

A hand is shown holding a glowing blue wireframe globe. The globe is composed of many small, interconnected triangles, creating a mesh-like structure. The hand is positioned over a laptop screen, which is partially visible in the background. The overall scene is set against a dark, blurred background, suggesting a professional or technological environment.

OPEN DATA & OPEN KNOWLEDGE Workshop



Jilin-1 constellation and its contribution to **GEO communities**

Dr. Zhong Xing
CGSTL

About Jilin-1 Constellation

- Aiming timely, high resolution remote sensing services
- Chinese Largest Commercial Satellite Constellation
- Built, Owned & Operated by **CGSTL**



Overview of CGSTL



- Founded in 2014
- The leader of Chinese new space companies
- The only All-Industry-Chain Satellite Company in China



Payloads & satellites' manufacturing



Remote sensing images delivery



Value added information services



Overview of CGSTL

Young Company,
with a Long History



Started development of
payload-centered
satellite



Founding of CGSTL

NOW

Jilin-1
Constellation
Construction

2014.12

2015.10

First 4 satellites
launched

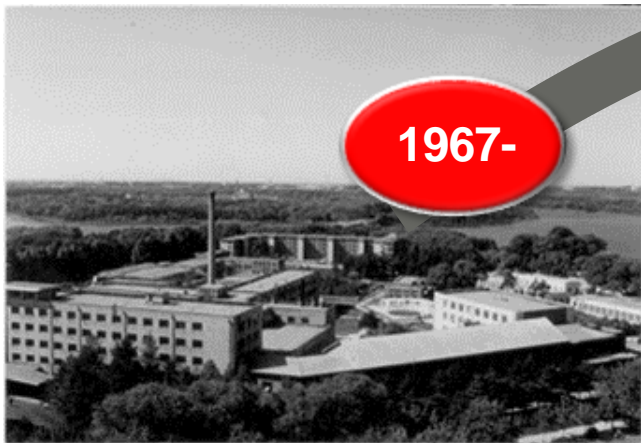
2007-2014

Satellite
development

2006

CIOMP Developed the very first
Chinese Space optical payload, in
Chinese Academy of Science.

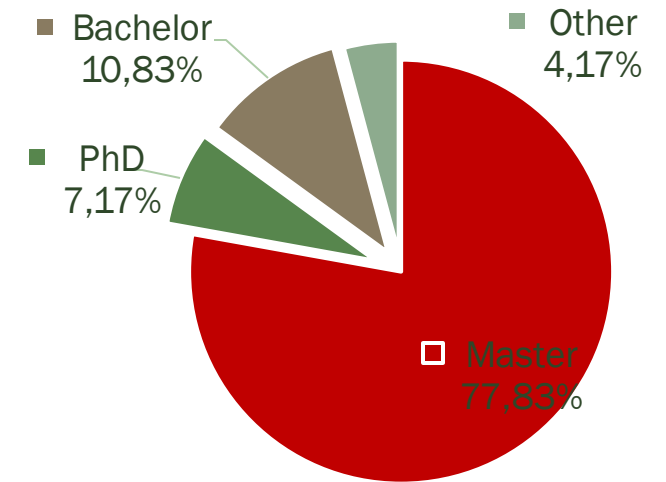
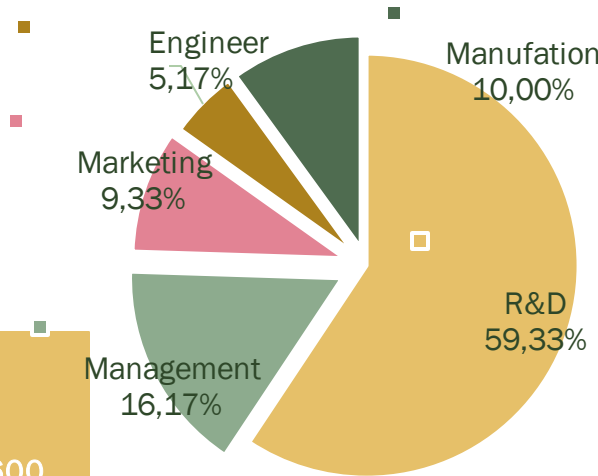
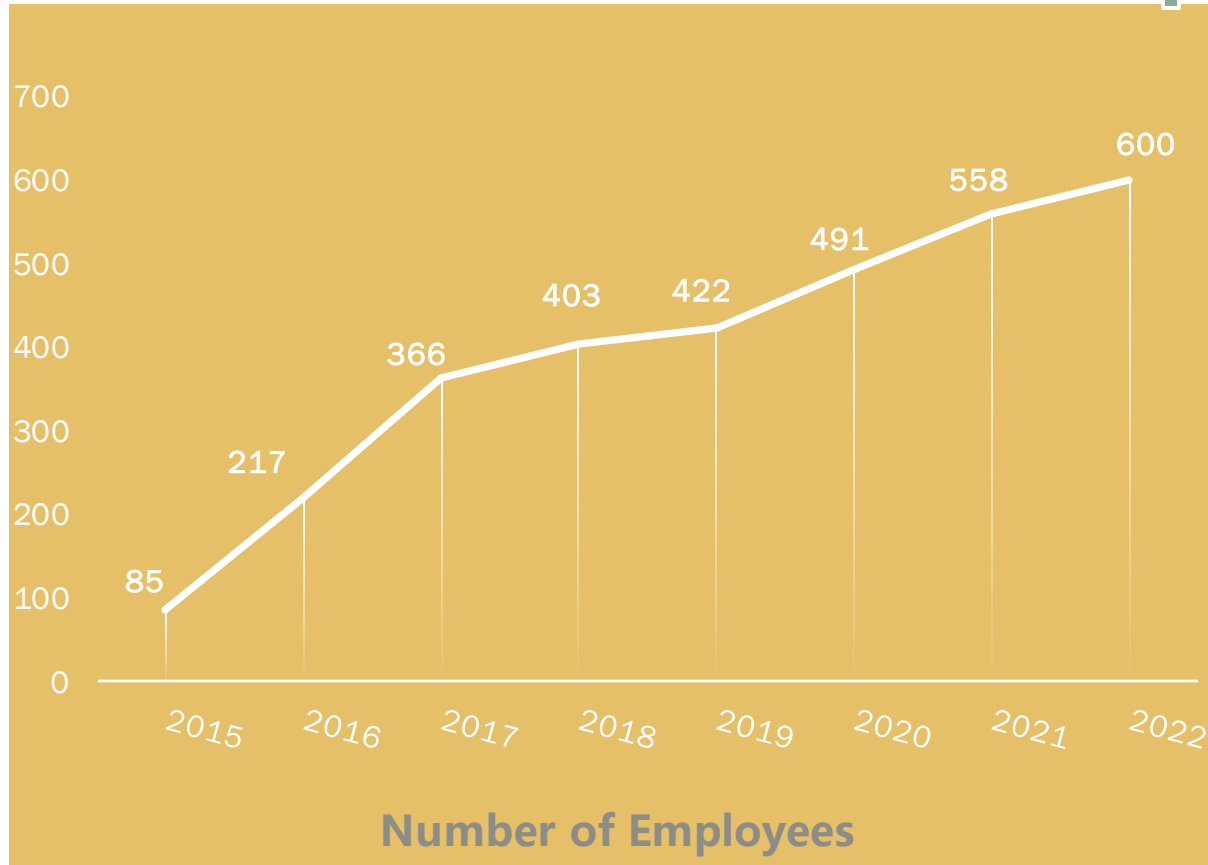
1967-



Overview of CGSTL

Young & highly educated team

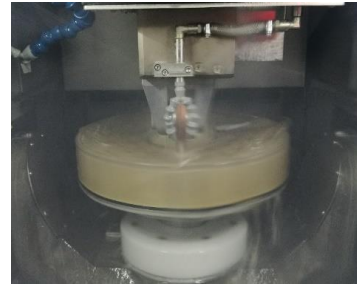
- Total number of employees: >600
- Masters and PhDs >85%
- Under 30 years old >62%



Overview of CGSTL

Payload Developing

- Advanced mass production line of aspheric mirrors:
- Spec: $RMS < 6nm$, $Ra < 2nm$
- Grinding, Polishing, Ion Beam Figuring
- Precise Optical Alignment
- Optical Imaging Quality Test
- Pre-launch Calibration



