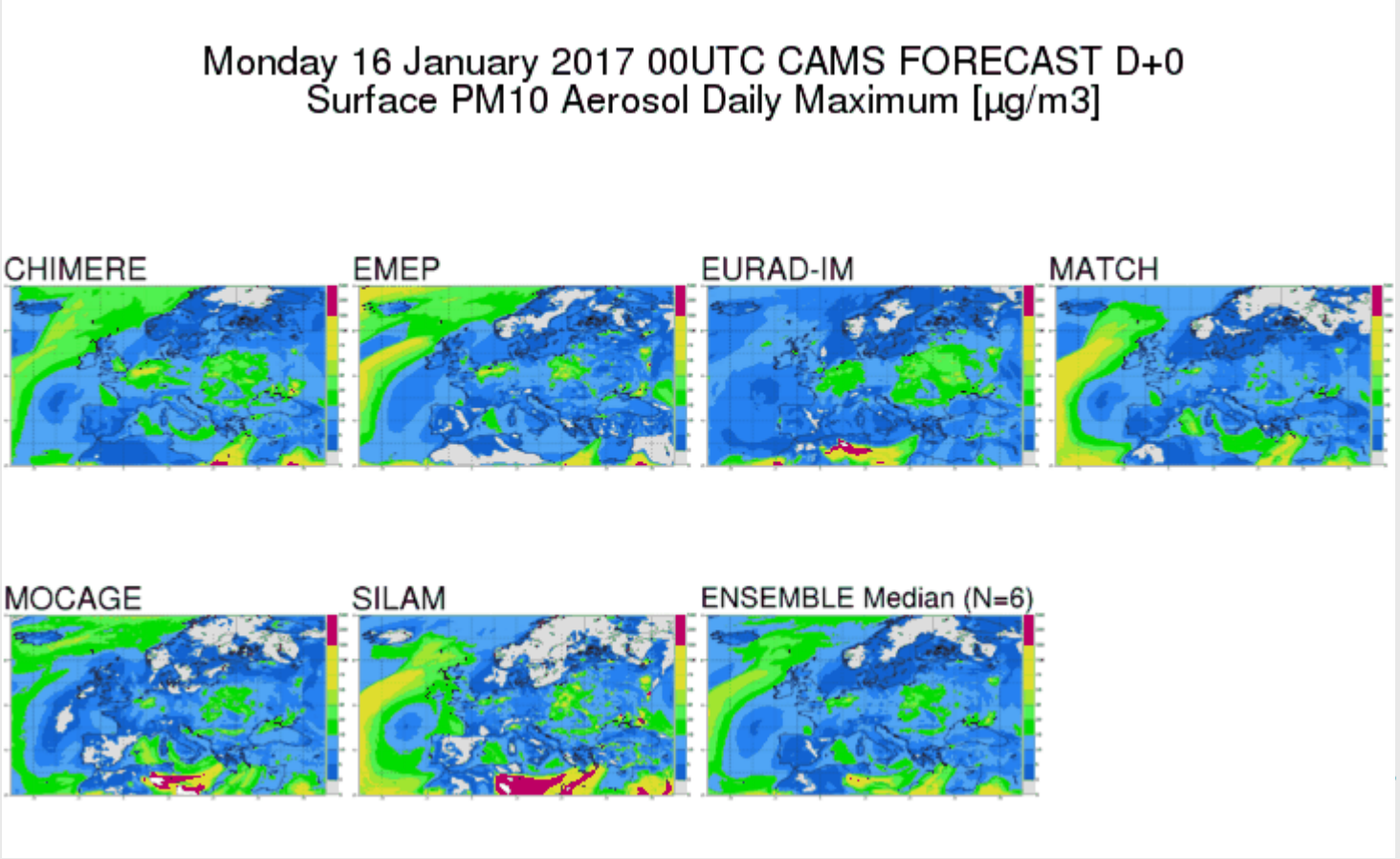
Solar Radiation

Emissions And Surface Fluxes

← Building blocks of CAMS

CAMS 50 ‘Regional production’ (Oct 2015->)

