
Let’s take a moment to see Earth from the International Space Station
Play K

Why COIL Matters Now More Than Ever

From Exchange to Co-Creation

Collaborative Online International Learning
in a Time of Global Complexity

UNICOIL 2026 SYMPOSIUM

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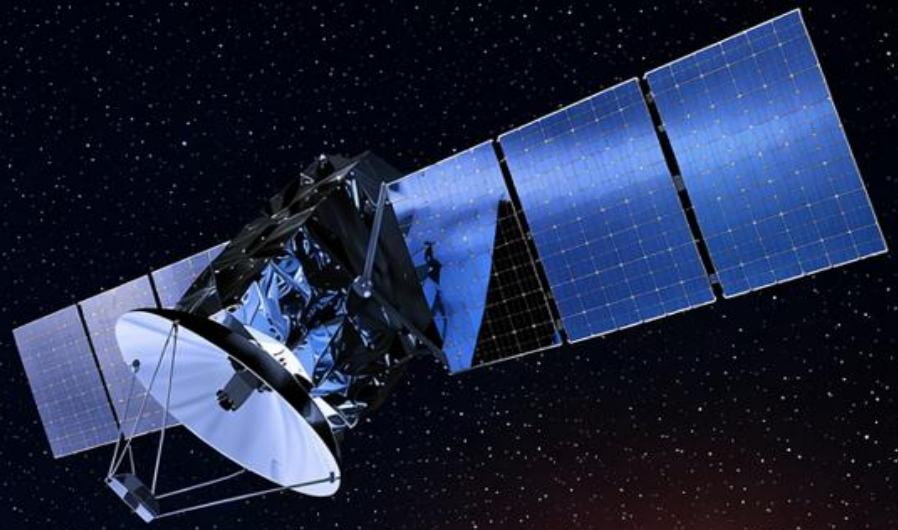
UNITAR | Next Generation Global Collaboratory (NGGC)



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The World Has Changed

Interconnected challenges

Climate. Health. Security.
No issue is isolated.

Distributed collaboration

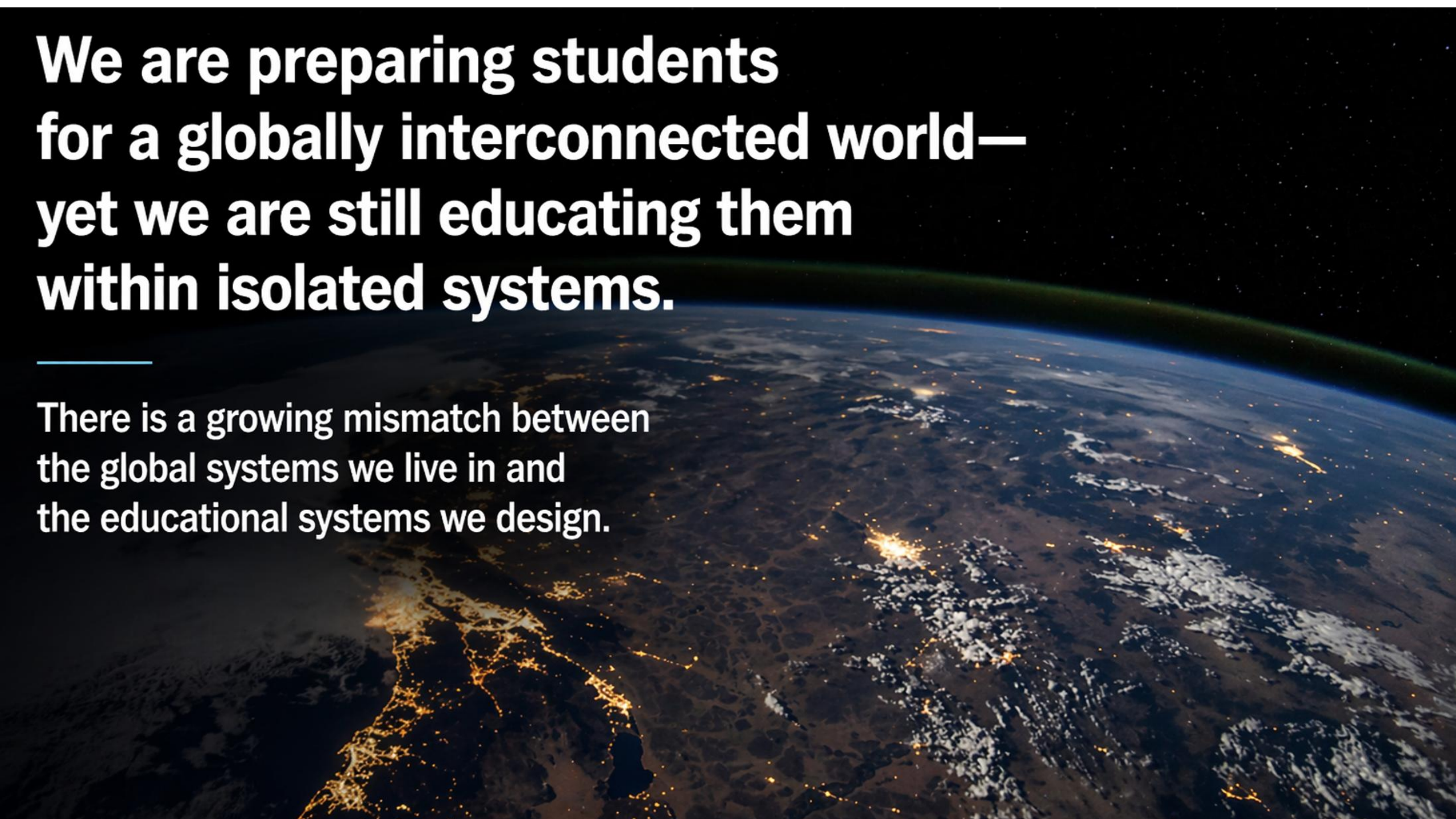
Across time zones, cultures and systems.

