

2025 浦江创新论坛 (第十八届)

THE 18th PUJIANG INNOVATION FORUM

2025.09.20-22

中国·上海 Shanghai, China

Space Sustainability Forum

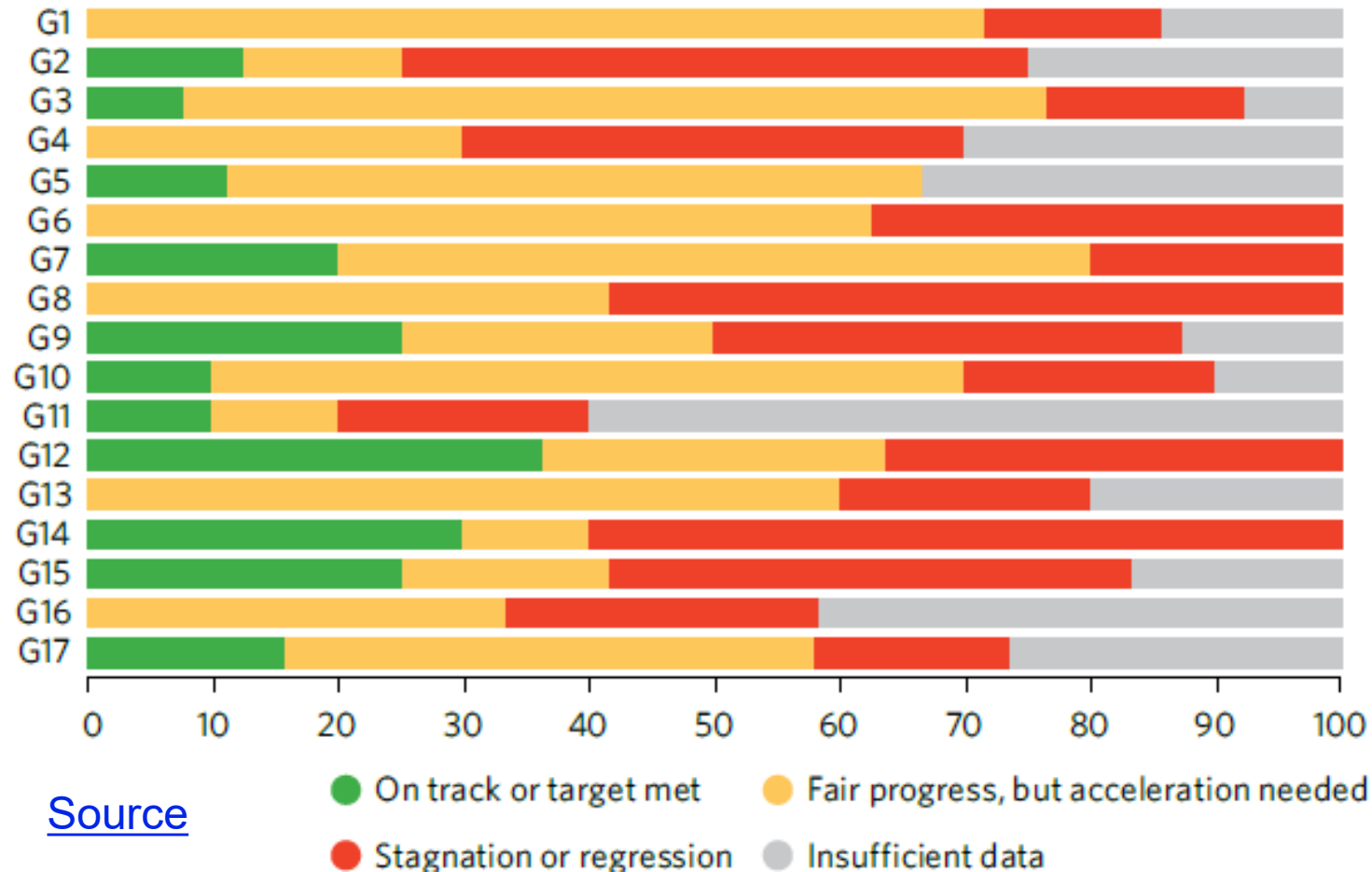
CBAS

An Open, Collaborative Platform to drive Global Sustainable Development according to UN 2030 SDG

Dr. Farid Gamgami
Vice Director Satellite Digitalization Laboratory

Challenges Implementing UN 2030 SDG

- **48%** targets exhibit deviations, and
- **35%** targets stagnation or regression below the 2015 baseline



Challenges Implementing UN 2030 SDG as identified by the Chinese Academy of Sciences

1) Data and Methodology Gaps:

- Over 60% of the Sustainable Development Goal (SDG) indicator data are missing

2) Fragmented Standards and Technical Barriers:

- Data gaps and dormant data & the value of available data remains largely underutilized.

