Smart Campus

Flaunt the Green Quotient of your Premises

Concept

With the rapid expansion of townships and condominiums, the concept of community living as a large society is brimming up. As per a report by Harvard University, better air quality is an effective factor in real estate preference. The idea is to empower the residents with data-driven suggestive actions for better healthcare and offer them a better environment. Through environmental monitoring and propagating the data to the public, we can trigger actionable insights, like the best time to go out for a walk, when to turn on air purifiers, the best route to avoid traffic, etc.

Target Parameters

Vicinity Traffic

Noise

Weather

Dust (PM$_{2.5}$ & PM$_{10}$)

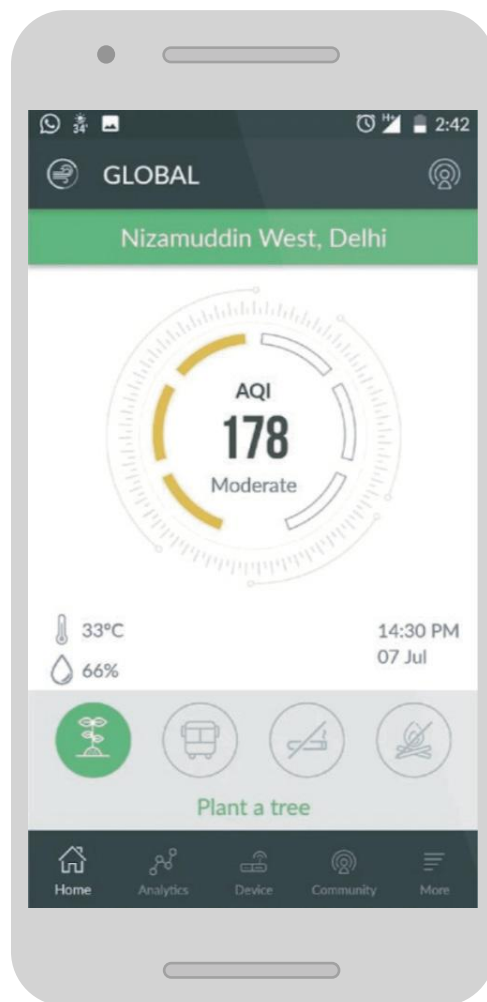Gaseous Pollutants (CO, O$_2$)

Data Use-case

- Data-driven real-estate prepossession
- Data-driven maintenance for environmental precautions
- Healthcare actions for residents

> As per a study conducted by Illinois University, the housing prices dropped by 3.5% - 5.2% with an increase in air pollution.
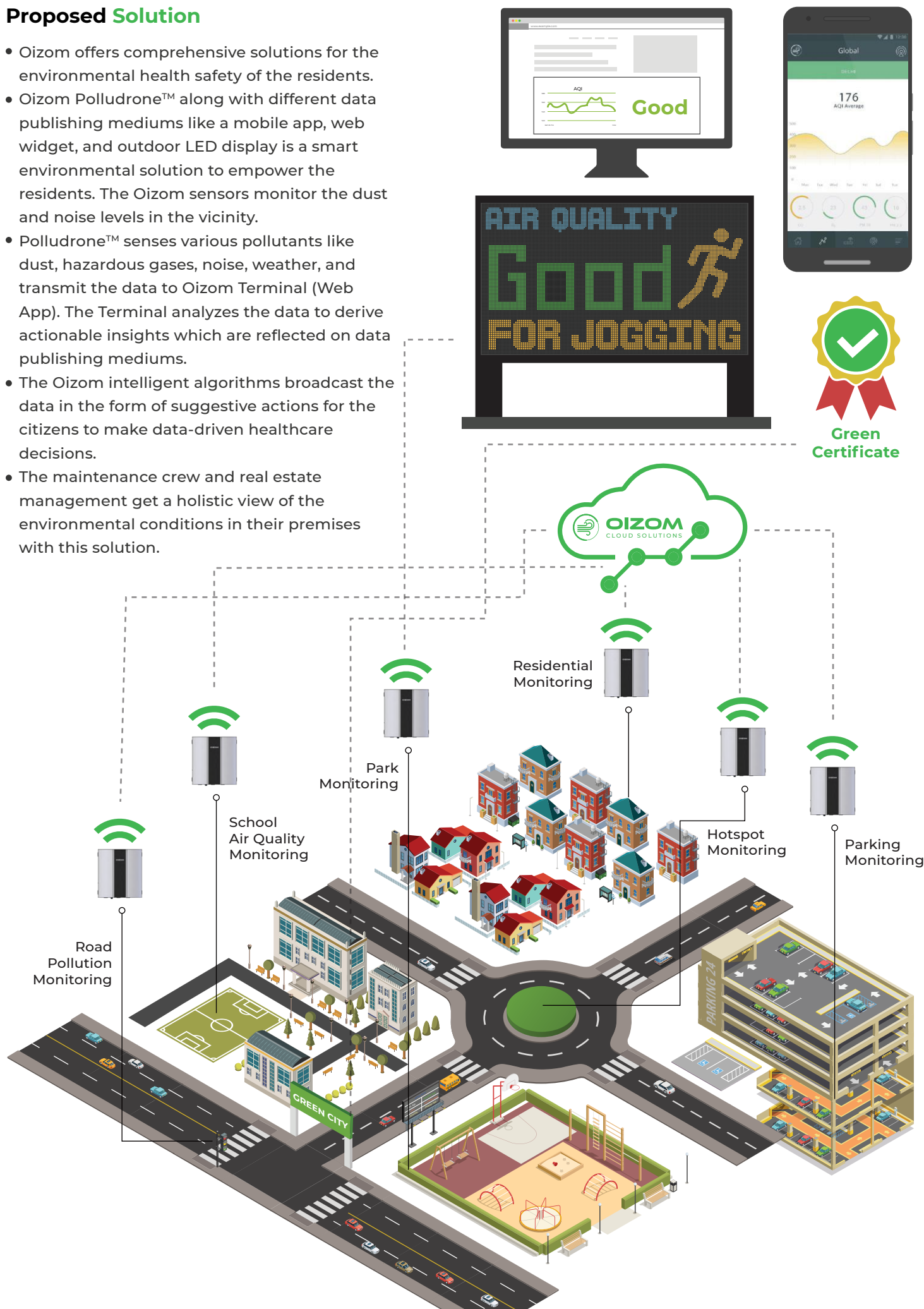
Problem

