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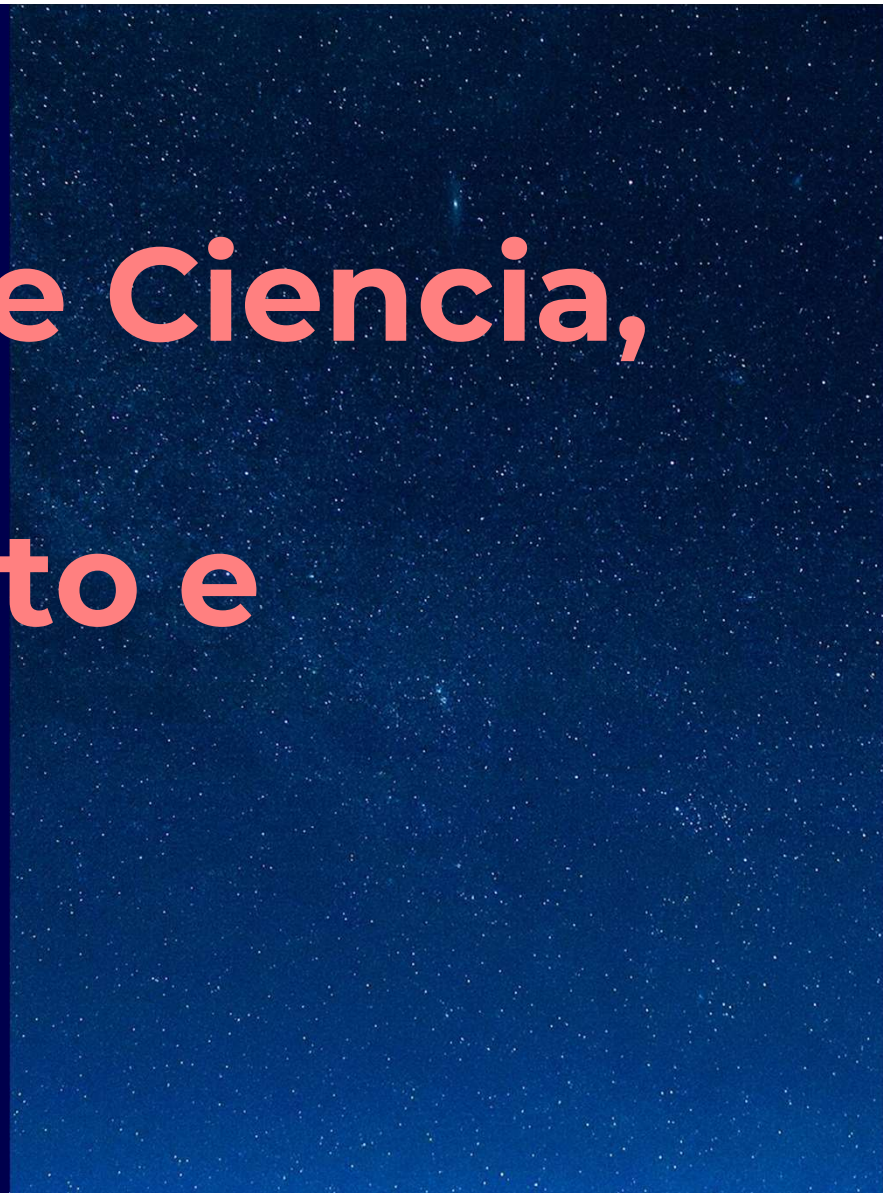

