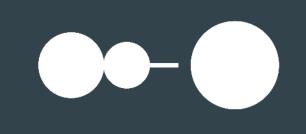
# DFRC Group

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



# BACKGROUND









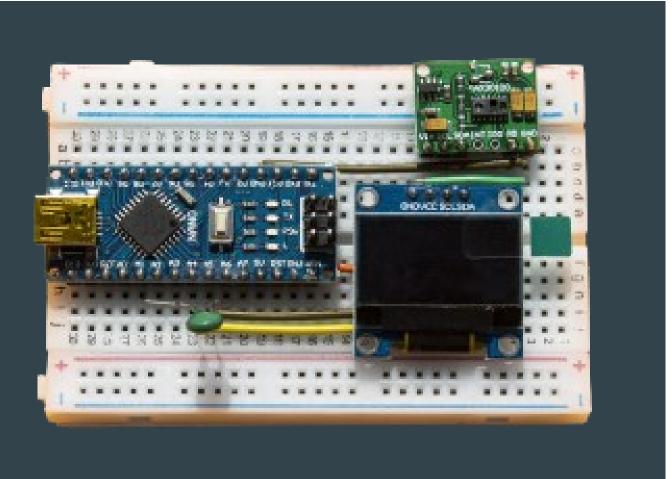


TOOLS USED TO COLLECT DATA

- CCTVs
- Mobile Apps
- Telecom Operators
- IoT sensors







## THE EVOLUTION OF **CROWD ANALYTICS**











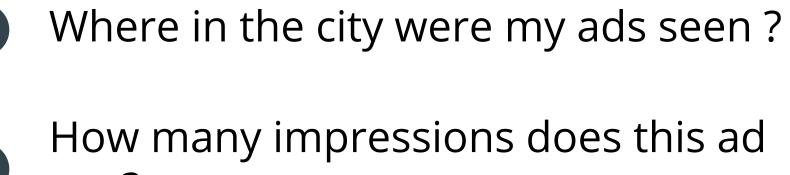
## WHAT KIND OF PROBLEM?