Satellite AIT

- Table test & Simulated Flight Test
- All Environmental experiments
- Solar panel deployment test
- Inertia characteristic test
- Radio Test
- EMC Test
- Magnetic test
-

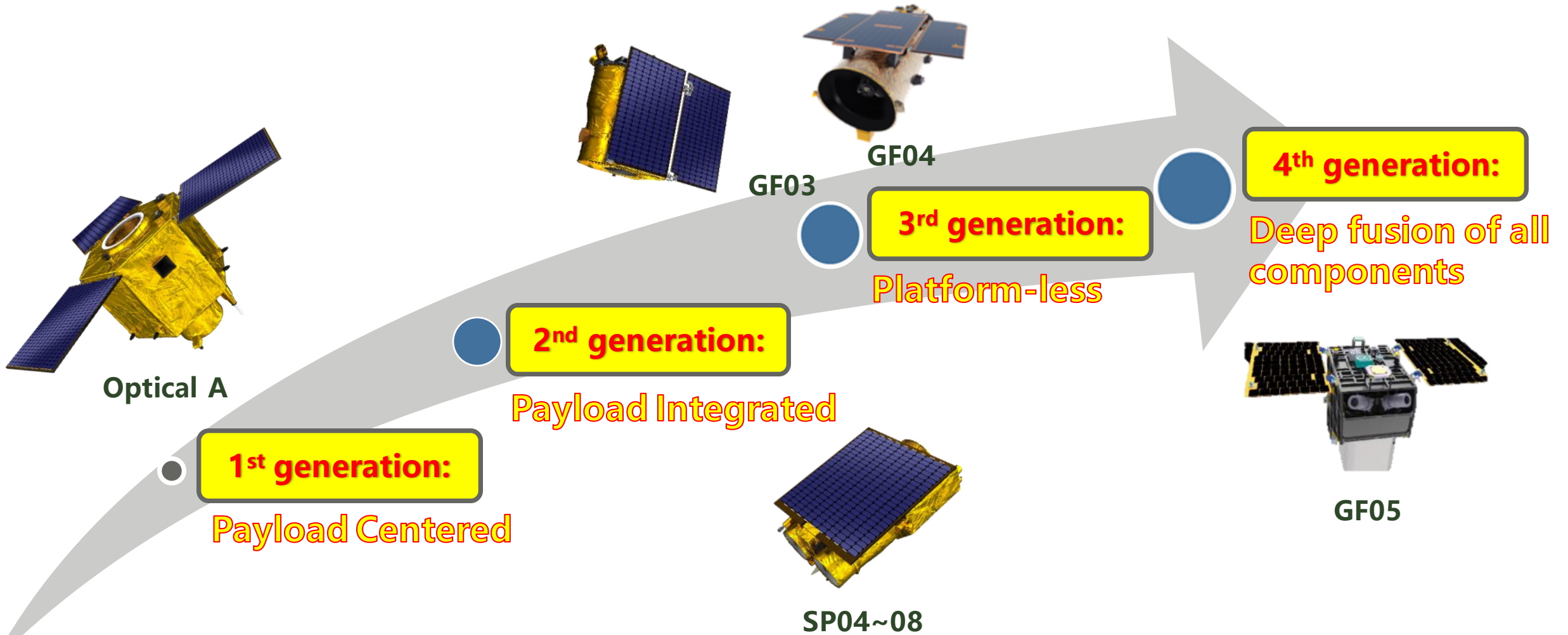


Satellite Production Line

- A mass satellite production line has been initially formed, with an annual capacity of 100 satellites

