

# SuperMap Solution for Smart City

SuperMap Software Co., Ltd

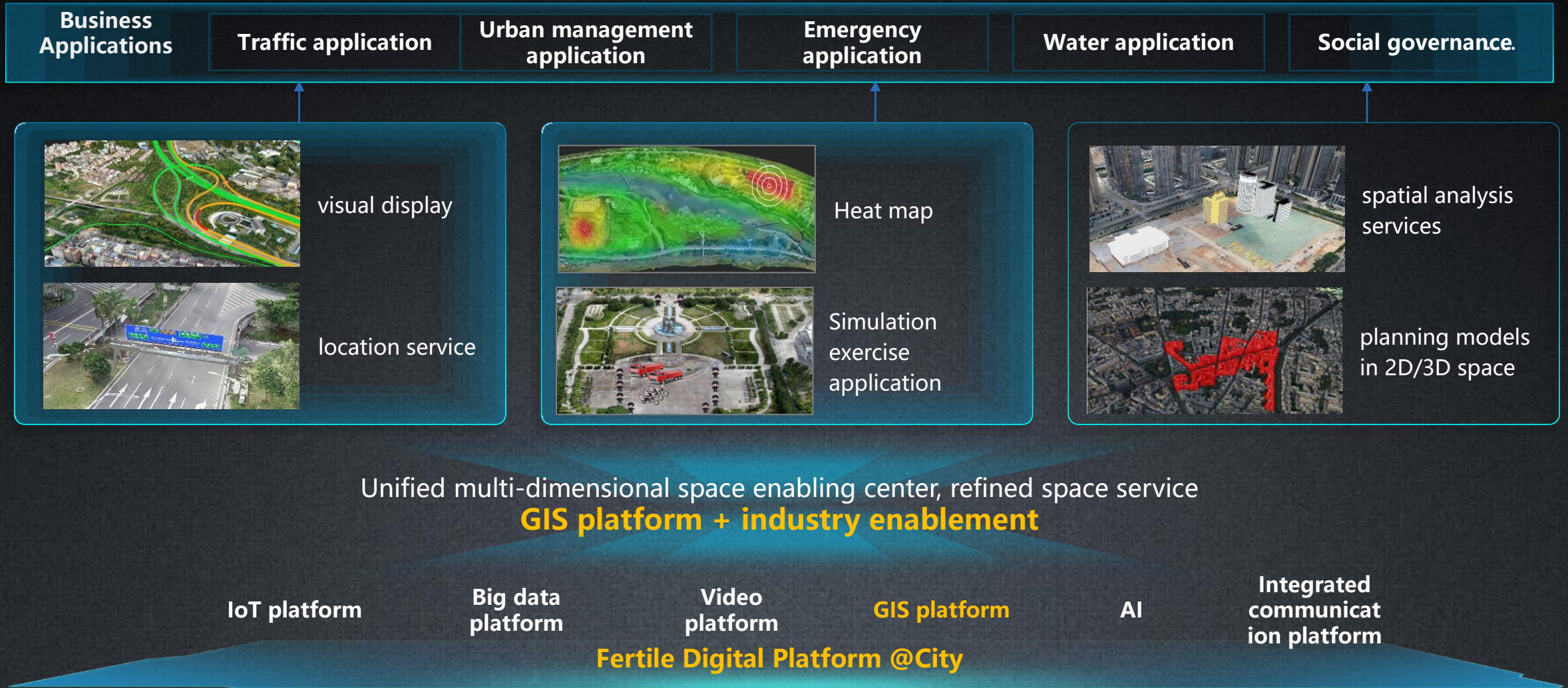
Vella Ahalla

[vella@supermap.com](mailto:vella@supermap.com)



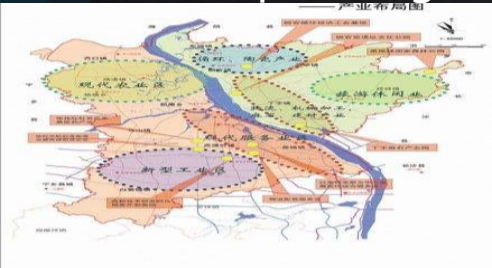
# Thoughts on GIS in the Development of Smart Cities

# GIS is Everywhere @Smart City



# Different "GIS Maps"

Whether land supply can support industrial planning

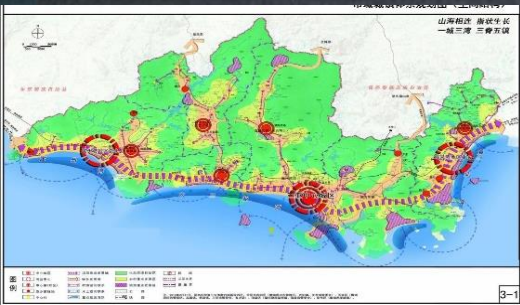
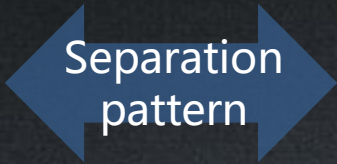


Industrial layout

Does the degree plan match the separation of residence and residence?



Educational resources



A picture of urban planning GIS

One standard three real: a map of business / population / housing



Public security GIS map

Merge

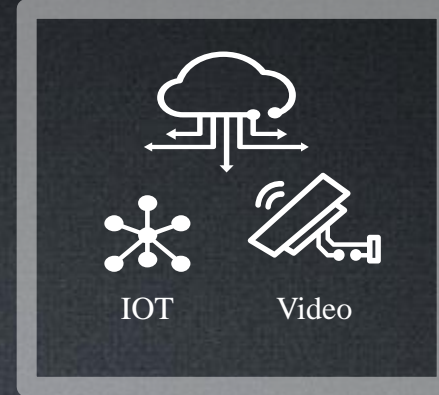
# GIS Needs to Further Strengthen Openness



