

Uniting the Geosciences Around the World for Actionable, Inclusive, Sustainable Development

Janice Lachance, Interim Executive Director/CEO, AGU
Japan Geoscience Union Meeting 2023



What does Geoscience Bring to the Table?



Geoscience can drive actionable, inclusive, sustainable development by:

- **Adding more seats** to the table
- Ensuring **diverse perspectives** are represented in those seats
- And ensure this is all done in an **equitable** manner

What does Geoscience Bring to the Table?



We need to take an **all-in approach** to sustainable development.

This is only possible by **making geoscience more diverse, equitable, and inclusive.**



Governance: Forming diverse groups

AGU is committed to a process that ensures diversity and inclusion:

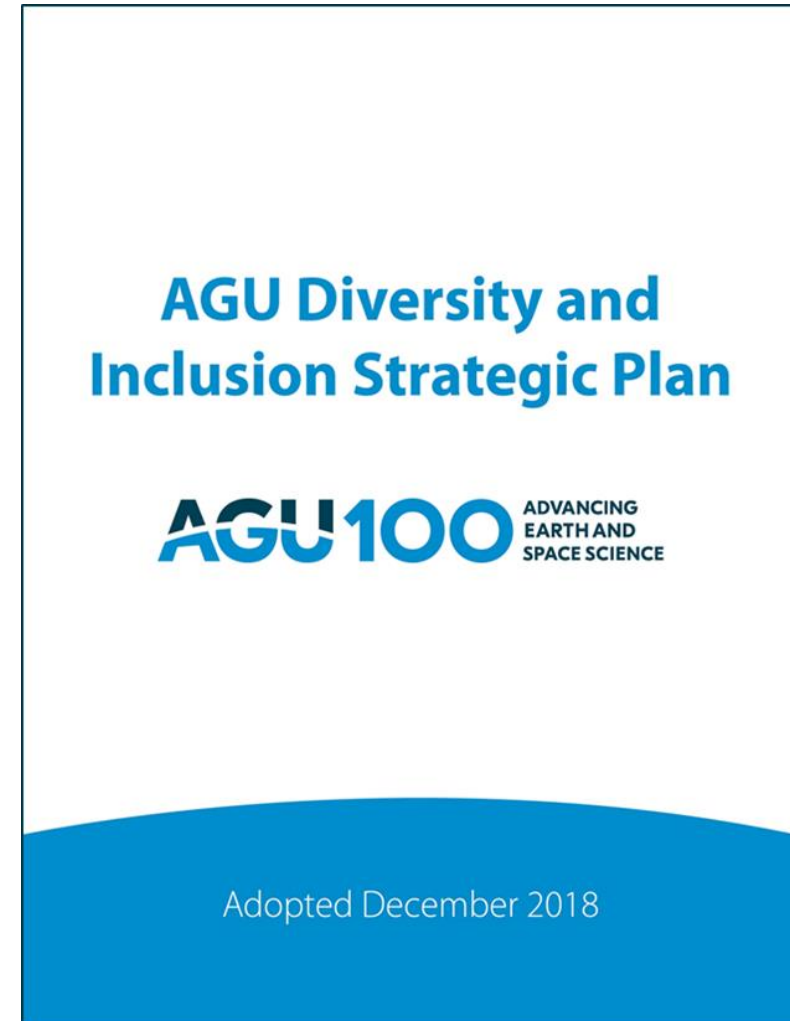
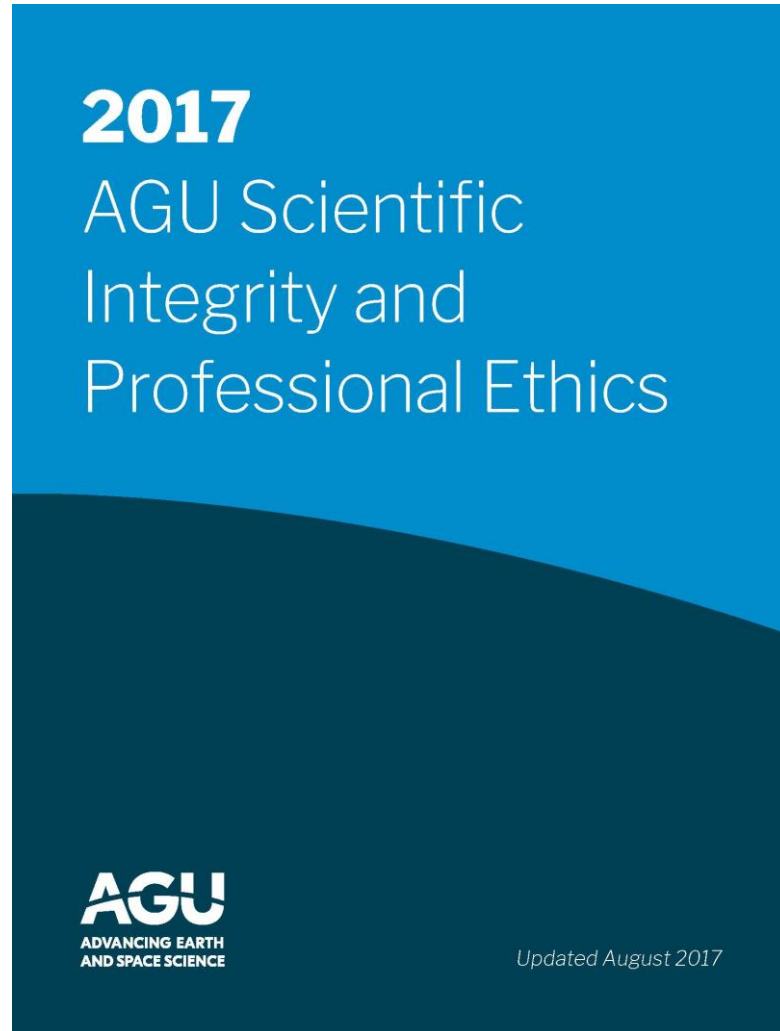
- Set the charge of the volunteer group – be clear what do we need them to do.
- Identify the skills, experience and perspectives needed to accomplish the charge.
- Use a variety of methods to identify potential candidates that meet the perspectives identified and fulfill AGU's diversity criteria – a mix of gender, geography, career stage, employer type, and science (discovery, community and solution-based).