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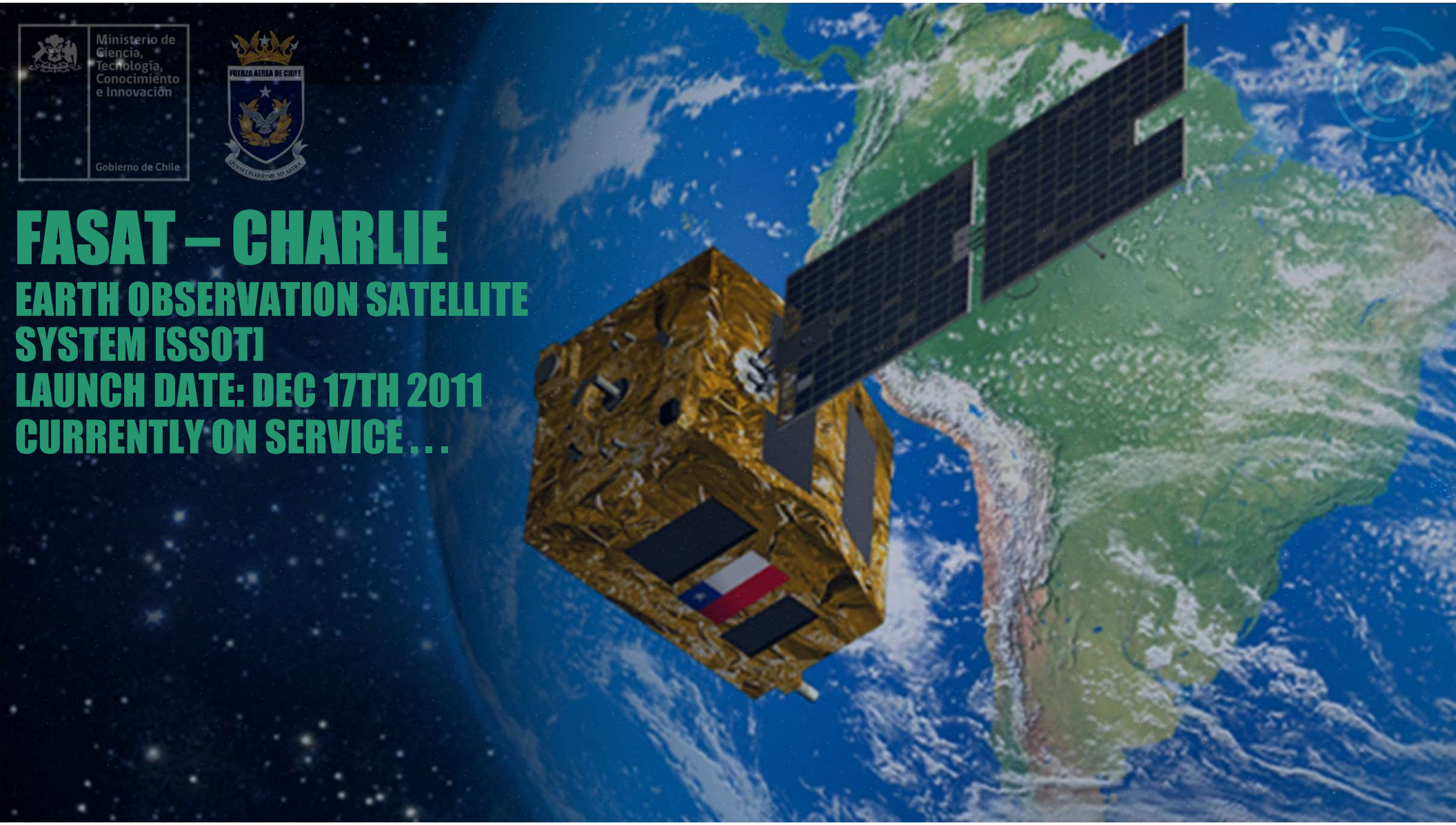
Gobierno de Chile

FUERZA AEREA DE CHILE

Major Roberto Silva Espinoza
Chilean Air Force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Gobierno de Chile
FUERZA AEREA DE CHILE
FASAT – CHARLIE
EARTH OBSERVATION SATELLITE SYSTEM [SSOT]
LAUNCH DATE: DEC 17TH 2011
CURRENTLY ON SERVICE . . .

