The Thriving Earth Exchange: Using Earth and Space Science to make a Difference

ESIP Rant and Rave
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Call For Solutions

• For Earth and Space science data that advances community priorities
• Projects done with community partners
• Winners receive $15,000 in Amazon Web Service Credits to move their solution to the cloud
• Winners featured at an “unhackathon” to share codesign strategies
• **Deadline:** 16 October (+2 weeks)
• www.thrivingearthexchange.org/sharing-solutions
We promote discovery in the Earth and Space Sciences
for the benefit of humanity
Solutions for the planet, one community at a time

Community Driven Science
Last Mile
Connecting and Catalyzing, not Managing Exchange
**Exchange**, connecting scientists, community leaders and sponsors providing resources that help them build and share local solutions.
## Learning from Pilots

<table>
<thead>
<tr>
<th>What we learned</th>
<th>How we responded</th>
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<tr>
<td>Connecting with community groups is time intensive; not all are ready for TEX</td>
<td>Work with partners who can introduce us to TEX-ready groups</td>
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<td>Many, but not all, AGU scientists have the right skills for community work, even if they haven’t done it</td>
<td>Identify scientists with strong collaborative skills and provide modest coaching</td>
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<td>Community groups want partners first, solutions second</td>
<td>Focus on matching, then help teams leverage tools, solutions, and resources</td>
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<td>Community priorities and academic rewards can be misaligned</td>
<td>Make TEX work pro-bono; define scientist role carefully</td>
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2014-2016: Scaling Up

- Develop partners that expand TEX’s reach and offerings
- **Start with Match:** Help community groups and scientists connect and complete impactful projects
- Use high-touch interaction with people to design infrastructure people can use more independently
Partners to help us *Match*

**Washington DC:** heat-resistant development

**Granite City IL:** engaging community members in air quality monitoring

**Horn of Africa Regional Environmental Center** looking for remote sensing expertise to guide water and land use management
Partners to help TEX projects scope and solve

Climate Colab hosted our Pamir Mountain Challenge, generating 16 proposals for using climate data to adapt local calendars.
Denver neighborhoods and University of Colorado researchers are crowdsourcing to raise money to test new low-cost methods to test for leaked dry cleaning chemicals.
Amazon Web Services: Cloud Services to share TEX solutions

CALL FOR PROJECTS
Deadline: 16 October
Using Earth and space science and cloud computing to advance community solutions
Sample Projects

Tools to enable citizens to collect air quality data and identify pollution hot spots.

Using climate model data to help city planners mitigate future heat vulnerability.

Water decision tools that use local mesonets
Competitive Solutions:

- Development team includes city or community member(s)
- Address a local need
- Use Earth and space science data or models
- Make a measurable Impact.
- Are relevant to other communities
- Development team has the capacity to work in the cloud
- *One winner for best student-led team*
The Judges

J.R. Killigrew
ICLEI USA

Kathleen Bogan
National Integrated Drought Information System

James Pizzuto
University of Delaware

Brad Dispensa
Amazon Web Services

Vijay Raghavan
Cisco

Mahmud Farooque
University of Arizona

Yang Hong
University of Oklahoma and Tsinghua University
Questions?

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