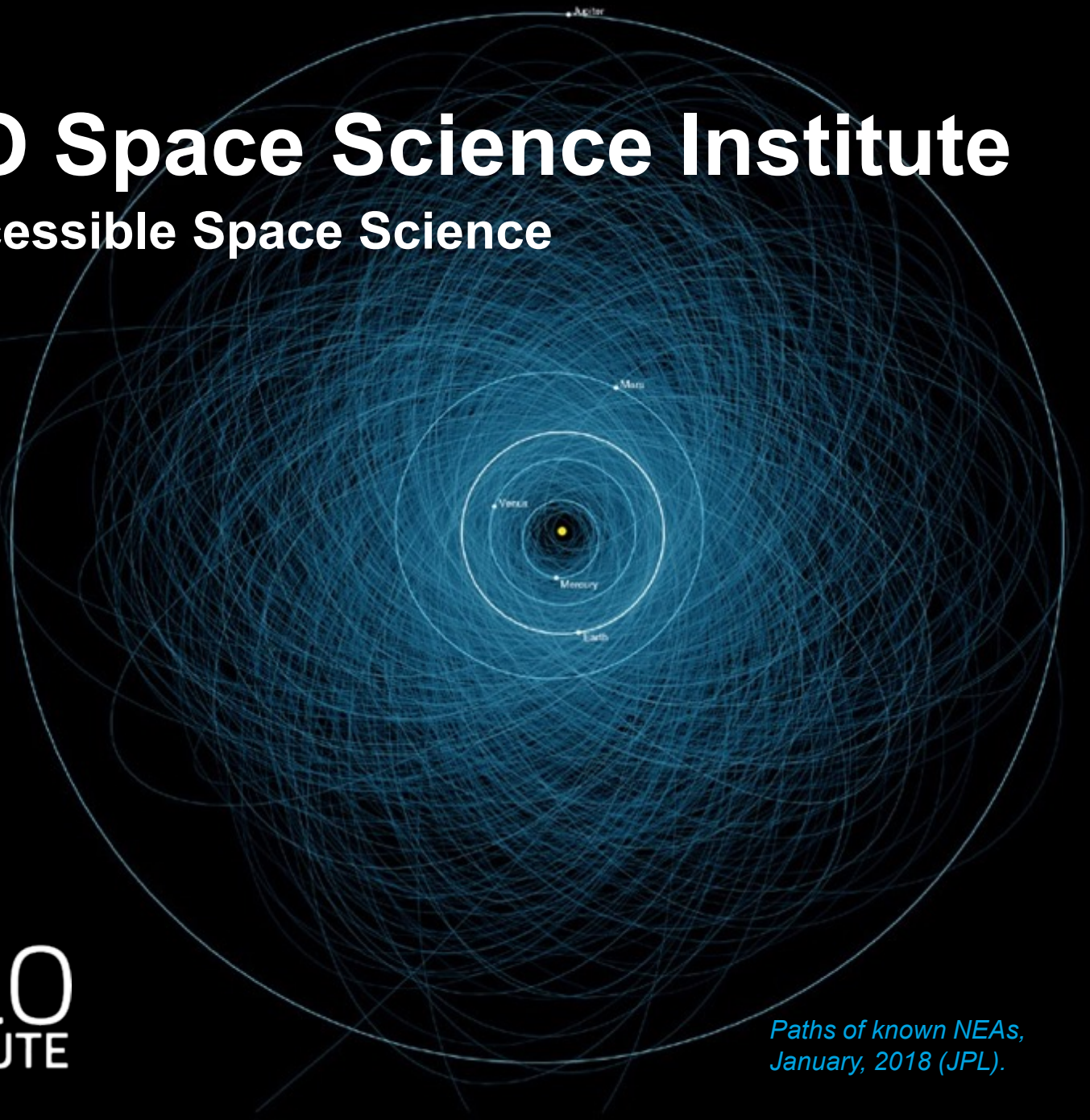
The MILO Space Science Institute

Affordable Accessible Space Science



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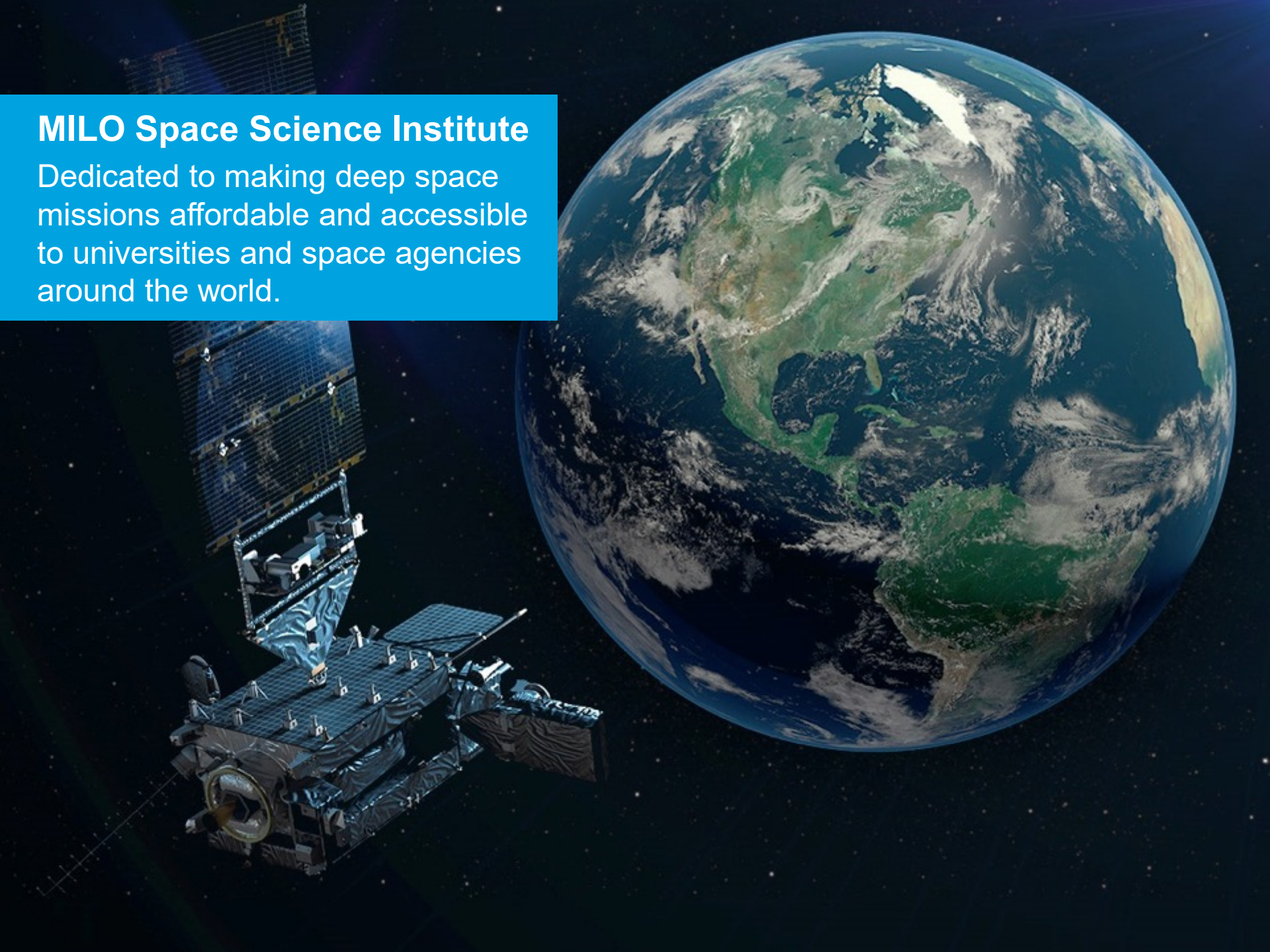
Paths of known NEAs, January, 2018 (JPL).


MILO Space Science Institute
Dedicated to making deep space missions affordable and accessible to universities and space agencies around the world.