**Visualization and  
experience  
enhancement**



**Lightweight**

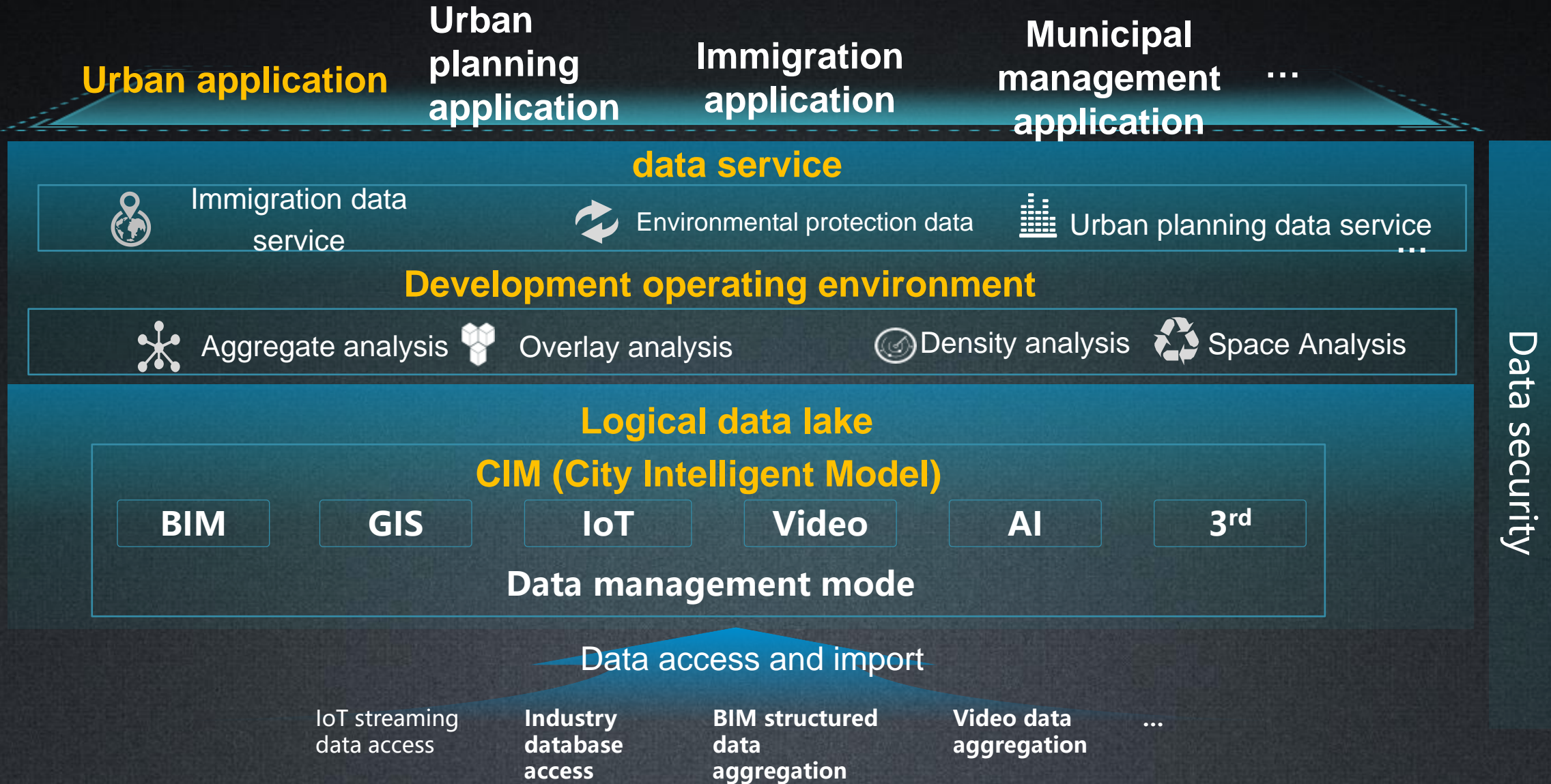


**New data  
integration**

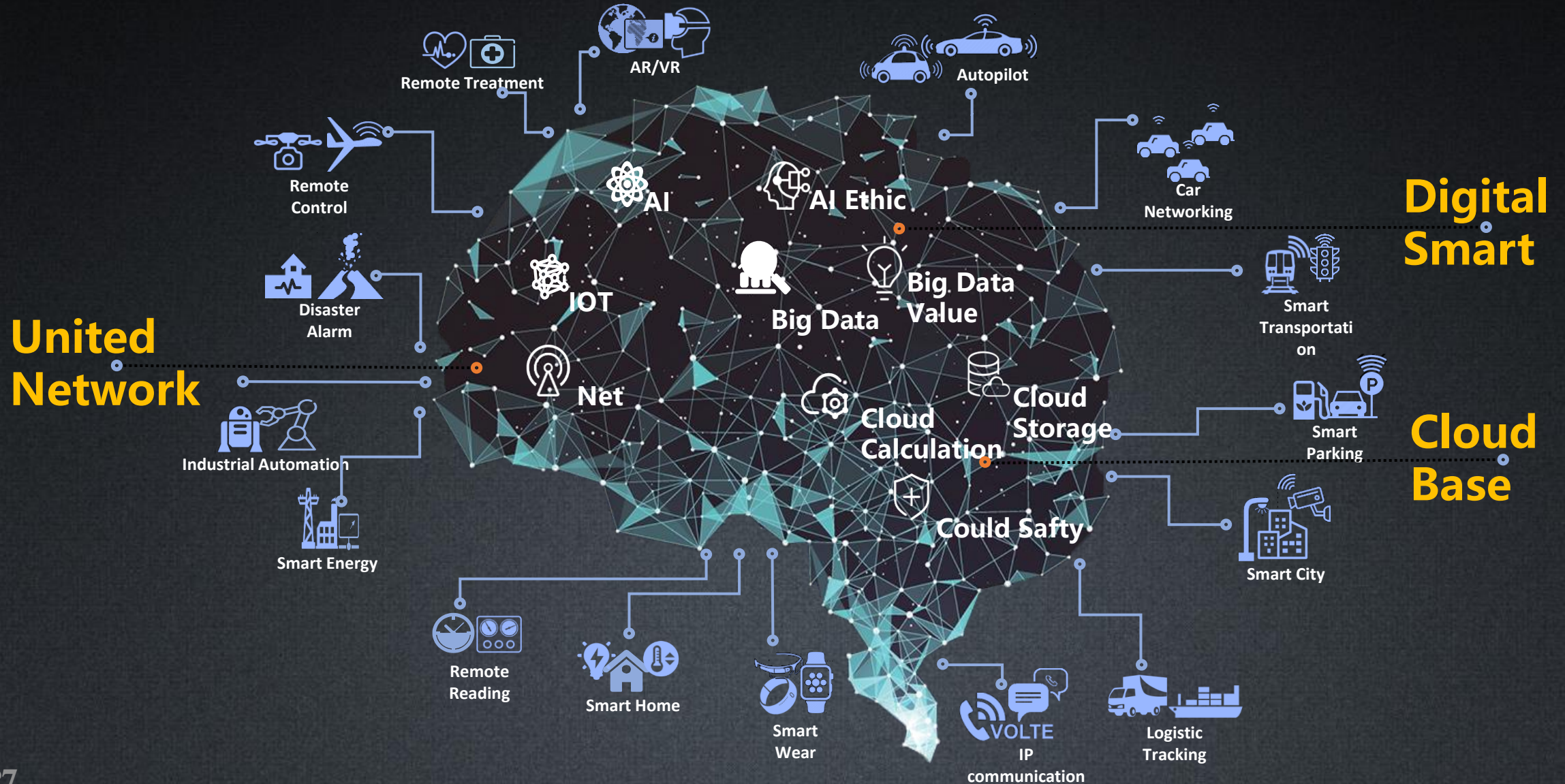


**GIS+BIM  
fusion**

# Future Smart City Needs CIM (City Intelligent Model)



# Builds Smart City 'Neural Network'





Smart City

# What are Smart Cities?

- Smart utilization of ICT to enhance the city's:
  - Livability, Workability and Sustainability
- A smart city must perform 3 important tasks:
  - Information collection via ubiquitous sensors networks
  - Communicate these data to smart computing nodes
  - Analyze the data to understand what's happening and what's likely to happen (predictive analysis)

# Who should be involved?

Energy Planners and Provider

People – Entertainers, Artist,  
Hospitality, etc

Transport Planners/Engineers  
and Builders

Systems/ Software Engineer,  
Technologist and Information  
Builders

City Managers. City  
Planners/Landscape and  
Building Architects

Professional – Healthcare,  
Tourism, Agriculture,  
Education, Security

Economist, Finance Planner,  
Business and Factories

Utility  
Managers/Planners/Engineer

# Challenges

Complex Static and dynamic operations in city management

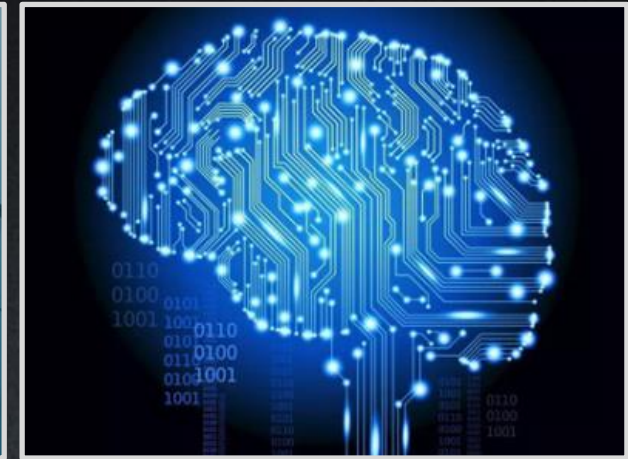
Lack of proper reliable data with right attribute

Complex nature of traditional GIS tools

Lack of trained staff in all vertical of administration

Develop an easy to use front end tool to use information for day to day operations, planning, and decision makin by normally educated manpower

## AI



# GIS

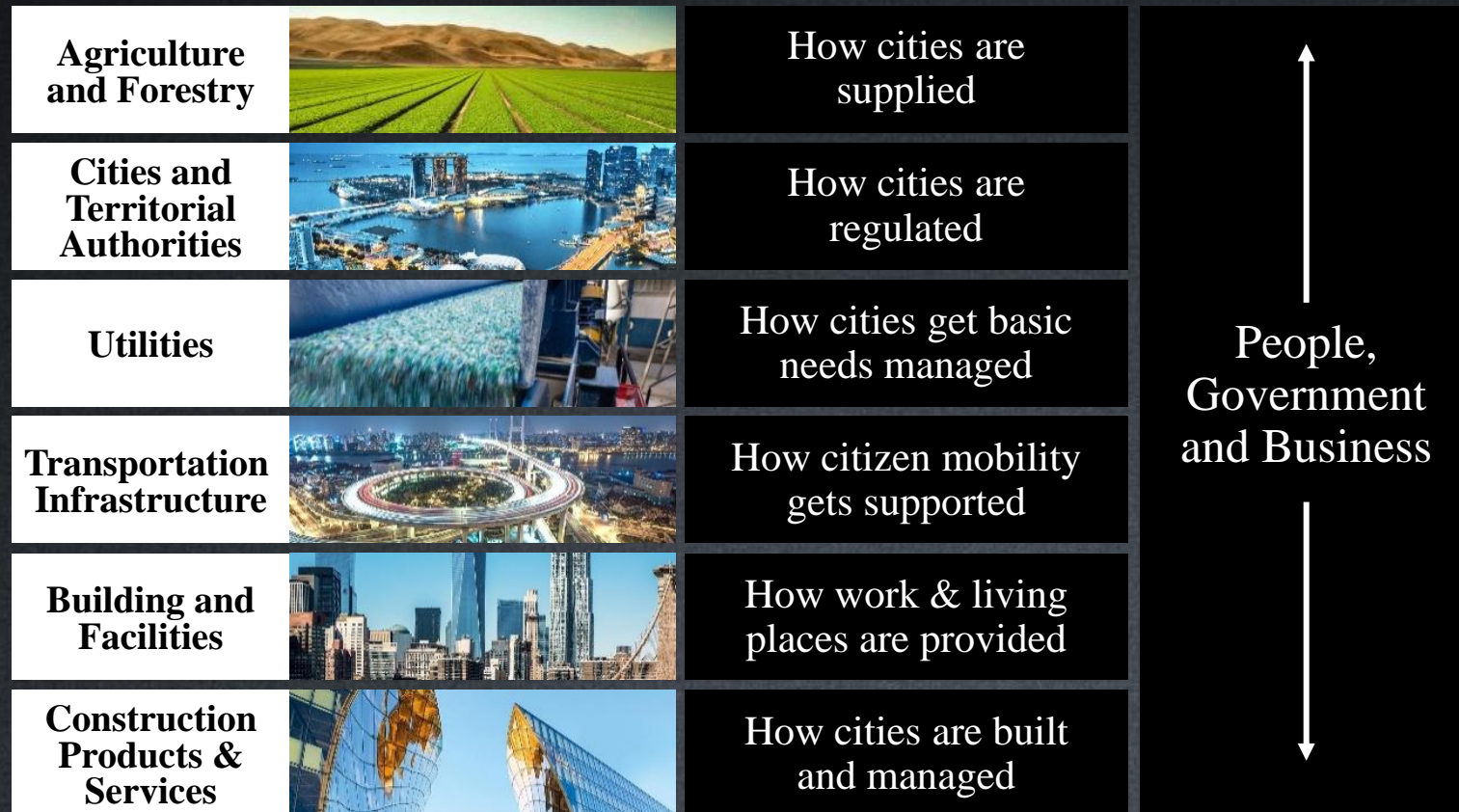
# Construction, Cities & Territories

•TRANSFORMING THE  
ECOSYSTEM  
WHERE CITIZENS LIVE

WHY?

WHO?

HOW?





