

REV OCEAN

STRATEGY

1. Why REV Ocean: The state of the ocean

Life on Earth originates from and depends on the ocean. The ocean is a vital source of life, inspiration, livelihood, nourishment and biodiversity. It produces half of the oxygen we breathe, provides essential food for more than 3 billion people, employs about 200 million people in fisheries alone, and adds \$3 trillion USD a year to the global economy. The ocean is the Earth's largest ecosystem, hosting a rich array of life spanning from microscopic organisms, up to the iconic blue whale, the largest animal that has ever lived on Earth. It is estimated that the ocean is home to over two million different species with over 90 per cent yet to be discovered. Despite representing 99 percent of the living space on Earth, large areas of the ocean remain a mystery.

However, we do know that the ocean is in crisis. Populations of fish, sea birds, whales and other marine species have been reduced by as much as 50 percent in the past 40 years, according to the WWF [Living Blue Planet Report](#). This is a much more acute situation than previously anticipated, calling for a global rescue operation with immediate action at local, national and international levels.

Marine life is threatened by a range of human initiated factors, notably overfishing, climate change, habitat destruction, aquaculture, tourism, invasive species and land-based pollution. What we are seeing is humanity collectively mismanaging the ocean to the brink of collapse. We are posing a serious existential threat not only to intrinsically valuable and irreplaceable marine species and the terrestrial ones that are dependent on them, but also to human civilization as we know it. This is because the ocean and the life it nurtures contains critical elements of the Earth system and the ecosystem services human existence relies on.

Fortunately, solutions do exist. With the right science, innovation, communication and regulation, we can turn the tide on this degradation.

The ocean is a dynamic, interconnected global ecosystem that can recover if the negative pressures are dealt with effectively. To do that, we need to improve our understanding of the ocean, get key stakeholders aligned with that understanding - decision-makers, researchers, business and civil society - and turn that knowledge into concrete solutions.

REV Ocean shall contribute to exactly that.

2. What is REV Ocean?

REV Ocean is a game-changing initiative that has an ambitious yet simple goal - to ensure 'One Healthy Ocean'. Working together with an extensive network of strategic partners we will champion a new generation of ocean solutions and inspire humanity to take action to combat harmful global impacts on the marine environment.

Taking on the role as ocean trailblazers we intend to create positive, measurable impact; provide a pathway for others to follow and motivate the next generation of ocean leaders. REV Ocean will strive to fill critical knowledge gaps, develop innovative solutions, and bridge science, business and policy sectors to achieve positive change. Our programs will be developed to support the UN Ocean agenda, the UN Decade of Ocean Science (2021-2030) and help achieve the UN Sustainable Development Goals (2015-2030).

REV Ocean is a not-for-profit company established and funded by Norwegian businessman Kjell Inge Røkke. The foundation was established as a result of Mr. Røkke signing the Giving Pledge campaign in 2017 vowing to give away more than 50% of his fortune to philanthropic causes. Any profit generated from our activities will be reinvested into our work programme for a healthier ocean.

Our vision, One Healthy Ocean, includes ambitions to make a protected ocean productive, and we will work to ensure the ocean as a common good for humankind.

Our vision: One Healthy Ocean

Our mission: From curiosity to understanding to solutions

3. Our focal areas

There are many issues facing the ocean today, and REV Ocean considers climate change, plastic pollution and overfishing to be the most critical. We have chosen these overarching priorities for our work:

Reduce the impact of climate change and ocean acidification

The ocean has absorbed about a third of anthropogenic carbon emissions and 93 % of excess heat generated in the atmosphere as a result of global warming. This exposes marine ecosystems to a combination of climate-change related stressors: ocean warming, increased acidification and decreased oxygenation.

