

The Citizen Between Science and Policy: Innovation in Governance and Climate Change Resilience

nature International weekly journal of science



Democracy is not an inconvenience

Climate scientists are tiring of governance that does not lead to action. But democracy must not be weakened in the fight against global warming, warns **Nico Stehr**.

Sept. 24, 2015



**Consortium for Science,
Policy & Outcomes**
at Arizona State University



Democracy is not an inconvenience



November 2014
Phoenix, AZ
Boston, MA

Democracy is not an inconvenience



Beatty, Nevada, USA



Östhammar, Sweden

ASIA



AFRICA



NORTH AMERICA



SOUTH AMERICA



EUROPE



World Wide Views on Climate and Energy

FROM THE WORLD'S CITIZENS TO THE CLIMATE AND ENERGY POLICYMAKERS AND STAKEHOLDERS

10 000 CITIZENS, 97 DEBATES IN 76 COUNTRIES



**Consortium for Science,
Policy & Outcomes**
at Arizona State University

The Citizen between Science and Policy

ECAST & WWViews



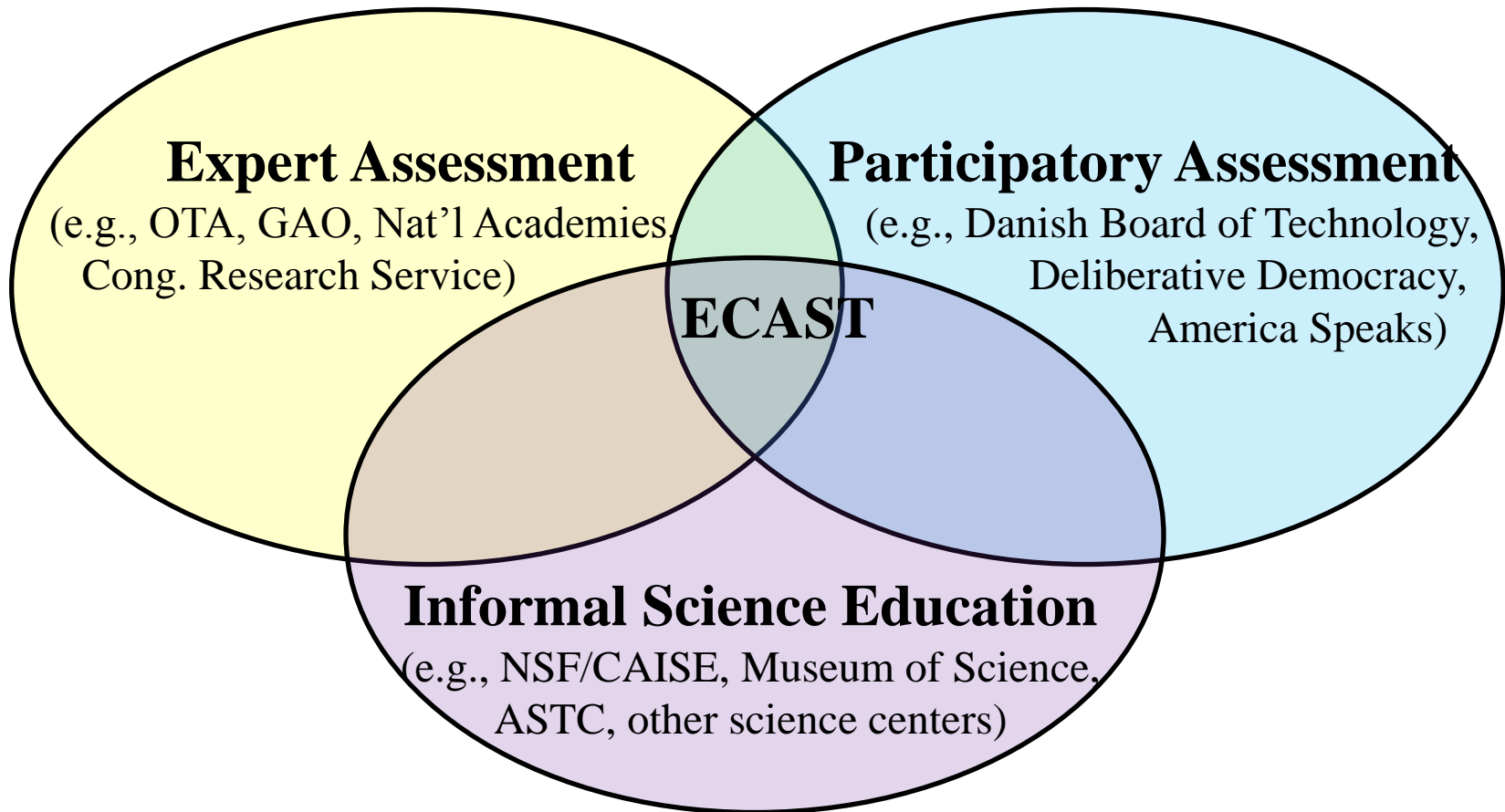
David Rabkin
Director for Current Science and Technology
Museum of Science, Boston



Mahmud Farooque
Associate Director, Consortium for Science, Policy & Outcomes, DC Office
Arizona State University, Washington

October 22, 2015

Three streams of work (at least)



In my museum and the ISE community...

Everyday citizens and policy-makers all face decisions related to science and technology

