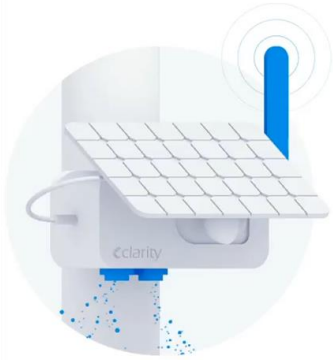




CLARITY @ AIR SENSORS 2019

Market drivers for improving the performance of our solution

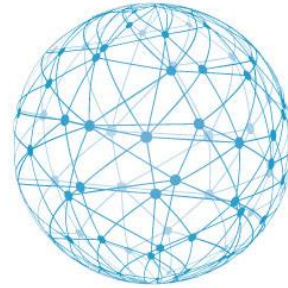
CLARITY AIR QUALITY MONITORING



01

CLARITY NODE

- Particulate Matter
- Nitrogen Dioxide
- Total VOC
- Temperature
- Relative Humidity



02

CLARITY CLOUD

- Sensor and reference air quality measurements repository
- Data quality assurance algorithms



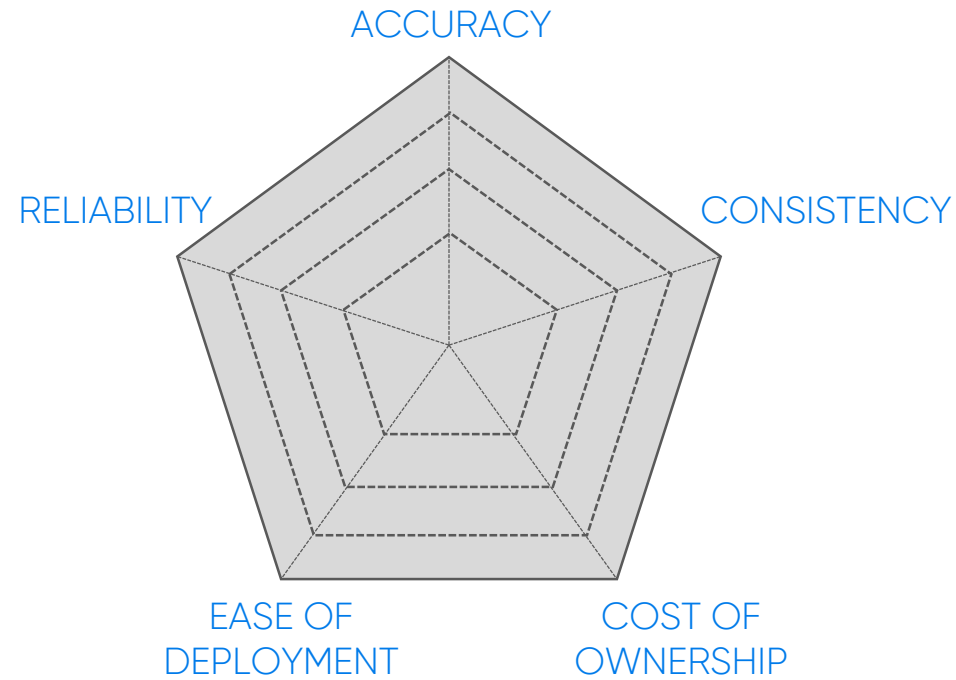
03

CLARITY INSIGHTS

- Data visualization
- Data analysis
- Data download
- Data sharing
- Sensor network management

QUESTION

WHAT IS PERFORMANCE?
From a system perspective



ACCURACY

PROJECT LOCATION: Paris, France

DATA USE CASE: Exposure study and modelling

MAIN REQUIREMENT: Good accuracy



ACCURACY

PROJ
DATA
MAIN



CLARITY NODE-S

Usage pour lequel l'évaluation était la meilleure : surveiller la qualité de l'air extérieur

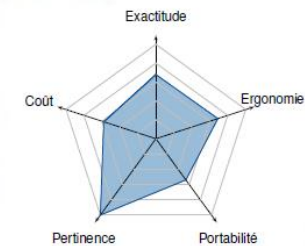
Avis du jury 2018

★★★★☆

Ce capteur multi polluant est conçu pour mesurer la qualité de l'air extérieur. La qualité des données est satisfaisante pour le NO₂ et les PM_{2.5}. Un algorithme Smart Calibration est disponible, élaboré à partir du réseau de surveillance de référence. Il manque néanmoins les particules PM₁₀ et l'ozone pour une surveillance en air extérieure plus complète. L'appareil est facile à installer, discret mais avec un design agréable, et la possibilité d'installer un panneau solaire est un plus. Il est toutefois important de bien lire préalablement la notice avant de configurer et de lancer la mesure. Quelques pertes de données ont pu être observées sur l'une des stations.