Chilean National Space Program

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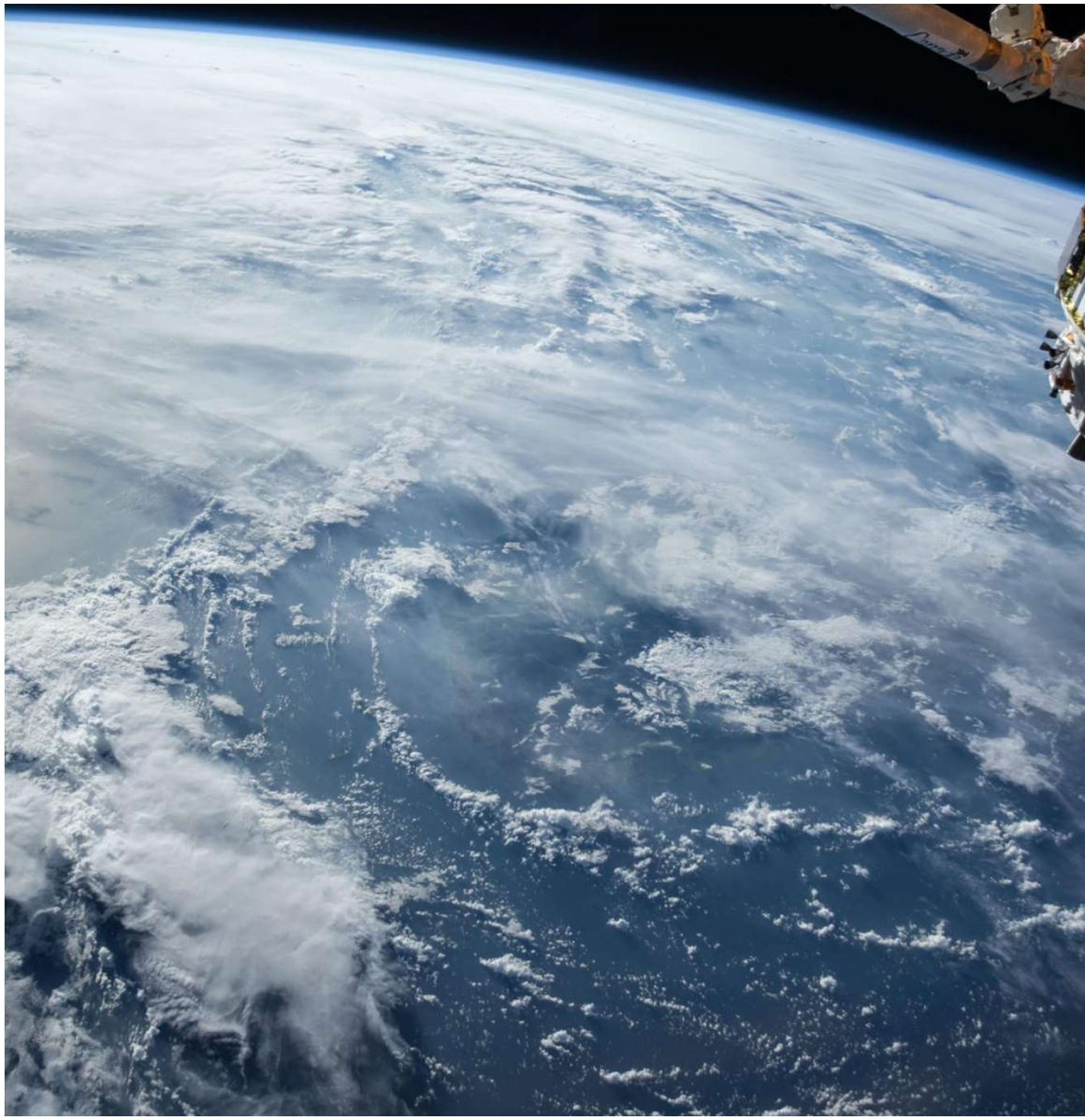
FUERZA AEREA DE CHILE

Major Roberto Silva Espinoza
Chilean Air Force

TOPICS

1. Institutionality towards Chilean Space development

2. Chilean Space Program for Science and society



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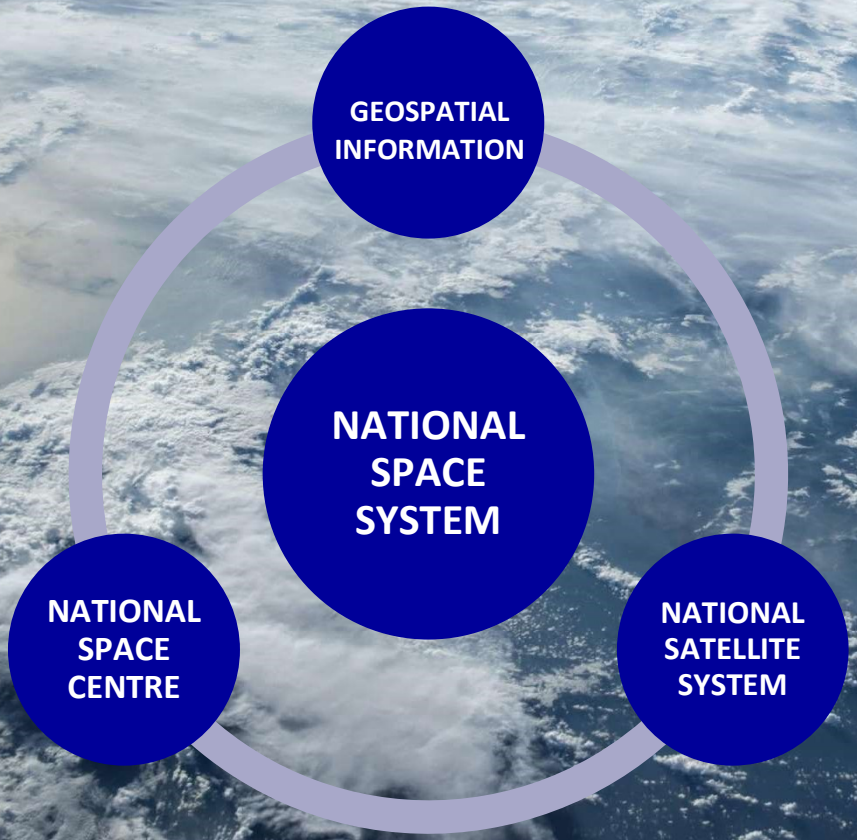
Space Development Strategy