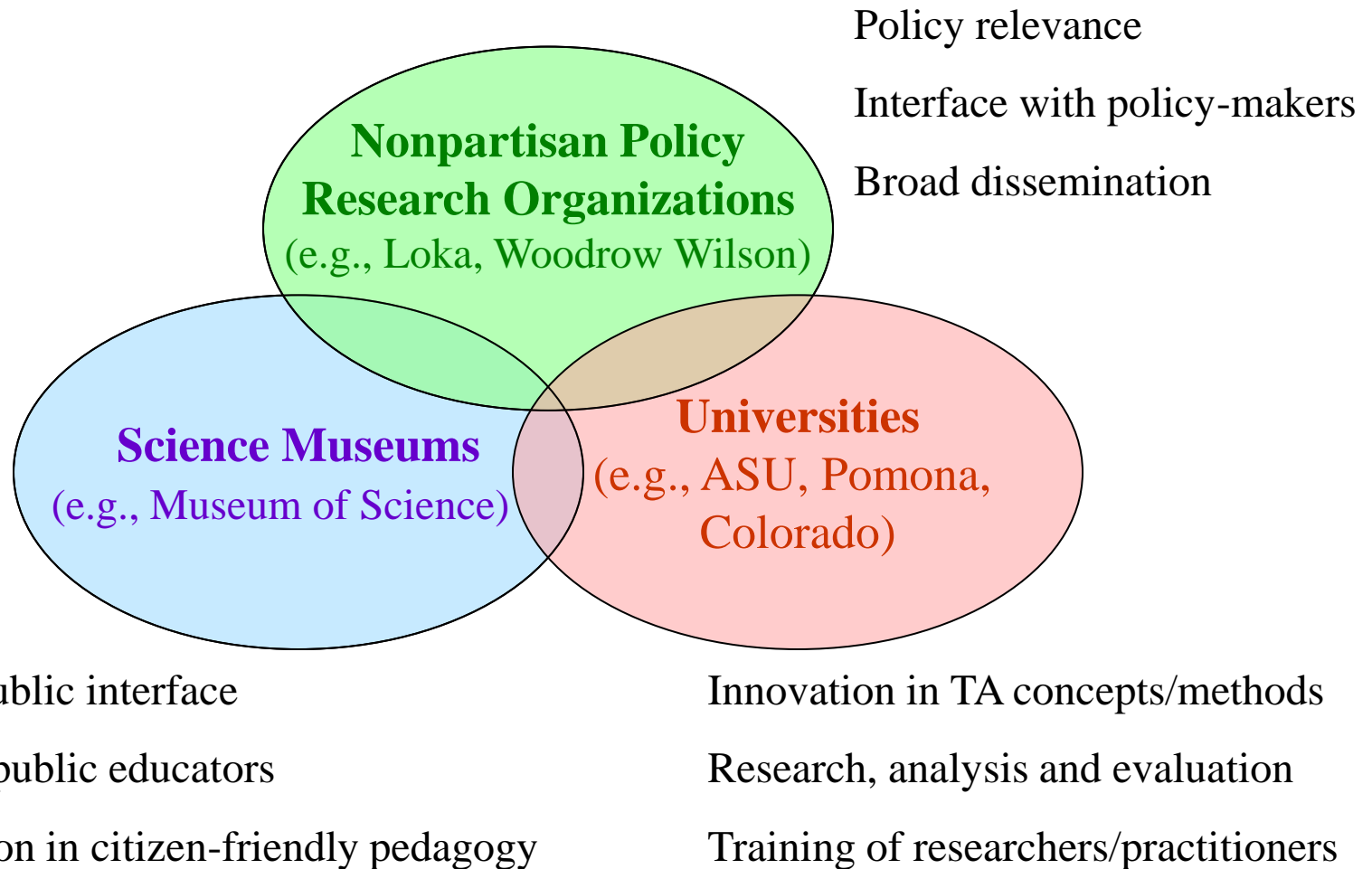
These **decisions are tough** because:

- They require **knowledge** of the science
- They involve **complexity and uncertainty**
- **Impacts cumulate** across populations and over time
- Different **stakeholders** can have very different values

The science is useful but it doesn't tell us what to do!

- How can scientists, policy-makers and the public all contribute and **inform each other**?
- How can we develop the public's **ability and inclination to think** critically about today's socio-scientific issues?

In the US, WWViews brought together...



What's needed is assessment that:

- Gives a **voice to lay people**, often omitted in the politics of science and technology
- Lets decision-makers know constituents' **informed views**
- Stimulates **broad societal discussion** and **civic engagement**
- Allows innovators to **anticipate public reaction** and to alter innovation to reduce controversy

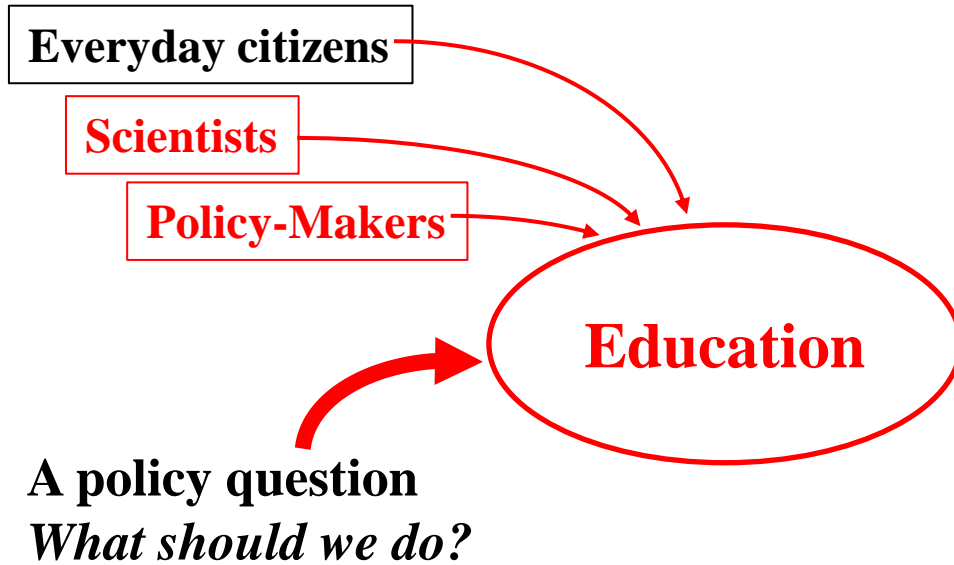
Our model...

