

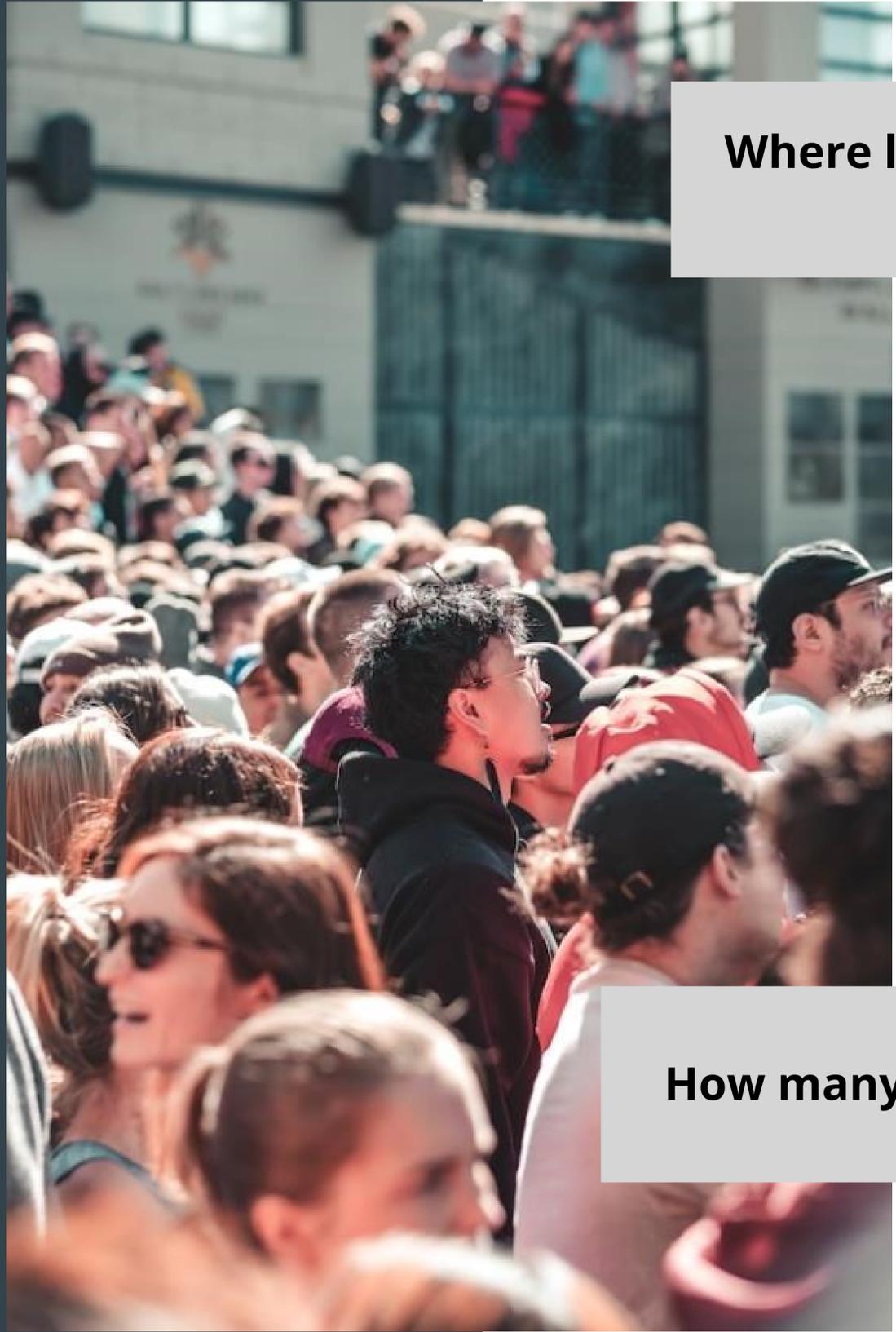


DFRC Group

Recent trends in Crowd Analytics :
Providing solutions to real-life problems

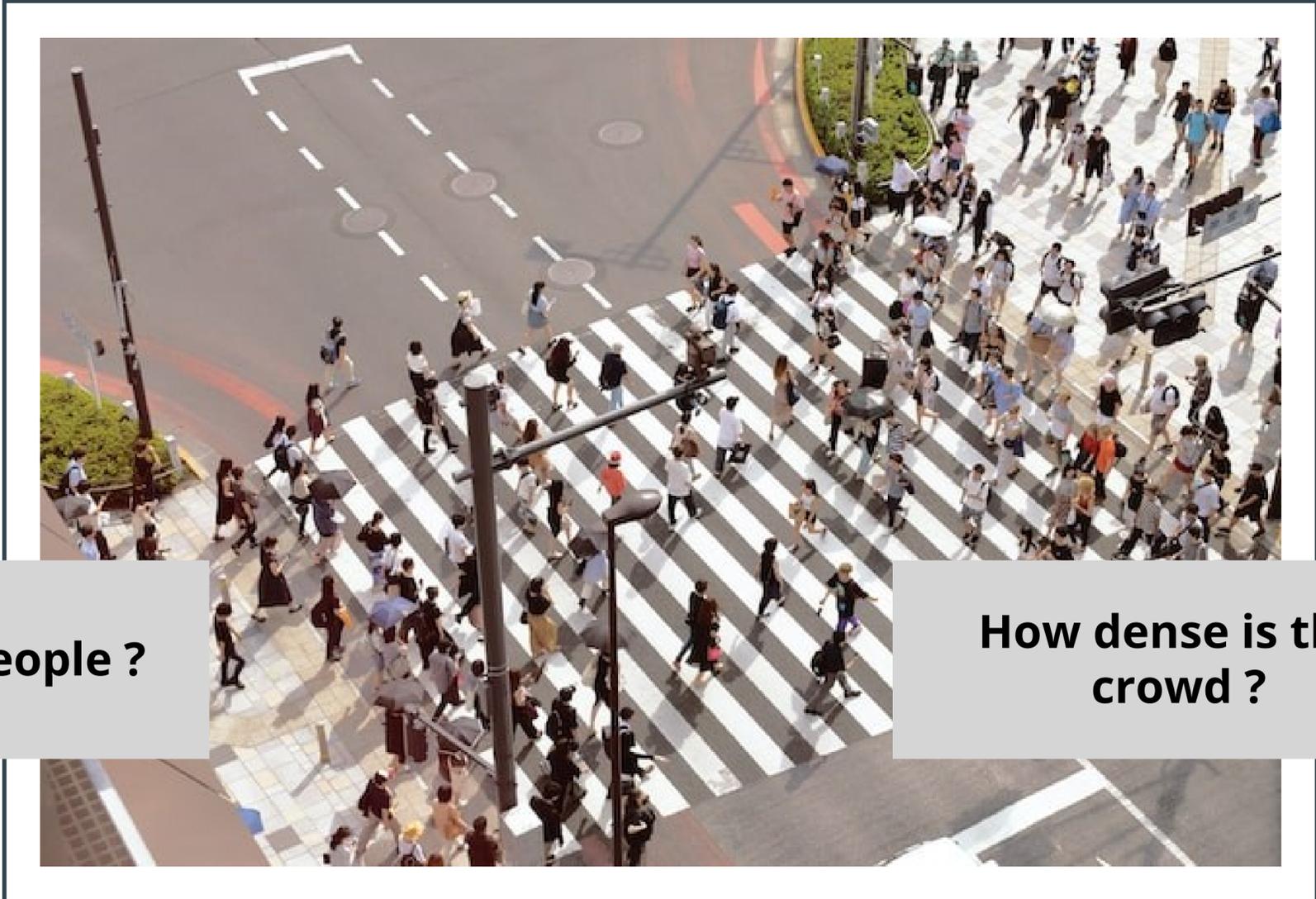
BACKGROUND





Where long are they staying here ?

WHAT IS CROWD ANALYTICS?