This process includes both staff and volunteer leaders working in partnership. We are continually improving our process to be more transparent and inclusive.

Specific :

- Meaningful work for volunteers
- Outcomes that move AGU forward and align with strategic direction
- Wide variety of people and perspectives informing every step
- Students and early career members engaged at all levels of AGU, including leadership positions
- Shared understanding of how AGU works

AGU's Commitment to Ethics, Diversity and Inclusion



Addressing Systemic Racism in ESS: The Eight Focus Areas for AGU

Expand Funding for
AGU's D&I efforts

Diversify AGU's
Governance and
Committees

Enable, Recognize, and
Reward Diversity in our
Honors

Create Truly Diverse
Meetings

Review diversity, equity
and inclusion across
AGU's Publications

Support the Success of
Emerging
Underrepresented
Scientists

Advocate for Policies
that Eliminate Racial
Injustice

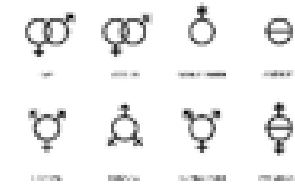
Partner with Leaders
across STEM to Remove
Systemic Racism and
Foster Culture Change

AGU collects data across programs.

- Allows AGU to **review progress**.
- **Guides** AGU's DEI **efforts** and strategic goals toward creating a more inclusive scientific community.
- **Provides transparency** to all on AGU's DEI efforts.
- **Collected across** key programs and activities.
- **Links** to AGU **Strategic Plan** and actions and for addressing racism.
- **Focuses** outward and inward.



