# Baltimore Open Air

Anna Scott April 5, 2017

### About us

Baltimore Open Air is a community driven (and funded!) air quality monitoring project using open source & off-the-shelf, low-cost technologies to develop a network of air quality monitors.

## Goals

### **Engineering**

Design and build 300 air quality monitors, manage the data

#### Science

Use results to quantify spatial variability in air quality

#### Outreach

Work with citizen scientists and community members to build and deploy the network

# A new monitoring paradigm that

**Prioritizes spatial information** 

over point-source accuracy

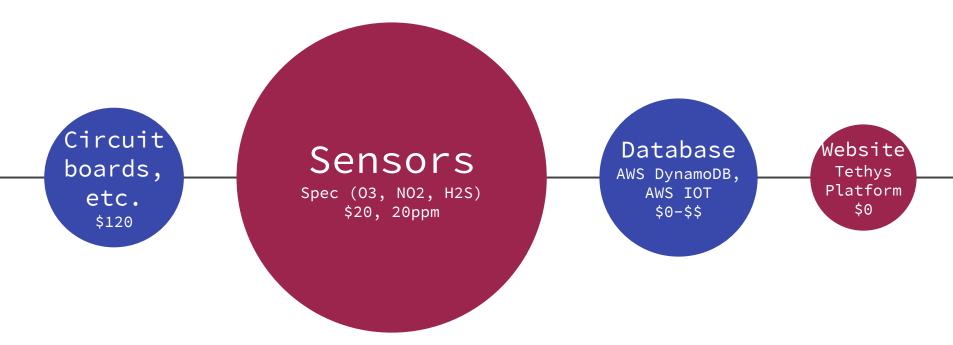
Considers the accuracy of a network

rather than point source accuracy

- 1) Ensure sensor reliability through cross-calibration
- 2) Ensure network reliability

by clustering monitors and co-locating with 'reference' networks

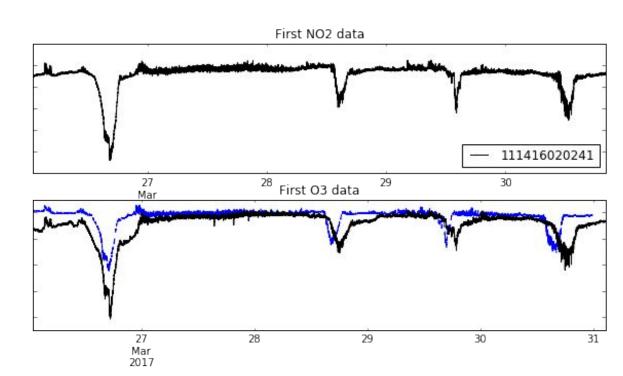
## Technological Specifications and costs\*



\*excluding labor

### First data

Uncalibrated, not corrected for cross-sensitivity











### **Non-profit Partners**

Clean Water Action, Sierra Club, Baltimore Underground Science Space, Station North Tool Library, Greater Pasadena Council, Koolhof Earth, and more

### **Academic Partners**

4 schools at Johns Hopkins University (Arts and Sciences, Engineering, Public Health, and Medicine) and E2SHI institute









### Contact

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