



# 6TH ASIA-OCEANIA GROUP ON EARTH OBSERVATIONS (AOGEO) WORKSHOP

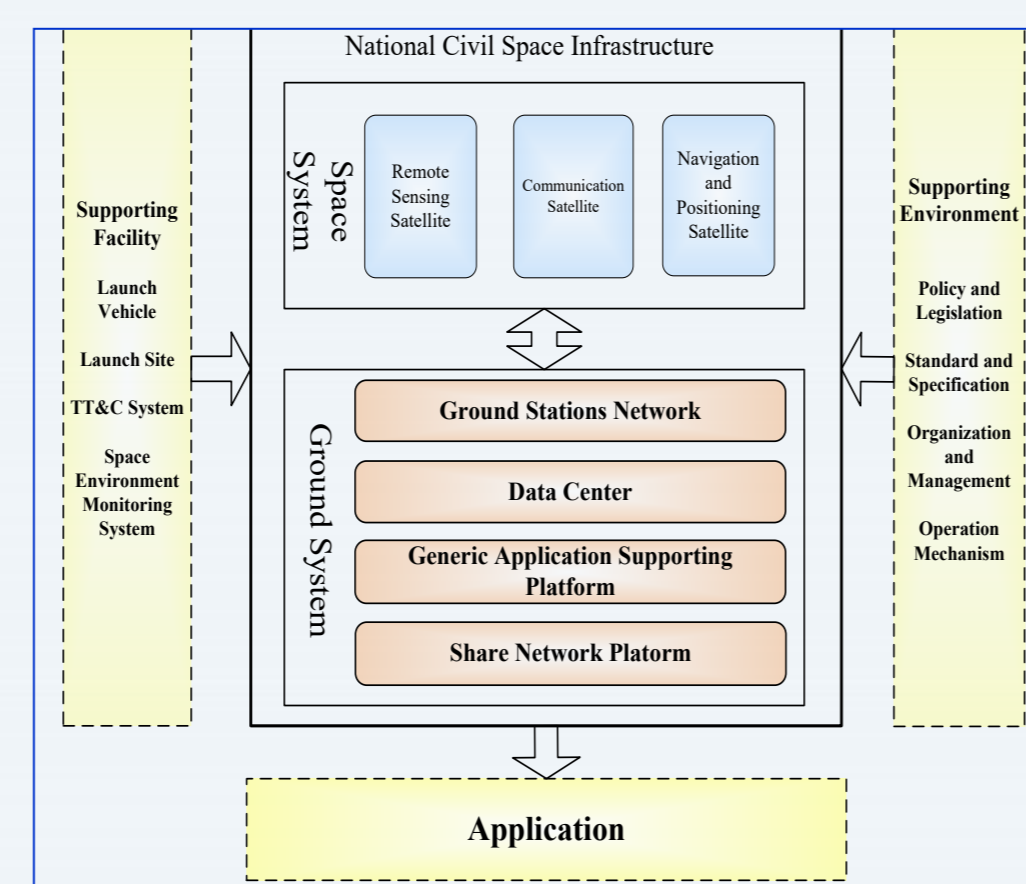
MACAU CHINA 5.29-31 2023

## The common application supporting platform project of land observation satellite for national civil space infrastructure

