

Leveraging the Space Value Chain for Sustainable Development in the Philippines



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PhilSA

Republic Act No. 11363, The Philippine Space Act



Republic Act No. 11363 or the Philippine Space Act, was signed into law on August 8, 2019, establishing the Philippine Space Policy and PhilSA.



Office of the President



Philippine Space Council



Philippine Space Agency PhilSA

PhilSA is an attached agency of the Office of the President for purposes of policy and program coordination, to ensure alignment in national policies and priorities

PhilSA is the central government agency in the Philippines addressing all national issues and activities related to space S&T applications (SSTA).



Marcos to tap PH Space Agency to improve security, economy

Katrina Domingo, ABS-CBN News
Posted at Oct 19 2022 06:04 PM



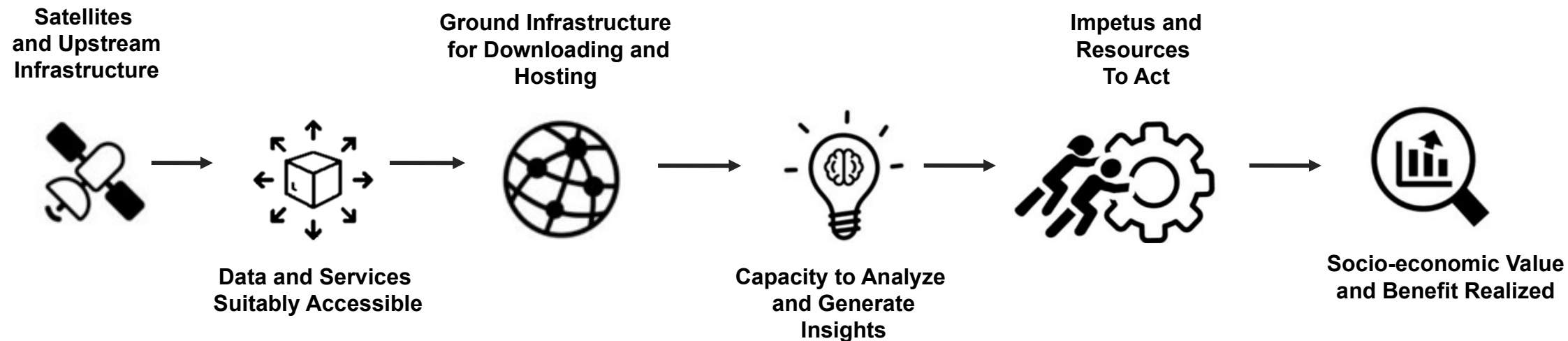


PhilSA

Value creation
is at the *core* of the
PhilSA mission

We will promote and sustain
a robust Philippine space
ecosystem that adds and
creates value in space for
and from Filipinos and for
the world.

The Space Value Chain



Supporting the Space Data Value Chain		
Education and Capacity-Building 	Public Outreach 	Policy, Planning and International Cooperation

“A space-faring, space-capable nation”

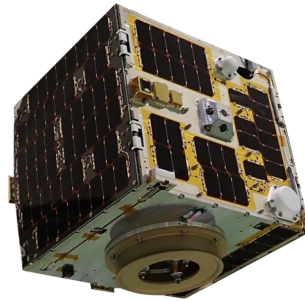
means **sovereign satellites** and **industrial capabilities** in space



Diwata-1
2016-2020

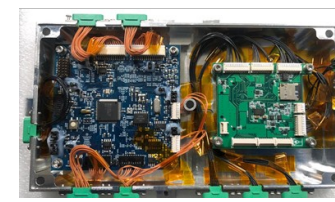
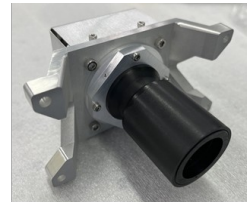


