

How to Advance Community Priorities with Scientists

Natasha Udu-gama
EPA CUPP Conference
30 March 2016

The AGU logo consists of a stylized circular icon to the left of the letters 'AGU'. The icon is a square with rounded corners containing a circular shape with a central dot, resembling a globe or a data point. The letters 'AGU' are in a bold, sans-serif font.

AGU

THRIVING EARTH
EXCHANGESM

Powered by AGU

Integrating Environmentally-Friendly Design into a Municipal Complex Design

Midway, GA



Rain Water Cisterns

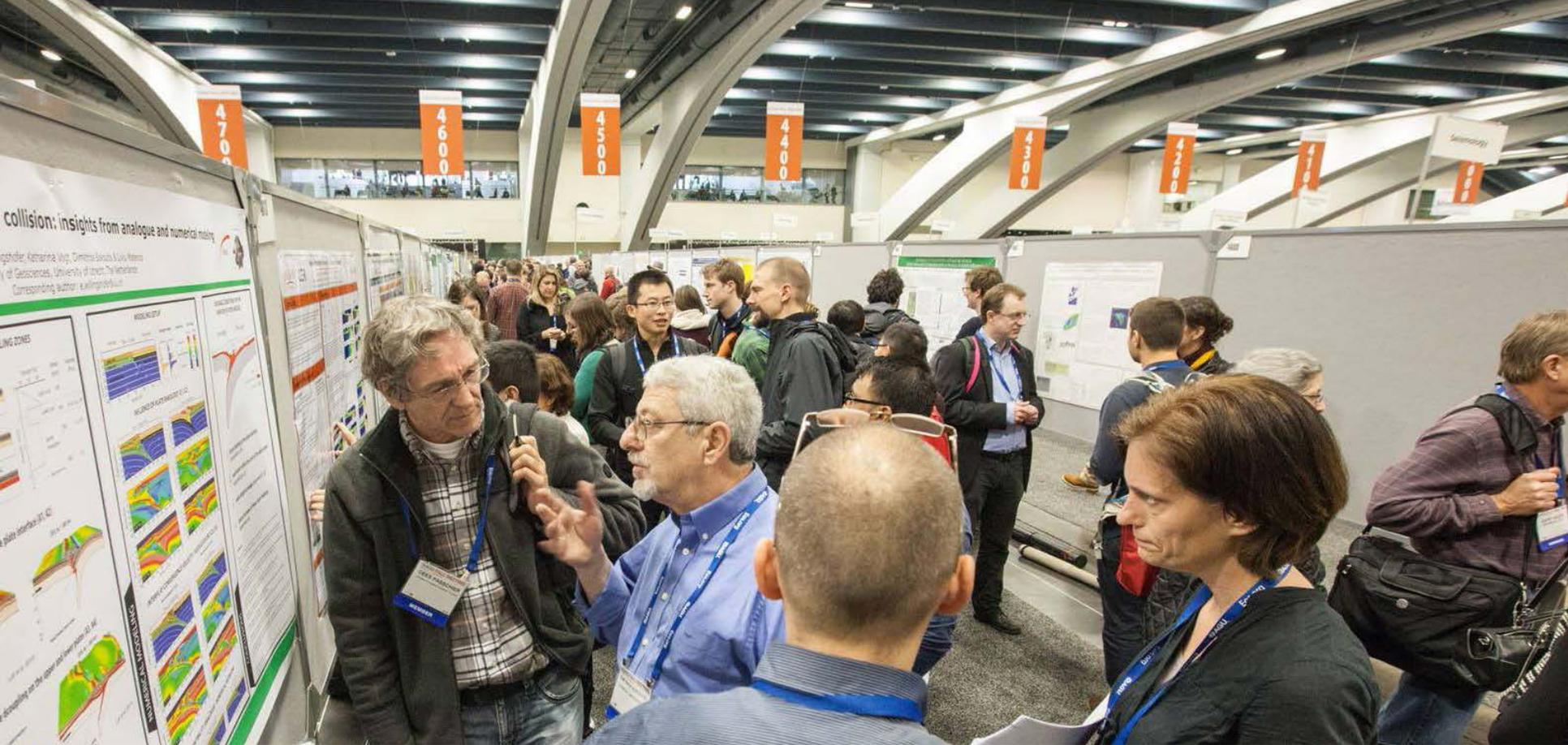
Lowers operating costs
and protects
investment from
flooding



Green Roof



Rain Garden



Promoting discovery in the the
Earth and Space Sciences





for the benefit of humanity





Last Mile

THRIVING EARTH
EXCHANGE[®]

