



CAREY MISSION

El Salvador – JAXA – UNOOSA
Winners of 9th Round – KiboCUBE program





INSTITUTO KRIETE DE
INGENIERÍA Y CIENCIAS



| EL SALVADOR

Comparison of El Salvador with other groups of economies.

Human capital and research

Top Ten | Score: 59.30



Upper Middle Income | Score: 29.77



Latin America and the Caribbean | Score: 26.83



El Salvador | Score: 16.58



Knowledge and technology results

Top Ten | Score: 54.93



Upper Middle Income | Score: 20.02



Latin America and the Caribbean | Score: 15.29



El Salvador | Score: 12.40

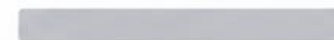


Business sophistication

Top Ten | Score: 59.10



Upper Middle Income | Score: 27.70



Latin America and the Caribbean | Score: 25.00



El Salvador | Score: 20.90



El Salvador Ranking in the Global Innovation Index 2025.

Source: WIPO, Global Innovation Index 2025



WIPO leads the development of a balanced and effective global intellectual property ecosystem to promote innovation and creativity for a better and more sustainable future.

Engineering and Science Education for Real-World Impact.

At Key, we prepare future engineers and scientists who solve real-world challenges and create meaningful impact. Through project-based education, human development, and hands-on practice, we empower our students to innovate, collaborate, and build a better future for society.



KNOW

Deep Technical Knowledge
Strong foundation in engineering and science.



BE

Human Skills That Empower
Ethics, communication, leadership, and collaboration.



DO

Applied Learning for Impact
Project-based practice to solve real-world challenges.



KiboCUBE Program

Key Institute selected as **WINNER**
of the 9th Round



KiboCUBE is a collaboration between **UNOOSA** and **JAXA** that enables institutions from developing countries to deploy CubeSats from the International Space Station through the Japanese Experiment Module 'Kibo'.

KEY INSTITUTE ACHIEVEMENT



Official winner
of the 9th
KiboCUBE round



Path to deploy
CAREY from
the ISS



A historic step
for **El Salvador's**
space capability

ORGANIZED BY



UNOOSA
United Nations Office
for Outer Space Affairs



JAXA
Japan Aerospace
Exploration Agency



What is CAREY?

1 Why the name CAREY?



CAREY is named after the **hawksbill sea turtle**.



The hawksbill turtle is a **critically endangered** species.



Around **70%** of the nesting of this marine turtle takes place along the coast of **El Salvador**.



The mission uses this name to promote awareness of **sustainable development** through a scientific and technological analogy.

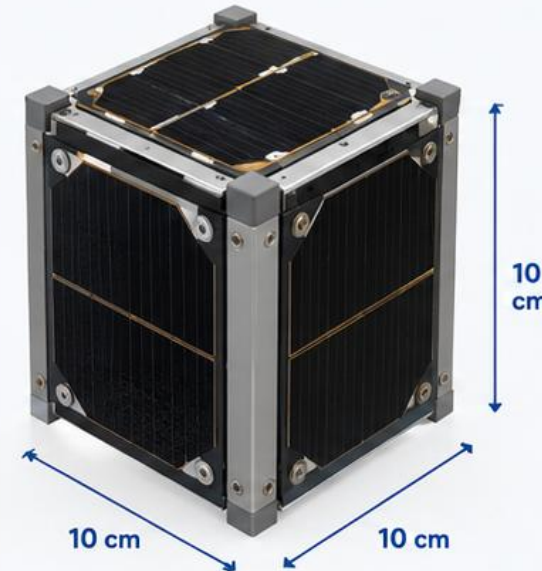


Hawksbill turtles use **magnetoreception** for orientation.



In parallel, the satellite will acquire **Earth magnetic field data** and correlate it with **space radiation** measurements.

2 What kind of satellite is CAREY?



First satellite of El Salvador



1U CubeSat standard



Compact nanosatellite platform



This is the size and standard accepted by the KiboCUBE program for deployment from the ISS.



1U CubeSat

10 × 10 × 10 cm
Volume: 1,000 cm³

Purpose & Vision

CAREY is the first step toward building El Salvador's national space capability.