- The ‘flagship’ of CAMS – chemical weather forecast
- EMEP is 1 out of 7(10) models
- Daily forecasts and analyses (data assimilation), evaluation, annual reanalyses, model development

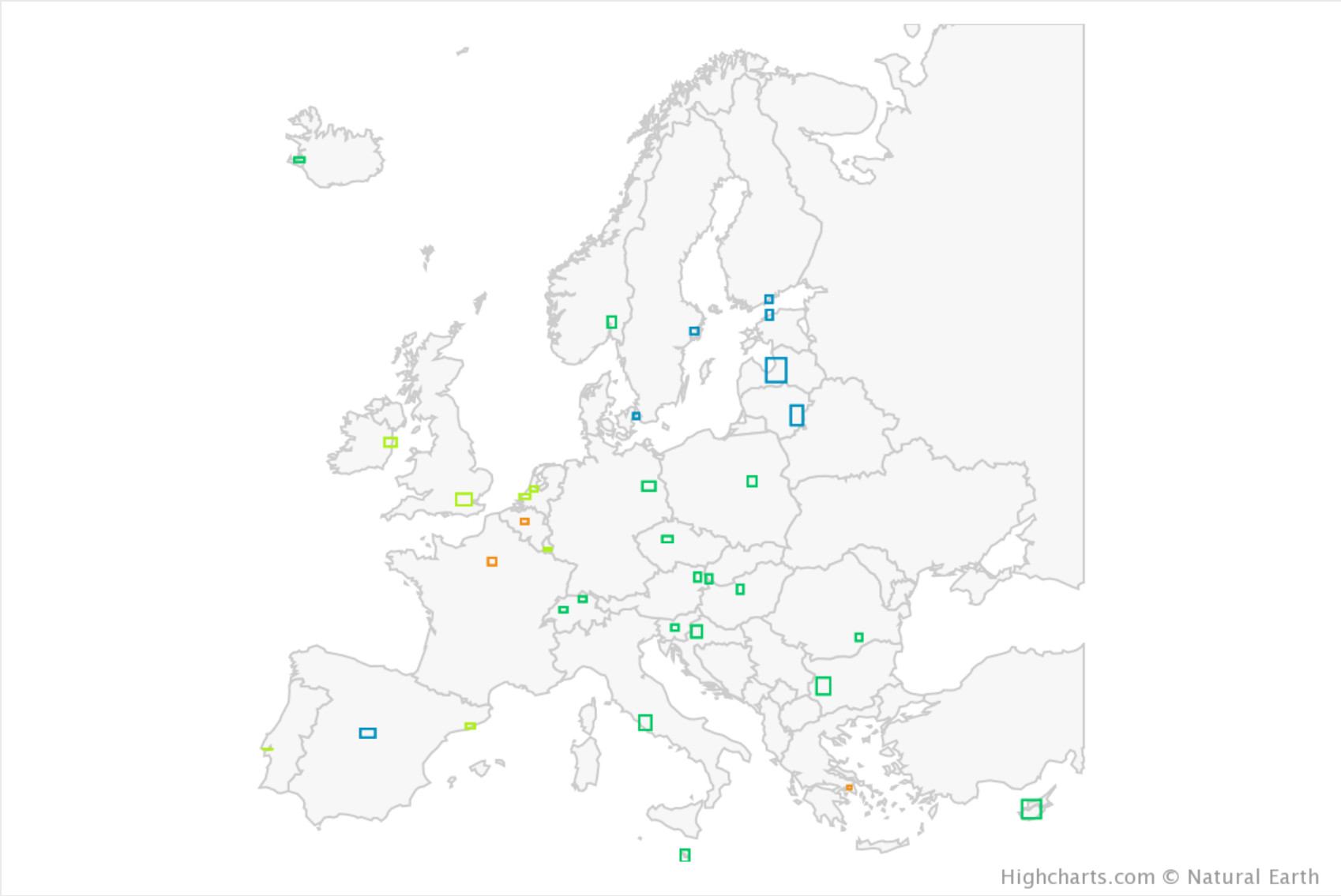


CAMS71 – Policy products and 'the city-SR Service'

