

20 - 21 October 2021

Event Report

Event Summary

Marine Litter

Protecting and restoring coastal ecosystems

Ocean and climate change

Alternative food from the ocean

Survey results

ANNEX: list of experts

Experts Bio

The two-day hackathon on ocean's sustainability was held in Brussels, at Area 42 on 20 and 21 of October 2021.

A total of 120 persons took part in the event, of which 73 were students from 18 countries and 21 were non-student participants coming from the private sector, NGO and academia. More than thirty persons participated as experts for the event in different roles: 10 domain experts, 9 business experts, 8 challenge briefers, 8 pitch coaches and 12 jury members.

Participants worked on four main challenges: marine litter, protecting and restoring coastal ecosystems, ocean and climate change and alternative food from the ocean.

Participants generated over 30 project ideas, selected top 16 ideas and formed teams around the ideas. The different teams had the possibility, throughout the event, to book appointments with business or domain experts, in order to receive feedback and to be guided on how to best develop their ideas. On the second day they received further input from domain and business coaches, as well as feedback on their presentations from pitch coaches.

The ideas were pitched at the end of the event, and expert juries selected one winning team per challenge.

Marine Litter

Winning team: Seastar - Plastic footprint

Joris Zwering, Mayan Ali, Yvette Plaisier, Hanna Tsyvinskaya, Monika Boroch

Application to raise awareness concerning the use of plastics and offer a tool to guide people find and buy products with as little plastics as possible. This app aims at changing people's behaviour towards plastic consumption by giving them the information, as well as the opportunity to compare the amount of plastic on products. In order to attract users and reward them for their effort, incentives will be created with the app (eco discounts, gamification...)

Team Seagull - Microplastics filter

Mads Ehrhorn, Patricia Santos, Denise Klein, Daniel Ceceja, Jerome Cheng, Mariona Claramunt Tintore.

Filter to catch microplastics from the car washes wastewater

Team Pelican - Project: MP'Solve

Laura Glavinc, Matija Krvavica, Pedro Lopez, Leo Maric, Carolin Do, Maria Fernandez.

Use genetically modified bacteria to breakdown microplastics from waste water as an additional step in the existing waste water cleaning platforms

Team Seal - Project: <u>Environmental course for fishermen</u>

Sara Marston, Victor Quilichini, Mattia Fausto Pedatella, Elena Calvo, Massimo Bonello.

Cultivate an education-centred, government-funded organisation working within local communities that focuses on educating fishermen about the current state of the marine environment and the change that they could potentially bring about.

Protecting and restoring coastal ecosystems

Winning team: Seahorse - "Erasmus for the sea"

Dimitri Plekanov, Elke Holzkämper, Vivi Wendelin, Farhat-Un-Nisa Bajwa.

Erasmus for the sea - volunteer program for working at MPAs:

Creation of the program "Erasmus for the sea" that would create bridges between MPA and students, allowing students to register to work on a specific project developed by an MPA. This project would also have the benefit of bridging the gap between studies and the professional world, giving students the opportunity to find a first professional experience, while providing a competent workforce to the MPA.

Team Shrimp - Marine protected area simulator

Andreas Fuchs, Simon Marsol, Jessica Picozzi, Roc Xanxo Prillo, Carmen Croese.

Simulator for the creation of new marine protected areas

Team Urchin - 4BioDiver.sity

Daniel Heuer, Maria Chamilaki, Adam Makatun, Debora Como, Elin Nielsen

App for divers and researchers, data collection, images collection (Better protect coastal ecosystem)

Team Walrus - Blue partner towns

Joanna Ferreira, Rita Alpalhao, Brendan Kelly, Yabika Farrugia, Fiona Hurray

Partnering inland and coastal towns to create coastal conservation awareness, based on a long-term relationship

Team Crab - Tackling coastal restoration

Steven Pint, Camila Vida, Claudia Ribeiro, Sandra Lopez, Joana Beja

NGO that aims to tackle the problems linked coastal degradation through tourism tax and sponsorship by restorations of ecosystems coastal biodiversity

Team Sharks - Promote citizen science

Amy Zammit, Emilia Zygarlowska, Hao Pham, Yoanna Dimitrova, Emilie Lunqvist

Promote citizen science in marine protected areas and monitoring

Ocean and climate change

The winning team: Team Squid - "Hydrolane"

Dimitri Plekanov, Elke Holzkämper, Vivi Wendelin, Farhat-Un-Nisa Bajwa.

This project aims at making zero carbon shipping by 2040 a reality! By creating for the ships, predetermined "lanes", reducing the impact of shipping on marine life. Those lanes would be equipped with hydrogen refueling stations, generated with solar, wind and hydrothermal energy from the ocean.

