

Nine Teams Advance to Final Round of the Shell Ocean Discovery XPRIZE

XPRIZE, the world's leader in designing and managing incentive competitions to solve humanity's grand challenges, today announced nine finalist teams advancing in the [\\$7M Shell Ocean Discovery XPRIZE](#), a three-year global competition challenging teams to advance ocean technologies for rapid, unmanned and high-resolution ocean exploration.



XPRIZE will award each finalist an equal share of a \$1 million milestone prize purse for the cutting-edge ocean mapping and imaging technologies they have developed. Their innovative approaches include artificial intelligence, aerial drones, underwater robotic swarms, lasers, and autonomous surface and underwater vehicles.

The nine finalist teams will be formally recognized and awarded at **Oceanology International's [Catch the Next Wave](#)** conference in London on March 15, during a closing keynote by Dr Jyotika Virmani, prize lead and senior director of Planet and Environment at XPRIZE.

"Round 1 testing for the Shell Ocean Discovery XPRIZE allowed the judges to see, for the first time, tangible prototypes of the innovative and diverse approaches that will revolutionize our access to the deep ocean and finally unveil the mysteries that lie deep below the sea-surface," said Dr. Virmani. "As we dive into Round 2, we are looking forward to testing the finalists' technologies in a rigorous real-world world situation that will demonstrate their ability to rapidly map the ocean floor at 4000m depths—that's deeper than the Grand Canyon!"

Shell Ocean Discovery XPRIZE finalists were chosen from a field of 19 semifinalists by an independent [judging panel](#) of seven experts. [Teams](#) advancing to the final round include:

- [ARGGONAUTS](#) (Karlsruhe, Germany) – Led by Gunnar Brink, the team is creating two swarms: one swarm in the deep-sea and one on the ocean surface. Five or more intelligent deep-sea robot drones will be accompanied and supported by the same number of autonomous catamarans for geo-referencing, retrieval and transport.
- [Blue Devil Ocean Engineering – Duke University](#) (Durham, NC, United States) – Led by Martin Brooke, the Duke University team is working with heavy lift aerial drones that drop retrievable diving SONAR pods.
- [CFIS](#) (Arnex-sur-Nyon, Switzerland) – Led by Toby Jackson, the team is building a fleet of AUVs to map and image the ocean floor using lasers.
- [GEBCO-NF Alumni](#) (USA, Global) – Led by GEBCO-Nippon Foundation alumni, the 12-nation team is integrating existing technologies and ocean-mapping experience with an innovative unmanned surface vessel to contribute towards comprehensive mapping of the ocean floor by 2030.
- [KUROSHIO](#) (Yokosuka, Japan) – Led by Takeshi Nakatani, the team is integrating technologies owned by Japanese universities, institutes and companies for a unique collaborative approach centered around AUVs.
- [PISCES](#) (Portugal) – Led by Nuno Cruz, the team is aggregating Portuguese technologies developed at INESC TEC (Porto) and CINTAL (Algarve) to create the PISCES system that leverages cooperative robotics.
- [Team Tao](#) (Newcastle, United Kingdom) – Led by Dale Wakeham, the team is developing an autonomous swarm system for rapid surface to deep ocean exploration.
- [Texas A&M Ocean Engineering](#) (College Station, TX, United States) – Led by students, and working in partnership with industry and successful alumni of Texas A&M, the university team is using drone ships and AUVs to explore remote ocean habitats.
- [Virginia DEEP-X](#) (Virginia, United States) – Led by Dan Stilwell, the team is developing small and low-cost underwater vehicles that operate in coordinated teams.

"Improving humanity's ability to gather, visualize and interpret deep ocean data using new digital techniques while collaborating with some of the brightest minds is exciting. These nine finalist teams are a testament to the strength of open innovation through teamwork," said Marc Gerrits, executive vice president of Exploration, Shell. "We believe that innovation and collaboration are fundamental if we are to solve some of the biggest challenges facing society today."

To advance to the final round, the semifinalist teams had to pass a Round 1 Technology Readiness Test, which comprised of site visits to each team by XPRIZE staff and judges. The teams were tested against 11 measurement criteria to show their technological solutions were capable of meeting the operational requirements necessary for rapid, unmanned, and high-resolution ocean mapping and discovery. Esri, the global leader in geographic information system (GIS) software and geodatabase management, donated its award-winning ArcGIS Online platform for the teams to use, enabling the Ocean Discovery XPRIZE competitors to submit their maps to the judges via Esri ArcGIS Online.

The final Round 2 testing will take place during October and November of 2018. Finalists will have an opportunity to demonstrate their technologies in the real-world in a deep-sea environment, where they will have to map the sea floor at 4000m depth and bring back 10 images from the ocean. Fugro, an industry leader in ocean mapping and another partner to the Ocean Discovery XPRIZE, will assist XPRIZE in providing the competition's high-resolution baseline bathymetry data that are needed in judging team mapping results.

<https://www.hydro-international.com/content/news/nine-teams-advance-to-final-round-of-the-shell-ocean-discovery-xprize>
