Winners Announced in XPRIZE for Advancements in Autonomous Ocean Exploration



XPRIZE, a global leader in designing and operating incentive competitions to solve humanity's grand challenges, has announced winners in the <u>US\$7M Shell Ocean</u> <u>Discovery XPRIZE</u>, a global competition to advance ocean technologies for rapid, unmanned and high-resolution ocean exploration and discovery. The results were revealed at an awards ceremony hosted at the world-renowned Oceanographic Museum of Monaco, part of the Oceanographic Institute, Prince Albert I of Monaco Foundation.

The grand prize winner, receiving a total of US\$4M, was <u>GEBCO-NF Alumni</u>, an international team based in the United States, while <u>KUROSHIO</u> from Japan claimed US\$1M as the runner-up:

- <u>GEBCO-NF</u> (International) Led by Rochelle Wigley, Ph.D. and Yulia Zarayskaya, Ph.D., the 14-nation team integrated existing technologies and ocean-mapping experience with a robust and low-cost unmanned surface vessel, the SeaKIT, along with a novel cloud-based data processing system that allows for rapid seabed visualization, to contribute towards comprehensive mapping of the ocean floor by 2030.
- <u>KUROSHIO</u> (Yokosuka, Japan) Led by Takeshi Nakatani, Ph.D., the team integrated technologies from their partners to create a surface vessel and software platform that can operate with different autonomous underwater vessels, which increases the versatility of their technology.

The US\$1M National Oceanic and Atmospheric Administration (NOAA) Bonus Prize for teams to develop technology that could detect a chemical or biological signal underwater and autonomously track it to its source was split between junior high school team <u>Ocean Quest</u> from San Jose, California, claiming US\$800K as the winner, and <u>Tampa Deep Sea Xplorers</u>, from Florida, taking US\$200K as runner-up.

Mysteries of the Deep

"Currently, more than 80% of the world's ocean is unmapped, and I'm proud to have worked alongside the people who will change this as a part of this <u>XPRIZE</u>," said executive director of the Ocean Discovery XPRIZE, Jyotika Virmani, Ph.D. "Our vision is that these new technologies will enable the discovery of new ocean species, underwater resources, geological features, and safer methods of exploring the deep sea, while illuminating the mysteries of the deep and discovering what has remained unknown since the dawn of time."

Additionally, the judges unanimously recommended a US\$200K "Moonshot Award" for Team Tao from the United Kingdom for its unique approach to seafloor mapping, even though they did not meet the criteria of the competition.

"The Ocean Discovery XPRIZE teams' accomplishments are a true reflection of XPRIZE's core belief that incentivizing the crowd will drive innovation and investment, leading to a massive shift in the state of the market," said Anousheh Ansari, CEO of XPRIZE.

Field Testing Data

To determine winners, the panel of independent judges reviewed data from field testing conducted in Kalamata, Greece, Ponce, and Puerto Rico. In Kalamata, teams had up to 24 hours to map at least 250 km² of the ocean seafloor at 5m horizontal resolution or higher. The gold-standard high-resolution baseline maps, against which the team maps were judged, were provided by Ocean Infinity and Fugro, while Esri, donated its ArcGIS Online platform for the teams and judges to use.

"At Shell, we are firm believers in the power of ideas and the value of collaboration to solve big problems," said Martin Stauble, Shell's Vice President Exploration North America and Brazil. "This prize energized teams from across the globe and stimulated innovation, technology and learning, all in support of providing data for a better understanding of our oceans. We hope that the XPRIZE results will be a catalyst to create a step-change in the speed and quality of data that companies, research institutes and society can use."

Biological or Chemical Signal

As part of the total US\$7M prize purse, four teams opted to compete for the US\$1M NOAA Bonus Prize. In a field test in Ponce and Puerto Rico, teams needed to demonstrate that their technology can "sniff out" a specified object in the ocean by first detecting and then tracing a

biological or chemical signal to its source. The judges determined that no single team was able to trace the signal to its source in the timeframe allowed, so the prize was divided among the two teams that came the closest.

Last year, nine finalist teams were awarded an equal share of the first US\$1M of the US\$7M prize purse, in recognition of their progressto-date and to support the teams' continued technological development.

As part of its post-prize impact work, XPRIZE announced a partnership with Seabed 2030, a collaborative project between The Nippon Foundation and The General Bathymetric Chart of the Oceans (GEBCO) to inspire the complete mapping of the world's ocean by 2030 and to compile all bathymetric data into the freely-available GEBCO Ocean Map.

Additionally, and in anticipation of World Oceans Day on 8 June, XPRIZE will launch a science fiction ocean anthology featuring 19 original short stories and artwork set in a future when technology has helped unlock the secrets of the world's oceans.

For more information, visit oceandiscovery.xprize.org.

https://www.hydro-international.com/content/news/winners-announced-in-xprize-for-advancements-in-autonomous-ocean-exploration