Maya-1
2018-2020



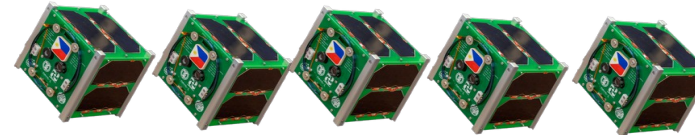
Diwata-2
2018-present

2 components
localized (amateur
radio + attitude
sensor)



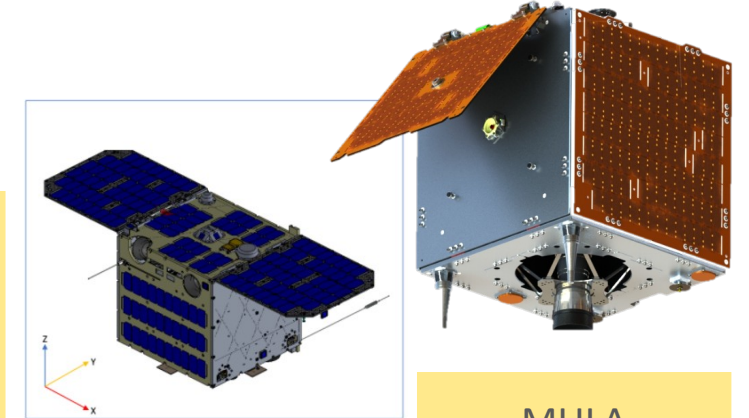
PHL-50 and OPTIKAL
2018-2021

Localization of key payload and bus
components



Maya 2 (2020- 2022)
Maya 3 & 4 (2021 – 2022)
Maya 5&6* (2022)

Designed and assembled locally.