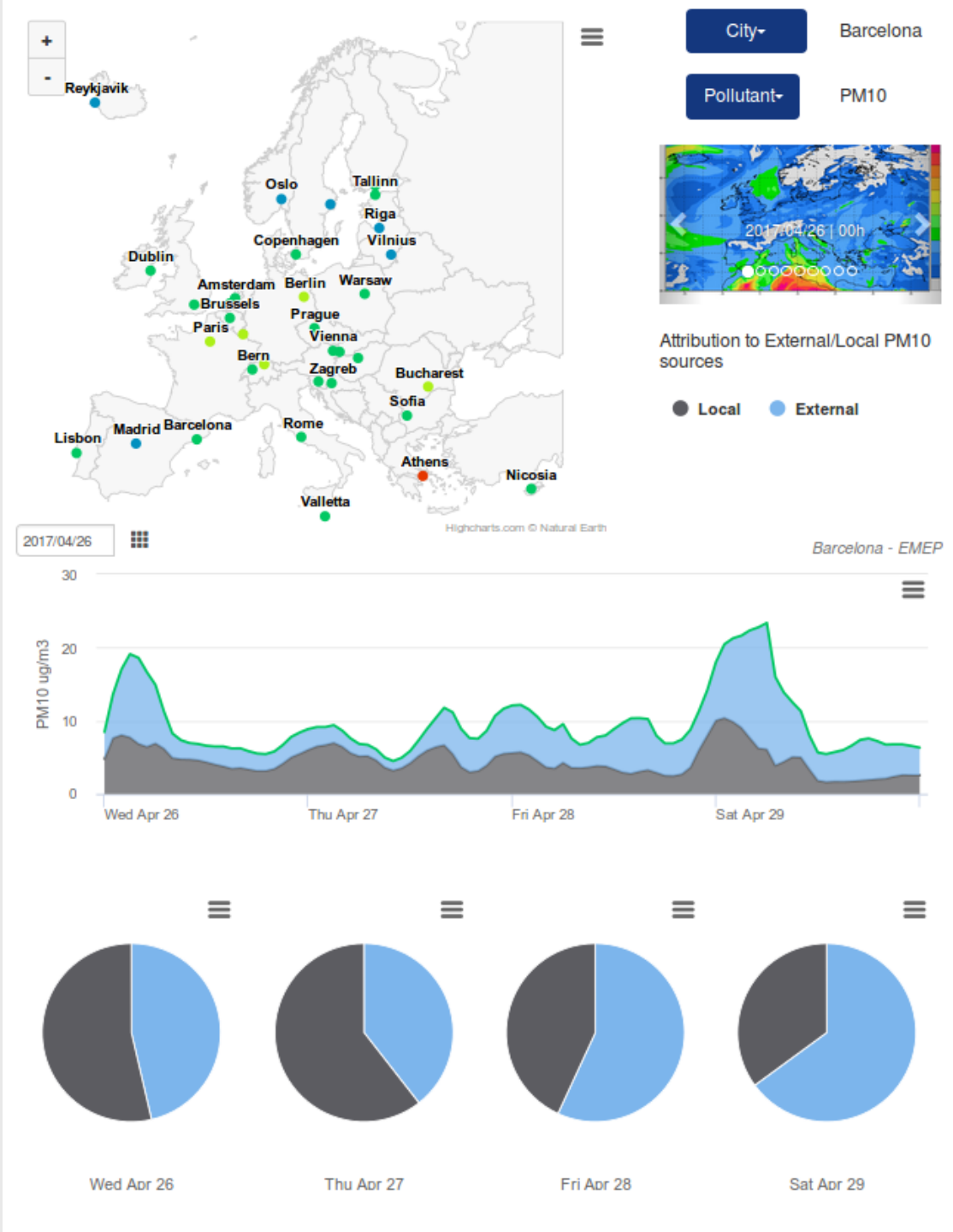
- Estimate how much of the pollution origins inside the city/outside the city
- Available for PM10 (PM2.5) and O3 (from EMEP model)
- Forecast every day for 4 days (0.25x0.125 degree)
- All EU capitals + selected cities
- Area for a city: Administrative area for a city from gadm.org