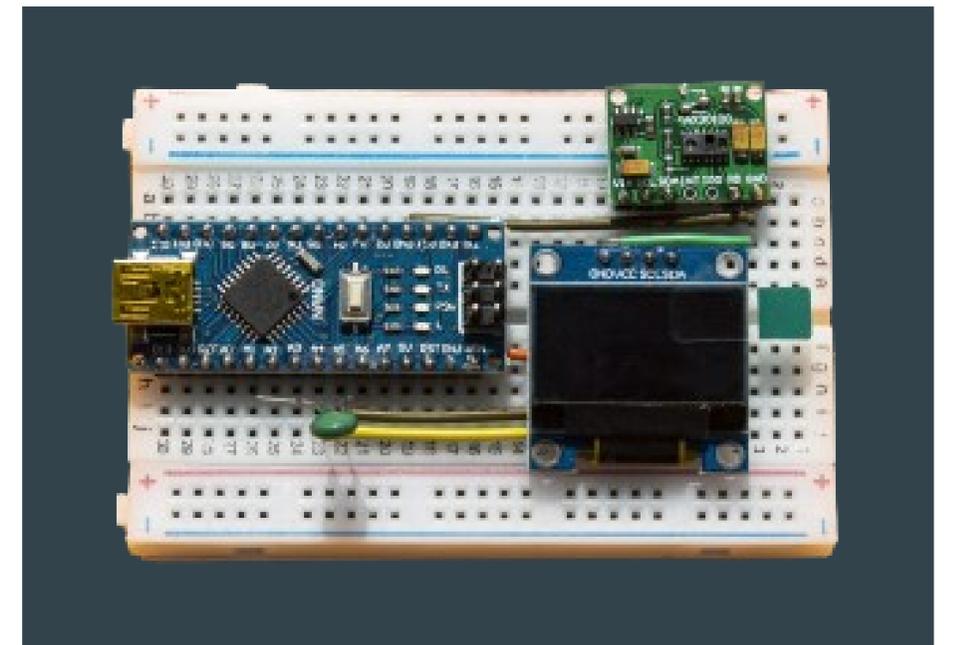


How many people ?

How dense is the crowd ?

TOOLS USED TO COLLECT DATA

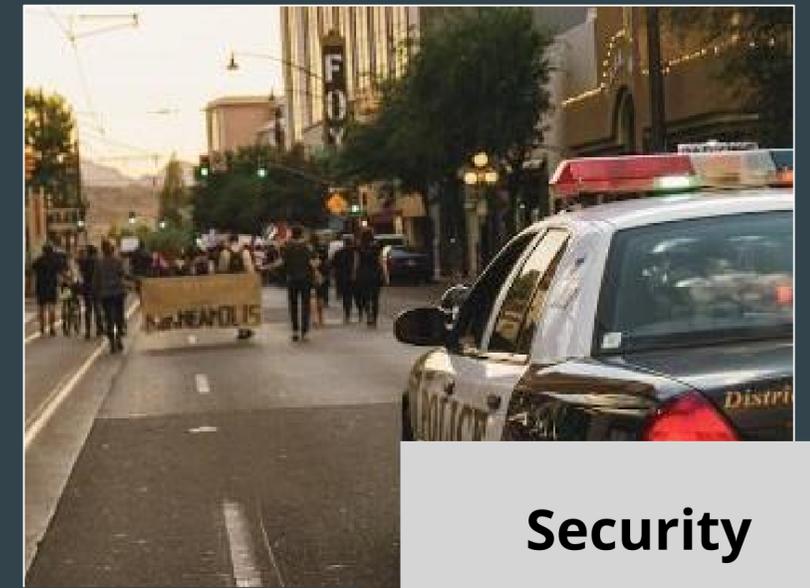
- **CCTVs**
- **Mobile Apps**
- **Telecom Operators**
- **IoT sensors**



THE EVOLUTION OF CROWD ANALYTICS



Advertising



Security

To solution-based analytics

From high-level statistics



Political campaigning

WHAT KIND OF PROBLEM?



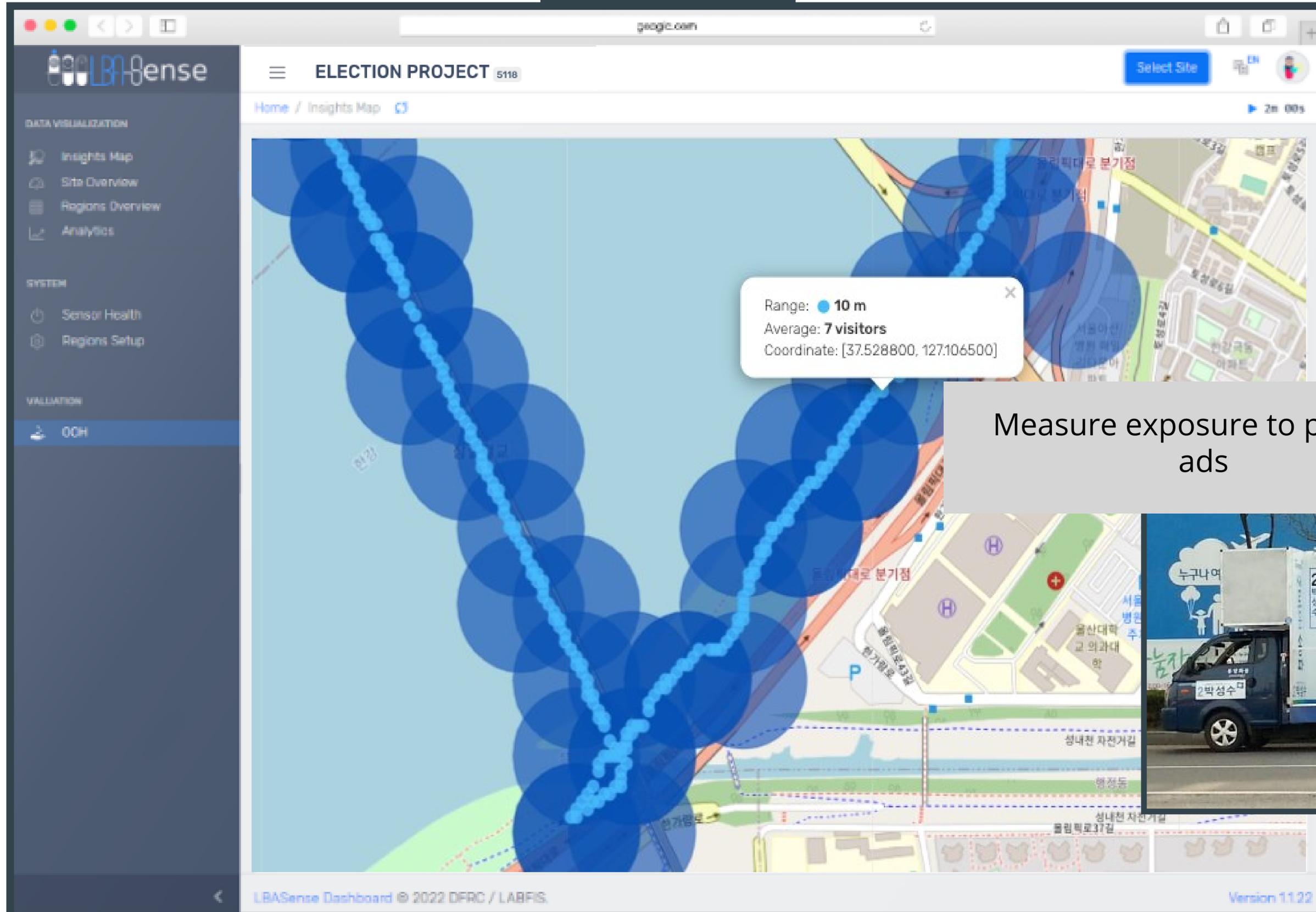
- Where in the city were my ads seen ?
- How many impressions does this ad get ?
- Have all residents evacuated ?
- How many human lives are currently under threat ?
- How many people were at Trump's 2016 inauguration ?
- How long did they stay ?