REV Ocean will conduct research to mitigate negative impacts on ecosystems and humankind. Activities include:

- Researching processes within the ocean that may feedback strongly to the atmosphere and climate, especially tipping points in order to accelerate implementation of CO₂ emission

reduction programs through policy change at national, regional and international levels

- Understanding the biological carbon pump, especially the active transport of carbon into the deep ocean, to ensure that human activities such as fishing are managed so the carbon sink is maintained or enhanced and to ensure that such biological processes are accurately represented in Earth-system models used for predicting the effects of climate change
- Studying the role of marine carbon sequestration ecosystems (e.g. blue carbon) so they can be included in carbon accounting and managed to maximize their role in mitigating climate change
- Illuminating the likely impacts of climate change on other aspects of biodiversity, ecosystem function and service provision and to identify solutions to mitigate such impacts

Plastic pollution

Plastic pollution is ubiquitous in the marine environment and there is growing evidence of its impact on marine species. However, many aspects of the distribution and impacts of plastic debris in the marine ecosystems remain unclear.

REV Ocean will investigate how marine plastic debris presents a threat of irreversible impact on Earth-system scale processes and develop understanding and better solutions within the following topics:

- Improving resolution of the distribution and transport of marine plastic debris in the ocean through continuous monitoring, and technological innovation (e.g. to measure concentrations of nanoplastics) to enable development of solutions to the marine plastic pollution problem
- Researching the impacts of plastics on ecosystems and ecosystem functions (e.g. the ocean carbon cycle) to elevate and drive the political process to eliminate input of plastics into the ocean
- Assessment of whole life-cycle risk of marine plastic debris on threatened marine species for identification of specific solutions to mitigate these risks
- Assessment of the toxicological risks of marine plastics to the health of marine ecosystems and, in turn, to humankind to identify how to mitigate such through technological, political and other solutions

Stop unsustainable fishing

Fish are a critical component of global food security. With a growing human population, demand for fish is set to rise by at least 30 % by 2050. However, about two-thirds of the world's fish stocks are overfished, and some fishing practices cause significant damage to non-target species and marine ecosystems.

REV Ocean will increase the sustainability of fishing by focusing on the following topics:

- Improving assessments of existing fisheries resources to identify effective changes in policy, management or enforcement practices, including technical advances in fisheries monitoring and surveillance, to reduce or eliminate overfishing
- Researching fisheries impact on non-target species and habitats in order to identify innovative strategies and technical solutions to prevent destructive fishing practices
- Assessing the potential risks of targeting new fisheries resources and potential solutions to these risks

4. Our values and approach

We will work in a fast and flexible manner while relentlessly focusing on results rather than processes.

We expect to break new ground, champion pioneering innovation, and make bold decisions to save our ocean. By acting as a beacon of hope we expect to attract the best and brightest talent worldwide to make this happen.

We will openly and freely share scientific results and ideas for solutions with a strong emphasis on transparency throughout. REV Ocean's actions will be guided by the best available science and technology in order to bridge gaps in knowledge, solutions, capacity and policy. We will strive not only to reduce our own environmental impact but focus on leaving a positive footprint through our activities and inspire others to do the same.

We will work with young and unestablished scientists and innovators and provide the next generation of ocean saviours with opportunities they may not otherwise get.

We will not do what others can do better. Therefore, we will partner and collaborate with the most influential actors across science, business, policy, and civil society, and facilitate cooperation beyond our own organization. We will work with the best ocean scientists, experts, innovators, entrepreneurs, communicators, educators and politicians worldwide to make the ocean healthy again.

We believe that raising public awareness is important to achieving the necessary political will and market changes that will enable ocean sustainability. We will therefore strive to produce excellent and innovative communications material related to our mission.

REV Ocean will focus on solutions, not problems; and on actions that do good, not only feel good.

Our core values are:

- **Catalytic**
- **Credible**
- **Innovative**

5. REV Ocean goals

The REV Ocean goals are:

- a. Improve the understanding of our ocean and increase ocean awareness among decision-makers worldwide.
- b. Enable ocean action by bringing the best people together.
- c. Develop solutions to reverse the negative environmental situation in the ocean.