Team Swordfish - Wind and Weed

Sophie Delerue-Ricard, Nikolas Irodotou, Megan Mulleady, Femke Testroet, Laura Prigge, Riccardo Pieraccini

Rewilding wind parks with added ecological value seaweed to reach MPA targets, increase blue energy, enhance biodiversity while making multi-use of marine space

Team Seashell - Waves of the future

Katerina Theodorou, Neofytos Antoniou, Marek Lukasiewicz, Andrei Bogdan Harcota

Reusing old oil rigs to produce energy from waves and offering transition of oil companies to producing green energy

Team Trident - OceanForest

Danila Kalinikin, Brigita Kazlauskaite, Carolina Rodriguez, Simonas Bansevicius, Tyméa Perret

Creating some "forest" of various algae in order to do some water and air purification and repurposing of old ports

Alternative food from the ocean

The winning team: Dolphin - Project "EAT IT!":

Augustin Dumoulin, Alexios Stamelos, Georgia Ktistaki, Laura Seoane, Ana Viskovic, Yves Van Seters

Interactive multi-channel marketing campaign, involving AI chatbots, cards, games, video streaming and workshops in order to promote healthy, safe and locally produced sustainable seafood. This campaign aims at changing perception and habits around aquaculture, as well as the many ways of consuming it.

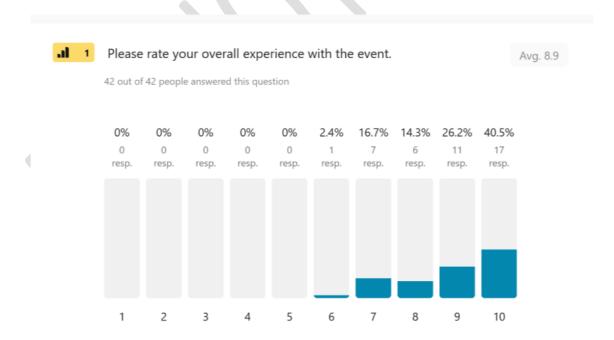
Team Octopus - 6CC

Florence Rossi, Kevin Mwangi, Bruna Palaversa, Risa Nurwahyuni, Klaudia Durlej, Gregorio Carlini

Helping building trust and reputation around the first sea farming project in the Belgian North Sea through demonstrating proof on restoration of the ecosystem, based on reliable scientific data and prospective modelling

Survey results

Nearly 50% of participants (substantially higher than the typical response rate of 15-20%) have filled the survey.



What was the one thing that you liked the most?

The way in which we have been guided during the development of ideas

The structure given during the brainstorming/group work sessions

The camaraderie!

Brainstorming process at the beginning - very effective. I also appreciated having access to the experts.

The vibes, and mix of people. Food was great as well, and the location allowed for a surprisingly calm hacking time!

Working together with many different people with the same general goal.

The good/ clear communication via email

All of the logistics were curated perfectly.

Human attitude towards all participants of the Hackathon

I liked that all the experts and the staff were really there for us and always willing to help so everything was immediately easier and we were more relaxed.

What was the one thing that you liked the least?

Transport from hotel to venue. A collective transport with all participants would have been calmer for the morning stress.

Organisation and staff were excellent. Food could improve

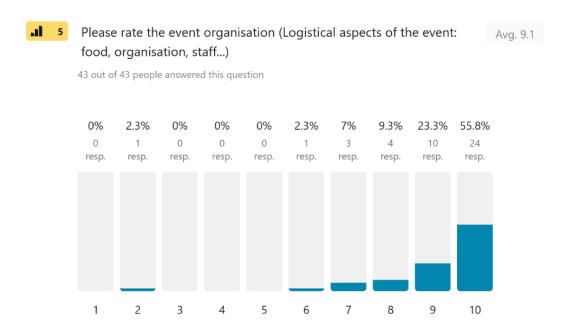
Nothing. Everything was perfect.

Not getting a prize

I wish it lasted longer than 2 days, but everything seemed to be perfect during these 2 days

that was only a 2 day event i wanted more

Everything was perfect! The people there were so helpful however the one thing that I liked the least was the food...



What did you get out of Hack4Oceans that you didn't expect?

Connections!

Many interesting contacts!

Fun memories

Way more knowledge than expected

Friends and new ideas for my future career choice

I didn't expect how much about the "business" side of science I would learn

I was very much inspired by the other participants' views and insights on quite familiar issues, making me see things with fresh eyes.

Better knowledge on how things are done in the business universe + some practical tools

The feeling that I am able to collaborate with other people in English. That means I can work outside my country

I learn so much about the new cultures and languages! Also I made new friends!