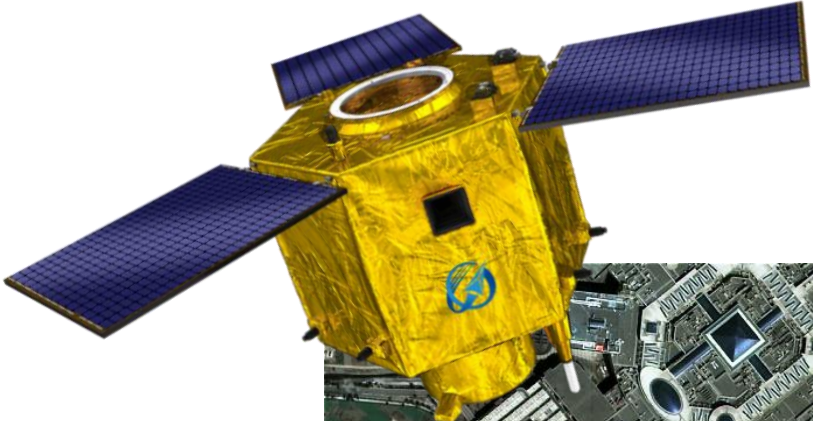


Satellites R&D Achievements

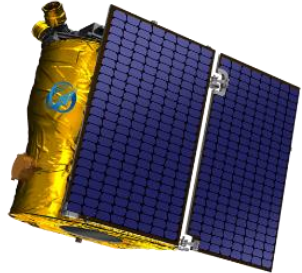


More compact, More low-cost, More powerful

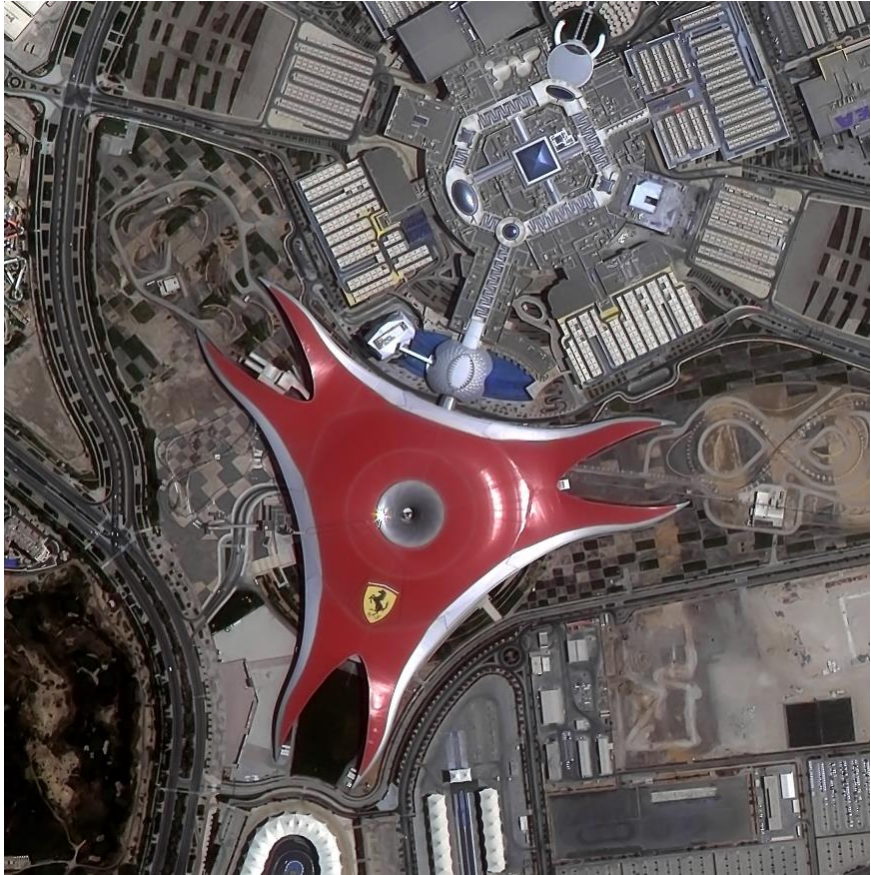
Satellites R&D Achievements



2015
Optical A
420kg



2019
Jilin-1GF03
<45 kg
10% COST



Satellites R&D Achievements

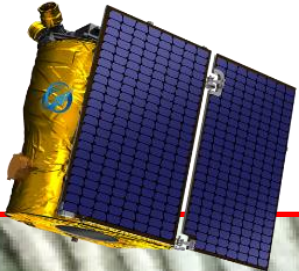


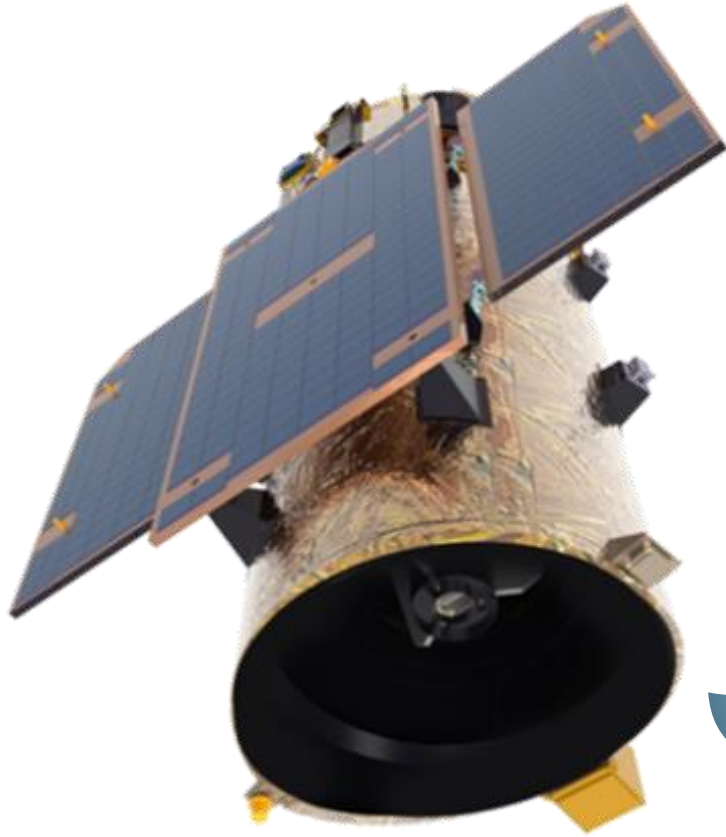
Image of CGSTL's 45kg satellite



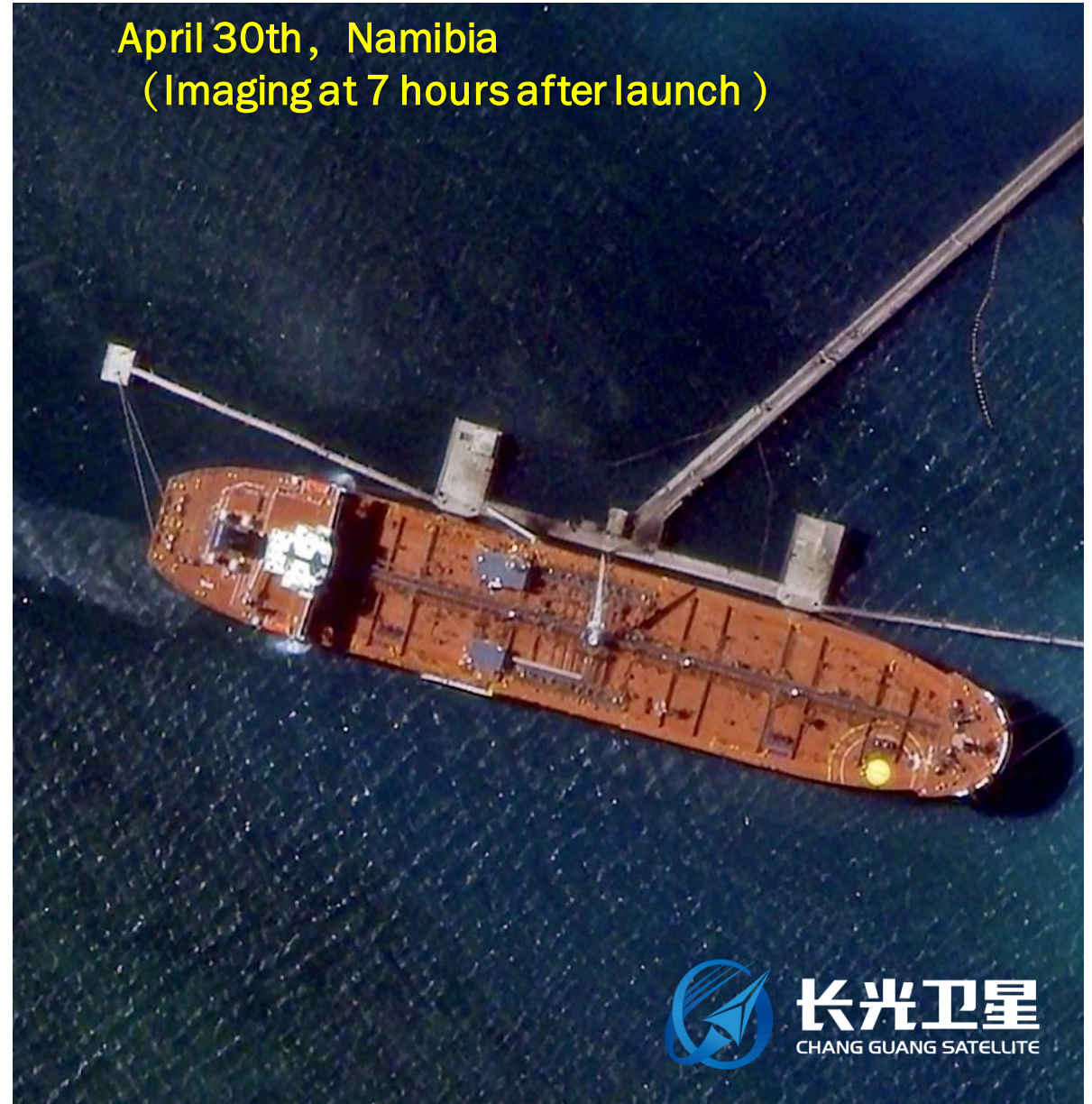
JL1GF03D02 image Kalama Mine, July 3, 2021

