

BLUE INNOVATIONS

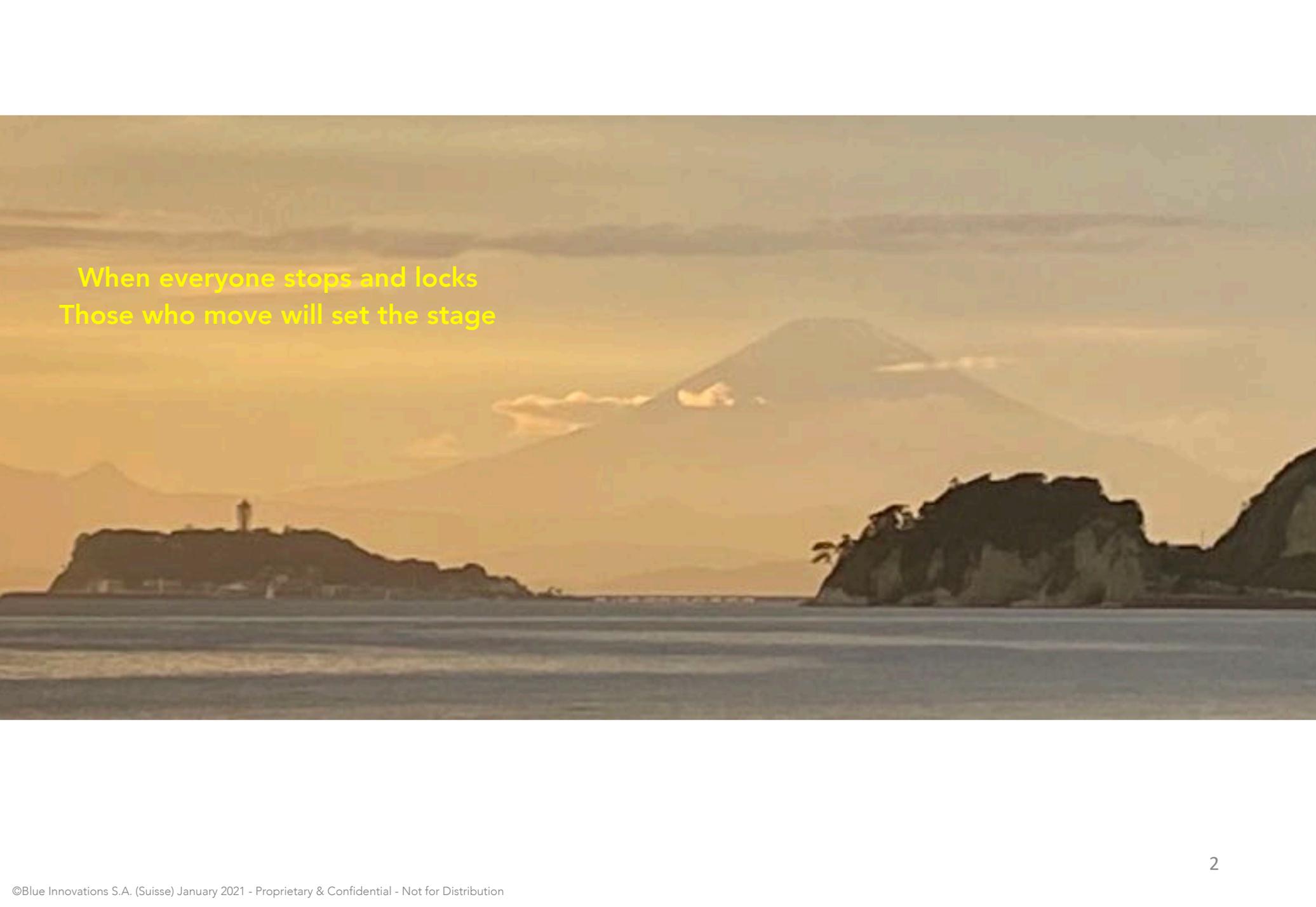
Entrepreneurs transforming reality for the better of all

Presents

Porrima's Blue Odyssey



28 April 2021



When everyone stops and locks
Those who move will set the stage

Porrima (the ship's name)



Porrima was in ancient Roman culture the Goddess of the Future. She was revered by pregnant women as protector against the dangers of childbirth. **Porrima** banned all forms of animal skin in her temple. This meant no shoes, no leather, and no animal sacrifice: *“For on the day they had received life, they did not want to deprive another life.”*

Our voyage aims to transform society: we are committed to create a better future. This undertaking is rich in challenges. We want to celebrate and enhance life, engage in dialogues with sentient beings, while having a clear vision of the future: respond to the needs of all with what we have, generate resilience and build up the common good. We are inspired by Nature and have greatest respect for mothers who have brought life to all of us.