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 STUDIES

### D . . .

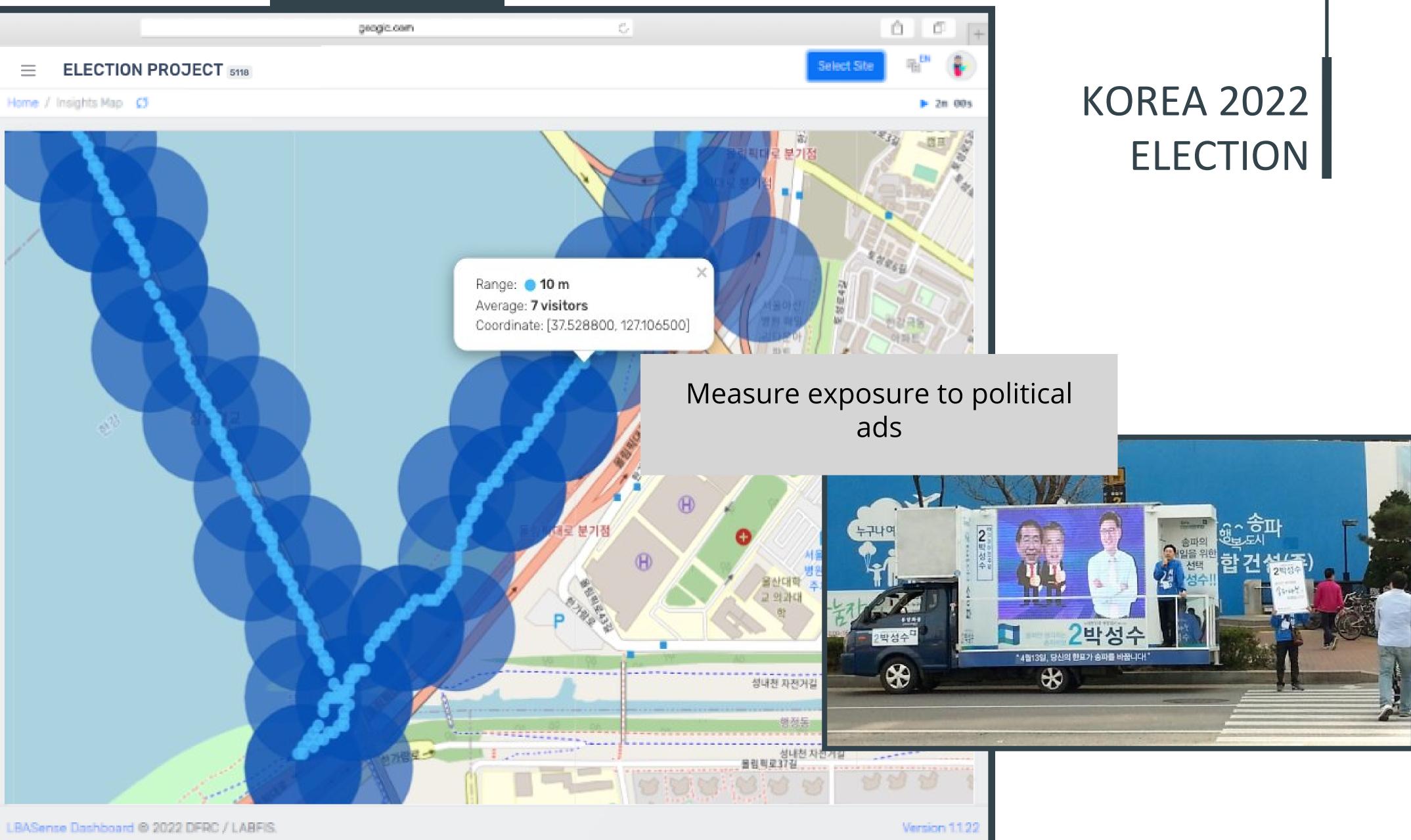
### ense 🕄

### DATA VISUALIZATION

- 💭 Insights Map
- Site Overview
- Regions Overview
- Analytics

Sensor Health
Regions Setup

🕹 ООН



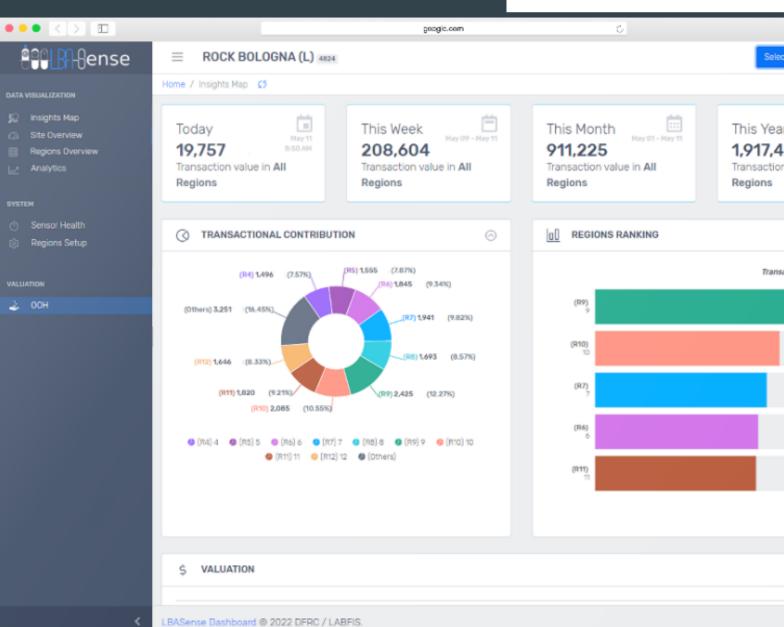
¢



## TAXI ADVERTISING

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





	Ô	ø	+
lect Site	4	۳ (	
		▶ 2m €	
ar <b>468</b> on value		2022	
		0	
nsaction R	levenue		
		2,425	
		2,085	
		1,941	
		1,845	I
		1,820	I
		0	
	Ver	rsion 1.	122

## MOVING EXHIBITION

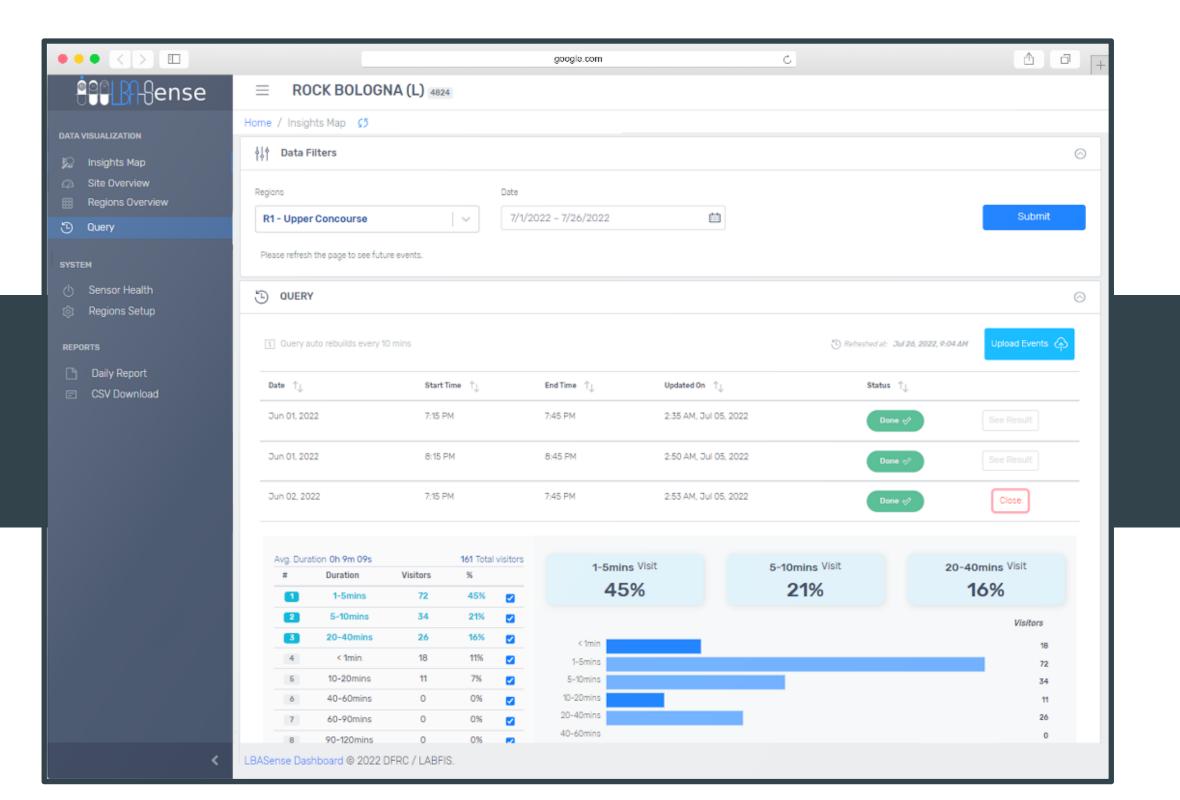
Measure visitorship throughout various locations





	google.com C
ense 🕄	E ROCK BOLOGNA (L) 4824
DATA VISUALIZATION	Home / Insights Map 5
💯 Insights Map	∮∮∲ Data Filters
Site Overview     Regions Overview	Regions Date Resolution
Analytics	All Regions x × v 4/30/2022 - 5/6/2022 to Daily ¢
SYSTEM	Data view
<ul> <li>Sensor Health</li> </ul>	• Visitor Count O Avg. Duration
Regions Setup	
REPORTS	VISITOR COUNT
<ul> <li>Daily Report</li> <li>CSV Download</li> </ul>	B0K 40K 40K 40K 40K 40K 40K 40K 4
	Legend
<	LBASense Dashboard © 2022 DFRC / LABFIS.





