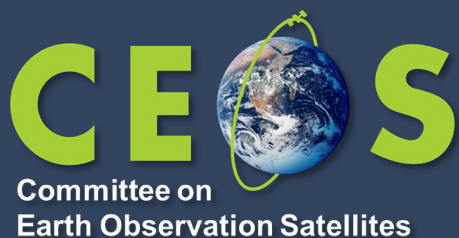


# SIT Technical Workshop 2022

*CBERS-4, CBERS 04A  
and Amazonia 1 Missions*



Julio Dalge, INPE

Agenda Item 5.1

SIT TW 2022, ESA/ESRIN

13th - 15th September 2022

# Summary



## ❖ **CBERS-4 mission**

- Beyond design lifetime, fully operational

## ❖ **CBERS 04A mission**

- 3 years of routine operations

## ❖ **Amazonia 1 mission**

- 18 months of routine operations

## ❖ **Forest monitoring and LULC applications**

## ❖ **Surface reflectance products for Brazil Data Cube**

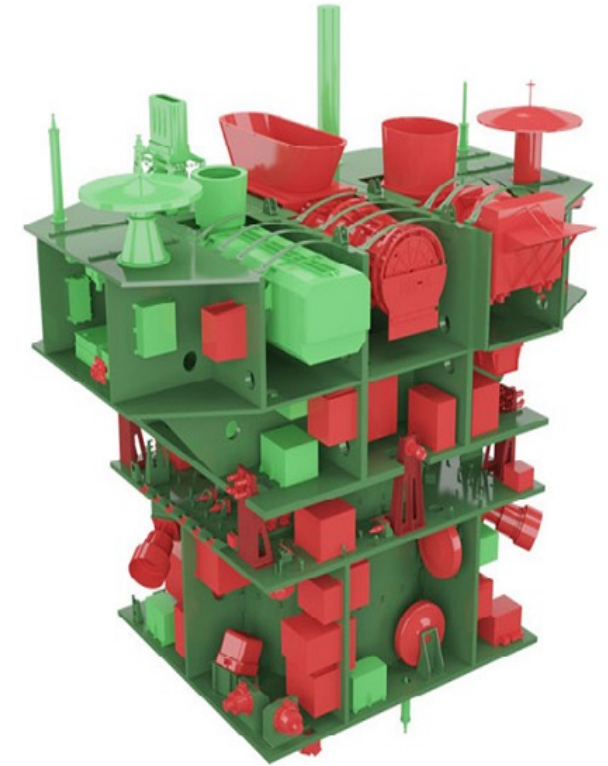
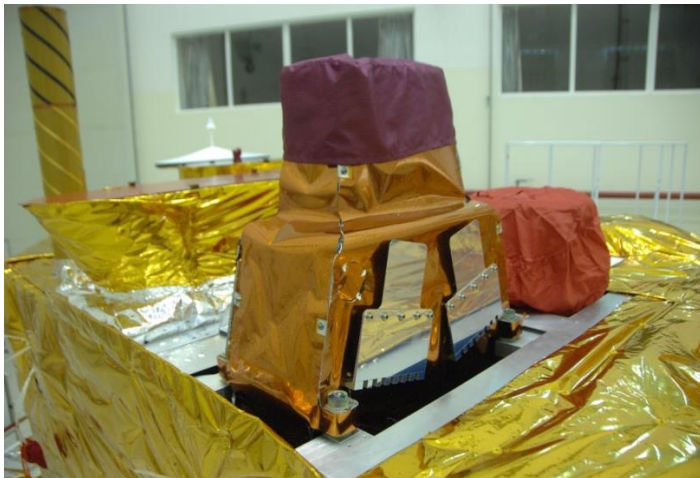
## ❖ **Image samples**

# CBERS-4 mission



- ❖ **5<sup>th</sup> remote sensing satellite of the CBERS program in cooperation with China**
- ❖ **Main Purposes**
  - LULC applications (deforestation and agriculture); coastal studies and water reservoir monitoring; urban planning support; natural disaster mitigation
- ❖ **Launched on December 7, 2014**
- ❖ **Beyond design lifetime, fully operational**
- ❖ **More than 2,000,000 images freely distributed on the Internet (PAN, MUX, IRS and WFI)**
- ❖ **[www.dgi.inpe.br/catalogo](http://www.dgi.inpe.br/catalogo) (until May 2022)**
- ❖ **[www2.dgi.inpe.br/catalogo/explore](http://www2.dgi.inpe.br/catalogo/explore) (from May 2022 on)**

