



“Space Law for New Space Actors”

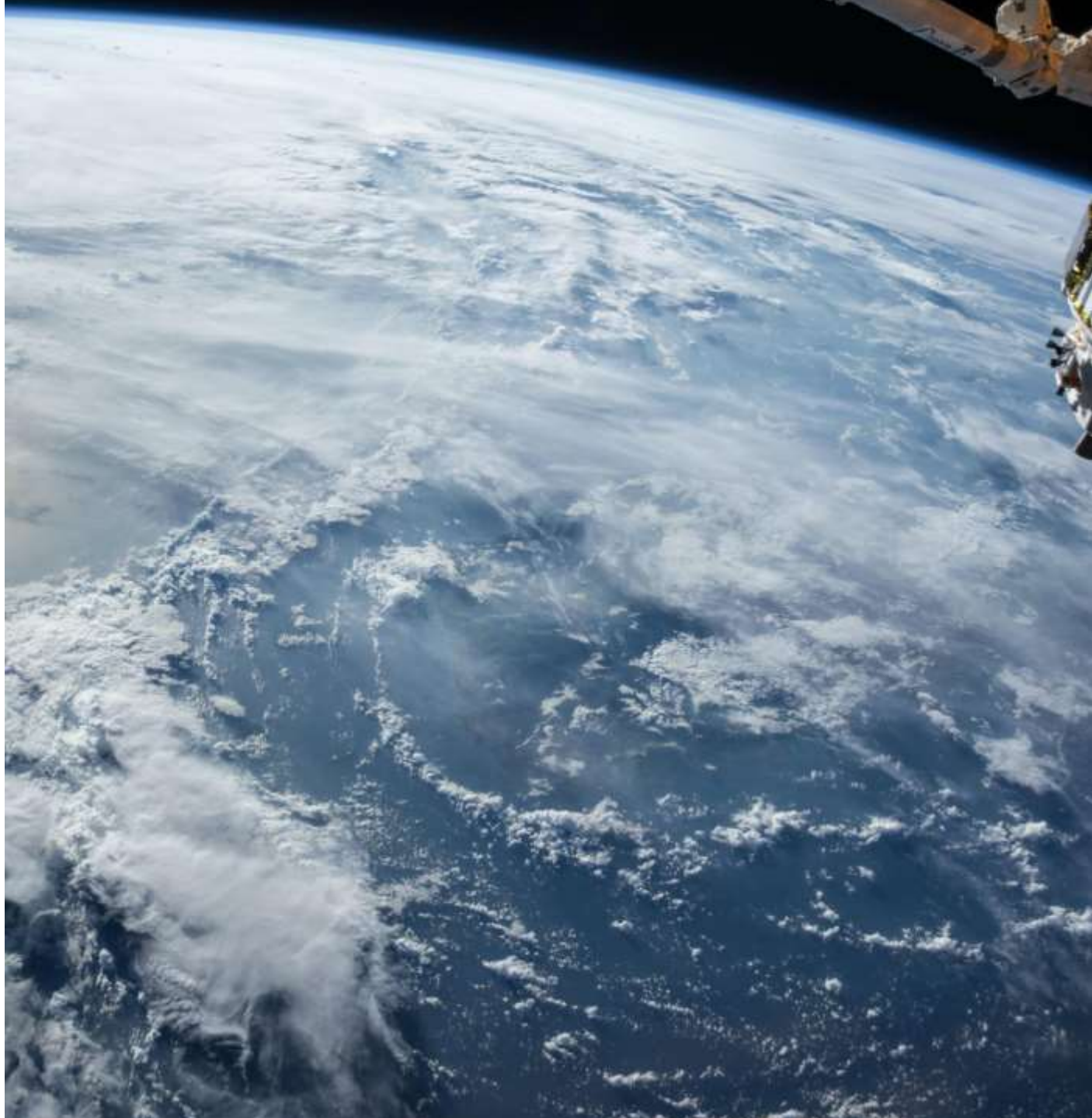
Chilean collaboration



Major Roberto Silva Espinoza
Chilean Air Force

TOPICS

1. UNOOSA context
2. Chilean National Space System
3. Space Collaboration Activities



Chilean Space Strategy



Purpose

