

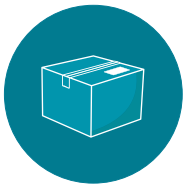
The NISE Network Space and Earth Informal STEM Education (SEISE) project was funded through the National Aeronautics and Space Administration (NASA)'s Science Mission Directorate (SMD) Science Activation program. The National Informal STEM Education Network (NISE Network) is a community of informal educators and scientists dedicated to supporting learning about science, technology, engineering, and math (STEM) across the United States; overall 513 NISE Network partner organizations participated in the SEISE project between 2015 and 2020.



Evaluating the impact of the project

Evaluations were focused on understanding the overall impacts of the SEISE project on professionals' Earth and space work, as well as the impacts of SEISE products on the public's interest, engagement, relevance, and understanding of SMD content areas (Earth science, heliophysics, planetary science, astrophysics). More information about the three summative evaluation studies and the methods they employed can be found in the accompanying reports on nisenet.org/evaluation/summative-evaluation-reports.

Project deliverables



Explore Science: Earth & Space toolkits

comprised of engaging, hands-on Earth and space science experiences with connections to science, technology, and society.



Sun, Earth, Universe exhibition

offered engineering activities, games, and graphics that allowed visitors to engage in fun interactive Earth and space science experiences, while using skills essential to STEM learning.

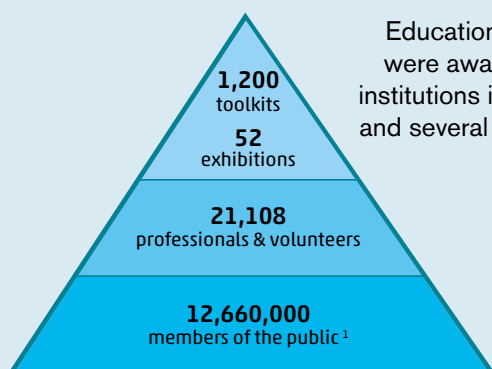


Professional development

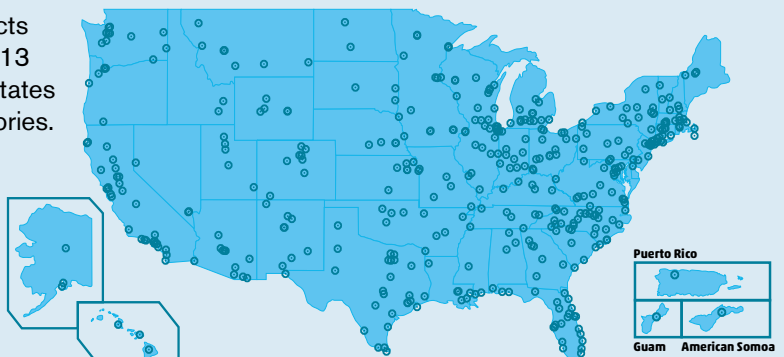
included 43 Online Workshops, an in-person Earth & Space Partner Meeting in 2019, as well as training resources and materials to help professionals engage the public.



By the end of 2020, the NISE Network SEISE project had reached millions of public participants and thousands of professionals in urban and rural areas.



Educational products were awarded to 513 institutions in all 50 states and several US territories.



¹Anderson, A. (2021). *Public reach estimates for the SEISE project*. Boston, MA: Museum of Science, Boston for the NISE Network. This material is based upon work supported by NASA under cooperative agreement award numbers NNX16AC67A and 80NSSC18M0061. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the view of the National Aeronautics and Space Administration (NASA).

SEISE Project Professional Impacts Evaluation

The professional impacts evaluation was a longitudinal study focused on professionals' content understanding, use of SEISE products, public engagement practices, and partnerships with respect to Earth and space science. This executive summary highlights the main findings from surveys and interviews.

Knowledge of Earth and space topics and use of products



Professionals' confidence in facilitating the Earth and space content areas significantly increased with their involvement in the project and most reported using SEISE materials for presenting all content areas.

All partner institutions used their toolkit beyond the required event. Toolkits were most frequently used for brief table top activities and K-12 school outreach.

Impact on informal STEM practices and partnerships

The SEISE project has significantly increased partners' confidence in their ability to address societal content, discuss common misconceptions, and use non-NISE Network materials for Earth and space.

93% of professionals collaborate with community organizations and/or subject matter experts

91%

Community collaborations

83%

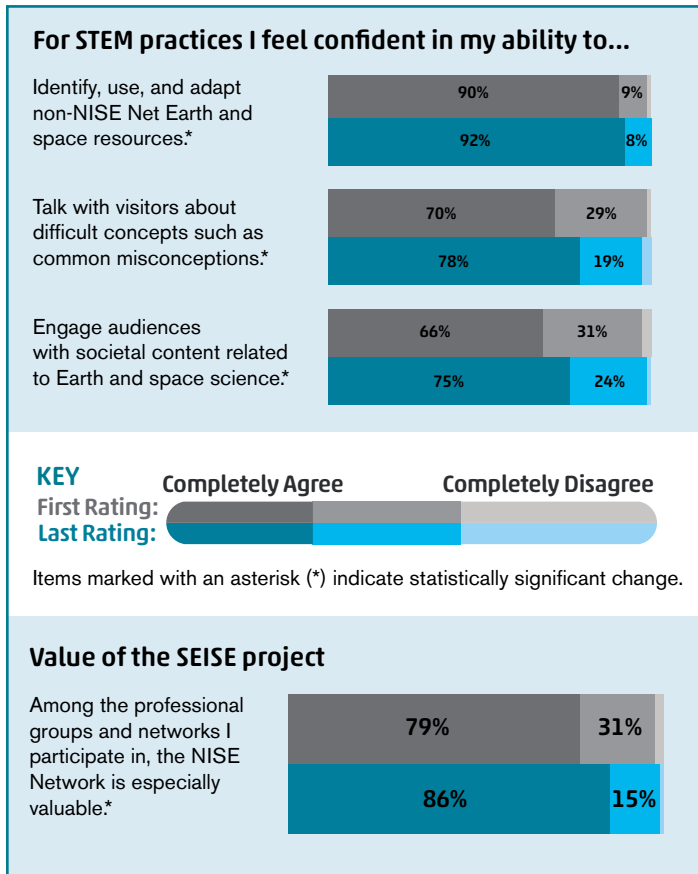
Subject matter expert collaborations

Professionals shared that the project helped enhance their Earth and space partnerships through activity materials and training resources.

"The biggest thing is being able to share that resource of how to actually interact with guests and share knowledge . . . being able to share that with our industry partners has just made it much easier for them to feel comfortable and confident being part of the program because it gives them that support and that piece that they can learn from."
-a museum professional



"When I went to the conference in Phoenix that opened my eyes to the other ways that we could be expanding the use of the NISE kits and hearing what other people were doing really helps me come home and rethink how we can use ours."
-a museum professional



Value of the SEISE project to professionals

Overall, professionals valued the opportunities offered by the project and showed significant growth in being able to meet, learn from, or share with others.