Membership



SOGI



Career Stage



Geography



Honors

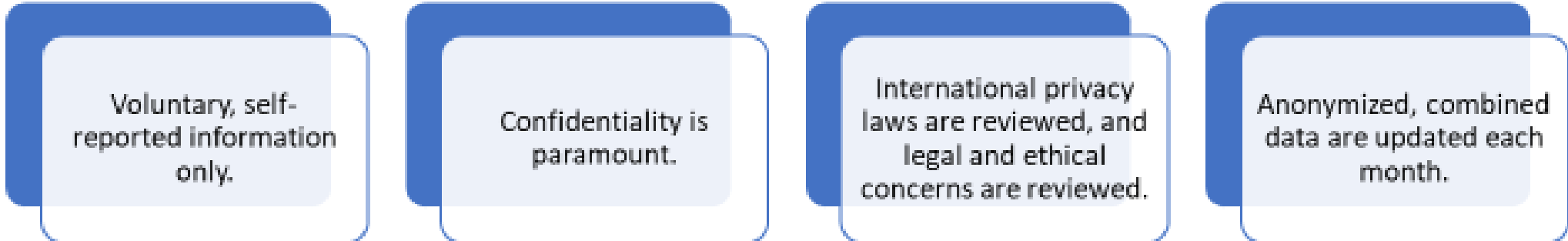


Ethnicity/ Race

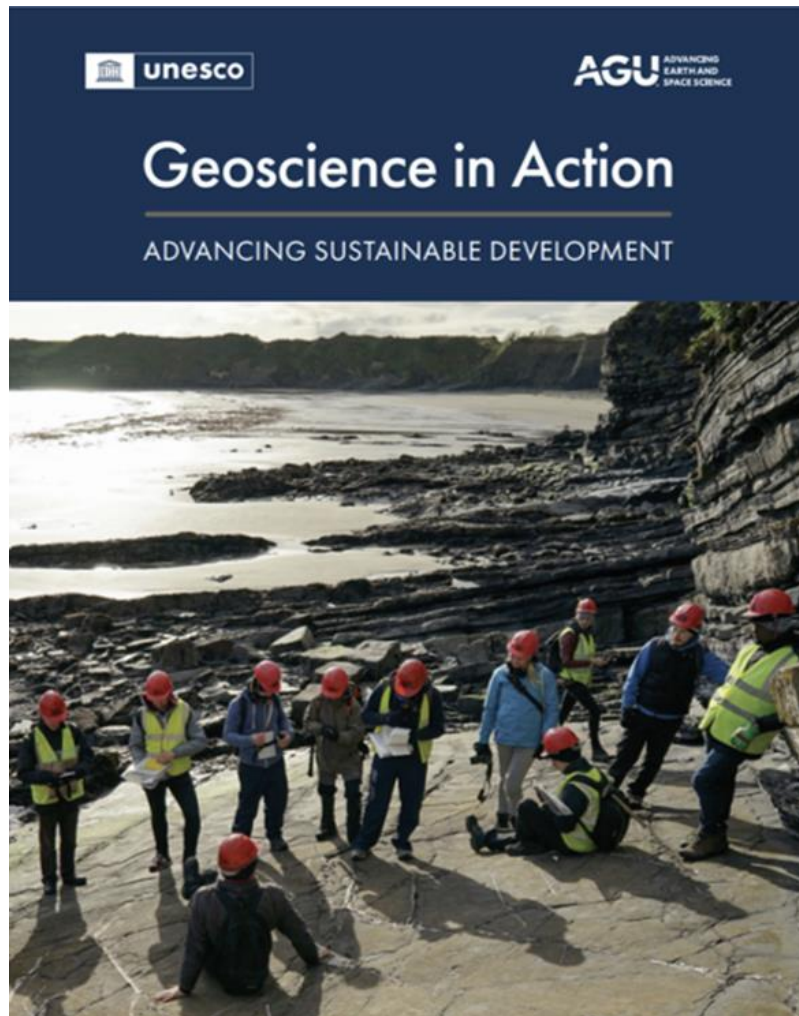


Publications

Data collection follows strict guidelines.



Geoscience in Action: Advancing Sustainable Development



Special Report co-published by
AGU and UNESCO

Launched in March 2023
on the 50th anniversary of
UNESCO's International Geoscience Program

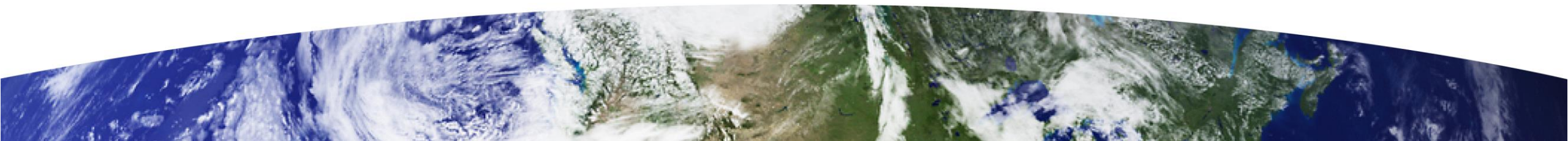
Relevant for

- *professional geoscientists*
- *geoscience students*
- *non-geoscientists*

geoscienceinaction.org

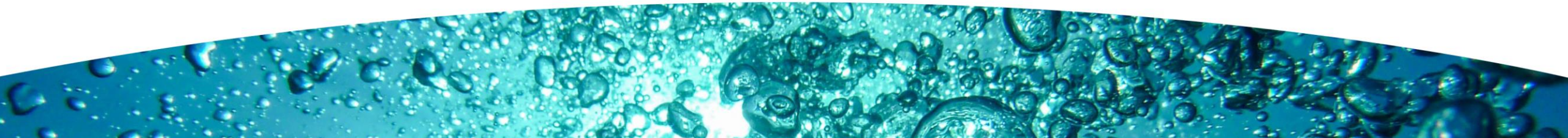
Sustainable Development Goals and our Publications