# SuperMap Solutions

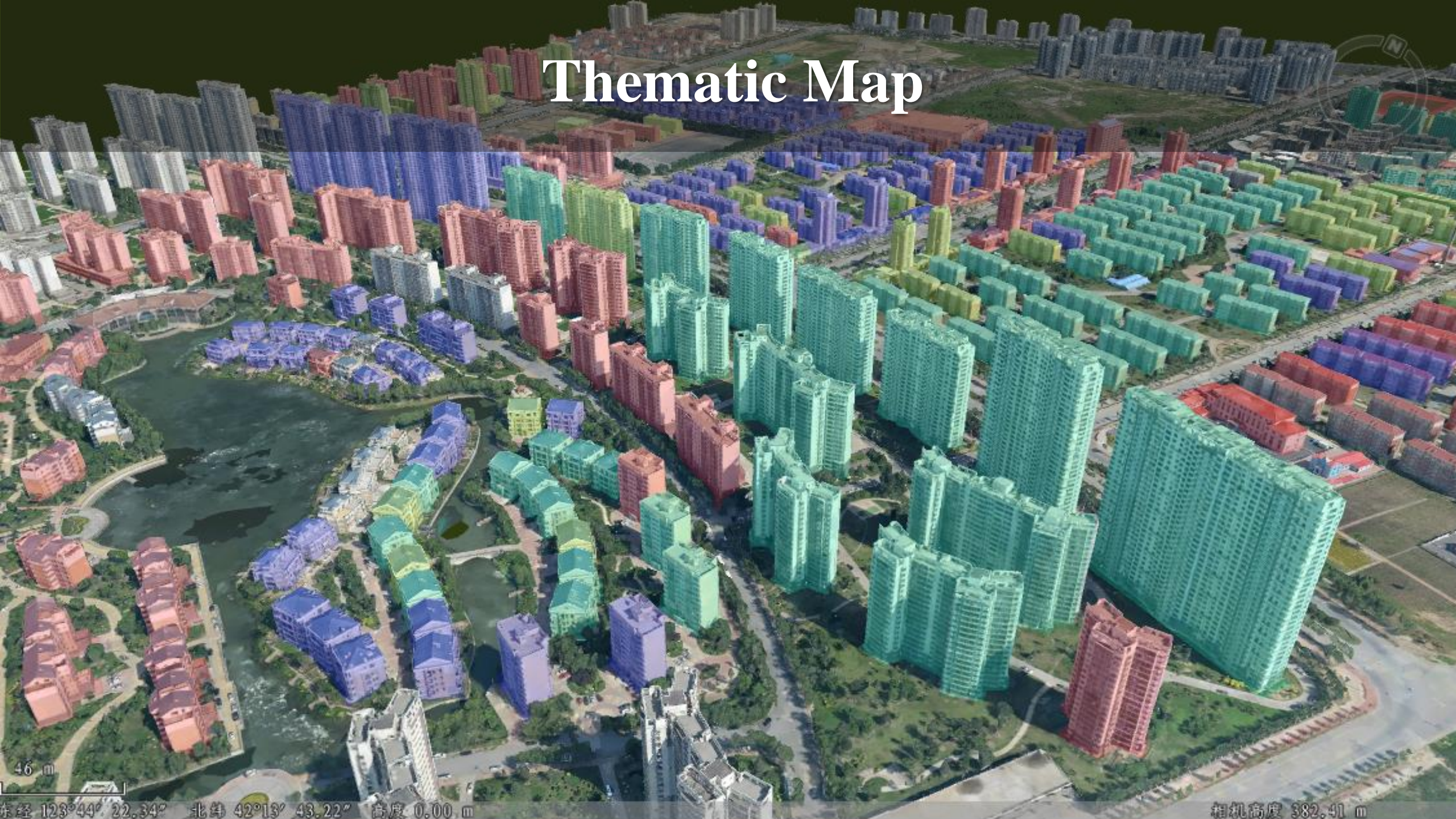
# Features

用户单位：兰州市勘察测绘研究院  
数据提供：华正空间



# 3D City Visualization

# Thematic Map

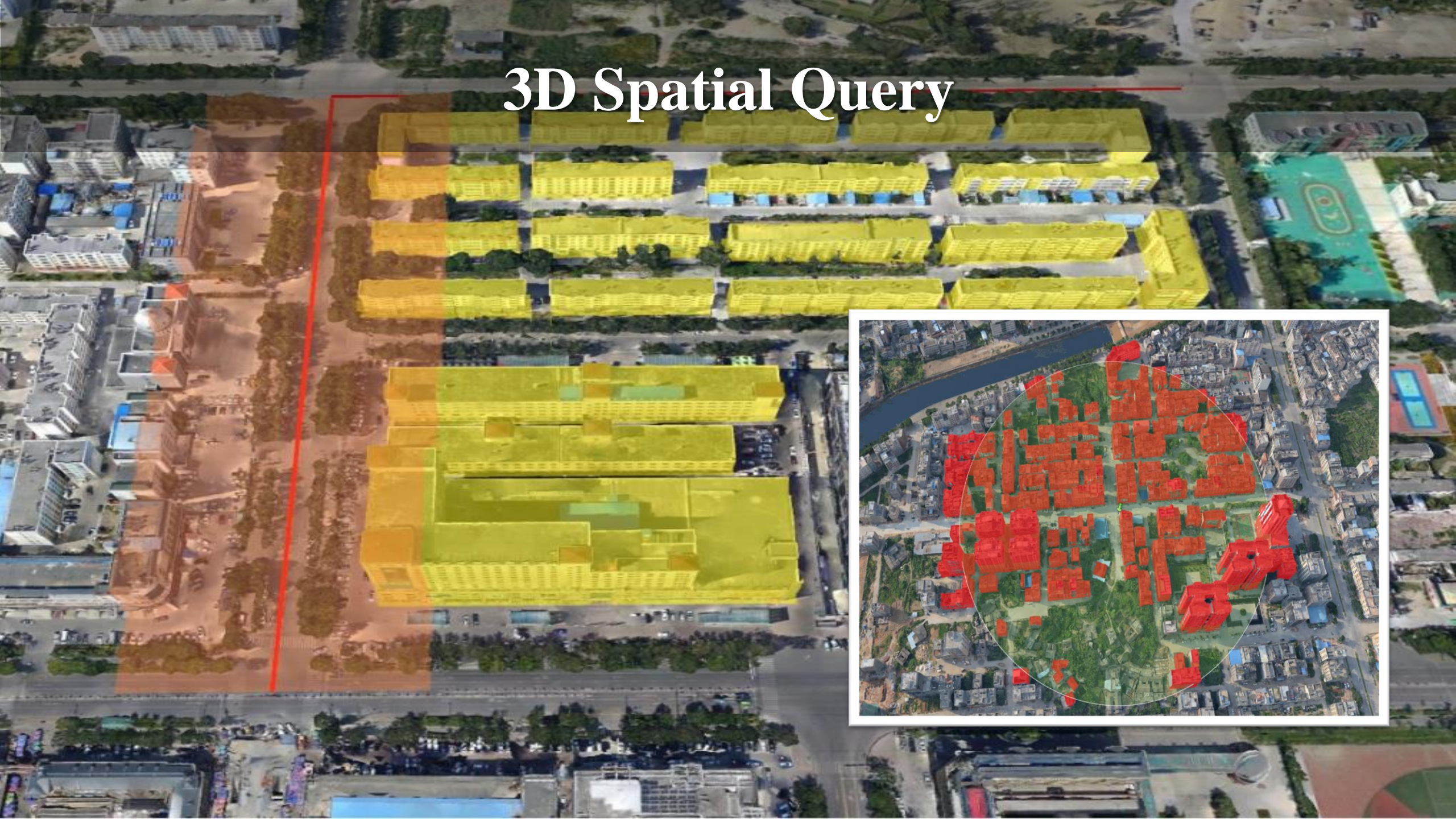


46 m

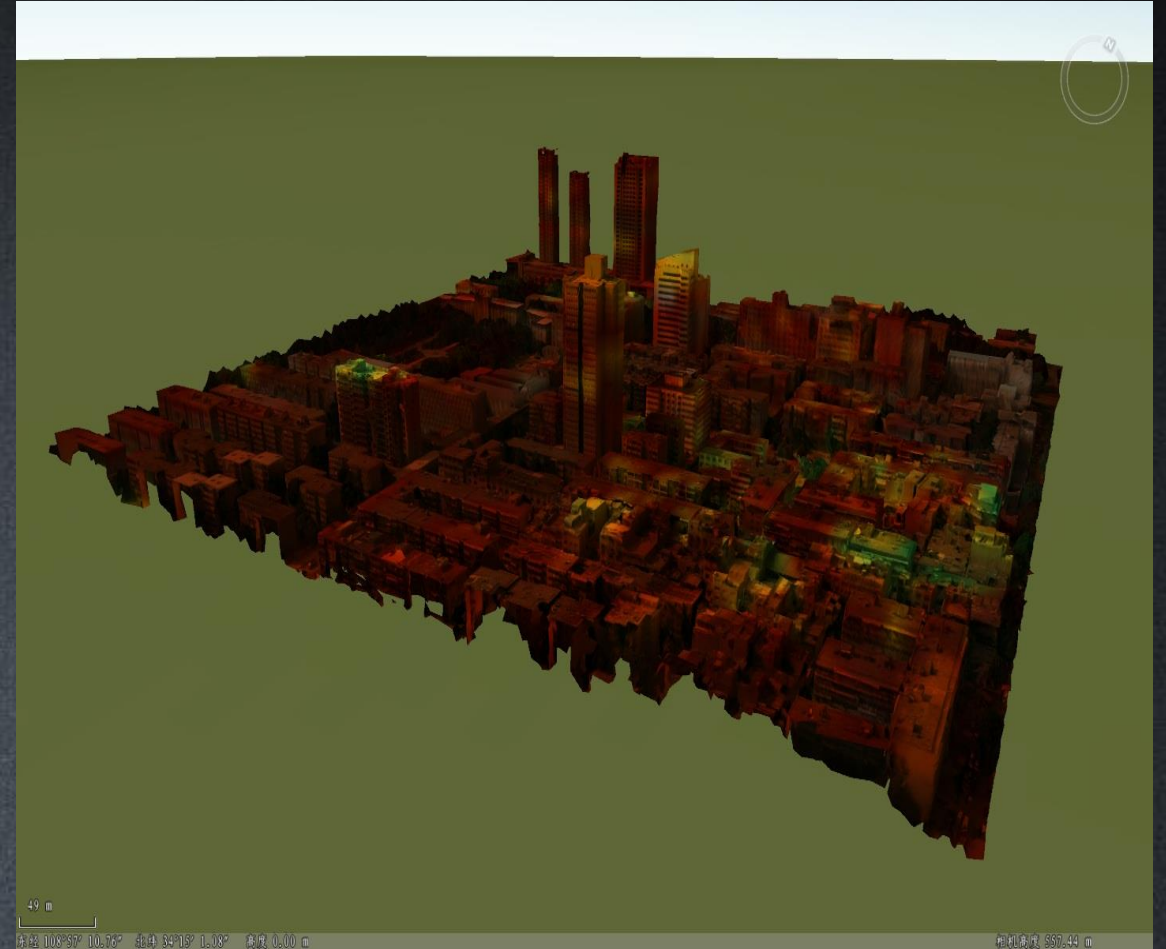
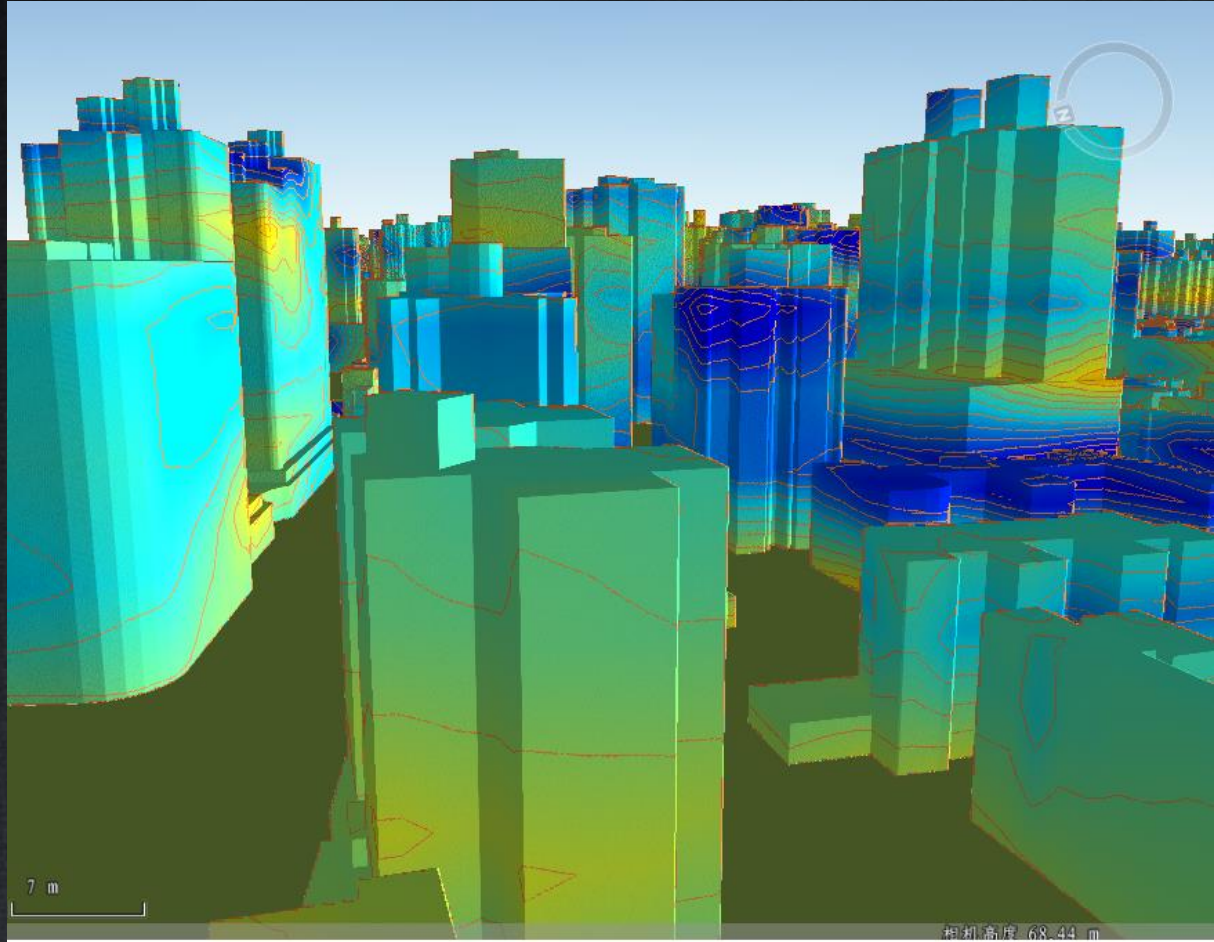
东经 123°44' 22.34" 北纬 42°13' 43.22" 高度 0.00 m