Contribute to strengthen the National Space System

Pillar

- Technologic Frame
- Financial Frame
- Normative Frame
- Institutional Frame

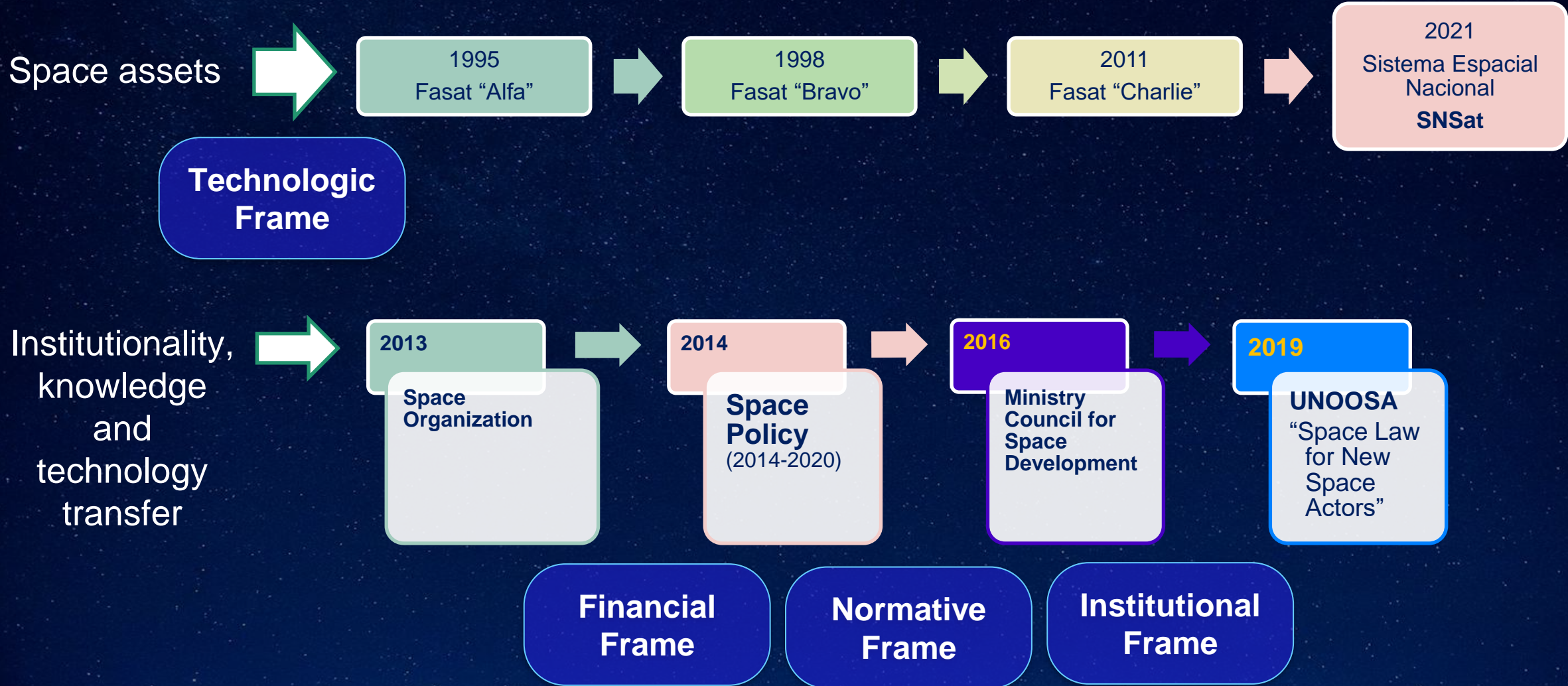
Area of Interest



Action Lines

- National Industry
- I + D + i + C
- Critical mass
- Cooperation & Collaboration