- **Commitment to 10 action points for publishers and associations to accelerate progress to achieve the Sustainable Development Goals 2030**
- **Signatories aspire to develop sustainable practices and act as champions of the SDGs**
- **Publishing books and journals that will help inform, develop and inspire action**



Adding more seats to the table

- Developing DEI leaders and increasing participation from historically marginalized groups
 - LANDInG Academy
 - Postdoctoral Research Fellows Program (PRFP)
 - Bridge Program
 - Mentoring 365
- Recognizing DEI work at the Union level
 - Award for Advancing Inclusive Excellence in STEM
 - Lifetime Achievement Award for Advancing Diversity and Inclusion



LANDInG Academy and the LANDInG-Postdoctoral Research Fellows Program



TWO-YEAR PROGRAM



COHORT-BASED



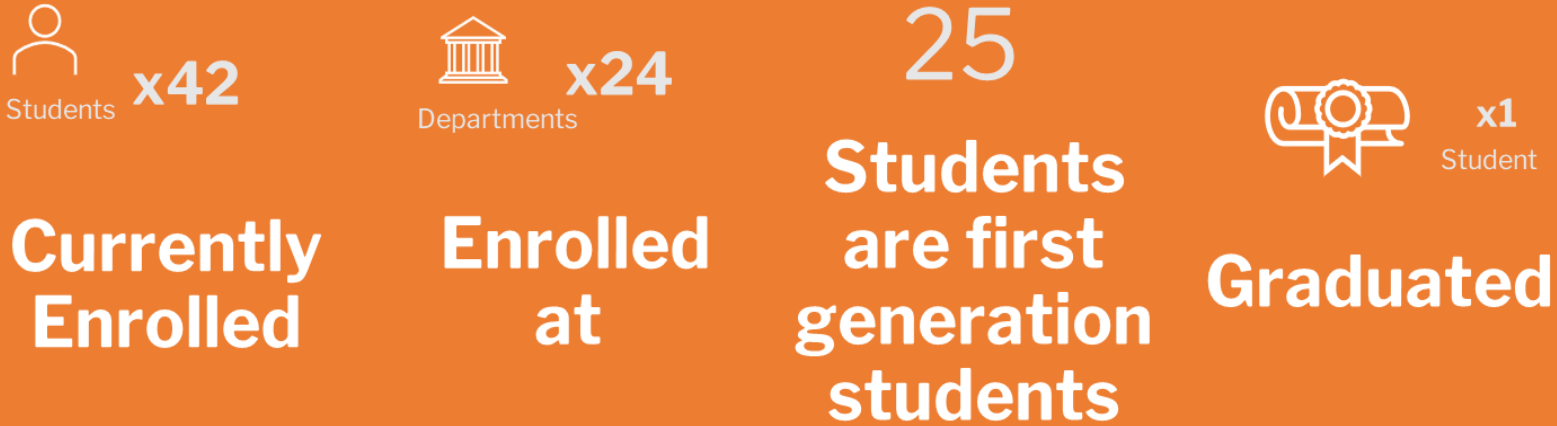
PROFESSIONAL DEVELOPMENT OF DEI LEADERS IN GEOSCIENCES



HYBRID MEETINGS AND EVENTS



Students Entering Graduate Studies through AGU Bridge



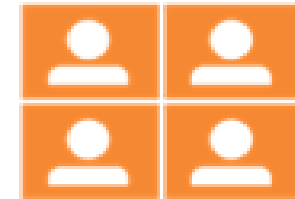
- Advances equitable practices in graduate geoscience departments
- Direct support of individuals interested in pursuing an advanced degree

MENTORING365

- Students and early career professionals connect with experts in the Earth and space sciences on a virtual platform
- **1-on-1 mentoring for 3 mo.** – e.g., seeking help on career or publication
- **Flash/one-time mentoring** – e.g., resume/cover letter review
- **Circles**, people with a common interest meet for a set time – e.g., science communication



