**UPDATES ON THE ROYAL COLLEGE OF ART AND EXTREME E RESEARCH PARTNERSHIP: WINNING PROJECTS**

**14 June 2022, London:** Following an exciting partnership between The Royal College of Art (RCA) and Extreme E for its 2021/22 Grand Challenge, three winning projects, which focus on ocean health, have been revealed.

The 2021/22 Grand Challenge saw student teams develop and pitch innovative design and science based solutions in support of the theme - A New Economic Model for the Ocean (NEMO).

Under this theme, students were challenged to design innovative systems or products that can help change attitudes to the Ocean, and safeguard against increased damage. Issues of focus included environmental sustainability, plastic pollution, loss of marine habitats and new ocean economies.

The Grand Challenge kicked off with RCA academics travelling to meet the Extreme E ship, the St. Helena, in Kangerlussuaq, Greenland during the Arctic X Prix event in Season 1. The team installed a robotics package and data gathering equipment on the ship, allowing both RCA students and academics to acquire critical data during the ship’s Season 1 journey, which assisted in the formation of student solution proposals.

**Professor Ashley Hall, Professor of Design Innovation at the Royal College of Art, said: “**In this project, we’ve designed, built and installed an artificial intelligence system on Extreme E’s, St Helena’s ship in Greenland which sailed all the way across the North Atlantic to Sardinia and then to Poole in Dorset. Using AI and a camera system, we’re capturing all the objects on the surface of the ocean and then understanding what those objects are.

“Extreme E support our NEMO project by allowing access to the ship for our technology to be installed on board. They also connect us to the Scientific Committee, like Prof Lucy Woodall, so we have amazing access to the world’s top scientists around researching climate change and the world’s oceans. The benefit for the RCA students is that they can see this real time data that we’ve captured as staff researchers, enabling them to incorporate that research directly into their design projects.”

With 350 RCA students involved and 70 teams, 12 teams were shortlisted for the final stage of the Challenge. The finalists of the Grand Challenge then further developed their proposals and projects before presenting to a jury panel comprising of Lucy Woodall, Extreme E’s Ocean Expert and RCA Alumni, Dr Jiayu Wu, Reader in Intelligent Mobility Design at the Intelligent Mobility Design Centre, along with Apple designer, Peter Russell-Clarke, Chief Designer of Logitech, Alastair Curtis, and chaired by Professor Paul Anderson, Dean of the School of Design at the RCA.

Their unique projects propose sustainable solutions to challenges affecting marine environments. Ranging from intelligent technologies like an aural navigation tool for marine life to inhabit new coral reefs to community to increasing seagrass restoration to creating interlinking aquaculture pods to prevent algae effects.

**Professor Lucy Woodall, Extreme E’s Scientific Committee’s Ocean Scientist, says: “**It was fascinating seeing the innovative projects the multidisciplinary groups of students developed. I was really captivated by the presentations they gave and understanding the rationale for the decisions they made.”

The winning three projects were Afterlife, Decibel and Reef Bells. Reef Bells entailed analogue instruments designed to be played by the ocean current on coral reefs. Mimicking the sound of a healthy reef, they act as an aural navigation tool for baby reef fish which hatch in open water and navigate to coral reefs by listening for the sounds from animals living there.

The second unique project, After Life, is an ocean memorial reef and funeral company, allowing individuals to continue the legacy of their loved ones underwater. Using a combination of sustainable materials, innovative technology and humane services, After Life reefs help coral ecosystems and reduce the heavy carbon emissions from traditional funerals whilst allowing people to remember their loved ones more meaningfully.

Lastly, Decibel helps noise pollution in a nature-based manner, a current potent threat to marine life. The project provides a structure where kelp and oysters can be grown, acting as a natural sound barrier between shipping highways while creating a regenerative marine permaculture system. This paves the way for a circular economy where oysters, fish, and kelp can be harvested while mitigating sound pollution.Prizes of £2,500 were awarded based on the innovative design and emotional resonance underpinning the solution. **Paul Anderson, Dean of the School of Design at the Royal College of Art, commented:** "It is wonderful to see our student design teams responding both emotionally and innovatively to this planet’s vital ecosystem and to clearly demonstrate that there is enormous potential to further protect and encourage our marine environment to prosper.