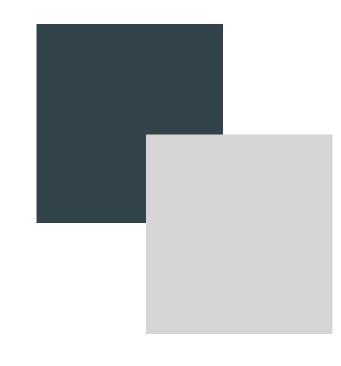


## BUS TRANSPORT OPTIMIZATION

### Measure wait time at bus stops





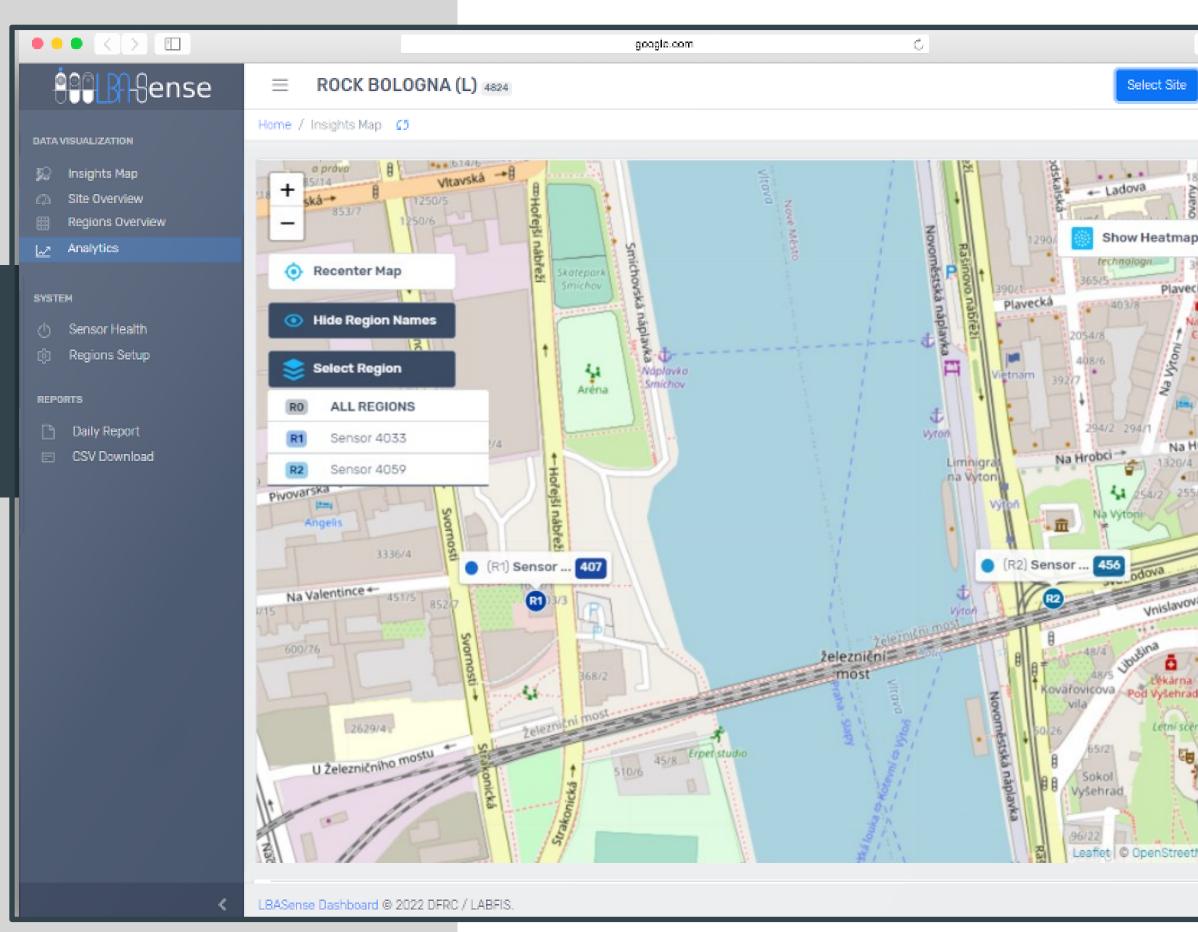


# E-BIKE SERVICE PLANNING

E-Bike station localization
 Number of E -Bike











0 0

EN . Di

▶ 2m 00s

53

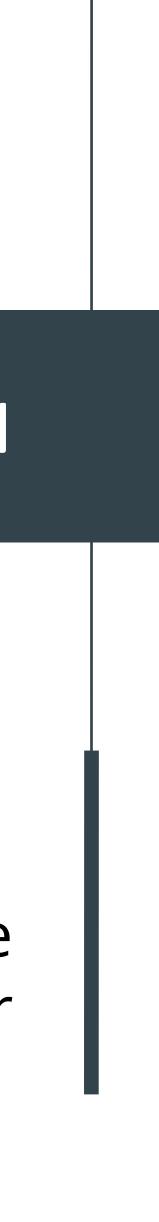
božích

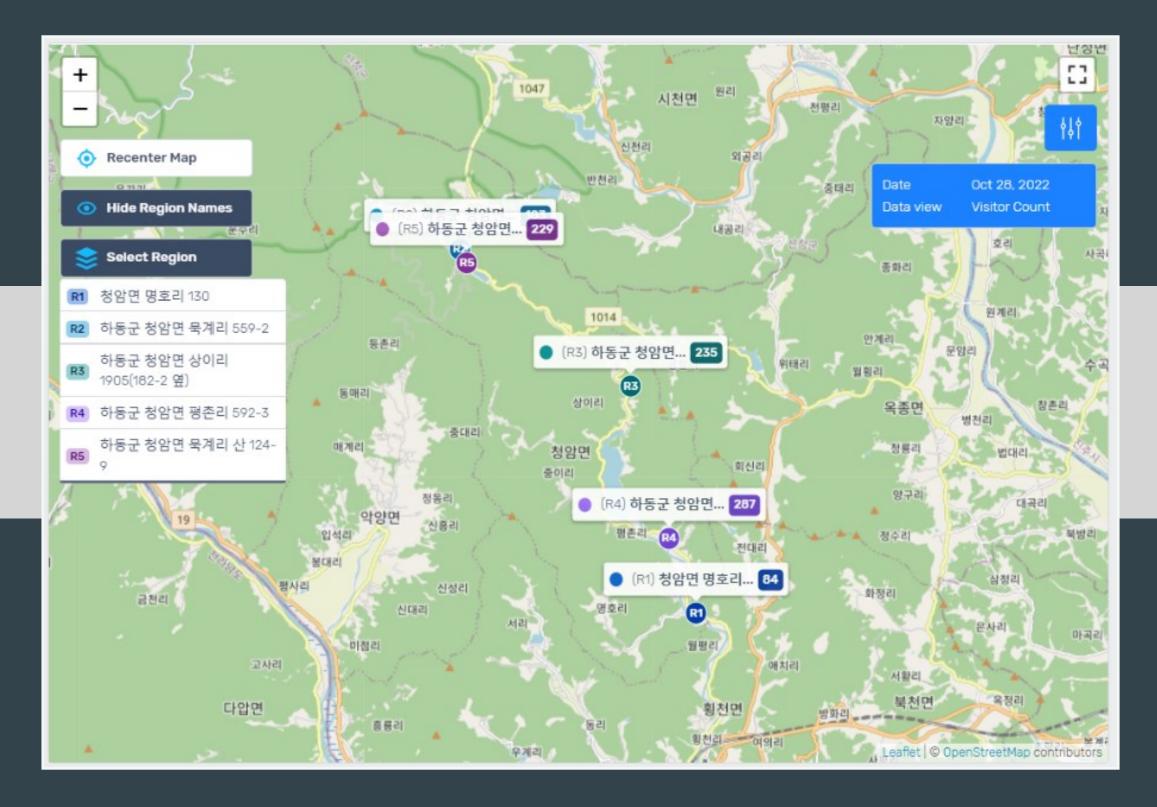
Farni úřad

Version 112



# Count the number of people inside the car

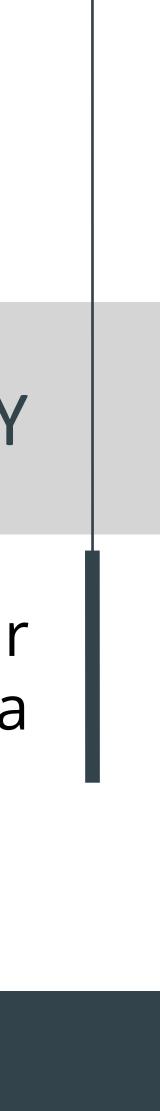




# PEDESTRIAN SAFETY

# 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



### C | .google.com ense 🕄 ROCK BOLOGNA (L) 4824 $\equiv$ Home / Insights Map (5) DATA VISUALIZATION REGIONS OVERVIEW 😥 Insights Map Site Overview Regions Overview Date Analytics Submit 10/28/2022 🛗 Column Filter Percentage over all regions' sum Sensor Health Regions Setup Visitors Current ID 🔍 Name Visitors Last Hour 🔍 Visitor Count 🛝 Monthly Visitors 🛝 Hour REPORTS 11:00 AM 2022 10:00 AM October 28, 2022 October 2022 Daily Report 출렁다리 (Bridge) 691 183,411 1,777 841

All Regions 915

All Regions 915

456

All Regions 1K

All Regions 1K

504

All Regions 3K

All Regions 3K

1,695

All Regions 248K

All Regions 248K

145,500

LBASense Dashboard @ 2022 DFRC / LABFIS.

간현공영주차장

(Parking Lot)

