

Science Mission Directorate Policy

Policy and Requirements for the Education and Public Outreach Programs of SMD Missions

SMD Policy Document SPD-18

Recommended by SMD Science Management Council, January 28, 2010

Approved by SMD Associate Administrator, Edward J. Weiler, January 28, 2010

Responsible SMD Official: SMD Lead for Education and Public Outreach

1. Overview

1.1 Principles

SMD requires that all missions have robust and substantial education and public outreach (E/PO) programs. These E/PO programs must be consistent with SMD's principles for mission E/PO:

- SMD missions must have an E/PO program that supports NASA's strategic goals and objectives for education and outreach, contributes to NASA's education portfolio, and is aligned with SMD's E/PO portfolio.
- SMD missions must have an E/PO program whose quality has been demonstrated through independent, external review and assessment.
- SMD missions must have an E/PO program that is funded with at least 1% of the total prime mission cost excluding launch vehicle.
- SMD missions will designate an E/PO Lead who has the qualifications and experience necessary to successfully implement the mission's E/PO program.
- SMD missions will partner with NASA and non-NASA organizations as appropriate in order to increase the quality and reach of the E/PO program.

1.2 Rationale for Mission E/PO Requirements

The SMD E/PO lead is required to report on the SMD E/PO portfolio and show that it aligns with the NASA Education portfolio. The Lead is responsible for reporting E/PO metrics for SMD and reporting how SMD E/PO funding is contributing to the NASA Education portfolio's outcomes and objectives. This reporting is a component of NASA's PART measures that are required by OMB. This responsibility cannot be delegated to the Programs or the Centers.

1.3 Management Handbook

The governing project requirements (NPR 7120.5, SMD Management Handbook) are incomplete in specifying how such E/PO programs will be approved, managed, and reviewed. This document supplements NPR 7120.5 and the SMD Management Handbook in order to provide the necessary policies and requirements.

The requirements in this document are added to the KDP checklists in the SMD Management Handbook.

2. Requirements

2.1 Management requirements

(a) SMD missions must designate an E/PO Lead (or point of contact) responsible for developing and implementing the Mission E/PO program. The mission E/PO Lead must report E/PO activities, progress, and accomplishments to the SMD Division E/PO Lead. This reporting may be through a designated member of the mission project management team, e.g. the PI or project scientist.

(b) SMD missions must have an E/PO plan that addresses NASA and SMD E/PO goals and objectives, draws from the mission's science and technical content, and is aligned with NASA and SMD E/PO portfolio. The mission E/PO plan must be approved by the SMD Science Division Director and SMD Lead for E/PO.

(c) SMD Science Divisions may provide additional requirements or guidelines according to their needs.

(d) In the case of a tightly focused program of strategic missions, the SMD Science Division Director may recommend that E/PO leadership and planning for all missions in the program be delegated to the Program Office. Such delegation requires concurrence by the SMD Lead for E/PO and approval by the SMD AA. The Program Office is required to meet all E/PO management/planning and reporting requirements for all missions in the program. In addition the Program Office is required to submit an E/PO PPBE annually.

(e) Additional policy guidelines for AO-selected missions. AOs provide the initial guidance for the E/PO policies governing PI-led missions or PI-led instrument investigations. Default policies are

- PI-led missions will allocate at least 1% of the PI-managed mission cost cap to the core E/PO program. No E/PO plan is due with the Step 1 proposal. An initial E/PO plan including identification of an E/PO lead is due with the Step 2 Concept Study Report (CSR). Student collaborations, while encouraged, are not considered part of the core E/PO program.
- PI-led instrument investigations will not generally have independent core E/PO programs. Selected instrument teams will participate in the mission E/PO program. Activities will be negotiated after selection and the funding for E/PO activities will come from the mission E/PO budget, not the instrument team budget.
- With approval by the SMD AA, AOs may have different policies from these default policies.

SMD may levy E/PO requirements on AO-selected PI-led missions and instruments beyond those in the AO. For instance, for missions selected from AOs with an E/PO requirement of less than 1%, SMD can provide additional funding to accompany a requirement that E/PO spending be raised from the AO's minimum to 1%.

2.2 Funding requirements

(a) SMD missions must have an E/PO program that is funded with at least 1% of the total prime mission cost excluding launch vehicle. Exceptions require approval by the SMD AA.

(b) The E/PO budget is fenced off from the rest of the project budget. Reductions to the approved E/PO budget require the concurrence of the SMD E/PO Lead and the SMD Science Division Director.