### Introduction

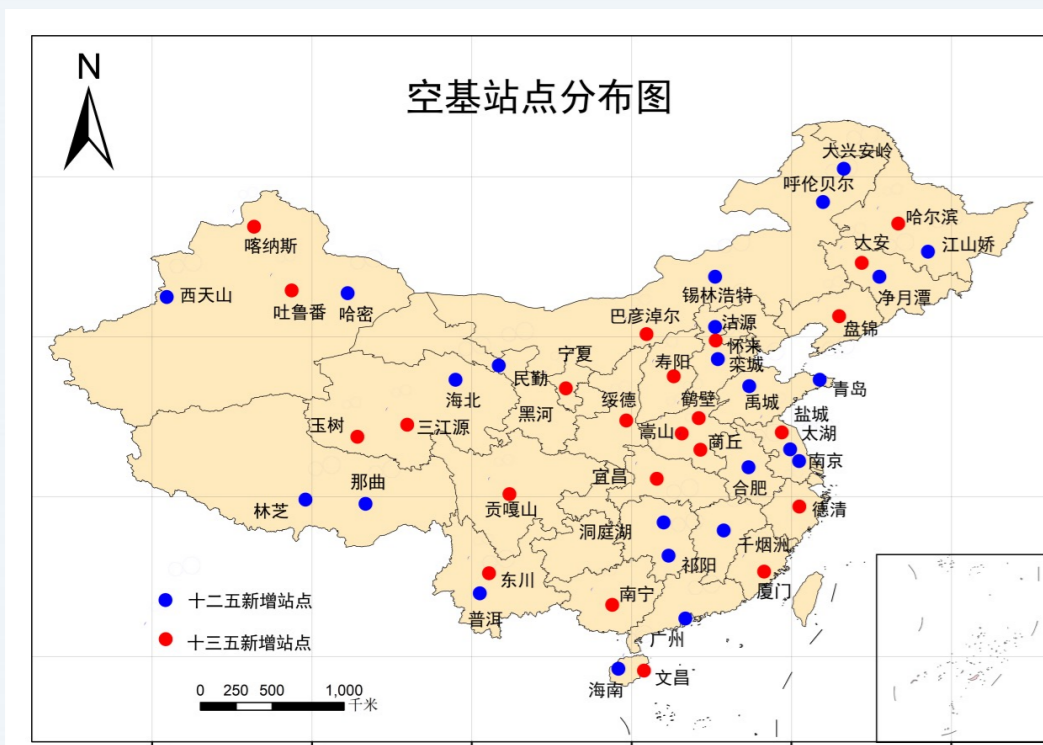
The common application supporting platform of land observation satellite for national civil space infrastructure project is an important component of the Medium and Long Term Plan for China's Civil Space Infrastructure (2015-2025). Oriented to **12 types of 24 land observation satellites** designed at "12th Five Year Plan (2011-2015)" and "13th Five Year Plan (2016-2020)" stages, a national level authenticity testing field network system and common technology supporting service system, consisting of **48 authenticity testing stations and 6 comprehensive fields**, has been established, which is capable to provide services like satellite common product inspection, common technology evaluation, and resources sharing for users from different industries, regions, science and education sector, and the general public.

- Guarantee of basic information products and service quality
- Guarantee of Authenticity test and optimization of information products
- Guarantee of common key technologies of satellite application
- Capabilities to provide new technology R&D and resources sharing services



### Construction of Calibration and Validation Test Site Network

- **The construction of authenticity test station network** includes two phases: the 12th Five Year Plan and the 13th Five Year Plan.
- The 12th Five Year Plan was officially launched in 2017, consisting of 24 stations. The instrument deployment and training were completed in October 2019.
- On the basis of the 12th Five Year Plan, 24 new sites were added during the 13th Five Year Plan.



At present, **the world's first remote sensing product authenticity test field network** with the most types of remote sensing products and the widest coverage has been established, and a ground authenticity inspection system supporting 24 types of common remote sensing products such as radiation, atmosphere, vegetation, and water, has been formed, providing guarantee for the quality inspection of high-resolution satellite products and business support for quantitative applications.