- Civil Society
- Academy
- Government
- Economy
- Defense

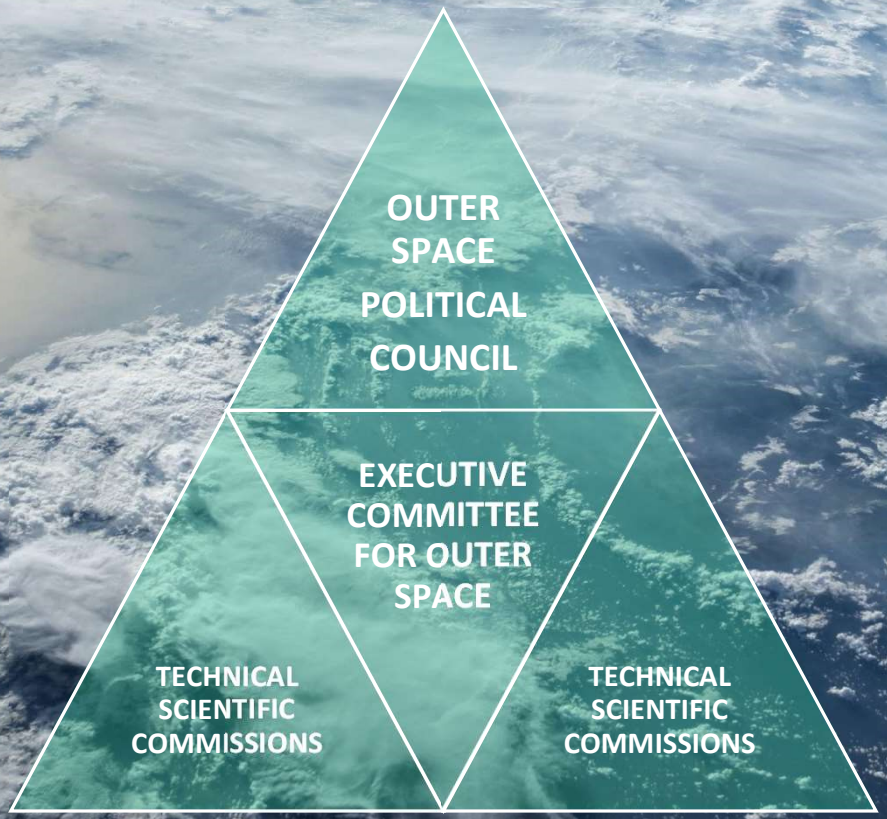
Stakeholders

- **Policy**
- **Planning & Collaboration**
- **Technical Facility & Data Science**

National Space System



INSTITUTIONALITY



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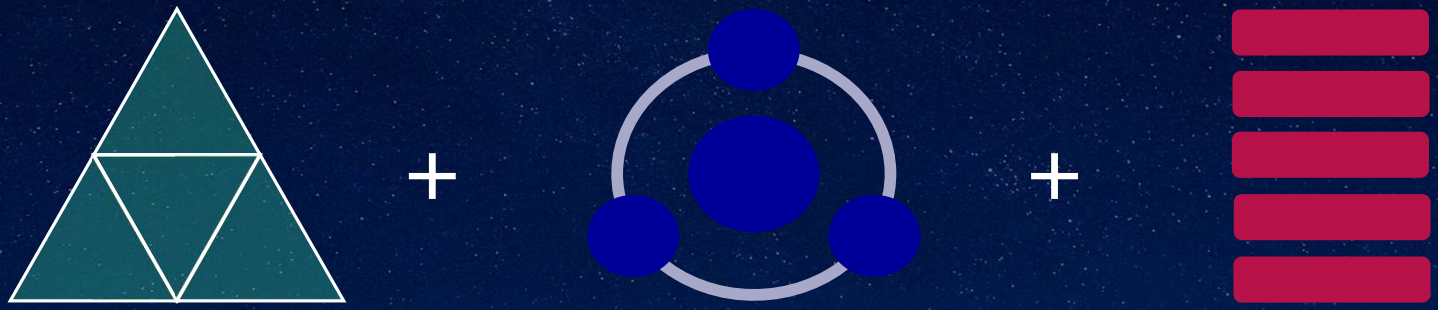
Space Development Strategy