CASE
STUDY

CASE STUDIES

KOREA 2022 ELECTION

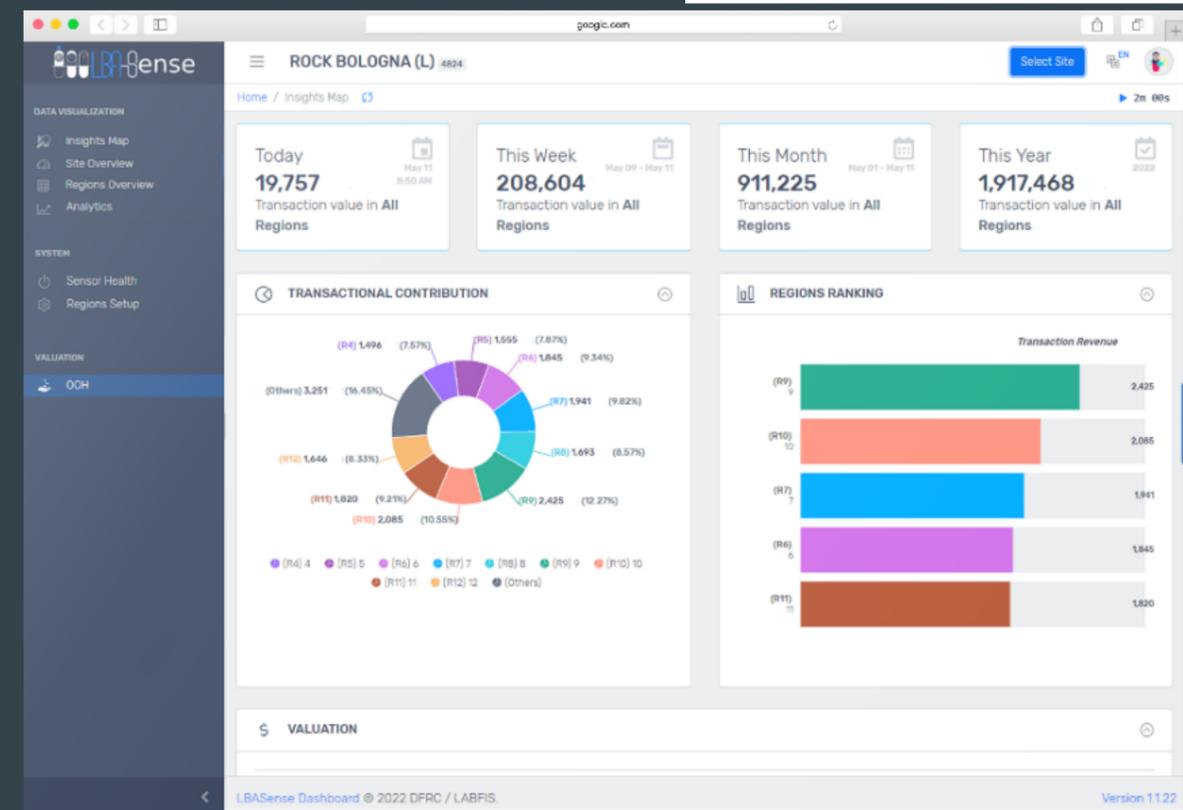


Measure exposure to political ads



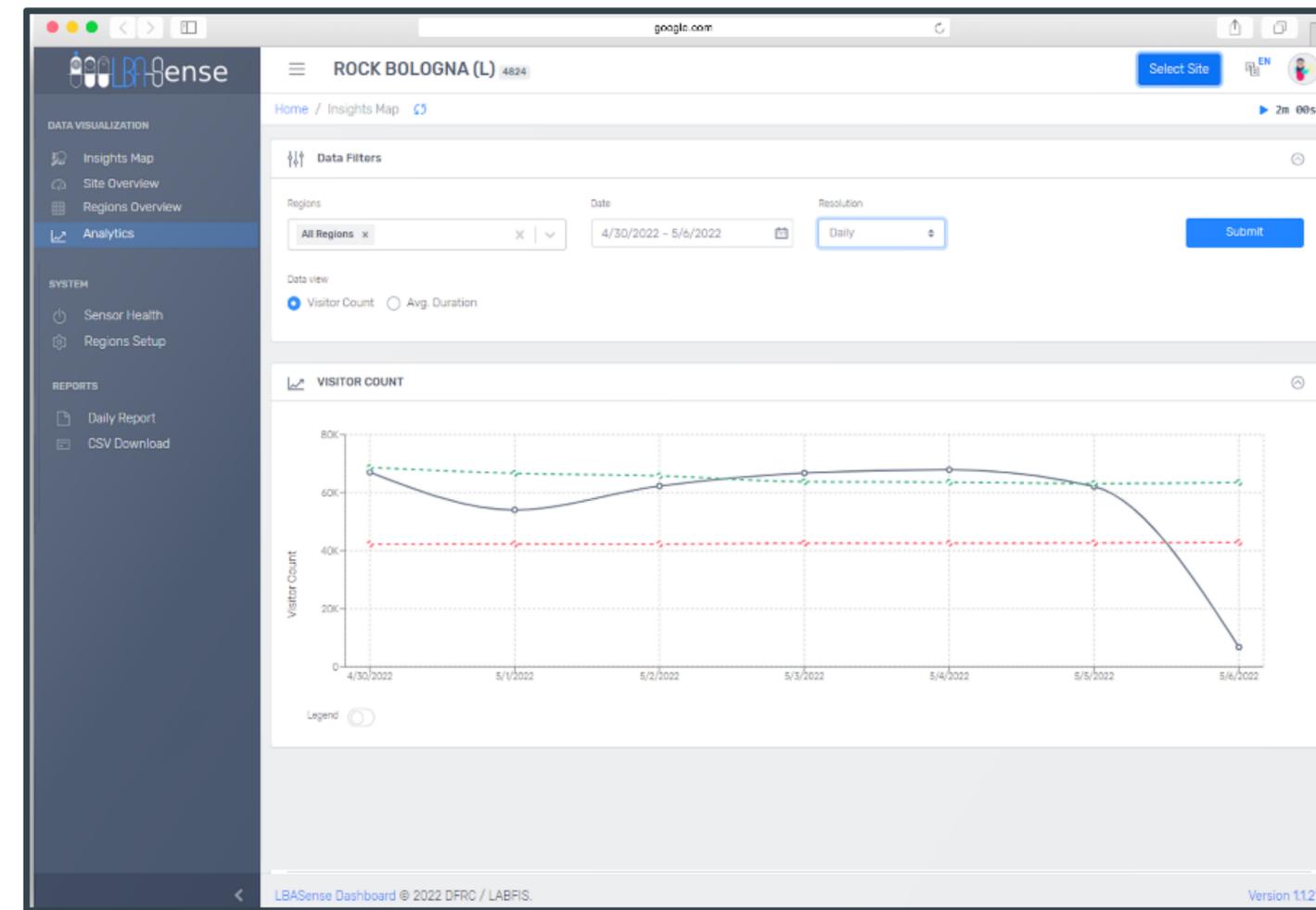
TAXI ADVERTISING

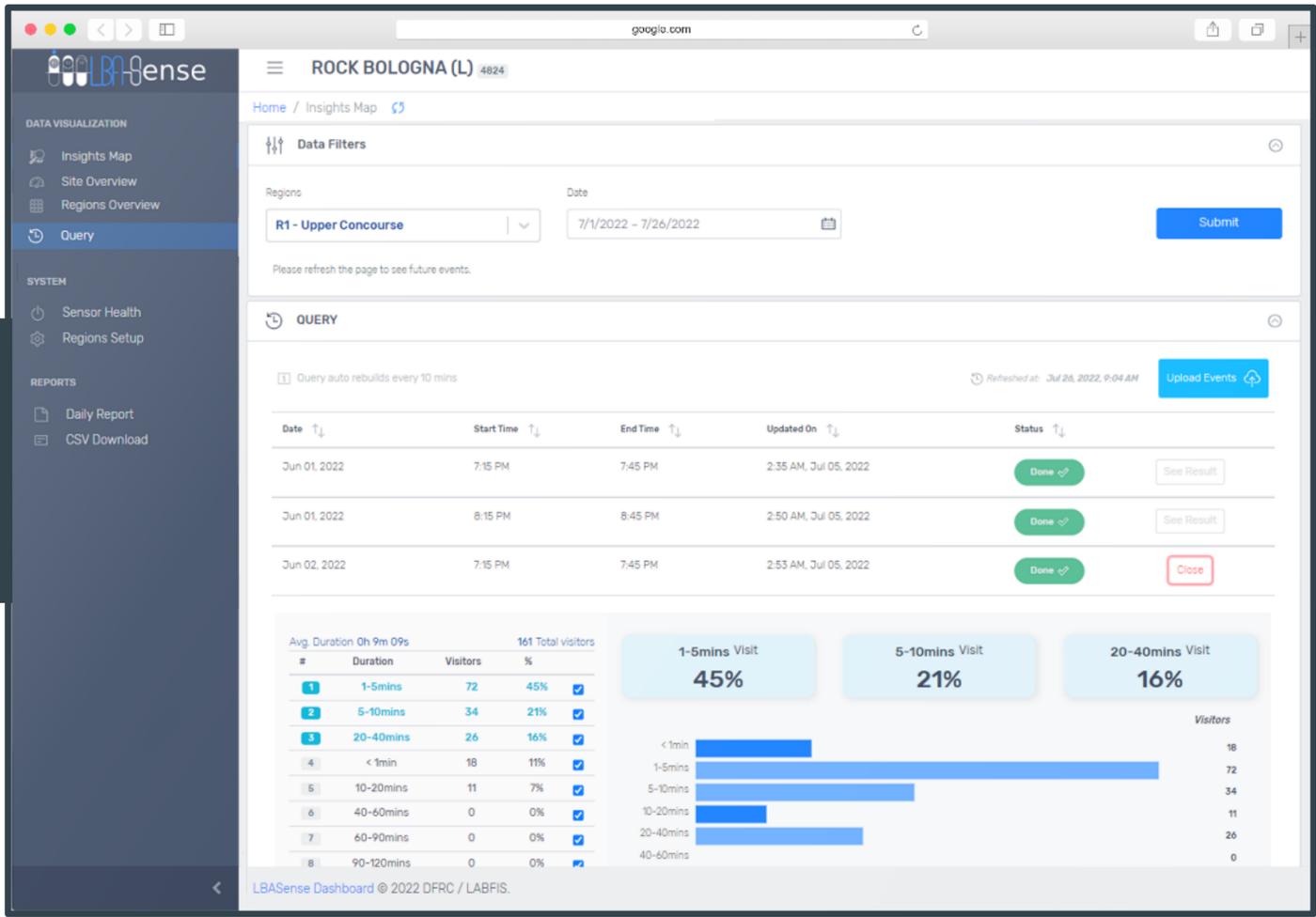
- Measure exposure to ads
- Track taxis journeys
- Rank taxi's profitability



