

A-EEE (Assessment after Engagement, Education & Experiential-learning)

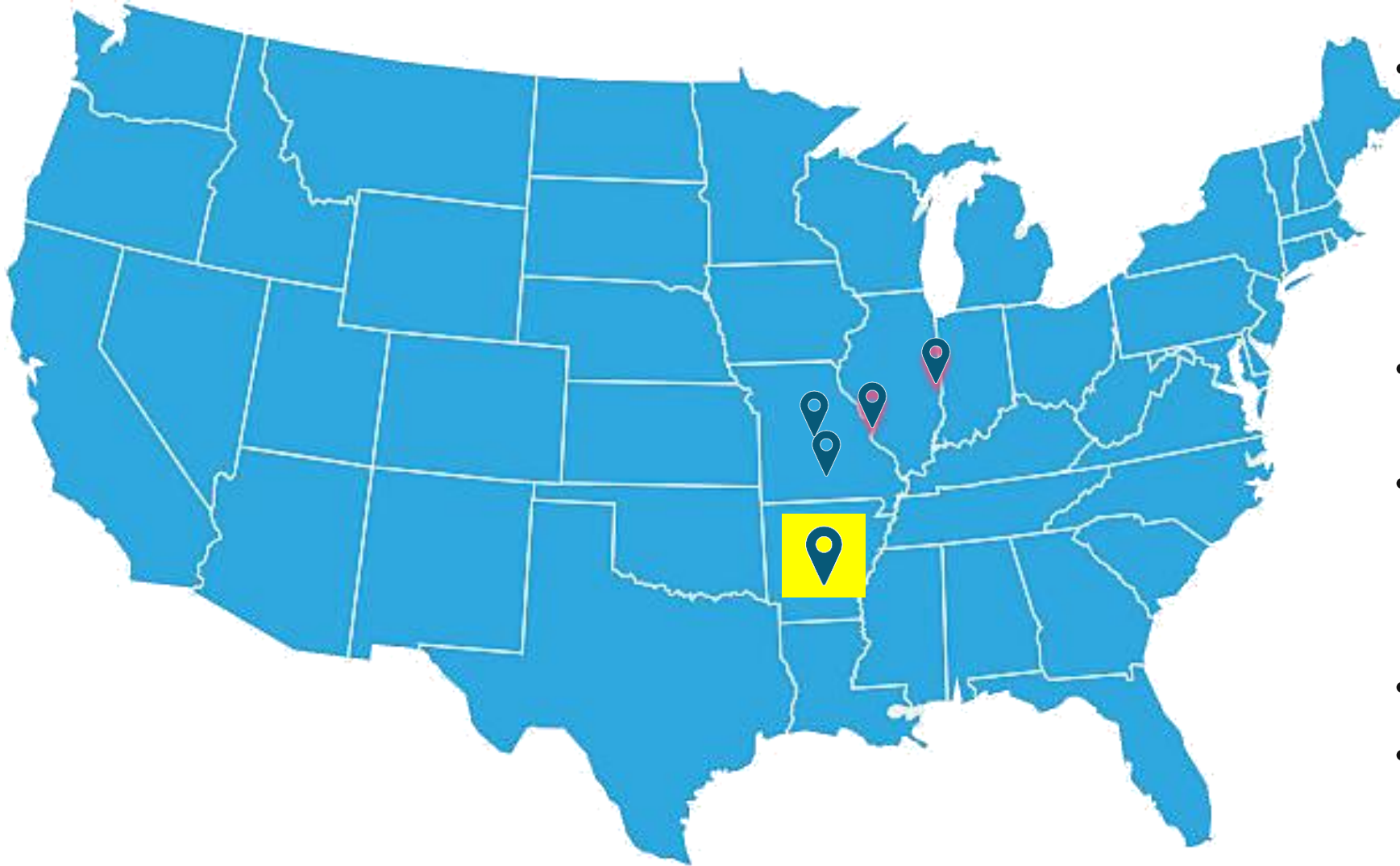


DOE's Consent-based Siting for
Interim Storage Program:
DE-FOA-0002575



**U.S. DEPARTMENT
OF ENERGY**
NUCLEAR
AWARDEE™

Geographical Area of Engagement



- Midwest consortium with 4 universities (Missouri S&T, Saint Louis University, University of Missouri and University of Illinois-UC) across two neighboring states
- Building collaboration with Arkansas
- Two Surrogate Sites
 - UIUC Microreactor
 - St. Louis Legacy
- One School District (Rolla)
- Two Consultants

Consortium Overview

Background:

- Learn about public perception for consent-based siting using two surrogate sites (Saint Louis & UIUC)
- Engage with the Micro-reactor & Legacy sites communities to collect perception data before and after Education & Experiential-learning

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- Consultants - Nicholas Tsoulfanidis & Md. Shafiqul Islam
- Rolla School District - Mandy Welch



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John Warmack

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A-EEE engagement process

- Student as ambassadors; local connections, regional enrollment, scientific background a plus.