The MILO Institute is a non-profit research collaborative led by Arizona State University, with support from Lockheed Martin and GEOshare, a subsidiary of Lockheed Martin.

ASU Arizona State University

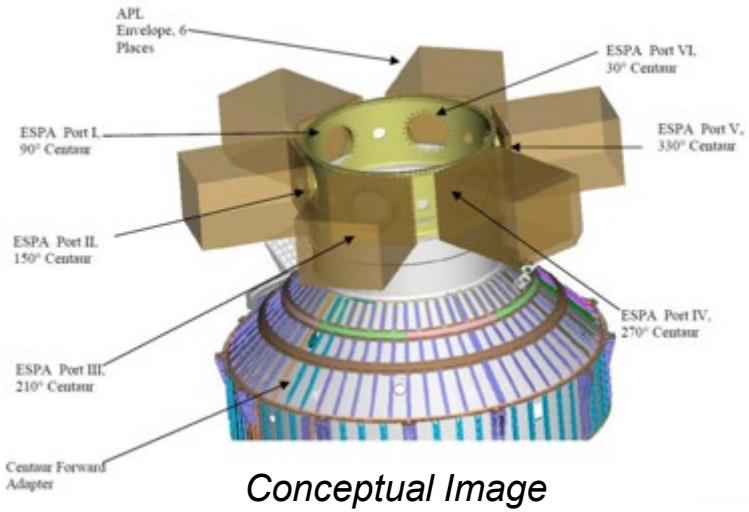
LOCKHEED MARTIN

GEOshare

Consortium Model

- Members participate in teams to build individual satellites (spacecraft)