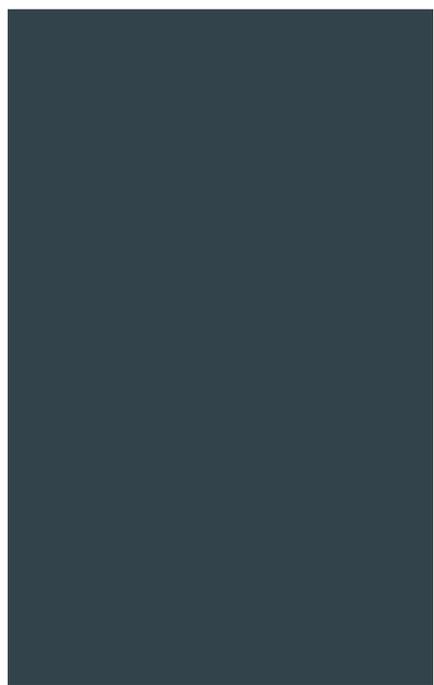
MOVING EXHIBITION

Measure visitorship throughout various locations





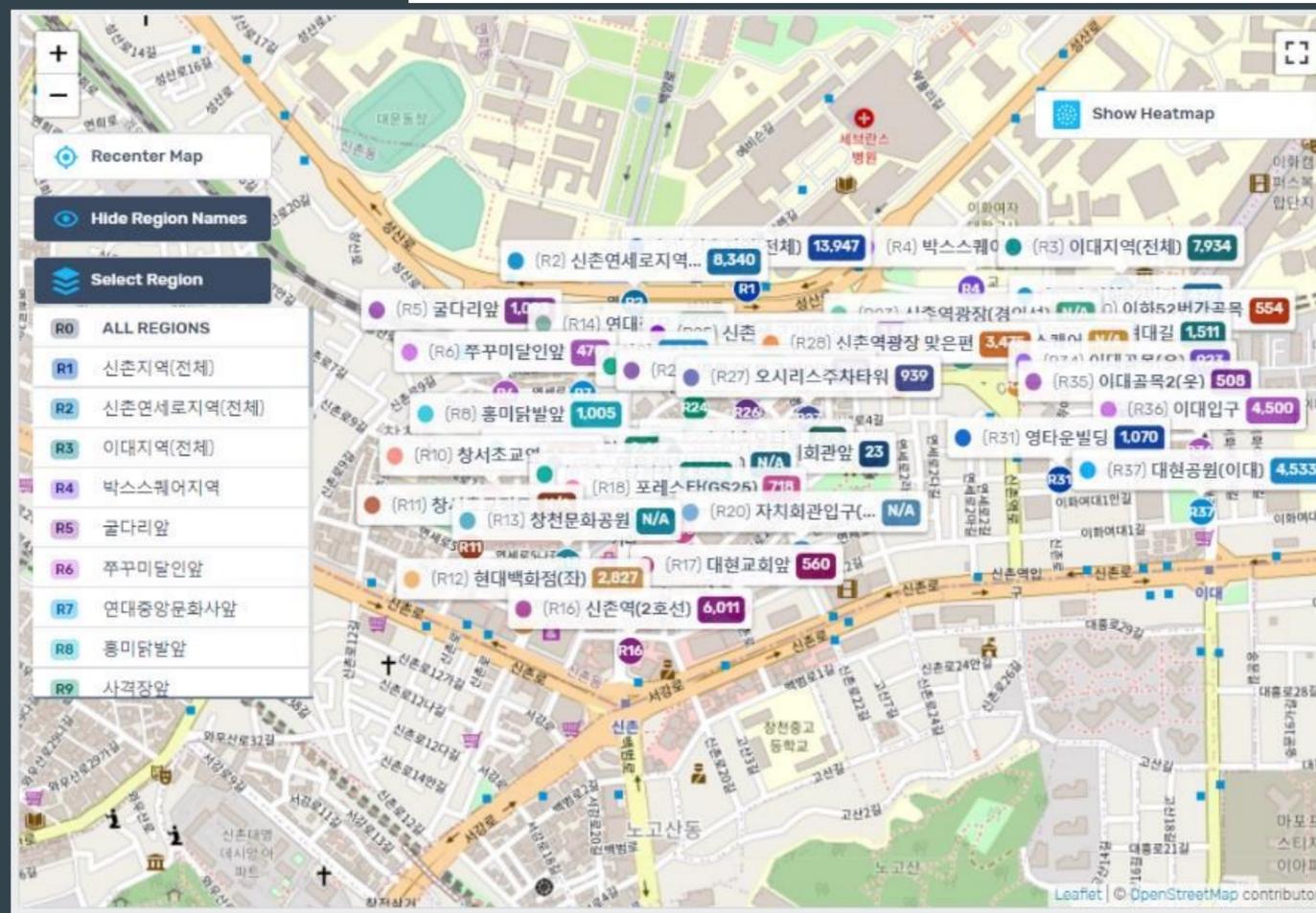
BUS TRANSPORT OPTIMIZATION

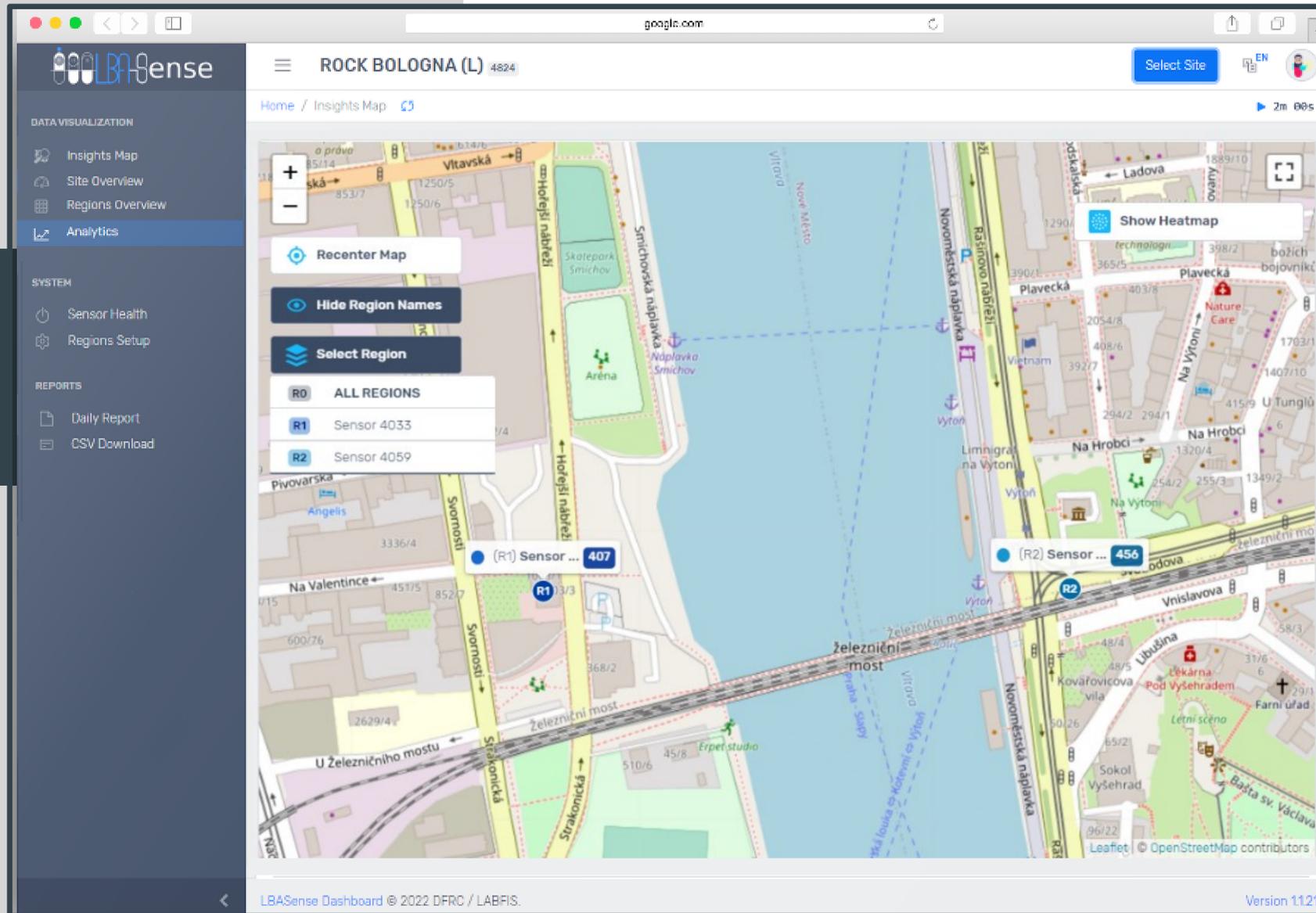


Measure wait time at bus stops

E-BIKE SERVICE PLANNING

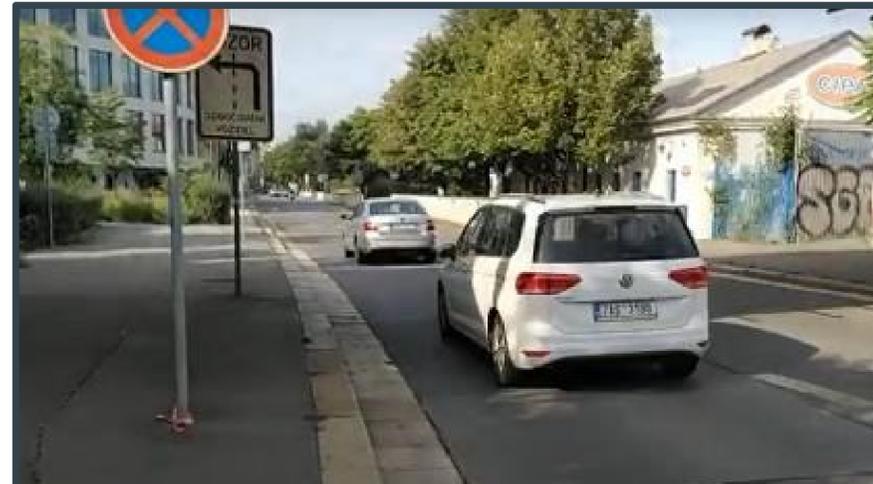
- E-Bike station localization
- Number of E -Bike

