



To mark World Oceans Day, the Tara Ocean Foundation and Veolia are organizing their first ecological hackathon: the PlankThon Challenge

- The PlankThon Challenge, an ecological hackathon dedicated to the protection of the Ocean, will take place from June 25 to 27, 2021.
- It will involve students from all over the world, 48 hours of code, data and artificial intelligence brought together in a low power environment to devise models to facilitate the work of teams of scientists studying the Ocean and the effects of climate change on marine life

Paris, June 8, 2021 - From 5 p.m. on June 25, Paris time, teams of between 2 and 4 students will have 48 hours to find the best way to classify a database consisting of about 130,000 photos of plankton taken by the Tara Ocean Foundation's current expedition in the Atlantic Ocean.

Initially, the aim will be to label the images, before proposing the best way to visualize the collected data (dataviz). The labelling approach chosen must be low power, so that it can be used on frugal equipment of the Raspberry Pi type. Eventually, the best models will be put on board the schooner *Tara* for future scientific expeditions, but will also be used by marine enthusiasts, to work on the PlanktoScope (an automated microscope developed by Plankton Planet and the University of Stanford, which can be used not only to observe plankton, but also to capture fluidic images in order to quantify the biodiversity found at a given site).

Throughout the PlankThon Challenge, experts and mentors from Veolia and the Tara Ocean Foundation will be available remotely to guide the discussion, assist the teams and answer questions from the participants.

At the end of the challenge's 48 hours, the best eight teams will be invited on July 1 to pitch their approach and their dataviz to a panel of experts from Veolia, the Tara Ocean Foundation and the Oceanography Laboratory of Villefranche/Sorbonne University. The best three teams will be awarded Raspberry Pi or equivalent low power equipment and accessories with a total value of \in 20,000 (to be divided between them).

In addition, the winning team will have the privilege of visiting the schooner *Tara* and meeting the whole team from the Tara Ocean Foundation in October 2022, upon the vessel's return from its Microbiome Mission to Lorient in France. This will provide a great opportunity to see their solution at work.

Students who are enthusiastic about code, artificial intelligence or data, or who wish to invest in the protection of the oceans, are invited to form a team of between 2 and 4 members and to make an application to the PlankThon Challenge, using the following form: https://forms.gle/iPJJJLKYYQikKyUw5

Romain Troublé, Executive Director of the Tara Ocean Foundation: *"It's great to be able to harness the creativity of students from all over the world for this unprecedented Hackathon, which continues our 12-year collaboration with the Veolia Foundation. The Ocean is full of organisms we still know little about and the new technologies used during Tara Ocean Foundation expeditions generate vast amounts of data for which we must devise new approaches and solutions to make them useable by low-tech equipment, thus enriching our knowledge of the Ocean and its protection."*

Estelle Brachlianoff, Veolia's Chief Operating Officer: "Protection of the oceans is a major challenge and one that calls for innovative solutions. Veolia has been engaged in this field for a number of years and in particular supports research through the sponsorship of the Tara Ocean Foundation. Our ambition with the PlankThon Challenge is to speed up this approach, to invent the innovative technologies of the future, to foster collective intelligence and to encourage students to engage in scientific and ecological work. As the benchmark company for the ecological transformation, Veolia is constantly on the lookout for new ideas and concrete solutions to help the environment. I look forward to discovering the students' creativity in this area."

About the Tara Ocean Foundation

The **Tara Ocean Foundation** is the first recognized public interest foundation in France dedicated to the world's oceans. It develops high-level ocean science in collaboration with world-class international laboratories, to explore, understand and anticipate the upheavals associated with climate change and environmental risks. Its two key missions are to explore and to share. To make the ocean a shared responsibility, and to preserve it, the Tara Ocean Foundation raises the awareness of the younger generation and educates them, in order to protect this vital ecosystem.

About Veolia

Veolia group aims to be the benchmark company for ecological transformation. With nearly 179,000 employees worldwide, the Group designs and provides game-changing solutions that are both useful and practical for water, waste and energy management. Through its three complementary business activities, Veolia helps to develop access to resources, preserve available resources, and replenish them. In 2020, the Veolia group supplied 95 million people with drinking water and 62 million people with wastewater service, produced nearly 43 million megawatt hours of energy and treated 47 million metric tons of waste. Veolia Environnement *(listed on Paris Euronext: VIE)* recorded consolidated revenue of €26.010 billion in 2020. www.veolia.com

Contacts

Tara Ocean Foundation Director of Communication Carole Balducci-Helfer carole@fondationtaraocean.org

Veolia Group Press Relations Laurent Obadia - Edouard de la Loyère + 33 1 85 57 73 71 edouard.de-la-loyere@veolia.com

8th of June 2021 - World Ocean Day

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48h

OF ECOLOGICAL CROWDSOURCING, AI, DATA SCIENCES & DATAVIZ

#taraoceanfoundation #exploringandsharing #plankton #ocean #sciences

#research #data #imageprocessing #lowtech

REWARDS

Invitation to meet Tara Expeditions Team Raspberry items and Low tech instruments for a total price of 20,000 euros

> SORBONNE UNIVERSITÉ

REGISTRATION

- 8-23 June 2021
- Hackathon: 25-27 June 2021
- Kick-off: 25th June at 5pm (CET)
- 48H of coding

Plankton

www.veolia.com/en/careers/plankthon-challenge