(c) SMD mission E/PO budgets must be distributed throughout the mission development and operation phases. No E/PO funding will be available before KDP-C except for the nominal funding required to develop the E/PO plan. No more than 35% of E/PO funding (through prime mission) may be allocated before launch; at least 65% of the budget must be allocated for Phase E. Exceptions require approval by the SMD Science Division Director and SMD Lead for E/PO.

(d) For SMD missions that were Confirmed prior to the effective date of this Policy and do not meet the minimum funding requirement, the Division can provide additional funding to accompany a requirement that E/PO spending be raised from the AO's minimum to 1%.

3. Reporting, Review, and Approval

3.1 Development and Approval of the Mission E/PO Plan

(a) The preliminary E/PO plan must be developed during Phase A. Review and comment (not approval) of the initial E/PO plan is a KDP-B gateway product. Review and comment is provided by the Division E/PO lead. For missions downselected through a competitive Phase A, review and comment is also provided by the E/PO evaluation panel.

(b) The final E/PO plan must be developed during Phase B and must address/resolve the comments and feedback provided at KDP-B. Approval of the final E/PO plan is a KDP-C gateway product. Review and concurrence is provided by the Program Scientist/Program Executive and the Division E/PO lead. Approval is provided by the SMD Science Division Director and SMD Lead for E/PO.

(c) On the basis of the final E/PO plan an implementation plan must be developed. The implementation plan shall include detailed budgets, milestones, and timelines. Approval of the final E/PO plan is a CDR gateway product. Review and concurrence is provided by the Program Scientist/Program Executive and the Division E/PO lead. Approval is provided by the SMD Science Division Director and SMD Lead for E/PO.

3.2 Reporting for the Mission E/PO Program

(a) Requirements for regular (weekly, monthly, quarterly, etc.) reporting of the mission's E/PO activities will be per the E/PO plan. Such reporting will be from the mission or program (e.g.

E/PO lead through the PI/PM) to the Division E/PO lead with copy to the Division E/PO forum and the Program Executive/Program Scientist.

(b) Missions are also expected to provide reporting as appropriate in other venues: project reports, science team meetings, Division E/PO forum meetings, etc. Mission E/PO leads are also expected to participate in monthly Division E/PO forum telecons. The Division E/PO lead is responsible for tracking reporting (from program office, forums, science team meetings).

(c) The Division E/PO lead will ensure that the SMD Lead for E/PO receives a summary of Division E/PO reports.

(d) SMD is responsible for NASA Office of Education reporting and portfolio management. Reporting will be aided by the Division E/PO forums and the Division E/PO leads. Division E/PO forums, in consultation with Division E/PO leads, will assist mission E/PO leads in reporting through OEPM (Office of Education Program Management) for Office of Education reporting and portfolio management.

3.3 Assessment and Review

(a) Mission E/PO programs are expected to include evaluation plans. These evaluation plans will be described in the final E/PO plan and funded within the mission E/PO budget.

(b) Mission E/PO programs will be reviewed as part of a Division’s Senior Review for operating missions. When divisions do not have bi-annual Senior Reviews, operating mission E/PO programs will be reviewed biannually through a standalone E/PO-only senior review-like process.

3.4 Canonical Timeline for Development and Approval of a Mission E/PO Plan

	PI-led (AO competed) Mission	Strategic (directed) Mission
E/PO statement of commitment	Step 1 proposal	N/A
Preliminary E/PO plan	Step 2 CSR	Phase A
Review and comment of preliminary plan	Downselect	KDP-B
Final E/PO plan	Phase B	Phase B
Approval of final plan	KDP-C	KDP-C
Implementation plan	Phase C	Phase C
Approval of implementation plan	CDR	CDR

3.5 Approval Authority for a Mission E/PO Plan

	Review and Concurrence	Approval
Preliminary E/PO plan	Division E/PO Lead (review only)	N/A
Final E/PO plan	Program Scientist / Program Executive; Division E/PO Lead	Division Director; SMD E/PO Lead
Implementation plan	Program Scientist / Program Executive; Division E/PO Lead	Division Director; SMD E/PO Lead
Delegation to Program Office	Division Director; SMD E/PO Lead	SMD AA
Exception to 1% budget requirement		SMD AA
Reductions to E/PO budget	Division Director; SMD E/PO Lead	(budget process)
Exceptions to budget phasing requirement		Division Director; SMD E/PO Lead