



# Chinese national geospatial strategy —with focusing on photogrammetry and remote sensing for 3D Real Scene

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# The third national land resource survey

- 2017 Start
- China
- 3 years
- 2021.08.26  
news conference







# The third national land resource survey





# What's next ...?

## 3D Real Scene of China



# 实景三维中国建设技术大纲 (2021 版)

自然资源部  
2021 年 8 月



# 3D Real Scene China

- **Definition and composition**
- **Target and Content**
- **Technology roadmap**
- **Opportunity**



# 3D Real Scene

## Definition

is a digital virtual space that reflects and expresses human production, life and ecological space in a real, three-dimensional and sequential manner.

- New standardized products for basic surveying and mapping
- An important part of the construction of new national infrastructure
- 3 levels (Terrain-City-Component)



# 3D Real Scene

## Composition

- Spatial data volume
- IOT perception data
- Supporting environment





# 3D Real Scene

## Spatial data volume

- Geographical scene

DEM、DSM、DOM、TDOM、Oblique Photography 3D model、Lidar...

- Geographical entity

Surface feature entity、Geographical unit、Component 3D model...



# 3D Real Scene

- **IOT perception data**

**Real-time perception data of natural resources**

**Perception data of urban Internet of things**

**Online capture data of the Internet...**

- **Supporting environment**

**Data acquisition and processing service systems**

**Database management and application service systems**

**Software and hardware infrastructure supporting the operation of the above system**



# 3D Real Scene China

- Definition and composition
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# 3D Real Scene China Target

- **Building 3D Real Scene China**  
of “distributed storage, logic centralization, timing update and shared application”
- **Providing a unified spatial base for the construction of Digital China**



# 3D Real Scene China Content

- Building **Terrain** level 3D Real Scene  
Province, More than thousands of square kilometers, GSD 0.05-0.2 m
- Building **City** level 3D Real Scene  
City, hundreds of square kilometers, GSD 0.01-0.05 m
- Building **Component** level 3D Real Scene  
Building, several square kilometers, Manual collecting



