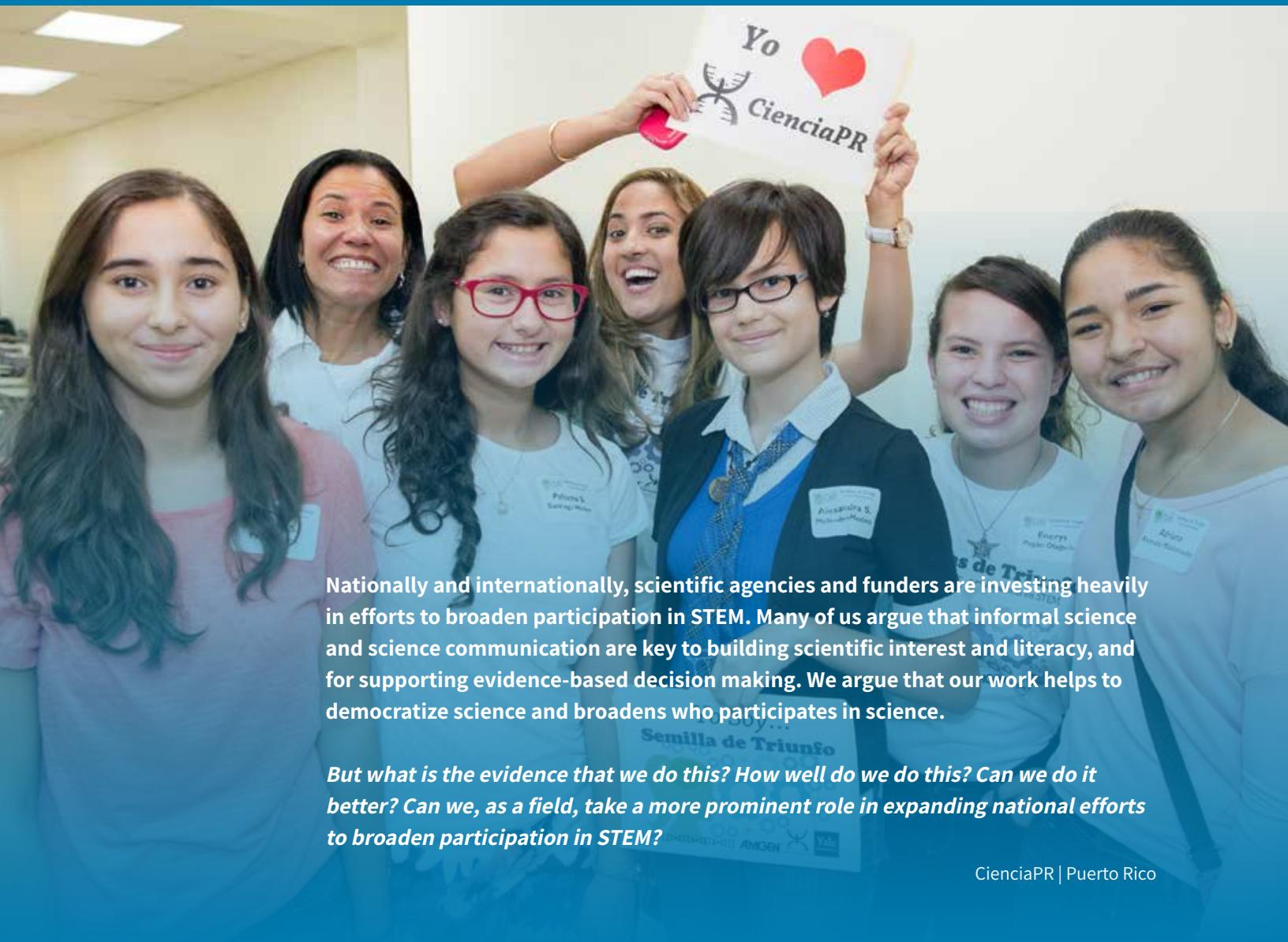# How Can Our Efforts in Public Engagement with Science Be Made More Inclusive?