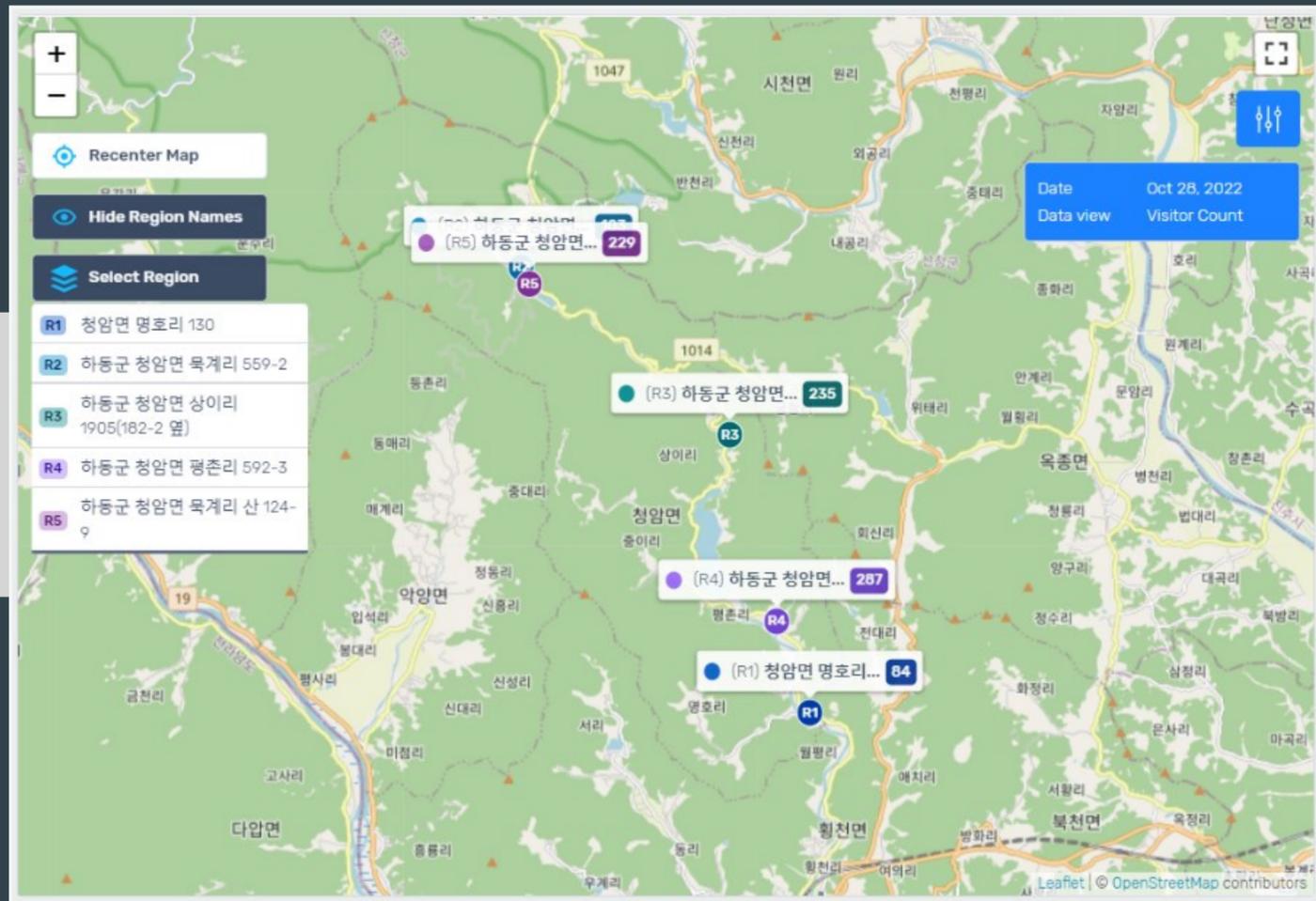




CAR OCCUPATION

Count the number of people inside the car





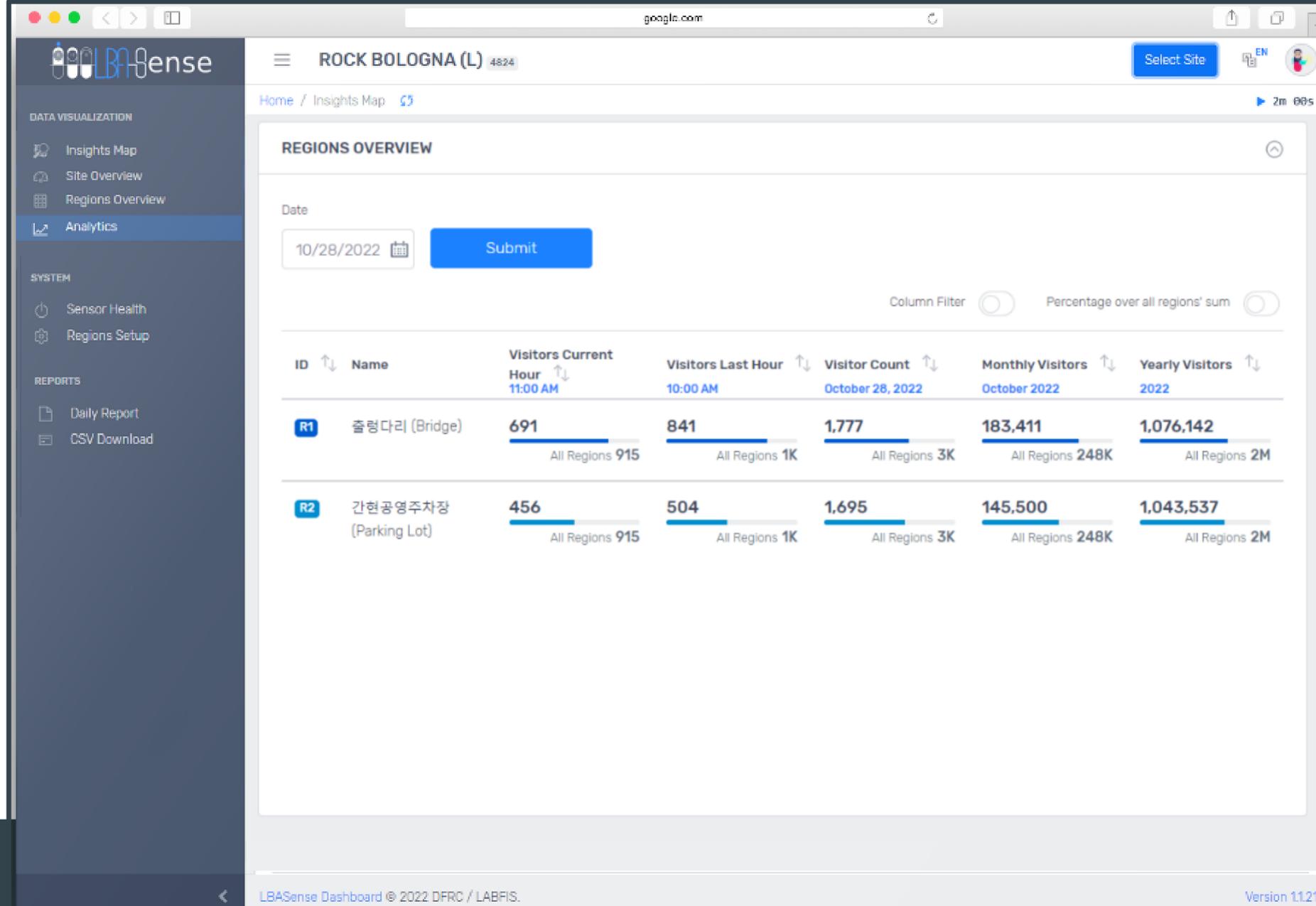
PEDESTRIAN SAFETY

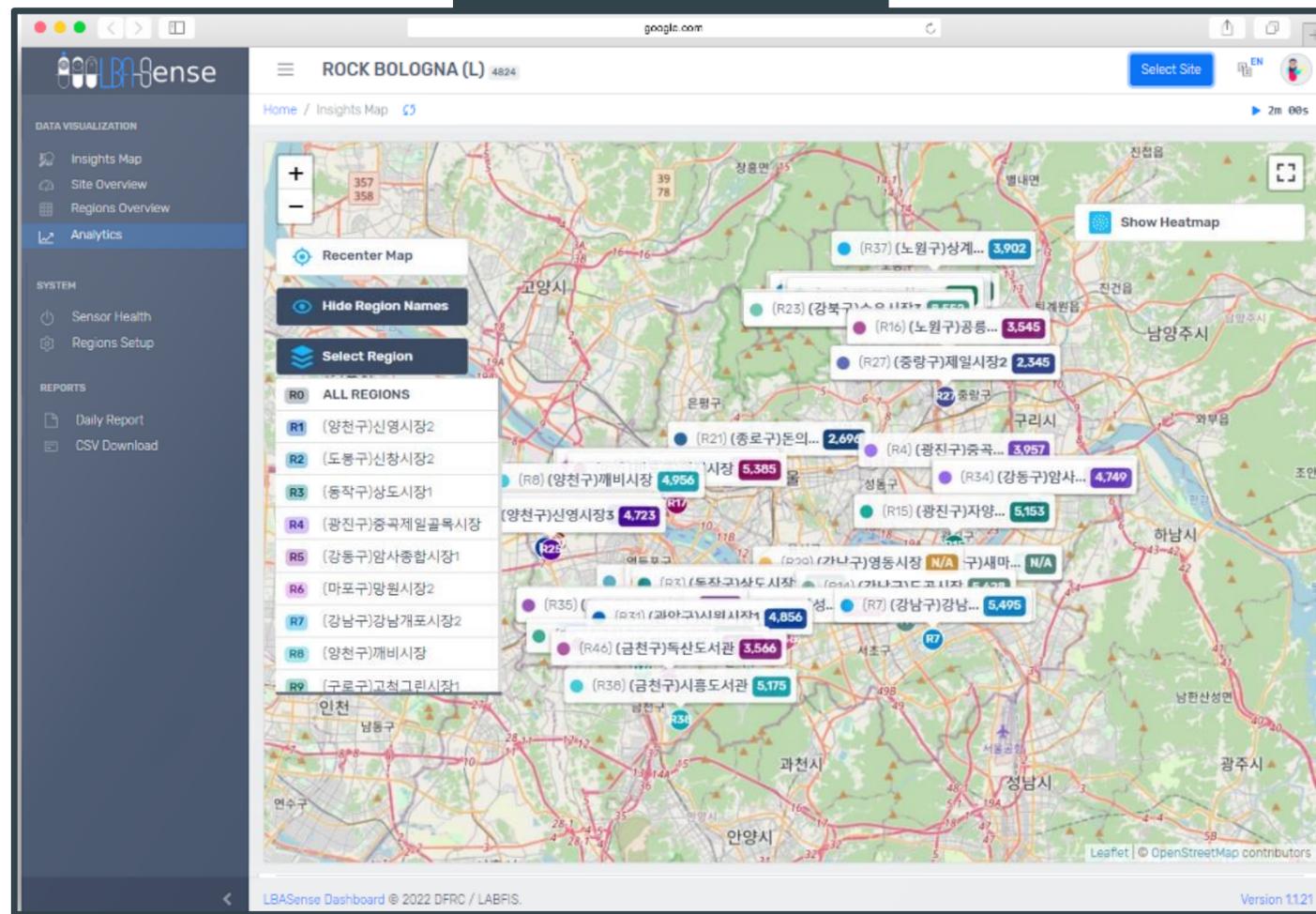
Integrate the sensor with a radar show # of people in the area



PROTECTION OF NATIONAL PARK

Ensure that people are not on premises outside of opening hours
Alerts for bad weather