Chilean Space Program for Science and Society



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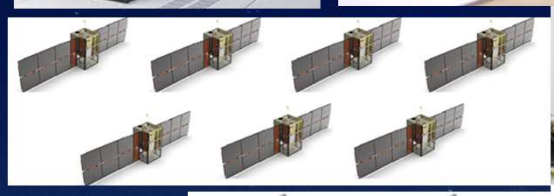
SNSat Project

Geoportal

- Geospatial Information Management Portal
- Data Center

Local development, microsatellites y laboratory AIT

- Microsatellite
- Equipment and software for the AIT Laboratory



Satélites para la Observación de la tierra

- FASAT D, FASAT E1 y FASAT E2
- 03 Ground Station Santiago, Punta Arenas y Antofagasta.

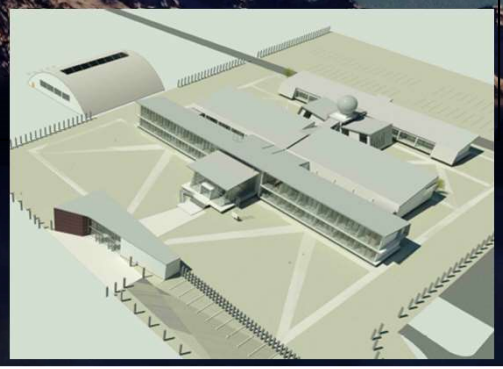
SATCOM

Infrastructure ground station and National Space Centre

- National Space Centre (Cerrillos)
- Austral Ground Station (Punta Arenas)
- Transportable Ground Station (Antofagasta)