相机高度 382.41 m

# 3D Spatial Query



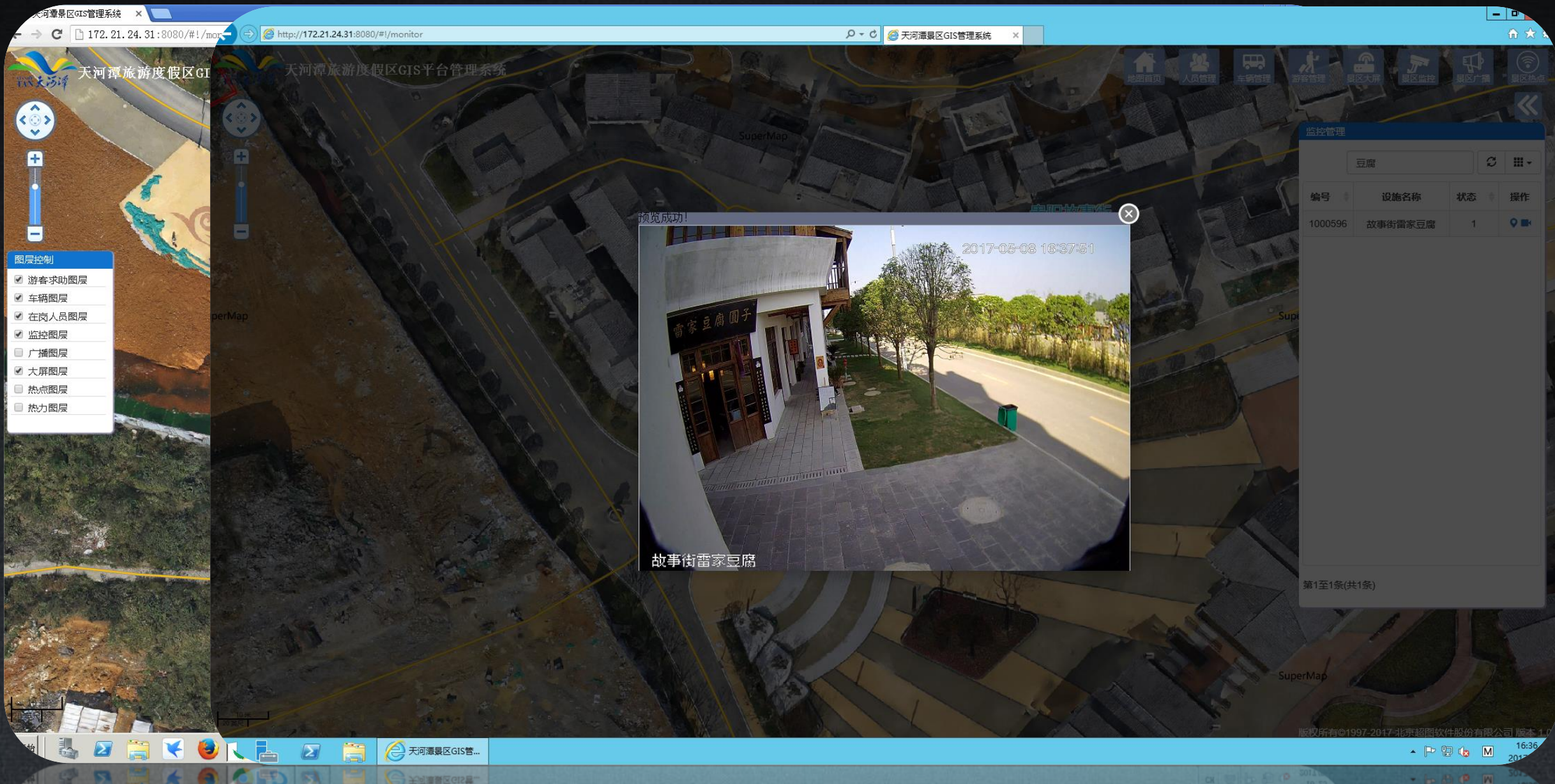
# Communication Signal Strength Simulation



# Pollution Field Simulation (Not Voxel Grid)



# Integration with CCTV



Integrate with IOT (camera)



# Integrate with Street View Data



SuperMap

智慧名片

打开视频列表

近5年营业额



近5年员工人数



股票代码: 300036

17.8元

SuperMap许可

云在线许可数 (正式)	云在线许可数 (试用)
89,558 个	238,097 个
出货模块许可数	
271,118 个	

地图慧

大众用户数	企业版用户数
1,013,195 个	111,030 个
在线接口调用次数	
583,597,084 次	

生态伙伴

国内签约伙伴	代理商国家
2,256 家	36 国家

软件

基础软件代码行数	自动化测试用例
15,961,766 行	63,975 个



近5年研发投入



近5年基础软件研发人员



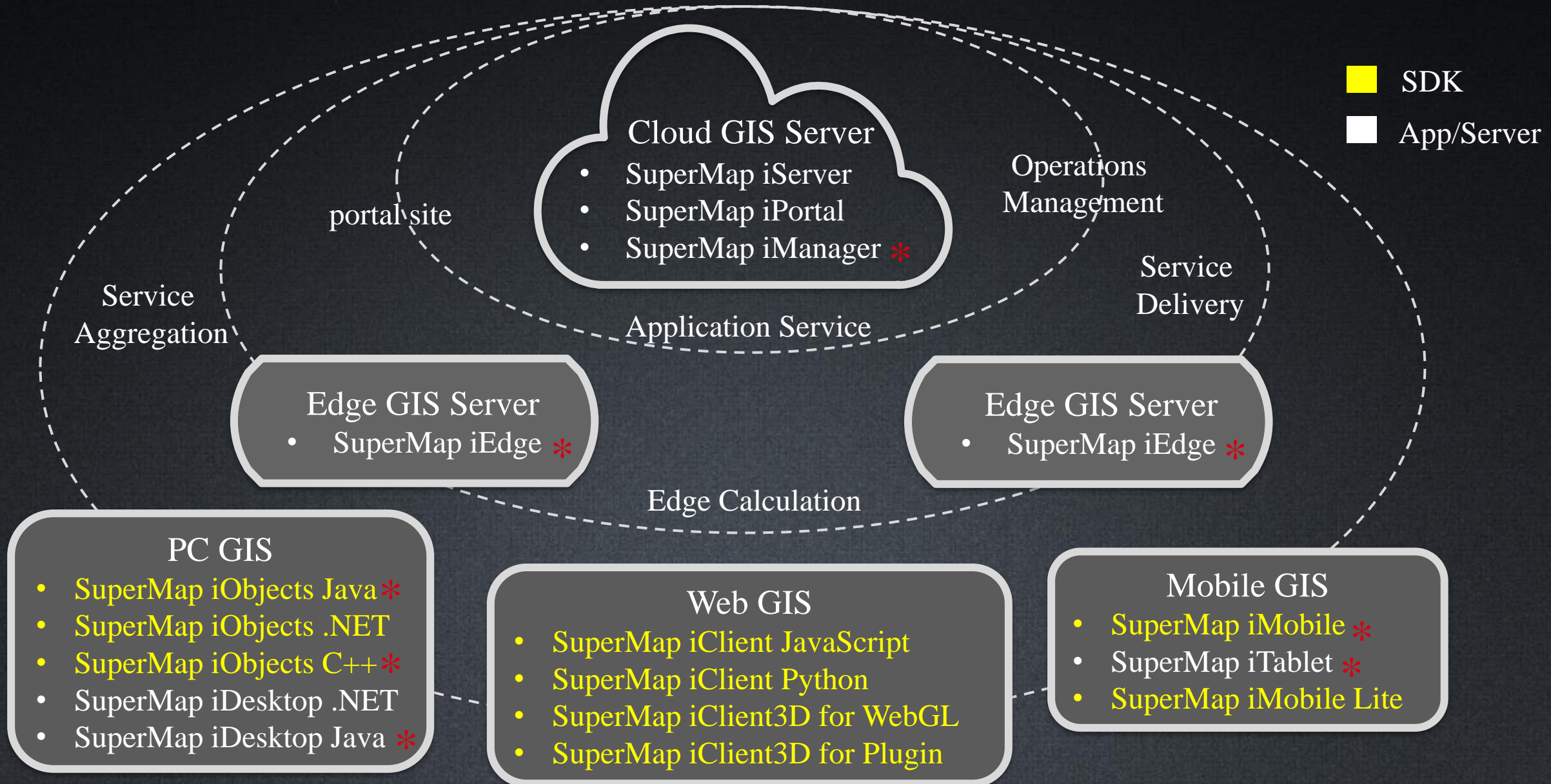
技术类员工占比 (当年)