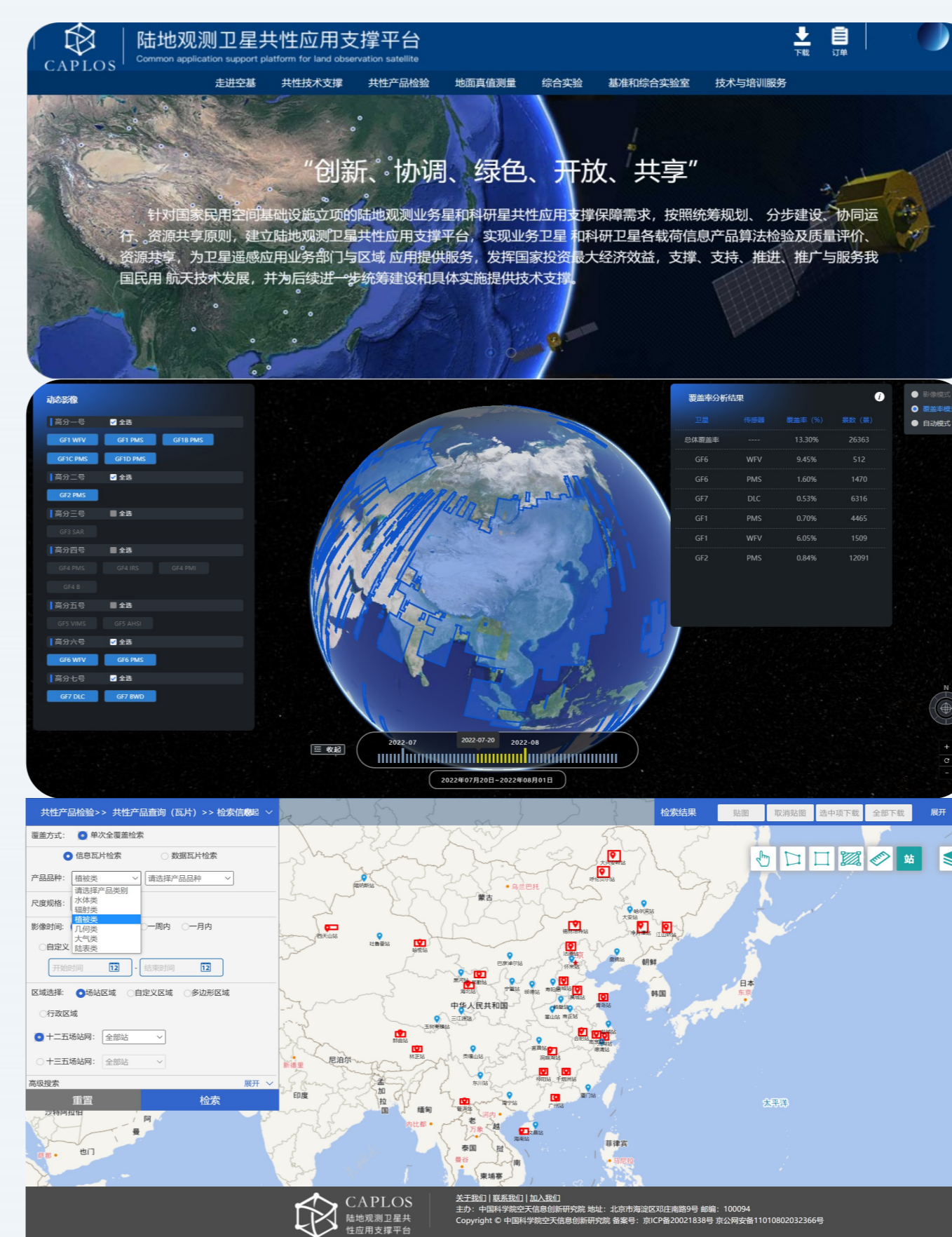
- This project has **6 major comprehensive application experimental fields**, including experimental fields of Northeast China, North China, Central China, South China, Northwest China, and Southwest China.
- These experimental fields are featured with regional, multi-element, multi-domain, comprehensive, and open characteristics.
- They can jointly conduct large comprehensive experiments according to the needs of various industries and provide basic data for in-orbit test and evaluation of space-based satellites, as well as research on remote sensing product inversion and validation algorithms.

### Generic Technology Research Supporting Service System

It provides services including common resources sharing, common products inspection, common technology evaluation and online customization, for users from different industries, regions, science and education sectors, and the general public, forming a **multi-mode comprehensive service system**.