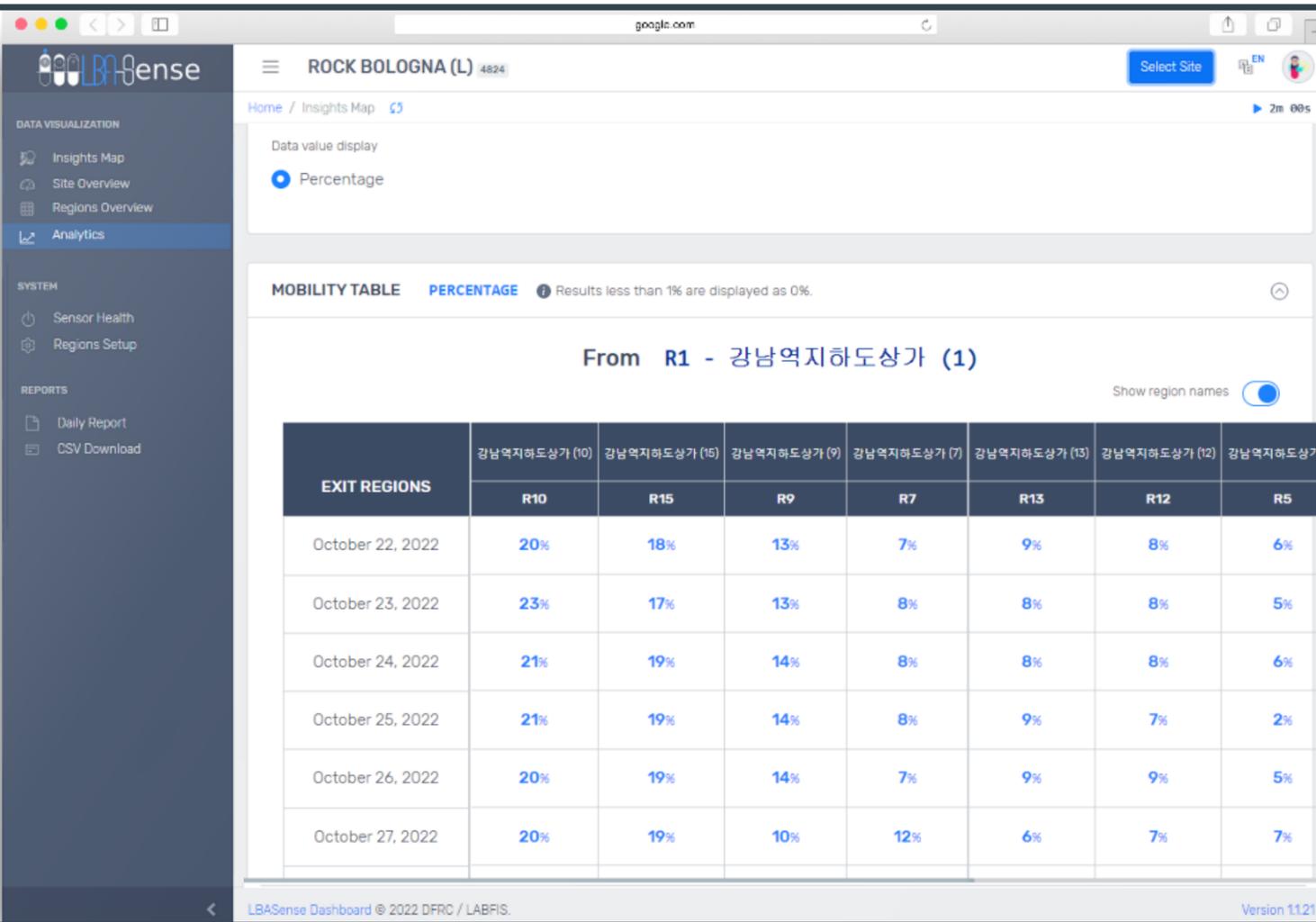


LOCAL BUSINESS SUPPORT

Understanding locals and
tourist's purchasing behavior



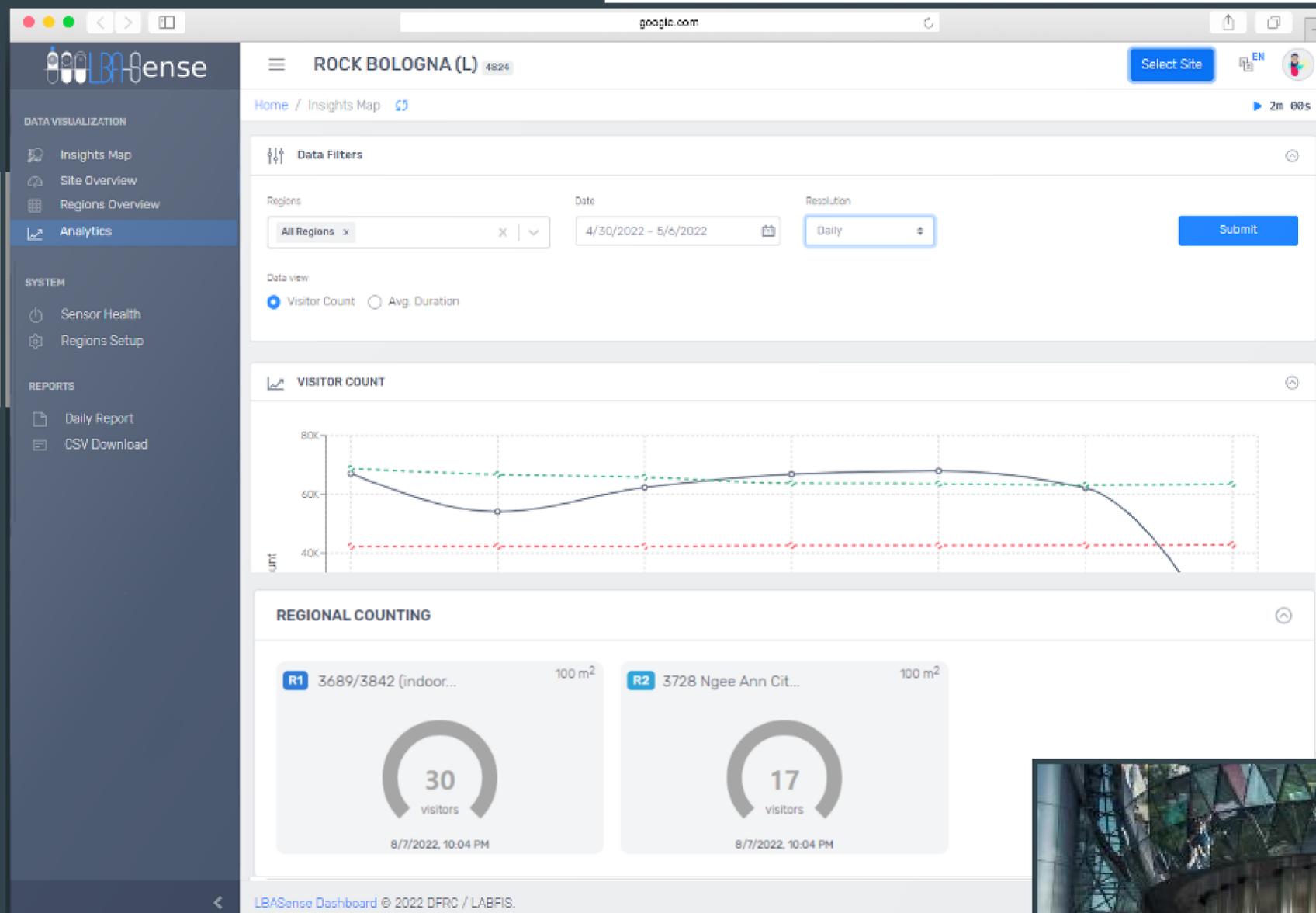
LOCAL BUSINESS SUPPORT & SAFETY



- Purchasing Behavior