1-time or 3-months



Online or in-person



Career Growth



Skill Development



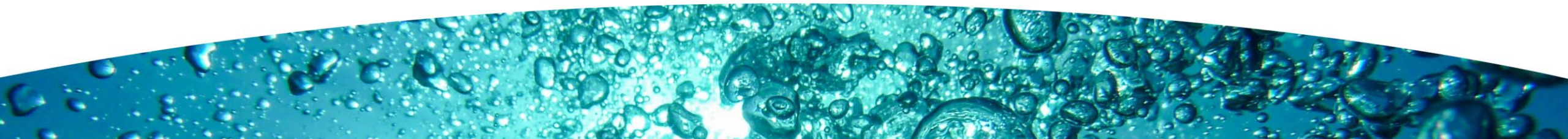
Networking



1:1 or group mentoring

Ensuring diverse perspectives are represented in those seats

- Open Science
- Publications DEIA
- Community Science



#AGU23

San Francisco, CA & Online Everywhere
11-15 December 2023

WIDE. OPEN. SCIENCE.



Open-Access
Publications

Preprints and
Open Archives



Enabling FAIR
Data

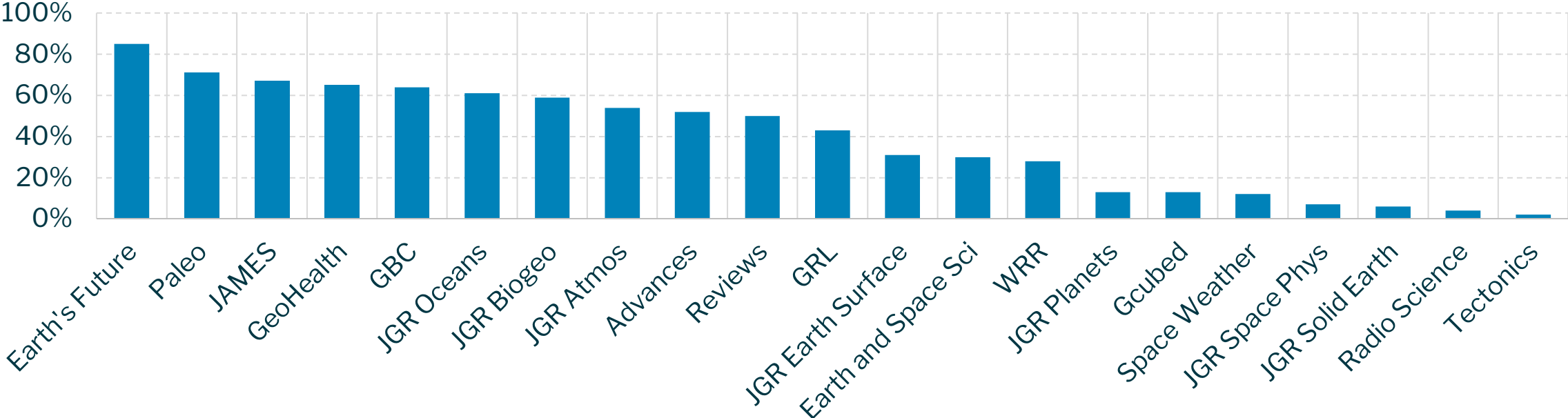
Open Science and
Data Support



Diversity, Equity, Inclusion and Accessibility (DEIA) at AGU Publications

AGU Journals– SDG Mapping

Proportion of total published articles with at least one SDG assigned
AGU articles published 2017-2022



Arlington, Virginia
Developing a Feasibility Study for Community Choice Aggregation Renewable Energy Options

[more](#)

Atlanta, Georgia
Standardizing Greenhouse Gas Inventory Outputs for Decision-Making

[more](#)

Barnesville, Ohio
Establishing a Low-Cost, Sustainable Environmental Monitoring Program

[more](#)

Bulacan Province, Philippines
Investigating Environmental Impacts of Land Reclamation Projects in Manila Bay Coastal Areas

[more](#)

Cambridge, Ohio
Identifying Contaminants in Drinking Water

[more](#)

Chelsea, Massachusetts
Synthesizing Climate Vulnerability Assessments

[more](#)

Berlin, Maryland
Restoring a Local Pond for Recreational Use

[more](#)

Birmingham, Alabama
Incentivizing Clean Industry

[more](#)

Boise, Idaho
Selecting Materials for Geothermal Systems

[more](#)

Cicero & Berwyn, Illinois
Assessing Flooding and Hydrodynamics for Community Revitalization

[more](#)

City of De Soto, Missouri
Assessing Flooding and Hydrodynamics for Community Preparedness and Revitalization

[more](#)

