SOCIO-BEE
Community for Change

AIR POLLUTION 101

CHILDREN

The Mystery of the Air We Breathe!

Are you aware of the hidden aspects of the air we breathe every day? Often, the air may appear and smell clean, but it can contain invisible elements known as pollutants. These pollutants are quite elusive, often going unnoticed without the aid of specialized equipment called sensors.

Even in moments when the air seems fresh and pure, these unseen pollutants might still be present. What's more, they can have adverse effects on our health if we inhale them in significant quantities. It's important to be mindful of this often-overlooked aspect of our environment.

The Story of City Air: Then and Now!

Did you know that the air quality in many urban areas is improving? Through the collaborative efforts of local communities, nations, and larger entities like the European Union, we've significantly reduced pollutants such as smoke, dust, and smog.

However, there's a catch: despite the clearer skies, certain elusive pollutants persist, which can be detrimental to our health. Many of these come from vehicles like cars, trucks, and buses that still use older, less clean fuels. Additionally, industrial accidents at factories can release these harmful elements into the air. So, while we've made great strides in enhancing air quality, there's still more work to be done to ensure our air is as clean and healthy as possible.

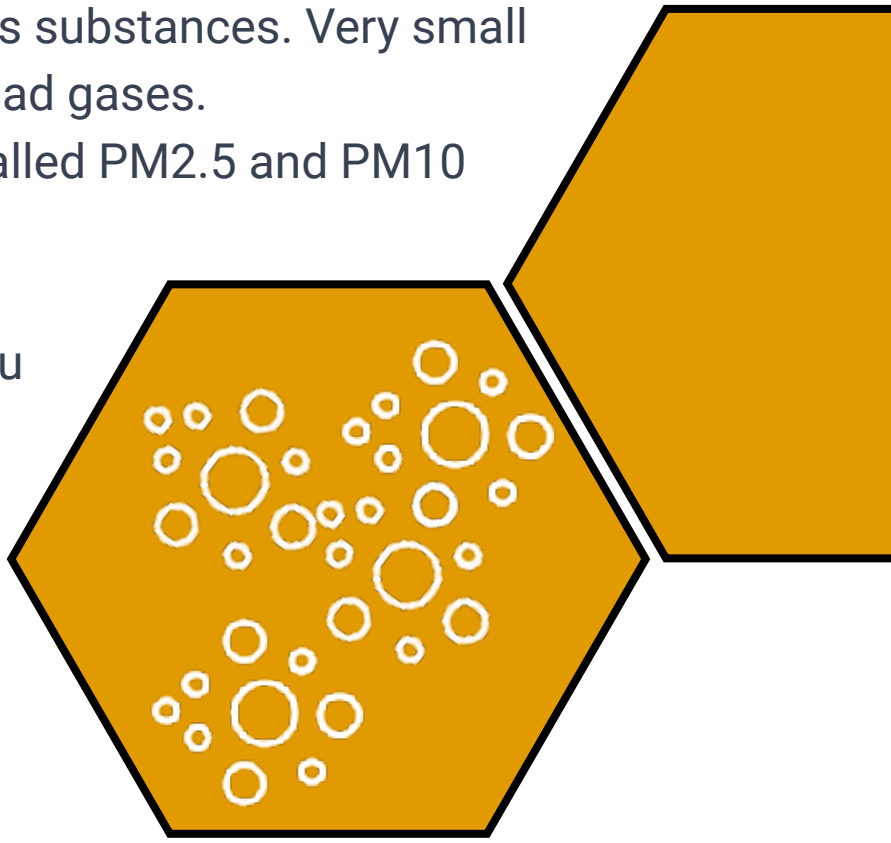
The Invisible Troublemakers in the Air!

The challenging aspect of addressing air pollutants is their incredibly small size, rendering them invisible to the naked eye. Therefore, even if the air appears clear and odorless, these minuscule pollutants can still be present.

To detect them, we rely on highly sensitive sensors, which are even more perceptive than our own sense of smell! Typically, these sensors are stationary. However, we have developed a mobile sensor, a device that can detect these pollutants while on the move.

