

The Hub: Driving Actions and Providing Opportunities

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Nutshell

NSF has the expectation to support rigorous research. COPE says, “yes that, AND more.” By putting value on other project components and applying the same rigor, NSF will ensure that science is serving people, demonstrate research impacts, and increase and enhance the value of their investment. We propose that the Hub is the way to formalize the AND. The Hub can institutionalize the same rigorous standards and expectations already applied to basic research by addressing the special part - the AND.

Challenge

The proposed, ambitious, and urgent paradigm of the emergent Coastlines and People (CoPe) initiative requires an equally innovative and support structure to ensure that this new effort creates impacts beyond the typical audiences of NSF-funded research efforts and engages stakeholders, communities, and other researchers in novel ways to better connect people and science. Principal Investigators are deeply steeped in the scientific issues that drive the cutting edge research NSF is seeking to fund; though in order to successfully achieve both the broadening participation goals and societal impacts envisioned, the NSF needs a Hub that distributes the myriad responsibilities across a team of experts skilled in tasks that allow research teams to overcome the current challenges they typically face. But, we need a way to make the Hub work. Therefore, we propose a model of the Hub that facilitates the AND that conveys NSF science to a new and broader audience who needs both the information and a voice in the process.

The Hub

The CoPe aspires to drive more than excellent research on coastal areas; its goal is to develop translational research driven by the communities impacted by coastal events and to develop teams of researchers and communities to design, implement, and develop actions resulting from coastal research. There is currently a robust slate of coastal research from a wide variety of

stakeholders, including federal, state, and local agencies, independent researchers, university researchers, etc. But, their efforts are coordinated infrequently and seldom include input from local communities where scientific discoveries could have a positive impact. Local communities can be diverse and speak 'different languages' (both literally and figuratively) from the research scientists making communication challenging. Furthermore, some are so underrepresented such that they are not included in the conversations. To advance and enhance the exciting coastal research and to focus research on community impact and translation, we propose a dynamic HUB system that facilitates integration, translation, and broadens participation.

Integration - Because of the diverse nature of CoPe research, including coastal regions from east to west, from Hawaii to Alaska, as well as the Great Lakes areas, integration of efforts, best practices, and data is essential to avoid duplicity and to capitalize on the breadth of research products for overarching synthetic studies. The Hub can facilitate integration by supporting cohesive, inclusive projects that draw skill sets across disciplines to provide translational science coupled with communication among disciplines, stakeholders, etc.

Translation - The CoPe network, by design, is made up of multi-disciplinary projects that require coordination and communication between scientists and stakeholders across disciplines and sectors. Traditional avenues of research dissemination and communication are insufficient when multidisciplinary teams are involved due to specialized scientific language and jargon. The project managers of the Hub will have 30,000 ft. views of the work happening across the network, and work with project teams and Hub communications specialists to craft audience-specific communications and messaging about the findings and successes of the network. Additionally, as the driving engine of momentum in the network, the Project Manager will ensure research products are translated to understandable and actionable public-facing products, making the science relevant and applicable to the broader public.

Broaden participation - All voices are not currently at the table when it comes to coastal research. Often there is little community engagement and a lack of focus on marginalized communities and underrepresented groups. A focus of the Hub would be to ensure broad participation from diverse stakeholders throughout the research endeavor, from the conceptualization of the research effort through implementation and development of action

plans based on research results, with subsequent implementation of community efforts informed by community and research. Such a focus is a significant departure from typical NSF-funded research and will promote a new generation of scientists who consider diverse voices and community impact potential in their thinking. At the same time, such interactions develop trust in the research endeavor from the community perspective and ultimately result in data-driven/community-driven decisions and actions that impact future generations. Furthermore, the Hub keep the network abreast of the latest developments and findings from the science of broadening participation field. This literature is crucial to achieving the mission of supporting projects develop and foster the growth of future scientists that represent a diverse and representative cross-section of the population.

Function

CoPe research must go well beyond the approach used by a typical investigator and must integrate across disciplines, engage in community interactions, and include translational research that addresses the needs of diverse communities. Scientists will need help to manage this breadth of activity. We envision that the Hub will provide a diversity of functions to researchers and their teams, including (but not limited to):

- Communication
- Facilitation
- Foster existing networks and connections
- Engagement
- Outreach
- Data integration
- Capacity building
- Information management
- Support NSF researchers and their communities
- Help NSF connect

To facilitate this diverse set of functions and achieve the overarching goals of integration, translation, and broadening participation, we recommend the HUB engage with full-time skilled project managers to help avoid common pitfalls, improved stakeholder interactions, conduct outreach, and facilitate the overall goals of diverse CoPE projects. We meet the challenge with what we call “the HUB Magic” by deploying these skilled professionals to neutrally facilitate the COPE goals.

Recommendation

A dedicated a Project Manager and skilled science communicators will ensure that the right people are engaged at the right time, and in the right sequence and shepherd through the process, ensures the success of the project and increase the value of NSF’s investment through professional facilitation.

NSF has an expectation to support rigorous research. CoPe is designed to support both fundamental research and connecting people and science. The Hubs drive actions and provide opportunities by deploying professional services aimed at supporting the full range of hub functions. A professional project manager, dedicated to the success of the CoPe project, will help maximize the impact of the research and the value of NSF’s investment.