“Extreme E welcomes the data collected with RCA aboard St Helena and looks forward to understanding how this information can help better inform decisions on the climate crisis along with finding solutions to assist a more sustainable future for the planet.”

More about the shortlisted projects can be found [on the RCA website](https://www.rca.ac.uk/news-and-events/news/the-grand-challenge-202122-new-economic-model-for-the-oceans-nemo-shortlist-revealed/).

**To learn more about Extreme E, visit -** [**www.Extreme-E.com**](http://www.extreme-e.com)**ENDS**

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*Please visit the Extreme E media centre to access images, videos and press releases:* <https://www.extreme-e.com/en/mediacentre>

**NOTES TO EDITORS**

**About Extreme E:** Now in its second season, Extreme E is a radical off-road racing series, founded by the same team behind Formula E, which showcases electric SUVs and futuristic technologies in some of the world’s most remote and challenging environments.

This five-event global voyage utilises its sporting platform for the purpose of promoting electrification, environment and equality. The series’ goal is to highlight the impact of climate change in some of the world’s most endangered environments, promote the adoption of electric vehicles to pave the way for a lower carbon future, and provide a world-first gender-equal motorsport platform.

The first sport to ever be built out of a social purpose, Extreme E aims to minimise environmental impact while maximising awareness, racing in places that have already been damaged or affected by climate change or human interference and taking fans deep into the heart of the most pressing issues facing our planet’s future.

Not only that, but Extreme E is also helping the car industry to develop future-facing technology using racing as a platform for road innovation, which accelerates change ten-fold.

Season 2 Calendar:

Neom, Saudi Arabia
19-20 February 2022
Sardinia, Italy
06-07 July 2022
Sardinia, Italy
09-10 July 2022

Antofagasta, Chile
24-25 September 2022
Punta del Este, Uruguay
26-27 November 2022

**About Continental Tires: Founding Partner and Official Tire Partner**

Continental develops pioneering technologies and services for sustainable and connected mobility of people and their goods. Founded in 1871, the technology company offers safe, efficient, intelligent, and affordable solutions for vehicles, machines, traffic and transportation.

The tyres business area has 24 production and development locations worldwide. Continental is one of the leading tyre manufacturers with more than 56,000 employees and offers a broad product range for passenger cars, commercial and special-purpose vehicles as well as two-wheelers. Through continuous investment in research and development, Continental makes a major contribution to safe, cost effective and ecologically efficient mobility. The portfolio of the tyres business area includes services for the tyre trade and fleet applications, as well as digital management systems for tyres.

Continental has developed a new high-performance tyre for Extreme E Season 2, redesigned to include the use of more sustainable materials. Each of the 30 tyres that Continental has supplied to all ten Extreme E teams now contains recycled polyester made from approximately 60 PET bottles.  In total, around a third of each second-generation CrossContact Extreme E tyre consists of recycled and renewable raw materials.

**About AFC Energy:**

Extreme E embarked on a world-first collaboration with AFC Energy, whose pioneering hydrogen fuel cell technology enables the Championship’s race fleet to be charged using zero-emission energy. Extreme E is the first event organiser to utilise hydrogen fuel cell power generators for charging, and the decision supports the series’ goal of being sustainable and creating minimal local impact on the environments in which it races.

AFC Energy has engineered a bespoke H-PowerTM fuel cell system for Extreme E, which has been designed with a clear specification and a focus on sustainable innovation. It offers a completely sustainable fuel production process, using water and sun to generate hydrogen power which is then used to charge all the ODYSSEY 21 e-SUVs off the grid. Not only does this process emit zero greenhouse emissions, but its only by-product is water, which is utilised elsewhere on-site.

