

CoPe Innovation Hub: Research and Technology Incubator (CoPe-RTI)

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CoPe-RTI will link innovators across the private sector, academia, non-profits, government, local agencies, and community. Emphasizing next generation participants, it will provide a funded training and facilitated interaction program, styled after startup incubators. The program will promote relationship building and teach design thinking, innovative techniques for forming and working with diverse groups, and creative funding strategies to emphasize community-driven research. The hub will link and provide funding for innovators from the private industry to connect and discuss technology, data, and funding with participants.

Specific recommendation

Mission:

Bring diverse groups of people together; Train and teach participants to interact with diverse communities; Connect participants to technological and data innovators; Incubate and fund new ideas and research projects to address “wicked” coastal problems.

Methods:

- Apply an incubator style design to coastal issues and questions.
- A facilitated, one-year training program that teaches diverse participants about relationship building across multiple organizations/stakeholders. Participation is funded and applications/invitations are open to all groups (public, private, community, etc.)
- During the 1-year training program, participant (sub)groups may co-develop a research question/project.
- Creative funding mechanism that encourages public-private participation for competitive research projects.
- Next stage supports proposals for additional funding (either through hub or other NSF programs). Applications open to those who completed 1-year program.
- Leverage connections to local technology incubators. Program will help connect participants to both technological innovation (e.g. sensors) and new data sources (e.g. google or facebook data).
- The training program would take place every year of the life-cycle of the hub, with new cohorts each year.
- Connects participants from different years via annual activities (e.g., gathering) and project presentations.
- Emphasize early career participants (e.g., students through new faculty).
- Will retain staff to support community-building, co-production, and creation of usable deliverables throughout the training and research periods.

Audience/participants:

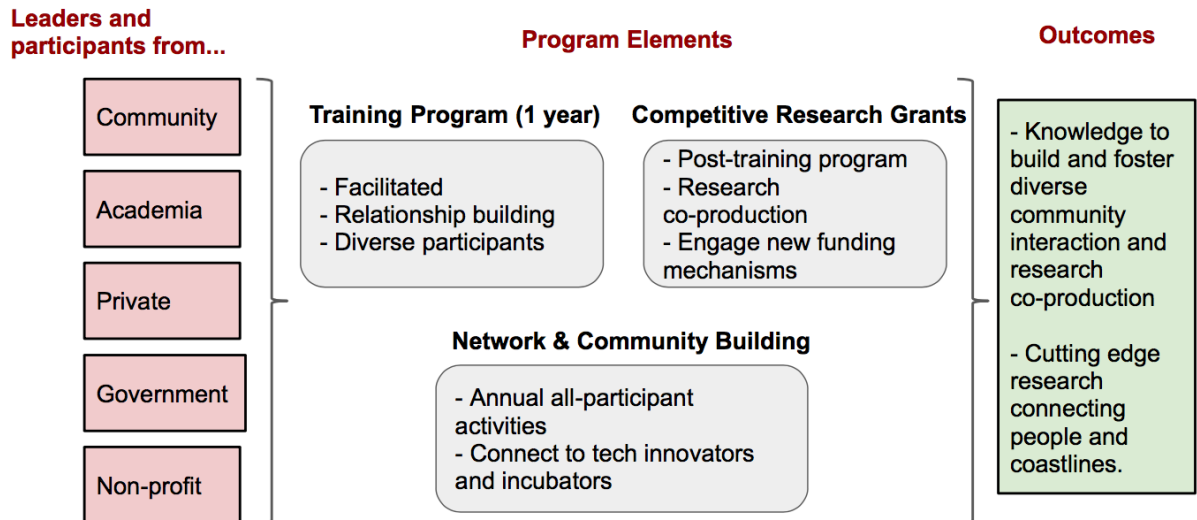
- Private sector, non-profits, government, local agencies, academics, community members, additional stakeholders.
- Each hub covers a region (multi-state region).
- Being part of a hub cohort will be presented as a honor or a fellowship.

Outcomes:

- Cutting-edge research connecting coastlines and people.
- Co-produced research based on a foundation of training and relationship building.

- Increased knowledge of how to build and foster diverse community interaction.
- Established connections between technological leaders, researchers, and the broader coastal community.

CoPe-RTI Design



Impact and Value

- Creates a community of participants, including scientists, that are trained in interfacing with a diverse community and interested in addressing problems for coastal populations.
- Incubator will foster creativity and innovative ideas, with cohorts connected to coastal stakeholders, private companies, other researchers, etc.
- This concept also does not dictate what the important questions are, but funds and supports the next generation of researchers. They determine what the important questions are through co-production within and across incubator cohorts (and through building additional diverse groups based on their training). This model is agile and responsive, addressing current needs, environments, and technology.
- Uses successful 'incubator' model to provide design thinking and entrepreneurial and innovation skills to participants, connecting them with emerging technological and data companies.
- Attracts young and motivated participants with entrepreneurial spirit to the hub, creating a long program legacy.
- Allows for people to test ideas, without the risk of large amounts of capital. Provides a proving ground for research and collaborations, particularly with partners that might not trust or do not want to have a lot of risk in projects.
- Research proposals come after the community-building and training period, so they are informed by this education/relationships.
- By funding participation in the training program, individuals from many diverse groups can participate in co-production and skill building, even if they do not go on to apply

- for larger grants.
- Builds community (both within annual cohorts and across years) of folks invested in the coastal issues and populations.

How will we validate success?

- Participation feedback
- Community engagement metrics (e.g., event attendance, data and model access)
- Funded project success (will have their own success measures)
- Standard scientific metrics
- Useable deliverables (e.g., apps, briefs, outward-looking seminars, datasets, models etc.)

How is it grounded in existing scholarship?

- Successful models of tech incubators (e.g., Y Combinator)
- Success of private-public funding (e.g., DARPA)
- Design thinking success (e.g., Stanford d.school)
- Apply scholarship addressing: forming and working with diverse groups, knowledge co-production best practices, integrating physical and social sciences, community engagement

Why do this now?

- Prepares a new generation of scientists to tackle the world's "wicked" problems
- New concept, validated in the private industry, will spread money to the best and most innovative ideas from young scientists.
- Provides training and research funding
- This environment would be more exciting and challenging and provides a welcoming and attractive innovation space to younger people
- Brings together diverse teaching group and creates valuable 'curriculum' that can be a program product/legacy
- Responsive to trending or current needs/environments/technology
- Agile and responsive to the research needs of particular time and pace