Antofagasta

Punta Arenas



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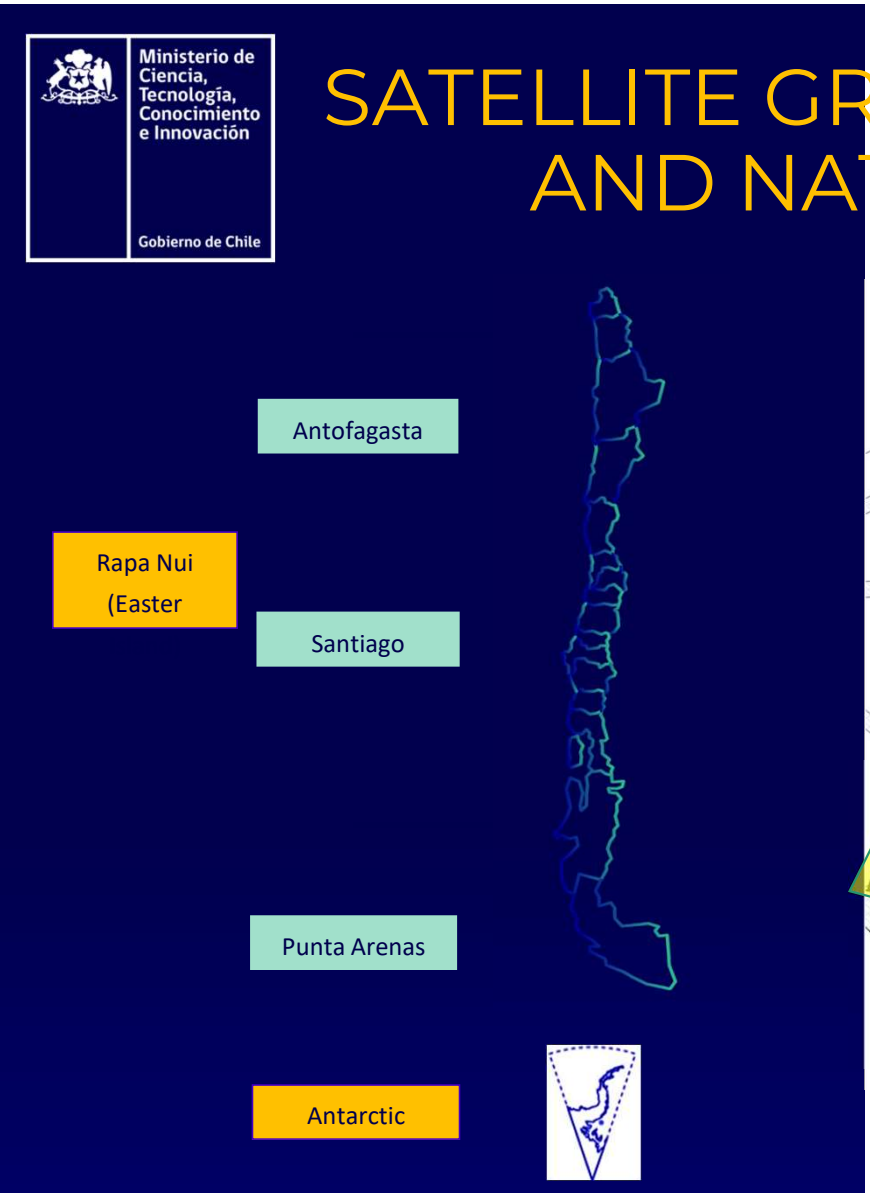
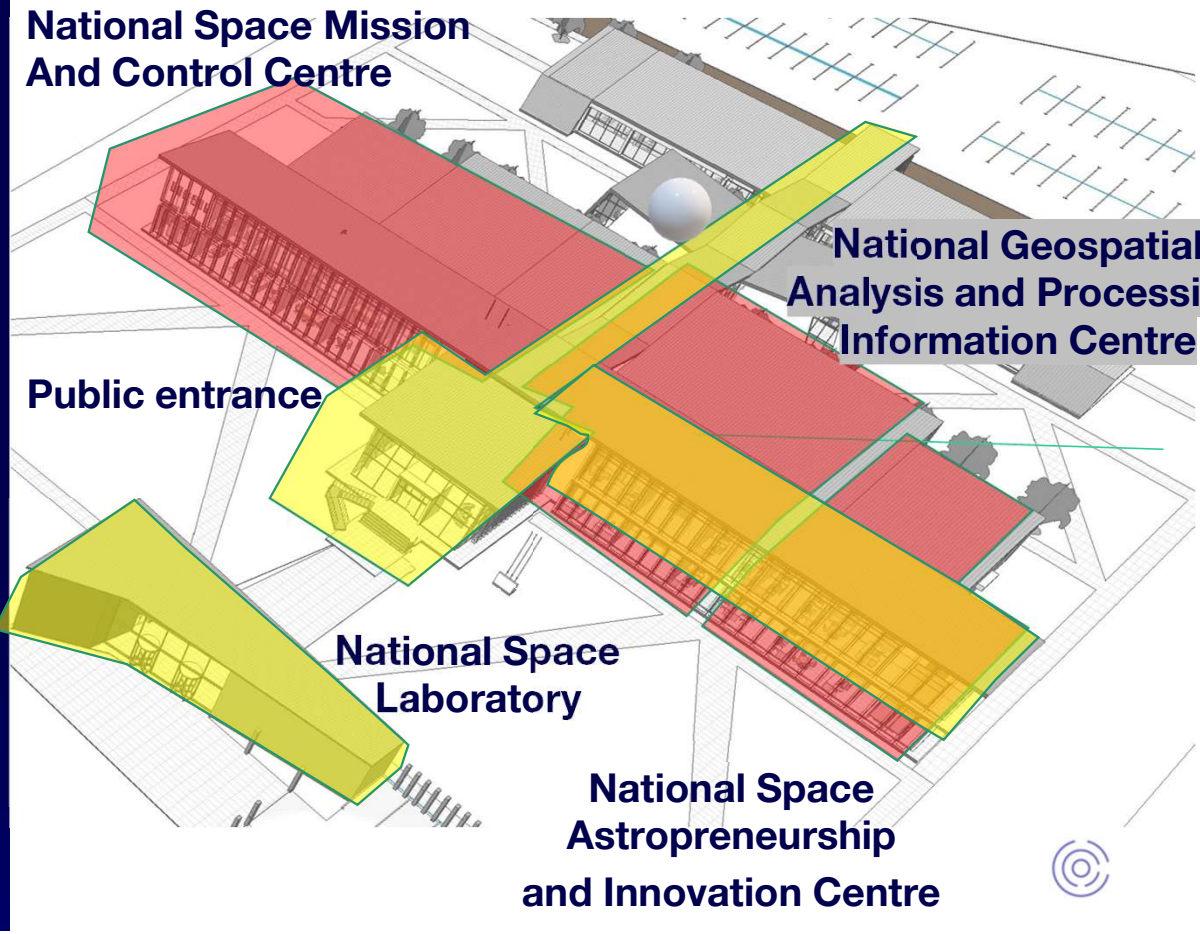
SATELLITE GROUND STATIONS NETWORK AND NATIONAL SPACE CENTRE





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ACADEMIC TRAINING

Training modules for Subsystems

For Academy and engineering talent generation in Geospatial Information, Local Development, Satellites Theory and Satellite Communications.

Human talent development

- Space education program for schools.
- Basic training developed by local teaching.