Chilean Space Timeline



Space Law for New Space Actors

October 2020

Stage 1, 4 days on-line
seminar, 80 participants

April – 2022

On-site technical
advisory

**“FIDAE space
summit”**

October 2021

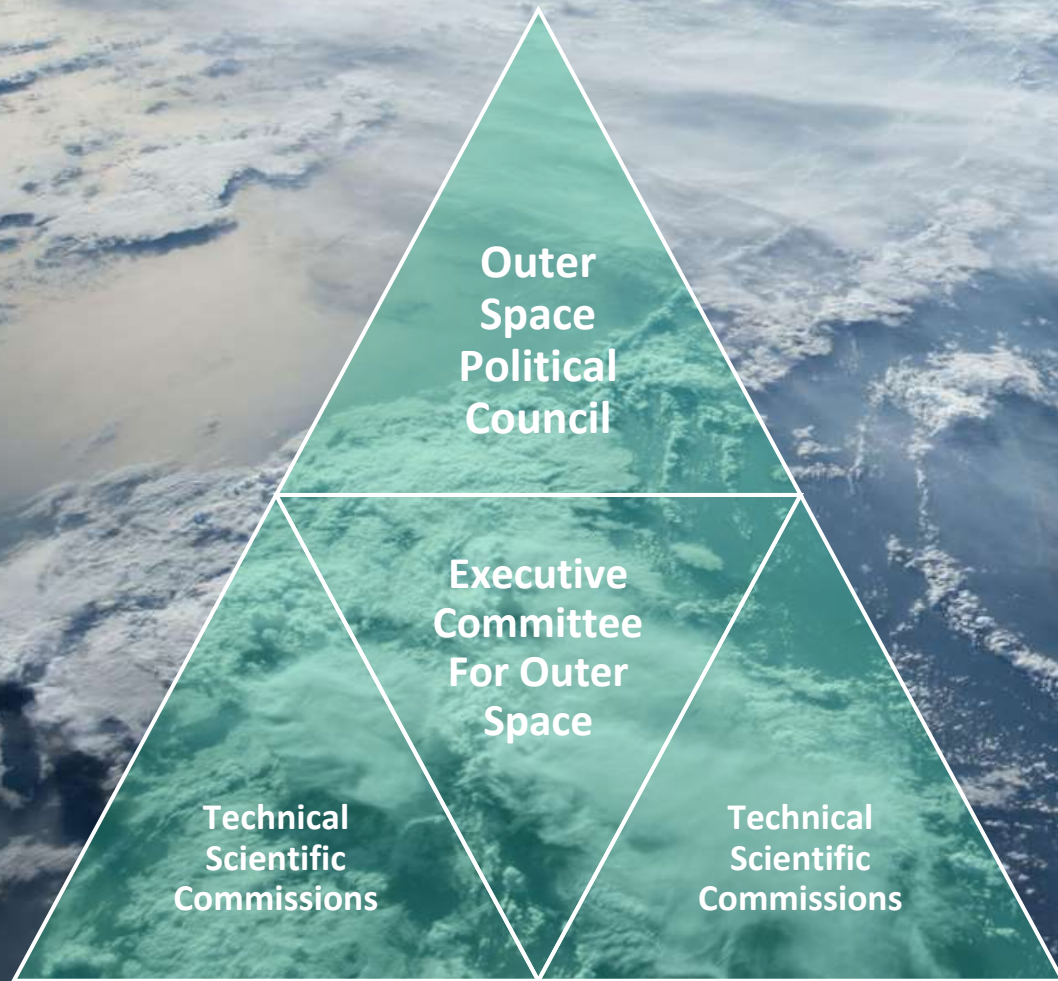
Stage 2, on-line
seminar



2023

**Permanent
Space Summit**
for Regional
collaboration

Institutionality

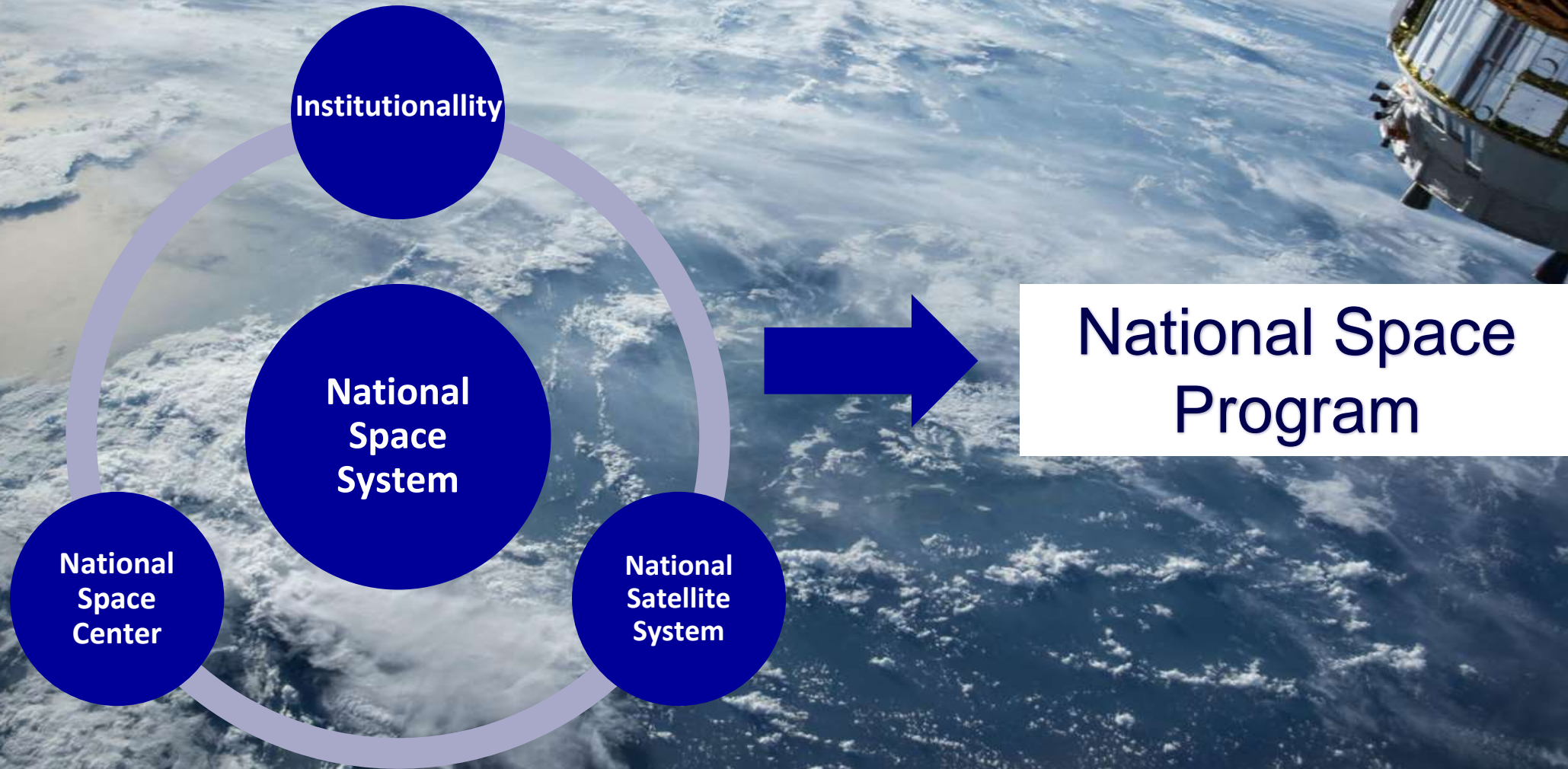


Governmental Organizations

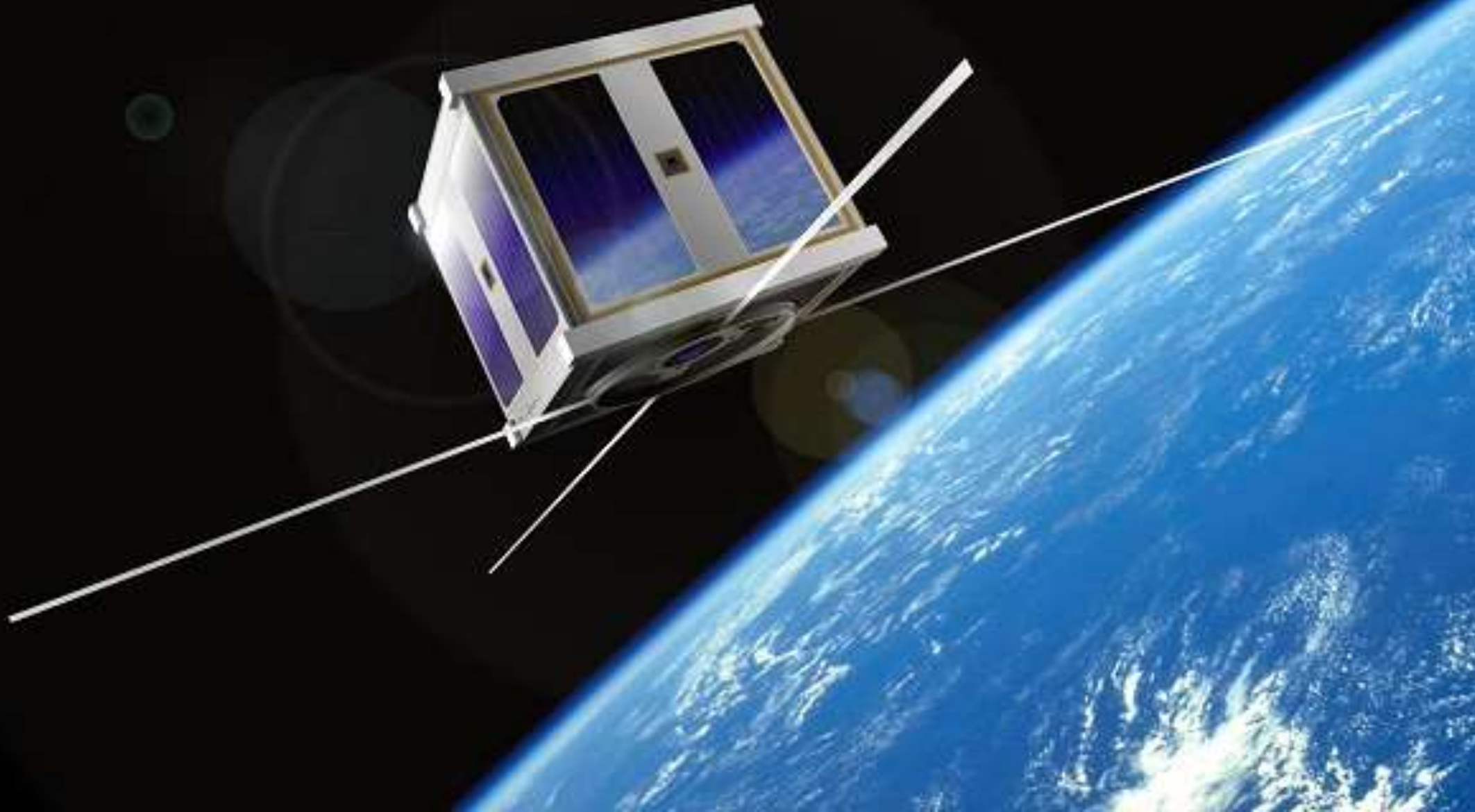
Universities and technical collaboration



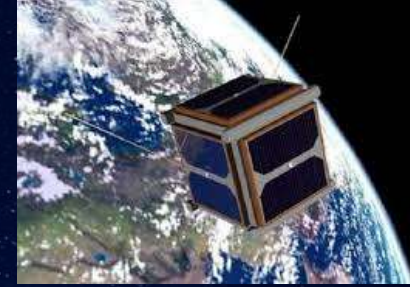
National Space System



Sustainable technologic development model and spatial capabilities



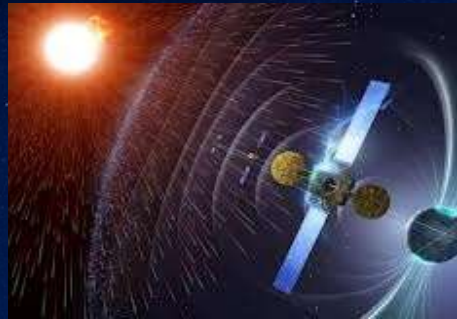
National Space System



AUTONOMY AND SOVEREIGNTY IN SPACE OPERATIONS



Observation satellites



Space Situational Awareness



Communications



Launching



Positioning system

National Space System

SNSat Project

SUBSYSTEM 1 Geospatial Information

- Satellite Ground Stations
- Optical and radar service imagery.
- Web Geoportal to access and processing.
- Complementary APP for public uses.