# CBERS-4 mission



# CBERS 04A mission



❖ **6<sup>th</sup> remote sensing satellite of the CBERS program in cooperation with China**

❖ **Main Purposes**

- LULC applications (deforestation and agriculture); coastal studies and water reservoir monitoring; urban planning; support to the Brazilian demographic census; natural disaster mitigation

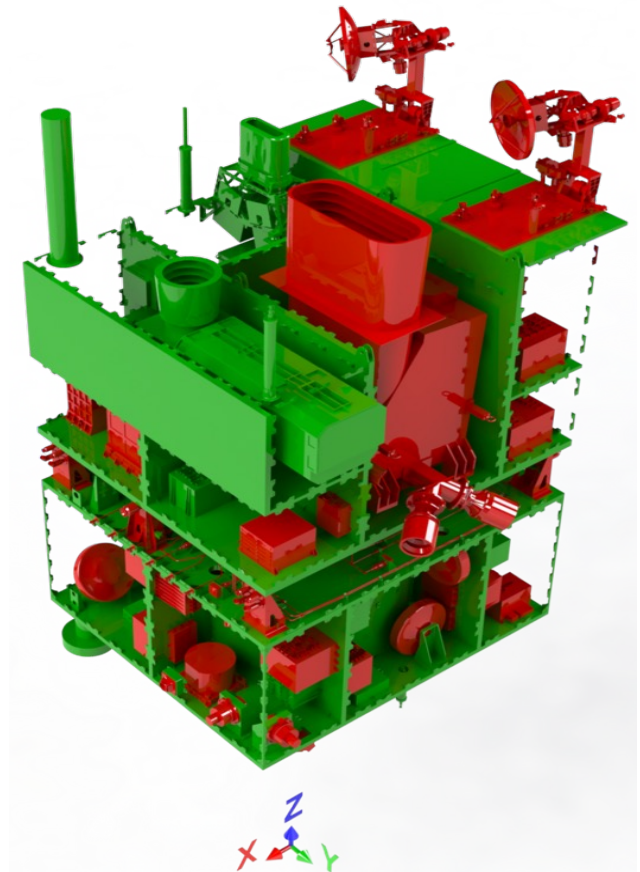
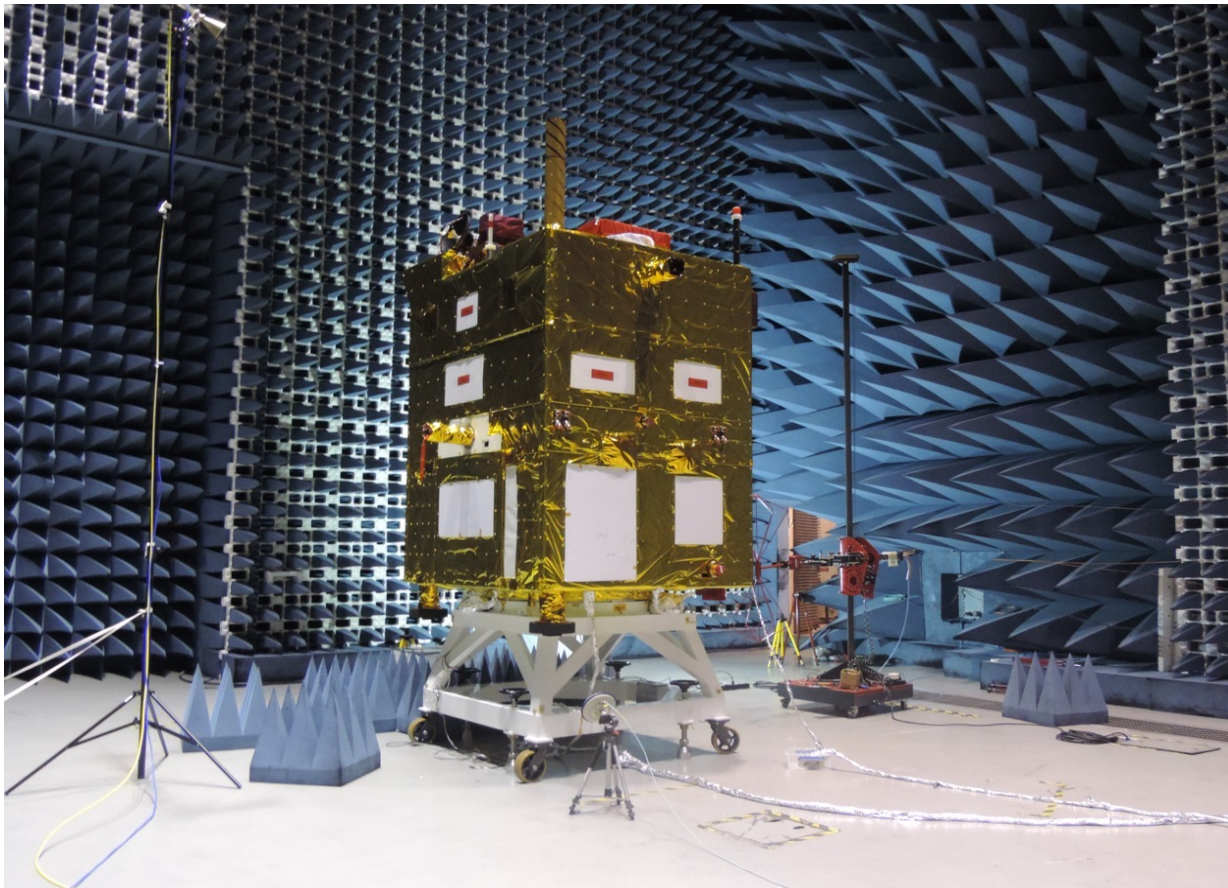
❖ **Launched on December 20, 2019**