Everyday citizens

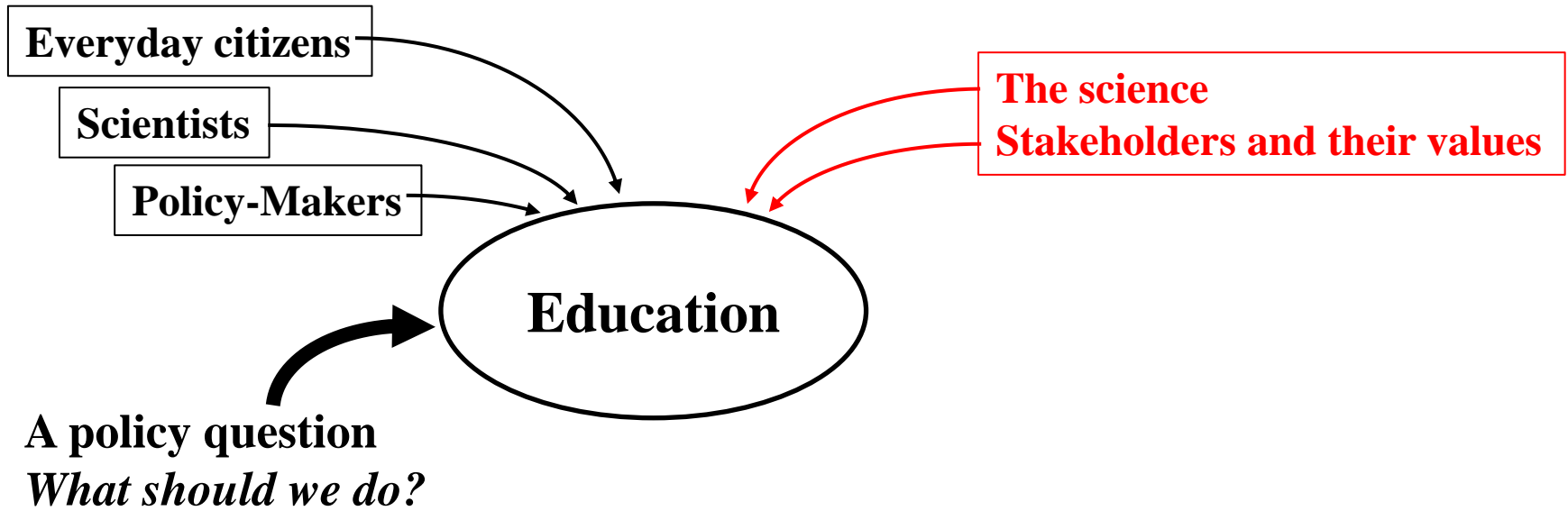
A policy question

What should we do?

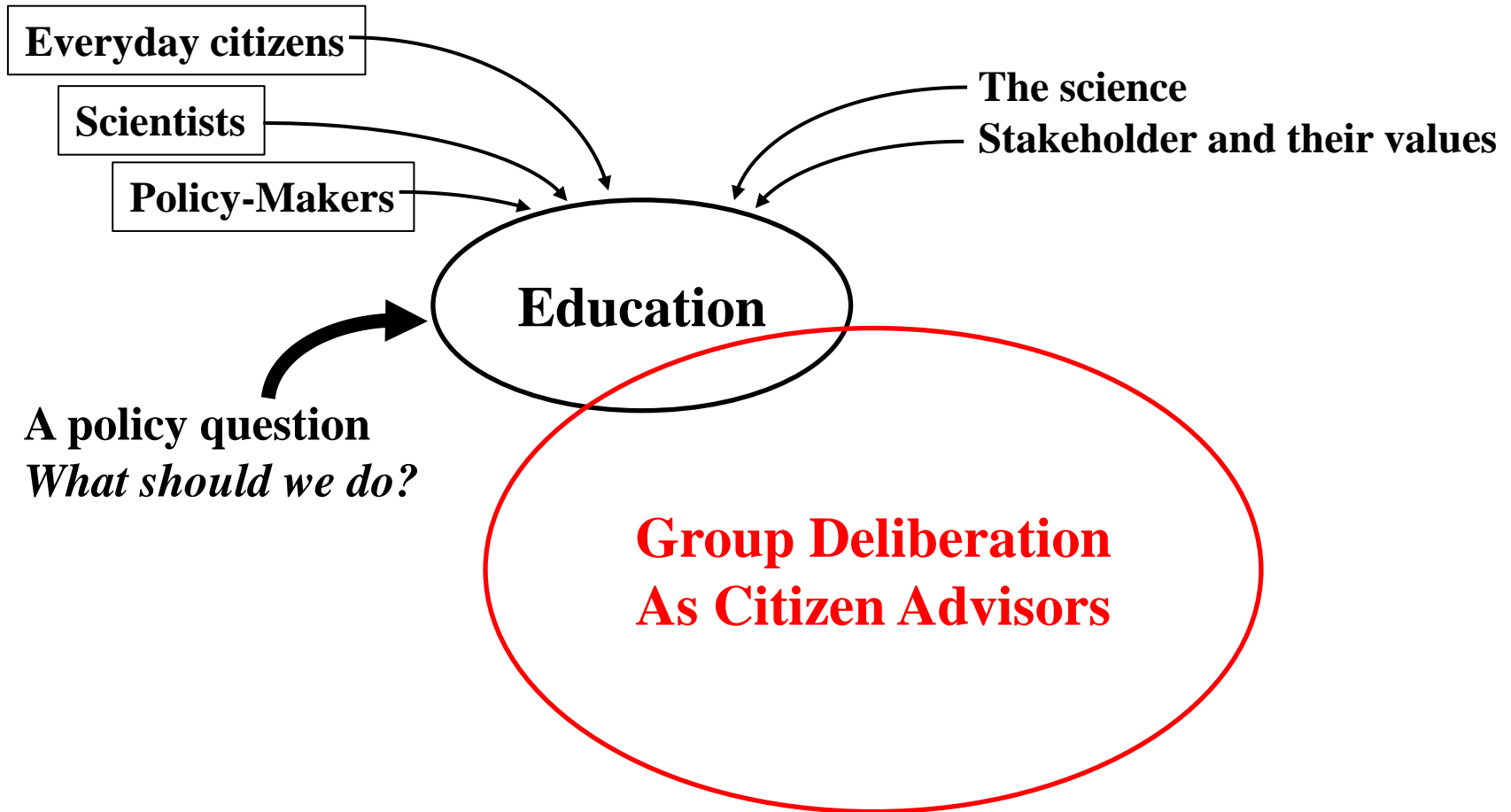
Our model: Education...



