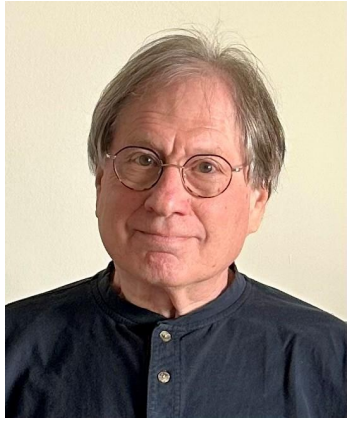
NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Standing Panel on Technology Leadership

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Technology Leadership Panel Chairs



Co-Chair. Alan R. Shark, Ph.D.

Executive Director for Public Technology Institute, Associate Professor, Schar School of Policy and Government, George Mason University

Co-Chair. Theresa A. Pardo, Ph.D.

Associate Vice President, Division for Research and Economic Development, Special Assistant to the President, Senior Fellow -CTG UAlbany and Professor, Public Administration and Policy, Rockefeller College, University at Albany, State University of New York

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

Who We Are

Established in 1967, the Academy responds to requests for assistance from Congress; federal agencies; and state, local, and international government entities on issues of importance. As a Congressionally-chartered non-partisan 501(c)3 nonprofit, we also provide thought leadership that advances the field of public administration through the work of our research staff and nearly 1,000 elected Fellows.

12 Grand Challenges in Public Administration

Protect Electoral Integrity and Enhance Voter Participation

Modernize and Reinvigorate the Public Service

Develop New Approaches to Public Governance and Engagement

Advance National Interests in a Changing Global Context

Foster Social Equity

Connect Individuals to Meaningful Work

Build Resilient Communities

Advance the Nation's Long-Term Fiscal Health

Steward Natural Resources and Address Climate Change

Create Modern Water Systems for Safe and Sustainable Use

Ensure Data Security and Privacy Rights of Individuals

Make Government AI Ready

Our Programs

Center For Intergovernmental Partnerships

The Academy provides intergovernmental solutions and expertise to promote effective governance and collaboration among federal, state, and local governments.

Learn More

Agile Government Center

The Academy's Agile Government Center offers innovative approaches and strategies to help governments adapt to changing societal, technological, and organizational challenges, fostering agility and responsiveness in the public sector.

Learn More

Active Forums

The Academy's active forums provide a platform for expert-led discussions, knowledge sharing, and collaboration among public administration professionals, promoting thought leadership and advancing the field.

Learn More

Events

The Academy hosts engaging events, including conferences, workshops, and seminars, that bring together public administration experts, practitioners, and policymakers to share insights, foster dialogue, and promote best practices in governance and public administration.

Learn More

Standing Panels

The Academy's Standing Panels convene thought leaders around six specific areas critical to the success of public administration.

Learn More

Solving the Data Problem for the Climate Crisis: *A Two-Part Series*

- The world urgently needs more and better data to solve the climate crisis.
  - Global earth observation data is essential for understanding, modeling, and predicting the course of climate change, and better local data is essential to plan and implement programs for climate change mitigation, adaptation, and resilience.
- This two-part panel will discuss the state of both global and local data for climate action, current challenges, and new opportunities.
  - It will explore data-related challenges that must be met if AI is to deliver on its potential as a tool to address the climate crisis and will contribute to NAPA's grand challenge on making government AI ready.

Part 1: Data for Global Climate Knowledge

Thursday, August 8, 1:00-2:30pm (ET)

Part 2: Solving the Local Data Problem for Climate Action

Thursday, September 14th, 1:00 – 2:30 pm (ET)

Solving the Data Problem for the Climate Crisis
Series Organizers

Theresa A. Pardo, Ph.D.