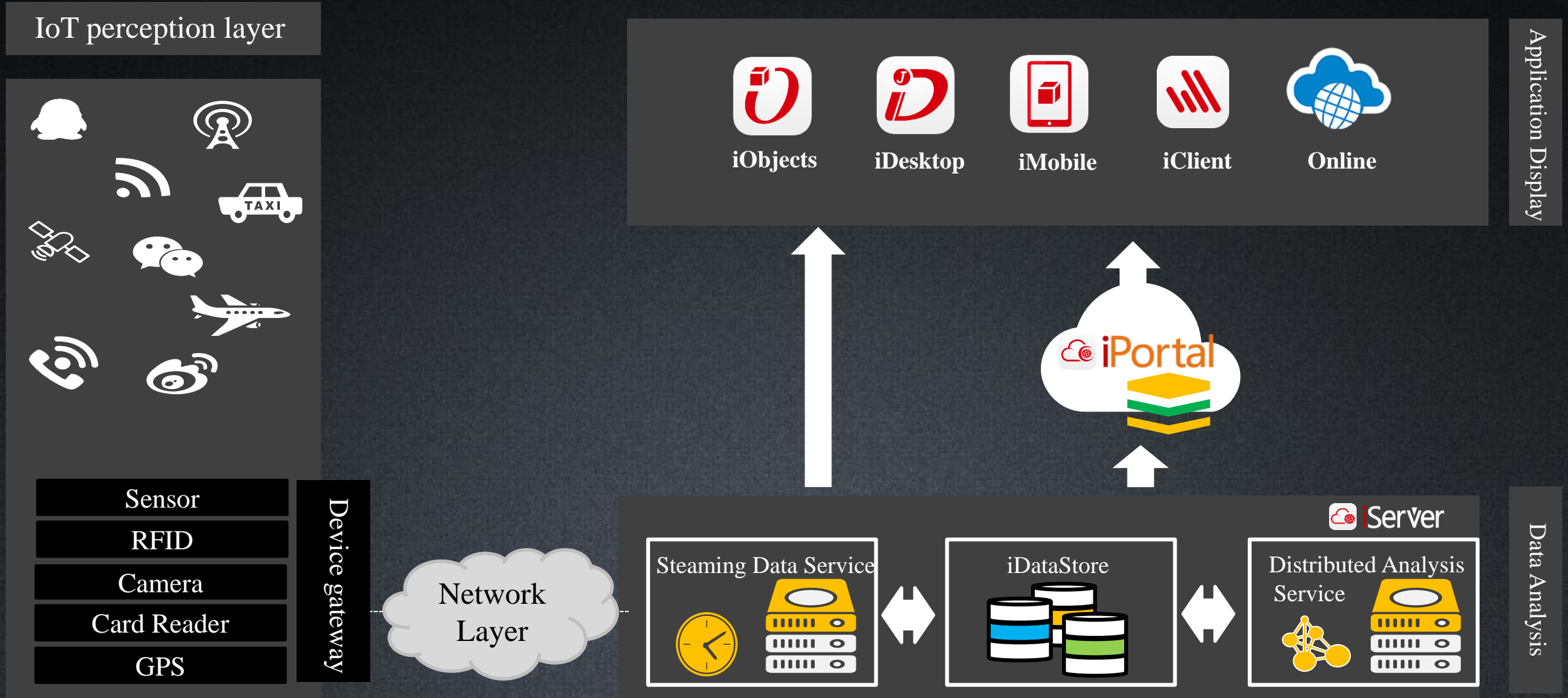
MapDashboard

# Platform

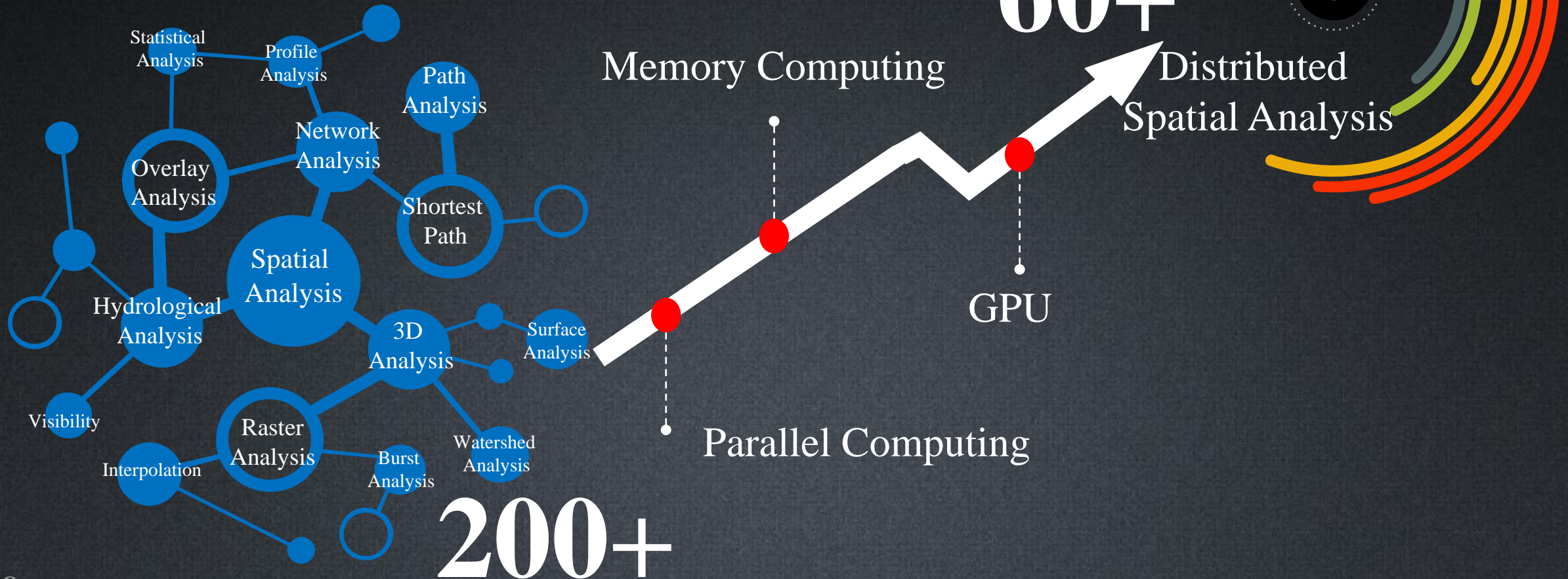
# SuperMap GIS Product Family



# SuperMap Big Data GIS + IoT



# SuperMap Spatial Analysis





# Cases

# **Platform of Location Timing Insight into Big Data**

# Platform of Location Timing Insight into Big Data

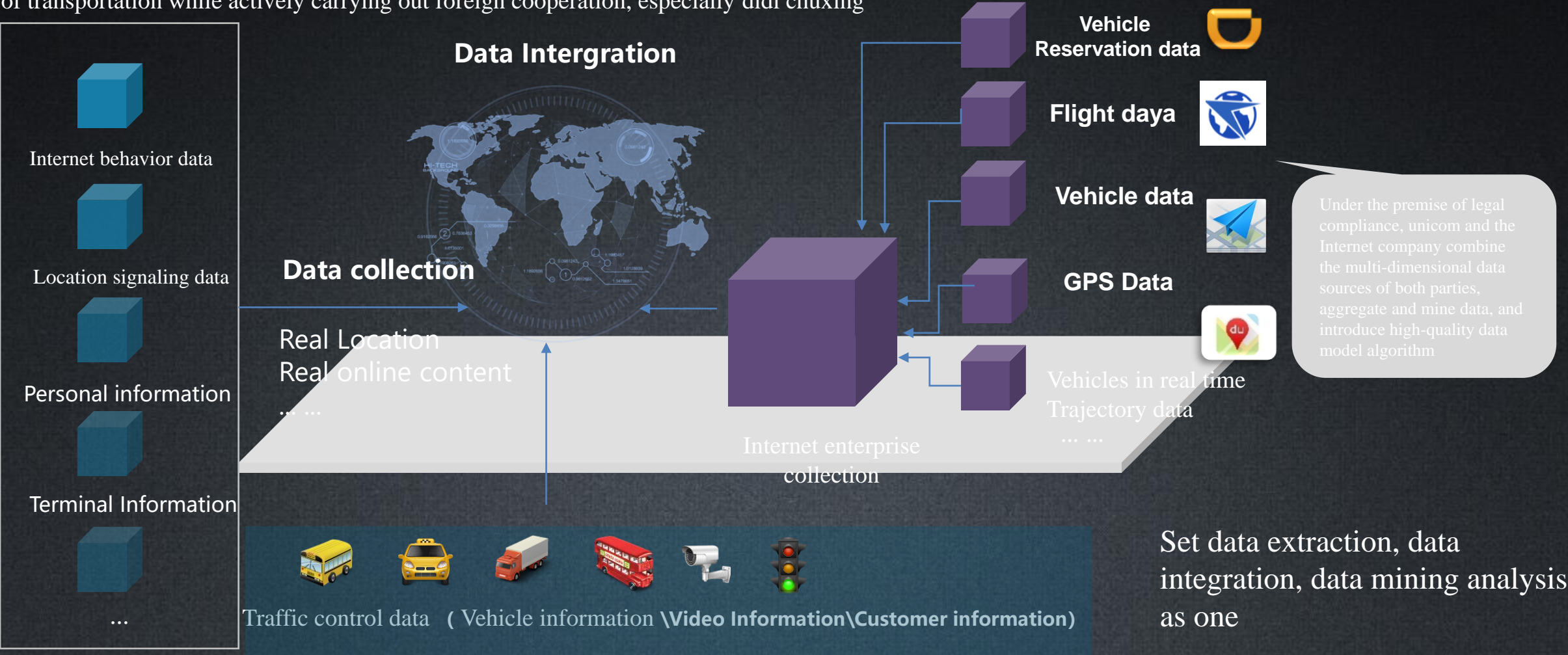


- ❖ Target Clients : Government、City Planning、Enterprise needing insight and location select
- ❖ Clients Requests : Real-time crowd monitoring, travel route selection, passenger source analysis
- ❖ Products Function : Focus on location applications, including statistics data sets, reports, statistics points API, visualization platform and other ten applications

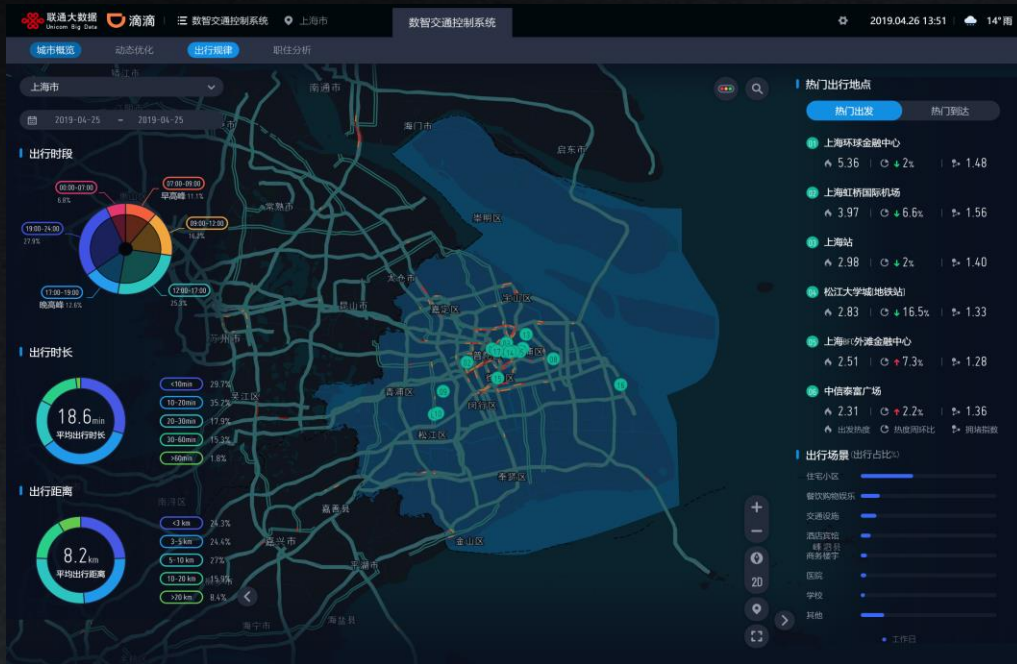


# Location + Transportation:Traffic Data Fusion and Open Sharing Ability

In recent years, unicom's big data company has been constantly improving its internal performance in the field of transportation while actively carrying out foreign cooperation, especially didi chuxing