Évaluation



Usages évalués :

- en air extérieur
- en air intérieur
- en mobilité

Polluants mesurés

- NO₂ (NO_x)
- TSP
- Particules PM_{2.5}
- O₃
- COV
- CO
- CO₂
- Particules PM₁₀
- Particules PM₁
- Formaldéhyde
- SO₂
- Particules en nombre

Autres mesures

- Température
- Humidité
- Bruit
- Pression
- Luminosité
- Odeurs



EXACTITUDE sur trois capteurs, à partir de la méthode SET (Fishbain & al. 2017)

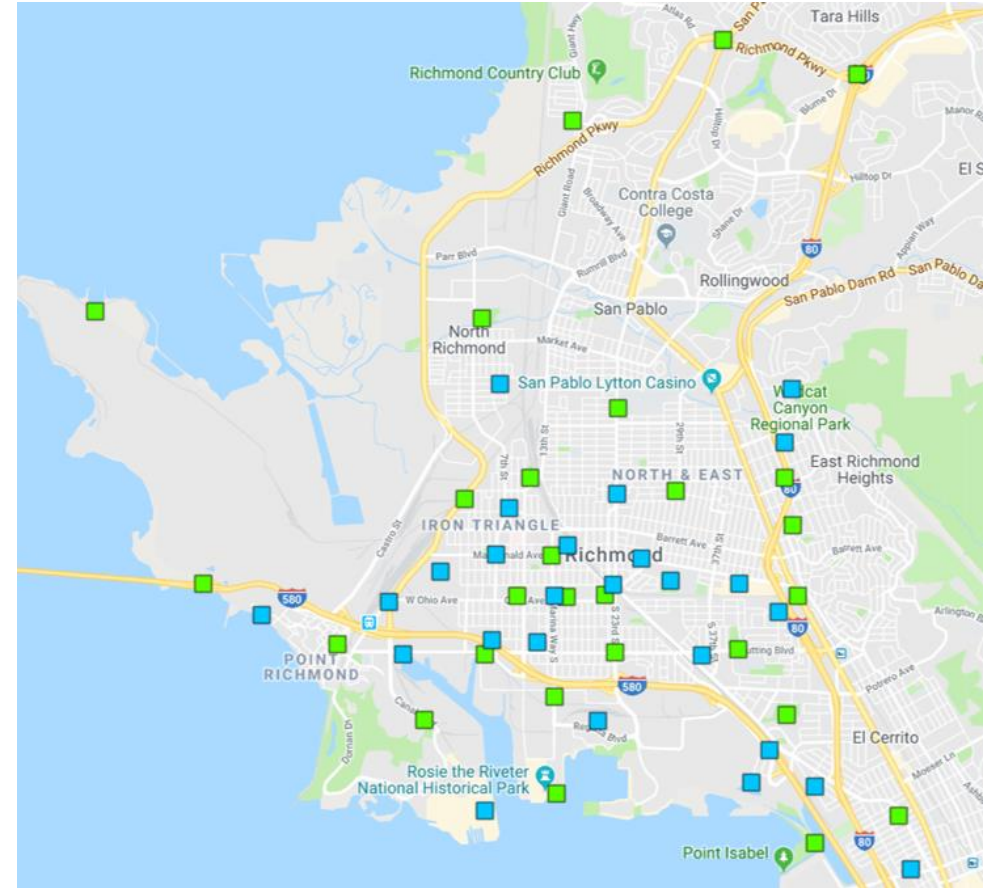


CONSISTENCY

PROJECT LOCATION: Richmond, CA

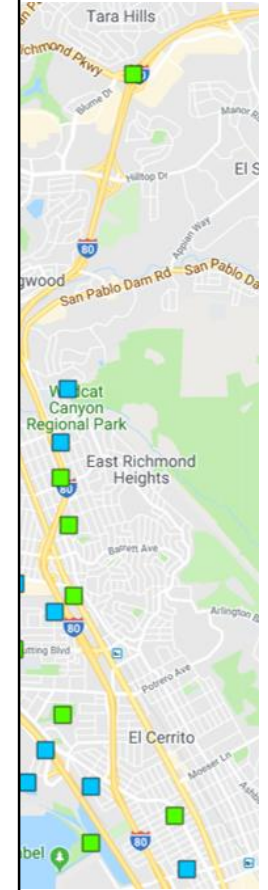
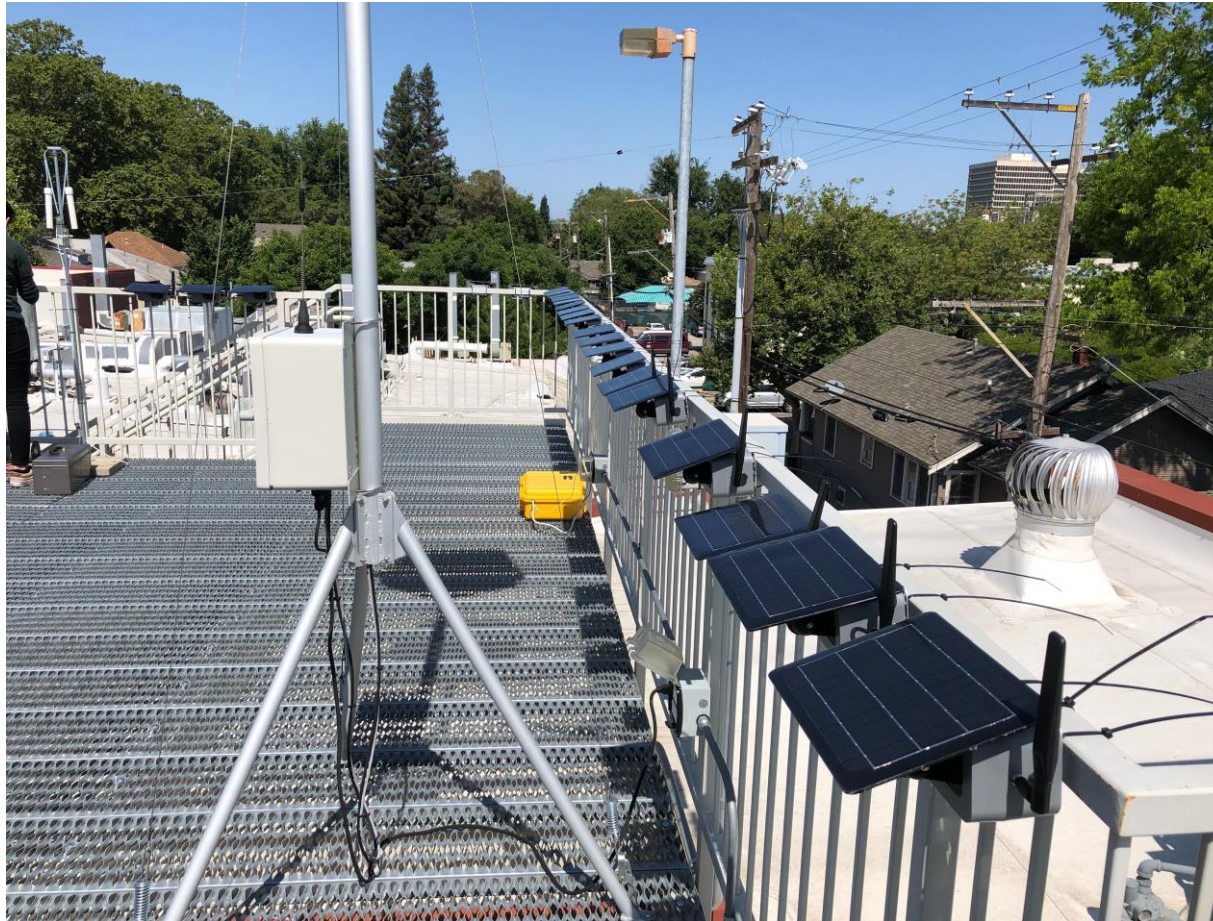
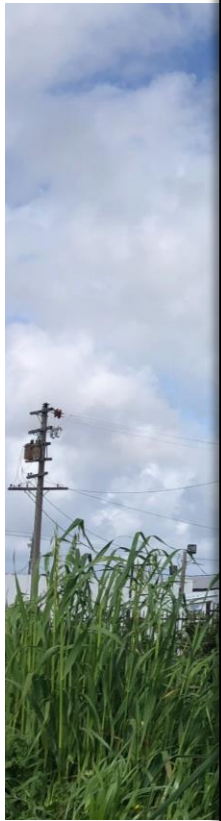
DATA USE CASE: Hotspot detection