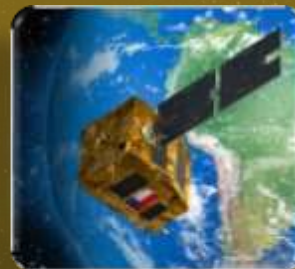
SUBSYSTEM 2 National Production

- Local production of mini/micro satellites and payloads:
- Design.
- Assembling.
- Integration.
- Certification.



SUBSYSTEM 3 National Satellite

Satellite constellation in replace of Fasat Charlie



SUBSYSTEM 4 Telecommunication services

Dedicated Satellite communications services



National Space System



National Space Mission And Control Center

Public entrance

National Space Laboratory

National Geospatial Analysis and Processing Information Center

National Space Astropreneurship and Innovation Center



Space Collaboration Activities

HUMAN CAPITAL DEVELOPMENT

REUNA
Chilean digital platform for
research and development



Human talent development 2022 – 2023
On Job Training for assembling,
integration and testing.



Scholar program in:
Antofagasta, Santiago y Pta. Arenas

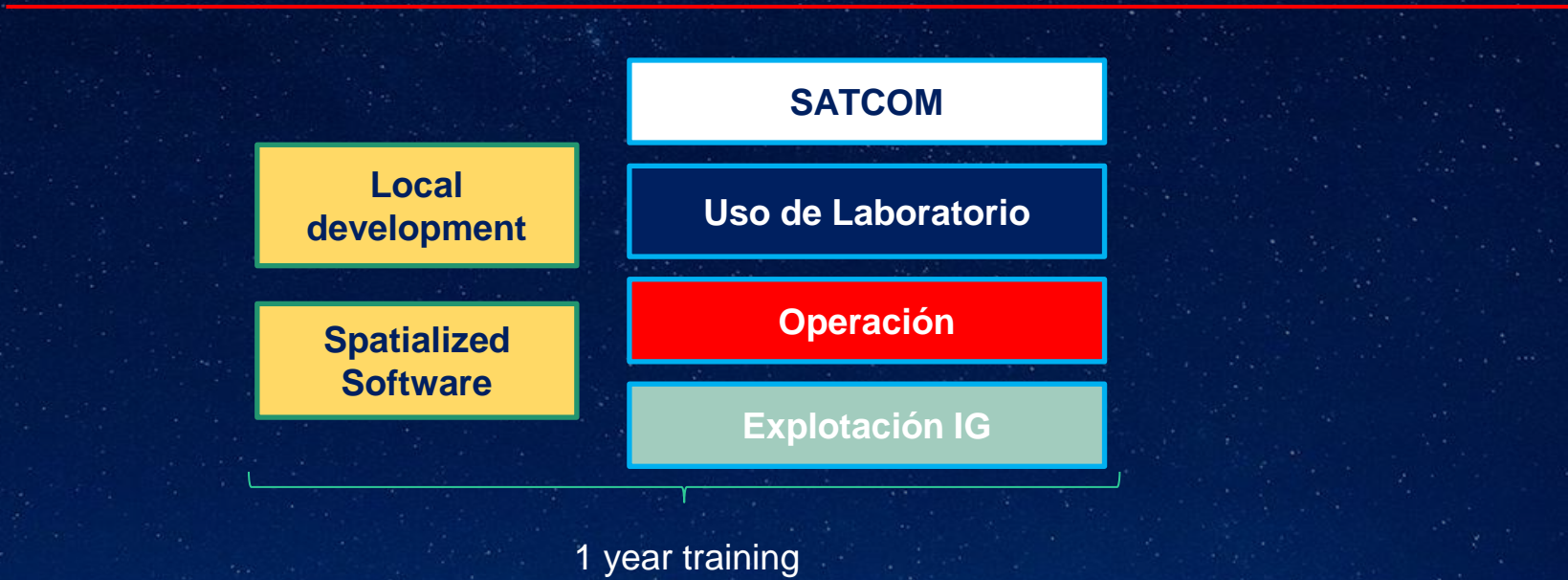
Space Collaboration Activities

Academy

Defense

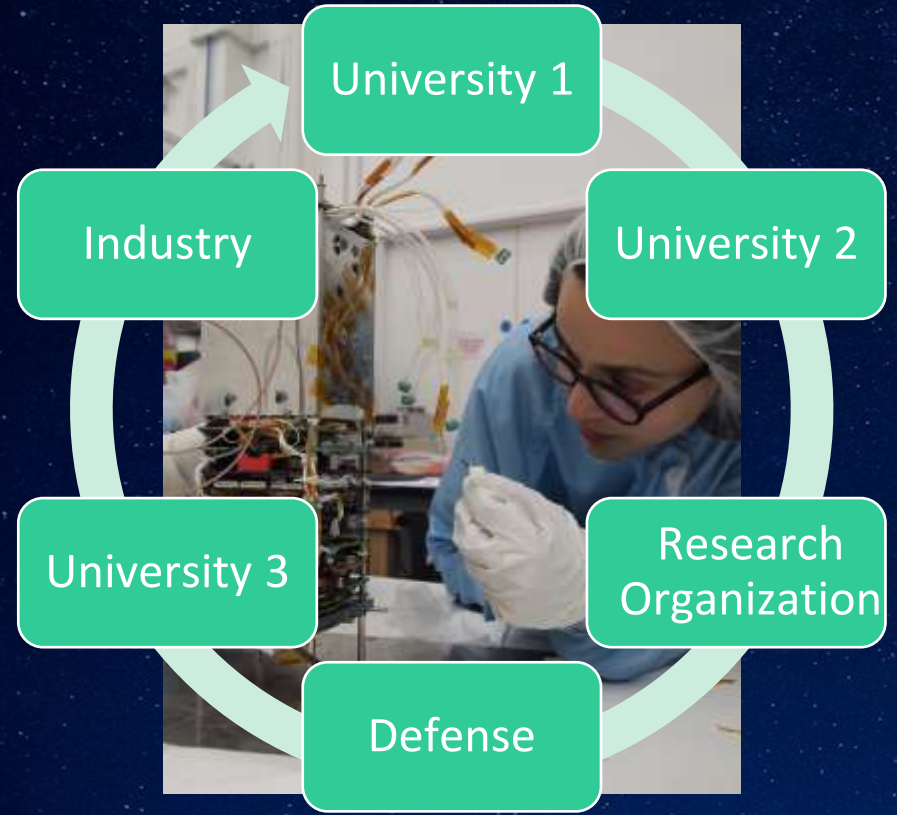
Critical mass

Cooperation & Collaboration



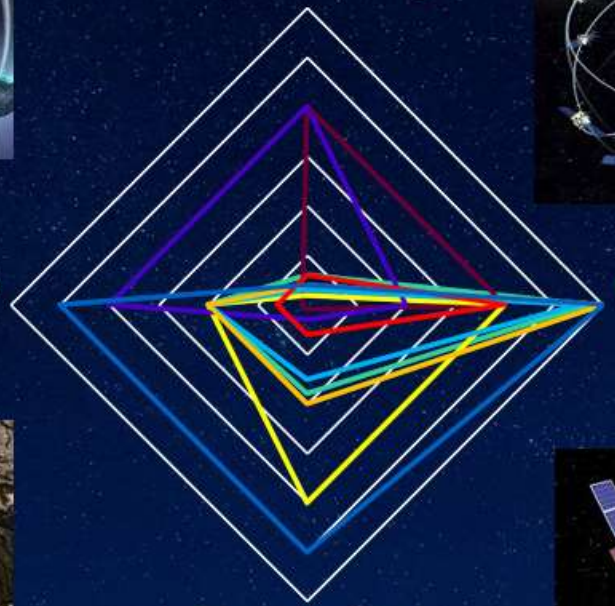
Space Collaboration Activities

PERMANENTS WORK GROUPS



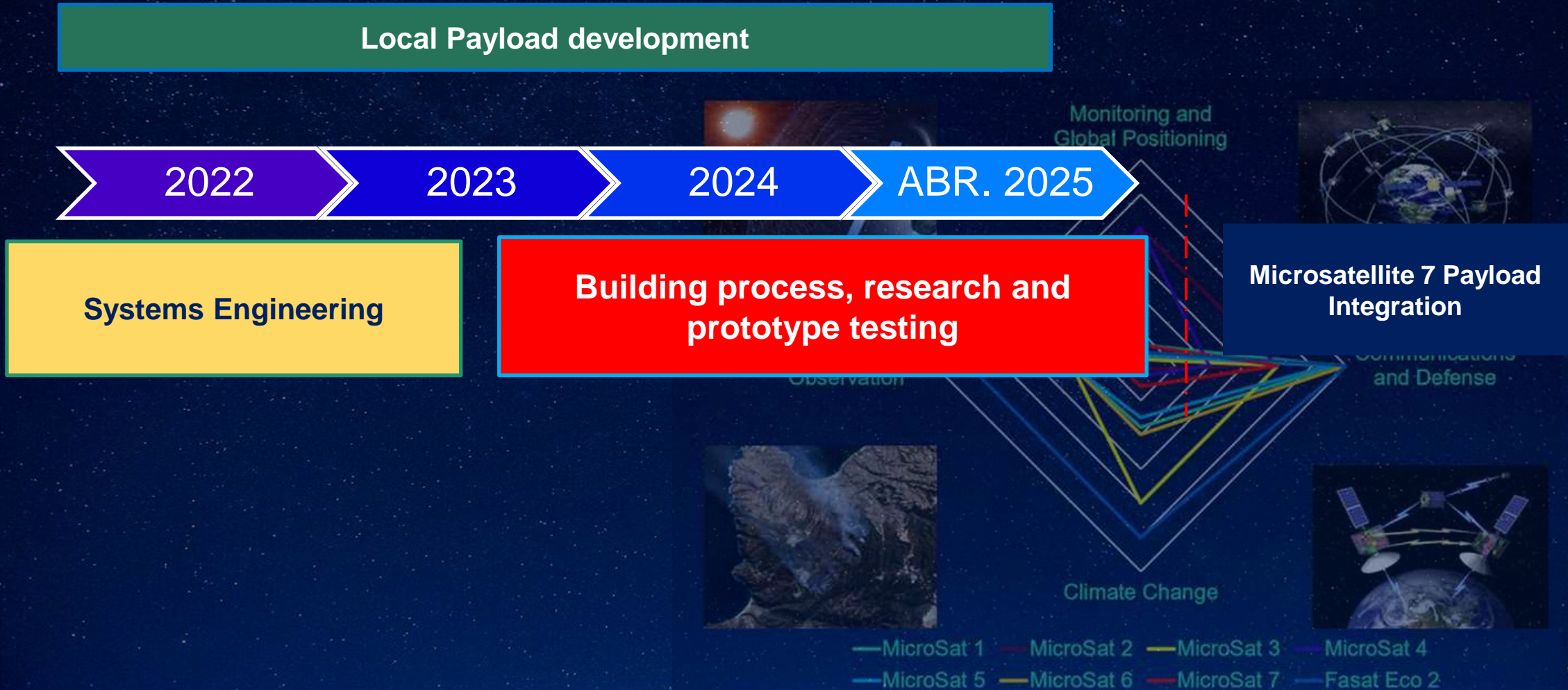
Universities and technical collaboration