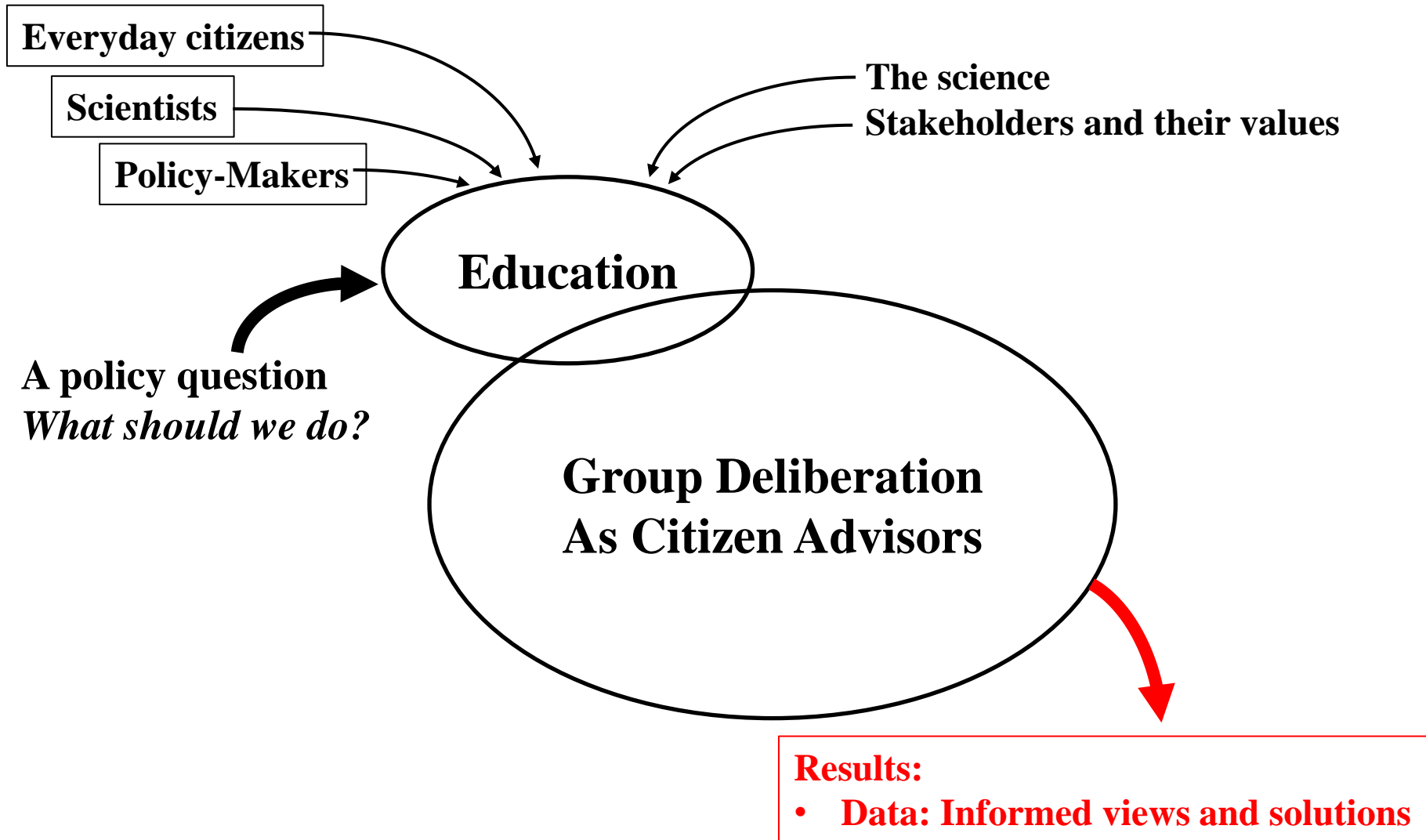
Our model: Education...