MAIN REQUIREMENT: Good device-to-device consistency



CONSISTENCY

PROJECT I
DATA USE
MAIN REQU

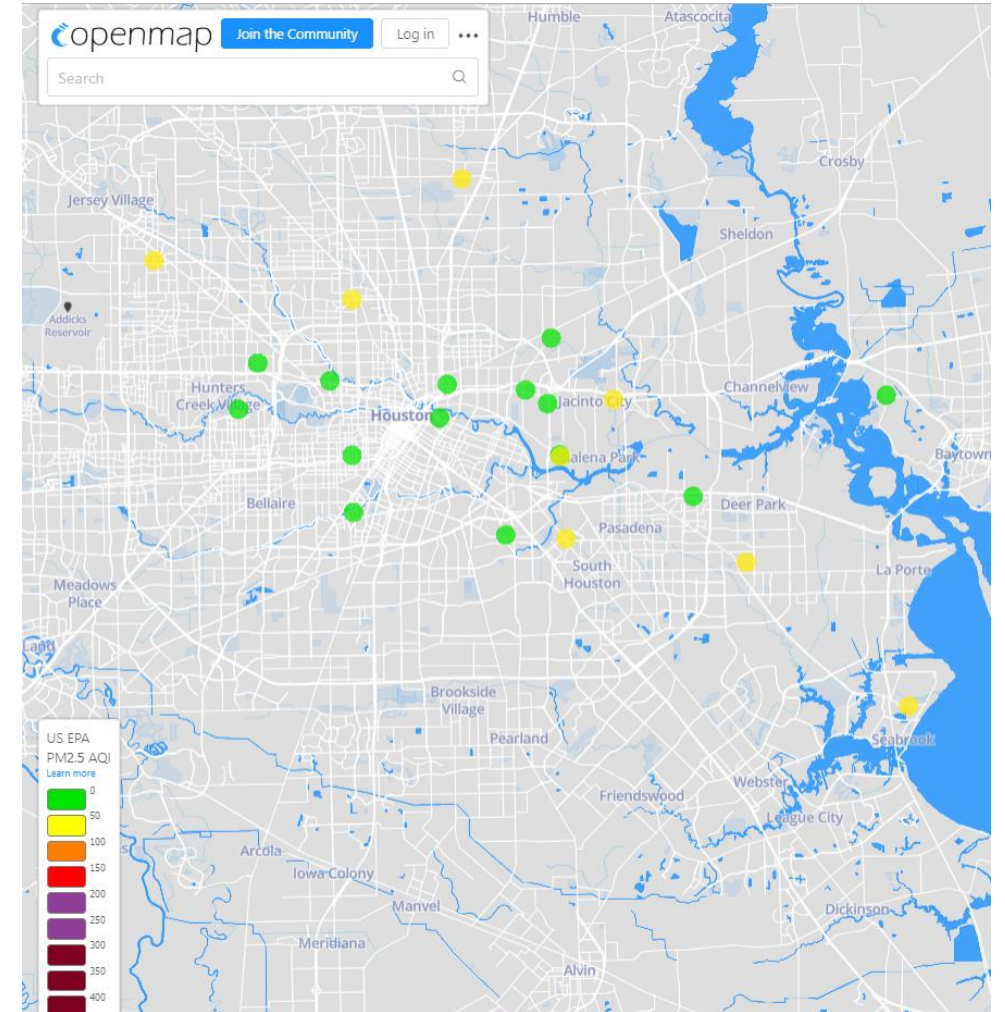


EASE OF DEPLOYMENT