Satellites R&D Achievements

GF04A

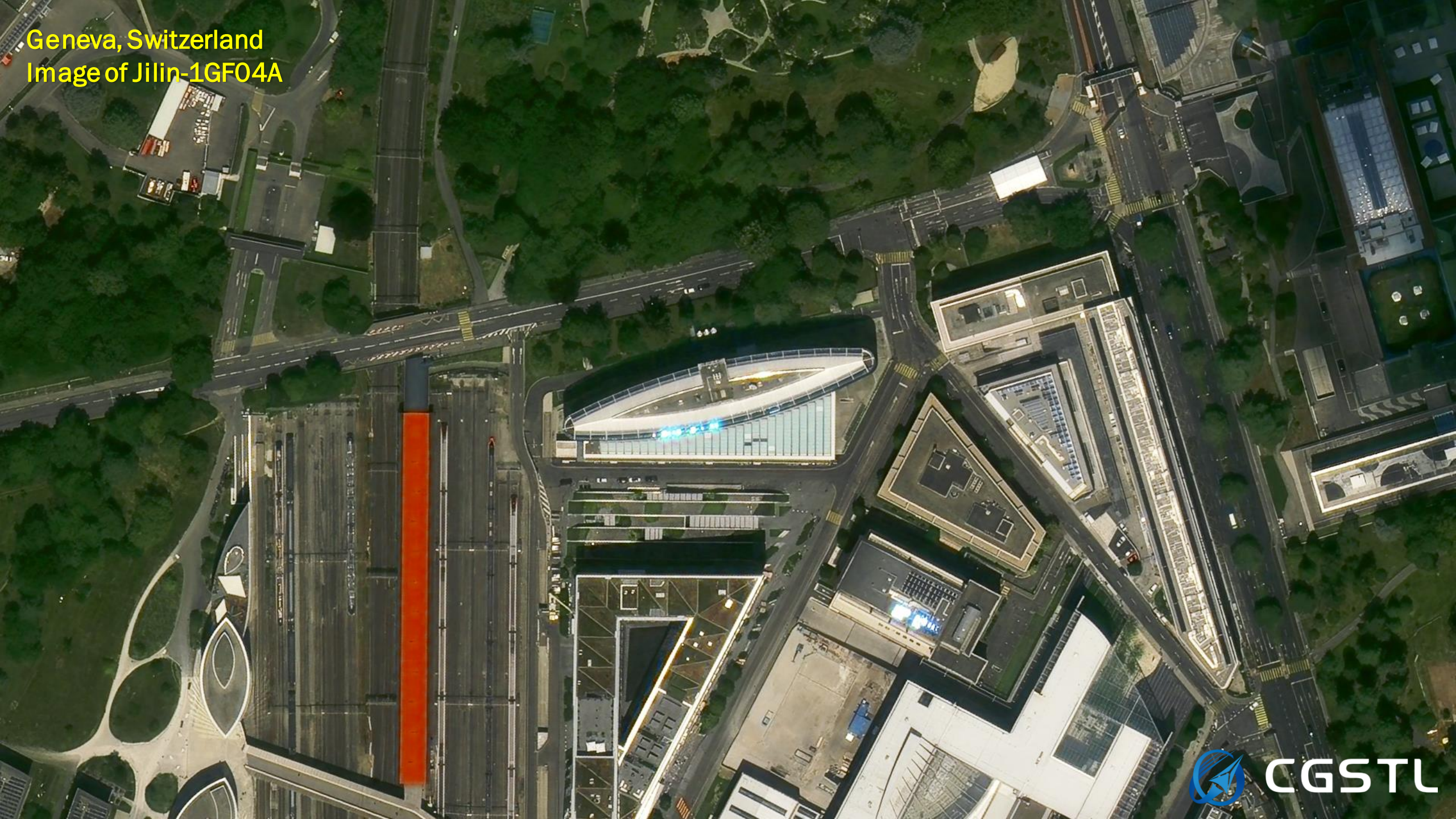


**World's lightest Operational VHR
satellite
With only 92kg**



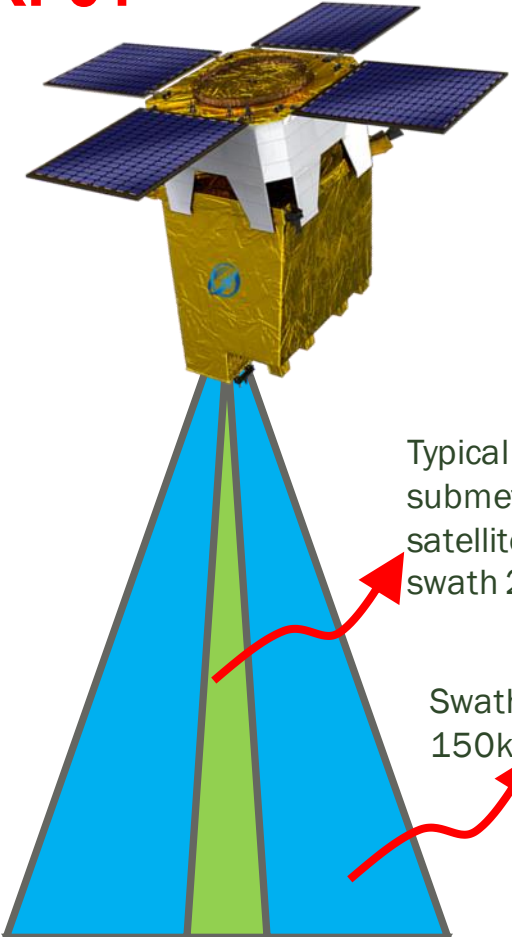
April 30th, Namibia
(Imaging at 7 hours after launch)

Geneva, Switzerland
Image of Jilin-1GF04A



Satellites R&D Achievements

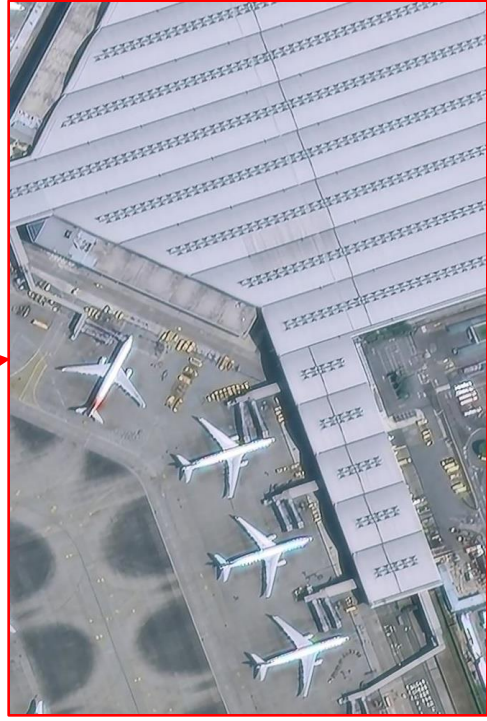
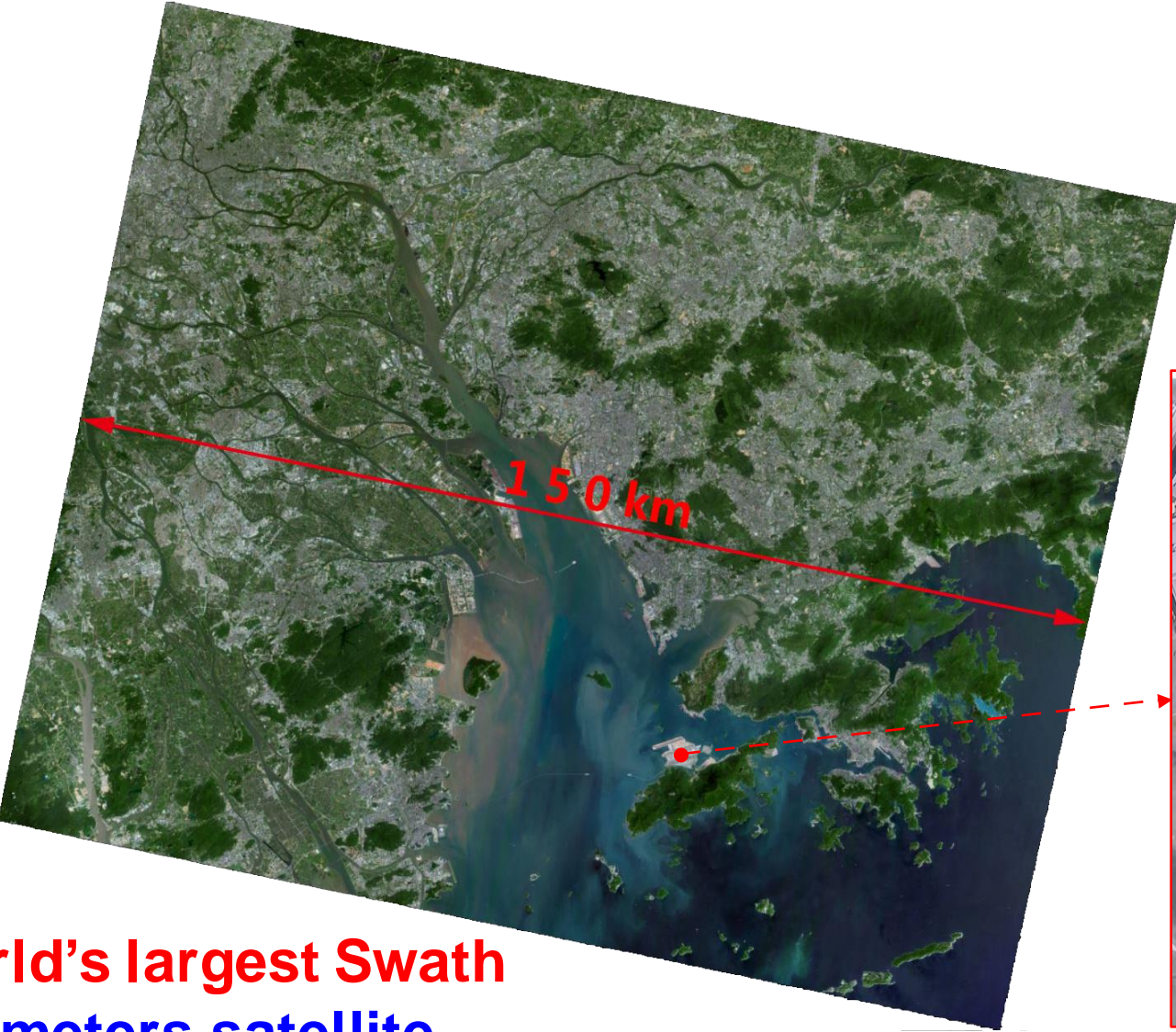
KF01



