

# Submission form for Ocean-Shot Concepts-Round 2

Response ID:45 Data

## 1. (untitled)

**1. Ocean-Shot Contact Information: \*Note - This information will be shared with the National Committee for the Ocean Decade in order to receive feedback. It will also be made publicly available if the Ocean-Shot concept is accepted into the Ocean-Shot Directory.**

Primary Contact Name (First & Last) : Henry Ruhl

Organization : MBARI/CeNCOOS

Email address : hruhl@mbari.org

## 2. Ocean-Shot Title

Integrating Ocean Observing Ocean Shots

**3. Author(s): \*Please list contributors to the submitted Ocean-Shot concept with first and last names in the order you wish them to be referenced for *potential* use in the Ocean-Shot Directory. Examples can be found [here](#):**

Henry Ruhl, Nick Rome, and Josie Quintrell

**4. Ocean-Shot Directory Summary (Please provide a short introduction/description of the Ocean-Shot concept for *potential* use in the Ocean-Shot Directory, 100 word limit. Examples can be found [here](#).):**

A scalable, coordinated and integrated approach will be needed to harness the vast potential of the large number of ocean observing initiatives being scoped and proposed to contribute to the UN Decade for Ocean Science for Sustainable Development, both in the US and internationally. However, there is not yet an inclusive Collective Impact Organization (CIO) that ties such elements together from individual observers to academia, state, federal and tribal agencies, industry and non-governmental bodies to harmonize communications, partnerships, and fundraising. Here we describe how a CIO could manage the coordination of those Ocean Shots with observing as a challenge.

**5. Abstract (describe hypothesis, scientific and/or technological objective, 200 word limit):**

A scalable, coordinated and integrated approach will be needed to harness the vast potential of the large number of ocean observing initiatives being scoped and proposed to contribute to the UN Decade for Ocean Science for Sustainable Development, both in the US and internationally. The majority (72%) of the Ocean Shots submitted involve some element of ocean observing. Ocean observations will be important to support many of the Ocean Shots that have been submitted and to support sustainable development. In the US, many organizations play a leading role in coordinating strategic prioritization for ocean observing such as the Consortium for Ocean Leadership, National Association of Marine Labs, Ocean Foundation, IOOS Association, U.S. GOOS, and others. However, there is not yet an inclusive Collective Impact Organization (CIO) that ties such elements together from individual observers to academia, state, federal and tribal agencies, industry and non-governmental bodies to harmonize communications, partnerships, and fundraising. Here we describe how a CIO could manage the coordination of those Ocean Shots with observing as a primary or secondary challenge. Our goal is to connect the strategy, planning, and resources to enable successful implementation of U.S. observing contributions to the Decade.

**6. Please select the challenges (no more than 3) that are most relevant to your concept (Expanded reference [below](#)):**

Challenge 4: Generate knowledge, support innovation, and develop solutions for equitable and sustainable development of the ocean economy under changing environmental, social and climate conditions.

Challenge 6: Enhance multi-hazard early warning services for all geophysical, ecological, biological, weather, climate and anthropogenic related ocean and coastal hazards, and mainstream community preparedness and resilience.

Challenge 7: Ensure a sustainable ocean observing system across all ocean basins that delivers accessible, timely, and actionable data and information to all users.

**7. Describe how your Ocean-Shot addresses the selected challenges (150 word limit).**

The organization will meet these three challenges, and more, by helping to coordinate initiatives. This necessarily includes

connecting those with common interests and goals, as well as those that need access to other capabilities, knowledge, teams and communities to achieve their own specific goals. These fall largely with observing, data handling, adding value to data through product development and modeling, dissemination of information, and engagement work to be sure what is being delivered is fit for purpose. Moreover, the applications include those related to understanding climate and resilience to change, natural hazards, and growing a Blue Economy while also doing so in ways that sustain resources for future generations.

---

#### **8. Vision and potential transformative impact (200 word limit):**

All individuals working towards Ocean Shot objectives are able to easily and quickly identify, engage with, and contribute to, and benefit from the key organizational and operational components of a national Collective Impact Organization. The transformational impact of bringing these individuals together along with interdisciplinary scientists, communications experts, business leaders, and critical perspectives from other non-traditional communities will result in growing and sustaining critical observing systems. Additionally, this collective body will bring solutions to the challenges of economic growth, sustainability and conservation, all data collected about the ocean environment is made easily Findable, Accessible, Interoperable, and Reusable (FAIR) to all. The Ocean Shot teams conducting ocean observing do so in the by contributing high-value datastreams to the IOOS Regional Associations, thereby entraining a mechanism to bring all contributed data into NOAA-aggregated data and information coordination systems that ultimately scales to the Global Ocean Observing System (GOOS).

---

#### **9. Realizable, with connections to existing U.S. scientific infrastructure, technology development, and public-private partnerships (150 word limit):**

IOOS, Sea Grant, and other existing federal organizations distribute resources to a plethora of public and private organizations that provide structured and scalable mechanisms to foster public-private partnerships in many ways. This includes tribal, state, local government bodies, and nonprofit, academic and commercial private entities. These also operate a wide-spectrum of infrastructure, technology development and application focused organizations. The establishment of a cross-cutting CIO can help foster more structured and comprehensive coordination between these bodies, creating lasting and transparent knowledge as to how initiatives can better operate in synchrony. A key aspect of scalability comes with the capabilities of the IOOS Regional Associations, Regional Ocean Partnerships and other existing information integrating initiatives that can bring data from many sources together into federally accredited standards. Such structures are essential to making data and information findable, accessible, interoperable and reusable (FAIR).

---

#### **10. Scientific/technological sectors engaged outside of traditional ocean sciences (100 word limit):**

Together these initiatives reach a wide variety of stakeholders that generate ocean data and diverse users including for policy, decision-making, as well as the general public in planning daily life. The opportunity to connect the Ocean Shots brings together many conventional and cutting edge concepts, entraining such things as artificial intelligence, genomics, and modeling; aligning them with people, education and social science initiatives that are needed to truly connect the iterative evolution of whole information and data lifecycle. This critically includes getting information to people in the forms they are ready to receive it and continuing to improve over time.

---

#### **11. Opportunities for international participation and collaboration (100 word limit):**

The position of IOOS as one of the GOOS Regional Alliances, and many other initiatives in the context and organization structures of GOOS and/or as activities endorsed by the IOC contributing to the UN Decade of Ocean Science for Sustainable Development. A Collective Impact Organization can link messaging across all of the various international programs led by U.S. actors to maximize impact. These include spatial scales (coastal to open ocean, air-sea surface to deep ocean); thematic scales (ocean change, pollution, biodiversity); and social scales (technology and workforce development, education, and communication).

---

#### **12. Develops global capacity and encourages the development of the next generation of ocean scientists (100 word limit):**

The wide array of prospective contributions to this Collective Impact Organization creates an unparalleled opportunity to improve the efficacy of what already exists to educate, communicate and train, but also to better entrain underserved and underrepresented communities. As the many issues surrounding diversity, equity and inclusion become clearer to more of the ocean science community, and initiatives gain traction to address them, it will be critical to understand what is working well

and facilitate a means to share and implement strong new concepts.

## 2. Thank You!

---

### Thank You Email

Jul 01, 2021 18:30:14 Success: Email Sent to: hruhl@mbari.org