Global-native students

Already living, learning and connecting in a global system.

We are preparing students for a globally interconnected world—yet we are still educating them within isolated systems.

There is a growing mismatch between the global systems we live in and the educational systems we design.



The Disconnect

A globally connected world but largely local educational models

Collaboration is essential but rarely practiced in classrooms

Students live globally but learn in silos

COIL in the Age of AI

AI is not replacing collaboration— it is amplifying it

- Real-time global interaction
- Shared data and insight
- New forms of co-creation

What this means for COIL?

COIL prepares students for real-world systems
Developing global competence and workforce readiness

COIL enables global collaboration at scale
Across institutions, cultures, and disciplines

COIL supports science diplomacy in practice
Building trust, communication, and shared understanding

COIL belongs in the core curriculum
Starting early - from elementary through higher educations

A Changing World

- Interconnected systems
- Shared global challenges
- Accelerating complexity

The world our students are entering has changed—faster than our models of collaboration.

The Boeing Extended Global Supply Chain

783 million parts are procured in one year

737	767	787	777	747-8
400 thousand parts	**3.1** million parts	**2.3** million parts	**3** million parts	**6** million parts

$**28** Billion spend • **5,400** factories • **500,000** people

The Boeing 737:

MADE IN AMERICA BUT GLOBALLY SOURCED

The global supply chain for American aircraft manufacturing is complex, with many parts imported from around the world.

While Boeing airplanes are assembled in the United States, the are built from thousands of components sourced from at least two dozen countries.

From raw materials to passenger seating and flight deck avionics, the entire plane is a global collaboration that relies on international partnerships.

NORTH AMERICA
- Canada

EUROPE
- Austria
- Belgium
- France
- Germany
- Italy
- Latvia
- Netherlands
- Norway
- Spain
- Sweden
- Switzerland
- UK

AFRICA / MIDDLE EAST
- Morocco
- South Africa
- Türkiye
- Israel

ASIA
- Russia
- India
- China
- Japan
- South Korea
- Malaysia

OCEANIA
- Australia

All engine components listed are for CFM56 engines only.

Diagram does not include design software, tools, handing and testing, installation equipment, technical manuals, measuring and inspection, engineering design services, personnel and training, simulators, technical consulting, paint application, and optional system upgrades.