Typical submeter satellites' swath 20km

Swath of KF01 150km

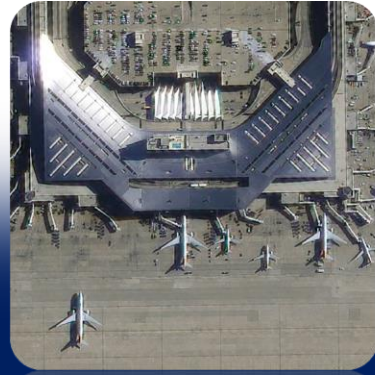
World's largest Swath submeters satellite



Data Products



VHR, <0.5m



0.5m



0.75m



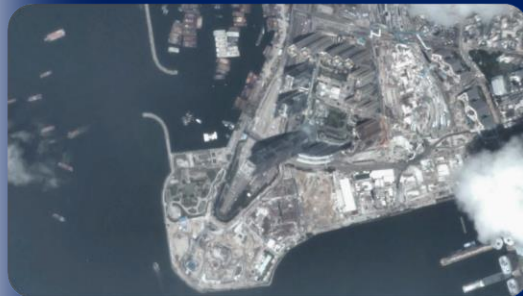
1m



5m Multispectral

20 channel

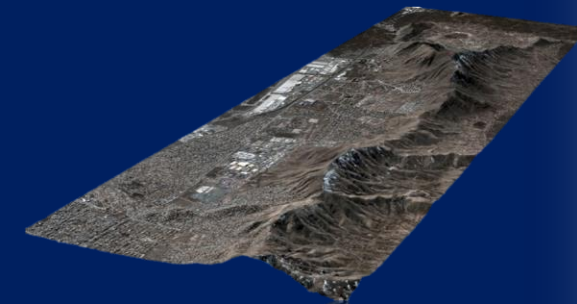
Standard Push-broom Data Product



Video



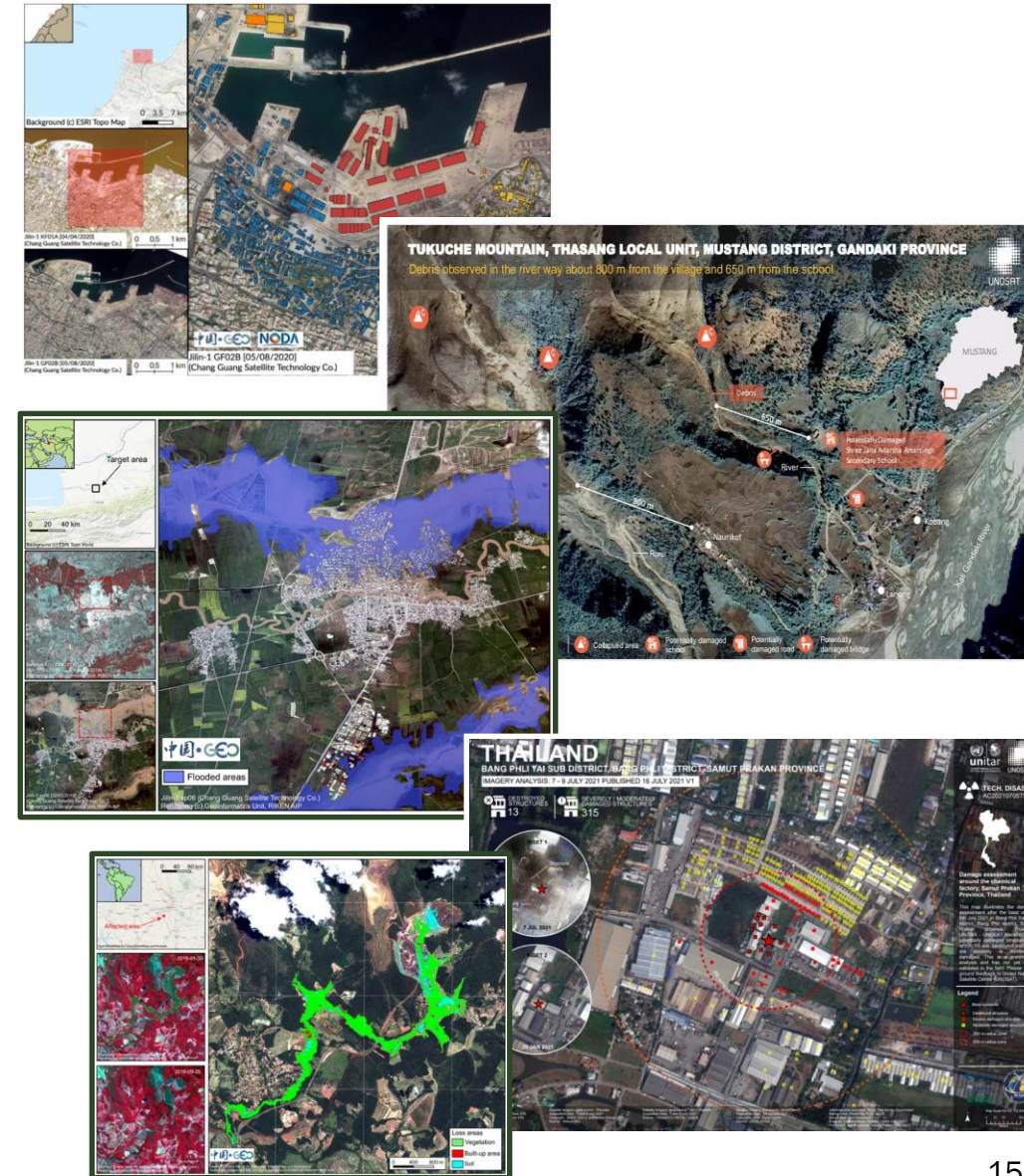
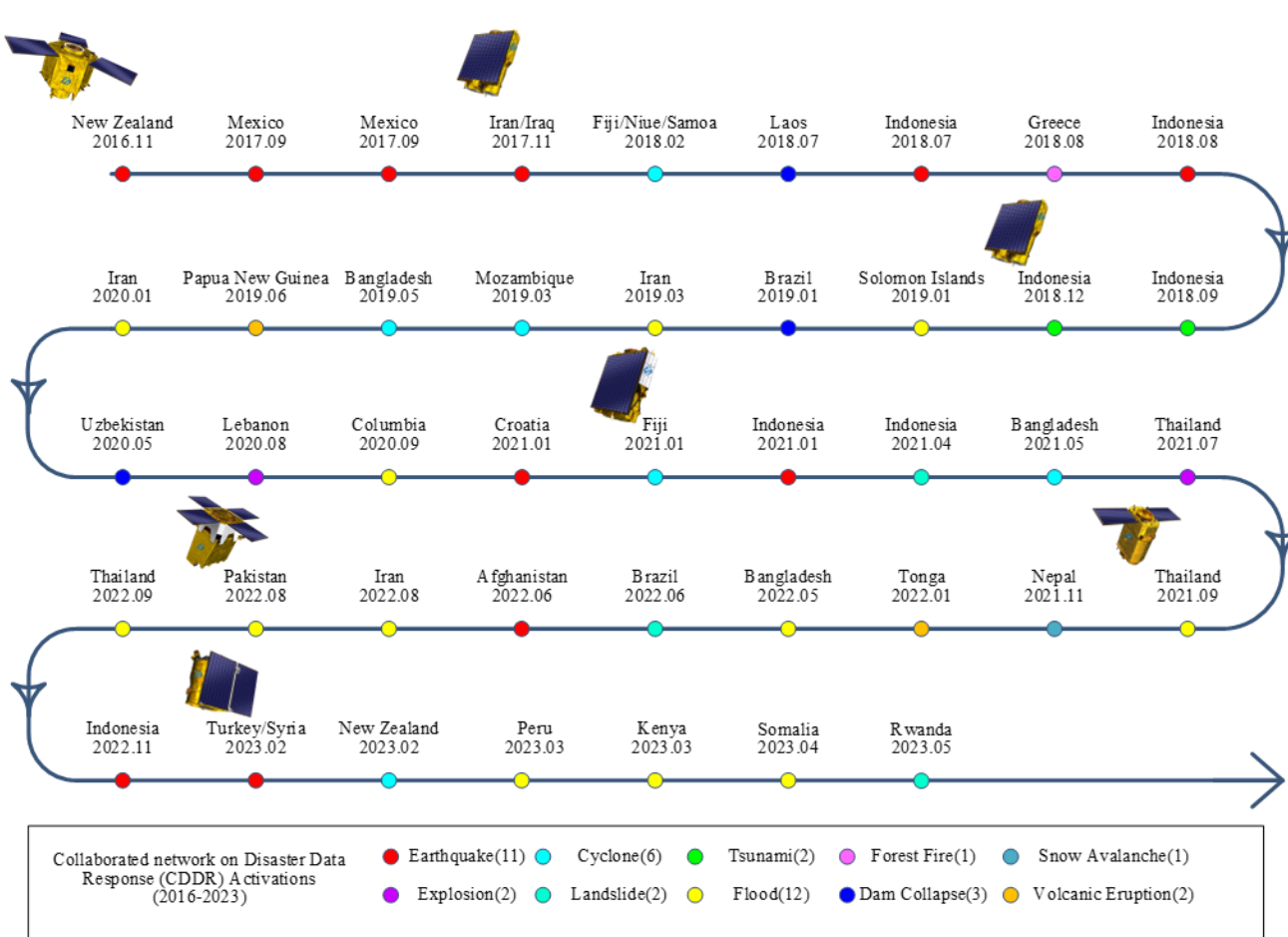
Nighttime



