

# REPORT

## Landscape Overview of University Systems and People Supporting Scientists in their Public Engagement Efforts

Summary of Existing Recommendations and Evidence from the Field

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## Executive Summary

This project supports the “Support Systems for Scientists’ Communication and Engagement” workshop series. This series is a collaboration of:



## SUMMARY

Scientists (and engineers) wishing to conduct public engagement do so in the context of established disciplinary norms and complex institutional systems that may support or limit their success. The report seeks to convey the known complexity and unique challenges for universities to better support for scientists in their public engagement work and summarize potential levers of change to improve this system. Insights in the report come from review of 26 recent reports that include recommendations for universities in supporting public engagement and a series of seven video conference focus groups across levels of the university hierarchy. Each group included three to five individuals across 22 institutions.

## INSIGHTS FROM THE FIELD

### Institutional Issues

- Hope rests with the future generation of scientists and accordingly there are an increasing number of opportunities for graduate students and postdocs to receive engagement training. However, counteracting forces are at work. Young scientists who wish to pursue engagement may be less likely to persist in academia, leaving few change makers rising through university ranks.
- Promotion and tenure reform is the trumpeting elephant in the room, but resistance remains pervasive. Some critical challenges relate to how engagement, as coupled with “service”, dilutes motivation and opportunity for recognition and reward. Engagement is therefore rarely considered in terms of tradeoffs, but generally done in addition to full teaching and research workloads.
- Engagement does not lend itself to parsimonious metrics and indicators of success. Because engagement is not a direct revenue generator, common metrics are unlikely to compel investments in infrastructure. It may be more useful to consider metrics as a means of accountability and focus on stories of value as indicators of impact.
- New organizational forms and structures with predictable and dependable support are needed to address the enduring challenges associated with public engagement.

### Professional issues

- Agency to engage in systemic change seems lacking. Participants had relatively constricted views on which parts of the system they could influence.
- Participants expressed concern that the amount of time to develop the necessary partnerships and collaborations for public engagement is undervalued across levels at universities and by funders.
- Success with public engagement is perceived as the anomaly, a reflection of heroic acts above and beyond professional norms. Scientists’ efforts tend to rely on bootstrapping rather than connecting to enduring programs with continued support.
- Scientists who choose to do engagement face social and professional risks including perceptions that they are not serious about science, not competent researchers, or are self-promoters. The academy can still feel like a hostile environment to scientists who wish to integrate engagement into their professional lives. This appears to be less of an issue in more applied disciplines.
- Mentors are important, but many are neutral or tentatively supportive of engagement, few scientists experience mentors who are true advocates in, or partners of, engagement work.
- Department chairs have an important role to play, not necessarily in terms of providing resources or maintaining programs, but certainly in terms of mentoring, cultivating an ethos of engagement, and implementing systems of accountability and reward.

### Societal context

- The dominant discussion, even among those biased in support of engagement, still aspired to increasing the quantity of one-way communication to overcome the public’s scientific deficit.

- The academy seems to still be divided on the appropriate role of scientists in actively informing policy. However, the current social conditions and public discourse which politicizes science appears to be motivating scientists to expand engagement activities.
- Those who facilitate scientists success with public engagement experience support from the university, but it generally comes in the form of accolades. These individuals and offices are entrepreneurial in piecing together funding, but the unpredictable nature of their financial support has consequences for retention of people and sustainability of programs.

## POSSIBLE LEVERS OF CHANGE

Overall, investments should be strategic, sustainable, and evidence-based. Several key opportunities for investment of energy and resources surfaced in from this work and may improve economy of scale and enable innovation. These include:

1. Expose the actual investments of time needed to successfully implement different engagement activities in order to enable transparent consideration of tradeoffs with other activities. Consider this time investment as related to the lived experience of pre-tenured faculty in terms of workload, trajectories, and ways to reduce risks.
2. Support brokers to magnify the effects of existing programs and facilitate scientists' success, especially for early career or reluctant scientists who may not otherwise find success in their engagement efforts. Establish processes that assess engagement productivity in terms of both enhanced research processes and societal impacts.
3. Avoid attempts to express value in terms of return on investment or simple metrics (e.g. participation hours and grant procurement). Instead, collaborate with social scientists and humanities scholars to develop rubrics about the value of a variety of engagement activities.
4. Investigate how promotion and tenure processes are already changing and how to add thoughtful momentum to the transformation in progress. Focus on local and departmental level changes is likely to be fruitful. An initial step to reform is for departmental plans and scientists' position descriptions to include specific public engagement objectives distinct from general "service".
5. Engage audiences who are underserved with little access to science learning and engagement. Intentional engagement with audiences, beyond the "choir", through collaborative mechanisms can move the system beyond the deficit model and pave the way to realize mutual benefits..