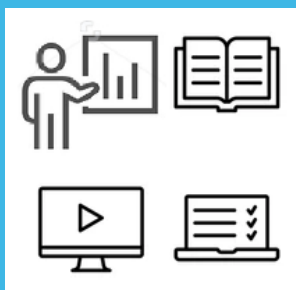
- Sociopolitical dynamics analysis

- Survey protocol development
- Mode & instrument (questions)
- Participant screening



- Community engagement
- Listening sessions &
- Initial opinion survey on nuclear waste

- Preparation of audience specific education material
- Beta testing & review



A-EEE engagement process

- Post education opinion survey
- Evaluate impact of education
- Data analysis & modification

- Post experiential learning opinion survey
- Reinforce nature of environmental radioactivity

- Environmental justice-based data review
- Machine learning & AI



- Experiential-learning for group of teachers, students and community members
- Trust building & knowledge transfer

- Data analysis & bias identification
- Bias rectification & conclusion

Project Plan for A-EEE

Year 1

Year 2

Student recruiting

Sociopolitical dynamics analysis

Survey protocol development

Survey instrument development

Listening sessions & initial survey (A&B)

Education material development

Community engagement with education material Site A&B

Community opinion survey after education Site A&B

Yearly progress report & educational material sharing

Gaining community trust through experiential learning

Post experiential learning survey

Data analysis & bias identification

Environmental Justice Screening & big data analytics

Machine learning/AI & final report

M1

M2

M3

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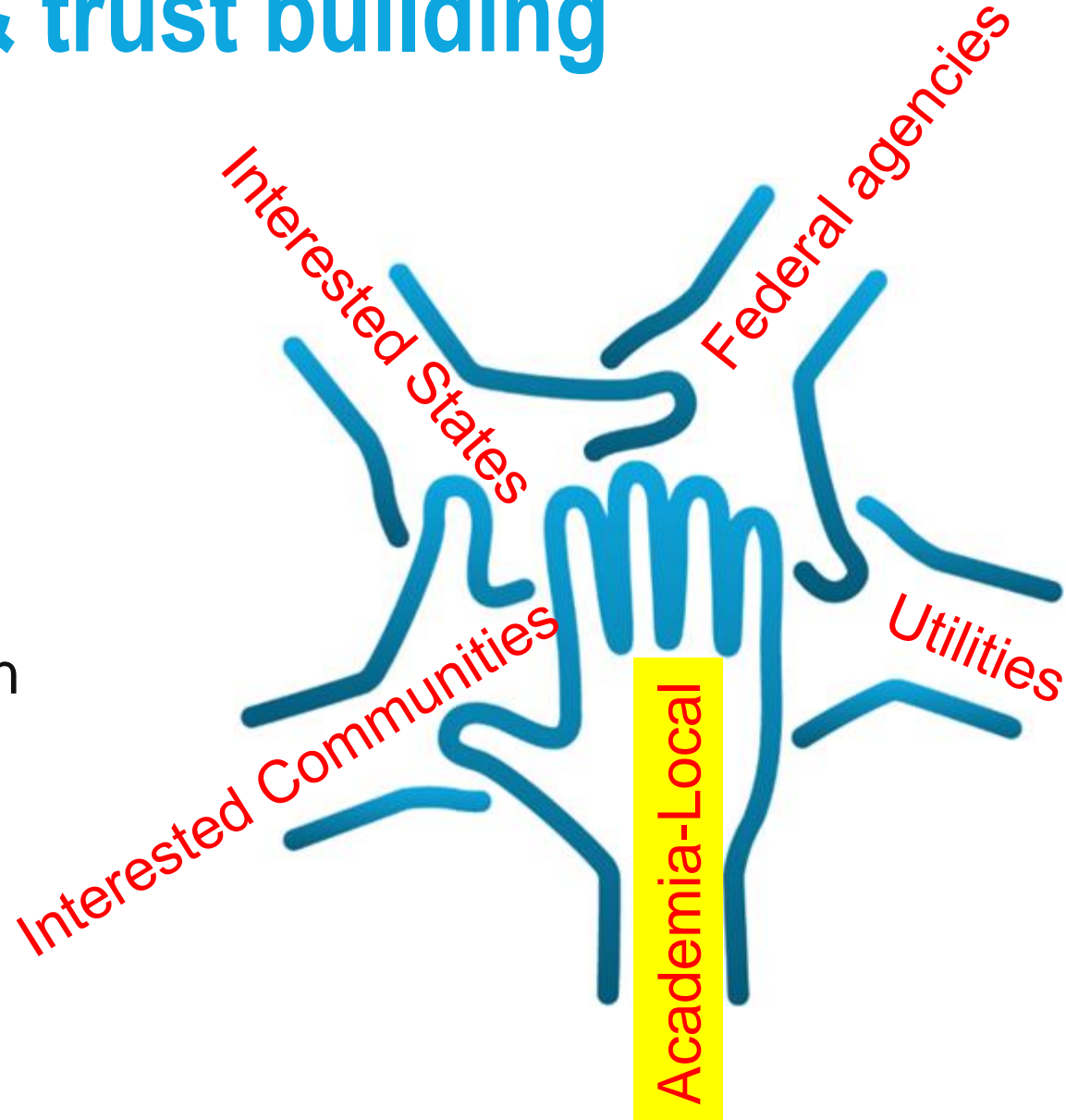
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M24

