SPARROW : Next Generation Urban Data collection & Analysis Ecosystem

Maxim Interbrick
Co-Founder
&
COO of Sparrow Analytics SA
You can manage only what you can measure
City Environment Measurement for Better Life
Urbanization creates massive problems

6 Billion people live in cities aggravating health, climate, mobility, and economic problems which degrade human health and life quality.

- 7 Million no. of deaths / year due to air pollution caused by urbanization
- 70% of world's greenhouse gas emissions are from urban areas
- 90% of world population resides where air quality levels exceed the levels suggested by the WHO

Los Angeles Times
1 in 8 deaths linked to air pollution, WHO says

Air pollution “likely” to increase mortality from Covid19: experts

Limiting air pollution ‘could prevent 50,000 deaths in Europe’

World Health Organization estimates air pollution kills more than 7 million people each year.
WE ALL ARE FACING COMMON INVISIBLE ENEMIES

If you don’t measure it, you cannot manage it and fix it!

- Existing systems are unable to measure all necessary factors leading to sporadic and insufficient data
- Existing systems are costly to invest and maintain
- Absence of ready-to-use data processing systems and environmental specialists and data scientists
Modern Urban Problems Require Data for Solution!

With the help of the right data, we be able to deliver a true smart city.

City administration can take proper action and design legislation to protect the people

Producers of electric vehicles, air filters, pharmaceuticals, energy companies, etc. can better design and market their products and services
WHAT IF THERE IS A SYSTEM THAT...

- Measures and monitors a broad variety of urban parameters
- Provides high-resolution city scanning and data collection
- Utilizes cutting-edge technology to determine reasons and correlations for easy solutions
SAY HELLO TO SPARROW

The most advanced and high-resolution urban environment scanning system

**Sensor Network**
Sensors deployed on vehicles continuously measure various factors and embed GPS position, thus creating a high-resolution maps of pollutants

**Data Collection**
Our proprietary data blending and analysis system can provide data and insights about a variety of urban parameters.

**Data Processing**
We provide the most comprehensive way to measure city parameters without a huge investment monitoring equipment.

**City Monitoring**
The system measures and monitors crucial parameters and visualizes for easy understanding.

Cost-Effective, Real-time, Complete, and Accurate

We help make life better in urban cities
MAGIC IS IN THE DATA

Machine Learning
Advanced ML for cleansing and interpretation of environmental data

Cloud Applications
A platform for an easy access to built-in and 3rd party applications and data models on the cloud

Monitoring System
First real-time environment monitoring for law enforcement and compliance for environmental regulators
THE MARKET OPPORTUNITY FOR MEASUREMENT SENSORS AND DATA IS ASTOUNDING!

Some factors contributing toward the growth of the market are:

Government norms and regulations (e.g. the Clean Air Act and Sustainable Development Scenario by the UN) for monitoring pollution are likely to drive demand for efficient air monitoring.
HOW IT WORKS?

1. Multi-Sensor Box
   - Air Pollutants
   - Noise
   - Road Quality
   - Traffic
   - Cellular Network

2. Equip vehicles and scan the city

3. Collect and Analyse Data
   - Global Data Analysis System

4. Analysis and Reports
   - Create reports, build models and generate actionable insights
TECHNOLOGY

We have created the best in class mobile multi sensor with unlimited potential

- Air Pollution
- Toxic gas detection
- Noise Pollution
- Road Quality Mapping
- Traffic Patterns
- Temperature and Humidity
BUSINESS MODEL
We monetize the following services

**Monitoring Systems**
- Renting Sensors: $100 per unit, per month
- Access to platform: $50 per unit, per month

**Data Services**
- Data APIs
- Cloud application
- Clean air maps for navigation

**Custom Reporting**
- Pollution reports for the electric vehicle, air filter, and air purifier sellers
- Air and noise report for real estate investors

We intend to market the project through ITU (UN) and smart city networks and calibrate with state stations to overcome regulatory barriers.
THE TEAM

Elshad Hajiyev  
Co-Founder & CEO  
Experienced business developer, product designer and corporate manager

Maxim Interbrick  
Co-Founder & COO  
Business execution with entrepreneurial spirit and excellent communication skills

Eli Bernstein  
CDO  
Data engineer and system designer with engineering background

Dima Gochstein  
CBDO  
Software engineer with business development experience and broad network

Vakhtang Gegechkori  
CTO  
Full stack developer with 20 years of experience and brilliant problem solving skills

Prof. Prashant Kumar  
Advisor  
Decades of experience and hundreds of publications on climate and air pollution
Developed the most advanced sensor box in the market

Developed cloud data collection environment in AWS

Partnered with suppliers, universities, and cities

ITU (UN) Associate Member for building standards for urban measurement

Planning pilots in Geneva, London, Antwerp and Tel Aviv
TARGET DEMOGRAPHICS

Potential areas where data can be used to evaluate, trade, design and market products and services

Government (41%)
- Air Quality Dept.
- Transport Dept.
- Ministry of Environment
- Pollution Compliance Bodies
- Certification Bodies

Energy and Healthcare (23.1%)
- Carbon credit trading
- Medicine development
- Health Insurance
- Hospitals
- Air quality tracking for asthma patients

Commercial and Residential (27.6%)
- Data Aggregators (Google Maps etc.)
- Hospitality (AirBNB and similar)
- Real-Estate Industry
- Utility Management
- Construction

Others (15.28%)
- Security services
- Utility Management
- Municipality Bond traders
WHY IS SPARROW DIFFERENT?

We have created the best in class mobile multi-sensor that can measure parameters like Air Pollution, Noise Pollution, Traffic Pattern, Toxic gas detection, Road Quality Mapping, Temperature and Humidity, and others.
SPARROW WILL HELP SAVE MILLIONS!

E.g. Breath London

Cost:
- **Sensors**: $780,000 investment
- **Depreciation**: $156,000 per year
- **Platform**: $1,500,000 investment

- **Maintenance**: $120,000 per year
- **Specialist Team**: $600,000 per year

Sparrow

Cost:
- Annual fees: $180,000 per year

That's it!

ADDITIONAL BENEFITS FOR CITIZENS

- Children and elderly people with asthma can choose the location to live and walk
- Parents can choose a safe walking route with children
- Hospitals and offices can install proper air filtering systems
- Cyclists can choose routes through streets with less pollution
- Navigation companies can optimize routes to minimize air and noise pollution
- Banks and real estate companies can properly evaluate apartments and buildings

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We aggregate market players such as sensors, data aggregators, and academia on one platform rather than competing with them.
OUR VISION IS TO BECOME A GLOBAL PLATFORM FOR DATA COLLECTION, HARVESTING, AND COMPUTING FOR POPULATED ENVIRONMENTS

Become a part of our journey as we disrupt the market for a good cause!

Contact for more info:

Elshad Hajiyev  eh@sparrow.city

Maxim Intebrick  mi@sparrow.city