Therefore we call our ship **MS Porrima** bringing a vision towards the future, a medium that emanates from the birthing of new life and the desire to enhance conditions to promote life, health and happiness.

Our Symbols



Alexandre de St. Exupéry said in "The Little Prince" through the fox that you have to see with your heart. So we do in confidence and with unconditional trust.



Porrina protects and promotes life. The sound of a beating heart connects us. Therefore we will register the heart of all fragile and emerging life in the water.



The turtle is a symbol of longevity, endurance and perseverance. Turtles remind us to stay true to ourselves, feel at home anywhere, displaying patience.



The male Seahorses carry the female's eggs until they are born. This amazing partnership between the males and females of the species.



The octopus has three hearts and no brain - as we know it - but has proven intelligent and mindful.



The best inventions have been made millennia ago. Humanity is only starting to discover the incredible intelligence embedded in billions of years of evolution.



INSPIRED BY DOING

PORRIMA's BLUE ODYSSEY IS DEDICATED TO TRANSFORMING REALITY

The ambition of **Porrima's** Blue Odyssey is to accelerate entrepreneurship for the common good. From the energy transition with Artificial Intelligence (AI) and robotics, biomimetics as a portfolio of pragmatic solutions, a strong shift towards the bio-economy building on science with concrete examples to show. We will trigger actions around the world to implement solutions by **inspiring and empowering the next generation of entrepreneurs.**

MS Porrima is a unique "living laboratory", showcasing a portfolio of breakthroughs that will complete 250,000 kilometers (6x around the world) with renewable energy only from solar or wind, hydrogen and biofuels. Jointly with our partners we promote a voyage from June 2021 until November 2025 that will leave traces of its passage everywhere. We will report on what happened while we are there and after we have left ...

Blue Innovations



Background 2010 - 2020

MS PlanetSolar was launched in 2010 in Kiel (Germany). The 36 meter catamaran completed her first solar-powered round-the-world voyage two years later. From its launch to the present day, the largest solar boat in the world has covered over 150,000 km, more than three round-the-world voyages. As "Race for Water" the boat integrated in 2017 hydrogen fuel cells and a traction kite.

Prior to departure on its third voyage in 2021 the boat will integrate thin biofilm solar made with algae cells, reversible power system generating energy when the kite is used, super-energy efficient high speed internet over light, and 3D projection screens, just to name a few. The "**Blue Innovations**" on MS **Porrima** will embrace seaweed curtains as clean-up standard for micro-plastics and implement research on the removal of microplastics from the sea the way lungs remove CO₂ from our blood.

The **MS Porrima** is a unique scientific and entrepreneurial platform. She integrates dozens of innovations and continuously adopts pioneering products inspired by Nature, bioplastics that degrade in sun, soil and sea. **Porrima** is the ideal ambassador to showcase how sea, water, sun, wind combined with creative design can guarantee an abundance of water, power and food while offering a quality of life with sustainable sources. A new reality emerges!

Blue Innovations' (Suisse) S.A. parent of Porrima started in 1989 with the commitment to zero waste and zero emissions. "Blue" originates from the book "The Blue Economy: A Report to the Club of Rome" (2009) describing how to transform the economy and society. Translated in +50 languages, the reference work highlights one hundred technologies with innovative business models. **Porrima** is an accelerator of these breakthroughs implemented all over the world.



Inspiration - Problems - Solutions

The key to change and to transform is the creation of a new generation of entrepreneurs. We wish to contribute to this during **Porrima's** Blue Odyssey through three complementary steps:

Know the Problems

The hard facts are known: need to accelerate the energy transition, clean up the oceans of micro-plastics, inspire a new generation of entrepreneurs for the common good. We need to change the business model to one that strengthens resilience of communities and builds up the commons. Thanks to the "Tangible Earth" present on the **MS Porrima** connected to hundreds of databases we will know the latest facts based on available science.