A Summary for Stakeholders

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Nationally and internationally, scientific agencies and funders are investing heavily in efforts to broaden participation in STEM. Many of us argue that informal science and science communication are key to building scientific interest and literacy, and for supporting evidence-based decision making. We argue that our work helps to democratize science and broadens who participates in science.

But what is the evidence that we do this? How well do we do this? Can we do it better? Can we, as a field, take a more prominent role in expanding national efforts to broaden participation in STEM?

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Initiating Staff Reflection and Discussion

One step toward answering these questions in ways that align with institutional priorities is to consider more deeply and strategically what broadening participation means in your community, and how your programs or efforts can be shifted to be more inclusive.

Toward these ends, in 2017 the Center for Advancement of Informal Science Education (CAISE) convened a group of 15 science communication and informal STEM education experts—both practitioners and researchers—to identify key barriers that keep our fields from being "at the table" in more than a peripheral way when communities seek to make real change in science engagement.

The task force produced a set of conversation guides and resources to support reflective conversations among professionals seeking to identify areas for growth and change. These conversations could be as small as a series of three 90-minute meetings to a longer arc that is seen as a starting point for further development and investment in broadening participation.

A list of task force members and contributors can be found here: informalscience.org/bp-task-force

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Using Professional Learning Resources

The task force developed a report, *Broadening Perspectives on Broadening Participation in STEM*, that summarizes five key topics that the field needs to grapple with in order to make progress—at scale—towards sustained and impactful broaden participation in STEM efforts. These include:

1. The public engagement sector should, but currently does not, play a vital role in broadening participation in STEM.

2. The public engagement sector could advance more compelling reasons for why people historically underrepresented in STEM fields should choose STEM.

3. The public engagement sector could make a stronger effort to disrupt the dominant cultural norms of STEM (which are white, male, and western) to show how STEM relates to and can be advanced through other cultural ways of knowing and being.

4. The public engagement sector could strive to be better integrated and connected with the broader local STEM learning ecosystem, and design programs that explicitly and intentionally help advance people's STEM activities within those ecosystems.

5. Broadening participation, equity, and inclusion work needs to be positioned as core to the organization's mission and success, and not tacked on or siloed within an organization or program.

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To support reflective conversations that address the issues above, the task force also developed a set of "practice briefs" that can serve as advance readings.

These reflective conversations are meant to lead to new insights about if and how our programs or practices are challenging or reinforcing patterns of who participates in STEM. The goal is to help participants clarify specific action steps they can take to make programs more inclusive, to develop a culture of reflective inquiry, and a commitment to broadening participation in ways that make sense in your local organization and context.

Supporting Your Staff

Making progress on broadening participation in STEM also requires us to look at our organizational practices. Often, organizational norms (particularly in long-established organizations) work against efforts to change and expand who participates in, contributes to, and benefits from our work. Leaders of training programs, as well as organizations and large divisions and departments, may also want to consider how these issues apply to their choices.

Informal educators who champion broadening participation efforts, for example, often report that they feel marginalized in their institutions. Their work is sometimes treated as an afterthought, or even an annoyance. Frequently they feel that they are token representatives within organizations that are structurally resistant to change, despite the best of intentions. Efforts undertaken by your staff can provide you opportunities, at the organizational leadership level, to reflect on how your organization is structured to advance or confound efforts to broaden participation.

This can lead to positive organizational changes that can position your institution to both support and lead broadening participation efforts.

We encourage you to support your staff leaders to hold reflective conversations with their colleagues or teams to explore if and how their programs and efforts can be made more inclusive. Supporting your staff means creating the time for them to plan and hold meetings; it also means creating the expectation of and fostering interest in reviewing results, including possible recommendations for changes in current practices.

Decades of research show that reflection on practice will deepen the capacity and expertise of your staff, better positioning your institution to play a stronger role in your community as a champion of a more inclusive and equitable approach to science engagement. This process will also build the capacity and potential of your organization as a whole.