01 Purpose

Capacity building through a real satellite mission

CAREY is designed as El Salvador's first hands-on platform to train people, build procedures, and validate the institutional capacity required to design, integrate, test, and operate a CubeSat.

- Develop specialized human talent
- Strengthen labs, testing culture, and ground operations
- Work under real mission standards and documentation

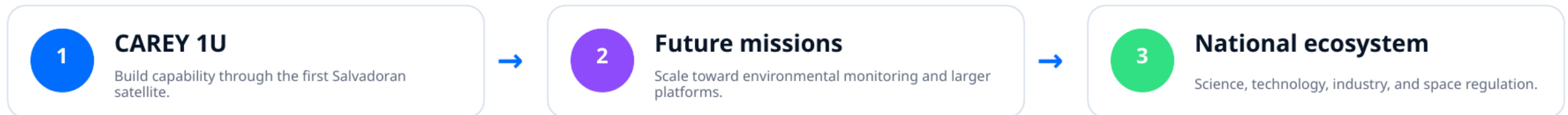
02 Vision

From one CubeSat to a sustainable space ecosystem

The vision is to open El Salvador's space era: a scientific, technological, economic, and legal ecosystem capable of supporting future missions and participating in the regional space economy.

- Enable future satellites with greater capacity and scale
- Focus next missions on environmental and national needs
- Build the regulatory basis for future space activities

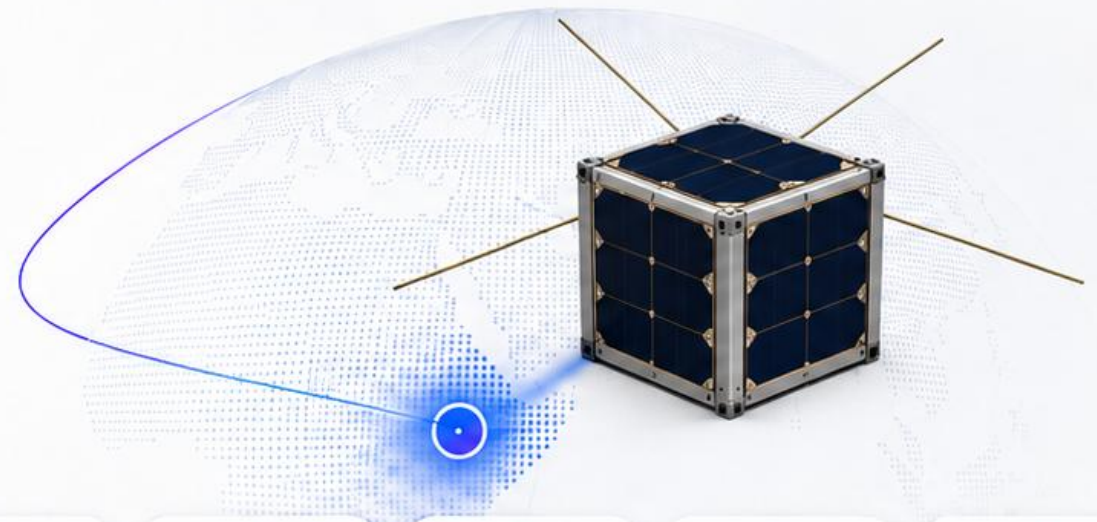
THE STRATEGIC PATH



REPLICABLE SUCCESS CASE

Kenya

A pathway from university-led CubeSat development to national space capability.