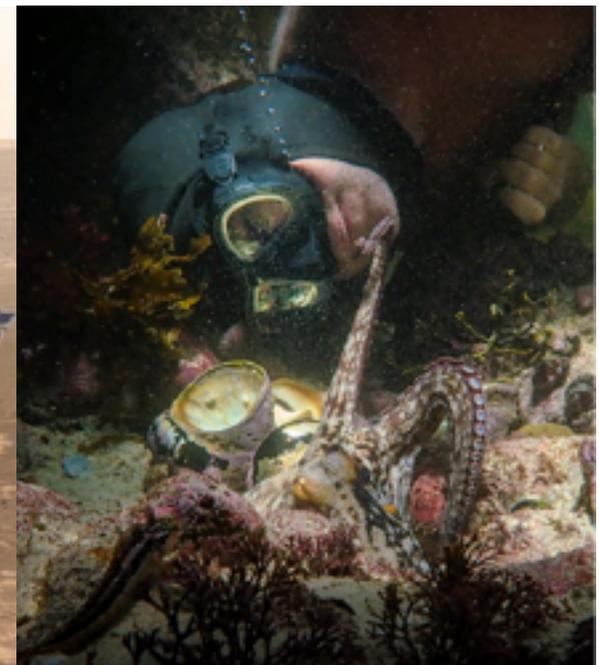
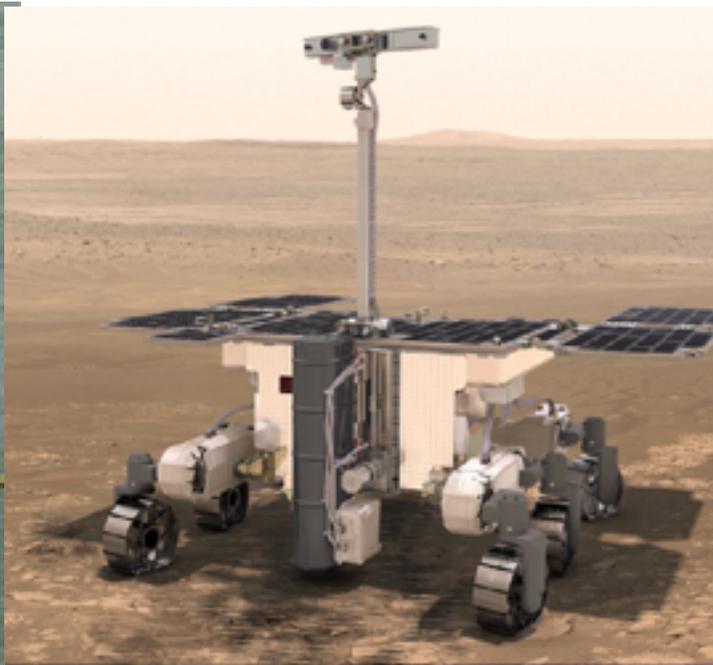
Create Inspiration

This new generation of entrepreneurs will be inspired by a portfolio of observations, insights and actions brought each day through podcasts and documentaries. An extraordinary working with pioneers such as Adriana Marais (South Africa) leader of the team to travel to Mars, Maud Fontenoy (France) and Craig Foster, producer of the successful Netflix film "The Octopus - My Teacher" which was awarded the Oscar for Best Documentary in 2021.

Accelerate Solutions

The boat brings solutions. All technologies and business models have been tested and tried somewhere in the world. We are not interested in one, we offer clusters of "**Blue Innovations**". **MS Porrima** demonstrates that starting with sun, wind and sea water everyone can create power and fresh water, healthy food and that we can clean up the errors of the past while generating value and jobs for communities.

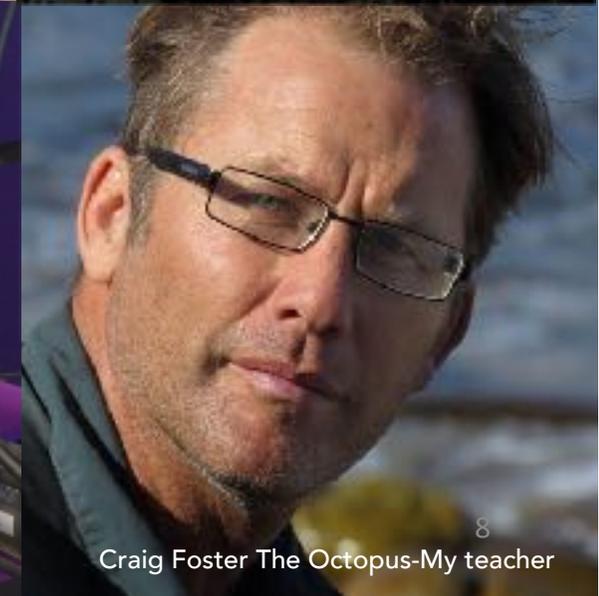
We must be inspired by pioneers:



Maud Fontenoy - Space Mission to Mars

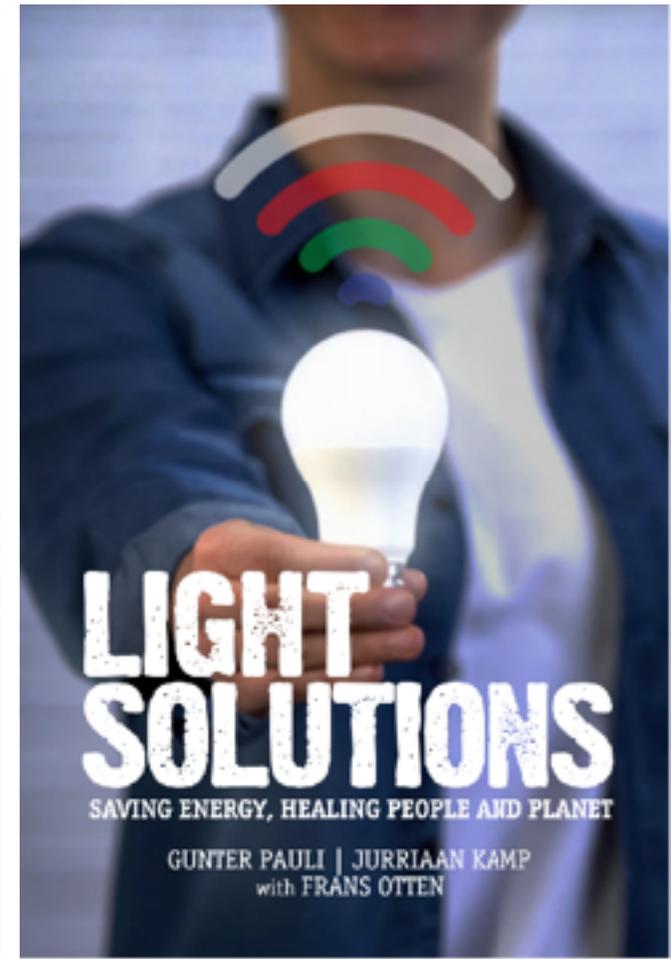
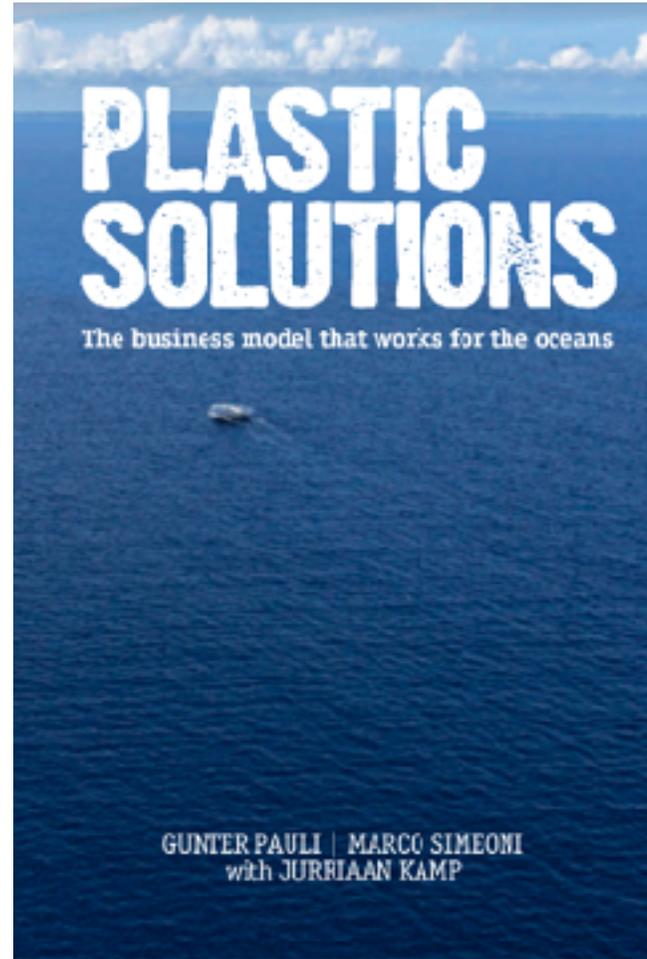
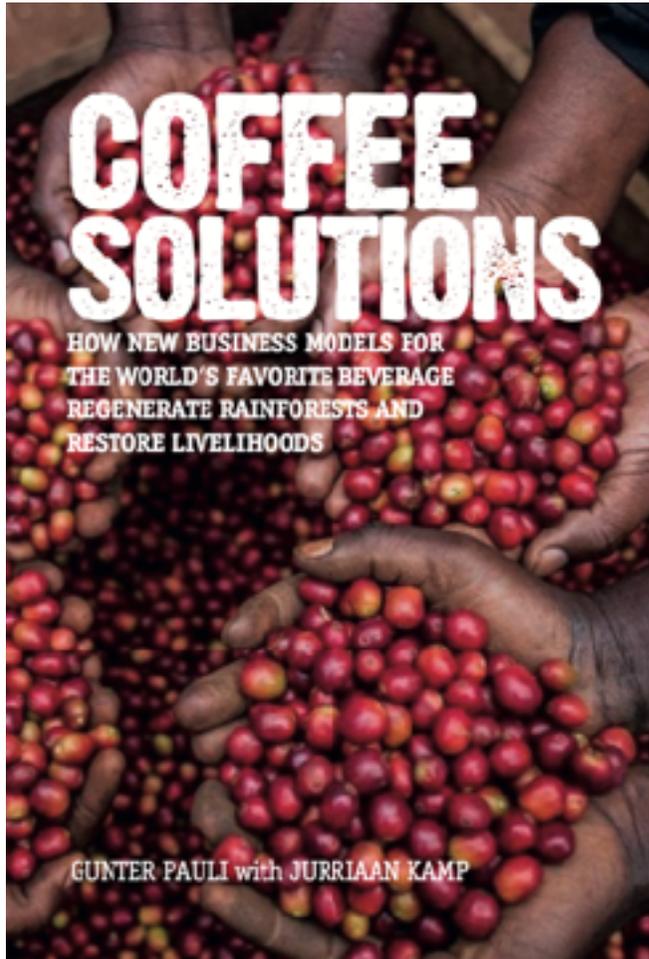