Stakeholders' handshake & trust building

- Mutual trust is key for any consent-based siting initiative
- Trust deficit was obvious to us during proposal writing
- Community education and experiential-learning will be key to successful engagement.
- Academia can play a very important role in trust building
- Need for as an honest broker for mutual knowledge exchange



Outcomes Expected

Surrogate Sites

- Participation of two surrogate sites; first one with legacy waste and the second one willing to host micro- reactor.
 - Mutual learning, concerns, reservations, training & education needs for self-assessment.
 - Experience with trust-building
- Public dialogue and engagement through experiential-learning
- Student training & capacity building
- Environmental Justice Screening

Inter-consortia

- Preparing and sharing of educational material for host communities for developing site-specific self-assessment criteria.
 - Concept of Risk
 - Nuclear Fuel Cycle
 - Radiological Pathway Analysis
 - Health Physics
- Lesson-learned from community engagement.
- Tools for “Environmental Justice” comparison from various hazards

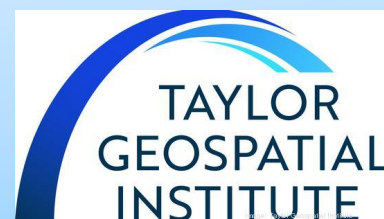
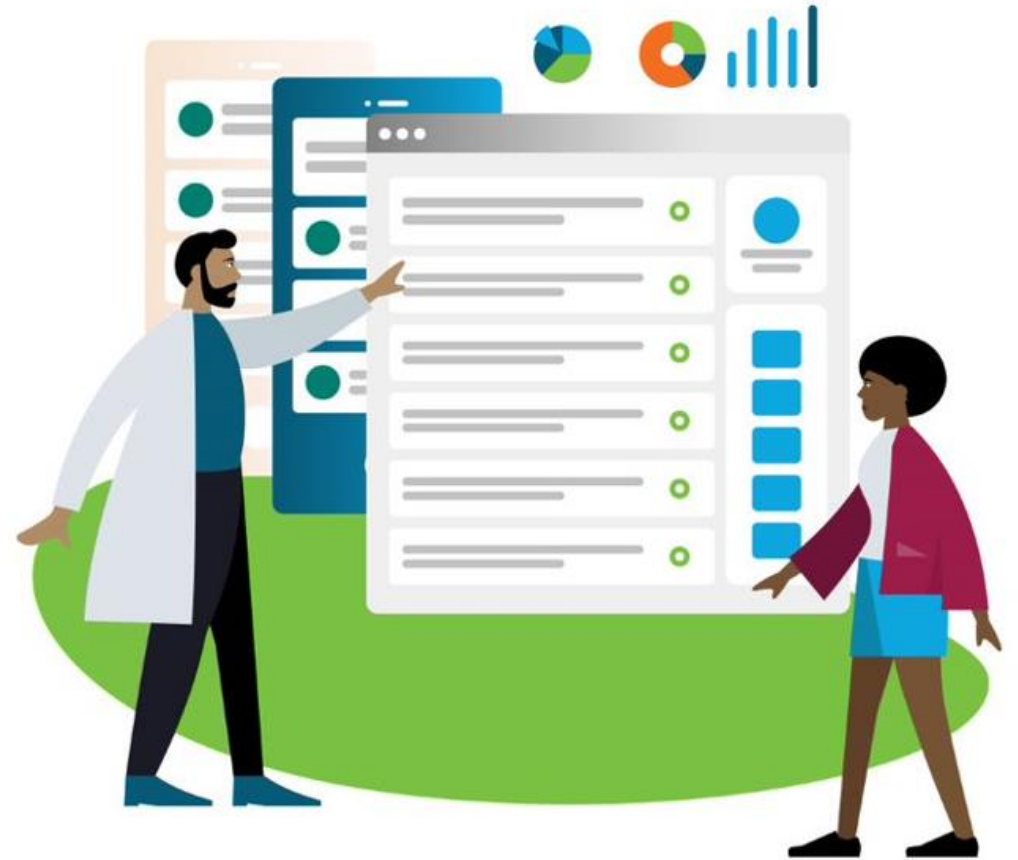
Thank You!

For questions or comments related to this consortium, please contact:

Name: Shoaib Usman

Email: usmans@mst.edu

Phone: (573) 341-4745 (off) & (513) 886-3049 (cell)



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