DSM

Characteristic Data Product

GEO Related Actions

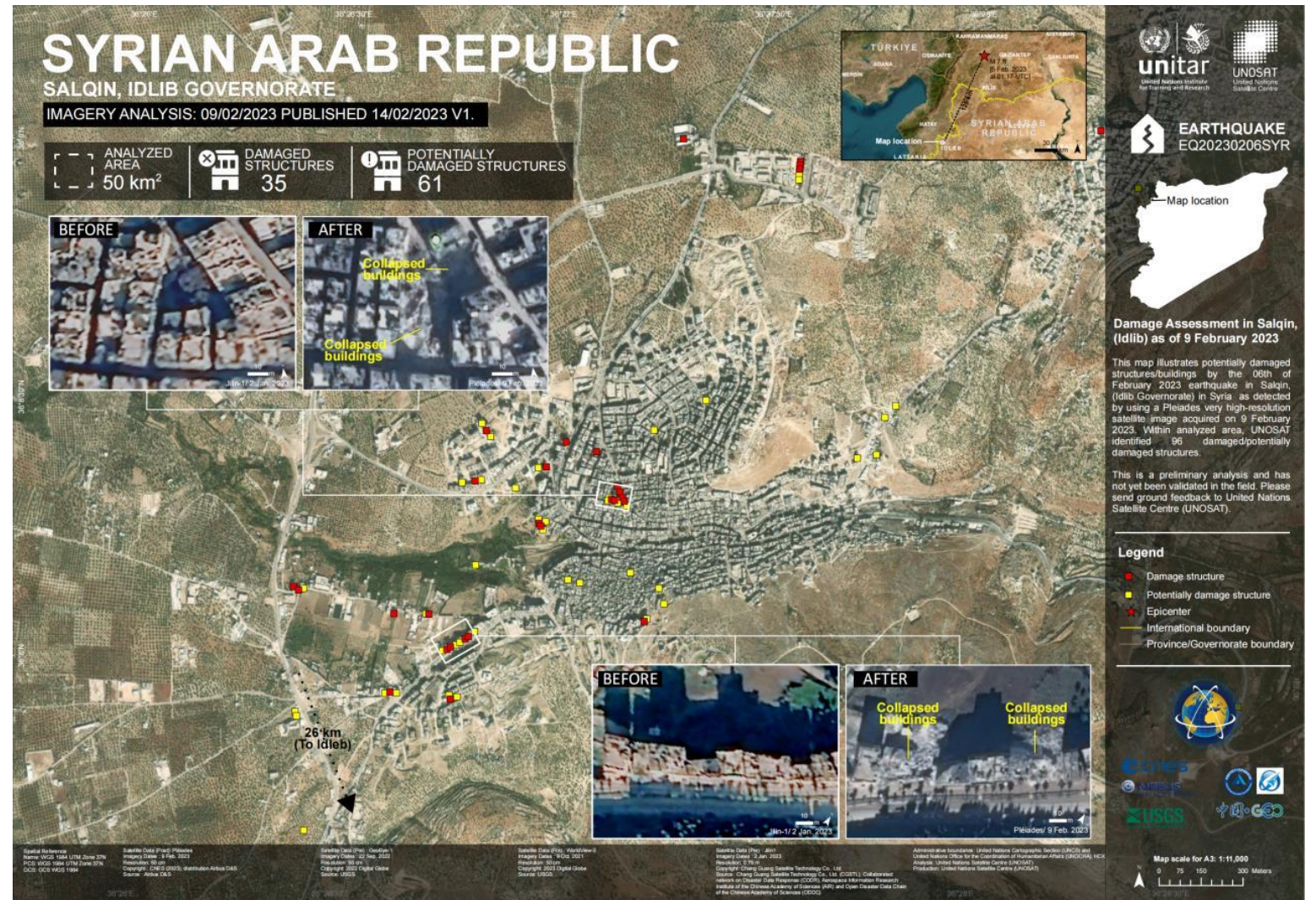


In China, CGSTL is the dominated VHR data contributor to GEO disaster activities

GEO Related Actions



Turkey-Syrian Earthquake 2023



GEO Related Actions



Floods Disaster in Africa 2023

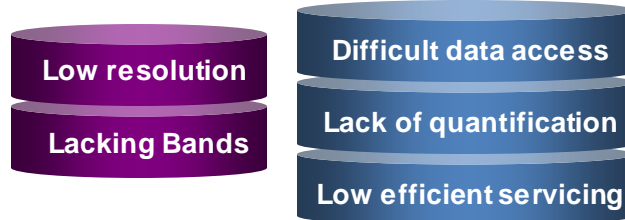
Images from 20+satellites, 13 scenes archived, 58 scenes newly acquired