Diwata-3
Launch TBD

9 locally
developed
components to
be tested in flight

MULA
Launch 2025

License to
remanufacture
locally



Philippine
Space
Agency

Angkop sa Kalawakan, Yari at Tatak (AKYAT) Filipino

Opportunities in local space manufacturing

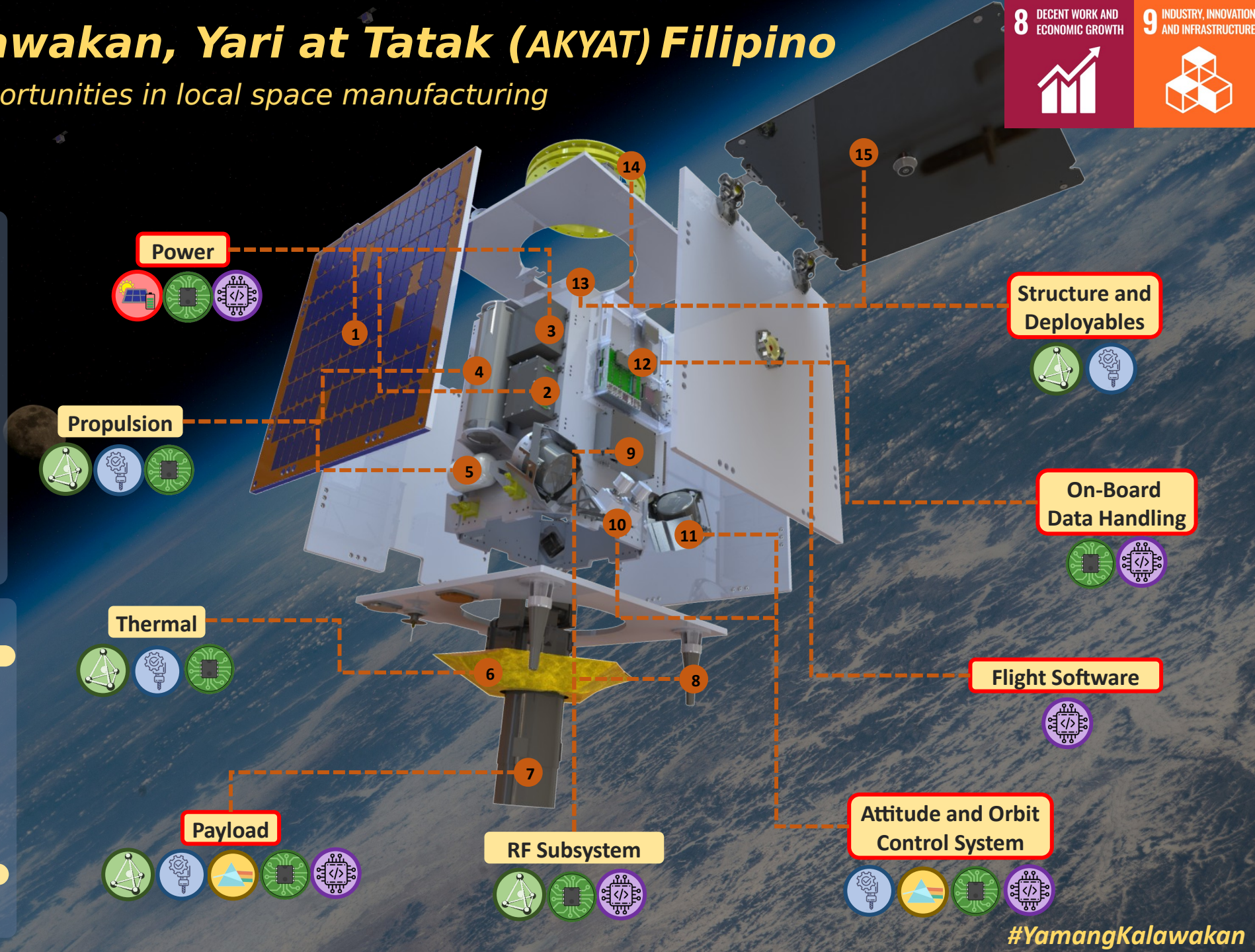


Target Space-Adjacent Industry Sector

- Materials Engineering
- Fabricated Metal Products Manufacturing
- Optical Instruments and Photographic Equipment Manufacturing
- Electronic Products Manufacturing
- Embedded Systems and Software Development
- Solar and Battery Engineering

Satellite Modules

- | | |
|------------------------|---------------------------|
| 1 Solar PV Cells | 9 Software Defined Radio |
| 2 Power Control Module | 10 Star Tracker |
| 3 Battery | 11 Reaction Wheel |
| 4 Propulsion Tank | 12 On-Board Computer |
| 5 Pressurant Tank | 13 Satellite Structure |
| 6 MLI Sheet | 14 Rocket Interface |
| 7 Camera Payload | 15 Deployable Solar Panel |
| 8 Helical Antenna | |

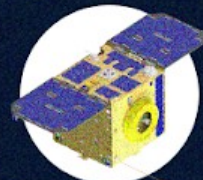


#YamangKalawakan

Space data sources

Sovereign

Satellites owned, operated, and tasked by the Philippines.



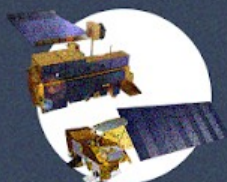
Diwata-2



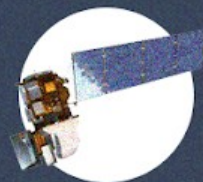
NovaSAR*

Open

Satellite images that are free to use and download.



Terra and Aqua



Landsat-8, 9



Suomi-NPP



Sentinel-5P



Sentinel-3



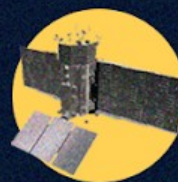
Sentinel-1A, 1B

Disaster Charter-Activated

Satellite images shared through the International Charter: Space and Major Disasters for rapid response to major disasters



RCM-2**



SAOCOM-1A



Goafen-2



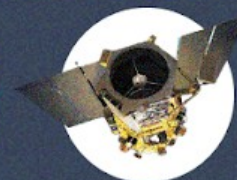
Kanopus-V

Commercial

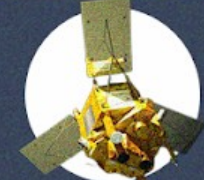
Satellites with paid subscription.