❖ **Fully operational**

❖ **Around 200,000 images freely distributed on the Internet (WPM, MUX and WFI)**

❖ **[www2.dgi.inpe.br/catalogo/explore](http://www2.dgi.inpe.br/catalogo/explore)**

# CBERS 04A mission



# Amazonia 1 mission



❖ **Remote sensing mission fully designed, integrated, tested and operated by Brazil**

❖ **Main Purposes**

- LULC applications (deforestation and agriculture); coastal studies and water reservoir monitoring; natural disaster mitigation

❖ **Launched on February 28, 2021**

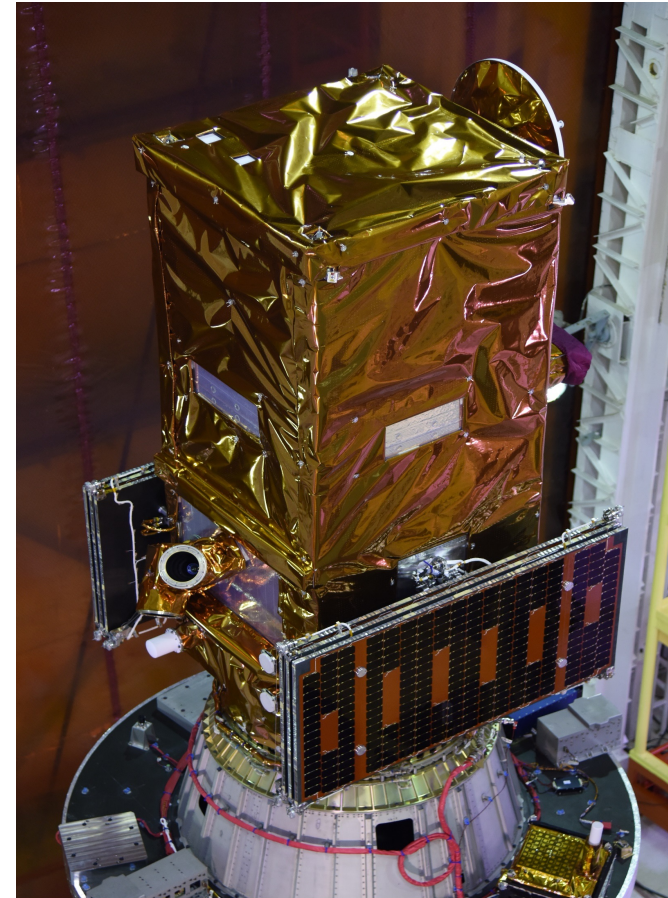
❖ **Fully operational**

❖ **More than 5,000 WFI large swath images freely distributed on the Internet**

❖ **Systematic WFI recording over conterminous USA**

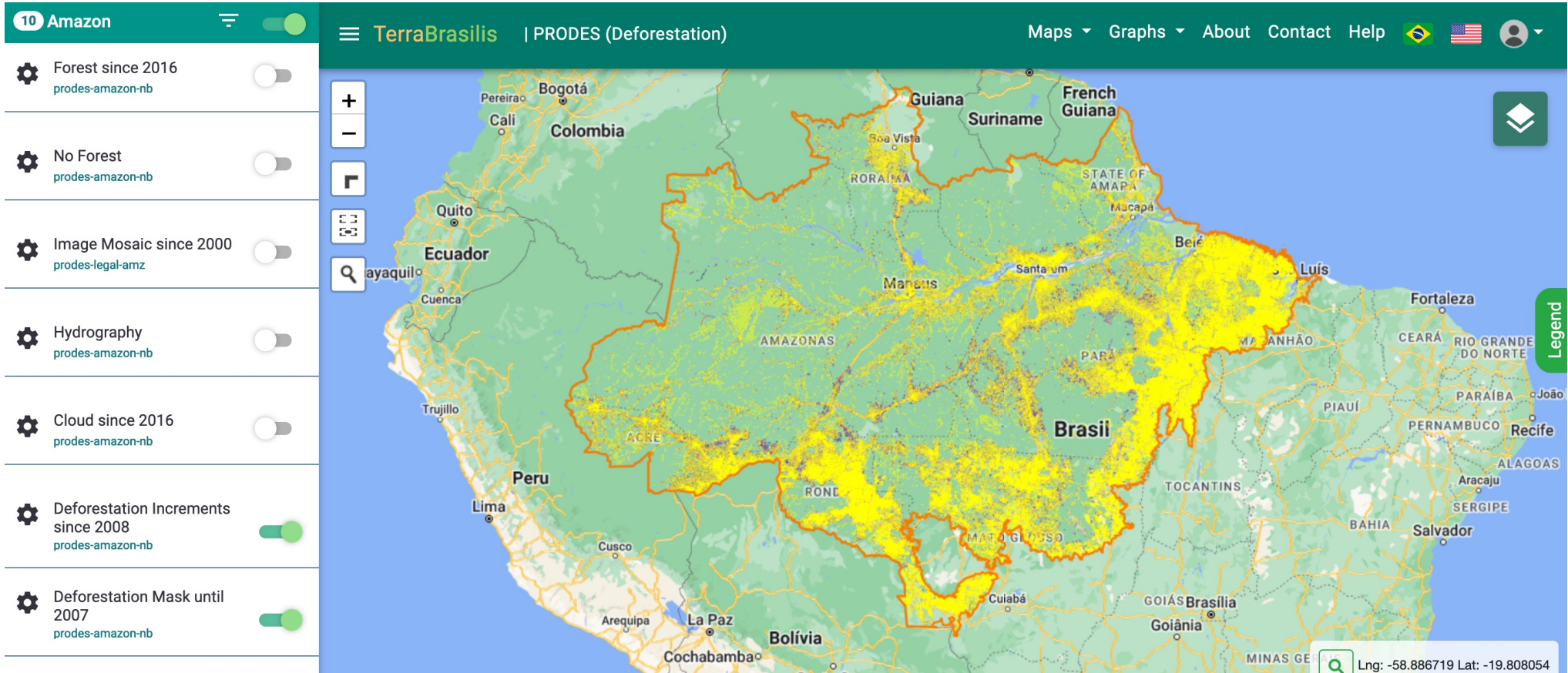
❖ **[www2.dgi.inpe.br/catalogo/explore](http://www2.dgi.inpe.br/catalogo/explore)**

