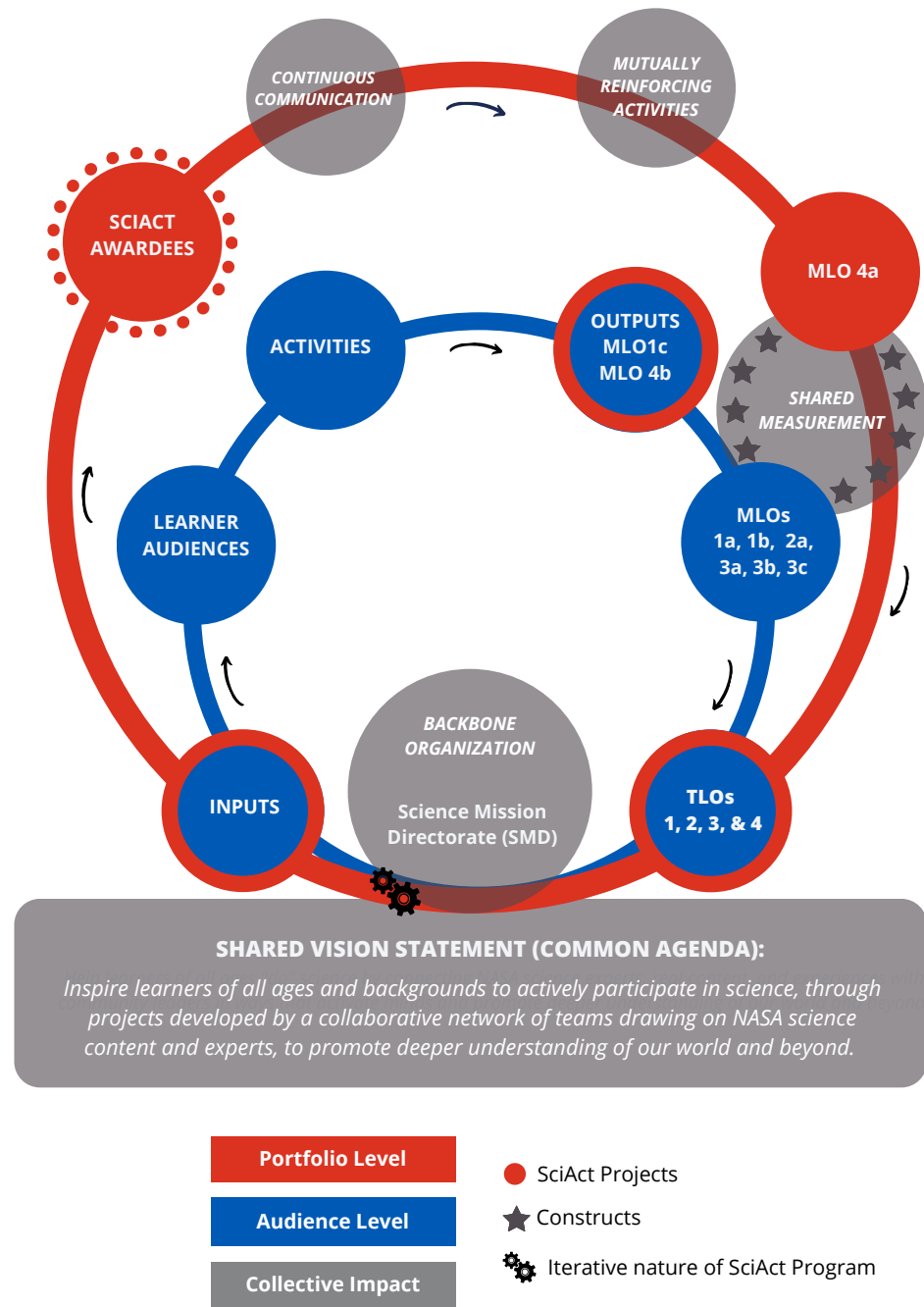


NASA SCIENCE MISSION DIRECTORATE: SCIENCE ACTIVATION PROGRAM, LOGIC MODEL

A visual representation of program-wide SciAct components, emphasizing relationships across activities and program alignment with the Collective Impact model.



INPUTS

NASA SMD Assets

- STEM Content
- Subject Matter Experts (SMEs)
- Data and data practices
- Infrastructure tools
- NASA Science Missions

NASA SMD Resources

- SciAct funding
- Policy guidance
- SciAct Definitions

Stakeholders

- SCIENCE MISSION DIRECTORATE (SMD) (BACKBONE ORGANIZATION)

Project Resources

- Project staff
- Project partnerships
- Project infrastructure
- Other funding sources

Stakeholders

- Awardees
- Community organizations
- Academic institutions
- Learners

ACTIVITIES

NASA SMD Activities

- Project selection, funding, and monitoring
- Creation of opportunities for knowledge-sharing among awardees (CONTINUOUS COMMUNICATION)
- Chartering of action groups and communities of practice
- Convening monthly meetings for sharing and providing guidance
- Convening Annual meeting to support collaboration and growth
- Portfolio data collection and evaluation
- Coordination of dissemination opportunities including media products, conference presentations, etc.