#Kompsat-5



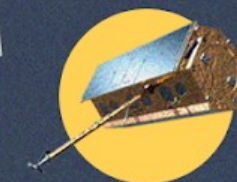
#GeoEye-1



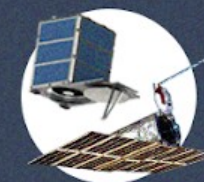
SPOT-6, 7



#Kompsat-3, 3A



TerraSAR-X



#Dove & #Skysat**



#Worldview-2,3,4



#Pléiades Neo**



#ICEYE**

Legend:

Optical

SAR

--- Disaster Charter-Activated

** Satellite Constellation

* Philippines is a Mission Partner

Subscribed

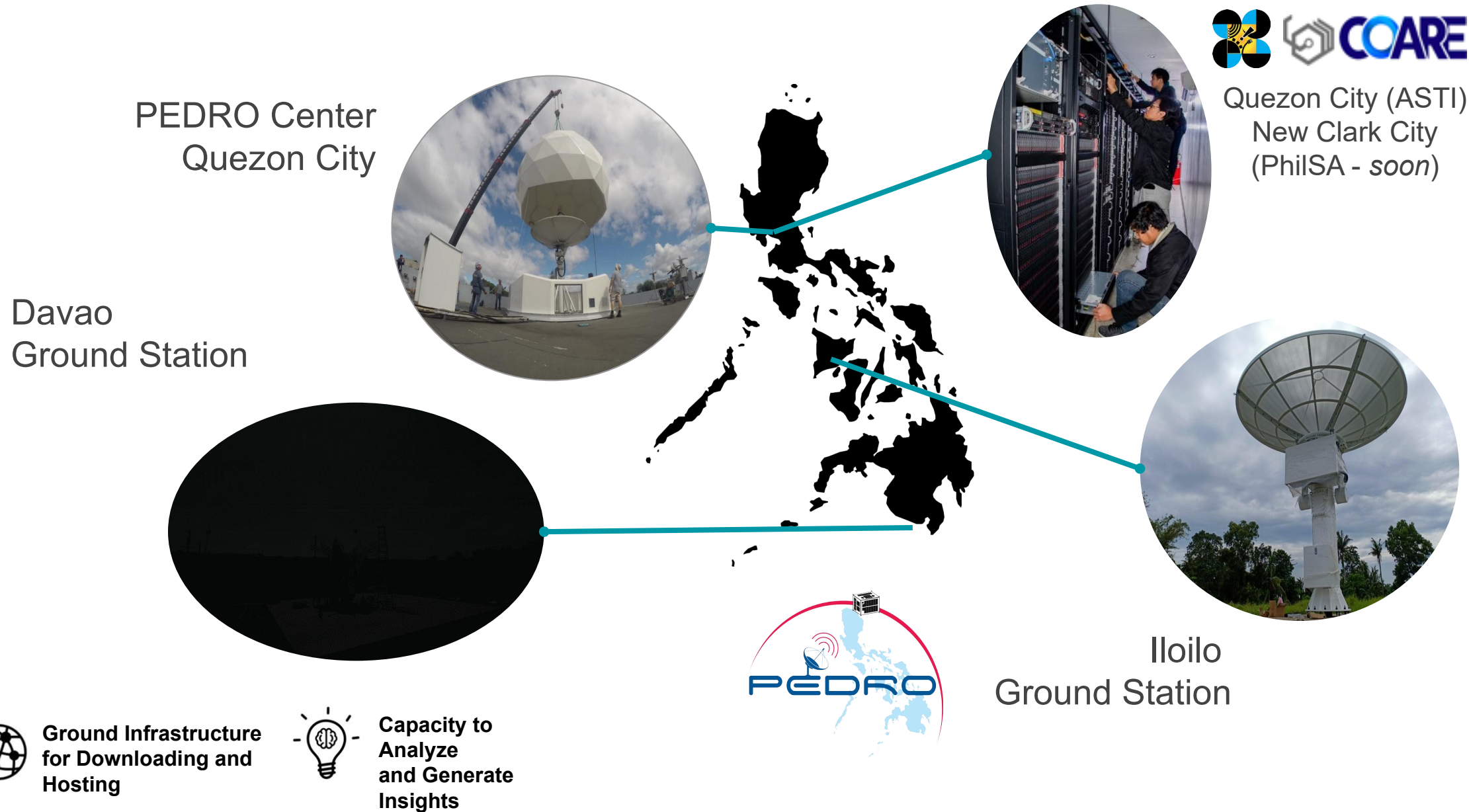