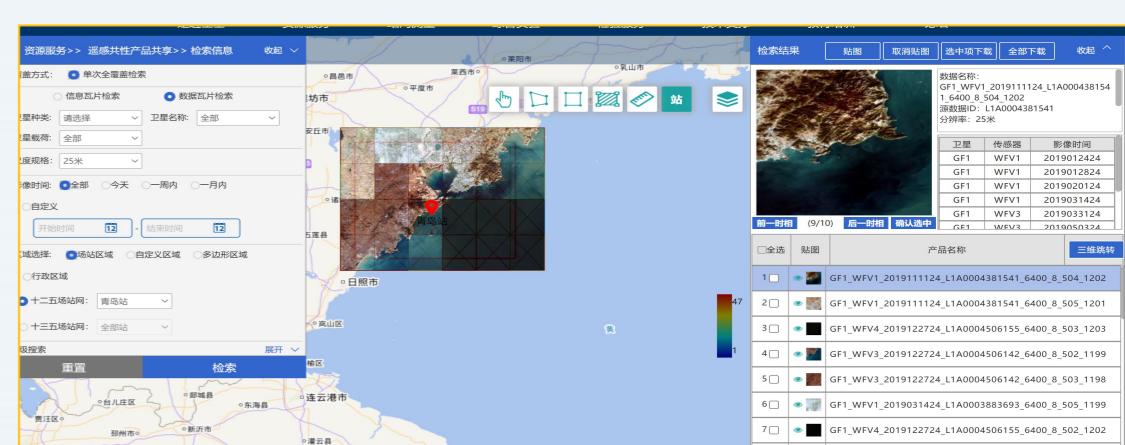
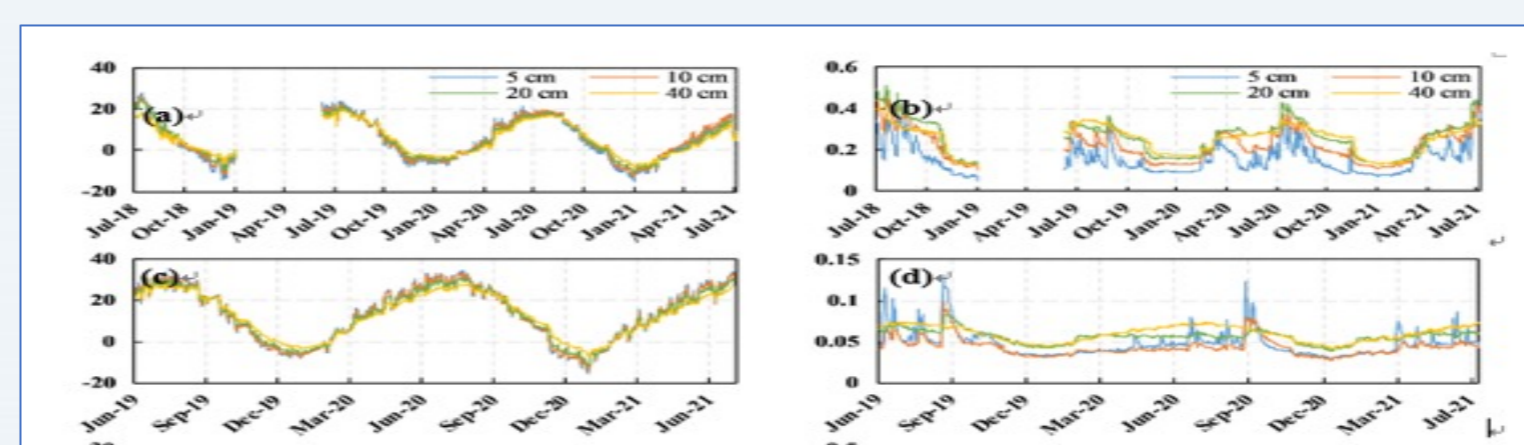
- Remote sensing online collaboration and application capability
- Remote sensing "massive" data clustering and fast processing capability
- Onsite remote sensing real-time service capability of "Internet plus space-based"

**Multi-mode integrated service system** = cluster processing + website portal + professional desktop software and mobile applications



### ◆ Truth value data collection and processing services

Provide conventional collection and processing capabilities of ground truth data for **48 inspection stations, 12 types of 120 sets of equipment, and 24 types of remote sensing products**. During the past four years, the amount of collected data has reached 253 million pieces.