Powered by AGU

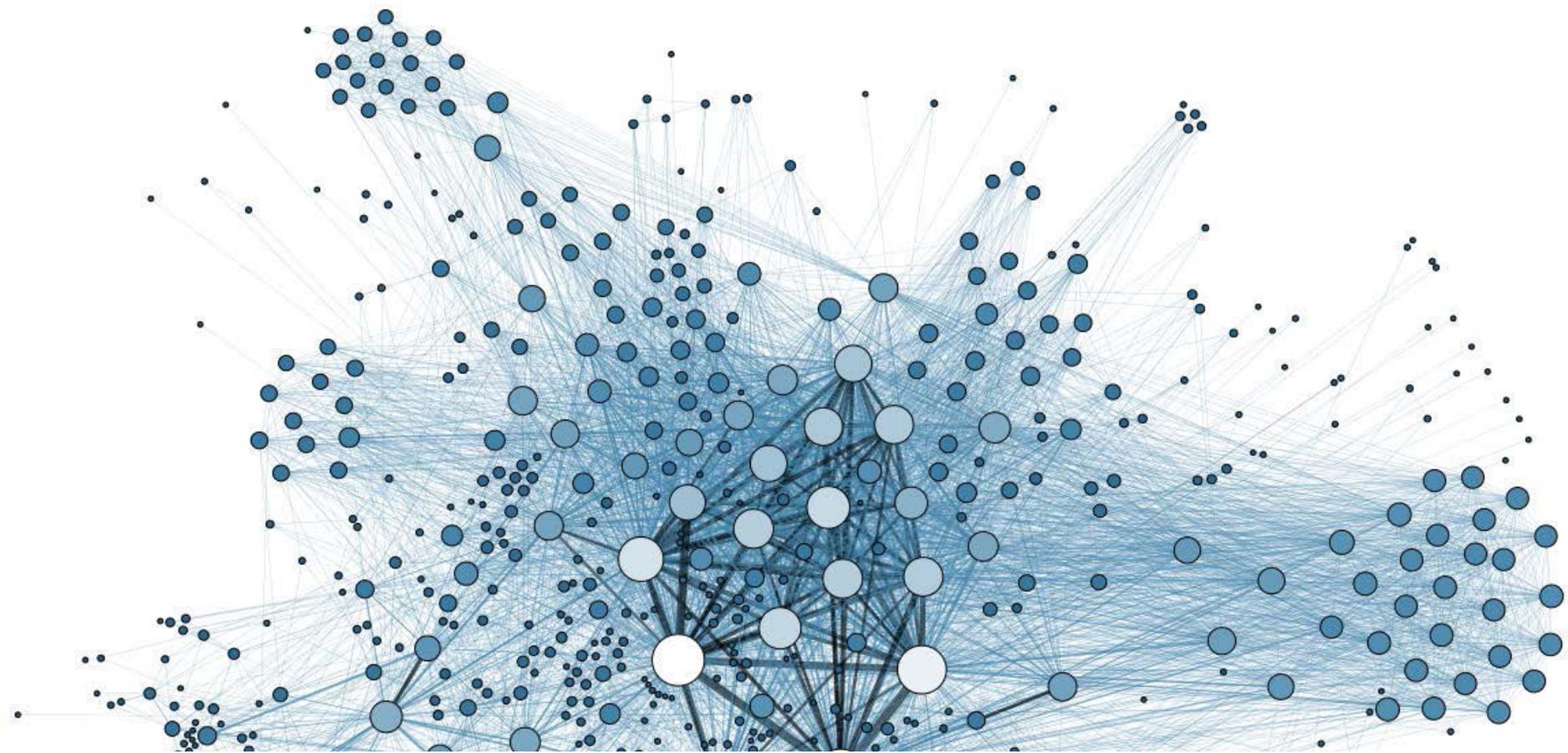




Community driven

THRIVING EARTH
EXCHANGE[®]
Powered by AGU.

