

Environmental Information



# EN2017

## **E-ENTERPRISE ADVANCED MONITORING STRATEGY AND IMPLEMENTATION TEAM**

*Ben Grumbles, Maryland MDE*

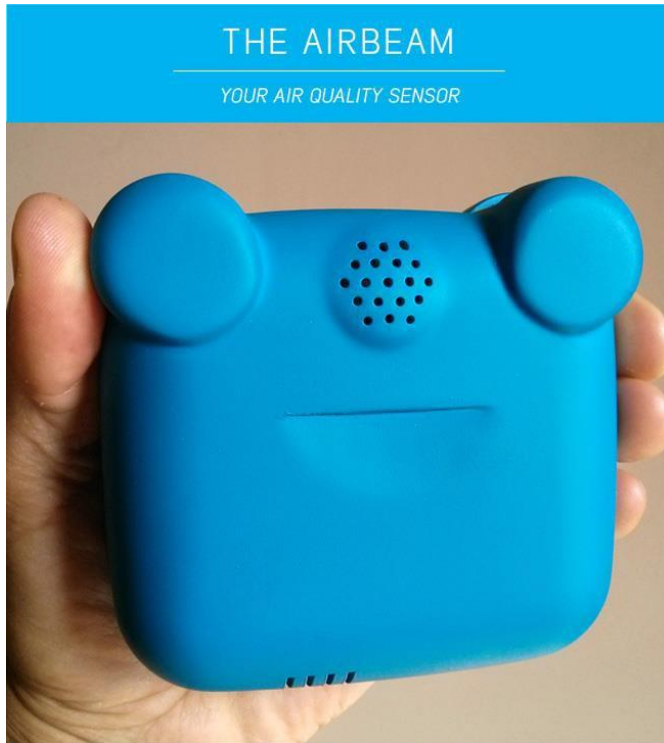
### **2017 Exchange Network National Meeting**

Innovation and Partnership

**May 15 – May 18  
Sheraton Philadelphia Society Hill Hotel  
Philadelphia**

**#EN2017  
<http://www.exchangenetwork.net/en2017>**

# Rapid Technological Change



# Emerging Technology Characteristics

## Current Technology

- ▶ Expensive
- ▶ Often snapshot
- ▶ Big footprint with dedicated power source
- ▶ May require expertise to use
- ▶ Often delays for lab analysis
- ▶ Established QA protocols
- ▶ Collected by gov, industry, researchers
- ▶ Data stored and explained on gov websites

## New Technology

- ▶ Low Cost
- ▶ Often continuous
- ▶ Small footprint or mobile, battery or solar power
- ▶ Perhaps easy-to-use
- ▶ Real-time w/o lab analysis
- ▶ QA protocol gaps
- ▶ Collected by communities and individuals
- ▶ Data shared and accessed on non-governmental sites

# Big Opportunity, Many Challenges

Potential to transform environmental protection

Challenges impede effective use:

- ▶ Citizens, others are using new devices but meaning of data is unclear - uncertain quality of both sensors and data gathering
- ▶ Agencies are asked about technology by the public
- ▶ Public may misinterpret results - compare short term readings with standards based on longer term averages
- ▶ Agencies may not know which new technologies are appropriate for our use.

March 2015 EELC created an EPA-State team to identify areas in which EPA and states should collaborate to prepare for opportunities and challenges.

The team is currently chaired by David Hindin (EPA OECA) and Ben Grumbles (MD DEP)

# 5 Recommendations Support 2 Goals

Goals and recommendations were formulated by a team of EPA and state representatives.

Goal 1: Accelerate adoption by environmental agencies

- ▶ Technology scanning and screening state EPA network to help us know which equipment might meet our needs. (Team 2)
- ▶ Leaning the approval process to speed up adoption of “gold standard” technology for regulatory use (Team 5 - *implemented internally by EPA program offices*)

Goal 2: Strengthen quality, facilitate citizen science

- ▶ Third-party process for certifying sensors will help encourage high quality tools to be used (Team 1)
- ▶ Guidance on data interpretation will minimize confusion, maximize value of privately-collected data (Team 3)
- ▶ Data exchange standards will make data from all sources interchangeable, enhance value of external data collection (Team 4) 5

# Team 1: Options and Feasibility Analysis for Independent Third Party Certification Program

Charge: Analyze options and feasibility of creating an independent, third party, voluntary program to evaluate devices new to the market

Status: This team reviewed existing third party programs within and external to EPA and designed three options that may work for a Third Party Certificate Program.

- ▶ Three options were presented to the Steering Committee
- ▶ Currently working to modify the selected option based on the Steering Committee's recommendations.

Goal: To create a much-needed framework to help users of advance monitoring identify quality sensors.

# Team 2: Establish EPA/State Technology Screening and User Support Network

Charge: Form network of EPA/state scientist and engineers to:

- ▶ Identify technologies (scan) to be researched (screened) for further evaluation and potential agency use,
- ▶ Review available data to screen whether a new technology appears to be sound for piloting, and
- ▶ Share information across EPA and states.

Status: Piloting Network with 25 EPA and state participants

Goal: The Network will help state and federal agencies make informed decisions when purchasing monitoring equipment.

## Contact Information:

If you have any questions/comments or would like to join this effort, please contact:

- ▶ Kelly Poole - [kpoole@ecos.org](mailto:kpoole@ecos.org) or
- ▶ James Zimny - [zimny.james@epa.org](mailto:zimny.james@epa.org)

Kristen Benedict will discuss projects 3, 4, and 5.