- Webpage: http://policy.atmosphere.copernicus.eu/CitySourceAllocation.html
- For selected episodes (activated by ECMWF): SR runs for countries for contribution of emissions in countries to pollution in a city (for EMEP model and LOTUS EUROS). Activated 3 times since August 2016

Map of areas used



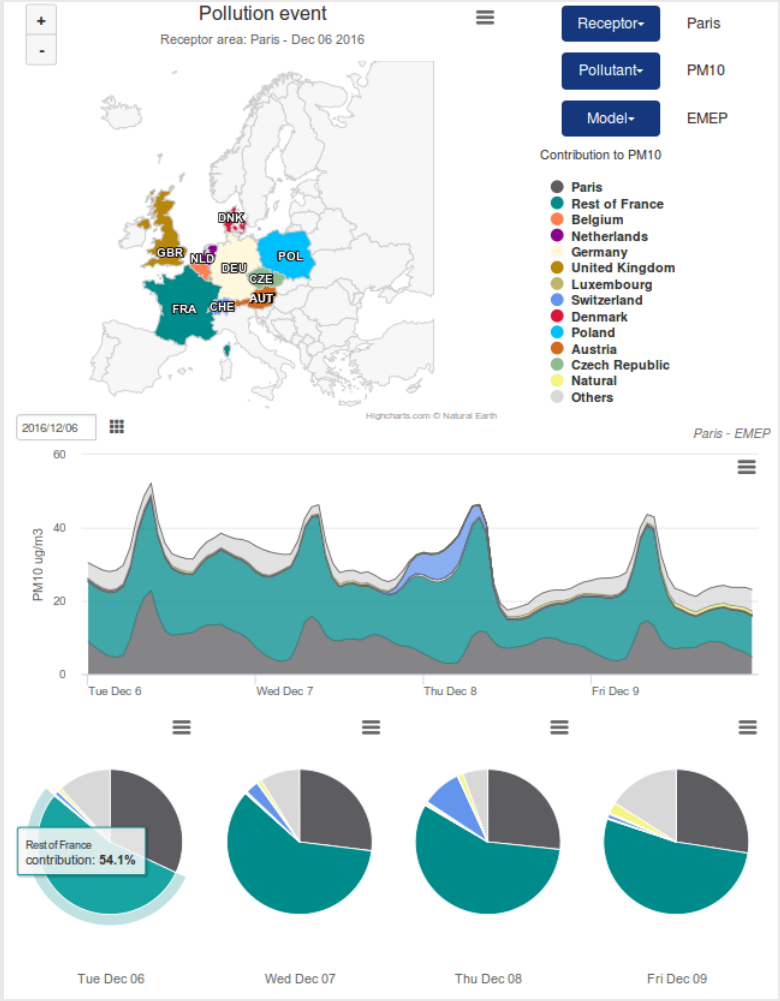
Example – Barcelona



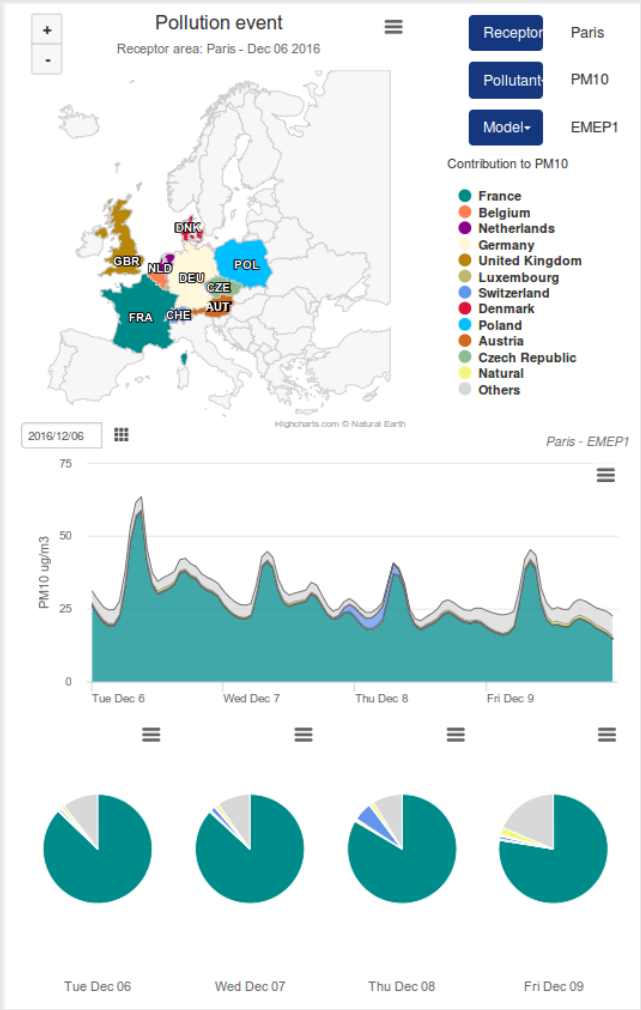
Receptor region here is the adm. area, but could be a site