Satellites and Upstream Infrastructure



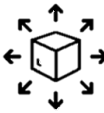
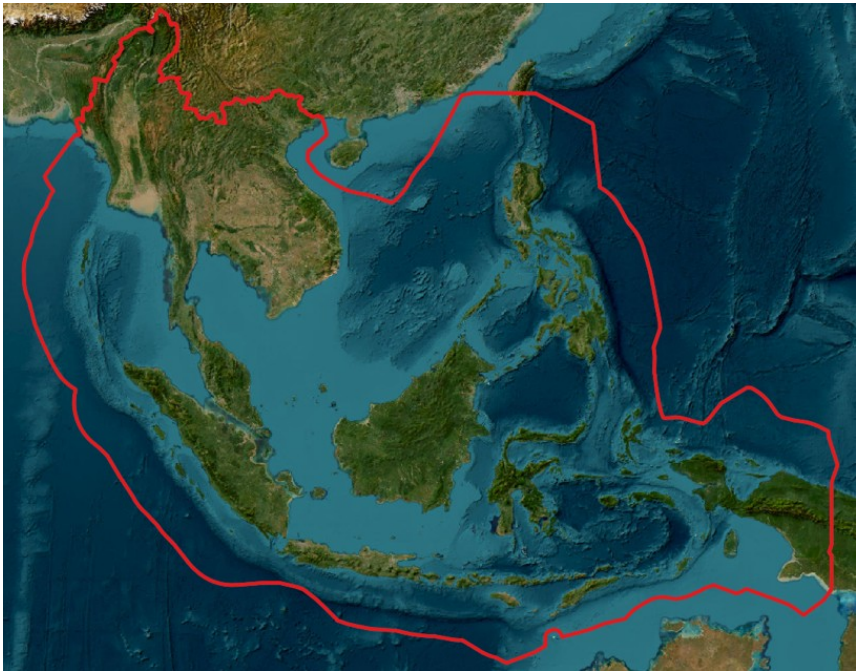
Data and Services Suitably Accessible

Infrastructure for Data Hosting and Computing



Mobilizing Space Data for National Security, Maritime Domain Awareness, and Economic Development

CopPhil – National Copernicus Capacity Support Action Programme for the Philippines



