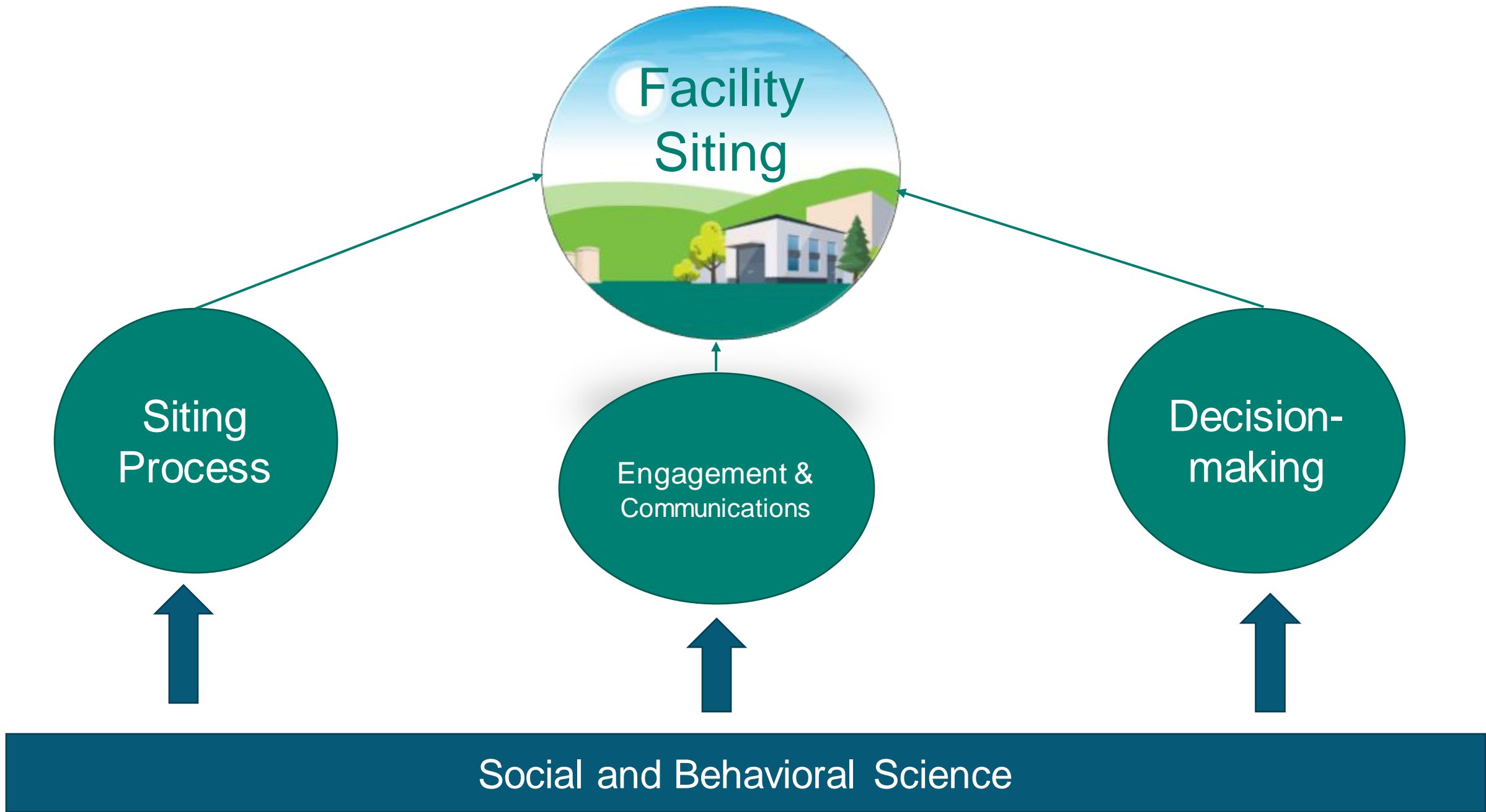


INCORPORATING SOCIAL SCIENCE INTO CONSENT- BASED SITING

MARISSA BELL, PHD
TRAN LE, PHD

Office of Integrated Waste Management
Office of Spent Fuel and Waste Disposition



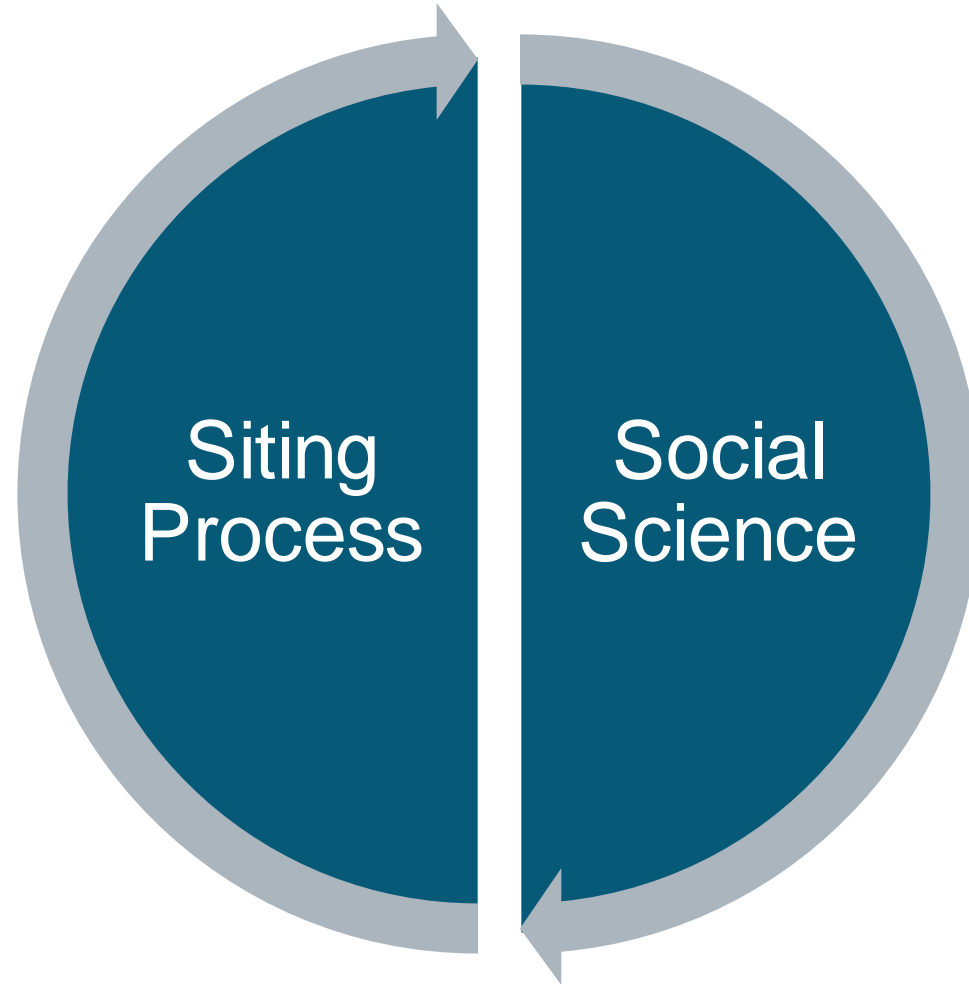


SOCIAL SCIENCE EXPERTISE



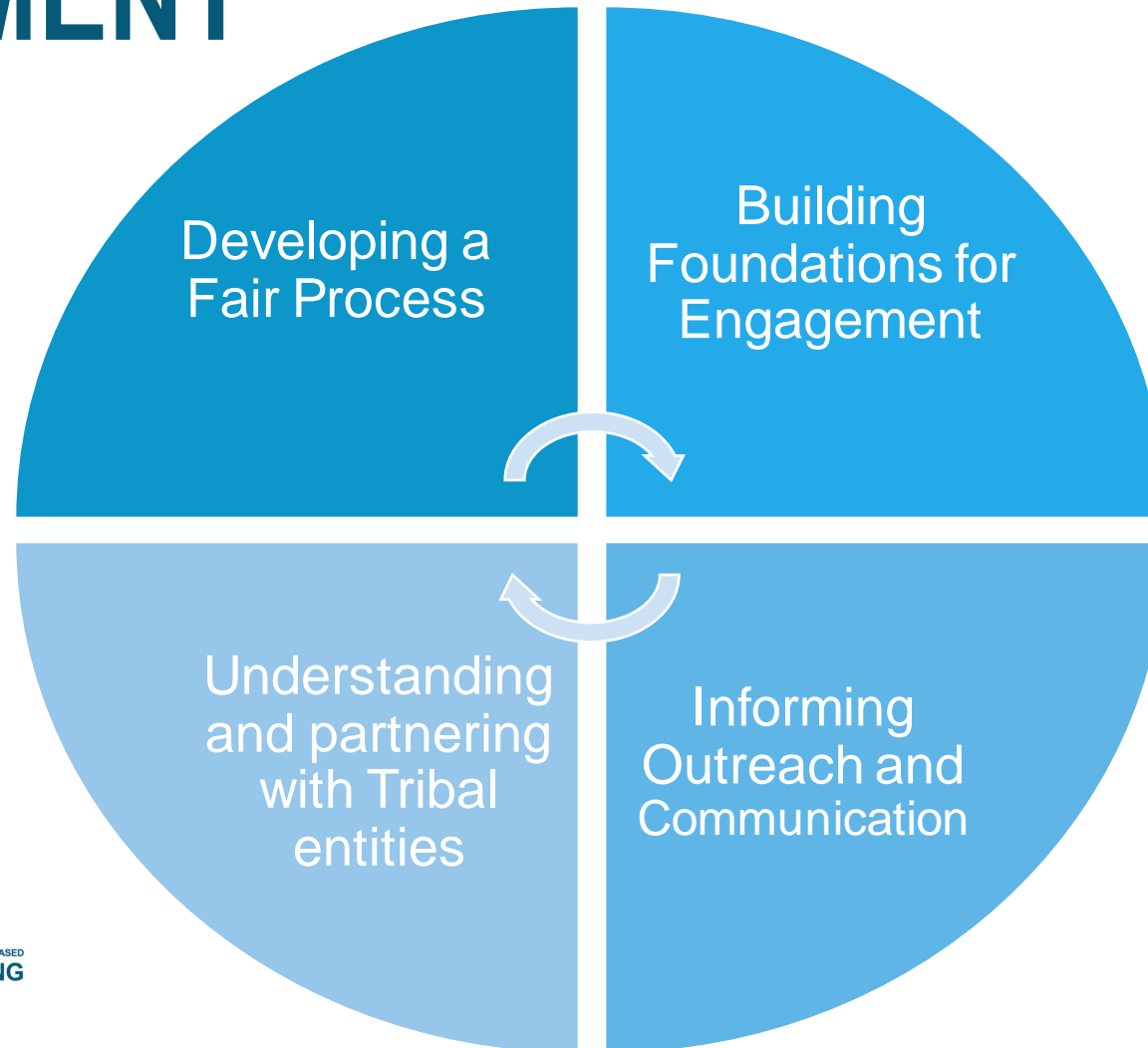
- Social science expertise at DOE and national laboratories
- Including: anthropology, science and technology studies, geography, psychology and behavioral science, science and risk communication
- Including: political science, economics, sustainability, sociology, engineering education

INTEGRATION OF SOCIAL SCIENCE



SOCIAL SCIENCE RESEARCH AND DEVELOPMENT

FY2023 Social Science Scope



DEVELOPING A FAIR PROCESS

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INFORMING DEVELOPMENT OF THE PROCESS



Literature Reviews:

Energy and environmental justice review for spent nuclear fuel, energy siting, public engagement; social science on spent nuclear fuel; intergenerational justice



Comment Analysis:

Analysis of requests for public comment (including focused analyses technical, longitudinal, Tribal comments)



Exemplars:

Studying domestic and international siting processes



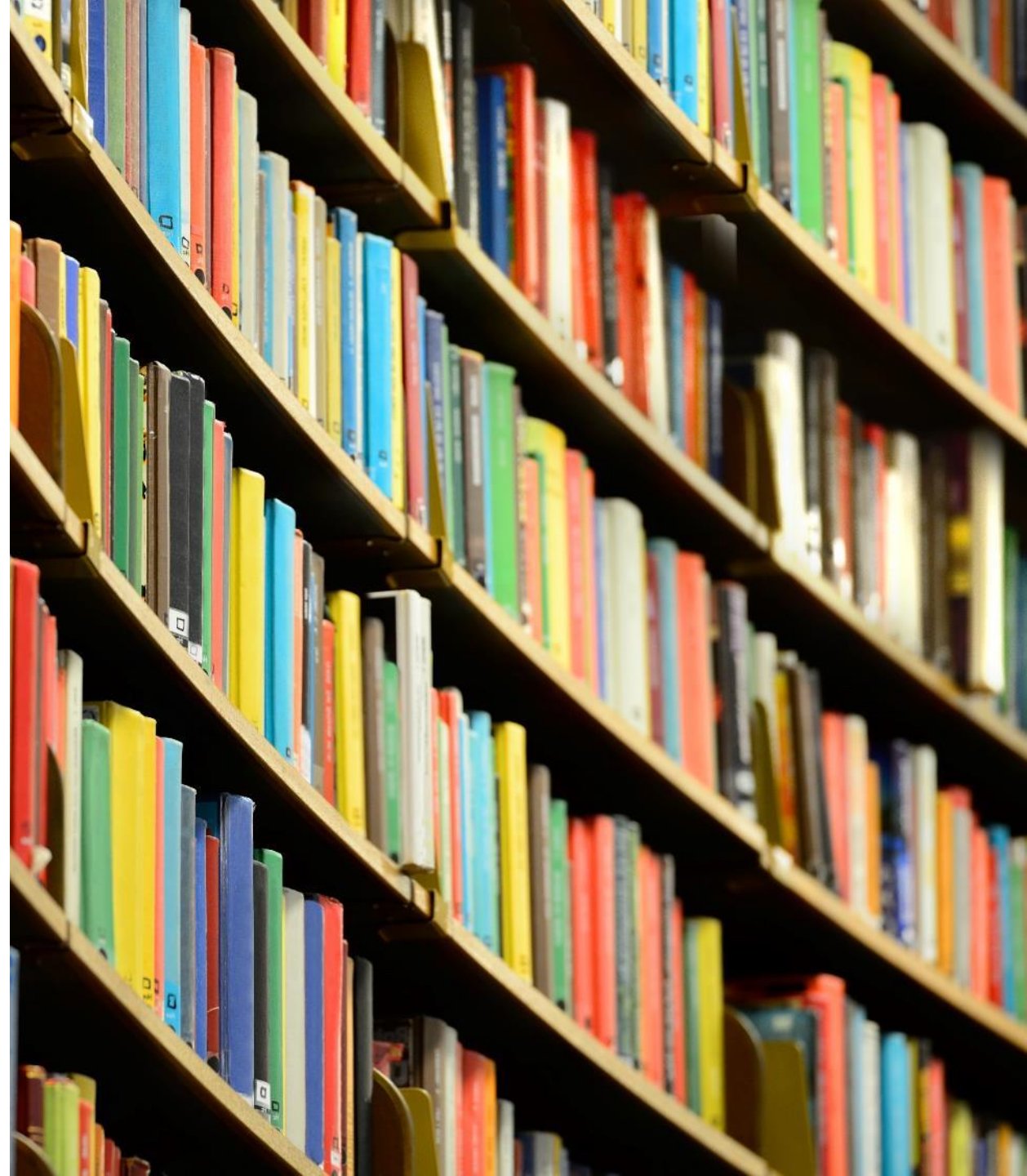
Environmental Justice:

Operationalizing environmental justice executive orders, methodology for tracing benefits, identifying future environmental research needs



ANALYSIS OF LITERATURE ON ENERGY SITING, PUBLIC ENGAGEMENT AND SOCIAL SCIENCE

- Lessons from infrastructure siting
- Participatory turn in nuclear waste management
- Stakeholder engagement, outreach, and communication
- Consent: meanings and applications
- Risk perceptions and nuclear technologies
- Social acceptance and “social license to operate”
- Community benefits packages and co-development
- Interdisciplinary collaboration





BUILDING FOUNDATIONS FOR ENGAGEMENT

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 CONSENT-BASED
SITING

UNDERSTANDING DEMOGRAPHICS, PUBLIC PERCEPTION, AND ENGAGEMENT



Broad public perception: National surveys and social media research



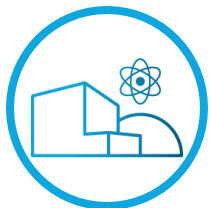
Citizen science: Partnering with minority serving institutions (MSIs) to develop citizen science



Multi-stakeholder Interviews: Broader public perspectives from community-level stakeholder groups



Co-design: Develop and evaluate engagement mechanisms to co-design facilities (partnering with MSIs)



Current host communities: Pilot study to compile knowledge of current hosts of spent nuclear fuel and DOE host communities



Geospatial EJ analysis: Creating data layers to identify communities with environmental justice concerns



