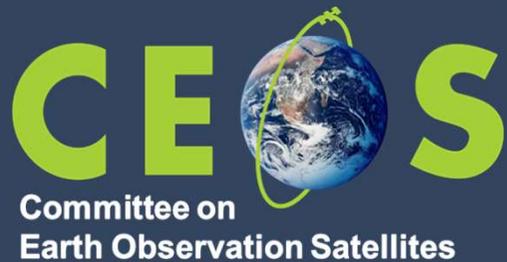


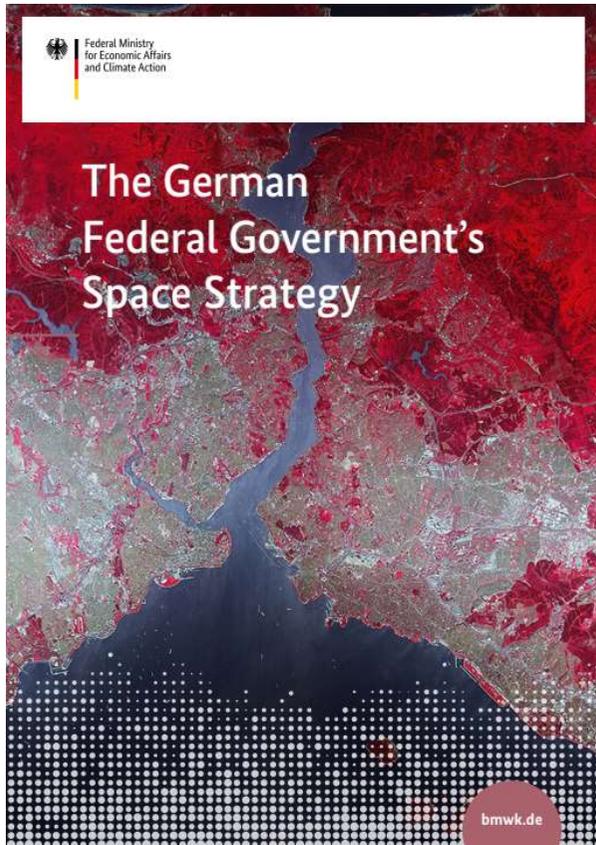
# 2023 CEOS Plenary

*Report from German Space Agency (DLR)*



**Klaus Schmidt, DLR**  
**Agenda Item 13.1**  
**37<sup>th</sup> CEOS Plenary**  
**15-16 November 2023**  
**Chiang Rai, Thailand**  
**Hosted by GISTA**

# New German Federal Government's Space Strategy

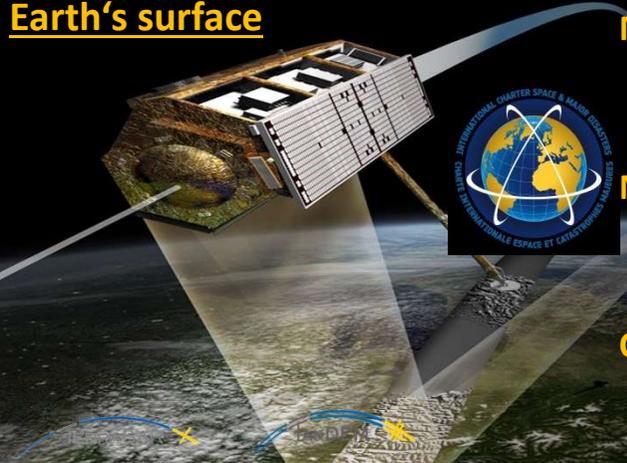


## Focus on

- European and international cooperation
- Space industry as a growing market: high-tech and new space
- Climate change, resources and environmental protection
- Digitalisation, data and downstream
- Security, strategic ability to act, and global stability
- Sustainable use of space
- Space research
- International space exploration
- Space in dialogue and talent recruitment

<https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/09/20230927-adoption-of-the-federal-governments-new-space-strategy.html>

### Earth's surface



#### Mission X-Band-Radar

- TerraSAR-X (2007)
- TanDEM-X (2010)

#### New Radar-Mission

- X-Band Continuity
- Focus on multistatic

#### Current status

- Phase 0 Preparation

### Environment, Resources



#### Mission Hyperspectral

EnMap (2022)

#### Objectives

- Technology lead, F&E
- Establish applications
- Continuity in Copernicus

#### Current status

- Phase E



### Climate



#### Mission LIDAR

Merlin (2029)

#### Objectives

Measurement of global CH4-concentration

#### Current status

Phase C/D



### Weather



#### Mission Multispektral

METimage (2025) + 2 recurrent units

#### Objectives

- Establish German technology in MetOP-Program
- Strengthen German industry in optics

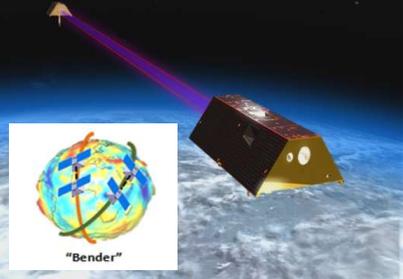
#### Current status

Phase C/D



German Space Agency at DLR

### Gravity, Hydrology



#### Mission Laserlink/Platform

GRACE FO (2018)

#### Objectives GRACE-C (2028)

- Continuity to GRACE FO
- Collaboration with NASA

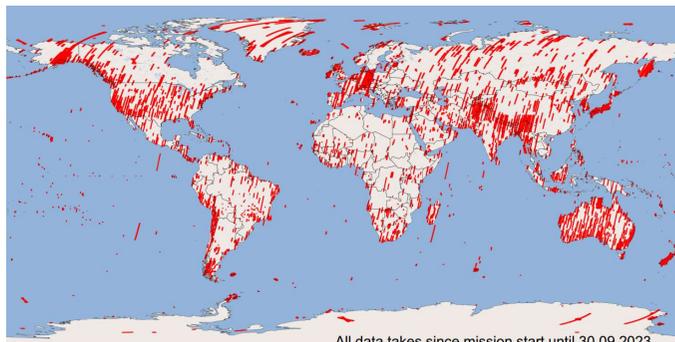
#### Current status

Begin of Phase B

# EnMAP - Environmental Mapping and Analysis Program



1<sup>st</sup> Anniversary Collage;  
credit: A. Schickling 2023



All data takes since mission start until 30.09.2023

Acquisition status; 2023/09/30;  
credit: A. Schickling 2023

- launched April 1, 2022
- 1<sup>st</sup> EnMAP User Workshop held  
<https://www.gfz-potsdam.de/en/press/news/details/ein-jahr-enmap-work-1-enmap-nutzer-workshop>
- current Status: **Phase E (routine operations)**
- Data access: <https://planning.enmap.org>  
-> free and open data policy
- permanent open **Announcement of Opportunity:**  
AO #00001: General AO Process  
<https://www.enmap.org>



Istanbul, Bosphorus, Turkey;  
2022/04/27; first light;  
credit: commissioning phase  
data 2022 DLR



# US – German Series of Gravity Missions

- US-German missions GRACE and GRACE-FO are a success story providing gravity data of unprecedented quality (2002-2017, 2018-)
- Global Climate Observing System (GCOS) defined Terrestrial Water Storage (TWS) in 2020 as Essential Climate Variable (ECV)
- Germany is committed, as international partner to the US, to implement the **GRACE-C** mission to guarantee continuity of observations beyond GRACE-FO with targeted launch in 2028
- **German contributions** similar to GRACE-FO: optical components LRI, launcher, mission operations, SDS contribution; management by German Space Agency
- Cooperation Agreements with German national partners (GFZ, AEI-MPG)