Associate Vice President, Division for Research and Economic Development, Special Assistant to the President, Senior Fellow-CTG UAlbany, and Professor, Public Administration and Policy, Rockefeller College, University at Albany, State University of New York

Joel Gurin

President and Founder, Center for Open Data Enterprise (CODE)

Most Advanced A.I. Supercomputer Cluster Built on Public-Private Partnership

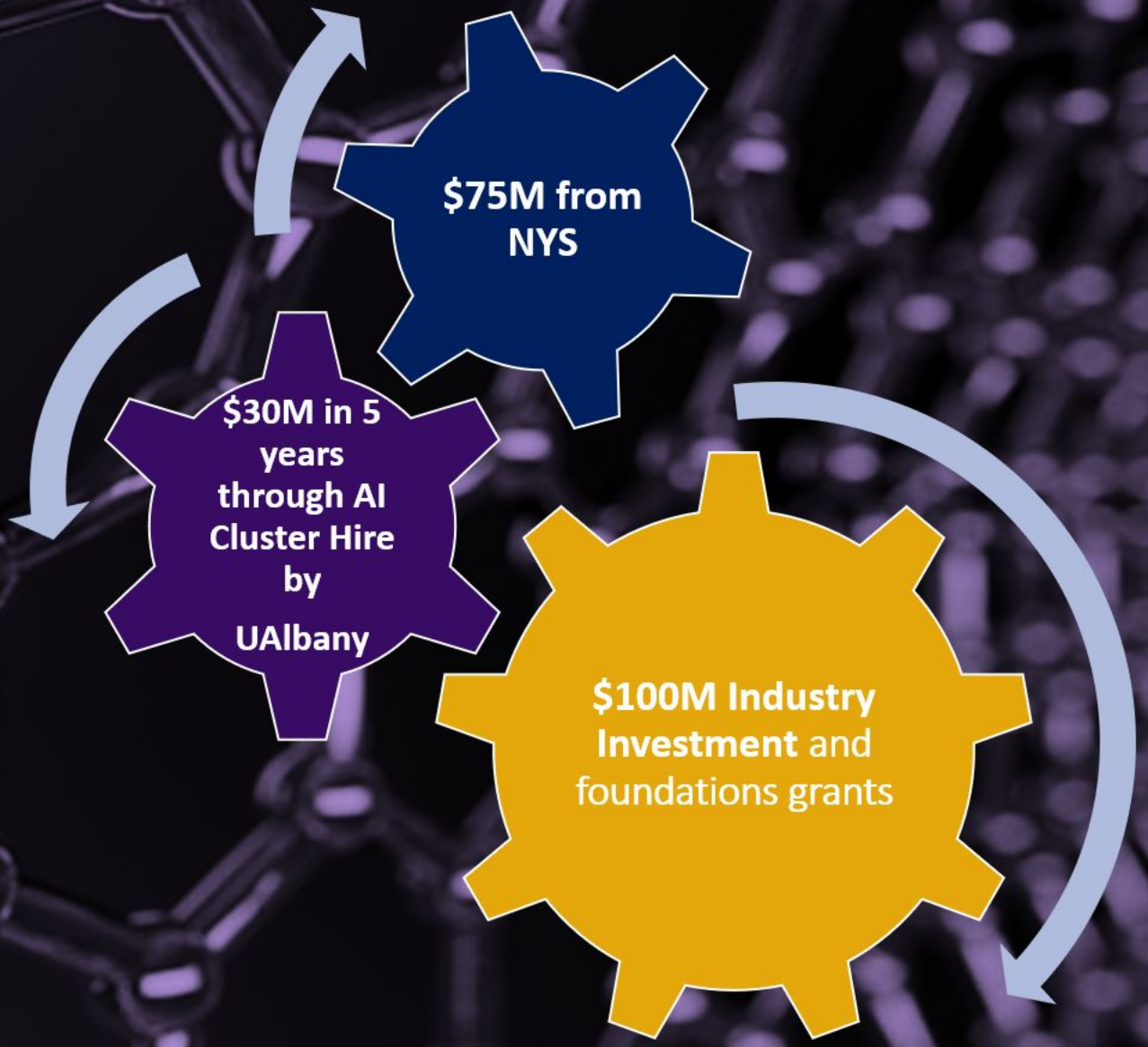
UNIVERSITY AT ALBANY
State University of New York

NYCREATES

$200M Public-Private Investment

Most Advanced NY AI Cluster Built on Public-Private Partnership

UNIVERSITY AT ALBANY
State University of New York



ai+

UNIVERSITY AT ALBANY
State University of New York

- Tranformative Next Gen AI Cluster
- AI Quantum Chip Research
- AI Foundational Research on Software & Hardware