Colebrook, New Hampshire
Remediating Groundwater Dioxane to Mitigate Marl Pond Degradation

[more](#)

THRIVING EARTH EXCHANGE
Communities & Scientists Working Together

Boston, Massachusetts
Assessing Flood Risk of Food Distribution Centers

[more](#)

Boulder, Colorado
Deepening a City-Wide Commitment to Sustainability

[more](#)

[more](#)

[more](#)

Colorado
Encouraging Air Quality Data Collection and Education

[more](#)

Corinth, Texas
Balancing Sustainability Priorities with Development in an Urbanizing Watershed

[more](#)

Brazoria County, Texas
Assessing Future Flood Risk for Sustainable Solutions

[more](#)

Bronx, New York
Mapping Vulnerable Heat and Health Populations

[more](#)

Brookline, Massachusetts
Building Community Resilience to Extreme Heat

[more](#)

Denver, Colorado
Assessing Unhealthy Air in Homes

[more](#)

Durango, Colorado
Updating a Greenhouse Gas Inventory

[more](#)

Ethiopia, Horn of Africa
Modeling Water Availability and Use

Horn of Africa Regional Environment Centre and Network

[more](#)



Community Science Exchange

Community Science Hub, a new platform that connects aimed at developing and disseminating:

- leading practices
- resources
- Information



Community Science, a new peer-reviewed, open-access journal that publishes on community science,

- Practice Articles
- Project Articles
- Review Articles
- Commentaries



AMERICAN ANTHROPOLOGICAL ASSOCIATION

Advancing Knowledge, Solving Human Problems



ADVANCING EARTH AND SPACE SCIENCE



American Meteorological Society



AMERICAN PUBLIC HEALTH ASSOCIATION

For science. For action. For health.



CITIZEN SCIENCE ASSOCIATION



Unión Geofísica Mexicana, A.C.

communityscienceexchange.org



Ensure this is all done in an equitable manner

The Ethical Framework for Climate Intervention Initiative

- Vision: All climate intervention research and any deployment are guided by an ethical framework that is **widely shared**, **effectively applied**, and **regularly updated** based on advances in the science, associated technologies, and community views.
- 8 Principles (including data transparency, public engagement, and environmental justice)
- Poster: HSC04-P05 (25 May at 13:30 JST, online)

Ethical Framework Principles for Climate Intervention Research

The American Geophysical Union (AGU), in partnership with scientific and policy stakeholders around the globe, proposes an Ethical Framework for Climate Intervention Research. This framework of Principles, first proposed in a [2022 AGU White Paper](#), builds on work such as the Oxford Principles, the Tollgate Principles and the Asilomar Conference Recommendations on Principles for Research into Climate Engineering but also draws from ethical guidance developed for other rapidly advancing areas of technologies. The Principles are designed to help guide governments, researchers, international organizations, NGOs, and the private sector that may be engaged in climate intervention research or policy in planning their work from an early stage. These Principles are important to ensuring public trust and societal legitimacy for such research by integrating more voices into the process, and by ensuring the direct undertaking of important ethical questions around justice, transparency, inclusivity, and respect.

This draft of the Ethical Framework Principles is presented for public comment and feedback. Use the form [here](#) to provide comments. If you cannot access the form, email your comments to ethics@agu.org.

AGU ADVANCING EARTH AND SPACE SCIENCE



Global Cooperation Across the Geosciences

- African Geophysical Union
- American Geophysical Union
- American Geosciences Institute
- Asia Oceania Geosciences Society
- Canadian Geophysical Union
- Deutsche Geophysikalische Gesellschaft (DGG)
- European Association of Geochemistry
- European Geoscience Union
- Federation of Indian Geosciences Associations
- Geochemical Society
- Geological Association of Canada
- Geological Society of America
- Geological Society of London
- Indian Geophysical Union
- International Union of Geodesy and Geophysics
- International Union of Geological Sciences
- **Japan Geoscience Union**
- Korea Geoscience Union
- Mexican Geophysical Union

Key Priority Areas for Collaboration:

- Support Early Career and Student Communities
- Inclusion and Representation in Geoscience
- Public Engagement and Outreach to increase Earth and space science awareness
 - **Joint-Earth Day Statement 2023**
- Advocate for the Earth and space sciences in Global and Domestic Policies
 - **Collaborative webinar on "Science-Policy Panel on Food and Water Security Webinar"**



Thank you

Janice Lachance
jlachance@agu.org



**ADVANCING EARTH
AND SPACE SCIENCE**