# Amazonia 1 mission

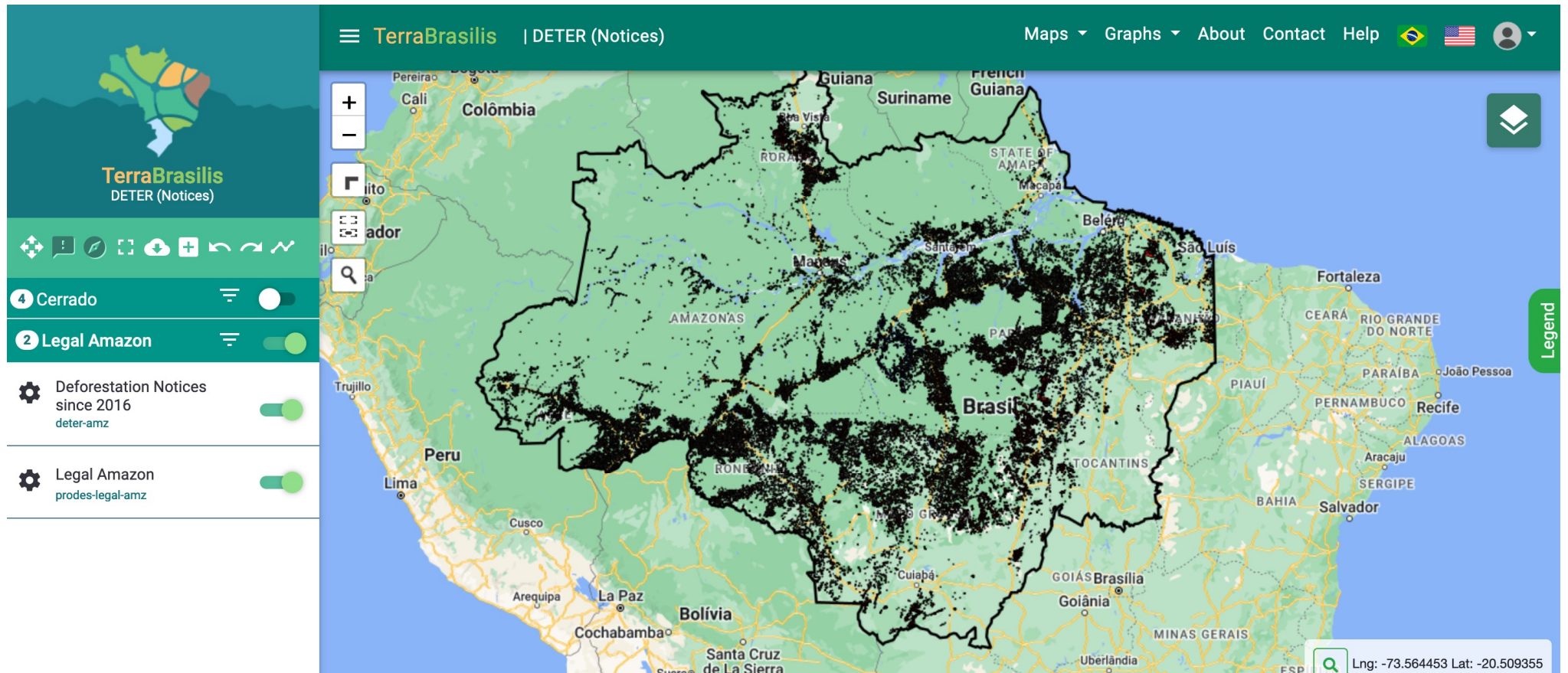




# Annual deforestation inventory



# Daily deforestation alerts



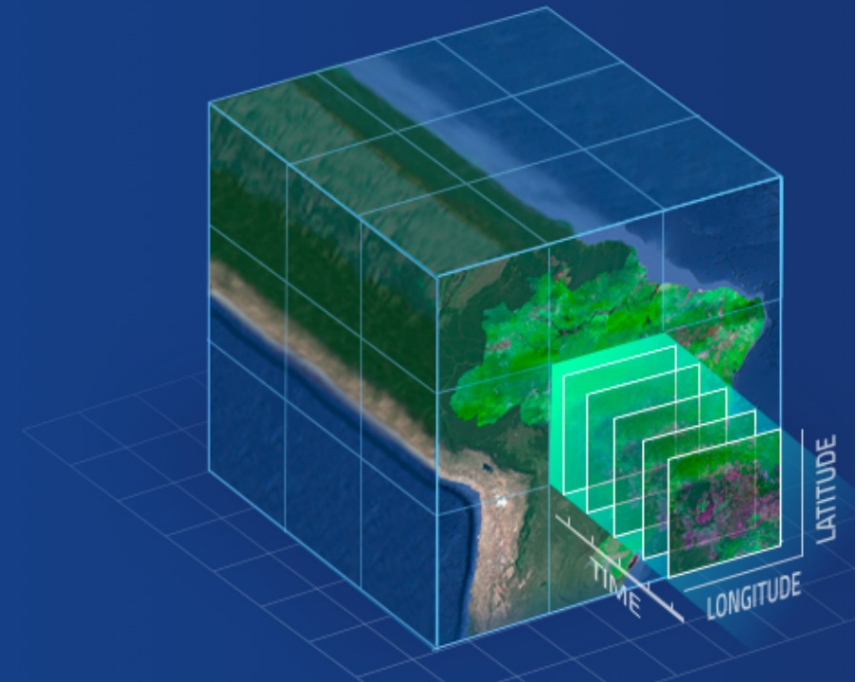
# Harmonized surface reflectance



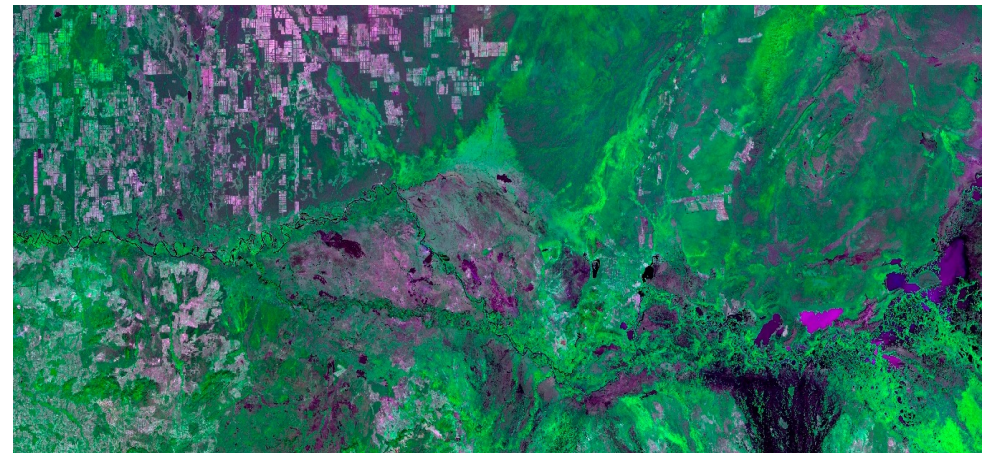
## Brazil Data Cube

Production, visualization and analysis of large volumes of remote sensing images modeled as