

## THE PLASTIKI

**SAN FRANCISCO— Adventure Ecology founder and environmentalist David de Rothschild has unveiled the Plastiki, a pioneering 60ft catamaran made from approximately 12,500 reclaimed plastic bottles and srPET: a fully recyclable material. The crew is making final preparations to embark on an adventure taking them 11,000 nautical miles across the Pacific Ocean from San Francisco to Sydney. The Plastiki will be drawing attention to the health of our oceans, and in particular the large amounts of plastic debris, by showcasing waste as a resource and demonstrating real world solutions through the design and construction of the Plastiki.**

### How it all started....

The Plastiki began her adventure nearly four years ago after taking inspiration from a report issued by UNEP called 'Ecosystems and Biodiversity in Deep Waters and High Seas' and Thor Heyerdahl's epic 1947 expedition, The Kon-Tiki. True to Adventure Ecology's values, a compelling and pioneering expedition was needed that would not only inform, but would also captivate, activate and educate the world that waste is fundamentally inefficient design. With more efficient design and a smarter understanding of how we use materials, principally plastic, waste can be transformed into a valuable resource, in turn helping to lessen our plastic fingerprints on the world's oceans. To undertake the Plastiki expedition Adventure Ecology was not only influenced by the principles of 'cradle-to-cradle' design and biomimicry but brought together a multi-faceted team from the fields of sustainable design, boat building, architecture and material science in order to foster a collection of new ideas and cutting edge technologies that allow the Plastiki to be a truly unique, one-of-a-kind expedition vessel.

### What makes the Plastiki different to other vessels....

- The Plastiki is engineered almost entirely from **12,500 reclaimed plastic bottles** that provide 68% of the boat's buoyancy.
- A unique **recyclable plastic** material made from srPET makes up her super structure
- The mast is a **reclaimed aluminum irrigation pipe**
- The one-of-a-kind sail is hand-made from **recycled PET cloth**
- The secondary bonding is reinforced using a newly developed **organic glue** made from cashew nuts and sugar cane
- The Plastiki is **'off-the-grid'** relying primarily on renewable energy systems including; solar panels, wind and trailing propeller turbines, bicycle generators, a urine to water recovery and rain water catchment system and a hydroponic rotating cylinder garden.

### Why are we doing this...?

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- It is estimated that almost all of the marine pollution in the world is comprised of plastic materials. The average proportion varied between **60% and 80%** of total marine pollution.<sup>1</sup>
- In many regions in the northern and southern Gyres, **plastic materials constitute as much as 90 to 95% of the total amount of marine debris.**<sup>2</sup>
- Scientists estimate that every year at least **1 million seabirds** and 100,000 marine mammals and sea turtles die when they entangle themselves in plastic pollution or ingest it.<sup>3</sup>
- According to Project Aware, **15 billion pounds of plastic are produced in the U.S. every year**, and only 1 billion pounds are recycled. It is estimated that in excess of 38 billion plastic bottles and 25 million Styrofoam cups end up in landfill and although plastic bottles are 100% recyclable, on average only **20% are actually recycled.**

#### What's the Plastiki Expedition philosophy?

- It's about recognizing that waste is **fundamentally a design flaw** (it does not appear in nature)
- It's about re-thinking **waste as a resource.**
- It's about cyclical '**cradle-to-cradle**' philosophies rather than linear thinking when it comes to how we design our world.
- It's about a better understanding of the **lifecycle's and materials** used in our everyday lives.
- It's about being curious and open, being prepared to let go of assumptions in order to undertake a new '**Planet 2.0**' way of thinking and acting.
- It's about acknowledging that we don't have all the answers and that **nobody is as smart as everybody.**
- It's about being **collaborative and curious** so to engage multiple perspectives, skills, opinions and organizations.
- It's about constantly **learning, unlearning and re-learning.**
- It's about re-integrating back into the **web of life** by recognizing and reducing our human fingerprints on the natural world.
- It's about moving on from just articulating the problems and **inspiring action of the solutions.**
- It's about encouraging the world to reduce, reuse, recycle and **rethink more of the planets natural resources.**
- It's about delivering a spectacular global "**Message in a Bottle**".

1. Gregory, M.R., Ryan, P.G. 1997. *Pelagic plastics and other seaborne persistent synthetic debris: a review of Southern Hemisphere perspectives.* In Coe, J.M., Rogers, D.B. (Eds.), *Marine Debris- Sources, Impacts, Solutions.* Springer-Verlag, New York, pp.49-66.

2. United Nations Environment Programme: [www.marine-litter.gpa.unep.org](http://www.marine-litter.gpa.unep.org)

3. Project Aware <http://www.projectaware.org/english/templates/info.aspx?id=707>

#### The Plastiki crew is....



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**David de Rothschild:** David is the founder of Adventure Ecology, an organization that harnesses the power of dreams, adventures and stories in order to inspire educate and activate individuals, communities and business's to start moving towards a smarter more sustainable 'planet 2.0' way of living and acting. In 2006 David spent over 100 days crossing The Arctic, becoming one of only 42 people, and the youngest British person, to reach both geographical poles. Prior to this, David had already become one of only 14 people to traverse the continent of Antarctica, and was part of a team that broke a world record for the fastest ever crossing of the Greenland Icecap. Accolades include, National Geographic Society 'Emerging Explorer', The World Economic Forum 'Young Global Leader' and UNEP 'Climate Hero'.

**Jo Royle – Skipper:** is internationally recognized as one of Europe's leading female ocean yacht skippers. She is one of the few sailors to have circumnavigated South Georgia in the Southern Ocean. Through her extensive sailing experience, which has taken her as far north as Iceland and south to Antarctica, Jo has been able to witness first-hand the effects of global warming, which have furthered her ambitions to help bring environmental issues to the forefront of the public conscience.