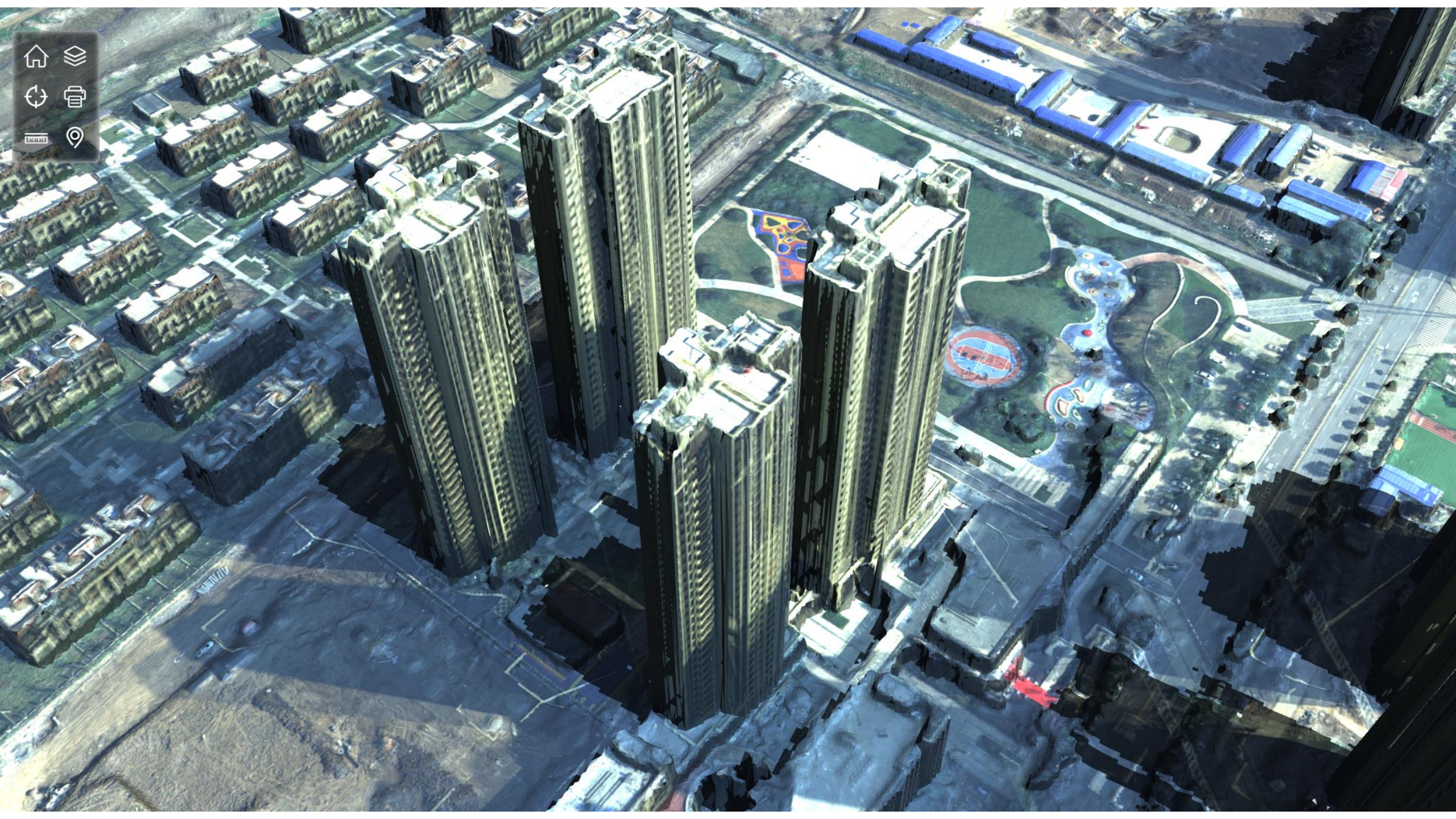


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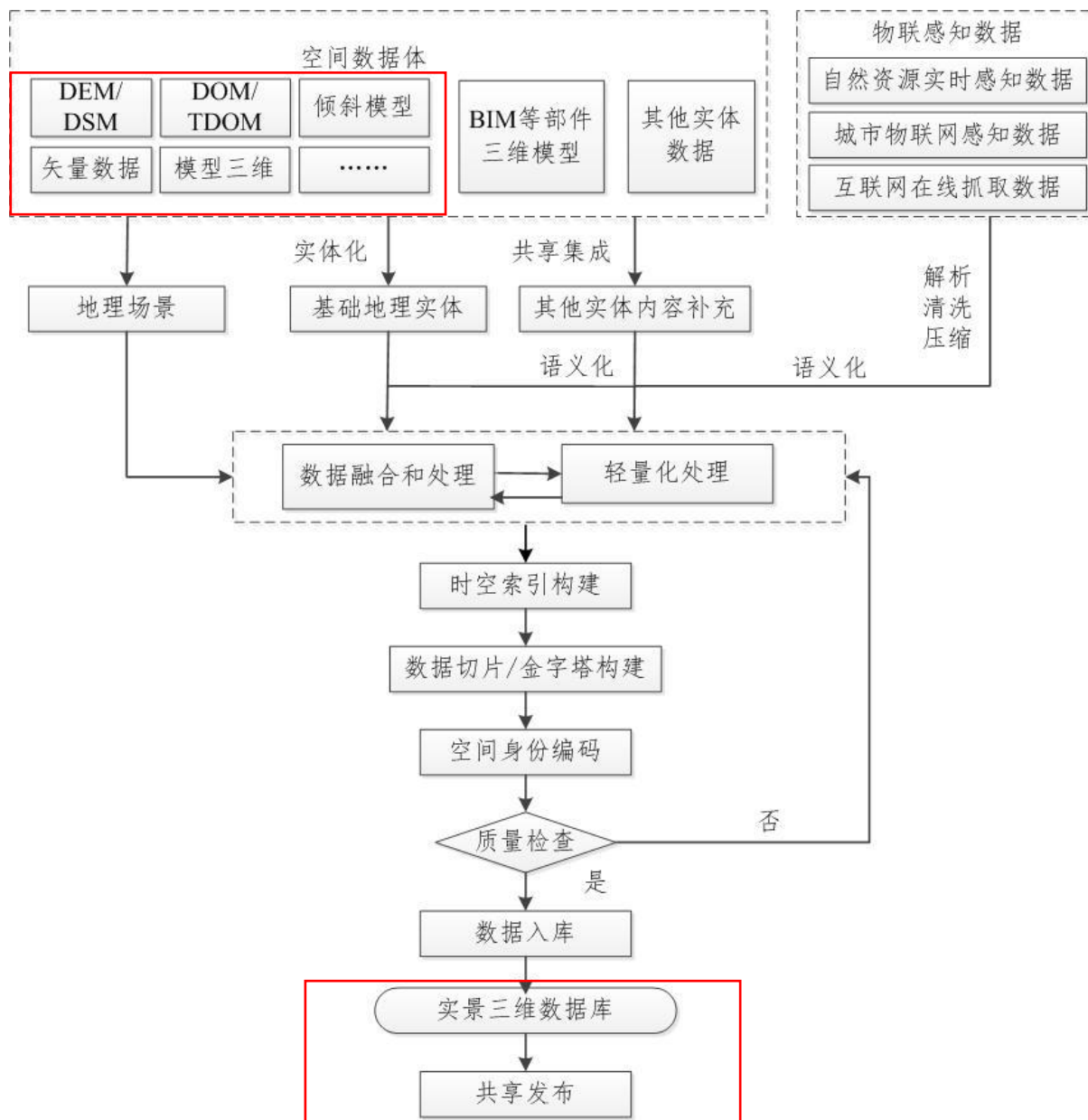