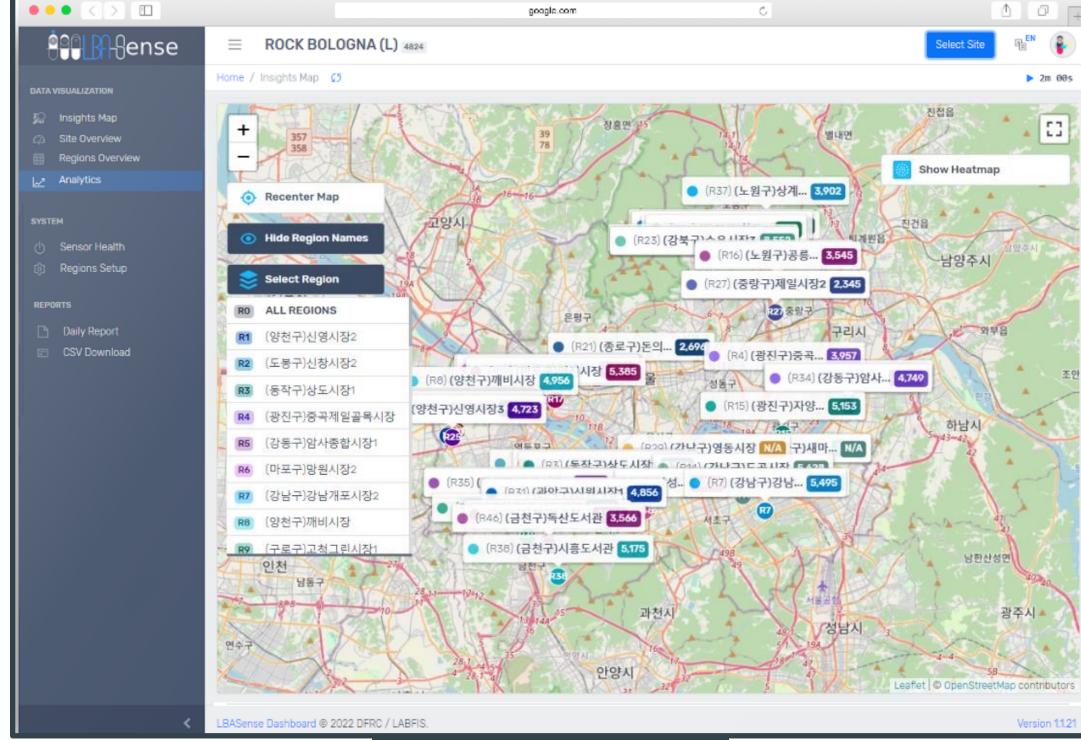
R1

R2

CSV Download









# LOCAL BUSINESS SUPPORT

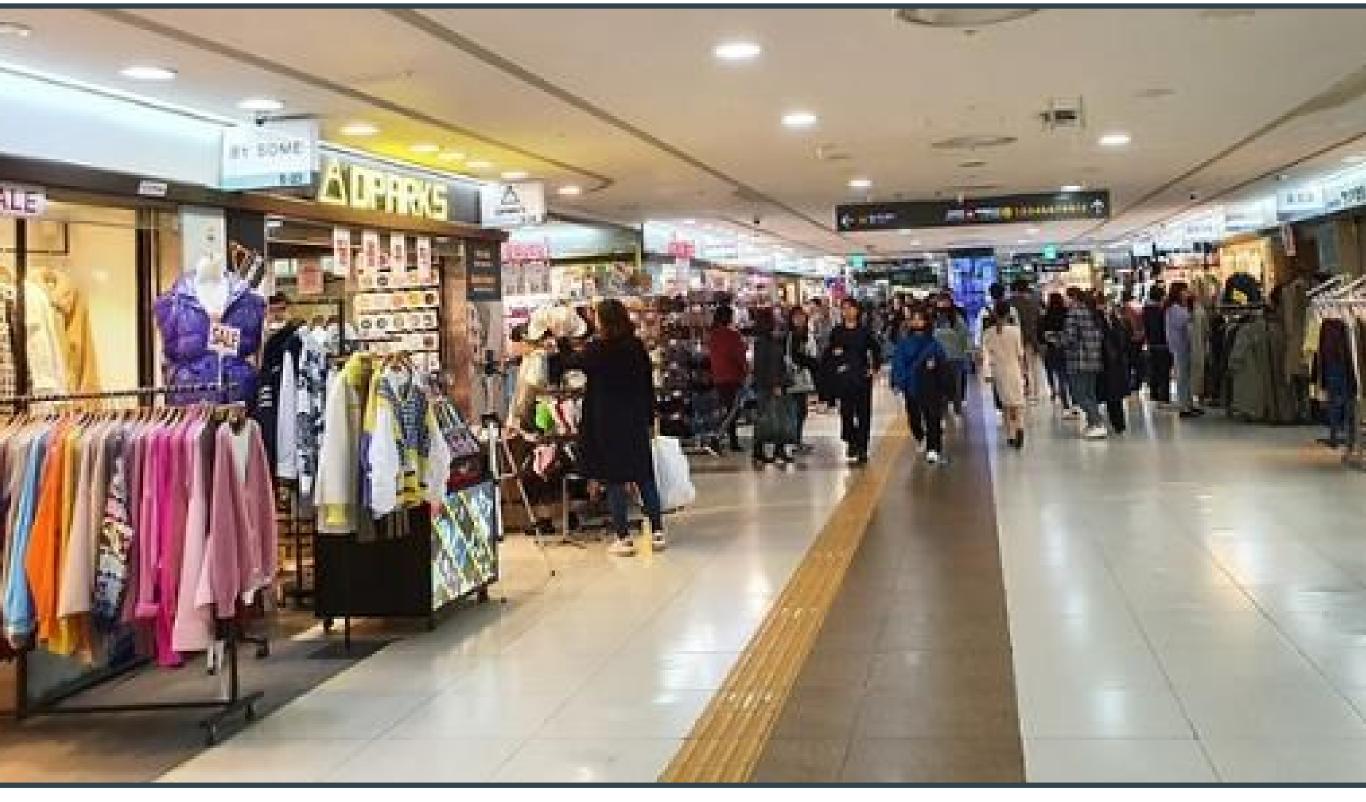
Understanding locals and tourist's purchasing behavior

# LOCAL BUSINESS SUPPORT & SAFETY

			google.com		C.	_		
ense 🕄	$\equiv$ ROCK BOLOGNA (L	.) 4824					Select Site	₽ <sup>EN</sup> ₽
IATA VISUALIZATION	Home / Insights Map 5							▶ 2m 00s
💭 Insights Map	Data value display							
C Site Overview	<ul> <li>Percentage</li> </ul>							
Regions Overview								
Analytics								
YSTEM	MOBILITY TABLE PERCENTAGE () Results less than 1% are displayed as 0%.							
Sensor Health								
(i) Regions Setup	From R1 - 강남역지하도상가 (1)							
REPORTS	Show region names							
Daily Report								
CSV Download		강남역지하도상가 (10)	강남역지하도상가 (15)	강남역지하도상가(9)	강남역지하도상가 (7)	강남역지하도상가 (13)	강남역지하도상가 (12)	강남역지하도상
	EXIT REGIONS	R10	R15	R9	R7	R13	R12	R5
	October 22, 2022	20%	18%	<b>13</b> %	7%	9%	8%	6%
	October 23, 2022	23%	17%	<b>13</b> %	8%	8%	8%	5%
	October 24, 2022	21%	<b>19</b> %	14%	8%	8%	8%	6%
	October 25, 2022	21%	<b>19</b> %	14%	8%	<b>9</b> %	7%	<b>2</b> %
	October 26, 2022	20%	19%	14%	7%	<b>9</b> %	<b>9</b> %	5%

Purchasing Behavior





### Crowd destiny/congestion

• Covid-19

$\bullet \bullet \bullet < > \square$		google.com	C	۵
ense 🕄	ROCK BOLOGNA (L) 4824			Select Site
DATA VISUALIZATION	Home / Insights Map 5			
😥 Insights Map	أأب Data Filters			
Site Overview     Regions Overview	Regions	Date	Resolution	
Analytics	All Regions $\times$ $\times$ $\vee$	4/30/2022 - 5/6/2022	Daily ¢	Sub
sysтем () Sensor Health (த) Regions Setup	Data view Visitor Count O Avg. Duration			
REPORTS	VISITOR COUNT			
<ul> <li>Daily Report</li> <li>■ CSV Download</li> </ul>	REGIONAL COUNTING REGIONAL COUNTING R1 3689/3842 (indoor 300 visitors 8/7/2022, 10:04 PM	100 m <sup>2</sup> R2 3728 Ngee Ann Cit.	ors	

# **OUTDOOR EVEN-GARDEN FESTIVAL**

### Measure event attendance in Realtime



P.