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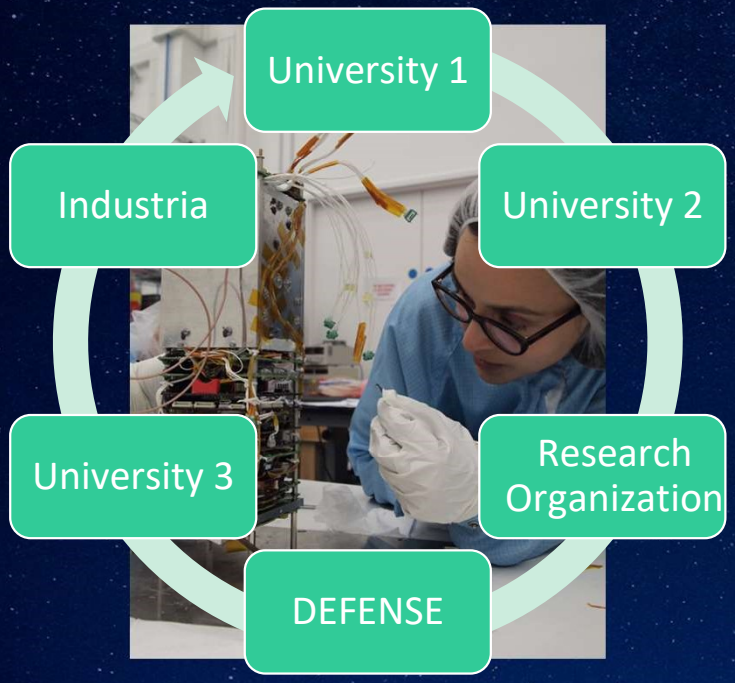
ASSEMBLY, INTEGRATION AND TESTING FACILITIES

PERMANENTS WORK GROUPS



Micro and Minisatellites

7 Microsatellite 12U
1 Minisatellite 100 Kg

Payloads

1. Multispectral / Hyperspectral camera
2. Space Situational Awareness
3. GPS-RO
4. Automatic Identification System (AIS)
5. Automatic Dependent Surveillance - Broadcast (ADS-B)
6. Store and Forward (S&F)
7. Inter Satellite Link (ISL)
8. Internet of Things (IOT)

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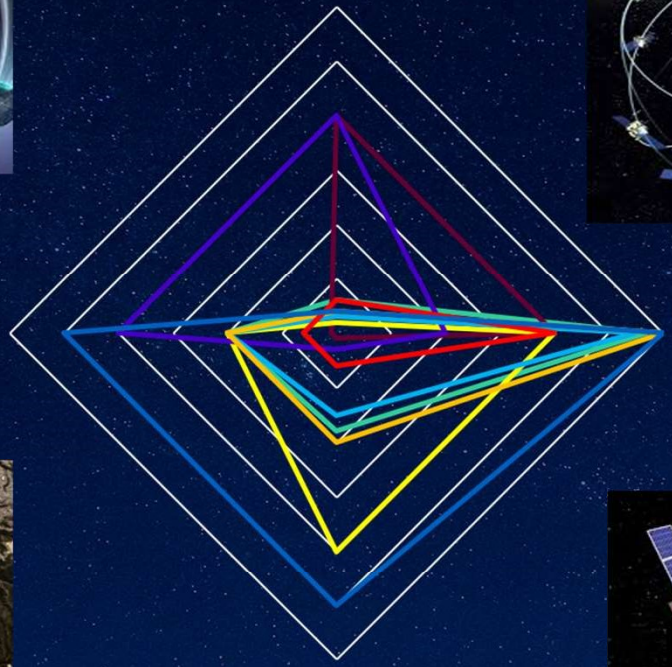
CHILEAN SPACE MISSIONS



MicroSat 1 MicroSat 2 MicroSat 3 MicroSat 4
MicroSat 5 MicroSat 6 MicroSat 7 Fasat Eco 2

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CHILEAN SPACE MISSION PROGRAM

TIMELINE FOR AIT PROCESS

SPACE MISSIONS

	2021	2022	2023	2024	2025	2026
AIT Lab Building						
Satellite 1 – 2 (12U) Earth Observation Climate Change Communication						
Satellite 3 – 4 (12U) Earth Observation Space Weather Communication						
Satellite 5 – 6 (12U) Space Situational Awareness Climate Change Communication						
Satellite 7 (12U) **National Payloads** Earth Observation Communication						
Satellite 8 (MiniSat) Earth Observation Climate Change Defense						

SNSat

ESPACIO PARA EL DESARROLLO

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Mission Exploitation and Open Data Sharing