**About CBMM: Founding Supplier**
CBMM | Niobium is a founding supplier of Extreme E and the Championship’s official Niobium Technology Supplier and Chassis Technology Supplier.

Critical to the automotive sector, niobium produces stronger, lighter and more sustainable cars with better energy efficiency. Its technologies are already widely applied in different areas, including light-weighting, safety, emissions reduction and electronics that will help lead to a sustainable sector transformation. Key applications of niobium in the Mobility sector include chassis, brakes and exhaust systems, drivetrains, batteries and EV charging stations and any number of ancillary components. Its qualities mean materials can be made lighter, stronger, more robust and more reliable – all while being more sustainable than other materials.

CBMM offers technical innovation to customers around the globe through a team of over 2,000 highly trained, dedicated professionals providing cutting-edge niobium products and technology to over 400 clients in around 40 countries.

**About LuisaViaRoma: Official Fashion Partner**
Defined by the Financial Times as “a haven for directional fashion,” [LUISAVIAROMA.COM](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Furl6.mailanyone.net%2Fv1%2F%3Fm%3D1l40NA-00039a-3X%26i%3D57e1b682%26c%3D195AVmsnACejGQbj8XWTN7evBrvKJ1dnbRSlGauikIN1jvOJqayL11c08sfz5q1cceT_kfGhbO_Pgdul_vKgCHKD7IRSCNz5N1nGW9IZudTMsArXH_4RgkZJ_1yUJ1LCnfuAdJA1-KMInD6ZezFTWMgr389RpxOBDTwby2-m0iGBYpmPZjv9wwqhM1MxBH243uOw61cdEjXAR5FWvZyEV-xrW9U-ZTO-2PYSpSwfH4s&data=04%7C01%7CCarla.Corbet%40mpacreative.com%7C0caf6dd47e0f4a1eab8908d8c127765b%7C3891b9e18f6b4fe3a38ee5305dc2823a%7C1%7C0%7C637471722513203463%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=jOWRp6eyKk%2BAXQzlhUUINtGvz6Jil8elRhPIOfB8uOY%3D&reserved=0) is the top online luxury fashion destination with 5,000,000 visitors per month and worldwide shipping. With each new season, the website presents the collections of more than 600 established designers and young emerging talents.

**About Zenith: Official Timekeeper and Founding Partner**

Zenith exists to inspire individuals to pursue their dreams and make them come true – against all odds. Since its establishment in 1865, Zenith became the first watch manufacture in the modern sense of the term, and its watches have accompanied extraordinary figures that dreamt big and strived to achieve the impossible – from Louis Blériot’s history-making flight across the English Channel to Felix Baumgartner’s record-setting stratospheric free-fall jump. Zenith is also highlighting visionary and trailblazing women – past and present – by celebrating their accomplishments and creating in 2020 its first-ever collection dedicated entirely to them, Defy Midnight.

With innovation as its guiding star, Zenith features exceptional in-house developed and manufactured movements in all its watches. Since the creation of the El Primero in 1969, the world’s first automatic chronograph calibre, Zenith has gone on to master fractions of the second with the Chronomaster Sport and its 1/10th of a second precision and the DEFY 21 with a precision of 1/100th of a second.

**About Allianz: Founding Partner and Official Insurance Partner**

The Allianz Group is one of the world's leading insurers and asset managers with more than 100 million private and corporate customers in more than 70 countries. Allianz customers benefit from a broad range of personal and corporate insurance services, ranging from property, life and health insurance to assistance services to credit insurance and global business insurance. Allianz is one of the world’s largest investors, managing around 790 billion euros on behalf of its insurance customers. Furthermore, our asset managers PIMCO and Allianz Global Investors manage 1.7 trillion euros of third-party assets.

