Meet the winners of His Royal Highness The Prince of Wales and Sir Jony Ive’s Terra Carta Design Lab, in partnership with the Royal College of Art

- The four winners of the Terra Carta Design Lab, a competition to develop solutions to the environmental crisis, have been announced
- The Terra Carta Design Lab is a Royal College of Art student and alumni-led response to the environmental challenges our planet faces, and forms part of HRH The Prince of Wales’ Sustainable Markets Initiative.
- The winners are:
  - A wearable device for cows to reduce methane emissions
  - A clean-tech start-up spearheading the capture and monitoring of tyre wear
  - The first 100% recyclable and chemical-free outdoor performance textile
  - Aerodynamic seed pods made from food waste for plant and tree restoration
- Winners will receive £50k funding and mentoring from Sir Jony Ive, Chancellor of the RCA, and the corporate members of the SMI network

27th April 2022: To mark International Design Day, the Sustainable Markets Initiative (SMI) and the Royal College of Art (RCA) have announced the winners of the Terra Carta Design Lab.

Out of 125 original submissions, four teams of RCA students and alumni have been chosen as the winners of the inaugural Terra Carta Design Lab; an initiative which invited some of the world’s most talented design students and alumni to design high-impact, low-cost solutions for Nature, People and Planet.

Later today, His Royal Highness The Prince of Wales and Sir Jony Ive will visit the Royal College of Art for the opening of an exhibition showcasing the projects and they will have the opportunity to meet the four winners and hear more about their climate crisis solutions.

The winners of the inaugural Terra Carta Design Lab:

**Aerseeds**: Aerodynamic nutrient and seed pods made from food waste, that work with nature to accelerate regeneration up to 10 times. Mimicking natural processes, Aerseeds are carried by the wind to cover large areas and reach difficult terrains where they deliver nutrients and seeds to soils depleted by human activity, for ecological restoration and reforestation.

**AMPHITEX**: Current performance outdoor textiles are impossible to recycle and use many harmful chemicals. AMPHITEX is the first 100% recyclable and chemical-free outdoor performance textile. It will be made from a combination of recycled and plant-based feedstock, resulting in a world-first carbon negative performance textile.

**The Tyre Collective**: Tyre wear is the second largest microplastic pollutant in our environment. The Tyre Collective are developing the first patent-pending device to capture tyre wear at the wheel, accelerating the shift to zero-emission mobility. As well as spearheading the capture and monitoring of tyre wear, the team are exploring upcycling it into various applications, creating a circular system.
**ZELP:** 1.6 billion cattle, each exhaling 400 litres of methane per day, are one of the single leading causes of global warming. ZELP has designed a wearable device for cattle to neutralise methane emissions in real time.

The winners were selected by the Terra Carta Design Lab Grand Jury, comprising of HRH The Prince of Wales, Sir Jony Ive, Dr Paul Thompson (Vice-Chancellor of the RCA), and representatives of the Terra Carta Design Lab partners Octopus Energy, The Climate Pledge and Bank of America. They will receive £50k funding to help further develop their ideas, along with mentoring from RCA Chancellor, Founder of the creative collective LoveFrom and former Chief Design Officer at Apple Sir Jony Ive, and members of the Sustainable Markets Initiative global network.

**Sir Jony Ive, Chancellor of the Royal College of Art, said:** “We can all have good ideas. I find it reassuring, particularly facing the overwhelming challenge of climate change, that we can all contribute ideas that could evolve into valuable solutions. I love not only the power of a good idea but how egalitarian and inclusive they can be.

“All the Design Lab winners have ideas and designs that deserve to be developed. The ingenuity and determination of these designers has produced some extraordinarily creative responses, and they now embark on the journey to turn these great ideas into practical solutions.”

**Dr Paul Thompson, Vice-Chancellor of the Royal College of Art, commented:** “In their winning projects, our students and alumni are all demonstrating tremendous design creativity and technological know-how to tackle the crises in climate and biodiversity loss. I am hugely proud of how the RCA has worked together with our Royal Visitor HRH The Prince of Wales’ Sustainable Markets Initiative and our Chancellor Sir Jony Ive to enable these projects to launch the next stage in their development and roll out their solutions to improve the future for communities and landscapes worldwide.”

To celebrate the announcement of the winners, a short film has been released which charts the first year of the inaugural Terra Carta Design Lab and aims to inspire future designers. The short film features interviews with the winners, alongside HRH The Prince of Wales, Sir Jony Ive and the initiative partners, and is available to view on RE:TV; a showcase for inspiring innovations and ideas that point the way towards a sustainable future, curated by editor-in-chief, HRH The Prince of Wales.

Alongside the winners, two further projects were voted highly commendable by the Terra Carta Design Lab Grand Jury and will receive £10k funding to help develop their ideas, as well as mentoring from InnovationRCA, the RCA’s centre for entrepreneurship and business support. The two highly commended projects are:

**OR:BITAL BLOOM:** A data-driven artwork which ‘blooms’ in response to corporate and organisational adherence to sustainability targets and carbon emission reductions.

**Shellworks:** Creating a plastic-free future by working with bacteria to produce materials that are truly compostable, aesthetic, performant and cost competitive. When you throw away a product made from Vivomer, Shellworks’ first material, bacteria in the soil and ocean see it as food and eat it. The team is currently focused on delivering sustainable packaging solutions to the beauty and personal care industry where there are few alternatives to plastic.

