

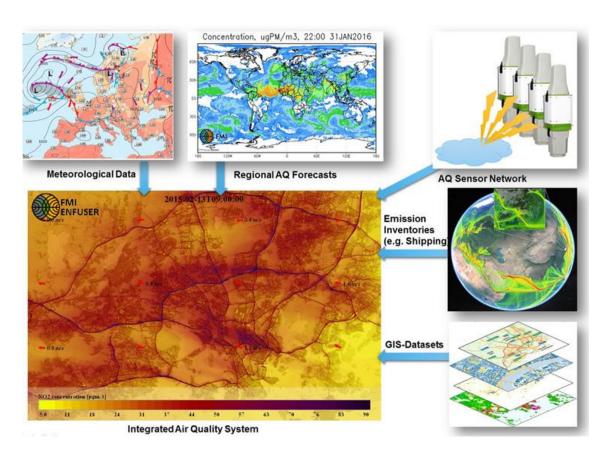
Pauli Paasonen, INAR-Physics, University of Helsinki, Finland

### **HELSINKI – CAPITAL OF CLEAN AIR**





# Helsinki Air Quality observation, visualization and forecast system



#### 4 levels of observations:

- Supersites (2)
- Authority network (10)
- Mid-cost network (15)
- Low-cost network (>50)

#### **Output:**

AQI + concentrations:

- Observed: PM<sub>2.5</sub>, PM<sub>10</sub>, LDSA, NO<sub>2</sub>, O<sub>3</sub>, SO<sub>2</sub>, CO.
- Derived variables: BC, PN,
  CS, H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub>...

City scale, 12 m resolution Current day (midnight to midnight)





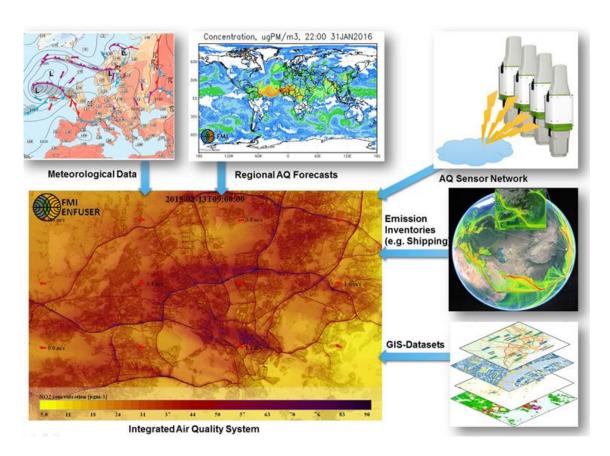








# Helsinki Air Quality observation, visualization and forecast system



#### 4 levels of observations:

- Supersites (2)
- Authority network (10)
- Mid-cost network (15)
- Low-cost network (>50)

#### **Output:**

#### AQI + concentrations:

- Observed: PM<sub>2.5</sub>, PM<sub>10</sub>,
  LDSA, NO<sub>2</sub>, O<sub>3</sub>, SO<sub>2</sub>, CO.
- Derived variables: BC, PN,
  CS, H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub>...

City scale, 12 m resolution Current day (midnight to midnight)













### Low-cost sensors in implementation

- Mobile sensors distributed to volunteer citizens this week
- Stationary sensors will follow

















## Nanjing AQ Testbed

- 9 month extension to the project
  - End on 30.6.2020

- Some Vaisala AQT420 sensors set up in Nanjing
- ENFUSER model works well with data from Chinese Ministry of Environmental Protection and the implemented AQT-sensors