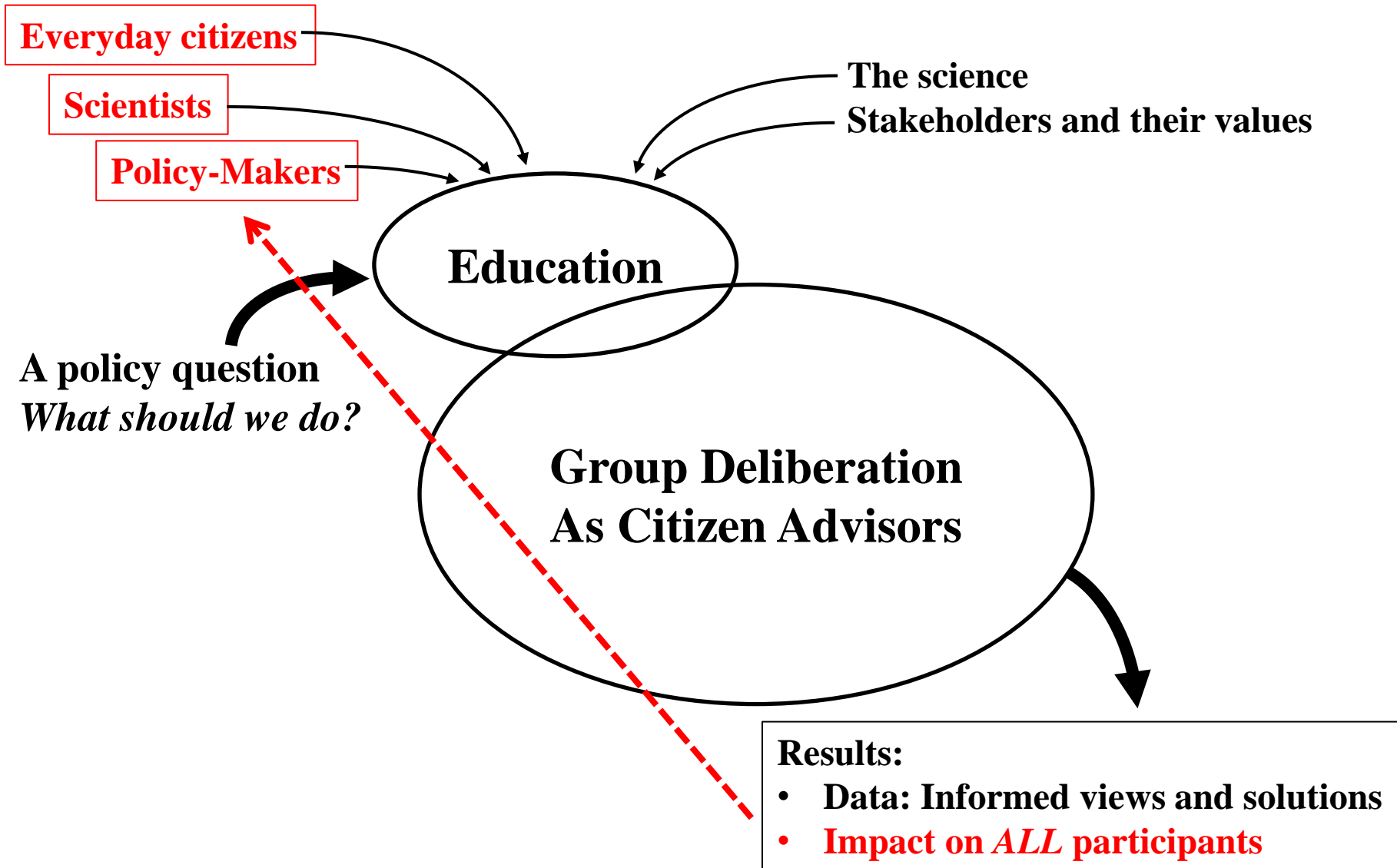
Our model: Education + Deliberation



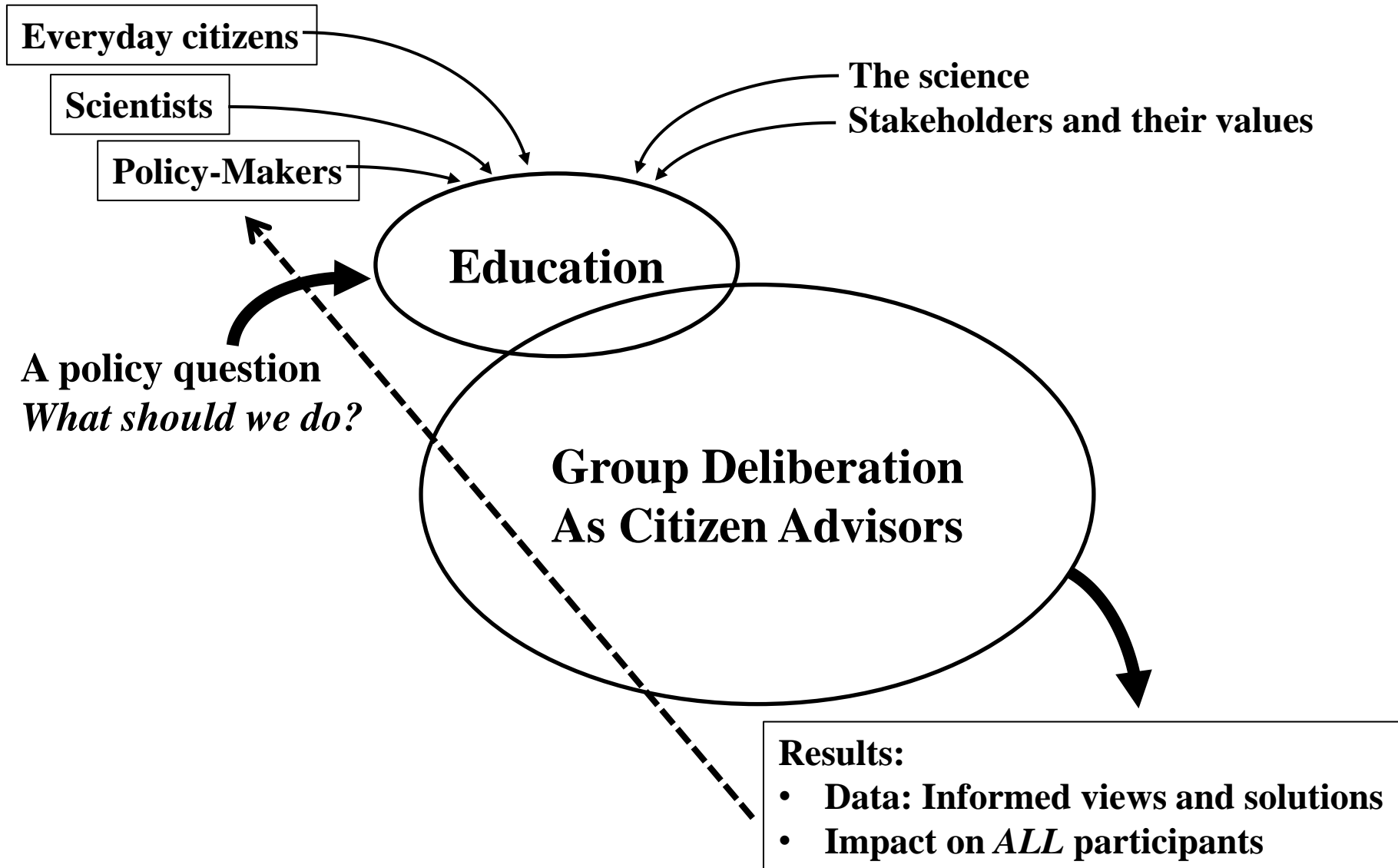
Deliberation as the core of our model



Deliberation as the core of our model



Deliberation as the core of our model



Highlights

- *NOT*
 - Polling or a focus group
 - A debate
 - An open meeting
- The Museum presents the *science...* and the *stakeholders*
- Deliberation is focused on policy questions and is facilitated
- Citizens act as advisory groups
- Museums are special places
 - Trusted, safe, inclusive
 - Impartial, committed to education
- The results are uniquely useful



An adaptive, scalable institutional network for education and expert/citizen assessment

Year	Topic	Scale	Project/Milestone	Funding	Institutions
2008	Nanotech	Nat'l	National Citizen Technology Forum on Human Enhancement	NSF	ASU, G. Tech, UNH, U. Wisconsin, UC Berkeley
2009	Climate Change	Global	World Wide Views on Global Warming USA	Internal, NSF (Research)	ASU, MOS, Georgia Tech, U. Colorado
2010	Particip. Technology Assessment	Nat'l	Report: A 21 st Century Model for Technology Assessment	Internal	ECAST partners
2011	(Multiple)	Local	Forum progs. to test methods. Having a client matters.	Internal	MOS, ASU, SciStarter...
2012	Biodiversity	Global	World Wide Views on Biodiversity USA	Internal NSF (Outreach)	ASU, MOS, U. Colorado, Koshland, VT, ...
2013	(Multiple)	Local	Forum progs. to test methods	Internal	MOS, ASU, ...
2014	Asteroid, Mars	Nat'l	pTA of NASA's Asteroid Initiative	NASA	ASU, MOS, SciStarter
2015	Climate Change and Energy	Global	World Wide Views on Climate and Energy USA	Internal	ASU, MOS, SMM, Colorado State, Macalester, ...
2015	Resilience, cap. building	Local	Science Center Public Forums	NOAA	ASU, MOS, ASC, NEU, ...