AI Supercomputer Cluster

- Revolutionary AI based Engineering Program
- AI+ pervasive through all academic programs
- Invest in faculty

Educational and Training Programs

Industry Partnerships & Economic Development

- Startup Ecosystem
- Leverage Cluster to Attract AI Hardware & Software companies

Applications & Use Cases

- Atmospheres & Climate Change
- Decision Making
- Cybersecurity
- Healthcare
- Socital impact

UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

MYUALBANY GIVE

Academics | Admissions & Aid | Campus Life | About | Research | Athletics

News Center

- News Center Home
- News Archive
- University at Albany Experts
- Media Inquiries / Contact Us

CONTACT INFORMATION

For media inquiries, contact the Office of Communication and Marketing at 518-956-8150 or email us.

Staff Directory

ASRC Researchers to Develop AI Solutions for Winter Weather at New $20 Million Institute

UAlbany will focus on winter weather at NSF's new Institute for Research on Trustworthy AI in Weather, Climate and Coastal Oceanography

Researchers at the Atmospheric Sciences Research Center (ASRC) are contributing to a new National Science Foundation (NSF) institute that will advance the use of artificial intelligence (AI) and machine learning technologies to improve our understanding of weather and climate, including its societal impacts and related decision-making.

NSF today announced an investment of more than $100 million to establish seven AI institutes, including the Institute for Research on Trustworthy AI in Weather, Climate and Coastal Oceanography, which received $20 million of the funding.

UAlbany researchers, who will focus on AI solutions for winter weather, are joined by partners at the University of Oklahoma, the leader of the institute, along with Colorado State University, the University of Washington, North Carolina State University, Texas A&M

UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Academics | Admissions & Aid | Campus Life | About | Research | Athletics

News Center

- News Center Home
- News Archive
- University at Albany Experts
- Media Inquiries / Contact Us

CONTACT INFORMATION

For media inquiries, contact the Office of Communication and Marketing at 518-956-8150 or email us.

Staff Directory

Making Artificial Intelligence Truly Trustworthy

Jason D'Cruz, of Philosophy (Photo by Brian Busher)

ALBANY, NY. (Aug. 26, 2021) — Technical advancements in artificial intelligence (AI) and machine learning over the last decade have outstripped our ability to understand and

UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Academics | Admissions & Aid | Campus Life | About | Research | Athletics

News Center

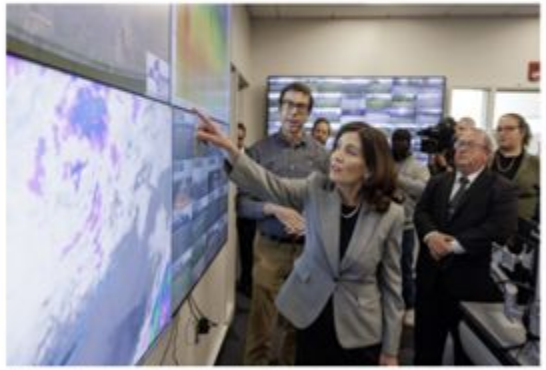
- News Center Home
- News Archive
- University at Albany Experts
- Media Inquiries / Contact Us

CONTACT INFORMATION

For media inquiries, contact the Office of Communication and Marketing at 518-956-8150 or email us.

Staff Directory

New Yorkers Turn to UAlbany Research, Expertise for Insight on Dangerous Air Quality



Gov. Kathy Hochul tours the New York State Mesonet operations center at ETEC. (Michael Groll / Governor Kathy Hochul's Office)