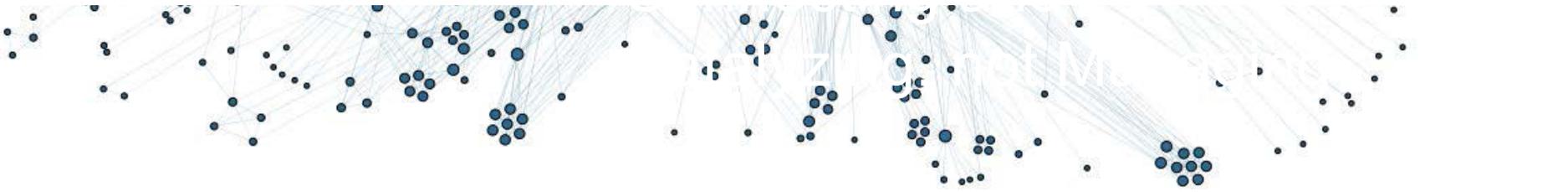




Exchange

**THRIVING EARTH
EXCHANGE**[®]

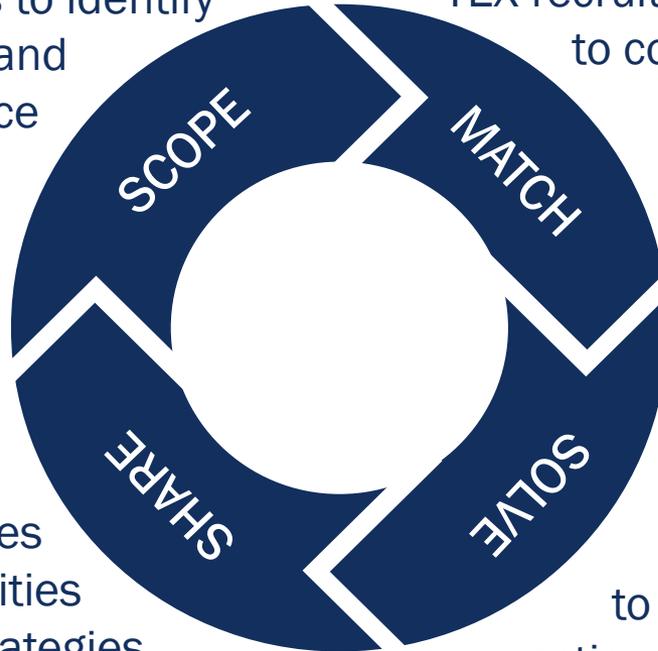
Powered by AGU



Four Modules to Impact

TEX works with partners to identify projects that use Earth and space science to advance community priorities

TEX recruits a pro-bono scientist to co-lead the project with community leaders



TEX shares successes and helps communities adapt effective strategies

TEX helps projects to advance to impact, through coaching and connections to relevant tools & resources





Denver-area community group Taking Neighborhood Health to Heart sought researchers to investigate air-quality problems. The Thriving Earth Exchange and the University of Colorado, Boulder agreed to help, and a partnership was born.

Crowdfunded

35 backers raised a total of

\$4,250
for the project

Community



Project leaders held a community meeting on the dangers of radon and PERC. They handed out donated radon tests and recruited volunteers for a new, low-cost PERC test using dosimeter tubes.

Pilot Test

15 homes received, for free:

- ★ A conventional radon test (cost \$25).
- ★ A conventional, passive diffusion tube PERC test (cost \$100)
- ★ Two dosimeter tube PERC tests (cost \$16)



Dosimeter tubes have previously only been used to test short term, occupational exposure. This study is the first to try dosimeter tubes in a

Chemical Remediation in Local Neighborhoods Denver, CO



Integrating Met Data for Improved Water Management

Barren River, KY

Kentucky Mesonet

The screenshot shows a web browser window with the URL l.kymesonet.org/bradd/. The browser's address bar and tabs are visible at the top. The website header includes the Kentucky Mesonet logo and the tagline "The Commonwealth's Official Source for Weather and Climate Data". A navigation menu contains links for Home, About, Live Data, Summary Data, Event Tracking, and Outreach. The main content area is titled "Barren River Area Water Management Tools" and contains a paragraph of introductory text. Below the text is a map of the Barren River Area with a blue control panel on the left. The control panel includes a "Precip. Mapped" dropdown menu, a scale control with "+", "0", and "-" buttons, and several other dropdown menus for "Selection" (Adair County), "Last X Days" (Last 30 days), "Observed/Expected" (Observed), and "Observed/Expected". The map displays a green and yellow terrain with a network of blue lines representing water features. Numerous numerical values are overlaid on the map, such as 5.74, 4.61, 5.02, 3.36, 2.81, 2.88, 2.95, 2.63, 3.15, 4.49, 4.31, 2.92, 3.48, and 2.81.

ICMA



Resilience Dialogues

SCOPE

MATCH

SHARE

SOLVE



Creative Science Writing



AGU.ORG

Impact so far

Project	Immediate Impact	Sharing Potential
Midway	Students learn how to integrate environmentally-friendly design into current design; Midway receives a comprehensive municipal building design plan.	Other similar communities may be able to use and replicate municipal design plan.
BRADD	Water managers in 10 counties have a new tool and better data to manage water	159,000 farmers impacted by water policies; opportunity to share tool via AWS
TNH2H	20-200 Denver residents who remediate their homes	20,000 neighborhood residents who benefit from neighborhood wide remediation; Other communities can use proven kits

TEX Impact Goal

TEX brings together Earth and space scientists and community leaders and helps them combine science and local knowledge to solve on-the-ground challenges related to natural hazards, natural resources, and climate change. *By 2019, we will launch 100 partnerships, catalyze 100 shareable solutions, and impact the lives of 10 million people.*



Thank you!

thrivingearthexchange.org/call-for-city-challenges/
to submit a community challenge

or

Raj Pandya

rpandya@agu.org or

Natasha Udu-gama

nudu-gama@agu.org

Follow us on Twitter @ThrivingEarth