WORLD WIDE VIEWS ON Climate and Energy #WWViews



PERU



ITALY



BANGLADESH



MAURITANIA



AFGHANISTAN



BAHAMAS



KENYA



BRAZIL



MALI



FIJI



United Nations
Framework Convention on
Climate Change





WORLD WIDE VIEWS ON Climate and Energy #WWViews



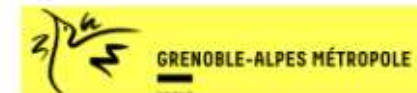
The World Wide Views supports



Provence-Alpes-Côte d'Azur



Rhône-Alpes



Groupe Socialiste du Sénat



Groupe écologiste du Sénat



10,000 citizens

97 debates

76 countries



United Nations
Framework Convention on
Climate Change





WORLD WIDE VIEWS ON

Climate and Energy #WWViews



76 countries
97 debates



World Wide Views co-initiators

- The United Nations Framework Convention on Climate Change (UNFCCC)
- The Danish Board of Technology Foundation
- The French National Commission For Public Debate
- Missions Publiques





WORLD WIDE VIEWS ON Climate and Energy #WWViews



PALESTINIAN TERRITORIES



NIGER



PAKISTAN



SOUTH KOREA



SANTA LUCIA



VIETNAM



CHINA



MOZAMBIQUE



PHILIPPINES



FRANCE



United Nations
Framework Convention on
Climate Change





WORLD WIDE VIEWS ON Climate and Energy #WWViews



GAMBIA



MAURITIUS



UNITED STATES



SENEGAL



JAPAN



NEPAL



INDIA



RUSSIA



IRAN



SPAIN

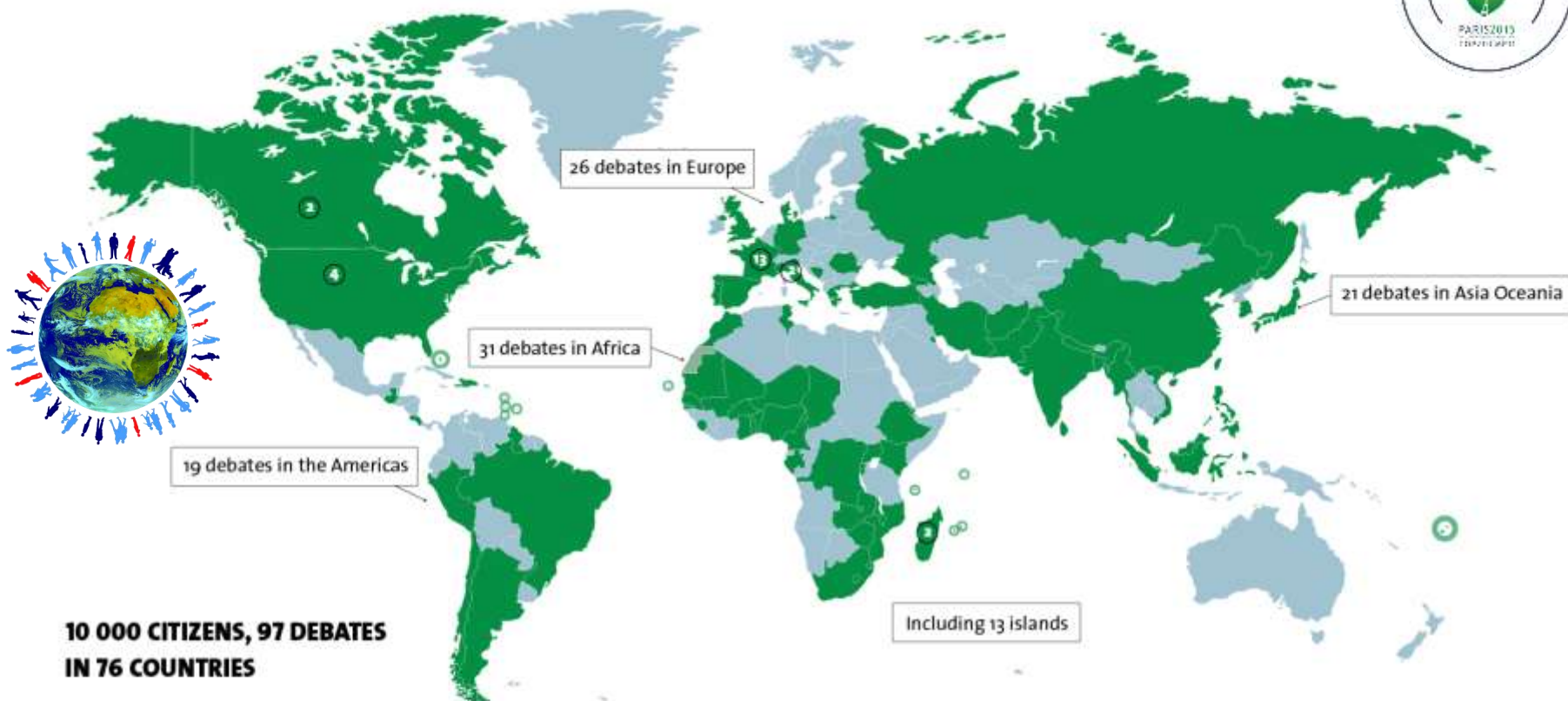


United Nations
Framework Convention on
Climate Change





WORLD WIDE VIEWS ON Climate and Energy #WWViews



**10 000 CITIZENS, 97 DEBATES
IN 76 COUNTRIES**

COUNTRIES PARTICIPATING IN WORLD WIDE
VIEWS ON CLIMATE AND ENERGY

- AFGHANISTAN
- ARGENTINA
- BAHAMAS
- BANGLADESH
- BARBADOS
- BENIN
- BOSNIA-HERZEGOVINA
- BRAZIL
- BURKINA FASO
- BURUNDI
- CAMEROON
- CANADA
- CAPE VERDE
- CHAD
- CHILE
- CHINA
- COMOROS
- COSTA RICA
- DENMARK
- DOMINICAN REPUBLIC
- DR CONGO
- ETHIOPIA
- FIJI
- FRANCE
- GABON
- CAMBODIA
- GEORGIA
- GERMANY
- GHANA
- GREECE
- GRENADA
- GUATEMALA
- GUYANA
- HAITI
- INDIA
- INDONESIA
- IRAN
- ITALY
- JAPAN
- KENYA
- KUWAIT
- MADAGASCAR
- MALAYSIA
- MALI
- MAURITANIA
- MAURITIUS
- MOROCCO
- MOZAMBIQUE
- MYANMAR
- NEPAL
- NIGER
- NIGERIA
- PAKISTAN
- PALESTINIAN TERRITORIES
- PERU
- PHILIPPINES
- PORTUGAL
- ROMANIA
- RUSSIA
- RWANDA
- SAINT LUCIA
- SENEGAL
- SEYCHELLES
- SOUTH AFRICA
- SOUTH KOREA
- SPAIN
- SRI LANKA
- TOGO
- TUNISIA
- TURKEY
- UGANDA
- UK - SCOTLAND
- USA
- VIETNAM
- ZAMBIA
- ZIMBABWE