# 3D Real Scene China

- Definition and composition
- Target and Content
- **Technology roadmap**
- Opportunity







# 3D Real Scene China

- Definition and composition
- Target and Content
- Technology roadmap
- Opportunity (next 10 years)

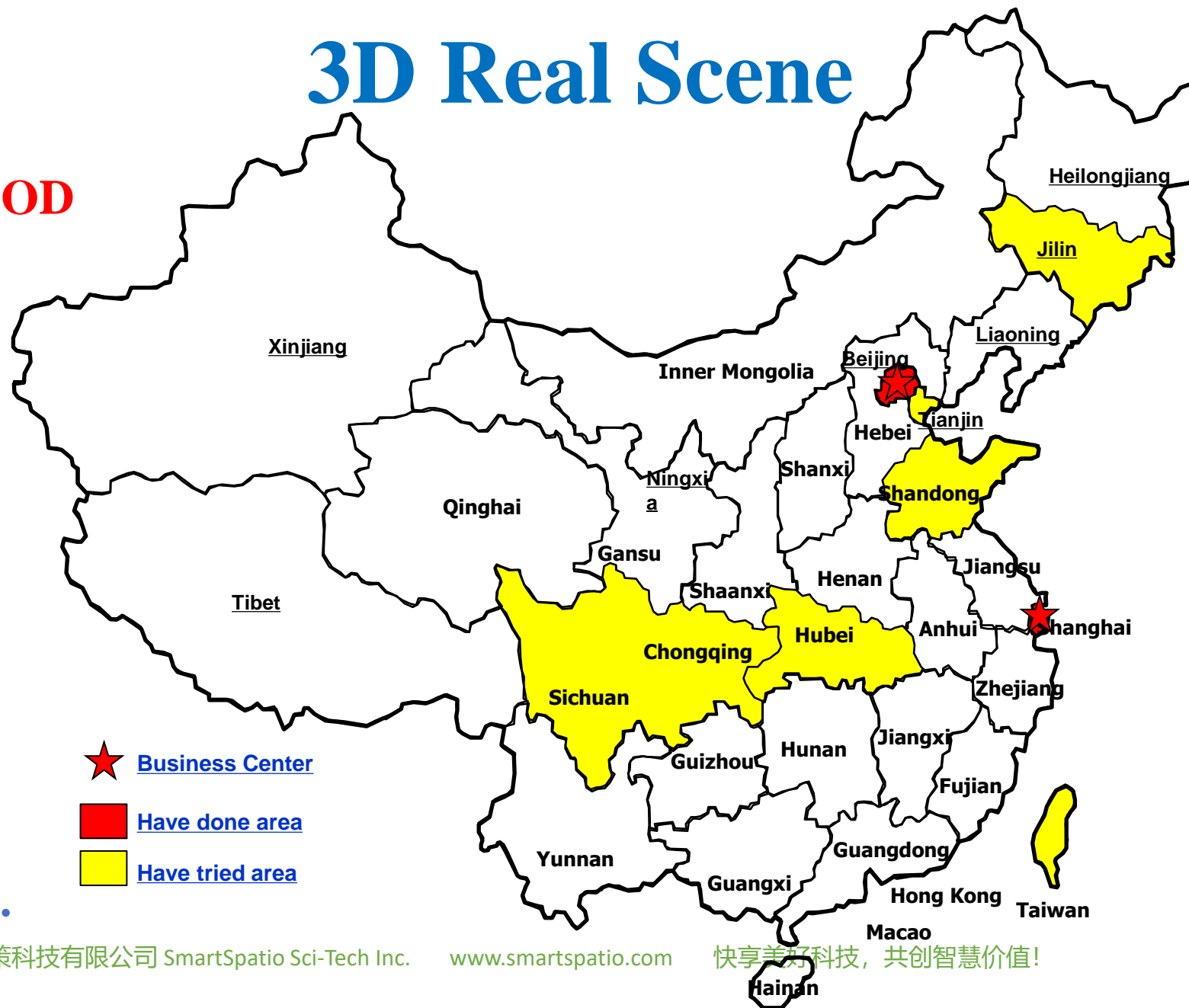


# 3D Real Scene

## Using PHOTOMOD

(Terrain level)

- Beijing  
~20,000 Km<sup>2</sup>
- Sichuan  
~50,000 Km<sup>2</sup>
- Shandong  
~60,000 Km<sup>2</sup>
- Jilin  
~10,000 Km<sup>2</sup>
- Hubei  
~2,000 Km<sup>2</sup> ...



- ★ Business Center
- Have done area
- Have tried area



# 3D Real Scene China- next 10 years

**Opportunity means more challenge (Better service)**

- **More convenient (Batch processing)**
- **Better dDSM generation (ADS, Satellite images...)**
- **Higher efficiency (Big overlap images AT; GPU)**
- **More general (import/export with ContextCapture; JPG)**
- **.....**



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**Thank you very much  
for your attention !**

**Any questions?**