Data and Services
Suitably Accessible



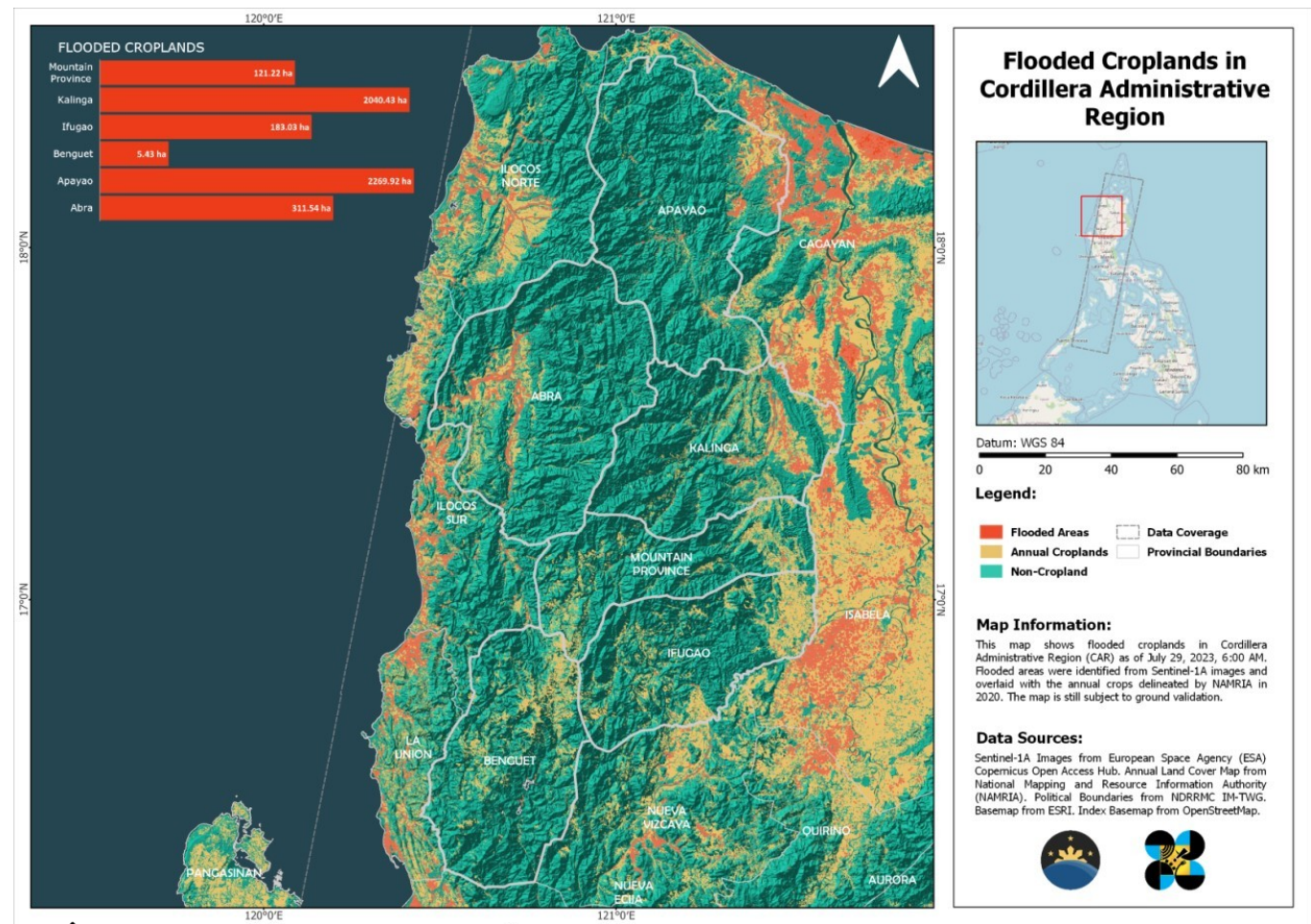
Ground Infrastructure
for Downloading and
Hosting

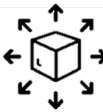


Capacity to
Analyze
and Generate
Insights




Mobilizing Space Data for National Security, Maritime Domain Awareness, and Economic Development