Project Activities

MUTUALLY REINFORCING ACTIVITIES

Integration of NASA Content Assets

- Projects tie learning materials to NASA science
- Outreach events/camps/workshops engage audiences with science content
- Lessons or activities engage learners with NASA content
- Educator professional development (informal and formal)
- Resource development (curriculum, videos, online platforms,

Integration of NASA Data Assets

- Provide audiences with tools or opportunities to work with authentic NASA data and participate in "real science"
- Integration of NASA Subject Matter Experts (SMEs) Assets
- Outreach events/camps/workshops engage audiences with SMEs
- Enable SMEs to share science with specific audiences
- Develop science identity through role models

Integration of NASA Missions Assets

- Connect learners with the process of science and new discoveries

Other Project Activities

- Co-creation with communities
- Local data collection and evaluation

OUTPUTS

NASA SMD Outputs

- Number of projects
- Dynamic website capturing SciAct activities
- Formal cross-collaboration agreements among projects
- Shared metrics and evaluation reporting; annual reporting for the portfolio
- MLO 4b. Utilize external partners to leverage reach and effectiveness of the SciAct portfolio. (partner map data)

Project Outputs

- Learning resources created
- Authentic STEM experiences for learners
- Digital platforms to engage with data and content
- Citizen Science opportunities
- MLO 1c. Increase number of and frequency with which NASA SMD assets are used by learners across the US. (reach map data)

OUTCOMES

MID-LEVEL OBJECTIVES (MLO) SHARED MEASUREMENT SYSTEM

Used to guide Awardee-level programmatic and evaluation activities. Aligned to MLOs, constructs are used to organize Portfolio-Level evaluation activities

- MLO 1a. Inspire interest in STEM and the development of people's identities as science learners.**
 - STEM interest
 - STEM identity
 - Inspiring learner interest in STEM
- MLO 1b. Provide opportunities for learners to engage with the disciplinary content related to NASA STEM.**
 - Awareness of STEM for learners
 - Change in behavior, as a result of project opportunities
 - Change in knowledge, as a result of project opportunities
 - Effectiveness of NASA SMD assets to develop STEM skills
- MLO 2a. Advance learners' understanding of the process of science using NASA SMD assets**
 - Knowledge of science process
 - Learner understanding of the process of science
 - Ability to understand and communicate scientific process
 - Evidence of STEM problem solving skills
- MLO 3a. Increase participation in learner-centered experiences based on NASA SMD assets.**
 - Change in learner understanding of the process of science
 - Impact of learner-centered experiences, including value of connecting with NASA SMD assets
 - Increased interest in STEM as a result of learner-centered experience and/or NASA SMD asset
 - Perceptions of learner engagement and change in knowledge
- MLO 3b. Broaden participation of learners reached by Science Activation through intentional, inclusive programming.**
 - DEIA consideration in the development of resources or programming
 - Learner perceptions/reactions to inclusivity activities
 - Impact of multilingual resources on learners
 - Efficacy of project-level processes to support broadening participation
- MLO 3c. Engage learners in learning experiences that promote development of skills for STEM careers.**
 - Change in STEM skills level
 - Increased confidence using STEM skills
 - Interest in STEM careers
 - Learner awareness of how interpersonal skills, executive functioning, and self-advocacy skills can contribute to a STEM career
- MLO 4a. Leverage internal mechanisms to support sharing and learning across the SciAct portfolio.**
 - Awareness of SciAct Resources/ SMD Assets to inform practice
 - Intent to use SciAct Resources/ SMD Assets in practice
 - Use of Developed SciAct Resources/SMD Assets
 - Cross-Project Collaborative Activity and Shared Learning

IMPACT

TOP-LEVEL OBJECTIVES

Used to provide collective vision across SciAct

- TLO 1. Enable STEM Learning & Contribution**
 - TLO 2. Improve U.S. Scientific Literacy**
 - TLO 3. Advance National STEM Goals**
 - TLO 4. Leverage Efforts through Partnerships**
- Additional Impacts**
- Development of learners' STEM identities
 - Active participation in the advancement of science.

Portfolio level elements are visualized in red text and project level elements are visualized in blue text. Collective impact elements are aligned to the logic model, visualized in gray.