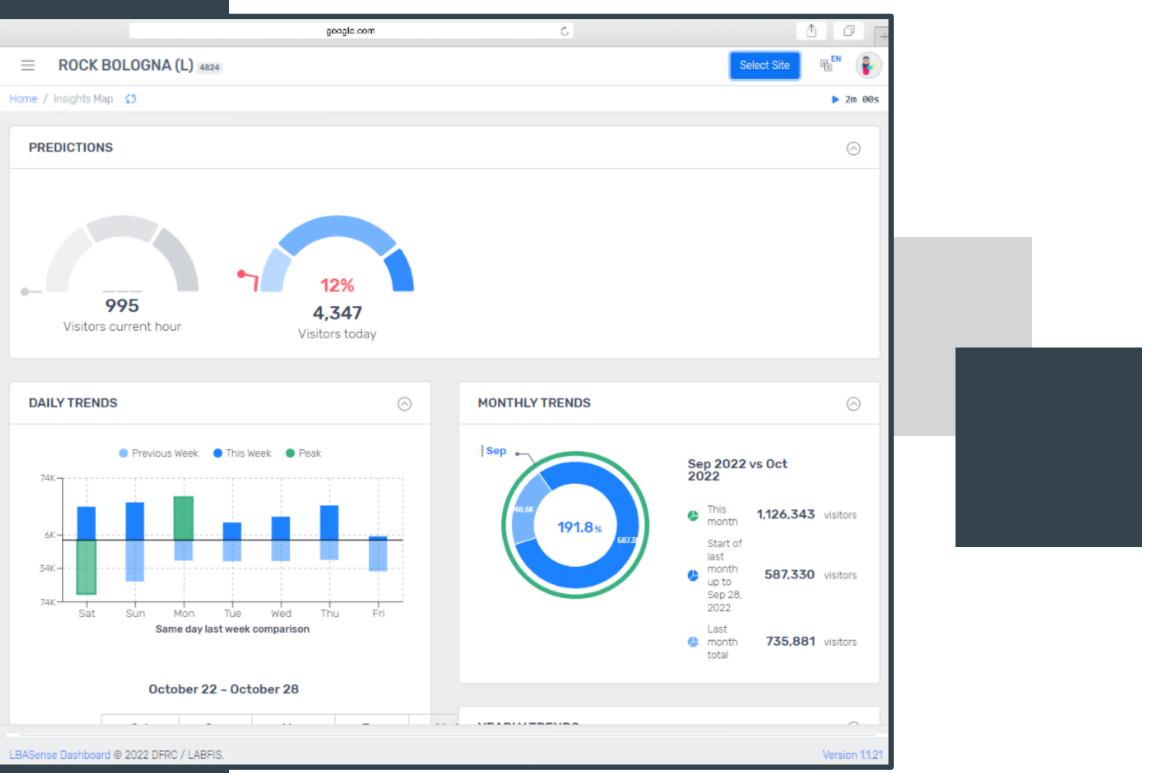
🕨 2m 0

 $\odot$ 



# OUTDOOR EVENT-ESPLANADE THEATER

Measure event attendance



>

Bense

. . .

👌 Insights Map

Analytics

VSTEM

Site Overvie

Regions Setup









## WHAT ABOUT PRIVACY?



방영의 명칭 The of the Invention 맥 주소 암호화 시스템 및 방법

특히 퀸지: Patentee 주식회사 디에프알씨(110111-\*\*\*\*\*\*) 서울특별시 강동구 성안로 196 (2층)

말ឭ자 menter 로펜버그 에벨 서울특별시 강동구 친중로42길 16, 4층 (길동)

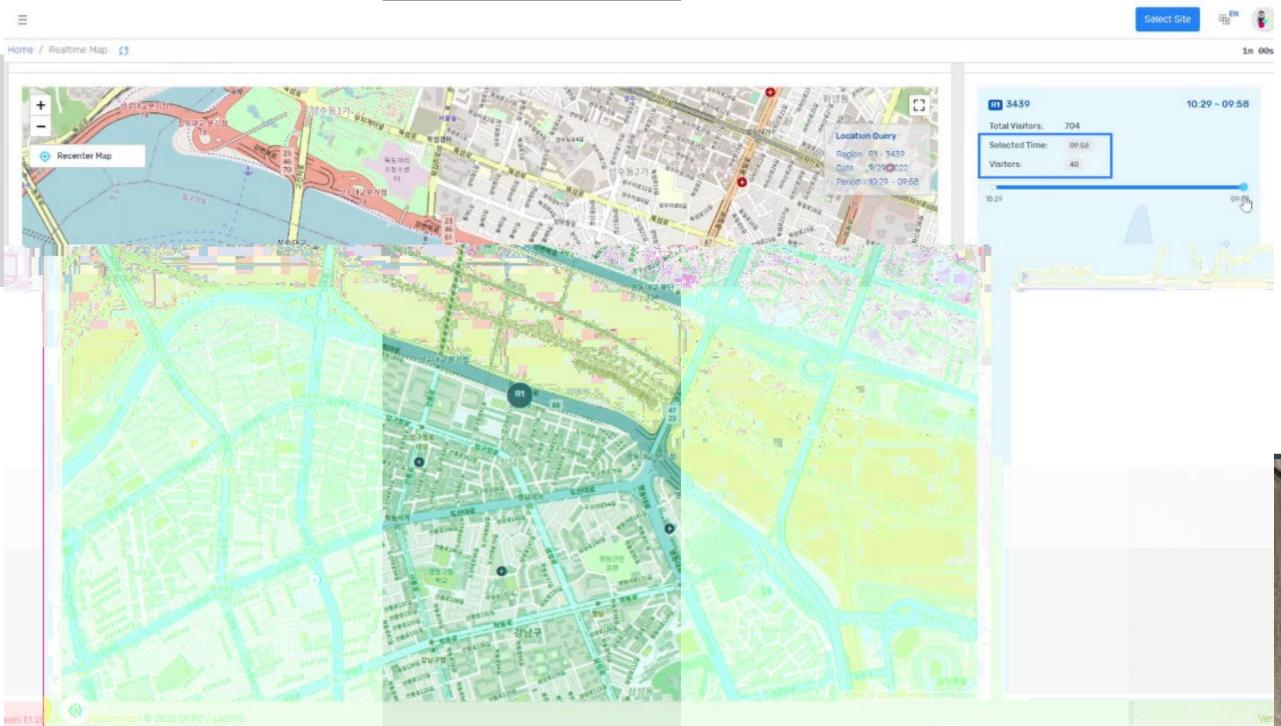
위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.