AIRFRAME STRUCTURE
- Structural strut assemblies
- Metal parts and structures
- Structural components
- Precision machined interior linings
- Structural bulkhead
- Titianium/aluminum structural components
- Structural ribs
- Interior bulkheads
- Airframe saddle fairing

MULTI-SYSTEM COMPONENTS
- Metal forgings, castings and extrusions
- Electrical wiring, wire harnesses, junction boxes
- Laminates for components
- Wire harnesses
- Flight control actuators
- Wire harnesses
- Bearings
- Limit switches and proximity switches
- Solid rivets
- Titanium forgings

COCKPIT & AVIONICS
- Cockpit door surveillance cameras
- Electrical power contactor
- Aircrew crew seats and gear drives
- Flight deck entry video surveillance system
- Cockpit indicators and switches
- Windshield
- Flight control surfaces
- Electromagnetic indicators and annunciators
- Power transmission torque tube drives
- Flight deck panel composites
- Flight deck panels
- Electronic equipment door

LANDING GEAR
- Nose landing gear assembly (titanium components)
- Wheel well fairings
- Tires
- Carbon brake disks
- Carbon brakes
- Wheel well panels
- Landing gear door

RAW MATERIALS
- Titanium metal
- Thermoplastic laminates
- Sheet metal bending and milling
- Corrosion protecting coatings

- Fuselage anti-collision lights
- Navigation lights

WINDOWS & DOORS
- Window seals
- Door locks and latches
- Aircraft doors
- Lower door skin, inner skin cover detail
- Forward entry door, automatic over-wing exit door
- Cargo and passenger doors
- Pressurized doors

FLIGHT DATA & COMMUNICATION
- Emergency locator transmitter
- Standby flight display
- Communication antenna
- Airborne communication system
- Cockpit voice recorder (CVR)
- Flight data recorder (FDR)
- Emergency locator beacon
- Airborne communication antenna

- Vertical fin
- Rudder
- Electrical static dischargers
- Aft fuselage section
- Rear fuselage and tail surfaces
- Empennage (737 MAX)
- Flight control actuators
- Cargo sliding carpet system
- Ice protection equipment

- Filling

CABIN
- Passenger seating
- Lavatory equipment
- Galleys, closets, class dividers
- Curtains
- AC/humidity control
- Cabin cabinets
- Vacuum-formed cockpit and cabin assemblies
- Seat arm caps
- Floorpath emergency lighting system
- Cabin exit signs
- Passenger seating
- Cabin galley and stowage bins
- Cabin pressure control system
- ventilation control system
- Interior completion of cabin
- Inflight entertainment

NACELLE
- Inlet inner barrel
- Inlet lip skins

ENGINE
- Piston rings
- Thrust reversers
- Engine blade
- Autothrottle system
- Hydromechanical fuel pump
- Elecrical wire harnesses
- Rotor blades and stator vane
- Engine sensors, and monitoring
- Thrust reverser actuators
- Engine rings
- Engine compressors, oil tank, pump, filter, and valve
- Engine case
- Engine gearbox bearings
- Airborne vibration monitor
- Engine fan cowls
- Thrust reverser blocker doors
- Turbine engine vanes and casings

WINGS
- Wing tip panel
- Wing spoilers
- Winglet and wing components
- Wing assembly
- Flap/slat mechanisms
- Blended winglets
- Wing flaps structural ribs and substructures
- Extended range auxiliary fuel tank
- Inboard flaps and flap segment
- Wing tips
- Rear wing spar and jackscrew
- Flap support fairing and winglet
- Ailerons
- Winglet luminum and steel
- Winglets