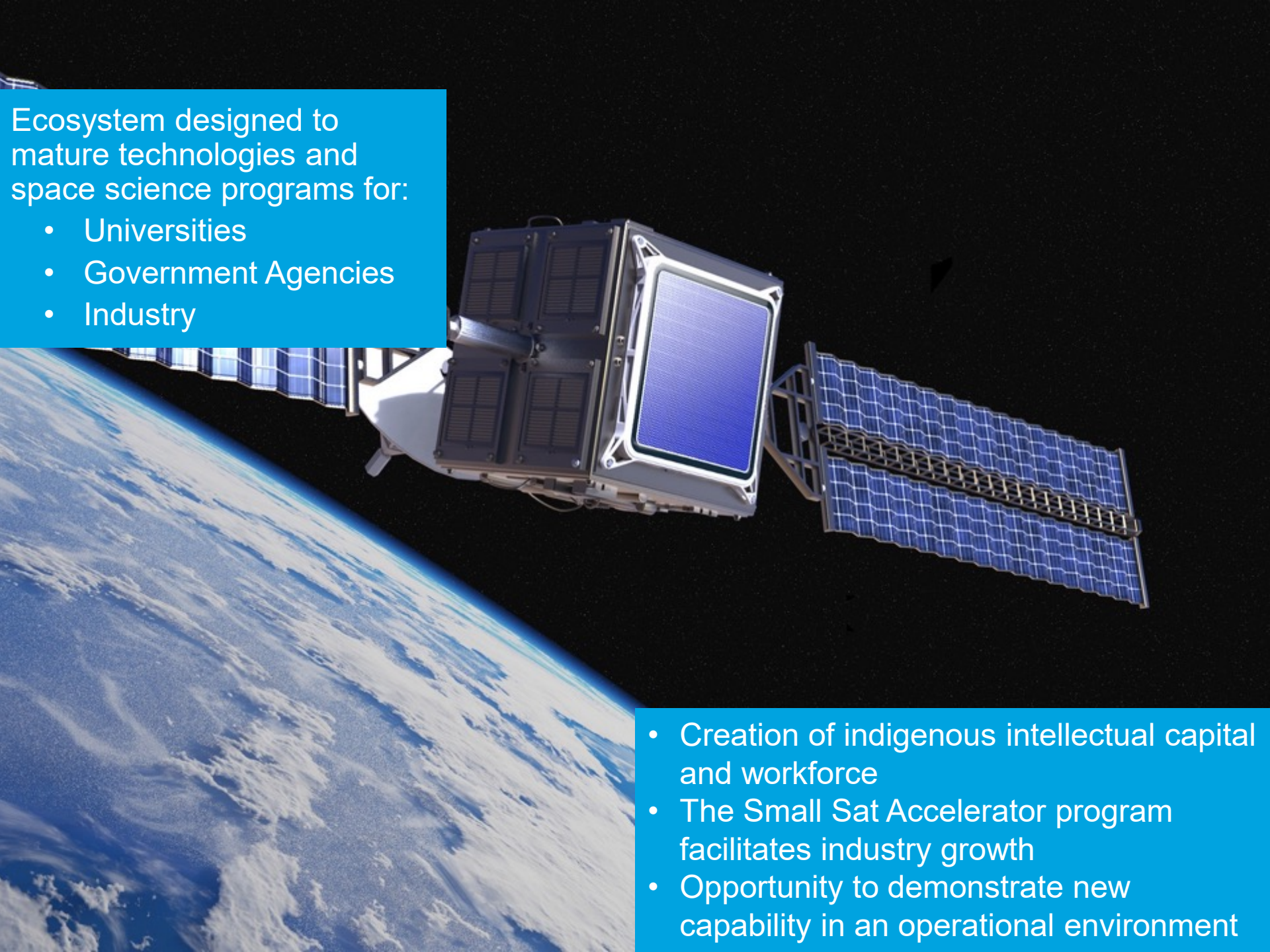
- Membership levels based on contribution
  1. Access to mission data
  2. Component contribution
  3. Develop a complete spacecraft



Conceptual Image

Small Sat Accelerator

The Small Sat Accelerator Program provides funds and technical resources for spacecraft development, including access to SMEs from LM and ASU.