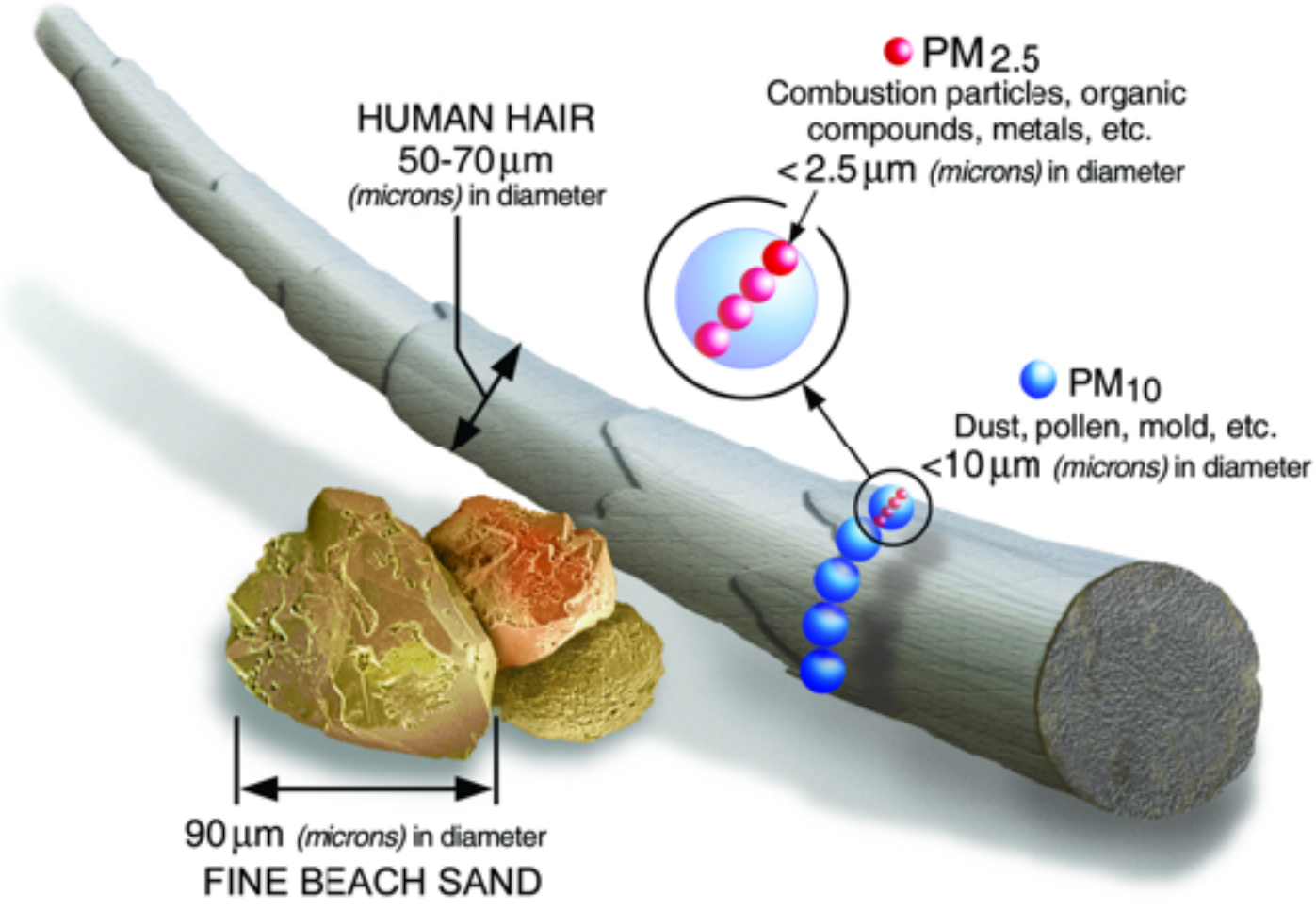
Bad Particles

There a two types dangerous substances. Very small particles and four types of bad gases.
The super tiny specks are called PM2.5 and PM10 in science.



If you divide 1 mm : 1000 you get 1 mu. PM2.5 are 2.5 mu.

In this picture, the big trunk is a human hair!



Four Bad Gases

We also monitor four harmful gases: NO2 (Nitrogen Dioxide), O3 (Ozone), SO2 (Sulfur Dioxide), and CO (Carbon Monoxide). These abbreviations are their scientific abbreviations.

Our sensor is capable of detecting both particulate matter and these gases, with a particular focus on SO2, O3, and NO2. While many urban areas have established monitoring stations to track these elusive pollutants, their reach doesn't always cover the entire city comprehensively.

Would you be interested in helping us measure air quality in those parts of the city that are currently not covered by existing sensors? Your participation could provide valuable insights into the air quality in these less monitored areas.