multidimensional data cubes for the entire Brazilian territory.

[Read more](#)



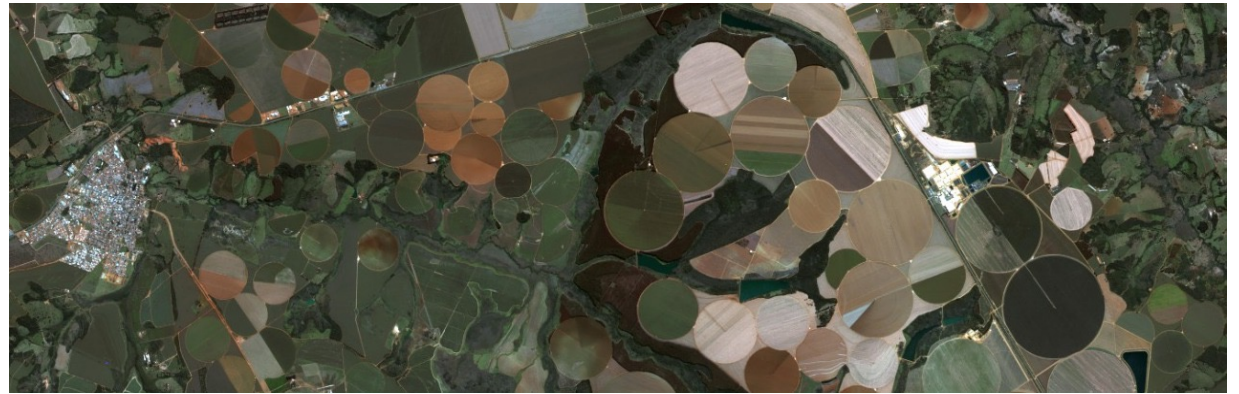
# CBERS-4 image samples



# CBERS 04A image samples



# Amazonia 1 image samples



# Thank you!



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Adenilson Silva – Amazonia 1 Space Segment

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