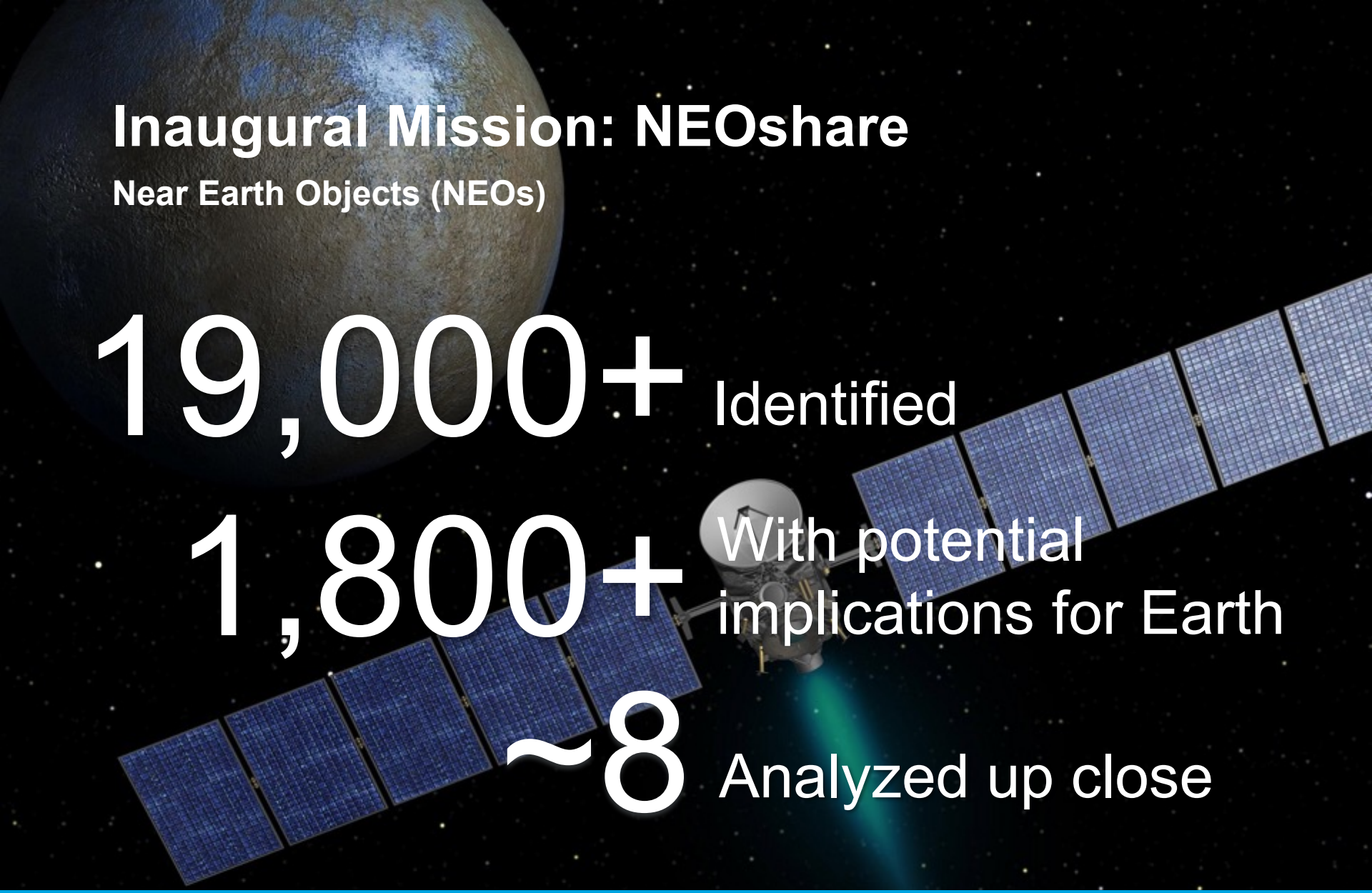
Ecosystem designed to mature technologies and space science programs for:

- Universities
- Government Agencies
- Industry

- Creation of indigenous intellectual capital and workforce
- The Small Sat Accelerator program facilitates industry growth
- Opportunity to demonstrate new capability in an operational environment

Membership Benefits

Benefit	Team Member
Participate in the Small Satellite Innovation Accelerator program, which assists teams in developing a complete satellite.	✔
Participate in space science missions at reduced cost.	✔
Participate in design reviews and integration activities.	✔
Design, build, test, and qualify hardware.	✔
Mission execution assurance, system integration provided by LMCO.	✔
Rapid innovation and deployment, higher frequency of mission opportunities.	✔
Demonstrate proprietary technology in an operational environment.	✔
Participation in the Academic and Education Council.	✔



Inaugural Mission: NEOshare

Near Earth Objects (NEOs)

19,000+ Identified

1,800+ With potential implications for Earth

~8 Analyzed up close

Only a few NEOs have been studied closely enough to yield information about their geology, chemistry, and internal structure and to truly assess their properties as Potentially Hazardous Objects that could potentially impact the Earth.