Adriana Marais - Space Mission to Mars

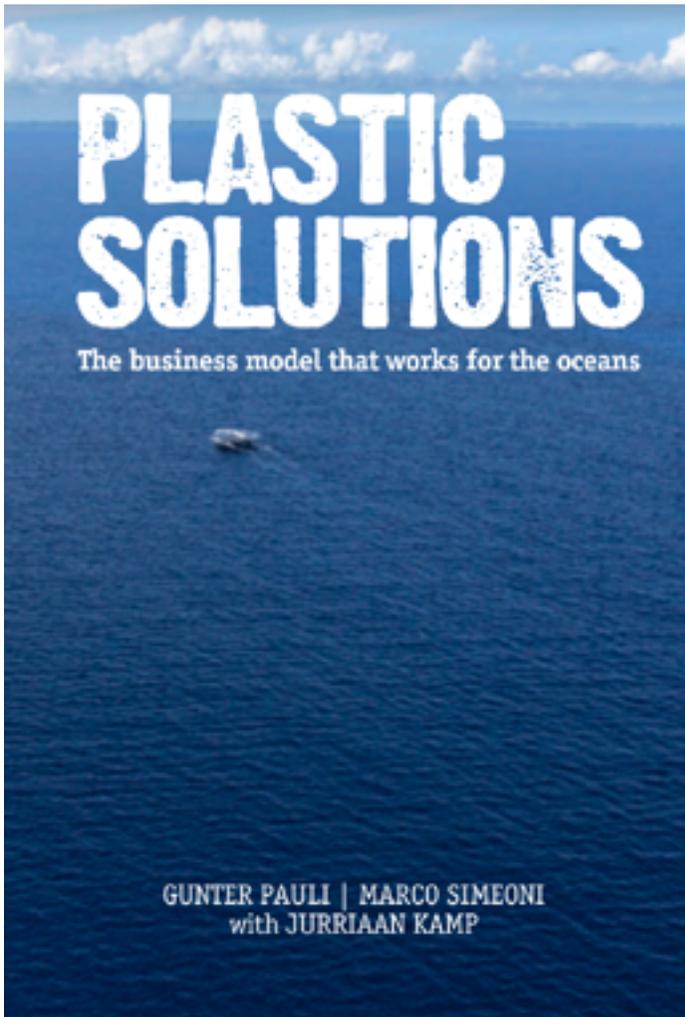


Craig Foster The Octopus-My teacher

Entrepreneurs present solutions



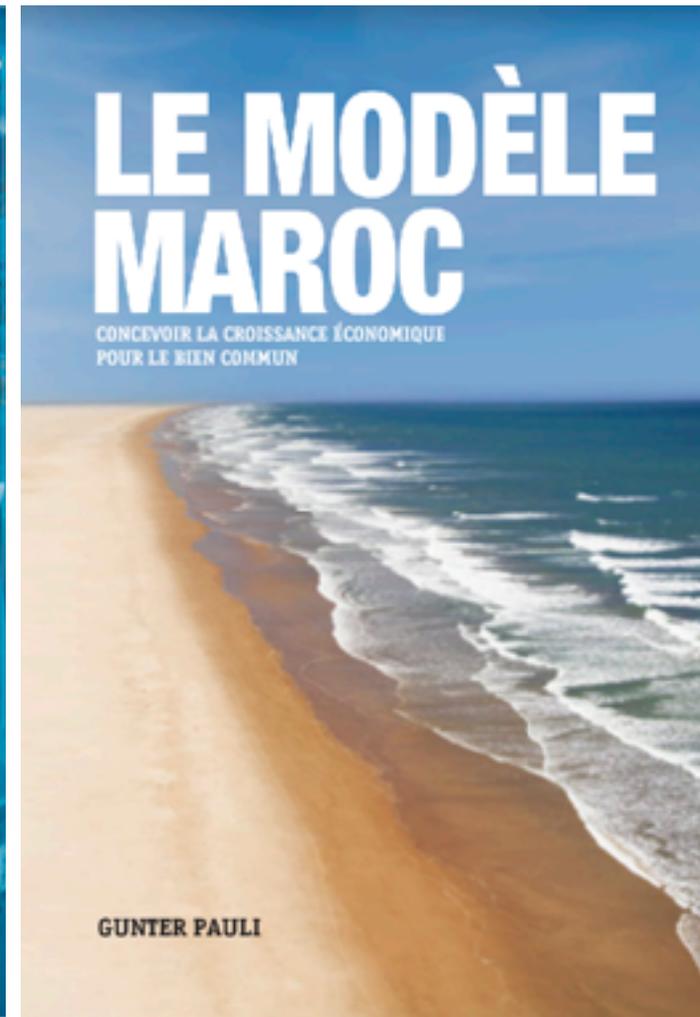
Solutions translated in languages adapted to regions



Plastic Solutions is translated into dozen languages



Nikkei Business Press is our Japanese editor



Solutions are adapted to time and place

The Blue Odyssey contributes to all SDGs



The Blue Odyssey contributes to all SDGs



We - The Partners of **Porrima** undertake **The Blue Odyssey**

Share how with seawater, light and wind, we can generate fresh water and power to produce food for all.

This contributes to eradicating poverty (1), zero hunger (2), global health and wellbeing (3), clean water and sanitation (6), affordable and clean energy (7), climate action (13).

Share innovations inspired by Nature building resilience through entrepreneurship for the common good.

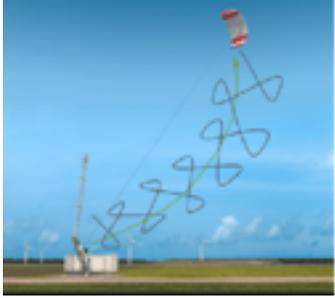
This contributes to quality education (4), gender equality (5), decent work and economic growth (8), industry innovation and infrastructure (9), reduced inequality (10), responsible production and consumption (12)

Celebrate Nature especially at sea thru action on the ground building the new while cleaning up errors of the past.

This contributes to sustainable cities and communities (11), life below water (14), life on land (15), peace and justice (16), with partnerships to achieve the goals.

Solutions Installed, Tested and further Developed