**Greg Jackson, Founder & CEO of Octopus Energy Group and Terra Carta Design Lab judge said:** “Many of the biggest problems the human race ever had to face were solved by ingenious ideas. Technology and design are vital in driving change and tackling today’s issues, and the climate crisis is no exception to this - this is a design challenge.”
“It was a massive honour to judge the Terra Carta Design Lab and see cutting-edge ideas to combat climate change. I can’t wait to see the impact our four winners will make in clean tech and how they will inspire others to follow their lead. I have no doubt – this truly inspiring new generation of green business leaders will put a massive green dent in the universe.”

Karen Fang, Managing Director, Global Head of Sustainable Finance, Bank of America and Terra Carta Design Lab judge said: “The Terra Carta Design Lab brings to life bold, inspiring projects which aim to tackle the climate crisis head on. The shortlisted 20 projects, and four winners showcased such a breadth and depth of analytical thinking, highlighting the importance of innovative designs which can inspire and attract tangible investments. Imagining the unimaginable is key in our transition to a sustainable future as more than half of the world’s decarbonization needs will be delivered by technologies and solutions that don’t exist or just beginning to emerge today”.

“Companies must come together to tackle the climate crisis in a timeline that is aligned with what the science is telling us, and the Terra Carta Design Lab is a great example of the work being done to enable this collaboration,” said Sally Fouts, Global Lead of The Climate Pledge at Amazon and Terra Carta Design Lab judge. “The winning projects are an inspiring glimpse at the future of possible climate tech solutions that can help us tackle some of the toughest challenges we face globally to create a cleaner, healthier planet. We must continue to foster creativity, innovation, and collaboration across sectors to encourage the development of new solutions that will support decarbonization on a global scale. Congratulations to all of the students and alumni involved in building these projects – I’m excited to see the impact they have on the future of our planet.”

HRH The Prince of Wales and Sir Jony Ive launched the Terra Carta Design Lab in partnership with the RCA in July 2021, to highlight the urgent need to focus on the creative collaboration between art, science, design, and engineering to produce credible and sustainable solutions to the climate crisis.

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Notes to Editor

About the Sustainable Markets Initiative
His Royal Highness The Prince of Wales launched the Sustainable Markets Initiative (SMI) at Davos in January 2020. The SMI is a network of global CEOs across industries working together to build prosperous and sustainable economies that generate long-term value through the balanced integration of natural, social, human and financial capital. These global CEOs see themselves as the ‘Coalition of the Willing’ helping to lead their industries onto a more ambitious, accelerated and sustainable trajectory.


About the Terra Carta
Launched by His Royal Highness at the One Planet Summit in January 2021, the Terra Carta serves as the mandate for the SMI. It provides a practical roadmap for acceleration towards an ambitious and sustainable future; one that will harness the power of Nature combined with the transformative power, innovation and resources of the private sector. Currently there are over 400 CEO-level supporters, including the first C40 city of Athens, Greece. The Terra Carta has served as the inspiration for the Terra Carta Design Lab.

The Terra Carta as a roadmap for public, private and philanthropic collaboration and open to all countries, cities, companies, organizations and schools who wish to support it.
About the Royal College of Art
The Royal College of Art is the world’s leading university of art and design. Specialising in teaching and research, the RCA offers degrees of MA, MPhil, MRes and PhD across the disciplines of architecture, arts & humanities, design and communications.

A small, specialist and research-intensive postgraduate university based in the heart of London, the RCA provides 2000 students with unrivalled opportunities to deliver art and design projects that transform the world. The RCA’s approach is founded on the premise that art, design, creative thinking, science, engineering and technology must all collaborate to solve today’s global challenges.

The University employs around 1000 professionals from around the world – professors, researchers, art and design practitioners, advisers and visiting lecturers – to teach and develop students in 30 academic programmes. RCA students are exposed to new knowledge in a way that encourages them to experiment. The RCA runs joint courses with Imperial College London and the Victoria & Albert Museum.

InnovationRCA, the university’s centre for enterprise, entrepreneurship, incubation and business support, has helped over 70 RCA business ideas become a reality that has led to the creation of over 750 UK jobs.

Alumni include David Adjaye, Christopher Bailey, Monster Chetwynd, David Hockney, Tracey Emin, Thomas Heatherwick, Lubaina Himid, Clare Waight Keller and Rose Wylie. The RCA was named the world’s leading university of art and design in the QS World Rankings 2022 for the eighth consecutive year. Read more: www.rca.ac.uk

About Sir Jony Ive
Sir Jony Ive KBE is a designer.

In his previous role as chief design officer of Apple, Jony was responsible for all hardware, user interface and packaging design, as well as the major architectural projects Apple Park and Apple retail stores. He joined Apple in 1992, where co-founder Steve Jobs subsequently referred to Jony as his creative partner.

Jony led the design team for more than two decades, creating a series of profoundly influential products including the iMac, PowerBook, MacBook, iBook, iPod, iPhone, iPad, AppleWatch, AirPods and HomePod. He holds more than 12,500 patents worldwide, uniquely spanning user interface, software and design hardware.

In 2019 Jony gathered together the creative collective LoveFrom, which includes Airbnb, Apple and Ferrari amongst its first collaborators.

Jony currently serves as chancellor of the Royal College of Art and is frequently voted one of Britain’s most culturally influential figures.