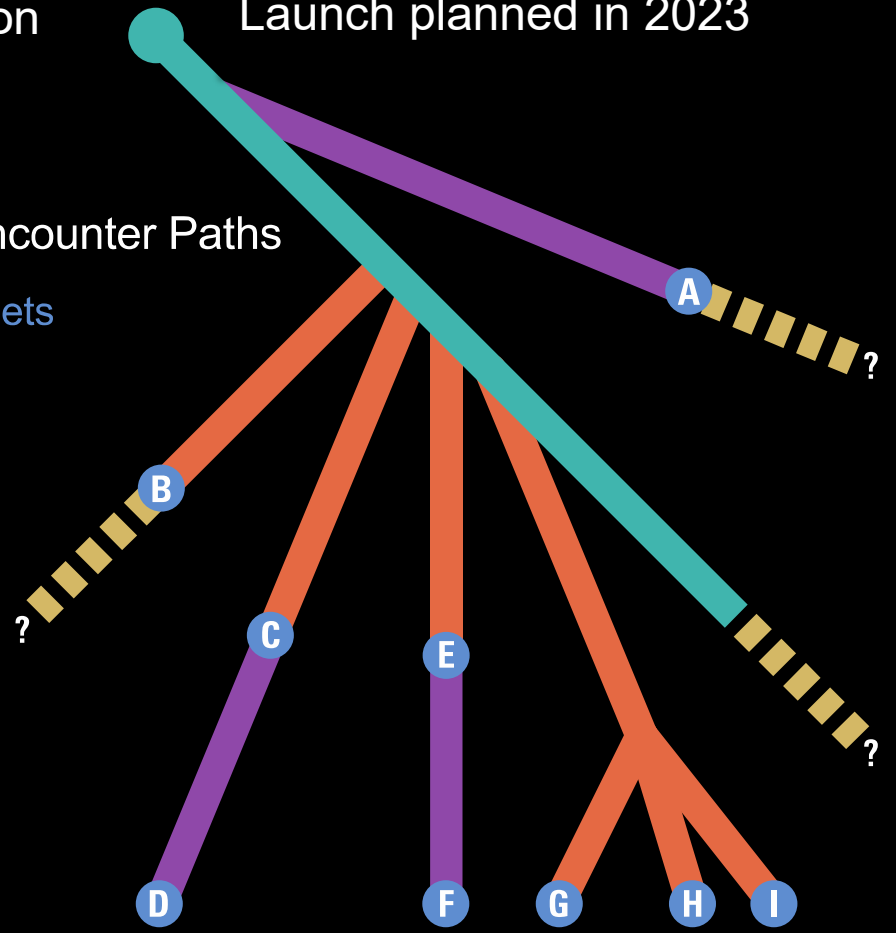
Near Earth Object (NEO) Encounter

Inaugural mission

Launch planned in 2023

Cubesat NEO Encounter Paths

Planned NEO Targets
Launch Trajectory
Low ΔV
Medium ΔV
TBD Destination



Signed Expressions of Support

Oman Sultan Qaboos Univ.

GOONHILLY EARTH STATION

SSI SPACE SYSTEMS INTERNATIONAL MONACO

AEM AGENCIA ESPACIAL MEXICANA

COMMERCIAL SPACEFLIGHT FEDERATION

KSAT KONGSBERG SATELLITE SERVICES

Qwaltec

MADE IN SPACE

Engaged, Awaiting Signatures

NEW ZEALAND SPACE AGENCY

POLISH SPACE AGENCY

italian space agency

UK SPACE AGENCY

Cranfield University

CSA ASC

UNSW CANBERRA

Kingdom of Saudi Arabia

ASA AUSTRALIAN SPACE AGENCY

THE UNIVERSITY OF TEXAS AT AUSTIN

THE UNIVERSITY OF AUCKLAND NEW ZEALAND

THE PLANETARY SOCIETY

United Arab Emirates وكالة الإمارات للفضاء UAE SPACE AGENCY

Technische Universität München

ΕΛΔΟ

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Paths of known NEAs, January, 2018 (JPL)

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