

KARMAN WEEK

IMPACT REPORT



MALDIVES, 2023



KARMAN
WEEK 2023
MALDIVES

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OUR 'WHY'

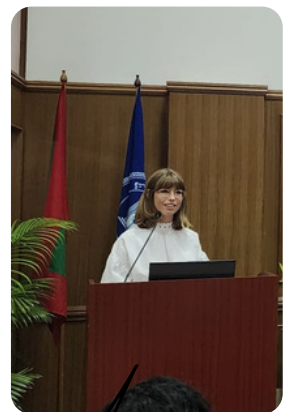
Today, we need international cooperation more than ever. And it all starts with people.

Karman Week Maldives 2023 was testament to the power of cooperation-through-action. When smart, well-intentioned leaders of different disciplines and cultures come together with trust, the challenges of space and our Earth can be addressed with speed, innovation and a shared sense of humanity.

The Karman Project's Fellowship Week has emerged as a key event in global space unity, bringing together 15 exceptional Fellows annually to share their expertise, insights, and unwavering commitment to proactively shaping the future of space technology. This year's gathering marked a true convergence of minds, as we partnered with the **Maldives Space Research Organisation** and the **Maldives Underwater Initiative** to create a program centred upon space-for-impact in one of the most climate vulnerable nations on Earth - the Maldives.

Together, we were able to identify and initiate **28+ Karman Commitments** to benefit our host nation and the international space community, including **\$5M+ committed towards research and social projects**. We engaged in open and constructive dialogue around the future of space, identifying tangible solutions to time-critical and complex challenges. And we formed trusted friendships across more than 13 nations - between astronauts, climate scientists, researchers, space agency directors, executives and investors.

As we reflect on the success of Karman Week 2023 - with immense gratitude to our partners and Fellows - we invite you to join on our journey of shared responsibility for a common purpose: a peaceful and sustainable future in space and on Earth.



Hannah Ashford

OUR FELLOWS



Norilmi Amilia Ismail
 Founder & CEO
 SpaceIn



Liang Chen
 Deputy Director of System
 Engineering Department
 Beijing Interstellar Glory Space
 Technology Co. Ltd



Joan Chesoni
 Director of the Board
 Kenya Space Agency



Emma Gatti
 Editor-in-Chief
 SpaceWatch.Global



Jacob Malthouse
 Executive Director
 Open Lunar Foundation



Raffaele Mauro
 General Partner
 Primo Space



Raycho Raychev
 CEO
 EnduroSat



Sara Sabry
 Citizen Astronaut
 CEO & Founder
 Deep Space Initiative



Barret Schlegelmilch
 CrewMember 7
 New Shepard Astronaut Office
 Blue Origin



Jenni Sidey-Gibbons
 Astronaut
 Canadian Space Agency



Anastasia Stepanova
 Mission Specialist
 Mars160, Sirius19
 PhD Candidate
 Colorado School of Mines



Mani Thiru
 Head of Space and Satellite Solutions
 Amazon Web Services



Trent Tresch
 Founding Director
 Biosphere 2 Center for Human
 Space Exploration
 University of Arizona



Aoife van Linden Tol
 FRSA
 Artist & Founder
 Feral Events Ltd (Ireland)



Luis Zea
 Senior Program Manager
 Sierra Space

OUR EXPERTS



Maldives Space Research
 Organisation (MSRO)



Maldives Underwater
 Initiative (MUI) -
 Marine Biologists from
 Olive Ridley Project,
 Blue Marine Foundation
 & The Manta Trust



Melania Guerra, PhD
 Oceanographer, Science
 & Space Diplomat and
 Karman Fellow 2022

TOPICS & FOCUS AREAS

CLIMATE RESILIENCE



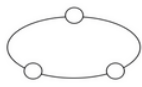
#EarthObservation
#RemoteSensing
#SatelliteTech

Biodiversity: Species Conservation
Robust and real-time monitoring of protected & vulnerable species from space (e.g. turtles, manta rays, etc.)

Biodiversity: Habitat Conservation
Monitoring key habitats (seagrass, mangroves); real-time data to aid restoration; resource management, etc.

Coral Health Monitoring
Monitoring, mapping, classification of reefs for restoration/protection; bleaching identification; coral spawning.

Disaster & Climate Monitoring
Tracking of coastal erosion, waste hotspots, marine pollutants, etc. for response coordination/spatial planning.



Education, Governance and Capacity Building
Building educational and workforce capacity within Maldives to sustain climate and space-focused activities; implementing sound supporting policies; building robust conservation education (from oceans to space).

FUTURE OF SPACE



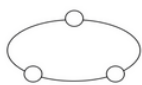
#SpaceSustainability
#SpaceSecurity
#SpaceForAll

Data Transparency
Mechanisms to increase transparency around satellite data applications (commercial and non-for-profit).

Long-Term Space Sustainability
Private actor responsibility towards long-term sustainability of the space environment (tech/policy intersection).

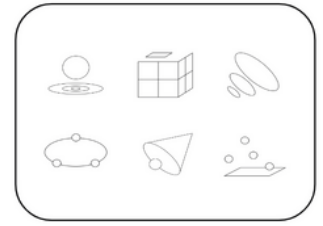
Space Security & Conflict
Role of non-state actors in space security; peace efforts for space and Earth (sustainability/safety intersection).