3) Subjectivity in Statistics and SDG Variability:

- New indicators and methods are urgently needed

4) Complex Trade-offs and Synergies among SDGs:

- Addressing progress in one goal often leads to setbacks in another, highlighting the need for integrated solutions.



- **Chinese Academy of Sciences (CAS)** founded CBAS
- CAS provides **scientific leadership**, infrastructure, and global collaboration channels
- CBAS acts as **an international platform** linking CAS research with global SDG needs.



INTERNATIONAL RESEARCH CENTER OF BIG DATA
FOR SUSTAINABLE DEVELOPMENT GOALS
可持续发展大数据国际研究中心

Tasks of CBAS:

- Develop and apply **big data, Earth observation, and AI** for SDG monitoring
- Build **open data platforms** to share global sustainable development data
- Provide **scientific evidence and policy advice** to UN agencies and governments
- Support **capacity building** in developing countries through training and tech transfer
- Facilitate **international cooperation** on data-driven SDG solutions.



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CBAS draws on over 1,200 researchers
from 129 institutes via the Big Earth Data
Science Engineering Program (**CASEarth**).

CASEarth develops the science → CBAS applies it globally for SDGs

SDGSAT-1



SDG Satellite SDG-1, known as SDGSAT-1, is the **first satellite developed specifically** for the implementation of UN 2030 Agenda for Sustainable Development (SDG), launched 2021



SDGSAT-1

Payloads and Sensors Achieving Global Coverage in 11 days

1. Thermal Infrared Spectrometer

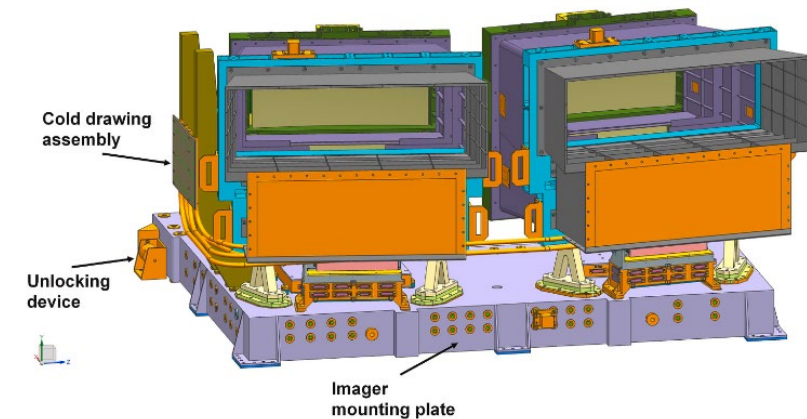
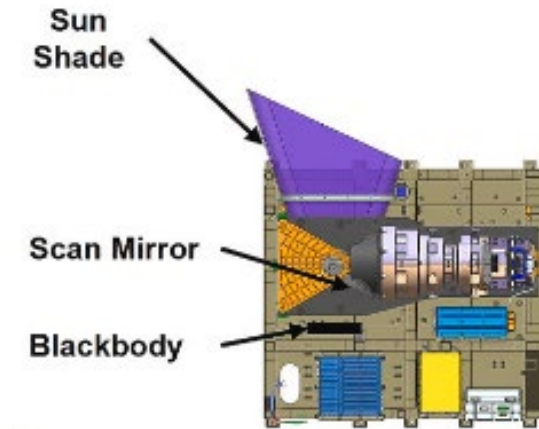
- Swath Width: 300 km
- Spectral Bands: 8–10.5 μm , 10.3–11.3 μm , 11.5–12.5 μm
- Spatial Resolution: 30 m

2. Glimmer Imager (Panchromatic & RGB)

- Swath Width: 300 km
- Panchromatic band: 444–910 nm, 10 m resolution
- RGB bands: 424–894 nm, 40 m resolution

3. Multispectral Imager

- Swath Width: 300 km
- Bands: Deep blue (374–427 nm, 410–467 nm), Blue (457–529 nm), Green (510–597 nm), Red (618–696 nm), Near-Infrared (744–813 nm, 798–911 nm)
- Spatial Resolution: 10 m



How to participate?

Digital Sustainable Development Goals Programme (DSP)

Digital Sustainable Development Goals Programme



Digital Sustainable Development
Goals Programme

- **Digital Sustainable Development Goals Programme (DSP)** is an initiative led by CBAS and coordinated by its **Director-General, Professor Guo Huadong**
- DSP was officially **endorsed by UNESCO in February 2025** as a key program under the International Decade of Sciences for Sustainable Development (IDSSD) 2024-2033.



How to Join

If you are interested in becoming part of the DSP, please contact

DSP Secretariat, International Research Center
of Big Data for Sustainable Development (CBAS)

✉ Email: cooperation@cbas.ac.cn

🖱 Website: <http://www.cbas.ac.cn/>

Digital Sustainable Development Goals Programme



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感谢你的关注

Thank you for your attention