Source: AirFramer.com

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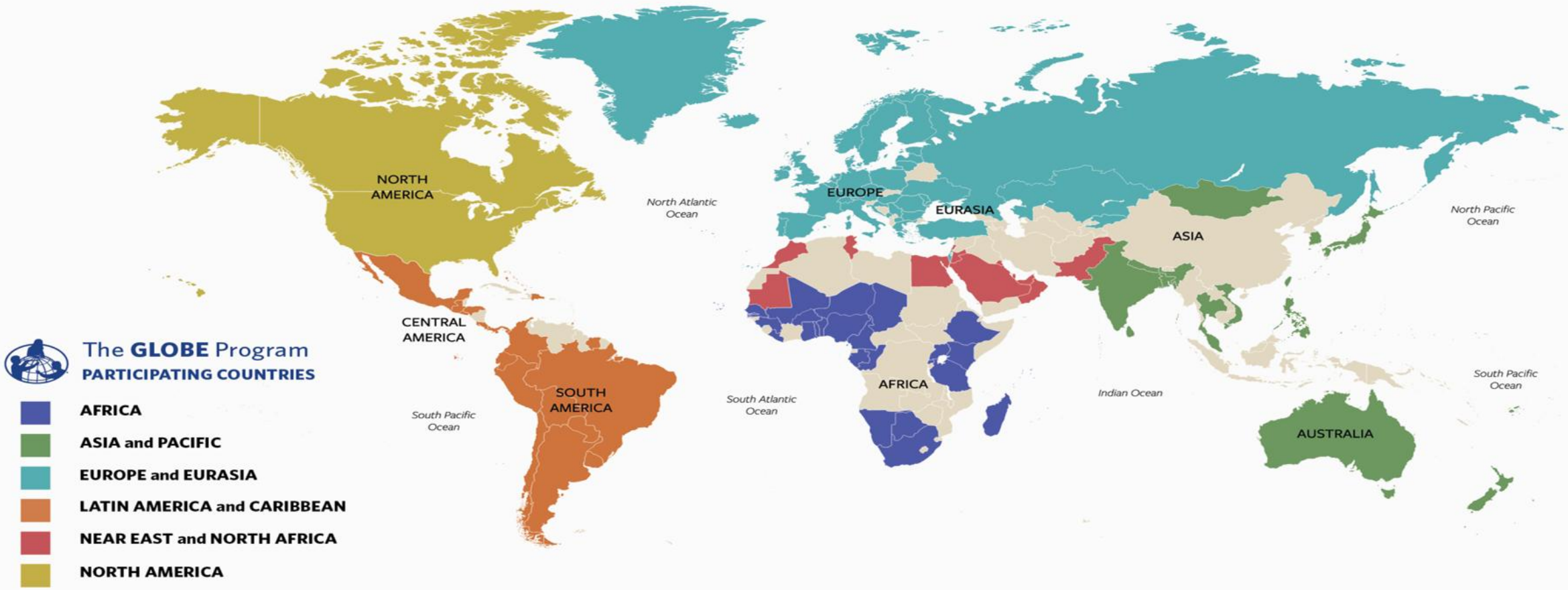
United Nations Institute for Training and Research