2015

University of Nairobi begins development of 1KUNS-PF



2016

Wins the 1st KiboCUBE round



2017

Kenya Space Agency is established



2018

1KUNS-PF is deployed from the ISS / Kibo



2020

KSA launches its Strategic Plan 2020–2025



2022

First Kenya Space Expo & Conference



2023

Launch of TAIFA-1, Kenya's first Earth observation satellite



2024

Kenya Space Bill 2024 is advanced



2026

Global Data Festival + Kenya Space Expo & Conference 2026



Why this matters for CAREY



Start with a university mission



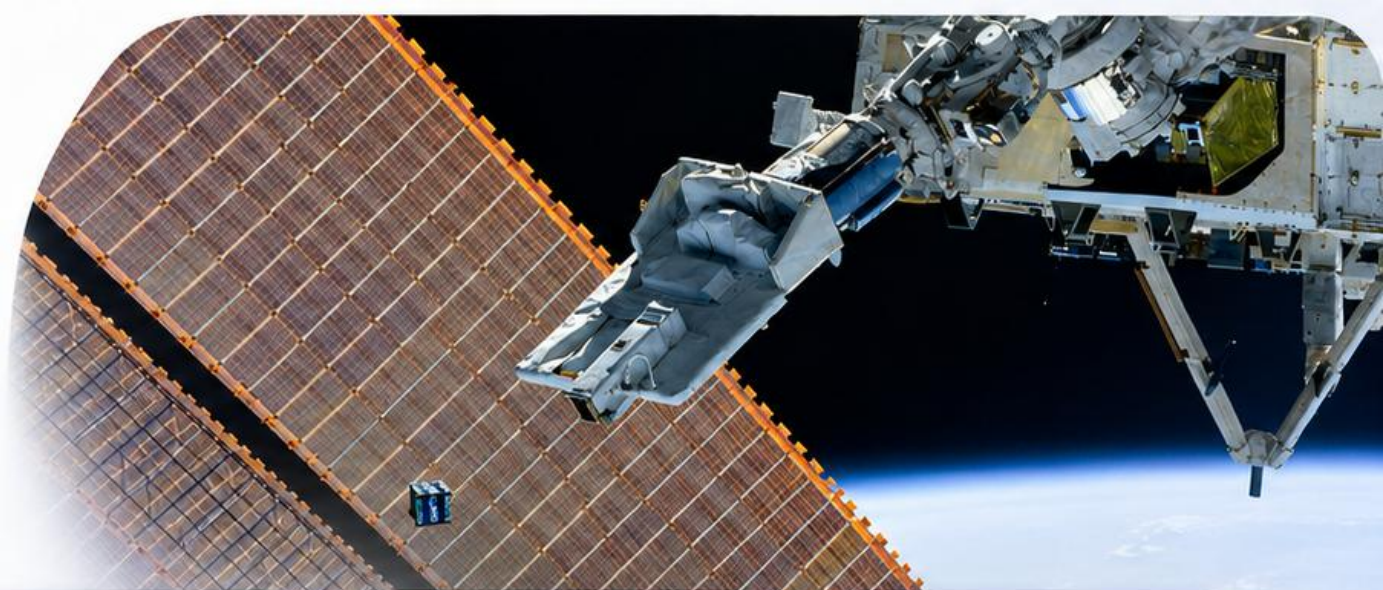
Build institutions, policy and talent step by step



Use an early CubeSat as a catalyst for a broader national space ecosystem

OUR MISSION

CAREY is more than a satellite —
it is a national capacity-building program for **El Salvador**.



01

Capacity Building

Train students, faculty, and researchers through the full satellite lifecycle: design, integration, testing, operations, and data analysis.



02

National Infrastructure

Establish a clean room for satellite integration and a VHF/UHF ground station for communications and mission operations.



03

Space Governance

Support the first national steps in space regulation, object registration, and frequency coordination with government institutions.



04

Research & Technology Development

Develop local expertise in instrumentation, additive manufacturing, satellite systems, and scientific data interpretation.



05

Target Deployment – 2028

Complete qualification and deploy CAREY from the International Space Station through the KiboCUBE program.



One mission. Five national capabilities. A foundation for El Salvador's future space ecosystem.

Sensors and scientific mission

CAREY Mission | First satellite of El Salvador



Sensor 1 | Space radiation

- Measurement of the radiation environment in low Earth orbit.
- Monitoring of variations over Central America.
- Generation of data for space research.



Sensor 2 | Magnetic field

- Measurement of Earth's magnetic field.
- Analysis of the local space environment.
- Support for studies of orbital behavior.



Telemetry electronics

- Data acquisition and management.
- Transmission of information to the ground station.
- Monitoring of the satellite's status in orbit.



Scientific mission



Obtain data on the space environment over Central America.



Strengthen research and education in space technology.



Develop national capabilities in instrumentation and data analysis.



Thank you very much for your attention.



Let's connect!