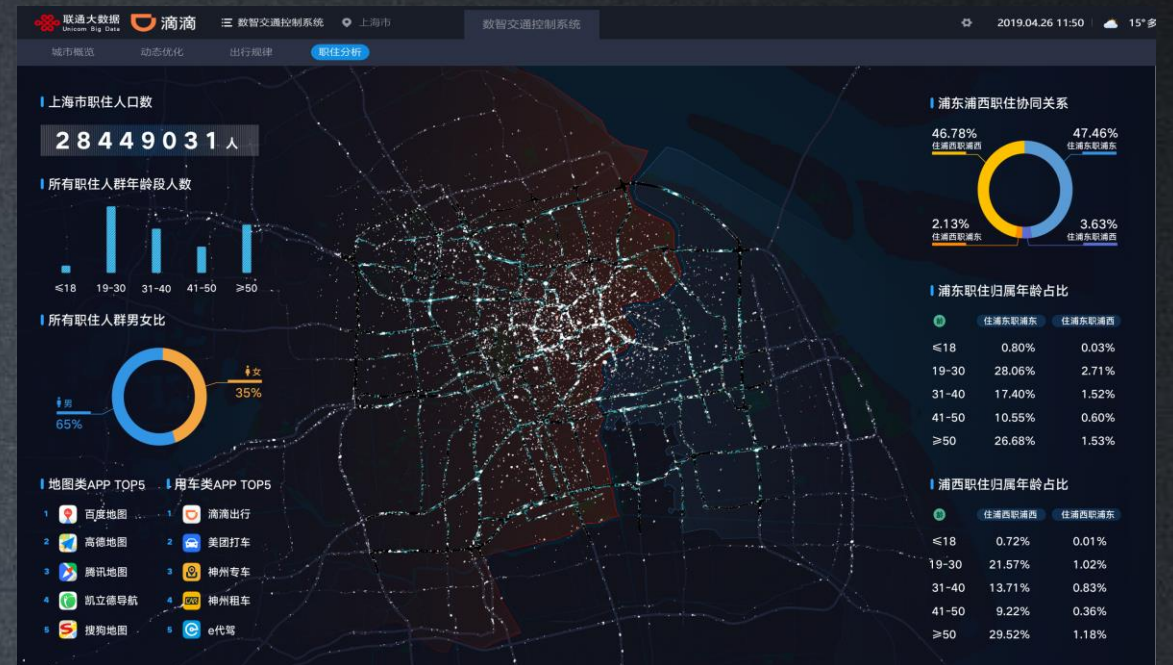


# Location & Transportation: Overview of City Travel

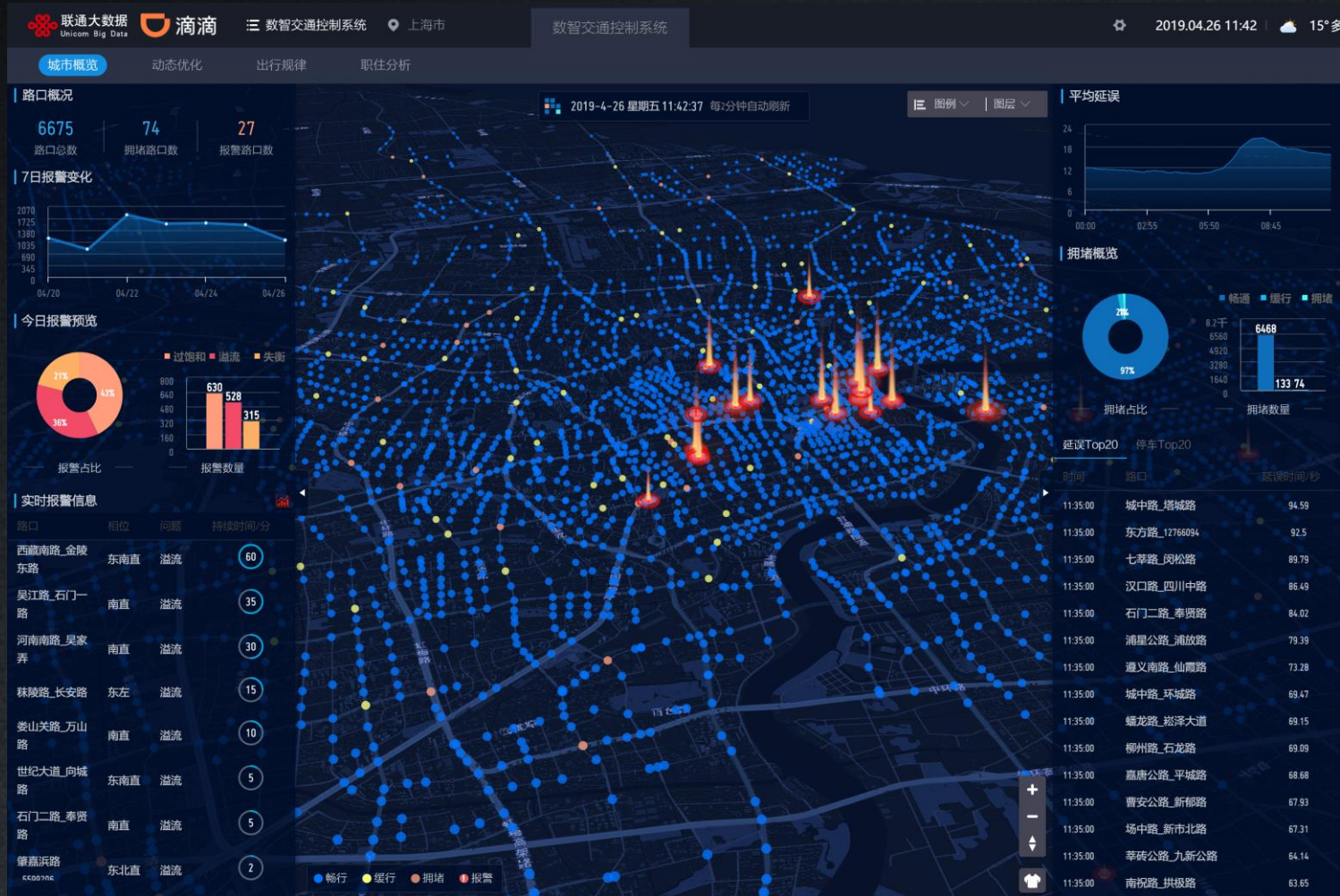


The urban travel overview is based on the terminal trajectory, mobile network behavior preference, car-hailing trajectory data of China Unicom and Didi. It aims to describe the traffic status of the city and every area under administration, and supports the travel time, travel time, travel distance, travel trajectory, etc. Multi-dimensional analysis of travel behavior, and for the hot departure map and population heat map in the form of thermal migration map and population heat map to show the traffic migration situation of people and vehicles, with special holidays, major events traffic protection, weather changes and planning, etc. demand.

Through the massive track data of people and vehicles, the whole city can be scanned in time, so as to grasp the overall operation of the city.



# Location & Transportation: In Time Warning



Provide minute-level real-time traffic conditions, trajectories, and alarm information to quickly detect abnormal congestion points

Provide historical alarms, delay trend fluctuations, and timely attention to changes in the city's situation

The city's real-time delay ranking, parking number ranking dynamic refresh, real-time control of intersection changes

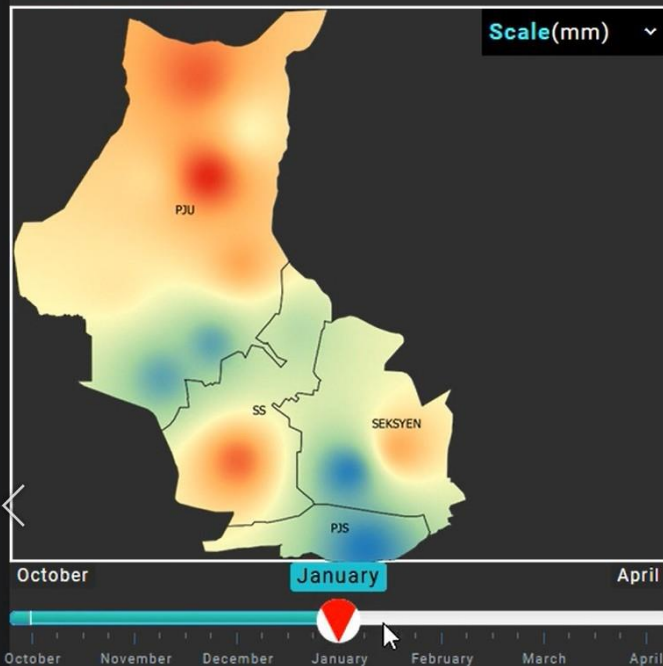
**PJ Smart City Development 2030**  
**A Use Case of Geospatial-Centric Development of Smart  
City**

# About SmartPJ

- Project initiated in 2016 and target 2030 for completion
- To embrace GIS as the unifying technology for planning & development of SmartPJ. Selected SuperMap GIS as the GIS platform of choice.
- Development & implementation budget to spread over 2 major 5-year plan budgets (est. US\$90 million)
- Develop SmartPJ Planning & Development Standards and Policies.
- Completion of the SmartPJ Centre by 2019.
- Develop applications for on web and mobile to engage citizens.
- Deploy IoT sensors & intelligent CCTVs.