6. REV Ocean's platforms

REV Ocean shall achieve its main goals through the following platforms:

The Research Expedition Vessel

Upon completion in 2021, the REV Ocean Research and Expedition Vessel will be made available to researchers, decision-makers, artists, campaigners, businesspeople and philanthropists that share our goal of making the ocean healthy again. A third of the time, the vessel will be made available free of charge to science-based projects that will be selected through a transparent, peer-reviewed process of quality assurance following open targeted and blue-skies calls for proposals. These projects, rooted in REV Ocean's science plan, which will be revised tri-annually, will set the course for the vessel's cruise plan. Thematic scientific workshops on board could be developed for ocean along the line of the Bellagio-gatherings for climate research.

We expect research teams to make their data and findings from REV Ocean cruises publicly available.

Expeditions for decision-makers or for educational and awareness-purposes as well as expedition cruises for paying guests will be planned according to the science-informed cruise-calendar and take up another third of the vessel's operational time.

For the remainder of the time, REV Ocean will be available for commercial hire. Revenue from charter hire will be used towards financing future scientific cruises.

Whenever possible, research and awareness raising activities will be incorporated into the vessel's expeditions or private trips.

Expected outcomes of the REV Ocean vessel:

1. *New data and knowledge that help us better understand the ocean.*
2. *Greater ocean awareness and action among decision-makers.*
3. *New technological solutions.*
4. *Improved environmental standards for vessels and yachts worldwide.*
5. *Increased global philanthropy for the ocean*

The World Ocean Headquarters (WOH)

To address the urgent need for collaborative action to restore ocean vitality and develop a sustainable blue economy, REV Ocean and Aker ASA are exploring to build the World Ocean Headquarters.

Functioning as a hub, the World Ocean Headquarters will gather governments, the private sector, academia and civil society who are committed to restoring the health of the ocean and using its resources sustainably. The hub will act in some ways as a twin and key counterpart to the REV Ocean vessel and will collaborate actively with existing marine research centres, ocean innovation networks, knowledge hubs and technology clusters around the world.

The World Ocean Headquarters will be built and owned by Aker ASA, whose majority shareholder is REV Ocean-founder Kjell Inge Røkke.

Expected outcomes of the World Ocean Headquarters:

1. *Ocean science: improving knowledge, filling the gaps and sharing the findings.*
2. *Ocean governance: updated evidence-based policy and strengthened regulatory frameworks.*
3. *Ocean technology: development, testing and demonstration of new technologies through designated innovation spaces.*
4. *Ocean business: commercial and scalable solutions for increasing the sustainable economic value of ocean-based industries.*
5. *Ocean finance: enabling venture capital for new technology and business solutions for the sustainable ocean economy to grow.*

7. Other REV Ocean supported initiatives

The Ocean Data Platform Foundation

The Ocean Data Foundation (ODF) is an independent, non-profit, non-compete foundation providing a data platform and associated services for a sustainable ocean. The data platform (ODP) connects data, people and technology to drive a sustainable and productive ocean.

This enables unbiased research and facilitates a data-driven debate, leading to better decision-making and conservation of marine resources.

Expected outcomes of the Ocean Data Platform:

1. *Liberate ocean data from source systems and data silos and make them available for use in a sophisticated and user-optimized horizontal data platform*
2. *Contextualize ocean data in a common data model to enable cross-domain analysis and visualizations*
3. *Make ocean data available through open, high-performing and well-documented APIs to make it as easy as possible to access data and build applications*

REV Ocean is a member of the ODP Foundation's Board of Directors and supports the Foundation's work in various fields.

The Plastic REVolution Foundation

The Plastic REVolution Foundation is an independent foundation established in 2019 with the goal of reducing plastic pollution by developing means of sustainable, commercially viable and scalable solutions.

The Plastic REVolution Foundation's initial project is to build a successful concept for plastic collection in Accra, Ghana, and utilize technological solutions to transform this plastic into a sellable product that can finance its collection.

One million tons of plastic waste is generated each year in Ghana, of which 270,000 tons in Accra alone, about two thirds are leaked into surrounding nature or burnt. A potential technology solution is Plastic-to-Liquid (through the use of pyrolysis technology), and the ambition is to build a circular economy for plastic waste.

REV Ocean is a member of Plastic REVolution Foundation's Board of Directors and supports the Foundation's work in various fields.