**Data and Services
Suitably Accessible**



**Capacity to
Analyze
and Generate
Insights**

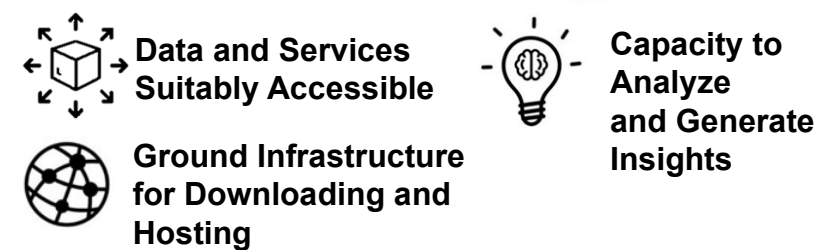
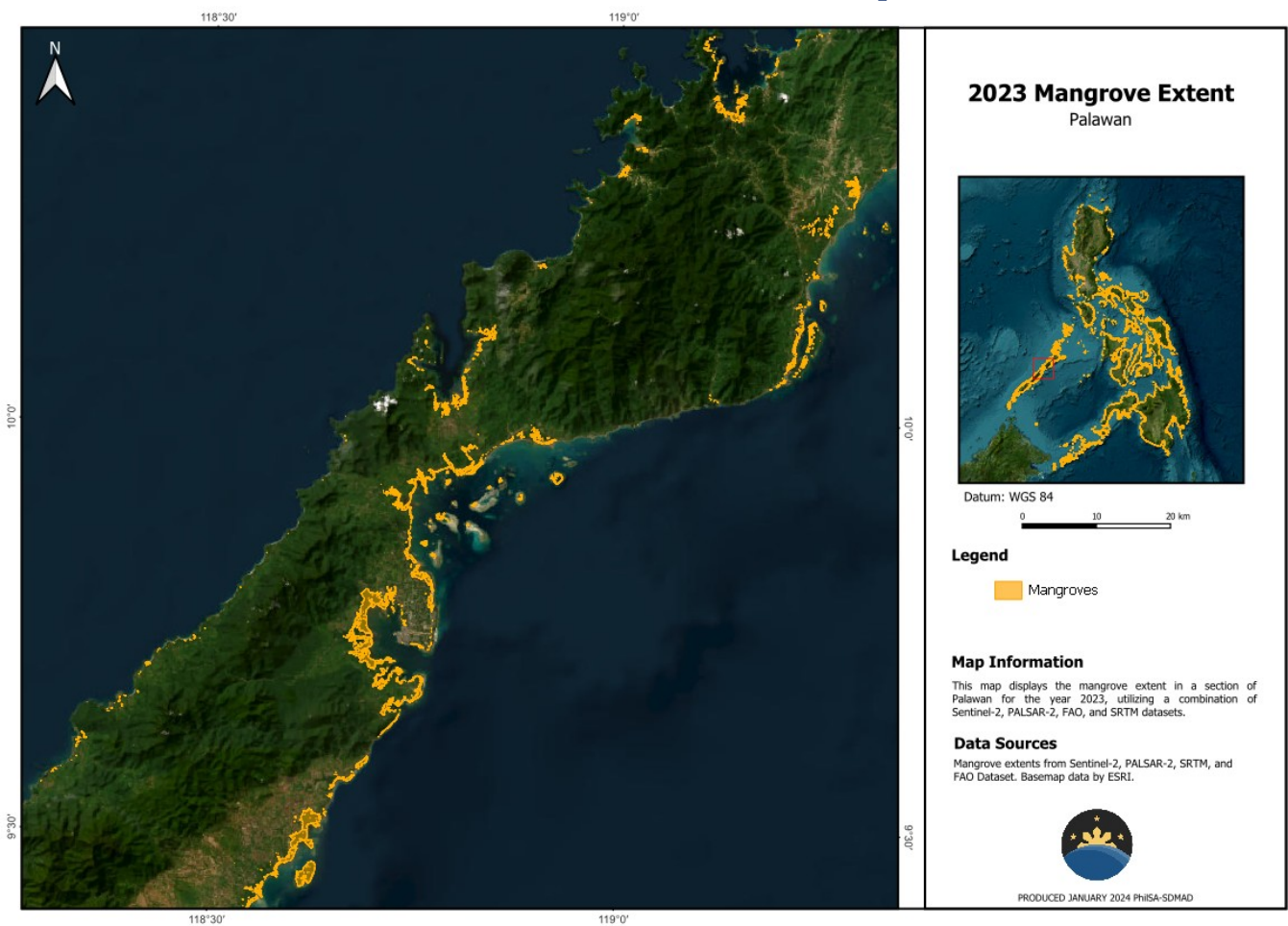