**David Thomson – Co-skipper:** David began his career in the field of racing sail making; this led him to be asked to sail with those whom he had made sails for. In 2003 David joined Steve Fosset's giant catamaran 'Playstation' in which they established 4 world records. In 2009, David successfully became a circumnavigator on his first round the world attempt as co-skipper in the 40 foot double-handed class in the Portimao Global Ocean Race.

**Olav Heyerdahl:** Olav is the grandson of Thor Heyerdahl whose 1947 'Kon-Tiki' expedition took the intrepid crew across the Pacific Ocean in a replica of an ancient Inca raft made from balsa wood and other native materials. Olav undertook the 'Tangaroa' expedition seeing him alongside a crew of five build an updated raft that included a centreboard and a steering technique called "Guarras". During his time at sea, Olav drew comparisons from today's Pacific and that of the Ocean his Grandfather crossed in 1947. Using the original Kon-Tiki log book and Thor's personal diary, the crew noted a number of significant oceanic changes; in the Humbolt current there was a new colossal path of garbage and marine debris, also, whilst the Kon-Tiki's most common meal had been tuna, the Tangaroa could only catch one tuna in their entire trip. Olav and his team completed the same route as his Grandfather as well as a return leg in only 70 days.

**Josian Heyerdahl:** Josian began her career as environmental consultant with Hyder Consulting, working at the intersection of business and the environment. She is an avid believer in Natural Capitalism, a movement that seeks to unveil the economic benefits of ecological preservation. Josian's experience ranges from corporate sustainability strategies for the finance sector to environmentally sustainable development projects for the infrastructure sector. Prior to working as an environmental consultant, Josian completed a Masters in Environmental Science and Law from the University of Sydney.



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#### Plastiki Partners:

##### About International Watch Co. Ltd: Official Partner

IWC Schaffhausen has been setting standards in technological development and highly complicated Haute Horlogerie for more than a century. The International Watch Company, founded in 1868, has established a world reputation for itself as a Swiss watch manufactory with a long heritage and a passion for ingenious inventions, innovative solutions and technical refinements. IWC Schaffhausen is committed to taking responsibility toward the environment and has been certified a CO2-neutral enterprise.

IWC has cut 750 tons of annual CO2 emissions in half since 2001, and aims to reduce emissions to 100 tons by 2010. It used environmentally responsible building techniques for new production wings at its headquarters in Schaffhausen, Switzerland, in 2001, significantly reducing CO2 emissions and keeping overall energy consumption constant for five years. [www.iwc.com](http://www.iwc.com). IWC Schaffhausen has supported Adventure Ecology and David de Rothschild as official Partner since 2007. "As a company which holds the environment dear, IWC is very proud of David de Rothschild and of the fact that, with our support, he is using his adventurous voyage to show the consequences of the modern way of life and providing an impetus for innovative suggestions of how to solve the ecological problems of our age," states Georges Kern, CEO of IWC Schaffhausen.

##### About Hewlett-Packard Company: Official Technology Partner

###### HP and the environment

For decades HP has been an environmental leader, driving company stewardship through its HP Eco Solutions program, which spans product design, reuse and recycling as well as energy and resource efficiency. HP influences industry action by setting high environmental standards in its operations and supply chain, by providing practical solutions to make it easier for customers to reduce their climate impact and through its research on sustainability solutions that support a low-carbon economy. More information is available at <http://www.hp.com/ecosolutions>. HP, the world's largest technology company, simplifies the technology experience for consumers and businesses with a portfolio that spans printing, personal computing, software, services and IT infrastructure. More information about HP (NYSE: HPQ) is available at <http://www.hp.com/>

##### About Inmarsat: Global Satellite Communications Sponsor

Inmarsat plc (LSE: ISAT) is the leading provider of global mobile satellite communications services. Since 1979, Inmarsat has been providing reliable voice and high-speed data communications to governments, enterprises and other organizations, with a range of services that can be used on land, at sea or in the air. The company's services are delivered through a global network of more than 400 distribution partners and service providers operating in 100 countries. For the year ended 31 December 2008, Inmarsat plc had total revenue of US\$ 996.7 million (2007: US\$576.5 million) with an EBITDA of US\$531.2 million (2007: US\$388.1 million). For more information, please visit [www.inmarsat.com](http://www.inmarsat.com).

##### About Kiehl's: Supplier

Kiehl's was founded as an old-world apothecary in New York's East Village neighbourhood. Its unique and extensive background represents a blend of cosmetic, pharmaceutical, herbal, and medicinal knowledge developed and passed on through the generations. The spirit of discovery and the exhilaration of exploration have been espoused by Kiehl's extended family from the company's earliest days. Kiehl's is humbly honoured to support the eco-adventurous Plastiki Expedition team since 2008 and to welcome them into the Kiehl's heritage. In 1988, Kiehl's proudly supported a successful ascent without oxygen of Mt. Everest's East Face. In 2002, the company sponsored the Antarctica Expedition of Mt. Vinson and in 2005, Kiehl's supported the "Greenland First Ascent" expedition, the inaugural climb of peaks rising from the island's ice covered glaciers where a team returned from their journey with first-hand accounts of the effects of global warming. In addition between 2003-2007 Kiehl's supported the annual Kiehl's Badwater Ultramarathon, a 135-mile non-stop footrace through Death Valley. Kiehl's believes in minimizing environmental impact by utilizing minimal product packaging and 100% PCR materials whenever possible and initiating a world-wide recycling program in freestanding stores. Kiehl's products are available at [www.Kiehls.com](http://www.Kiehls.com), freestanding stores, as well as through select specialty retailers worldwide.



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