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.



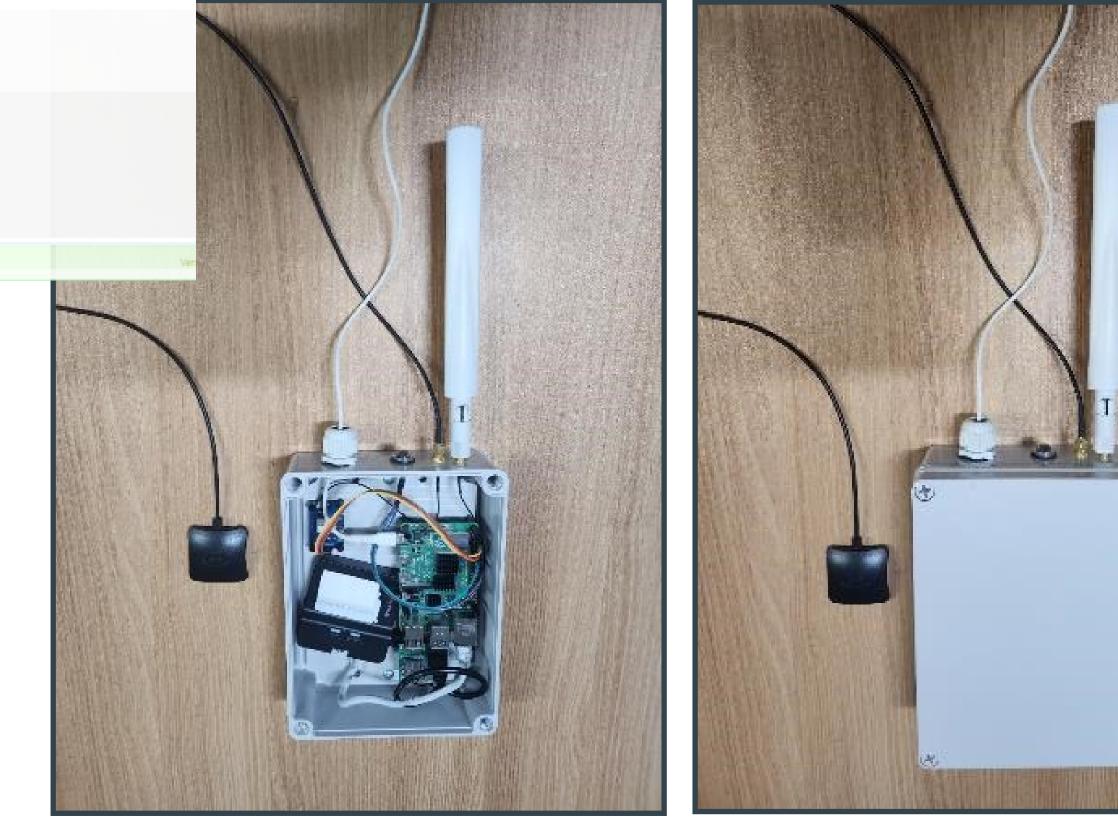










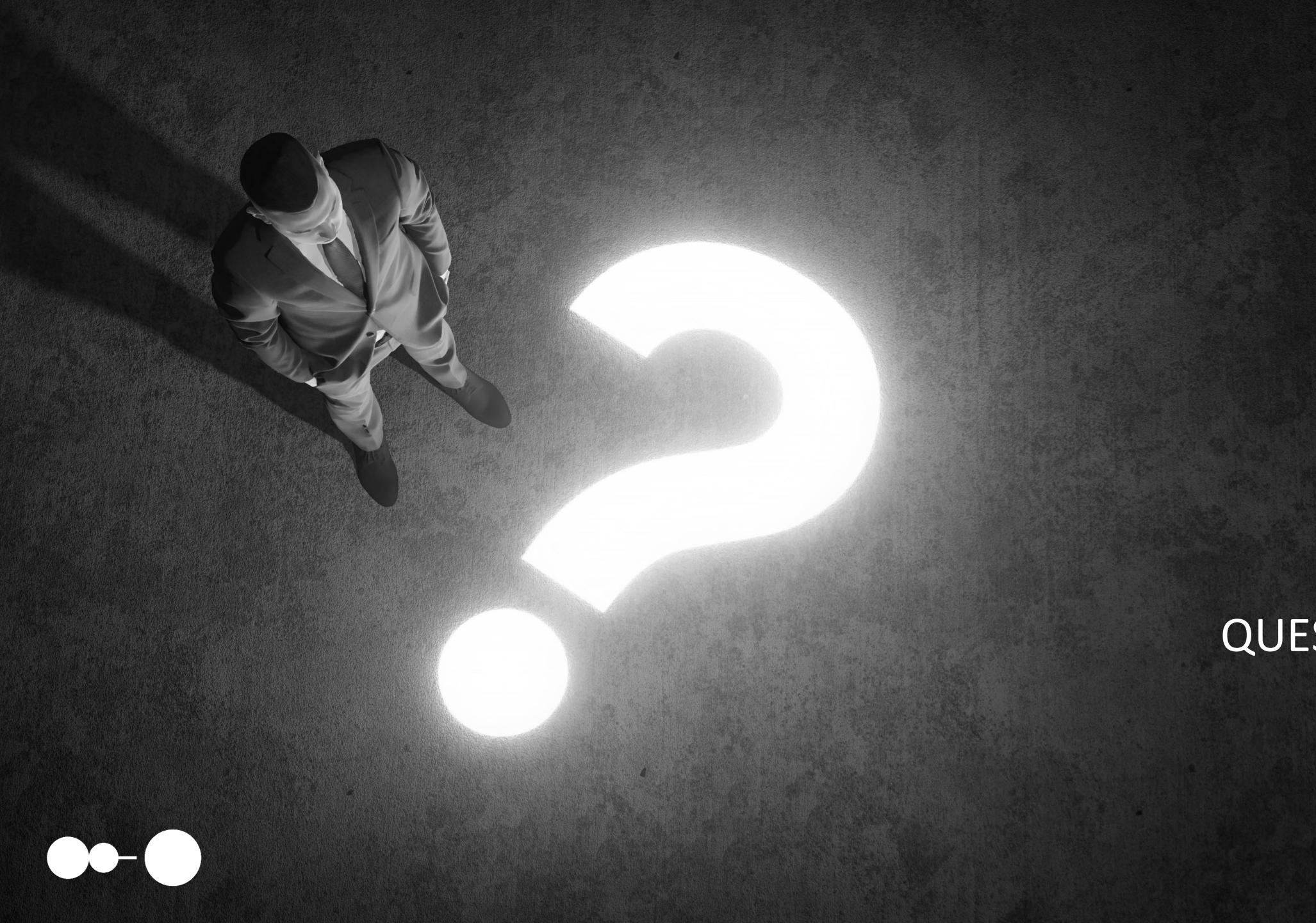