WORLD WIDE VIEWS ON Climate and Energy #WWViews

WORLD WIDE VIEWS ON
Climate and Energy

THE PROJECT METHOD PRESS ▾

RESULTS

Should you wish to download a copy of the questions posed to the citizens, they can be downloaded here.

The composition of each group you can select when viewing the results, is described in more detail here.

Please be aware that the WWViews results listed are still preliminary, since we are still waiting for some of the results to be submitted.

WWViews meeting in: Compare with:

Or by group: Or by group:

Select Language:

- Centre-Val de Loire
- Franche-Comte
- Grenoble Métropole
- Guadeloupe
- Ile-de-France
- Martinique
- Nord-Pas de Calais
- Normandie
- Poitou-Charentes
- Provence-Alpes-Côte d'Azur
- Réunion
- Rhone-Alpes
- Gabon
- Gambia
- Georgia
- Germany**
- Ghana
- Greece
- Grenada
- Guatemala
- Grenoble Métropole

RESULTS REPORT

10 000 CITIZENS, 97 DEBATES IN 76 COUNTRIES

World Wide Views on Climate and Energy
FROM THE WORLD'S CITIZENS TO THE CLIMATE AND ENERGY POLICYMAKERS AND STAKEHOLDERS

10 000 CITIZENS, 97 DEBATES IN 76 COUNTRIES



Why are the World Wide Views results trustworthy and unique?

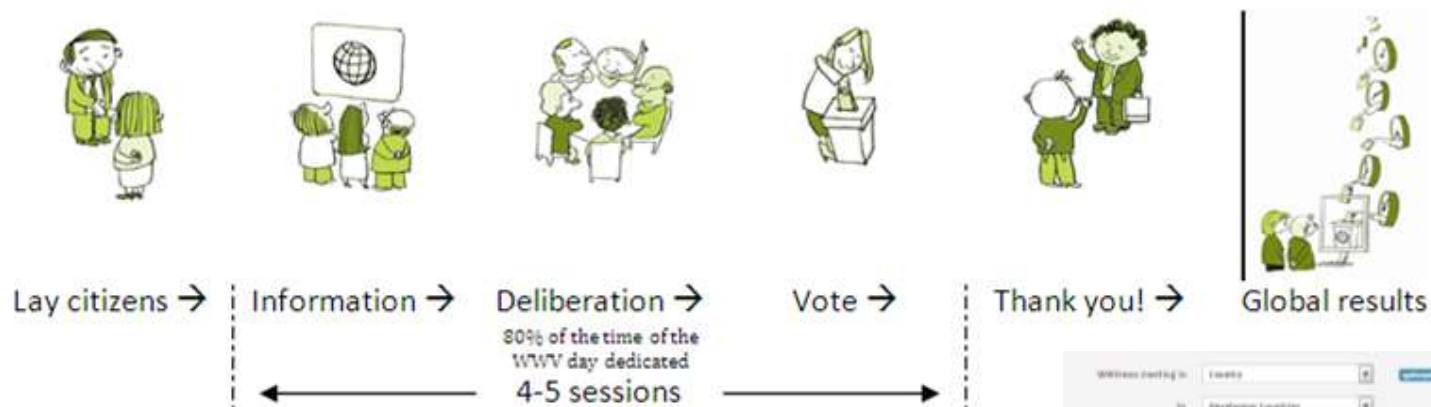
- Information
- Deliberation
- Demographic diversity
- Independence of specific interests on climate change





WORLD WIDE VIEWS ON Climate and Energy #WWViews

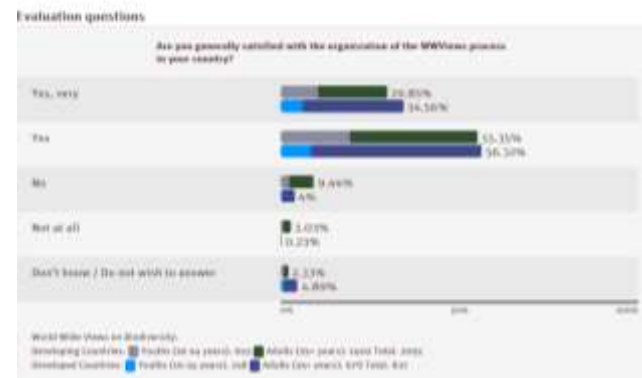
Same procedure in all participating countries



Five thematic sessions :

- Importance of tackling climate change
- Tools to tackle climate change
- UN negotiations and national commitments
- Fairness and distribution of efforts
- Making and keeping climate promises

WWViews running in: Citizens with:
in: in:
Total: Total language:



Dissemination Plan

- June 6 – Bonn negotiations
 - Live screening of results and consultations
- June 7-11 – Bonn negotiations
 - Presentations to country groups
 - Press conference
- June – last half
 - Analysis of results
- July-December
 - Press releases
 - Presentations of select results
 - Presentations at key events
- September
 - Policy Report
 - UN GA, New York
 - Side event and country group presentations at Bonn negotiations
 - High Level Event in Paris
- November
 - Country group presentations at Bonn negotiations
- COP21, December
 - High Level Event
 - Screening of documentary
 - Mini policy dialogues
 - Side event