AI & Robotics



Robotics and AI to turn wind into base load power with excess energy on site converted to hydrogen. The ship is equipped with a 50 and a 60m² kite.

Internet over light



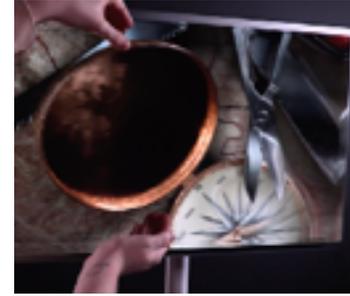
Data transmission and geolocation (GPS) on based on light, saving 80% power while control-ling 100% all data. The ship has LiFi as standard.

Thin film solar



Thin film solar made from algae generate 10x more power than traditional PV cells per kg collecting power from light reflected on water.

3D Screens



3D presentation screens processing +100 million pixels with images "coming at you". This new standard is on the ship used for documentaries.

Hydrogen from sea



The kite and solar panels generate excess power. All excess power converts seawater into hydrogen. This novel version of hydrogen offers communities a portfolio of solutions.

Microfluids eliminate microplastics



Microfluid system inspired by the way our lungs work can remove minute microplastics as small as one micron from the water at very high energy efficiency.

Seaweed Curtains catch microplastics



Seaweed curtains cultivated with local biodiversity capture small plastics between half a centimeter and 300 micron creating microplastic free zones and regenerate biodiversity.

Sea Weather forecast



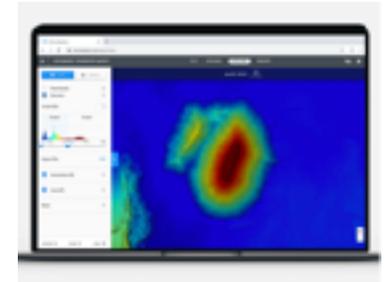
The first underwater weather station predicting in real time the water quality of coastal zones or high seas according to 15 parameters transmitted in real time through IoT.