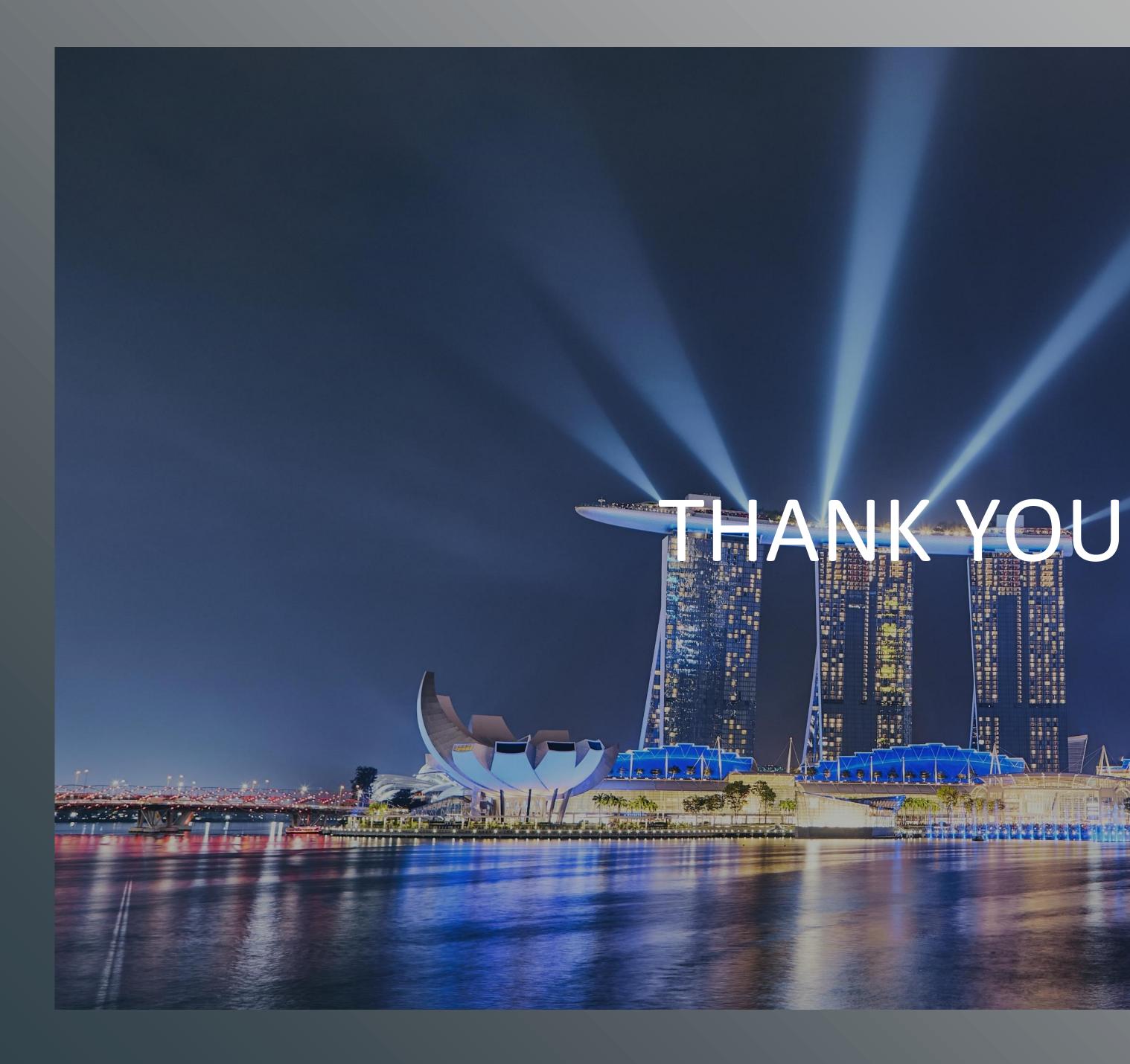
# WHO ARE WE?





# QUESTIONS?







## **Contact:**

**Erel Rosenberg, CEO** +65-82 295 536

www.dfrc-group.com

