Scientific collaboration to respond rapidly and effectively to marine oil spills

### WHO WE ARE

#### THE PROJECT TEAM

A collaboration between the Center for Ocean Solutions and ChangeLabs at Stanford University, the project team brings innovative design strategies and deep expertise in ocean science and governance to the table.

#### **PROJECT ADVISORS**

The project is guided by two advisory groups who have unique perspective on the scientific collaboration challenges presented by large oil spills and who can implement potential project solutions.

Funding from the Packard Foundation

The Deepwater Horizon (DWH) disaster was the largest marine oil spill in US history. The spill required unprecedented engagement and collaboration with scientists across multiple disciplines in government, academia, and industry. Although this spurred the rapid advancement of valuable new scientific knowledge and tools, it also exposed weaknesses in the system of information dissemination and exchange among the scientists from those three sectors. As we draw on the tragedy of DWH to inform our preparation for future oil spills, more effective rapid exchange of scientific information and ideas is clearly an imperative.

## PROCESS

We are employing a human-centered design process, pioneered at Stanford, to tackle the complex interdisciplinary challenge of scientific collaboration during large oil spills and generate new solution approaches that traditional problem-solving strategies might not.

# GOALS

We seek to understand the obstacles to and success cases of effective scientific collaboration during environmental crises such as large oil spills.

We will design new tools, protocols, and practices - and amplify existing successful ones - that enable rapid information exchange between government agency responders and non-governmental scientists from multiple relevant disciplines. These solutions will be applicable in other complex disaster response contexts beyond marine oil spills, such as earthquakes, tsunamis, and public heath crises.

CENTER FOR OCEAN SOLUTIONS



The one-year project (July 2014- 2015) includes three phases. In phase I (Design Ethnography), we conducted over 100 in-depth interviews with academics, agency scientists, decisionmakers, and journalists to understand key barriers and identify opportunities. In phase 2 was Concept Generation & Refinement, we proposed a wide set of ideas to overcome barriers to and enable collaboration. In Phase 3 (Prototyping), we are testing 3 possible solution tools and strategies among decisionmakers and user groups, with the assistance of the SPERR Advisory Teams. In April -July 2015, we will refine our final proposed solution, and work to ensure its uptake, implementation and longevity with our agency, academic, and industry partners.

If you are working on similar projects to increase collaboration during disaster response, we want to know!

LEARN MORE	SHARE YOUR IDEAS	CONTACT US
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The SPERR Project Team and Core Advisors

Back Row: Lindley Mease (Stanford), Theo Gibbs (Stanford), Scott Lundgren (USCG), Gary Machlis (Clemson), Bob Haddad (NOAA), Debbie Payton (NOAA) Front Row: Nancy Kinner (UNH), Chris Reddy (WHOI), Dana Tulis (EPA), Tara Adiseshan (Stanford), Jane Lubchenco (Oregon State), Kris Ludwig (USGS) Those not pictured: Marcia McNutt (Science), David Kennedy (NOAA), Thad Allen (former USCG), LaDon Swann (SeaGrant), Steve Murawski (USF), David Westerholm (NOAA)