- Crowd destiny/congestion

- Covid-19



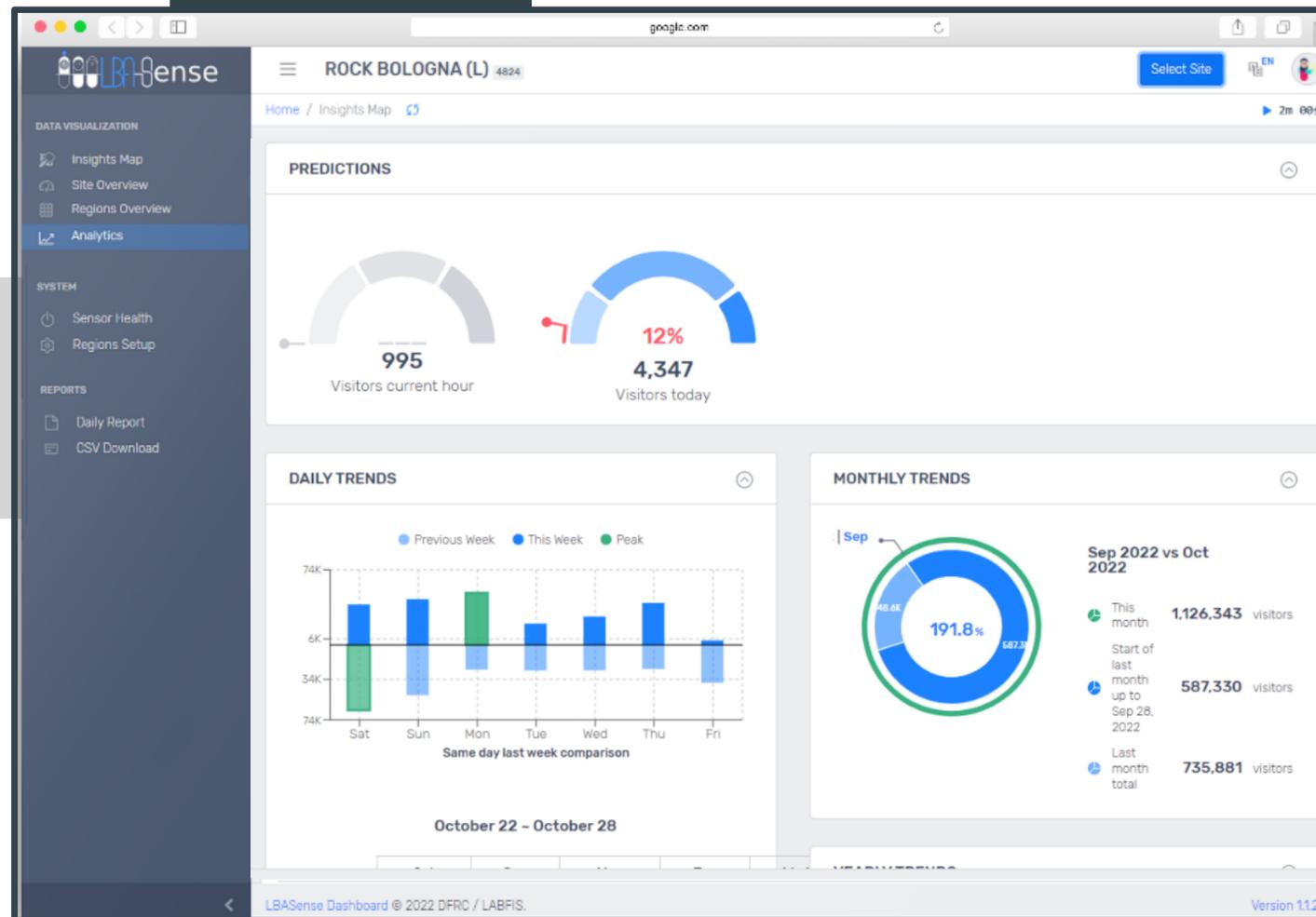
OUTDOOR EVEN-GARDEN FESTIVAL

Measure event attendance in Realtime



OUTDOOR EVENT- ESPLANADE THEATER

Measure event attendance



EXTRAS



WHAT ABOUT PRIVACY?