Dataset Development & Sharing

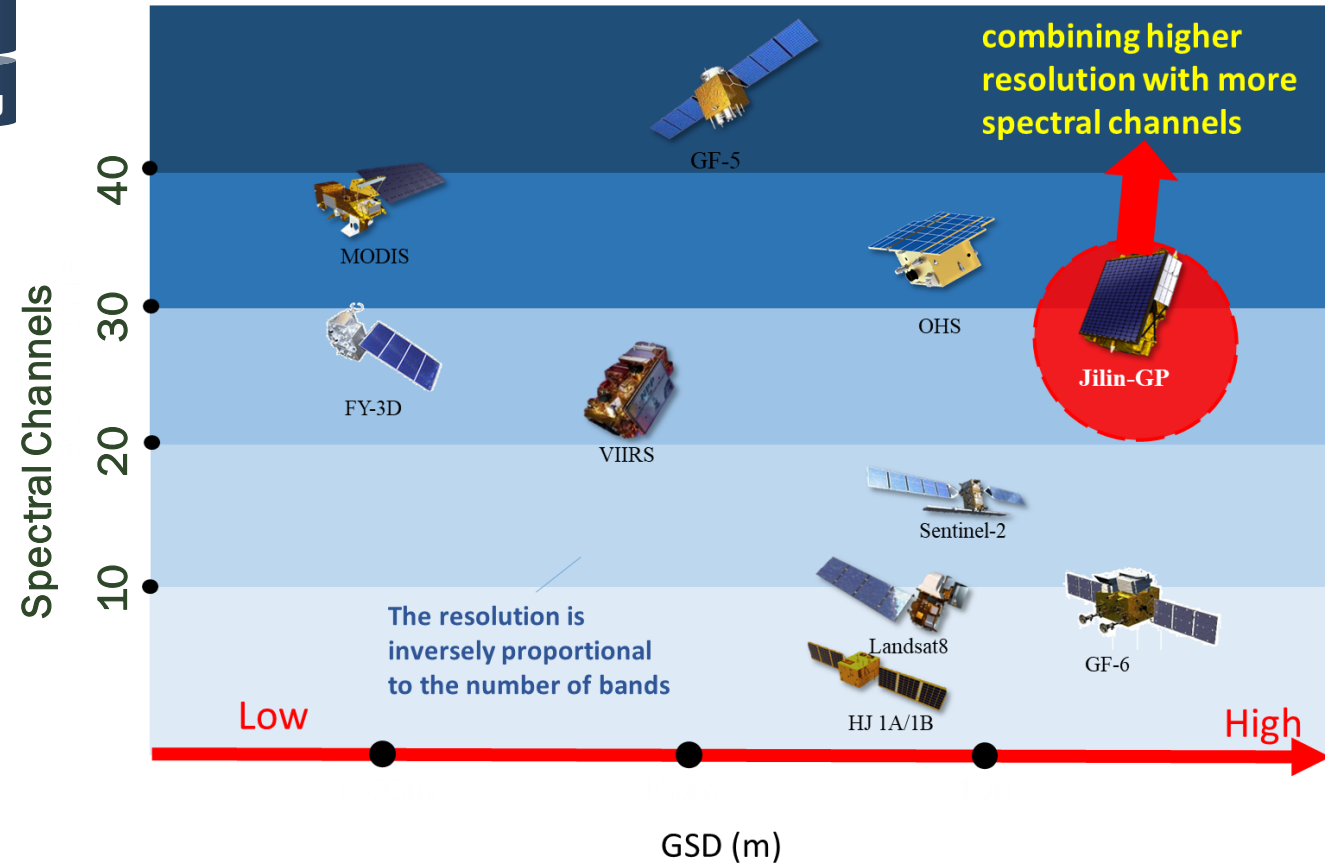
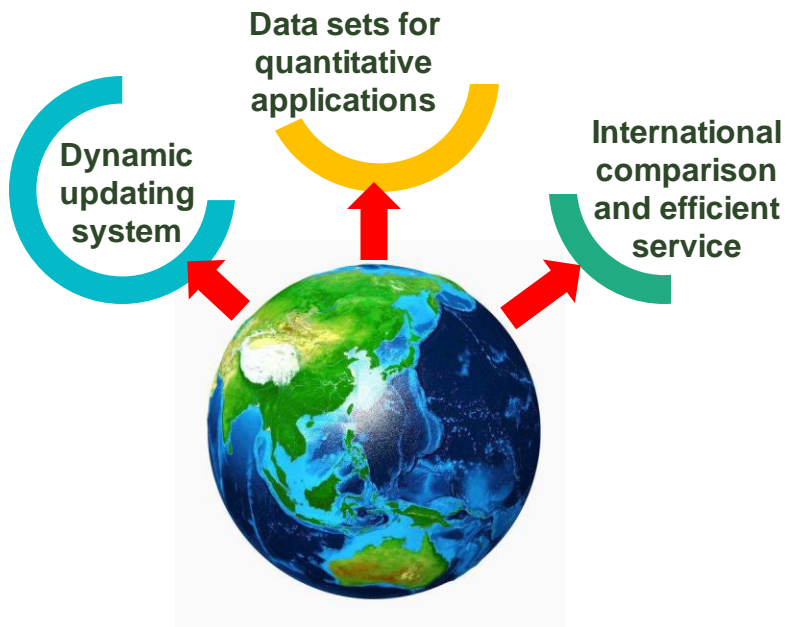
■ User needs:

- Dataset Resource
- Persistent Quality
- Sharing Service

■ Current status:



■ Technical considerations:



Dataset Development & Sharing

Major International Joint Research Project: JLS-5M Data

Home About project About data Events

Project Information

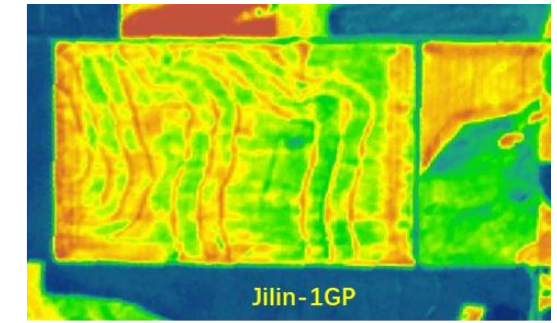
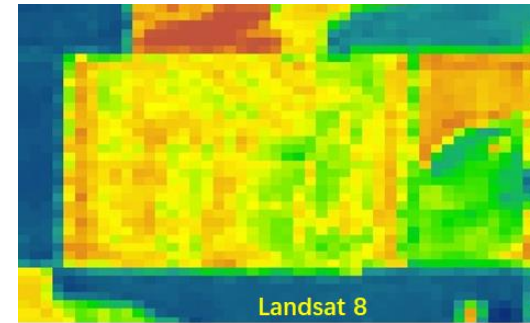
The National Key Research and Development Program project "Construction of Domestic Medium High Resolution Wide Band Multi-spectral Satellite Data set and Efficient International Service" was officially approved in December 2020. The project was undertaken by CGSTL (Changguang Satellite Technology Co., LTD.), AIR (Aerospace Information Research Institute), and Geoscience Australia.

[View>>](#)

1,438 Scenes **5.715** TB **2** Years

NODA DATASETS SHARING .. MORE>>

JLS-5M-ASEAN Dataset (2020)		
Visits: 1441 times	Data pieces: 1493 scenes	View
Downloads: 15511 times	Data bulk: 5898.24 GB	Download