The Dec-16 episode in Paris

EMEP, adm area of city



EMEP, 1 grid



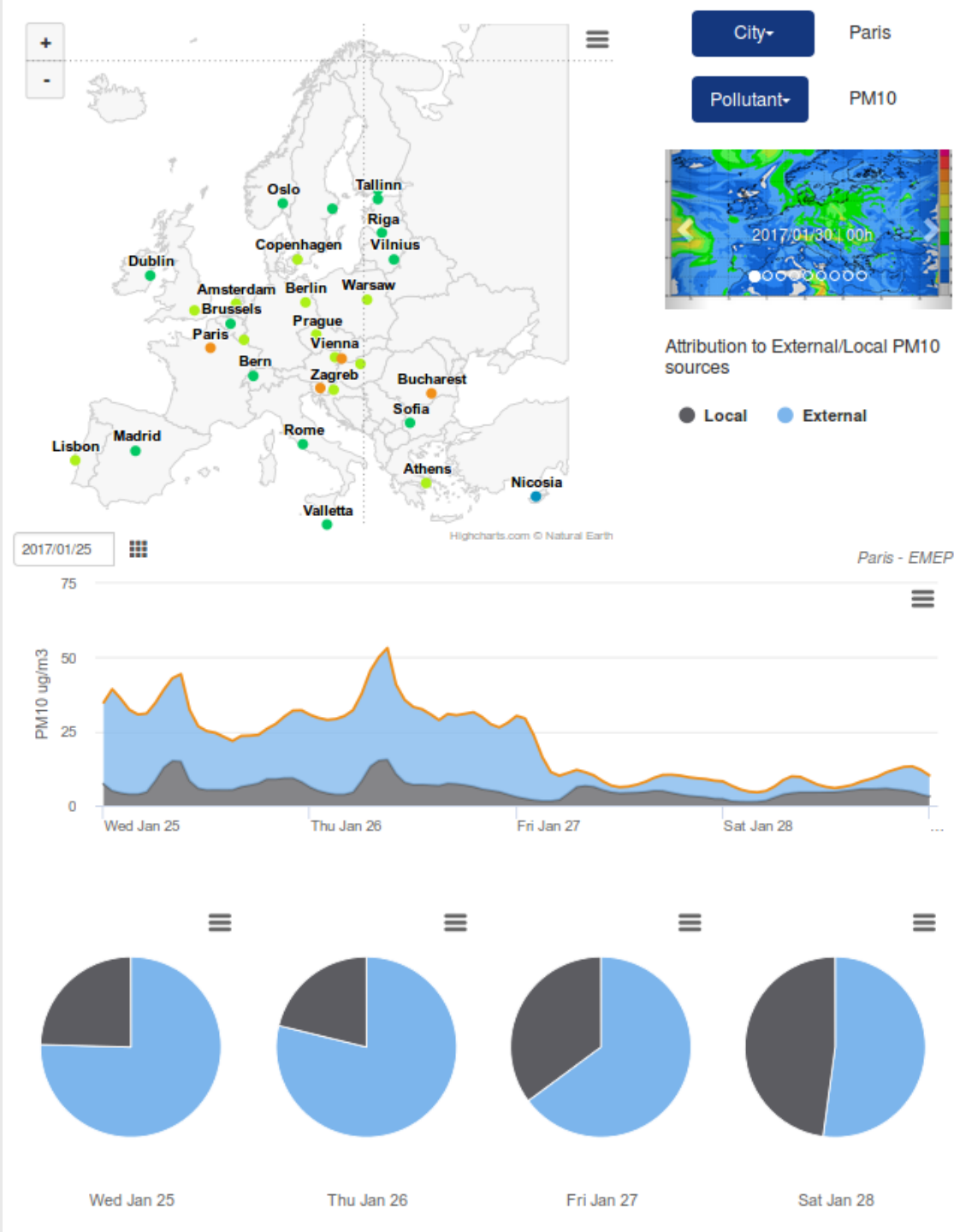
Choice of ‘city area’ matters

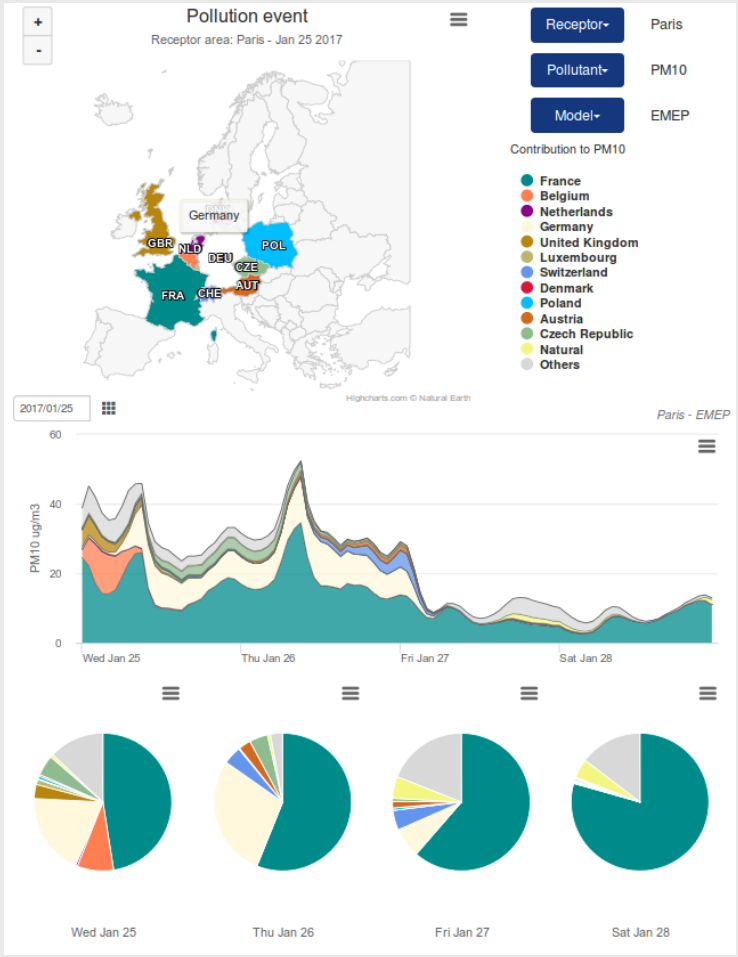
What can be done for the 'Twin site exercise'?

- Operational since summer 2016, results stored
- Re-run for selected periods of time: Can look at monthly (***seasonal***) or even finer time resolution
- Agree on how to define the city area
- Can look at ***contributions from different sectors***
- Can look at contribution from ***city and outside city***, but could also add regional contribution
- Can look at contributions of ***different chemical components*** (e.g. EC/OC, different SIA's etc)

The End

CAMS71 ‘Policy Products’





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Example – Prague