Sound Sensors



The installation of half a dozen hydrophones supported by sound filtration software permits the isolation of the heartbeat of a whale, a human or a simple fish.

3D photogrammetry



The deployment of a series of drones permit cartography in 3D photogrammetry translating interior and exterior visual data – any altitude, any angle, all in one platform.

The MS Porrima is the most sentient boat ever

Porrima is equipped with sensors that permit to see, hear, taste, feel and smell. We also claim to have a sixth sense thanks to our incredible team in and out of the water.

Porrima registers and filters all sound in and around the ship.

The capacity to see hear all the sounds in the sea, including noise pollution is enhanced by the monitoring of all sounds, and the high-end filtration through a technology hub in Bogota, Colombia which has over 30 years of experience monitoring whales per satellite.

Porrima feels what is going on around her.

As the Goddess of the Future, Porrima has senses and intuition. The ship is equipped with a wide range of hand-designed and hand-made sensors that permit to permanently monitor key data permitting to form an opinion, to create a vision, to assess the reality and share this through extensive satellite connections.

All vision on Porrima is in 3D - not virtual reality, but reality.

In collaboration with the Looking Glass Factory, Porrima will be the first ship to document life on the boat, and life in the sea in full 3D. The novel vision creates a reality that is ... reality.

Committed to the Regeneration of Life

Bahia Solano (Colombia) is the world's most important birthplace of sea turtles. Mothers lay up to 100 eggs three times a year after roaming the ocean for 15 years between Colombia and Japan. They perfectly remember the exact spot where they were born and entered the ocean. The sand of this 9 km stretch of beach is rich in magnetite, leaving a permanent registration of the location in the brain. Unfortunately most eggs are eaten by poor people who cannot afford a chicken egg. And those that escaped human predation have to survive crabs, birds, fish and **plastics!** The **MS Porrima tracks the Turtle Route.**



We will campaign to save 1 million sea turtle eggs per year for 15 years ... reversing the decline.

Committed to biodegradation in sun, sea and soil



We are not against plastics! We are in favor of plastics that deliver functionality while having been designed to degrade in the sun (with UV-rays), in the soil (with bacteria) and in the sea (with a different family of bacteria). Decomposition under these three conditions are fundamentally different. Therefore we opt for polymers made from vegetable oil derived from weeds (thistle), and sugar beets. The oil is converted to an acid, the sugar is transformed into an alcohol, and both combine to produce monomers that turn back into soil. **MS Porrina** will only have these plastics on board, eliminating the creation of persistent microplastics.

Inspiring by Nature, replenishing the nutrition in the soil and the sea

Before we leave Japan - we will discover Tokyo

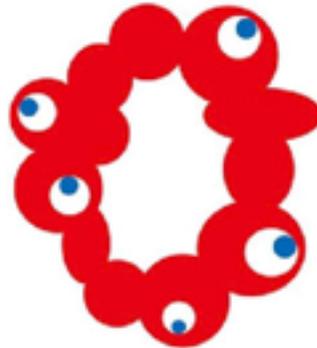
Tokyo Metropolitan Area is recognized as the megalopolis of 10 million inhabitants. Few know the uninhabited islands with extraordinary wildlife and bird sanctuary under the Governor's jurisdiction. Access to these islands is restricted. **MS Porrima** will visit, document and share the fauna of the Olympic host with the rest of the world. Ai Futaki will take us in the water and discover what we never imagined Tokyo to be : a wildlife sanctuary!



When we return to Japan - we animate the Osaka Expo 2025

Osaka has been selected as the host city for the 2025 World Expo. Environment will be the central theme. MS **Porrima's Blue Odyssey** will provide daily podcasts before and during the World Expo in coordination with NHK - the national broadcasting station, and organize memorable events like live transmission of whale songs direct from the Pacific. We reconnect with world with nature and especially the oceans like Jacques Cousteau taught us with his epochal voyages with the Calypso. The Expo 2025 will include the "Blue Pavilion" bringing solutions proposed by **Porrima's Blue Odyssey**.

2025年大阪・関西万博
公式ロゴマーク決定！



OSAKA, KANSAL JAPAN
EXPO
2025

PARTNERSHIPS (not sponsorships)

Blue Innovations (Suisse) S.A. guaranteed the next 5 years of voyage around the world. We identify companies we wish to engage with. Our partnerships create synergies. We wish to collaborate on 3 axes:

1- WORLD WIDE BRANDING

Showcase the best intentions, the best designs, the best products

Companies and research organizations have a vision, and wish to pursue this as a pathway to innovate. These innovations lead to the design of pioneering products and processes. By associating these product and exposing them to the wide audience these innovations will be recognized as cutting edge in sustainability directly associated with Nature.