Equality & Representation in Space
Mechanisms to increase participation of underrepresented nations and demographics in space community.



Space as Catalyst for International Cooperation & Sustainability
Increasing channels and support for genuine international cooperation in increasingly polarising geopolitical environment; leveraging space and science as tools for diplomacy/inspiration; tangible first steps/projects.

KARMAN WEEK HIGHLIGHTS



Karman Fellows traverse global issues informed by the United Nations Sustainable Development Goals that space technologies can contribute to solving, together with challenges that exist within the space sector. As a 'space-for-impact' foundation, The Karman Project built the Week's program around its six key Impact Themes: Sustainability, Education, Empowerment, Cooperation, Science and Inspiration - with a strong focus on give-back to the Maldivian community at a local and national level.

01

Public Panel, Maldives National University (MNU)

At the invitation of the Maldives Ministry of Higher Education, our delegation headed to Maldives National University to share their diverse pathways into space with "Looking Above: Your Future in the Space Sector".



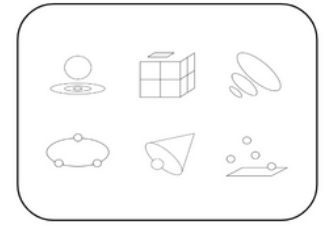
02

School Visit & Postcards Project, Hithadhoo School

When given the opportunity to meet astronauts, space lawyers, scientists and researchers, the students at this local island secondary school were full of questions. 200 postcards with their artwork will soon be sent to space!



KARMAN WEEK HIGHLIGHTS



03

Space-for-Maldives Workshop & Expedition to Marine Protected Reefs + Mangroves

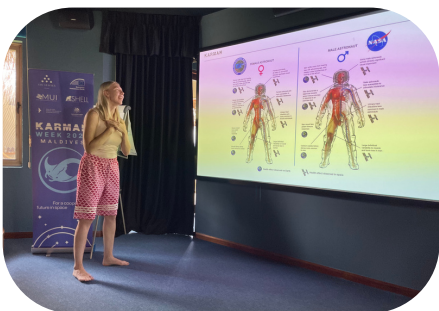
Structured around our Impact Themes of Space-for-Sustainability, Education and Science, we leveraged the multidisciplinary expertise of our Fellows and partners to create a tangible roadmap + recommendations for the Maldives.



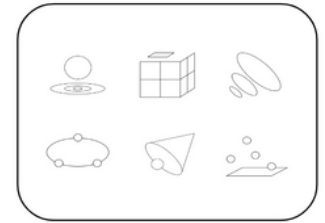
04

Community Outreach - Public Lectures, 'The Many Faces of Space' & Guided Astronomy

Pursuant to our 'give-back' mantra, our Fellows gave public lectures about the time-critical challenges that space is aiding on Earth and brought the cosmos a little closer with activities such as telescope-guided stargazing.



KARMAN WEEK HIGHLIGHTS



05

Chatham House Day - The Future of Space

As leaders shaping the future of space, our Fellows navigate complex technical and political landscapes. These sessions provided a safe space to discuss solutions to complex challenges, and pathways to execute big ideas.



06

Building Trust Between International Leaders

The heart of our mission is to foster trust, independent dialogue and cooperation between global leaders - bridging international relations to address challenges with safety, imagination and freedom. We trust that the relationships built today will shape transformative moments of the future.



OUTCOMES & COMMITMENTS

↑ **28+**

Social projects
(Karman Fellowship
Commitments) made

↑ **\$5M+**

Committed towards
research and projects in
support of the Maldives



Local Karman Commitments range from facilitated access to the International Space Station for coral research, sustainable housing projects using robotics, and a key partnership to build a robust 'Digital Earth Maldives' climate monitoring system.

↑ **12k**

Locals estimated to be
immediately impacted
by social projects

↑ **150**

University and high
school students
engaged

↑ **200**

Inspirational
postcards collected
to send to space

↑ **30**

Space and conservation
experts in delegation
from 13 nations



Space-related Karman Commitments range from a group commitment to raise \$300M+ for Civil Society Efforts towards a sustainable and peaceful future in space, to a large-scale cross-regional educational program between South-East Asia and Africa, and the proposed establishment of a Code of Ethics to guide responsible decision-making for industry players in space.

WITH OUR THANKS

Cooperation in space and on Earth is a global endeavour achieved together. Our sincere thanks to our supporting partners of Karman Week 2023.

Impact Partners

Maldives Space Research Organisation (MSRO)
Maldives Underwater Initiative (MUI)
Six Senses Hotels Resorts Spas Laamu
European Investment Bank (EIB)

Local Partners

Trans Maldivian Airways
Sea Hub of Environmental Learning in Laamu (SHELL)
InTour Maldives



MALDIVES
SPACE RESEARCH
ORGANISATION



SIX SENSES
LAAMU



European
Investment Bank



MALDIVES UNDERWATER INITIATIVE by Six Senses Laamu



TRANS MALDIVIAN AIRWAYS



SEA HUB OF ENVIRONMENTAL LEARNING IN LAAMU

We are opening calls for Expressions of Interest to Host Partners for Karman Week 2024

The Karman Project

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Germany

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