**About Vodafone Business: Official Technology and Communication Partner**

With expertise in connectivity, global scale and the leading IoT platform, Vodafone Business is a leading technology communications company helping organisations succeed in a digital world and keeping society connected. Vodafone’s purpose is to connect for a better future, enabling an inclusive and sustainable digital society, and many of its solutions have sustainability and inclusivity embedded.

Unique in its scale as the largest pan-European and African technology communications company, Vodafone transforms the way we live and work through its innovation, technology, connectivity, platforms, products and services. Vodafone operates mobile and fixed networks in 21 countries, and partners with mobile networks in 52 more. As of 31 December 2021, they had over 300m mobile customers, more than 28m fixed broadband customers and over 22m TV customers.

This collaboration will see Vodafone Business leading innovations and capabilities such as 5G, MPN, IOT and MEC, integrated into Extreme E’s global operations and will include full involvement in the purpose- driven elements of the series, with special prominence on Extreme E’s Legacy Programmes and the Science Laboratory on board the St Helena. Through its IOT solutions, Vodafone Business is helping sustainability efforts, including agriculture, forestation and decarbonisation of energy grids.

Find out more on <http://www.Vodafone.com/business> and follow Vodafone on its social media channels:

Twitter: @VodafoneGroup

LinkedIn: [www.linkedin.com/company/vodafone](http://www.linkedin.com/company/vodafone)

**About Neat Burger: Official Plant-based Partner**
Neat Burger is the first of its kind – the planet-friendly, plant-based, full-flavoured game-changer the world has been waiting for. The world’s first plant-based sustainable burger chain, Neat Burger offers a menu that appeals to not only those who follow plant-based diets, but anyone, meat-eaters included, who wants to eat delicious meat-free dishes that are more sustainable, healthier and ethical.

The brand is backed by seven-time FIA Formula One World Champion Lewis Hamilton, in collaboration with hospitality organisation The Cream Group and investors, as well as UNICEF Ambassador and early backer of Beyond Meat Tommaso Chiabra. Neat Burger opened its first site in September 2019, just off Regent Street in London, and its second and third dine-in outlets at Camden Market and Soho in 2020. Plans for global expansion across Europe, the US and Middle East are already in place.

**About EY: Official Innovation Partner**

EY is a global leader in assurance, tax, strategy, transaction and consulting services. The insights and quality services they deliver help build trust and confidence in capital markets and in economies the world over. EY develops outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, they play a critical role in building a better working world for their people, for their clients and for their communities.

EY originally joined the Championship to help Extreme E achieve its commitment of minimizing the overall footprint whilst creating a positive legacy. In collaborating with Extreme E, EY has become a vital part of creating an Environment Impact Assessment framework which further drives the championship in the direction of positive change. Whilst Extreme E strives to race without leaving a trace, the framework provided by EY has allowed the championship to minimize its environmental impact across each race location. Both prior and post-racing impact assessments have allowed Extreme E to strategically plan their actions within these areas.

**About INTERprotección: Official Insurance Broker**

INTERprotección is composed of a group of Mexican insurance, reinsurance and surety bond brokerage companies. With global presence and recognition, INTERprotección has more than 40 years of experience in management and comprehensive risk consulting in the Mexican market. Its business model is focused on bringing the client to the forefront and offering them the best service through innovative and disruptive products, more recently with its new brand ​[inter.mx](https://inter.mx/),​ its insurance digital platform that is transforming the insurtech game.

**About Enel X Way: Official Smart Charging Partner**Enel X Way is the Enel Group's new global business line entirely dedicated to electric mobility. Currently, Enel X Way manages approximately 320,000 charging points, both directly and through interoperability agreements in place worldwide1. As a global platform for e-mobility, the company is focused on developing flexible charging technologies and solutions to improve the customer experience by supporting the electrification of transport for consumers, businesses, cities and public administrationsFind out more on <https://enelxway.it/en/home> and follow Enel X Way on its social media channels:LinkedIn: Enel X Way

Twitter: @enelxway

Instagram: @enelxway

Facebook: @enelxway

1 Public and private charging points, including points of interoperability.