2- PIONEERING ENTREPRENEURSHIP

Take Innovations to the market

A fast transition only succeeds when there is an early adoption by inspired entrepreneurs who will take product to market, and who will ensure enthused early adopters are aligned with the innate desire for better ... now!

3- MEMORABLE EVENTS

Remember the Day that we Changed the World Starting at Home

The experience of the vessel in all ports will be accompanied by experiences that will be remembered forever. We know that a memorable encounter and idea impacts for life. We create such a portfolio of opportunities in collaboration with our partners.

Media Production

1- Daily Podcasts Live

A commitment to bring the ocean to everyone's home

As of June 21, 2021 the **MS Porrima** will air daily audio and video podcasts in Japanese, English and Spanish. Ai Futaki as anchor of the Odyssey will report on daily events from the boat. She will do so each day until November 3, 2025. More than 1,500 reports (for total of 5,000 combined in different languages) will offer an unparalleled media connection to the sea. NHK, the National Broadcaster of Japan will assist in its distribution, as well dozens of social media.

2- Tangible Earth Live

Full data from thousands of sites with a reality check

This world's first interactive digital globe designed and developed by Prof. Shinichi Takemura will provide a daily input to the podcasts and a very concrete topic ensuring content in connection with reality of a world voyage. The Tangible Earth was installed and tested in January 2021 on the ship. We will actively promote the installation of these "bombs of data and insights" as a tool for transparency and policy making. <http://www.tangible-earth.com/en/>. It will provide the backdrop for our daily reporting.

3- Solutions Series

A book series bringing concrete solutions within reach of everyone

By the launch of **The Blue Odyssey** in 2021, Gunter Pauli will have written the first 6 books of the "Solution Series". The first one "Plastic Solutions" (with Marco Simeoni) is already out. The next ones will cover solutions for solar energy, wind power, paper, coffee and light. The Nikkei Business Press is preparing to publish all books, as well foreign partners. By the end of **The Blue Odyssey**, an estimated 25 books will have been published and translated in at least 20 languages. The books will be the basis for podcasts, will build on Tangible Earth data, and will lead to the production of many documentaries and movies.

4- Documentaries in 3D

The first ever to document live from the ocean in full 3D without glasses

The media crew on board **MS Porrima** will be the first to be equipped with full 3D recording equipment. The documentaries produced will go into history as this top quality holographic presentation will connect the audience in a surprising way. The documentaries will be aired through expert channels.

Our Impact ...

1- Companies Created

Inspire the Entrepreneurs

The Blue Innovations boat showcases concrete examples. The podcasts tell the stories. The books provide solid insights. During our visits we will use our networks to move from idea to action. We will report each time when something is decided! We will monitor implementation and where needed provide coaching.

2- Companies Transformed

Steer towards Sustainability

All our partners will be concrete examples of transformation. How a car company moves to a hybrid and commits to hydrogen? How a soap companies eliminates all plastic packaging starting on the boat? How fishermen secure plastic free zones? How food companies go beyond organic (by using the whole fruit and not just the juice)? How do construction companies offer zero emission housing? We will engage with all our partners to create the pioneering experience, reference cases, the new standards.

3- Policies Shifted

Engage Policy Makers to make bold decisions

The MS **Porrina** has received and will welcome heads of government and ministers. Previous experiences taught us that when they are in an environment that demonstrates how much further we can go than commonly is expected, then they are willing to shift policies beyond what the political framework would permit. We will use every opportunity to create the policy conditions that permit entrepreneurs to accelerate the transition and to facilitate establishing businesses to transform.

4- Children never stop Dreaming

Expose the Next Generation to what is Possible Now

Building on the experience of storytelling and fable presentations, the MS **Porrina** will engage with children on and off the boat to secure that each day they will receive an inspiring story that will sound like fantasy to the parents, but which will be an immediate reality for the children.



The BLUE ODYSSEY

A powerful and worldwide
Innovation and Entrepreneurial Platform

1,000 new enterprises created

100 new business models demonstrated

Dozens of technologies developed

Daily live video podcasts for 5 years to inspire
the entrepreneurs

Dozens of books describing solutions
published, billions of fables shared

First worldwide 3D drone cartography

100 documentary movies. The first ever with 3D
content



And we only have just begun ...



Blue Innovations (Suisse) S.A. is proud that **Porrima's Blue Odyssey** has the right to carry the Swiss Flag and enjoys the support of the Canton de Vaud and the Swiss Confederation.

We are also grateful to ZERI Japan NPO for its grand support while transiting in Japan.

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