By Mike Nolan

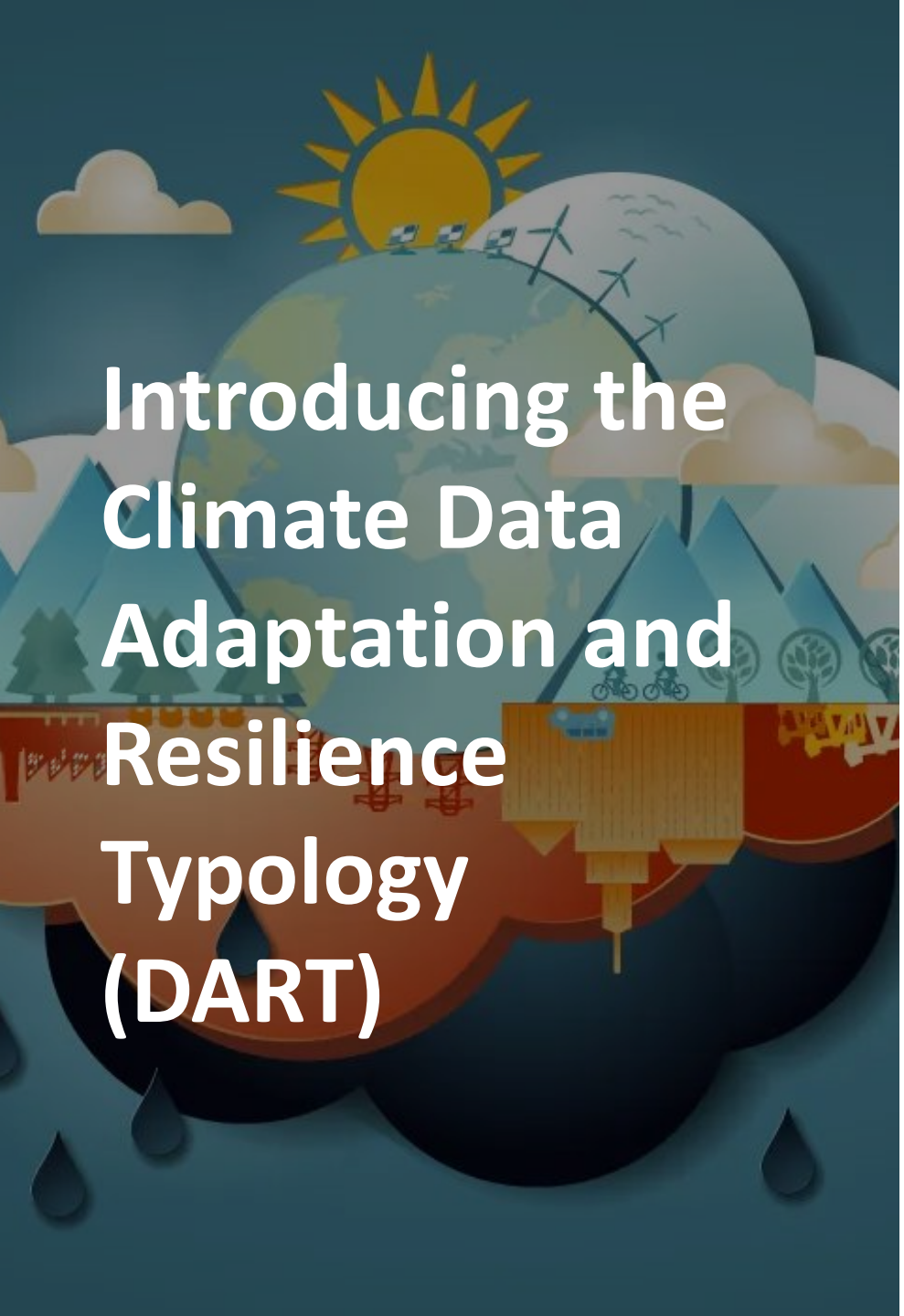
Solving the Data Problem for the Climate Crisis
Series Organizers

Theresa A. Pardo, Ph.D.

Associate Vice President, Division for Research and Economic Development, Special Assistant to the President, Senior Fellow-CTG UAlbany, and Professor, Public Administration and Policy, Rockefeller College, University at Albany, State University of New York

Joel Gurin

President and Founder, Center for Open Data Enterprise (CODE)



Introducing the Climate Data Adaptation and Resilience Typology (DART)

The Climate DART **identifies** and **prioritizes** data resources for **climate risk assessment**, **adaptation**, and **resilience** based on accepted **global models** and **practices**

Acts as a resource for **national** and **subnational governments** and their stakeholders to identify crucial factors and metrics for climate action

It simplifies the understanding of complex data systems to make data **accessible** and **actionable** for a wide range of stakeholders