PROJECT LOCATION: Houston, TX

DATA USE CASE: Emergency response

MAIN REQUIREMENT: Fast deployment

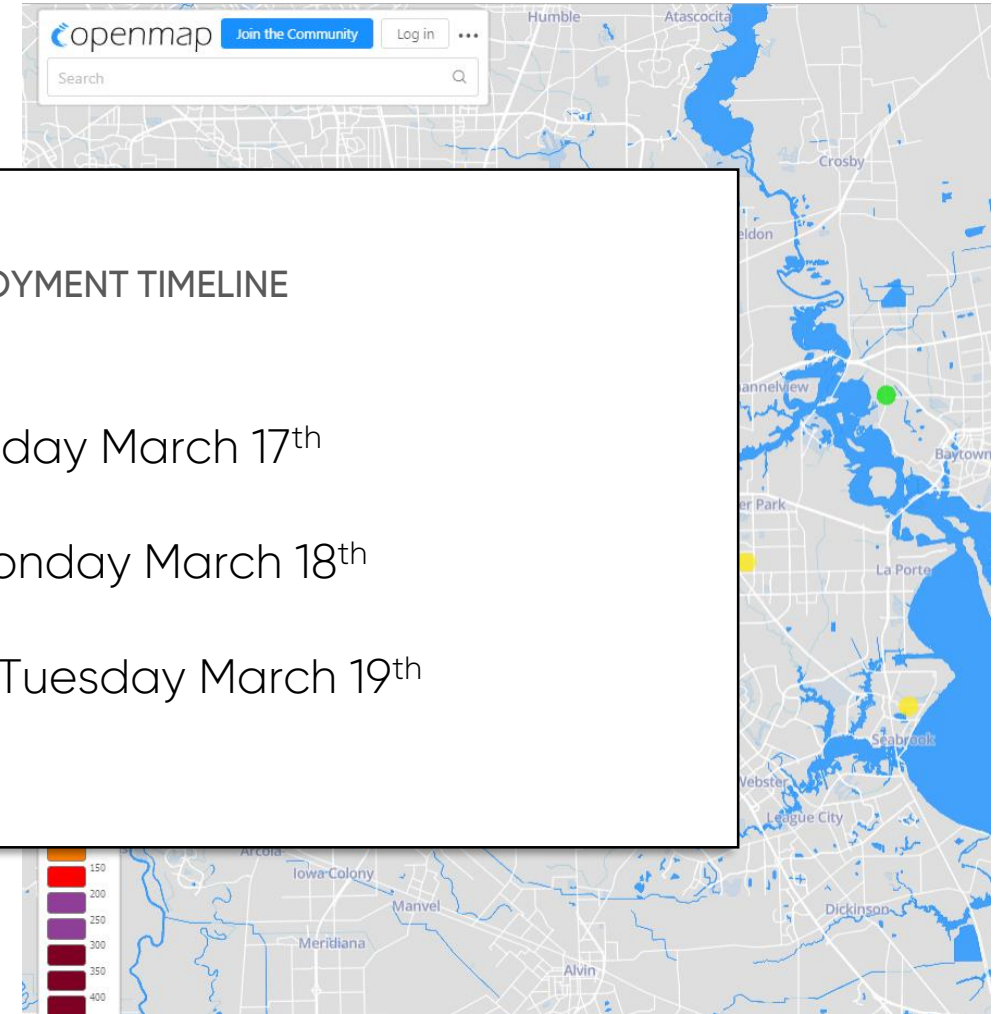
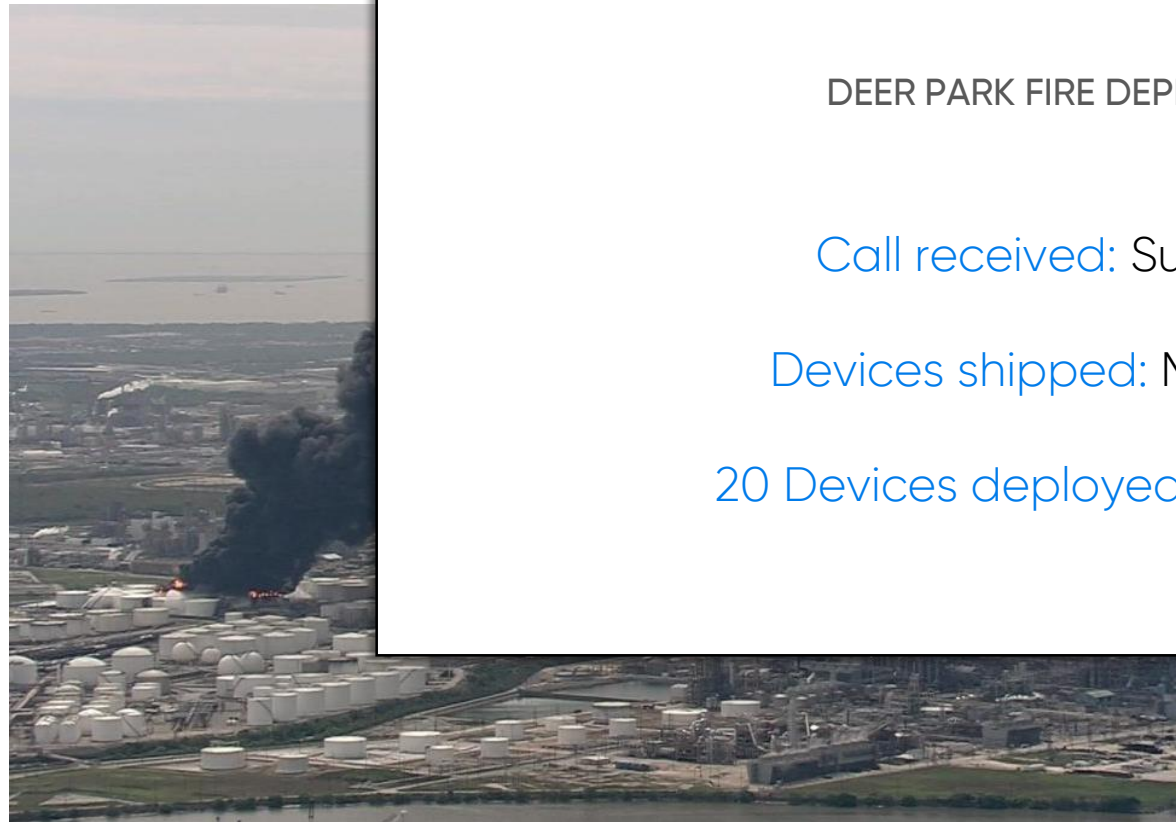