SOCIAL SCIENCE AND CONSORTIA DEVELOPMENT



- Informed framing of the Funding Opportunity Announcement, including encouragement for awardees to think creatively about how to meaningfully engage with diverse communities
- Theoretical and empirical application of participatory democratization of science and technology
- Defined capacity-building and incentivized behavioral strategies to develop capacity
- Conceptual underpinnings of mutual learning and facilitation of dialogue between diverse expertise
- Interdisciplinarity in integrating technical and social processes and expertise

ANALYSIS OF INTERGENERATIONAL EQUITY

- Identifying best practices for understanding intergenerational justice and equity
- Examining mechanisms for achieving restorative justice for past generations while ensuring wellbeing of future generations
- Guidance and draft recommendations for addressing intergenerational justice and for the creation of intergenerational council



INFORMING OUTREACH AND COMMUNICATION



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OUTREACH AND COMMUNICATION



Communication Research: Natural language processing (deep learning), analysis of public traditional and social media discourse



Communications Support: Talking point development, testing of communications materials, development of educational resources



Accessibility & Outreach: Best practices for reaching people with limited internet access, methods to engage multiple audiences



Restorative Justice: Outreach, education and restorative justice through art showcase



SOCIAL SCIENCE SUPPORTING DIGITAL TOOLS



User experience is a key component of the development and deployment of DOE Office of Nuclear Energy's Office Integrated Waste Management digital tools, including CURIE (resource management database).



Geographic Information Systems (GIS) data layers in digital tools, such as Land-area Identification, Tagging, and Exploration (LITE) and Stakeholder Tool for Assessing Radioactive Transportation (START)