ANNEX: list of experts

Challenge Briefers:

Christina Kontaxi	Gert Everaert	
Lien Loosvelt	Serge Mapendo Dambalasa	
Zoi Konstantinou	Irene Martins	
Agustín García González	Ulrike Braeckman	

Business Experts:

- Siegfried Schmuck
- Jan Leyssens
- Jonas Burm
- Mark Bollen
- Philip Easthill
- Bruno Delepierre
- Dominique Siplet

Domain Experts:

- Gert Everaert
- Dirk Pauwels
- Christina Kontaxi
- Rui Pereira
- Susana Costas Otero
- Ehsan Karimi Rad
- Luciana Das Neves
- Irene Martins
- Thanos Smanis

Pitch Coaches:

- Yves Van Seters
- Florence Rossi
- Kiran Van Den Ende
- Leo Exter
- Deepak Mehta

Jury Members:

Marine Litter:	Gert Everaert	Pierre Leclercq	Christina Kontaxi
Alternative food from the ocean:	Margriet Drouillon	Zoi Konstantinou	Carlos Fernandez Baladron
Protecting and restoring coastal ecosystems:	Ulrike Braeckman	Irene Martins	Susana Costas Otero
Ocean and climate change:	Andy Kontoudakis	Ann Overmeire	Agustin Garcia Conzalez

Experts Bio

Christina Kontaxi

Christina is a marine scientist and ex – permanent civil servant in Greece. She has collaborated with international, national and local companies, institutions and NGOs and since 2019 she is responsible for the Fishing for Litter program and an advisor to waste issues and Single Use Plastics Directive transposition in Greece at the Athanasios K. Laskaridis Foundation and collaborator for the management of plastics in agriculture in the organization "New Agriculture New Generation". She is a freelancer and member of the Social Cooperative "Paths of Greece".

Philip Easthill

Philip is the Secretary-General of the European Boating Industry (EBI). EBI is the European umbrella association representing the recreational boating and nautical tourism industry. EBI is an established stakeholder at EU level, representing the interests on key issues. European waters count at least 6 million boats, 36 million regular boaters and over 6,000 inland and coastal marinas. The European recreational boating industry is made up of 32,000 companies (predominantly SMEs) which directly employ over 280,000 people. The sector is a key contributor

to tourism and to local economies in coastal and island regions, and Europe is an important exporter of recreational boating products.

Jonas Burm

As a Design & Innovation Director at Made, Jonas guides clients from their very first briefing through to the final delivery of innovative solutions, whether it's physical, digital or business oriented. With over 10 years of experience, his design-thinking toolbox enables him to tackle a wide range of challenges in a variety of industries.

Focusing on sustainable innovation enables him to leverage that experience in his ambition to have a positive impact on people, planet and profit.

Rui Pedro Gonçalves Pereira

Rui Pereira is the Head of Seaweed Division at A4F – Algae for Future, a company with more than 15 years of experience in the field of algae biotechnology. Academically trained as a Biologist by the University of Porto, he obtained his PhD in 2004, with work developed between the University or Porto and the University of Connecticut (UConn, USA).

As a researcher and during the years within the business field, he accumulated the experience of participation in more than 20 national and international projects, published 8 book chapters and more than 40 scientific papers in peer reviewed journals. He is a member of the Portuguese mirror committee for the Standardization of Algae and Algae products (CT211 and CEN_TC454) and member and co-chair of the Expert Working Group on Macroalgae Culture, under the context of project Eklipse - Bridging the gap between policy and knowledge on biodiversity in Europe.

Thanos Smanis

Thanos is an expert in blue economy and climate change. He has more than 15 years of experience holding a MSc in Agriculture Science and Engineering, a MSc in Economics and PhD in ecosystem management. He works with CLIMAZUL in growth & development, nature resources, biodiversity, and climate change areas. He has worked closely with financial institutions and national governments on their institutional design, capacity building and strategic approach to channeling environmental and climate change issues in the economy. He specialized in capacity building, stakeholder engagement and development of policy frameworks in the field of Integrated Maritime Policy. He has been involved in multiple international, multidisciplinary projects to provide support to different Sea Basins and countries to frame and implement their Blue Economy strategies and Maritime Spatial Plans focusing on an integrated approach, via technical assistance on the administrative level and for the implementation of Sustainable Blue Economy projects.