Micro and Minisatellites and Payloads AIT process



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

Space Collaboration Activities



Space Collaboration Activities

Space Mission



ID	MISIÓN
CIN	Local development
GEO	Geospatial Information
CMA	Climate Change
SSA	Space Situational Awareness
CES	Space Weather
COM	Satellite Communication and internet access
ACC	Space Access Independence
MEX	Space Mining













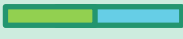
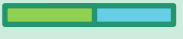
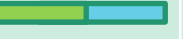
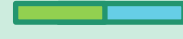


Space Collaboration Activities



Research and Development Timeline



SPACE MISSIONS

	2021	2022	2023	2024	2025	2026	Results
Satélites AIT							
Microsatellites SNSat 1-2 Missions: GEO, OCC, COM							- 75 participants human talent development
Microsatellites SNSat 3- 4 Missions: GEO, CES, COM							- 8 AIT satellites process
Microsatellites SNSat 5-6-7 Missions: SSA, OCC, COM							- 16 Space Missions
Satellite Eco 1 - Eco 2 Missions: GEO, OCC							- Governmental resources
Thematic Courses							
Research and development							

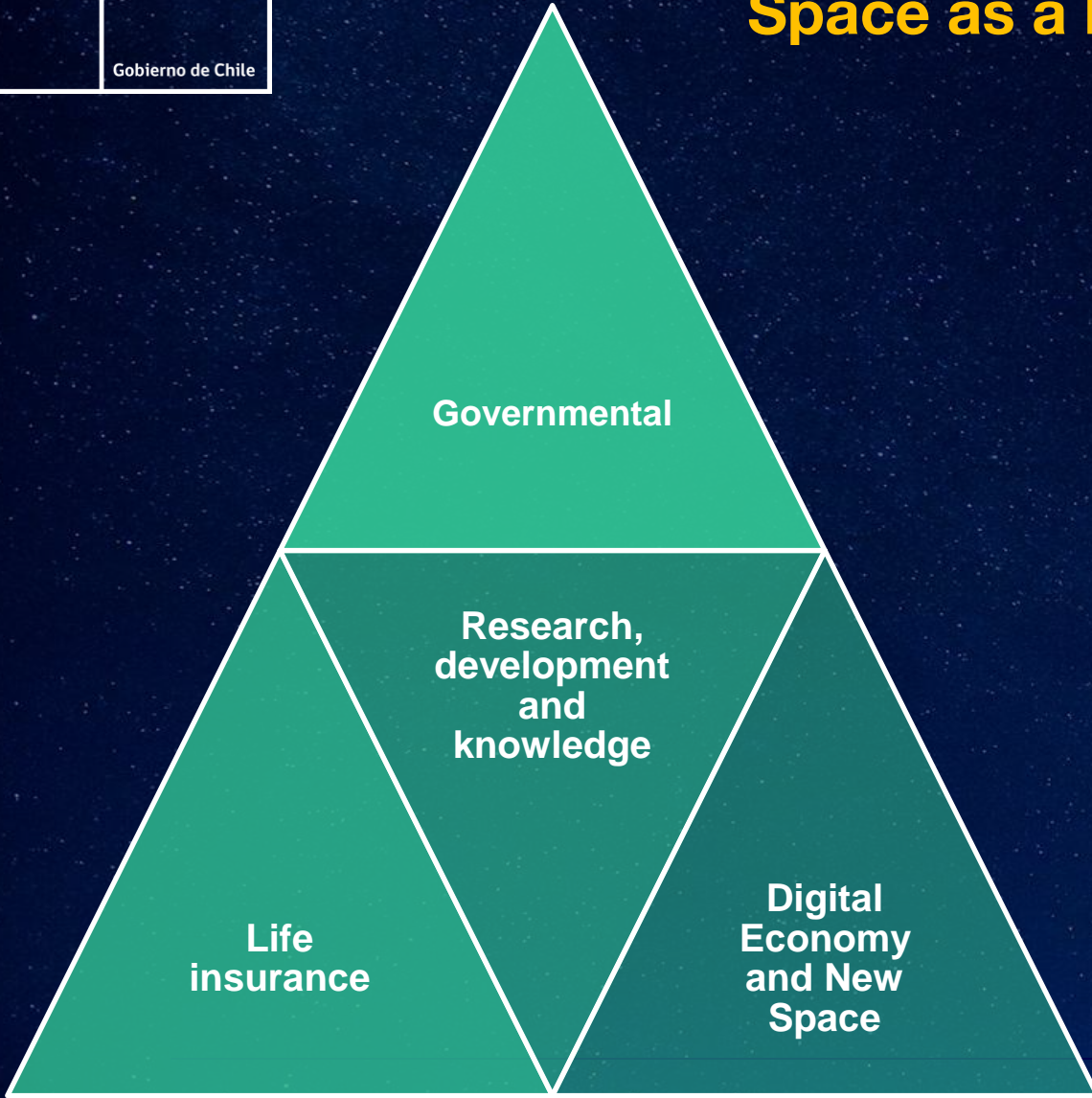
Team conformation

Academic Fundamental

Assembling, integration and testing

Space Collaboration Activities

Space as a high value asset...

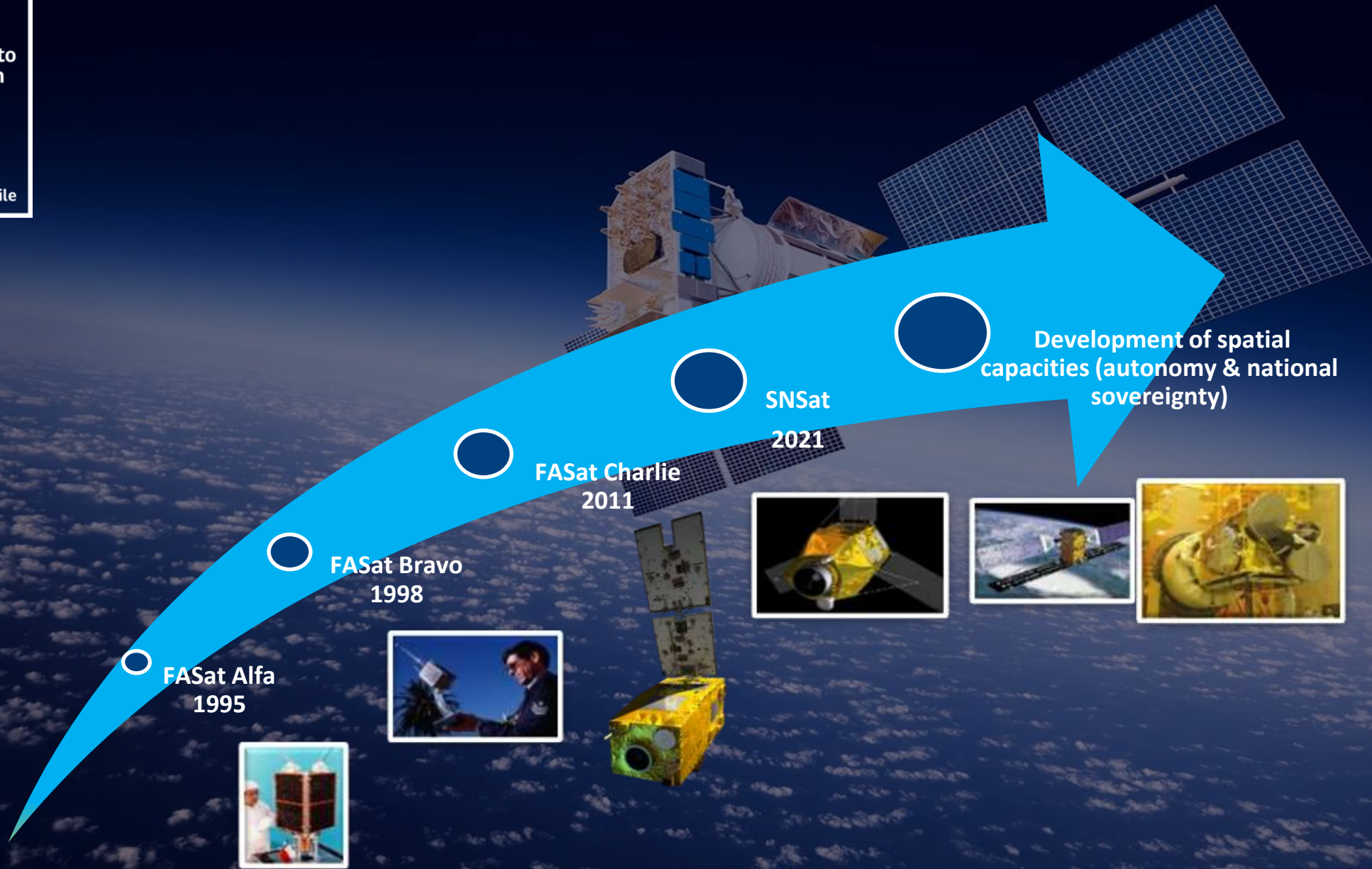


UNOOSA



Ministerio de
Ciencia,
Tecnología,
Conocimiento
e Innovación

Gobierno de Chile





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