## FLOOD CONTROL AND DISASTER MANAGEMENT SYSTEM

### Rain Prediction



### Information Alert

Aida @aidadarkside  
Cuaca panas nya. Tak hujan ke #MBPJ #JamDiPJ #pj

Wan Aisyah @wankembang  
Sesaknya kat roundabout jalan gasing ni #MBPJ #JamDiPJ #pj

Jasri @jasthegreat  
Ada kemalangan di jalan timur. Teruk kereta berlanggar

### Volunteer

Total Registered at PJ: 1000

Zone

Active 186

Available 312



### JMB

Total Registered at PJ: 1010

Zone

Active 15

Available 19



### VMS

Road

PANDU SELAMAT JIWA SELAMAT

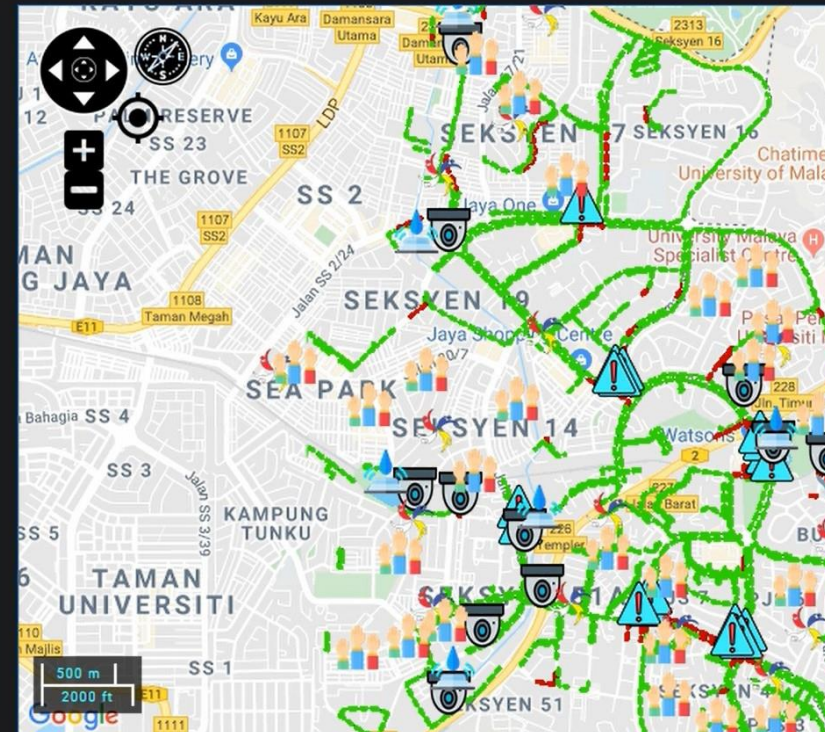
< Previous

Next >

### Emergency Fund for Councillors

Section

Amount



0:00

### Geosensor (Location)

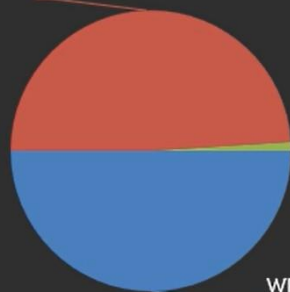
Location



## ≡ INTELLIGENT TRANSPORT SYSTEM

### Incident Statistics

ROAD CLOSED -  
49%



JAM - 1%

WEATHER HAZARD -  
50%

CanvasJS.com

### Notification Support

Construction

4

Enforcement Patrolling

30

Total Summons

4010

### Total Using PJ City Bus

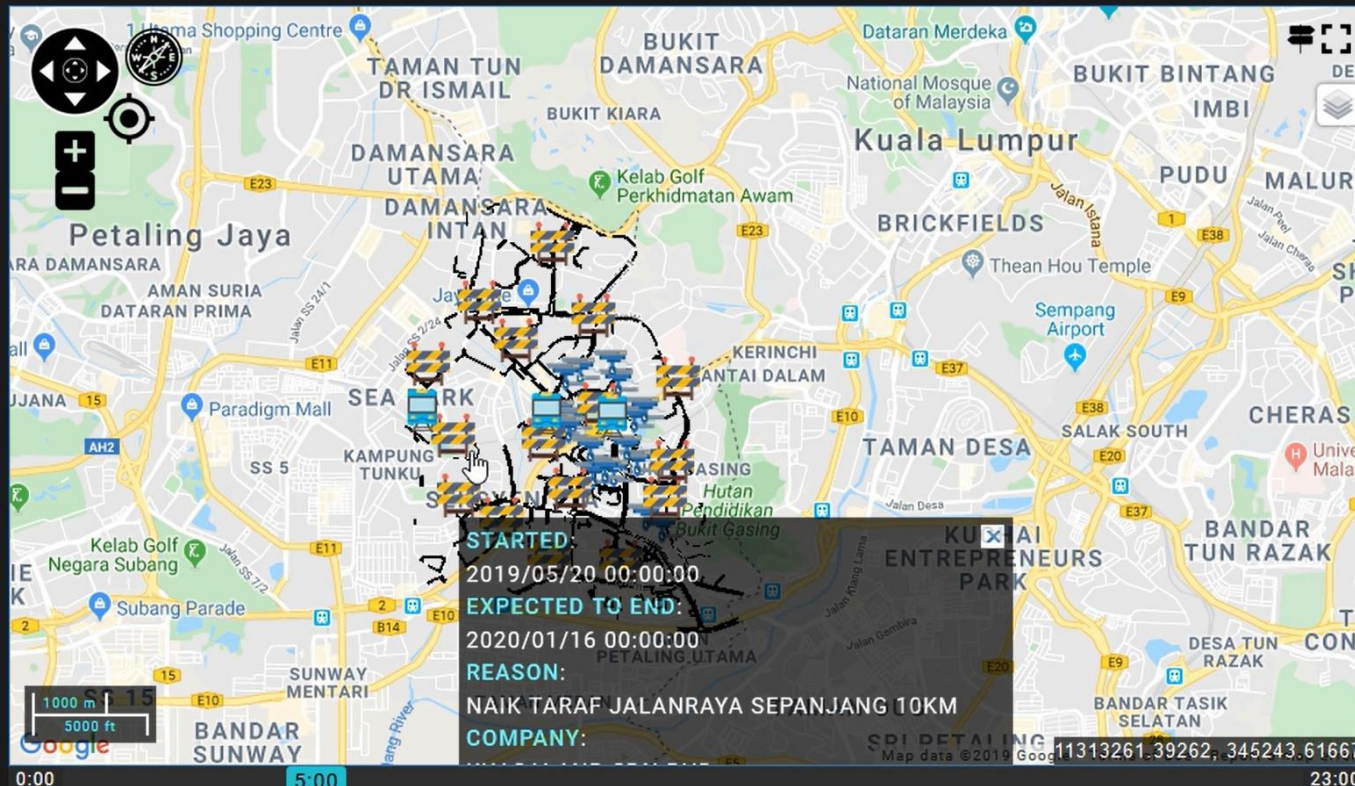
Date: 06/07/2019

Total: 300,000



### Information Alert

Iran Mahmud @ipan  
TransportSystem



0:00

5:00

### PuT Commuters

24.6%

Last Update: 07-07-2019



### Top Incident List Road

JALAN PJS 1/50, JALAN BARAT, JALAN KUCHING

### Total Pas

Road



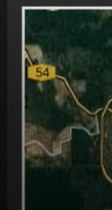
### VMS

Road

JALAN

< Previous

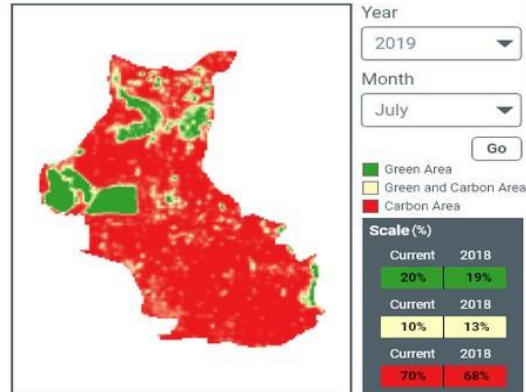
### Total Car



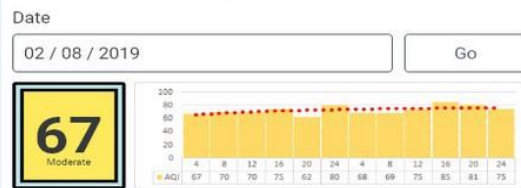
## LOW CARBON

### Low Carbon

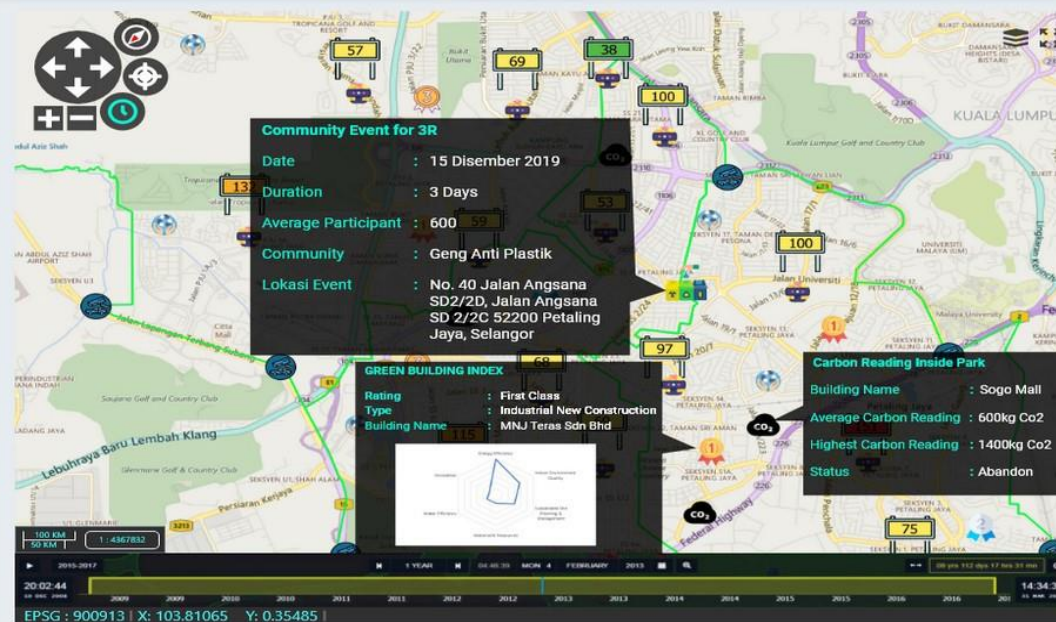
#### Carbon VS Green Area



#### Air Quality Index (AQI) Values



#### Recycle Information



#### Community involvement on Recycle



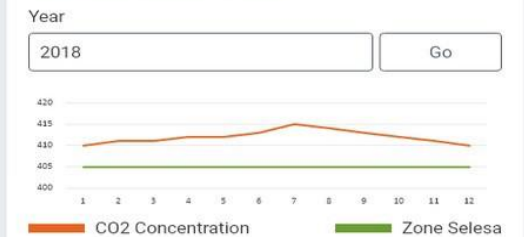
#### Statistic Carbon Reduction Per Year