Pierre Leclercq

Pierre Leclercq studied in Belgium and graduated as a Computer Science Engineer (MSc) in 1984. He worked at Apple for six years, founded a small software startup he later sold to Digital Equipment, was part of the Internet revolution, and then joined the Belgian diplomatic team to lead the San Francisco Belgian Economic Development office. In 2006, Pierre was instrumental in convincing Google to choose Belgium as the location for their first European data center. Pierre also convinced Microsoft, IBM and Cisco to partner with Belgium's government with the objective to push innovation and reinforce the collaboration between large IT firms and local universities, research centers and small businesses. Pierre joined the European Commission IT team in 2016 and has worked on the IT strategy for DG Mare for the last 3 years. He is a recognized board member, coach, trainer and Digital Transformation and innovation specialist.

Siegfried Anton Schmuck

Siegfried works at the Pew Charitable Trusts in Brussels as Government Relations Officer, coordinating Pew' European outreach to the EU institutions and EU Member States on a number of Pew's campaigns. In Pew's Preventing Ocean Plastics project, his work includes participation in ongoing EU stakeholder consultations, and dissemination of the findings of Pew's flagship report "Breaking the Plastic Wave" to policymakers, industry, academia, and civil society. This report is a global analysis using first-of-its-kind modeling, and shows that we can cut annual flows of plastic into the ocean by about 80% in the next 20 years by applying existing solutions and technologies. "Sig's" career has always revolved around the nexus of environmental policy and technology

Dirk Pauwels

Dirk has a formal education in business and IT-management and works since 2002 as an independent consultant in business engineering and IT service management. In 2016, he started working in the area of digital transformation, focusing on Blockchain and data analytics. He has obtained a Master of Sustainability Leadership at the University of Cambridge and currently he is a PhD-candidate at Antwerp Management School, focusing on sustainability-related research. Next to this, he has founded the NGO Zero Plastic Rivers vzw which has actively participated in defining and starting a number of relevant projects to reduce the plastic pollution of the river Scheldt, such as a PhD research project at the University of Antwerp to quantify and qualify the plastic flux of the Scheldt to the North Sea.

Agustín García González

As an Engineer at BlueFloat Energy, Agustín supports project development activities in the existing and new markets by analyzing complex technical requirements, constraints and solutions, in particular with regards to the integration of the floating foundation and wind turbine. Before joining BlueFloat Energy, Agustín worked as a Floating Wind Engineer at Vestas, supporting the technical development on a wide range of floating offshore wind projects. He was also responsible for the coupled analysis between the floating foundations and the wind turbine and was involved in the commissioning activities of the WindFloat Atlantic and phase two of the Kincardine project. Agustín also worked closely with foundation designers and project developers, providing technical advice on the intricacies and challenges of floating offshore wind, at early stages of upcoming projects.

Ulrike Braeckman

I'm a marine ecologist intrigued by the effects of environmental change on carbon and nutrient cycling in marine benthic communities. My research embraces marine ecology and biogeochemistry and study sites include Arctic and Antarctic shelf seas under rapid climate change, but also the heavily used North Sea (with effects of Offshore Windfarm developments on the marine ecosystem in particular).

Irene Martins

She is a researcher at CIIMAR, Portugal (https://www2.ciimar.up.pt/). Her research focuses on the application of numerical models to understand coastal systems and predict the effects of different stressors, such as climate factors, contaminants, and plastics, on the structure and function of those ecosystems. Ultimately, she aims at developing tools and guidelines that can support decision-making regarding the sustainable use of coastal and marine ecosystems.

Luciana das Neves

She holds a PhD in civil engineering (University of Porto). She is a Senior Coastal Engineer – Project Manager at IMDC nv in Belgium and a visiting professor in the fields of coastal and offshore engineering at the University Porto in Portugal. Luciana is a long-time advocate for sustainability and specialises in strategies for effectively managing risks and adapting to climate variability and change in coastal areas. During her professional career, Luciana has worked in 30+ countries through 50+ small (<250k€) to large (>5M€) -scale consultancy and engineering design projects related to strategic investment in coastal and port infrastructure development, as well as urban resilience and blue energy. In recent years, her R&I interests have also been revolving around ocean energy, namely the integration of wave energy conversion in multipurpose breakwaters and hybridisation of offshore renewables.

Dominique Siplet

Over the 30+ years of my career, I have grown out of the traditional business development and marketing jobs in the pharmaceutical industry (ICI), FMCG (The Walt Disney Company, Coca-Cola) and consulting services in order to gradually build a specific experience in transforming very traditional services into market driven value propositions: Payroll Companies (Partena, Securex, UCM), Health Insurance (PartenaMut, OZ), Mobility (STIB/MIVB, De Lijn, Touring), banks (bpost bank, BNPPBF) as well a public companies such as the bpost, National Lottery and RTBF. In the past decade, I have helped numerous start- and scale-ups organizing their growth and structuring their strategy, thus enabling them to develop realistic plans, actionable campaigns and reasonable investments.