WORLD WIDE VIEWS ON Climate and Energy #WWViews

RESULTS REPORT

EUROPE AFRICA NORTH AMERICA SOUTH AMERICA EUROPE

World Wide Views on Climate and Energy
FROM THE WORLD'S CITIZENS TO THE CLIMATE AND ENERGY POLICYMAKERS AND STAKEHOLDERS

10 000 CITIZENS, 97 DEBATES IN 76 COUNTRIES



A STRONG CALL FOR ACTION

1. Citizens worldwide want their leaders to commit to ambitious climate action
2. Citizens want zero emissions by the end of the century
3. The COP21 Paris Agreement needs to open a credible path to limit global warming to no more than 2 degrees
4. Climate change is an opportunity to improve life quality
5. Introduce carbon taxes and invest in renewable energy



COMMON BUT DIFFERENTIATED RESPONSIBILITIES AND RESPECTIVE CAPABILITIES

6. The 'North-South' gap is closing
7. Countries should assume responsibilities based on their respective capabilities and emission levels
8. All countries must take action to reduce their greenhouse gas emissions



FINANCING CLIMATE ACTION

9. The private sector should contribute significantly to climate finance
10. High-income countries should scale up their climate finance commitments

CITIZEN PARTICIPATION

11. Citizens want to take an active part in reducing greenhouse gas emissions
12. Citizens expect to take part in deciding on climate policies





Massachusetts – Boston

- Museum of Science
- Northeastern University
- University of Massachusetts, Amherst

Minnesota – St. Paul

- Jefferson Center
- Macalester College
- Science Museum of Minnesota

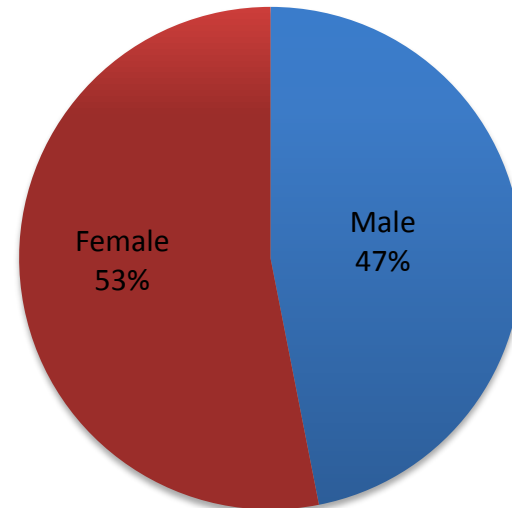
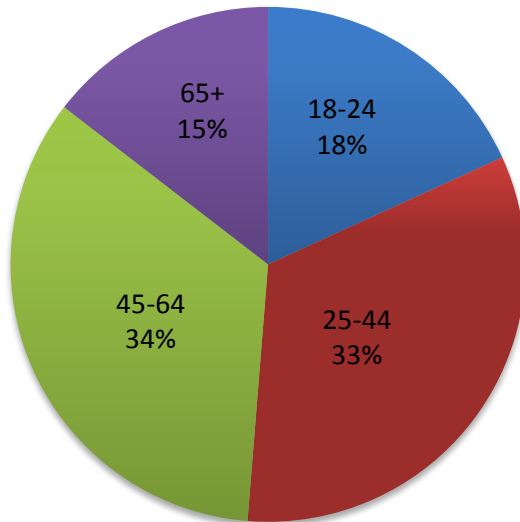
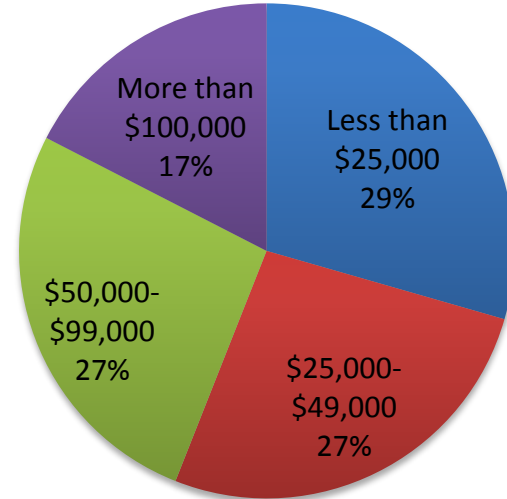
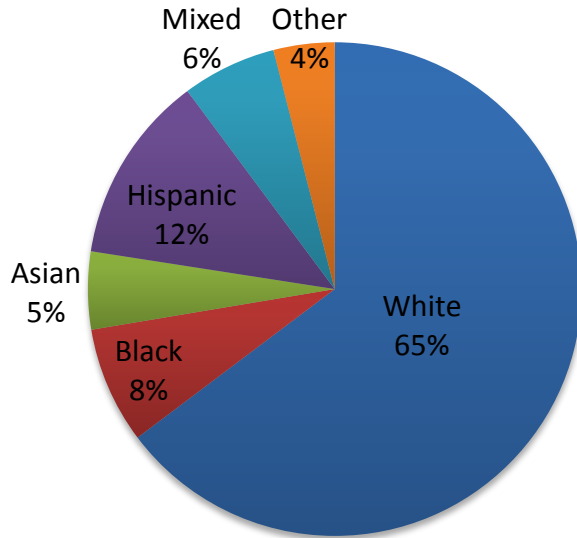
Colorado – Ft. Collins

- Colorado State University

Arizona – Phoenix

- Arizona State University





US Results Summary

U.S. participants share similar levels of heightened concerns about the impact of climate change as global participants and also view measures to fight climate change as an opportunity to improve their quality of life. They see international climate agreement as the most responsible avenue for tackling climate change but believe more strongly about the effectiveness of the solutions implemented at national, subnational, and local levels compared to participants in developed, developing, and least developed countries. The U.S. participants' response of 'Climate change is not a national priority, but it should be' is considerably higher. Americans were also more likely in thinking that their country 'should take measures to reduce greenhouse gas emissions, even if other countries do not'.



Recommendations

If the World Wide Views on Climate and Energy results are a reasonable indicator of what ordinary citizens think when they have an opportunity to study and discuss the issues, U.S. policymakers from local through national levels should take much more aggressive action to mitigate and adapt to climate change and seed similar processes of citizen consultations more broadly to inform climate change action at the local and regional levels.

- Opportunity
- Global Leadership
- Local Action
- Citizen Participation