CLIMATE DART PRIORITY FOCUS AREAS

- Climate Change Adaptation Policies and Plan
- Climate Change Public Awareness
- Ecosystems and Biodiversity
- Energy
- Food Security
- Freshwater Resources
- Waste Management
- Health Systems
- Heat and Temperature
- Infrastructure
- Land and Agriculture
- Population
- Risk Management and Disaster Preparedness
- Weather and Climate Monitoring

Climate Change Adaptatio...
RELEVANT FACTORS
Policies and Plans for Planning, Budgeting, and Implementing Climate Change Adaptation Actions
NOTES/RELEVANCE
The plans and policies prepared by a government are strong guiding documents to assist in adapting the country to climate change related ...

Climate Change Adaptatio...
RELEVANT FACTORS
Government Units Dedicated to Climate Change Adaptation
NOTES/RELEVANCE
National governments can coordinate adaptation efforts by local and subnational governments, for example by protecting ...

Climate Change Public Aw...
RELEVANT FACTORS
Access to Climate Information
NOTES/RELEVANCE
There is the need for human capacity and social capital to implement adaptation actions, including education and access to ...

Climate Change Public Aw...
RELEVANT FACTORS
Publications on Climate Change Statistics and Indicators
NOTES/RELEVANCE
Statistical outputs released and disseminated by an NSO can assist in monitoring country level changes due to climate change, as well as ...

Climate Change Public Aw...
RELEVANT FACTORS
Publications on Sustainability
NOTES/RELEVANCE
The UNFCCC assigns responsibility to Parties of the Convention to undertake educational and public awareness campaigns on climate ...

Ecosystem and Biodiversity
RELEVANT FACTORS
Species Habitat Index
NOTES/RELEVANCE
The Species Habitat Index (SHI) measures changes in the estimated size and quality of ecologically intact areas supporting species ...

Ecosystem and Biodiversity
RELEVANT FACTORS
Ecosystem Connectivity
NOTES/RELEVANCE
Ecological connectivity is the unimpeded movement of species and the flow of natural processes that sustain life on Earth. Historical...

Ecosystem and Biodiversity
RELEVANT FACTORS
Populations Maintained within Species
NOTES/RELEVANCE
Some of the clearest examples of climate-related changes in species populations come from high-latitude ecosystems where non-...

Ecosystem and Biodiversity
RELEVANT FACTORS
Red List Index
NOTES/RELEVANCE
The International Union for Conservation of Nature (IUCN) Red List Index shows trends in the status of taxonomic groups based on ...

Ecosystem and Biodiversity
RELEVANT FACTORS
Ecosystem Integrity Index
NOTES/RELEVANCE
Covers completeness and functionality of an ecosystem and its ecological processes, particularly in relation to its natural state. ...

Energy
RELEVANT FACTORS
Total Energy Production
NOTES/RELEVANCE
Energy production, supply and consumption are one of the main causes of climate change.
...

Energy
RELEVANT FACTORS
Energy Consumption
NOTES/RELEVANCE
Energy production, supply and consumption are one of the main causes of climate change. Energy consumption factors are also ...

Energy
RELEVANT FACTORS
Energy Production by Fossil Fuels
NOTES/RELEVANCE
Energy production by fossil fuels relate to the vulnerability of a community towards climate change hazards. Carbon emissions throug...

Energy
RELEVANT FACTORS
Population with Access to Electricity
NOTES/RELEVANCE
Populations without access or with only intermittent access to electricity are more vulnerable to climate extremes like heat waves and cold ...

Food Security
RELEVANT FACTORS
Prevalence of Undernourishment
NOTES/RELEVANCE
The prevalence of undernourishment (PoU) is an estimate of the proportion of the population whose habitual food ...

Food Security
RELEVANT FACTORS
Balance of Food Trade
NOTES/RELEVANCE
The difference between food exports and food imports is called the balance of food trade. If imports are greater than exports, it is ...

Food Security
RELEVANT FACTORS
Global Food Security Index
NOTES/RELEVANCE
The Global Food Security Index has been developed for countries to rank their food security profiles based on availability, affordability, ...