**Ground Infrastructure
for Downloading and
Hosting**

Flood Impact Maps for the Cordillera Administrative Region



Mobilizing Space Data for National Security, Maritime Domain Awareness, and Economic Development



Mangrove Extent Mapping



Satellite images lead to mining bust in Misamis Oriental

At least 16, including 5 Chinese, nabbed in gov't raid along Iponan River in Opol town

By the Inquirer Staff / 05:04 AM May 19, 2023



ENVIRONMENT SURVEILLANCE At least 16 people, five of them Chinese, were arrested on May 13 as authorities stopped an unauthorized mining operation that had damaged about 7 hectares of forest land in Opol, Misamis Oriental. A satellite image (lower right) led to the discovery of the site, alerting the Department of Environment and Natural Resources (DENR). —PHOTO FROM DENR

EDITORS' PICK



NEWSINFO
Rise of 'butterfly' workers alarms Cordillera execs



TECHNOLOGY
Explore BGC at night with vivo Y36



TECHNOLOGY
POCO's 2023 best-selling phones: Join the POCO Carnival



NEWSINFO
Release P3-billion fuel subsidy now, Poe urges DOTr



NEWSINFO
As rice prices soar, senators dare NFA: Prove your worth

MOST READ



**Impetus and
Resources
To Act**



**Socio-economic
Value and Benefit
Realized**



Satellites
and Upstream
Infrastructure

Ground Infrastructure
for Downloading and
Hosting

Impetus and
Resources
To Act



Data and Services
Suitably Accessible

Capacity to Analyze
and Generate
Insights

Socio-economic Value
and Benefit Realized



Summary

- The strategic use of space technology promotes socio-economic development at both national and global scales
- Socio-economic value and benefit is realized only when insights are acted upon
- Activities in each step of the space value chain contribute to the attainment of the SDGs
- Inclusive and sustainable industrial development aimed at shoring up space infrastructure could bring broader impact



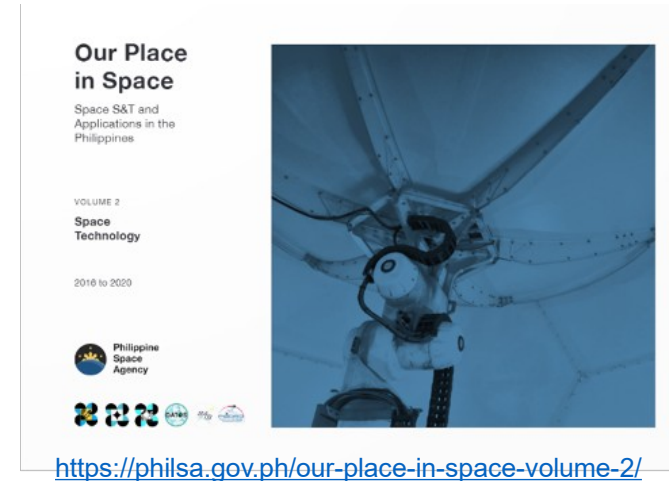
Our Place in Space

<https://philsa.gov.ph/our-place-in-space-preface/>



<https://philsa.gov.ph/our-place-in-space-volume-1/>

Link to video: [Our Place in Space.mp4](#)



<https://philsa.gov.ph/our-place-in-space-volume-2/>



<https://philsa.gov.ph/our-place-in-space-volume-3/>

Thank you!



**Philippine
Space
Agency**

Our Vision

The PhilSA envisions a Filipino nation bridged, uplifted, and empowered through the peaceful uses of outer space.

Our Mission

We will promote and sustain a robust Philippine space ecosystem that adds and creates value in space for and from Filipinos and for the world.