#### Legend



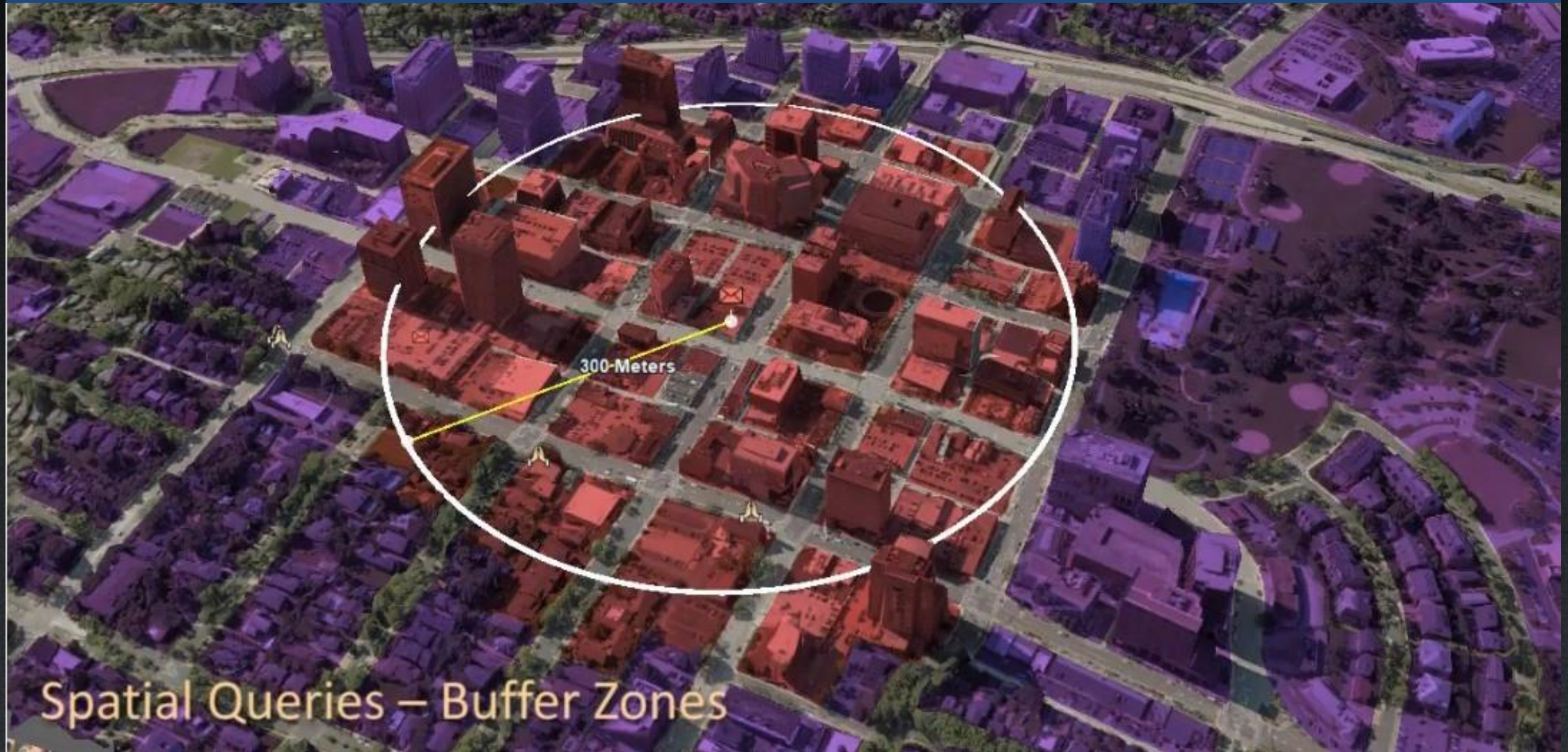
#### Estimated Carbon Reading



#### Total Car in Petaling Jaya

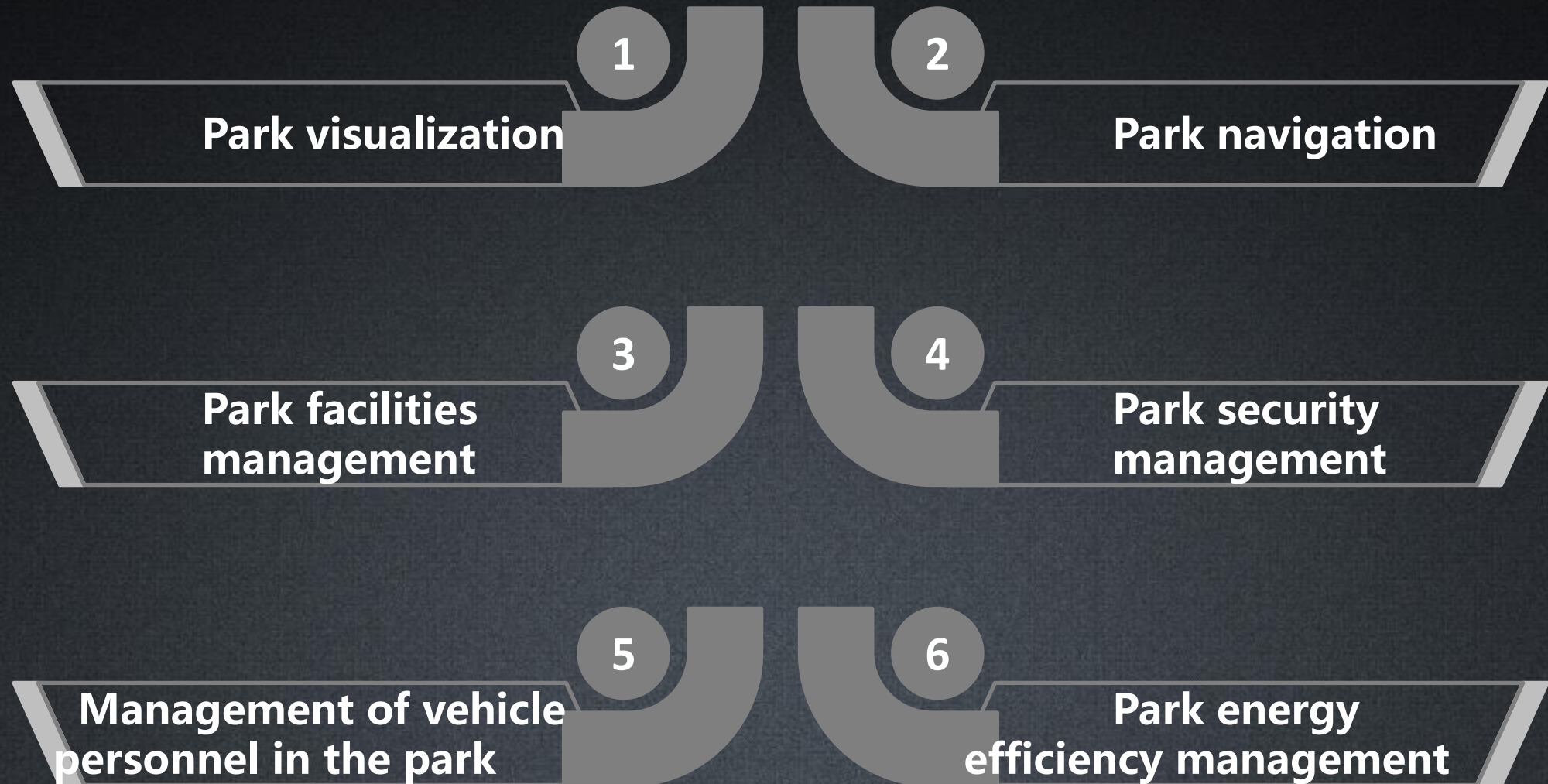


# Smart Zoning Assessment in 3D



# Smart Park

# Solution



# Tourist Attraction Navigation App



# 3D Tourist Attraction Management System - Tianhetan



Tianhetan is located in Shibanzhen, Huaxi District, Guiyang City, Guizhou Province. It is a scenic spot with typical karst natural scenery as its main feature and history celebrity hermit culture as its supplement. It is 24 kilometers away from the center of Guiyang City and 13 kilometers away from Huaxi City. Total area: 15 km<sup>2</sup>

# 3D Comprehensive Campus

Provide browsing of campus map, including 2D map, 2D map, 3D map. Provide campus information management, including public housing management, housing management, greening management, land management, energy supervision and three-dimensional pipeline.



# **Jabalpur Smart City (India)**

Closest Facilities Analysis

120.138.10.146:8080/fireApp/lc

120.138.10.146:8080/fireApp/location/pathanalysis?ds

+

-

Find Path

End Task

Next Node Name ::

Next Node Distance ::

Next Node Count ::

Yatayat

717

15

Ranital Junction

Yatayat

TeenPatti Junction

Bloons Chowk

Recording...

00:00:31

Current Time

Inbox (27) - navitus.robins@gmail.com

45.114.142.35:8080/trafficSignals\_ne

Traffic Signals Monitoring

View Signal Status

Junction Detail

Log Detail

Data Entry

Signout

Yatayat Thana Signal Status

☒ Normal

☐ Clearance

☐ Change Mode

☐ Jump

☐ Shutdown

☐ Extend

Malviya Chowk

11

Towards Ranital

34

Teen Patti

8

208

Plan De

Date Time

Plan No

Mode

On Time

Off Time

Traffic signal

P47

# Smart Street Operation Center

案卷统计

16927  
案卷总数

517  
正在办理

16330  
结案数

217  
今日结案

5  
会商总数

218  
今日上报

视频AI预警



舆情预警



二维 三维

车辆预警



今日围栏预警 0 (辆)

今日未登记预警 13 (辆)

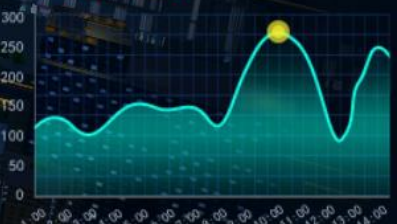
未获取GPS车辆 41 (辆)



空气预警



人员在线监测



SuperMap

今日事件件数

332 件

在线执法人员

271 人

在线执法车辆

48 辆

救护车

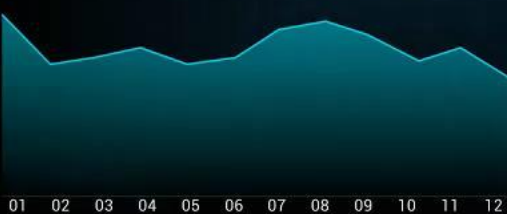
13 辆

监控点位数值

9 个



全区传销预警数量走势



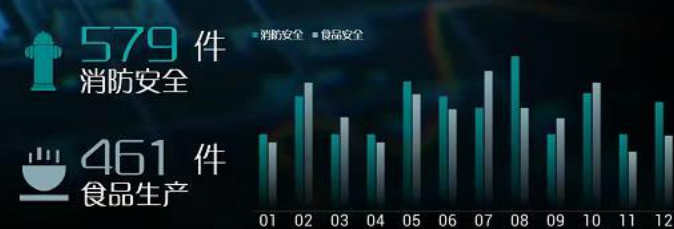
当月各类安全事故占比



全区交通安全与安全生产事故走势



全区消防安全与食品安全事故走势



# Smart Security

# SuperMap Smart Security Solution

SuperMap Software Co., Ltd

PERFORMANCE

# Thank You!

Email: [vella@supermap.com](mailto:vella@supermap.com)