Freshwater Resources
RELEVANT FACTORS
Renewable Freshwater Resources
NOTES/RELEVANCE
Freshwater-related risks from climate change increase significantly with increasing greenhouse gas (GHG) concentrations. Modeling ...

Freshwater Resources
RELEVANT FACTORS
Water Use
NOTES/RELEVANCE
Water use is a relevant indicator in assessing the vulnerability and resilience of communities towards a climate hazard. This is also a useful...

Freshwater Resources
RELEVANT FACTORS
Water Quality
NOTES/RELEVANCE
This can be a strong indicator for assessing the adaptation and resilience of communities towards climate hazards. This is also a usef...

Freshwater Resources
RELEVANT FACTORS
Water Monitoring Systems

Freshwater Resources
RELEVANT FACTORS
Reduction of Surface Water Bodies

Health Systems
RELEVANT FACTORS
Climate Induced Health Problems/Diseases

Health Systems
RELEVANT FACTORS
Spread of Infectious Diseases during a Climate Hazard

Health Systems
RELEVANT FACTORS
Weather Related Mortality Rates

Heat and Temperature
RELEVANT FACTORS
Surface Temperature Anomaly

Heat and Temperature
RELEVANT FACTORS
Reduction of Ice Covers and Glaciers

Infrastructure
RELEVANT FACTORS
Vehicles Miles Travelled

Infrastructure
RELEVANT FACTORS
Infrastructure Vulnerable to Climate Change

Infrastructure
RELEVANT FACTORS
Population with Access to Clean Drinking Water

THE CLIMATE DATA ADAPTATION AND RESILIENCE TYPOLOGY (DART) CAN HELP...

National Governments
Conceptualize and strategize the use of data for climate risk assessment, adaptation, and resilience

Local Governments
Support national authorities in collecting, using, and reporting prioritized data

Local NGOs
Understand important data for climate resilience + adaptation and identify its availability in their areas of operation

Local Communities
Understand data that may impact their residents

Development Partners
Inform project planning, identify priority areas, learn about country experiences through case studies, and share knowledge and strategies

Academics
Design research to address data gaps and limitations to support national and regional adaptation plans and policies

Part 2: Solving the Local Data Problem for Climate Action

- Government officials, community leaders, NGOs, business leaders, and scientists often don't have the accurate, usable local data they need for climate action.

- Many countries, provinces, and cities lack reliable data on healthcare, transportation, infrastructure, energy, agriculture, or other systems needed for adaptation and resilience planning.

- This panel will explore multidisciplinary approaches to solving this problem, including the use of official statistics and government data and other, newer sources.

Part 2. Solving the Local Data Problem for Climate Action

- Each panelist will be asked a question in turn followed by invited comments by fellow panelists.
- This segment of the program will run until approximately 2:00 followed by an open forum.
- Please use the Q&A option to post your questions for the panel.
- The session will adjourn at 2:30 pm ET.

Data for Global Climate Knowledge
Distinguished Panelists

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Ann Marie Chischilly

Vice President
Office of Native American Initiatives
Northern Arizona University

Johannes Friedrich

Director
Climate Data
World Resources Institute (WRI)

Jorge González-Cruz

Professor
Atmospheric & Environmental Sciences
University at Albany
State University of New York

Linet Kwamboka

Senior Program Manager
Data4Now

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Standing Panel on Technology Leadership

Q&A

Data for Global Climate Knowledge
Distinguished Panelists

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Ann Marie Chischilly

Vice President
Office of Native American Initiatives
Northern Arizona University

Johannes Friedrich

Director
Climate Data
World Resources Institute (WRI)

Jorge González-Cruz

Professor
Atmospheric & Environmental Sciences
University at Albany
State University of New York

Linet Kwamboka

Senior Program Manager
Data4Now

Data for Global Climate Knowledge
Distinguished Panelists

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Robert S. Chen, Ph.D,

Director
Center for International Earth Science Information Network
Columbia Climate School
Columbia University

Priya L. Donti, Ph.D.

Co-founder and Executive Director
Climate Change AI

Jed Sundwall

Executive Director
Radiant Earth

Cecile S. Rousseaux, Ph.D

Research Scientist NASA

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION®

Standing Panel on Technology Leadership

Thank you!