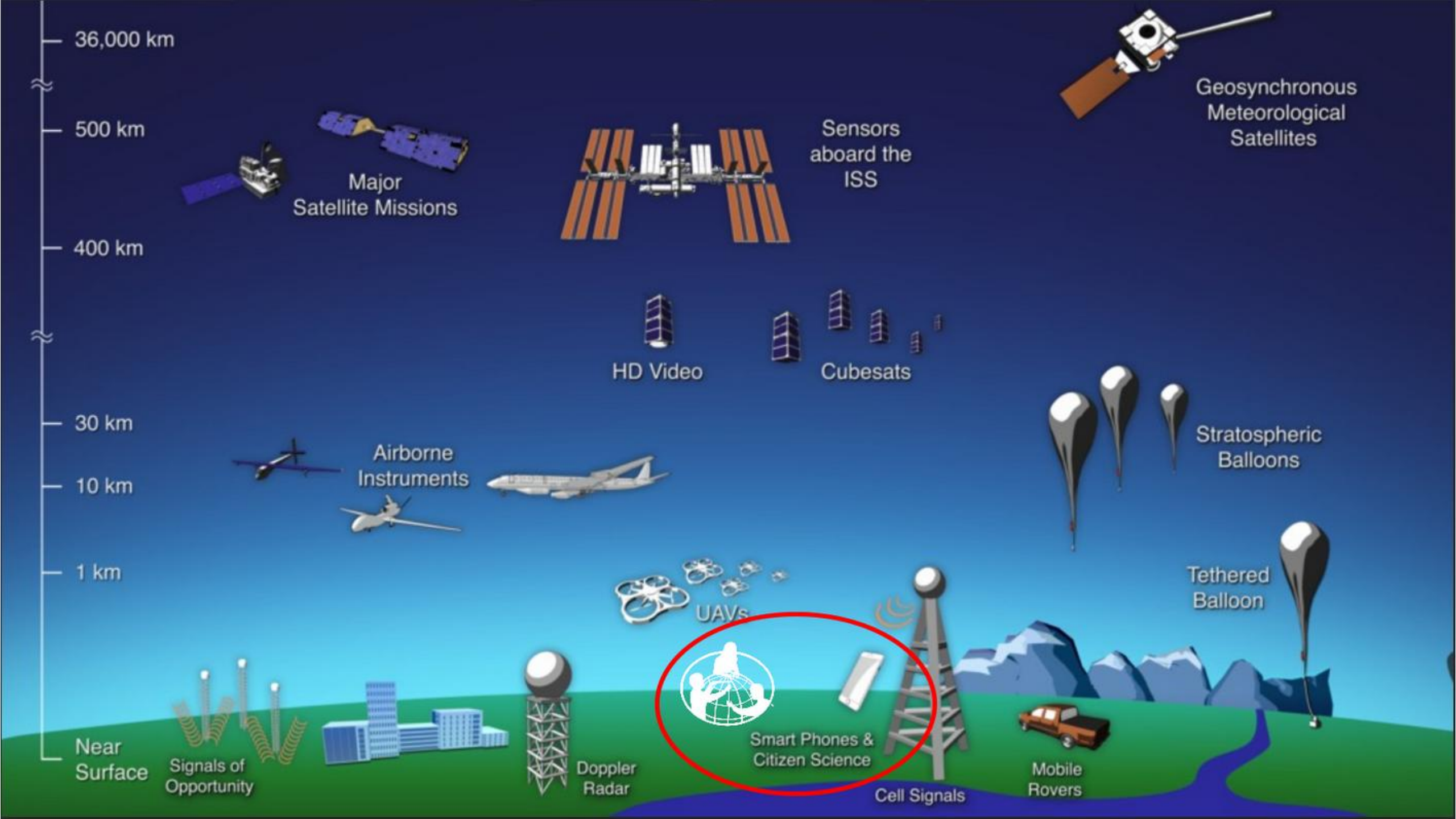
Global Diplomacy Fellowship Program

GLOBE is a Human-Powered Earth System Observatory, and NASA's Eyes and Ears on the Ground

GLOBE contributes valuable *in situ* environmental observations that bridge data gaps, while preparing a skilled workforce

THE GLOBE PROGRAM




36,000 km
500 km
400 km
30 km
10 km
1 km
Near Surface
Geosynchronous Meteorological Satellites
Major Satellite Missions
Sensors aboard the ISS
HD Video
Cubesats
Airborne Instruments
Stratospheric Balloons
Tethered Balloon
UAVs
Smart Phones & Citizen Science
Cell Signals
Mobile Rovers
Doppler Radar
Signals of Opportunity

NEXT GENERATION GLOBAL COLLABORATORY NGO

Empowering the Next Generation of Citizen Scientists

Unlocking the Power of Data for Everyone, Everywhere .

Join Our Community

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NEXT GENERATION GLOBAL COLLABORATORY NGO

A global platform for collaboration, data, science diplomacy and workforce development

Bridging science, education, and diplomacy through
AI, sensing technologies, and open data

Global Collaboration
Data Democratization
Workforce & AI

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WHY COIL MATTERS NOW MORE THAN EVER

Because the world already works globally

Students must learn to collaborate across borders,
disciplines, and digital environments

Global workforce • Digital collaboration • Cross-cultural competence • Interdisciplinary problem-solving

THANK YOU

Thank you for your commitment to global collaboration, education, and COIL.

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Image credit: NASA Image and Video Library (images.nasa.gov)