EASE OF DEPLOYMENT

PROJECT LOCATION: Houston, TX

DATA USE CASE: Emergency response

MAIN REQUIREMENT: Fast deployment



DEER PARK FIRE DEPLOYMENT TIMELINE

Call received: Sunday March 17th

Devices shipped: Monday March 18th

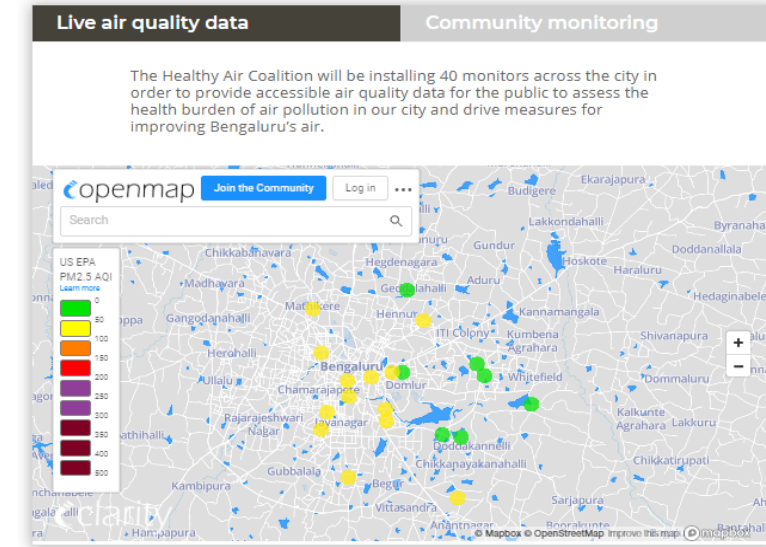
20 Devices deployed: Tuesday March 19th

COST OF OWNERSHIP

PROJECT LOCATION: Bengaluru, India

DATA USE CASE: Awareness generation

MAIN REQUIREMENT: Low cost of ownership



Healthy Air Coalition Bengaluru calls for urgent action on air pollution.

Bengaluru's healthy air coalition, brings together health researchers, heart and lung doctors, public health institutes and patients, concerned about the health risks from Bengaluru's poor air quality. We come together to collaborate on air monitoring initiatives with different communities in the city; to share information and communicate about air pollution & health; to build the capacity of fellow health professionals; and to provide expertise input for air pollution control and reduction measures.