Geospatial data for multiple uses

Open data sharing policy

New space and digital economy

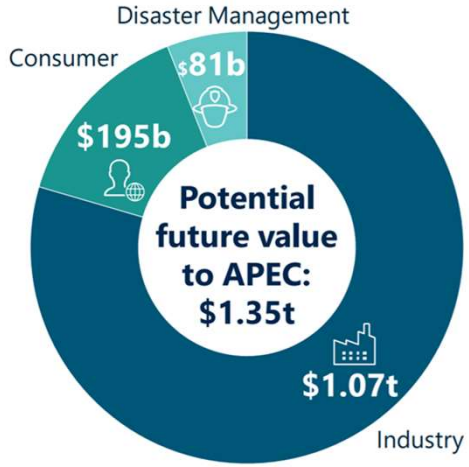
Scientific evidence for decision making

Government Policy

Mesa Nacional del Agua

Primer Informe

Earth Observing*



Innovation

Social Security

"Current and future value of earth and marine observing to the Asia-Pacific region, Australian Government, Asia-Pacific Economic Cooperation", 2019

Next Steps in Chilean Space Career

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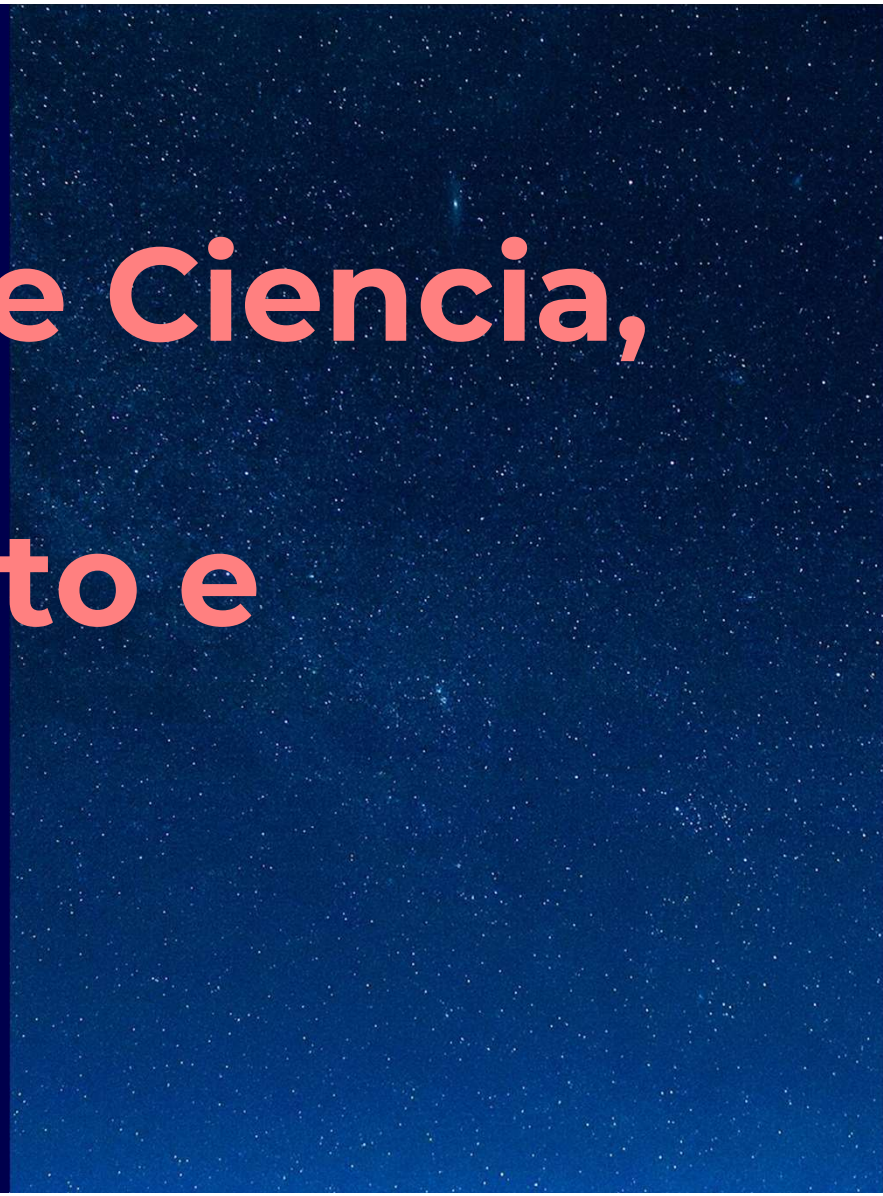

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