특허증
CERTIFICATE OF PATENT

특허 제 10-2168426 호
Patent Number

출원번호 제 10-2018-0074632 호
Application Number

출원일 2018년 06월 28일
Filing Date

등록일 2020년 10월 15일
Registration Date

발명의 명칭 Title of the Invention
맥 주소 암호화 시스템 및 방법

특허권자 Patentee
주식회사 디에프알씨(110111-*****)
서울특별시 강동구 성안로 196 (2층)

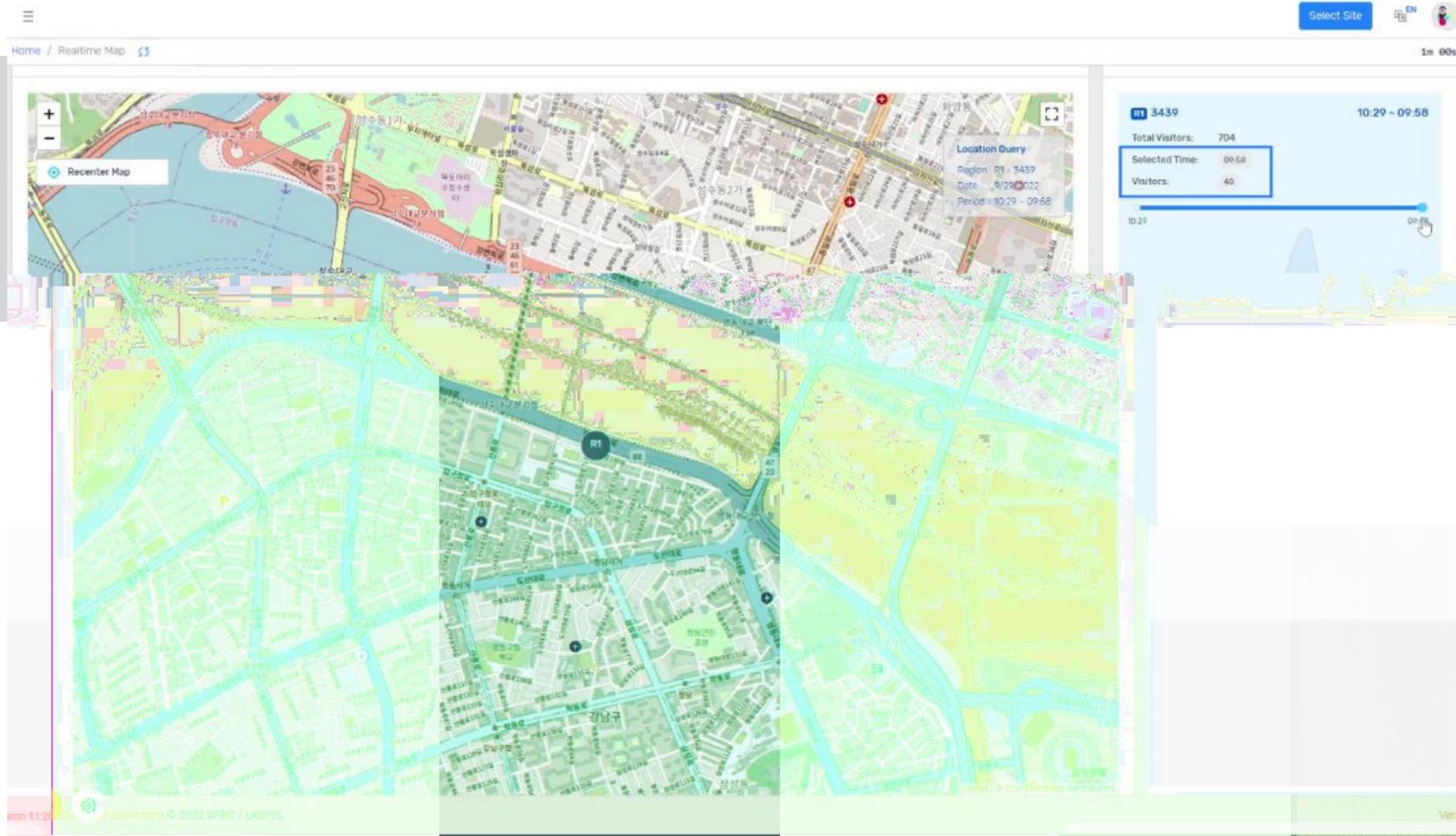
발명자 Inventor
로렌버그 에벨
서울특별시 강동구 천동로42길 16, 4층 (길동)

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2020년 10월 15일

특허청장
COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE
김용래

특허청
Korean Intellectual Property Office

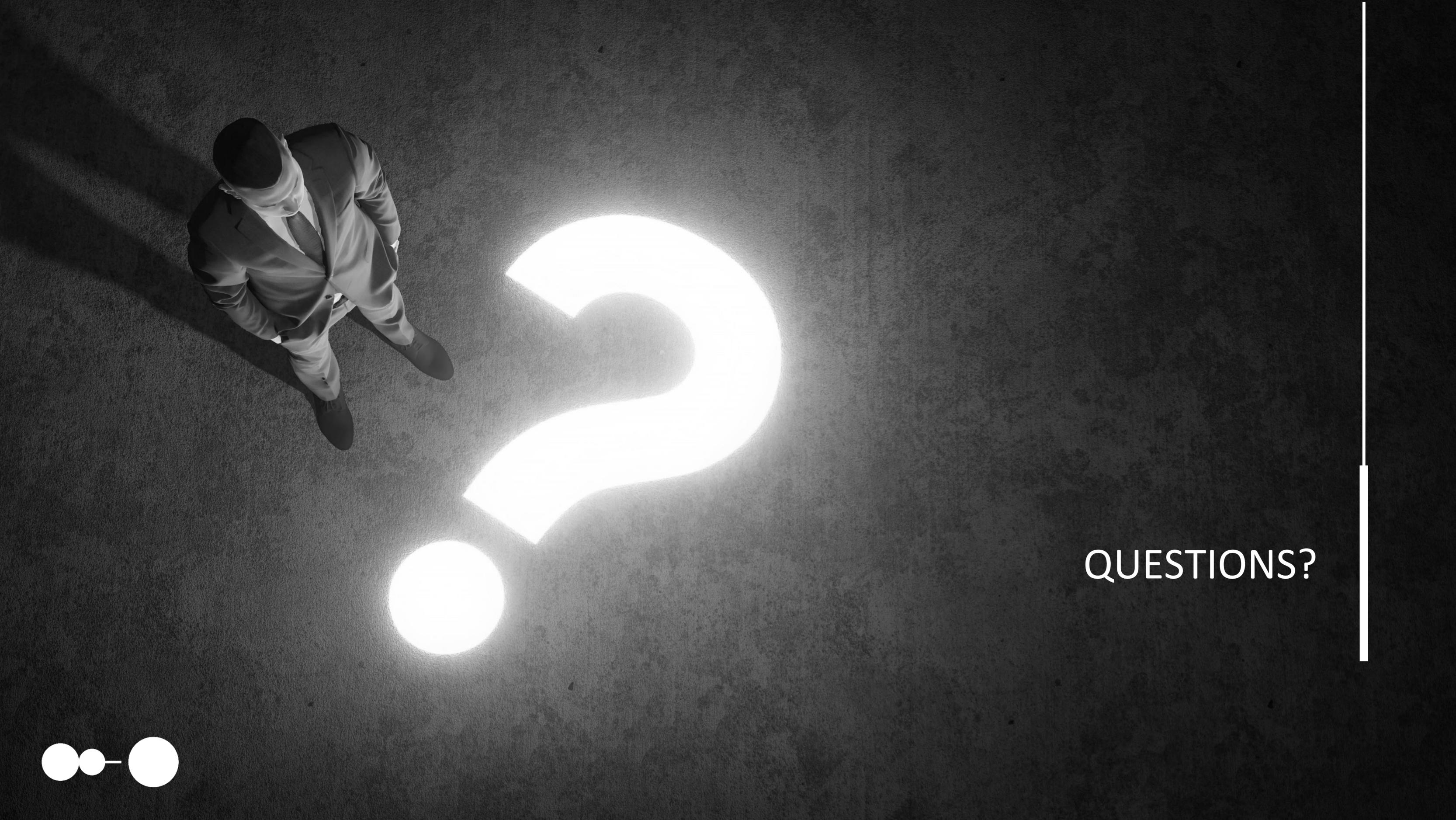


THE HARDWARE

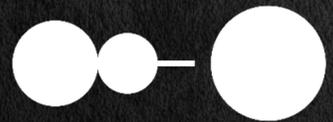


WHO ARE WE?





QUESTIONS?





THANK YOU

Contact:

Erel Rosenberg, CEO

+65-82 295 536

erel@dfrc.sg

www.dfrc-group.com