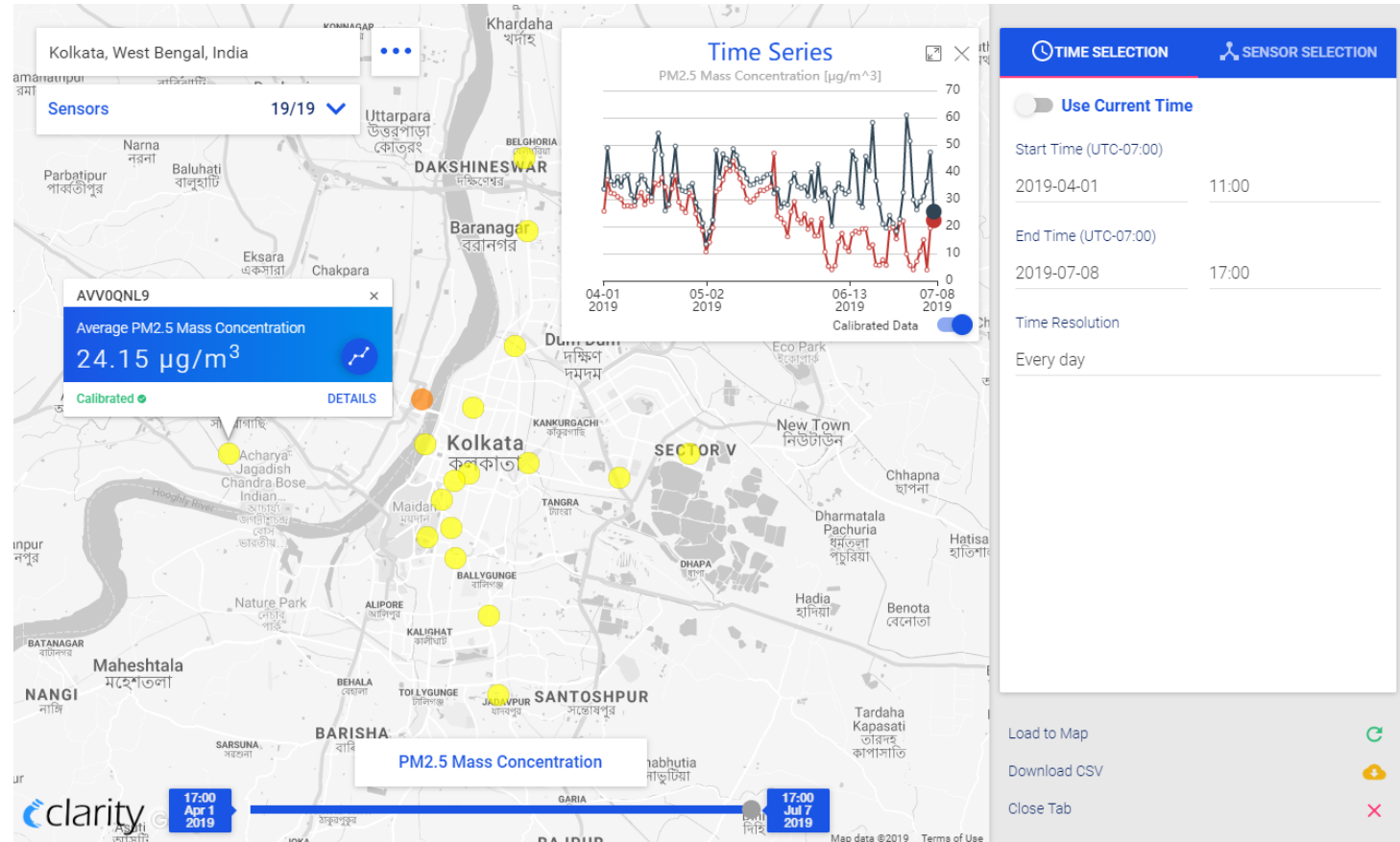
We invite doctors, public health practitioners, researchers, concerned patients and citizens to join the healthy air coalition in Bengaluru. Together, we can achieve air quality that remains within the

Maternity ward and health service gathers real time air quality data to assess the health burden of air pollution on their patients.