Smart homes and campus are common concepts nowadays. Air quality and ambient atmosphere are among the key criteria in choosing the residential area. An average person spends 10-14 hours of his day at home. It is necessary to ensure that it is in a clean, dust free and healthy environment.

With increased environmental pollution, people are more inclined towards being aware of its impact on their health. Increased urbanization and automobilizing have made it prominently essential to keep their outdoor activities in check during peak pollution hours. However, the lack of proper ways to spread awareness and adequate information about the surrounding environment restricts them from taking appropriate actions.

Proposed Solution

- Oizom offers comprehensive solutions for the environmental health safety of the residents.
- Oizom Polludrone™ along with different data publishing mediums like a mobile app, web widget, and outdoor LED display is a smart environmental solution to empower the residents. The Oizom sensors monitor the dust and noise levels in the vicinity.
- Polludrone™ senses various pollutants like dust, hazardous gases, noise, weather, and transmit the data to Oizom Terminal (Web App). The Terminal analyzes the data to derive actionable insights which are reflected on data publishing mediums.
- The Oizom intelligent algorithms broadcast the data in the form of suggestive actions for the citizens to make data-driven healthcare decisions.
- The maintenance crew and real estate management get a holistic view of the environmental conditions in their premises with this solution.

AQI

Good

AIR QUALITY **Good** FOR JOGGING

176
AQI Average

Global

OIZOM CLOUD SOLUTIONS

Green Certificate

Residential Monitoring

Park Monitoring

School Air Quality Monitoring

Hotspot Monitoring

Parking Monitoring

Road Pollution Monitoring

GREEN CITY

PARKING 24

Impact

Implementing Oizom solutions enable real estate organizations to accomodate their properties for sensitive and environmental conscious residents. In addition, the solution also offers environmental healthcare actions as an amenity in the campus.

Case Studies

Palava Smart Campus Project

With the objective of making Palava the Most Livable City in India, the authorities needed a comprehensive air monitoring solution to create awareness about the environment health of the Palava Campus. Oizom deployed Air Quality Solution at strategic locations. The authorities were able to create awareness among the citizens on the ambient air quality and offer suggestive actions. Through data-driven decision the impact of air pollution reduced by upto 10% in Palava.

| 📅 Sep 2017 | ◎ 18 km² | 🏛 Polludrone | 🖥 Oizom Terminal Outdoor LED |

Campus AQI Monitoring - Granada University, Spain

With over 61000 students and staff residing within the University of Granada (almost 25% of the city's population), the university aimed at providing a healthier environment to its students. Oizom helped CISCO to convert it into a smart campus by offering Environmental Monitoring. Polludrone™ monitored critical ambient parameters in real-time within the campus and displayed the data to the students for their awareness. It provided data-driven better healthcare suggestive actions.

| 📅 Apr 2019 | ◎ 30 Km² | 🏛 Polludrone | 🖥 Oizom Terminal API Integration |

King Khalid International Airport, Riyadh (Saudi Arabia)

Riyadh King Khalid International Airport, Riyadh faces heavy pollution due to frequent dust storms and airplane emissions. The airport monitored its air quality with the help of Oizom Polludrone™. It acquired the pollution data and analysed the historical data and trends. With this solution, the airport authorities were able to identify the source, and generate alerts in cases of high pollution levels in the airport vicinity.

| 📅 Mar 2019 | ◎ 4 Km² | 🏛 Polludrone | 🖥 Oizom Terminal Display APIs |

Campus AQI Monitoring - BHU, Varanasi

Oizom offered a comprehensive solution to help HPE monitor the environmental health of Banaras Hindu University and installed Polludrone™ in the campus. It monitored ambient air quality like particulate matter, gases and weather to aware the students. The solution showcased the data and also provided suggestive actions to help them take informed healthcare decisions based on AQI.

| 📅 Feb 2019 | ◎ 11 Km² | 🏛 Polludrone | 🖥 Oizom Terminal API Integration |