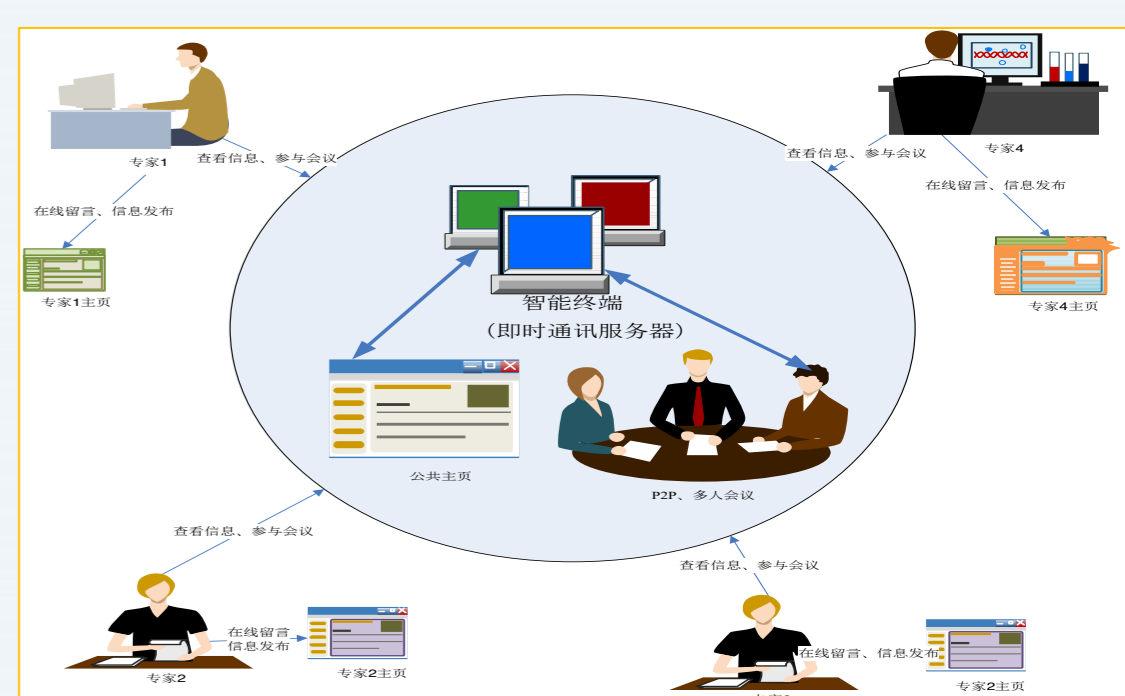
### ◆ Common product customization and inspection services

Provide online authenticity testing and process customization processing for **24 generic products in 6 categories**, quality guarantee of information products for users, and support customized applications in relevant industries and regions.

### ◆ Common technology testing and evaluation services

Have the abilities of online inspection and evaluation of algorithm models and plug-in tools, and provide resources sharing of **6 common processing technical documentation and support of technical tools**.

序号	资源名称	资源类型	资源格式	资源大小	资源描述
1	遥感数据预处理	文档	PDF	1.2 MB	遥感数据预处理
2	遥感数据校正	文档	PDF	1.5 MB	遥感数据校正
3	遥感数据融合	文档	PDF	1.8 MB	遥感数据融合
4	遥感数据应用	文档	PDF	2.1 MB	遥感数据应用
5	遥感数据分发	文档	PDF	2.4 MB	遥感数据分发
6	遥感数据安全	文档	PDF	2.7 MB	遥感数据安全



### ◆ Resource sharing and application promotion services

Implement **PB level** multi-source data dynamic management, support multi-dimensional information display and sharing, such as station network data, experimental data, product data, algorithm tools, standard specifications and training materials, etc.