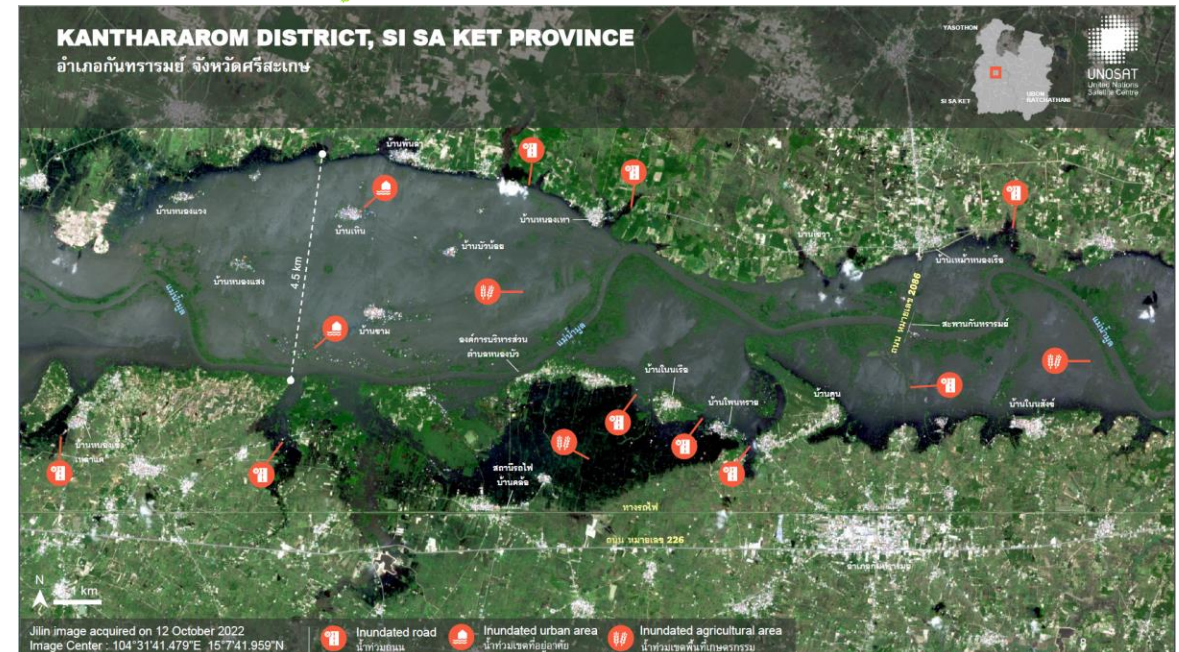
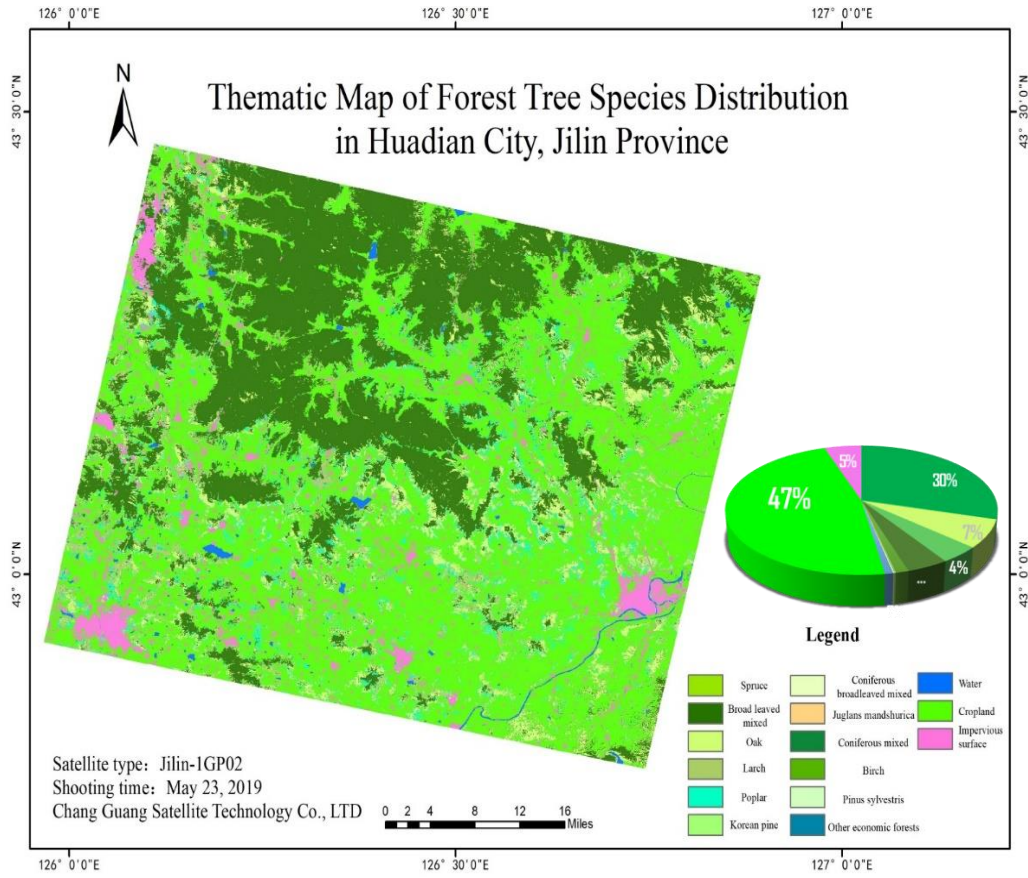
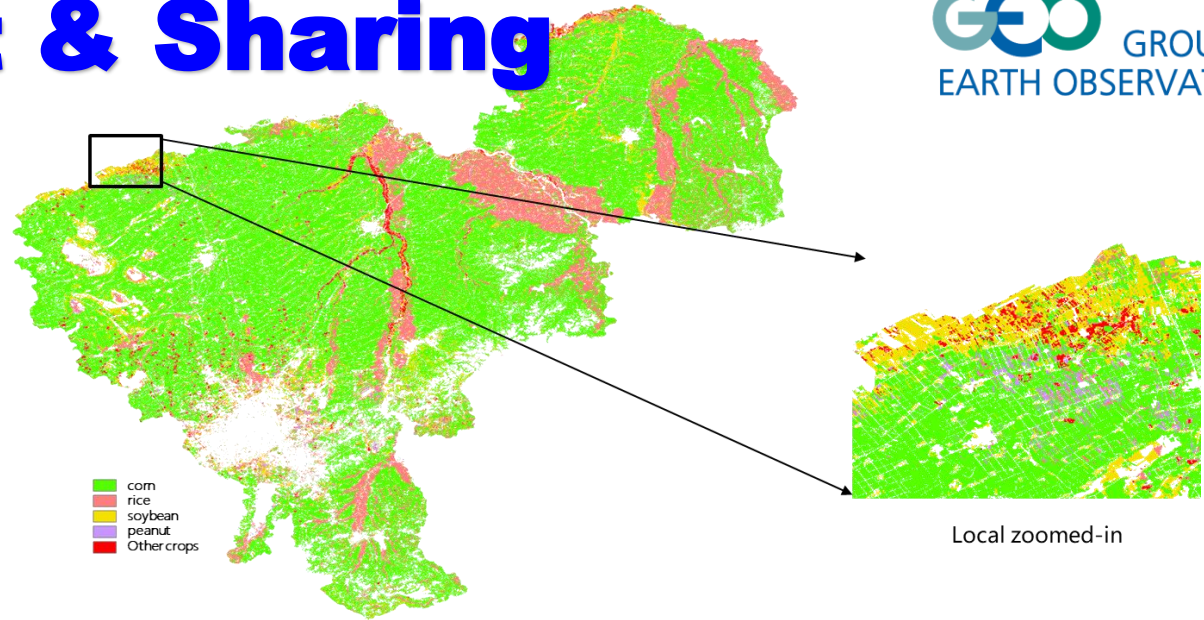


- Developed by **CGSTL** leading team
- Developed using data from **Jilin-1GP** multispectral satellites
- The first 5-meter wide-coverage dataset with 20 multispectral bands
- Provided to all communities through **ChinaGEOSS**



Dataset Development & Sharing

Dataset Application



Dataset Development & Sharing



Major International Joint Research Project: JLS-5M Data

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	JLS-5M-ASEAN Dataset (2020)	<input type="button" value="View"/>
Visits: 1441 times	Data pieces: 1493 scenes	<input type="button" value="Download"/>
Downloads: 15511 times	Data bulk: 5898.24 GB	

Dataset service system

English

国家地理科学数据中心
National Earth Observation Data Center

中国·GEO 国家综合地球观测数据共享平台
ChinaGEOSS Data Sharing Network

数据共享平台
Data Sharing Platform

首页 数据集检索 数据产品检索 专题服务 帮助中心

专题服务 > 专题详情

国产中高分辨率宽波段多光谱卫星数据集构建和高效国际化服务

2023-05-11 15:10:01

国产中高分辨率宽波段多光谱卫星数据集构建和高效国际化服务, 项目编号: 2019YF10127000

数据下载绿色通道

数据集: 吉林一号光谱星 (JLS-5M) 东盟十国数据集 (2020)	数据集: 吉林一号光谱星 (JLS-5M) 东北亚数据集 (2020)	数据集: 吉林一号光谱星 (JLS-5M) 东盟十国数据集 (2020)	数据集: 吉林一号光谱星 (JLS-5M) 东盟十国数据集 (2020-2021)
访问量: 1056 下载量: 4	访问量: 662 下载量: 5	访问量: 1 下载量: 0	访问量: 1 下载量: 0
<input type="button" value="查看数据"/> <input type="button" value="在线申请"/>	<input type="button" value="查看数据"/> <input type="button" value="在线申请"/>	<input type="button" value="查看数据"/> <input type="button" value="在线申请"/>	<input type="button" value="查看数据"/> <input type="button" value="在线申请"/>
数据集: 吉林一号光谱星 (JLS-5M) - 伊拉瓦 (2020-2021)	数据集: 吉林一号光谱星 (JLS-5M) - 伊拉瓦 (2020-2021)	数据集: 吉林一号光谱星 (JLS-5M) - 伊拉瓦 (2020-2021)	数据集: 吉林一号光谱星 (JLS-5M) - 伊拉瓦 (2020-2021)
访问量: 1 下载量: 0	访问量: 1 下载量: 0	访问量: 1 下载量: 0	访问量: 1 下载量: 0
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Introduction page of JLS-5M dataset

Welcome to register to download!

<https://www.chinageoss.cn/datasharing/theme/viewThemeById?id=JLS5M>

Suggestions



- Official Ranking & Encouragements for Emergency Data Contributors



- Improved Public Calibration Services under GEO Cooperative Framework



- Communication Mechanisms and Channels Between Data Contributors and the End Users



- Supporting Project of Outdated Archived Data Sharing for Research



Thank for your attention

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