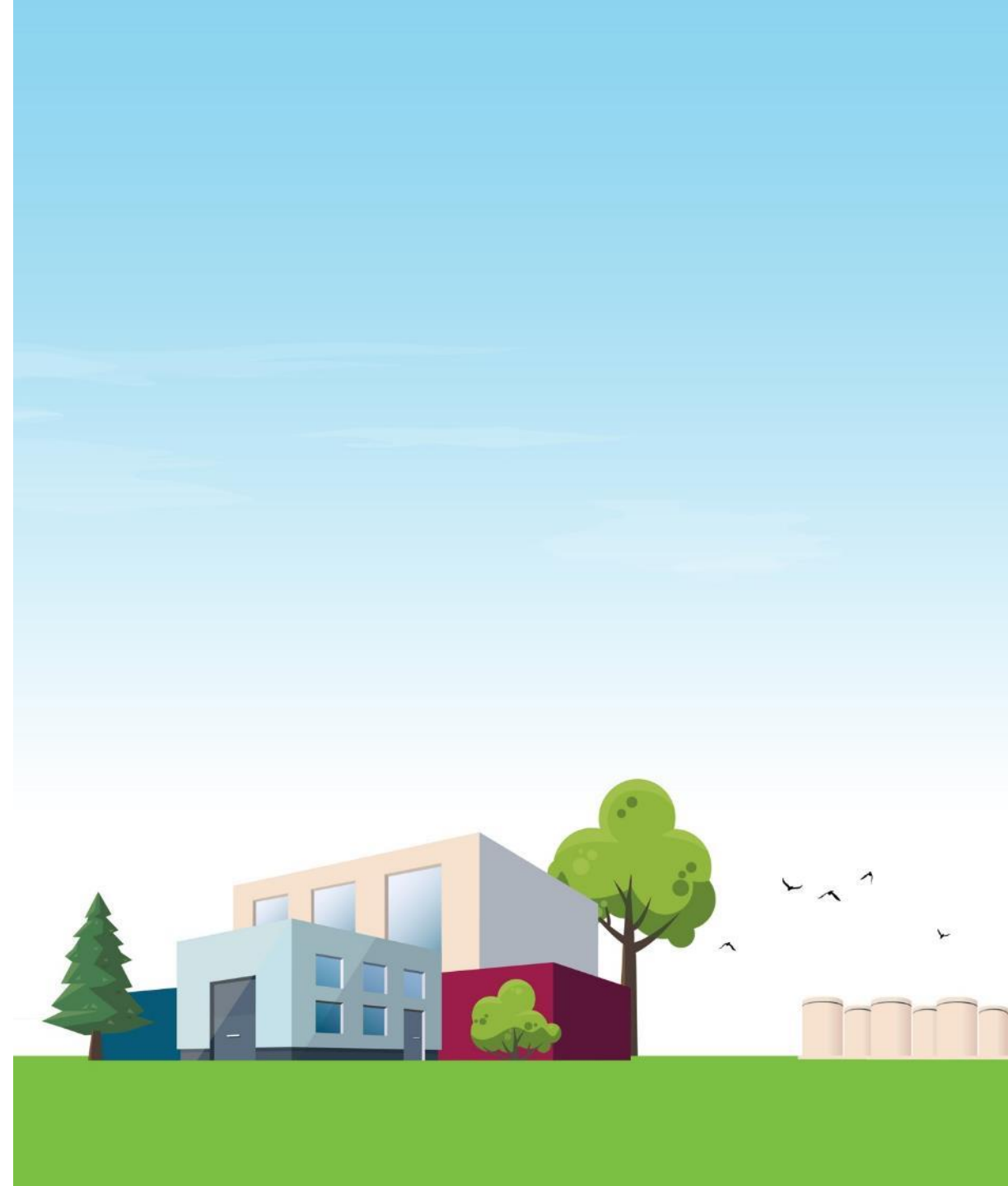


Integrated Waste Management StoryMaps are being developed with a broad audience in mind. For example, technical concepts (e.g., potential impacts of consolidated interim storage facilities) will be communicated using interactive content.

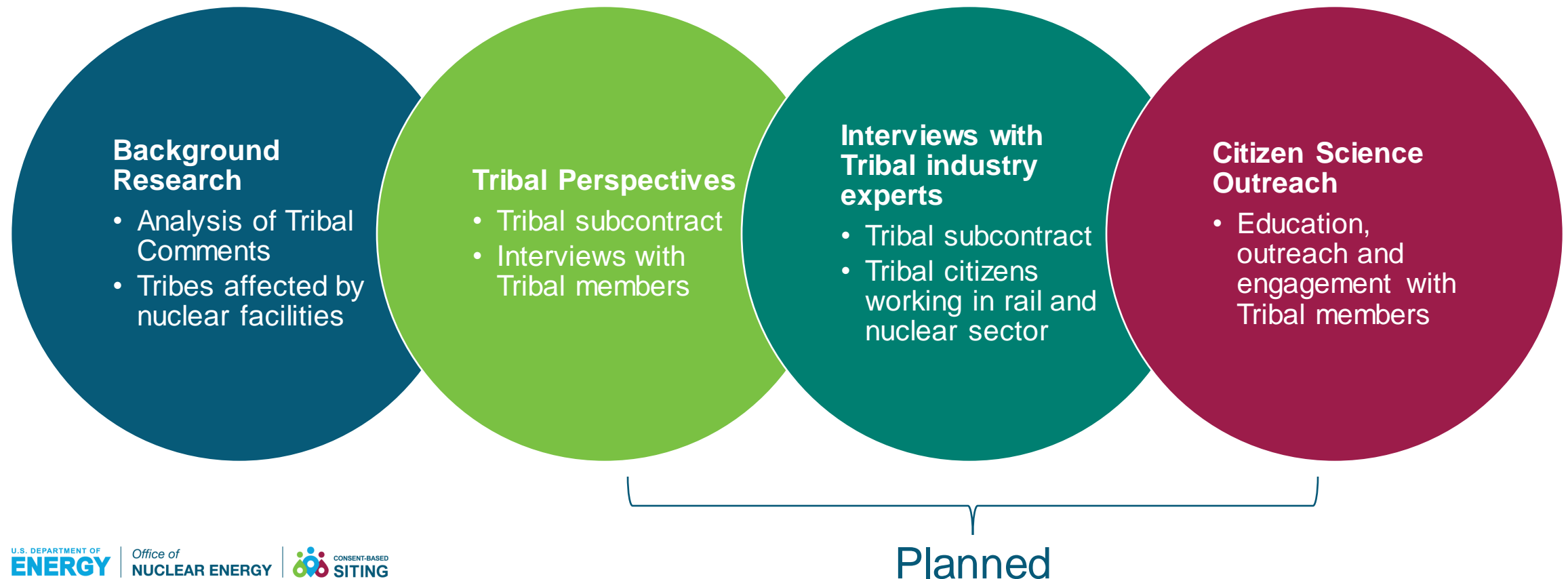
UNDERSTAND AND PARTNER WITH TRIBAL ENTITIES

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THANK YOU

For more information,
visit us at energy.gov/consentbasedsiting