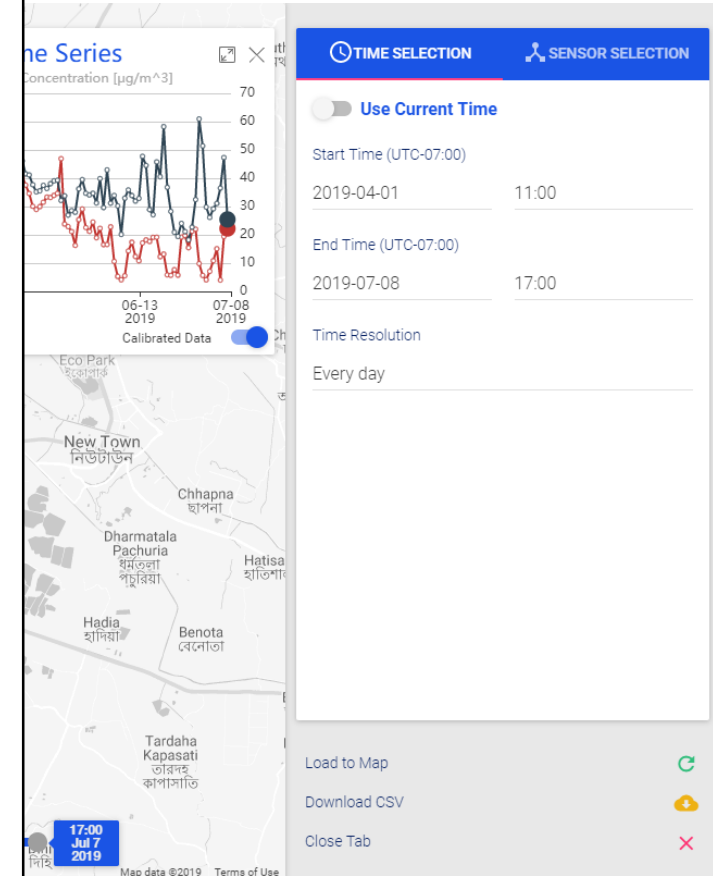
RELIABILITY

PROJECT LOCATION: Kolkata, India
DATA USE CASE: Policy impact analysis
MAIN REQUIREMENT: Reliability



RELIABILITY

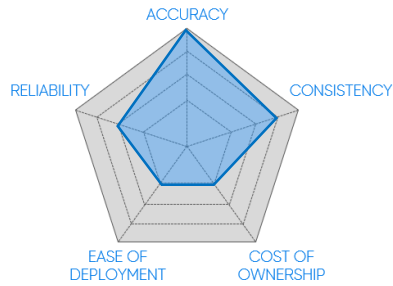
PROJECT LOCATION: Kolkata
DATA USE CASE: Policy impact
MAIN REQUIREMENT: Reliability



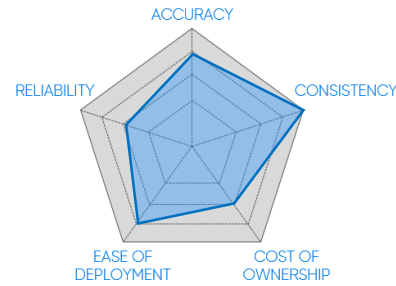
CONCLUSION

PERFORMANCE STANDARDS OF A SYSTEM
Depend on use case of generated data

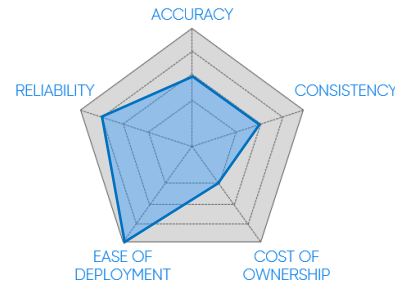
EXPOSURE STUDY AND
MODELLING



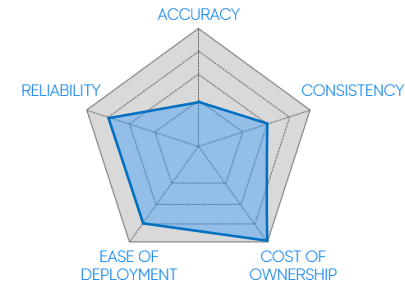
HOTSPOT
DETECTION



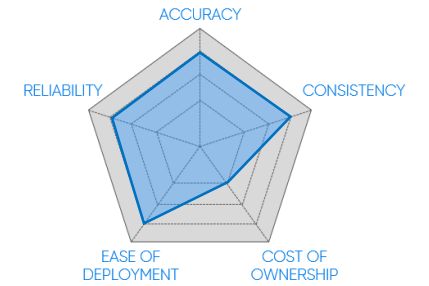
EMERGENCY
RESPONSE



AWARENESS
GENERATION



POLICY IMPACT
ANALYSIS





THANK YOU! LEARN MORE AT [CLARITY.IO](https://clarity.io)

