

MEET THE 9 INNOVATORS CREATING SUSTAINABLE SOLUTIONS FOR A BETTER WORLD

2022



WELCOME TO THE MSDUK 2022 INNOVATION CHALLENGE

WHERE INNOVATION MEETS INDUSTRY



600+ APPLICATIONS SINCE 2017



50% FEMALE FOUNDERS 47% MALE FOUNDERS 3% NON-BINARY FOUNDERS The MSDUK Innovation Challenge is a unique competition that champions ethnic minority founders. It is designed to showcase and promote under-representation of Ethnic Minority-led Businesses (EMBs).

Research suggests that innovation mostly comes from small businesses and individuals; this makes diversity a critical factor to bring new solutions, breakthrough technology and disruptive businesses to market. EMBs contribute £25 billion to the UK economy, however they are also held back by barriers preventing them from reaching their full potential.

MSDUK aims to break down barriers for EMBs by giving them direct access to a range of highly influential business leaders, corporate exposure, training and support. The Innovation Challenge is just one of several activities and programmes we provide to EMBs to create a community and powerful network of support through leveraging our unique access to over 100 corporate members.



46% ASIAN 36% BLACK 9% MIXED 9% OTHER ETHNIC GROUPS "WE ARE REALLY GRATEFUL FOR ALL THE SUPPORT FROM MSDUK AND EXCITED BY ALL THE OPPORTUNITIES THE WIN WILL HELP SPRINGBOARD FOR US, PARTICULARLY IN TERMS OF GROWTH OPPORTUNITIES, NOT JUST FROM A NETWORKING PERSPECTIVE, BUT ALSO FROM A PERSONAL AND PROFESSIONAL DEVELOPMENT PERSPECTIVE THROUGH THE TUCK BUSINESS SCHOOL AND ACCENTURE MENTORING PROGRAMME. WE'RE SO PLEASED WE TOOK PART AND THAT ORGANISATIONS LIKE MSDUK EXIST TO SHOWCASE START-UPS LIKE OURS!" - FOONG WAI NG, MATACHABLE, INNOVATION CHALLENGE WINNER 2021

PRIZES



£20,000

CASH PRIZE FOR THE OVERALL WINNER

£1,000

CASH PRIZE FOR EACH CATEGORY WINNER

1-YEAR

MSDUK PREMIUM MEMBERSHIP FOR ALL FINALISTS

2022 is the sixth year that the Innovation Challenge competition has been held. We received 103 applications in total, with great representation in the gender and ethnicity of applicants. This year's competition has seen several high-quality sustainable business solutions submitted from our ethnic minority founders and owners. With the focus on 'Sustainable Solutions for a Better World', we were

delighted to see how sustainability is a key component of their business solutions.

The Innovation Challenge is not possible without the amazing support from our sponsors. A big thank you to **Accenture**, our headline sponsor, **Cummins**, **EY** and **GSK** for sponsoring this year's competition. We would also like to thank **J.P. Morgan**, who this year

have sponsored our Innovation Lounge – a dedicated space for our Innovation Challenge Finalists to exhibit during our Business Show on Friday 9th September 2022.

Finally thank you to all the 2022 Innovation Challenge applicants, who are all incredibly dedicated to improving the environments we all live in and who are a shaping a brighter future for us all.









JUDGING THE 2022 INNOVATION CHALLENGE

JUDGING AN AMAZING COLLECTION OF INNOVATORS IS NO EASY TASK. WE SAW A DIVERSE RANGE OF BUSINESSES ACROSS ALL THREE CATEGORIES FOR THIS YEAR'S INNOVATION CHALLENGE.

Thank you to all that have been involved in all stages of this year's competition. Online reviewing and scoring of all applications took place before shortlisting three finalists per category. Our judging panel for the live and in-person finals on Thursday 8th September 2022 consists of six judges, including those from our competition sponsors and partners.

OUR ONLINE JUDGES:

Sian Ellis

Sustainable Procurement Assistant Director FY

James Johnson

Corporate Indirect Purchasing Sourcing Manager (Europe) Cummins

Lisa Trinh

Senior Manager - Global Supplier Diversity GSK

OUR JUDGES FOR THE FINALS:

Chenelle Ansah

Partner
Cornerstone Partners

Ted Archer

Head of Business Partner Diversity J.P. Morgan

Kimberly Brown

VP, Facilities, Capital & Logistic Procurement GSK

Jessie Coates

Global Impact Entrepreneurship Leader EY

Ben Ngobi

Global Procurement Sustainability Director Accenture

Stephen Walton

Corporate Regional Facility Director EMEA Cummins

OUR AWARD PRESENTERS:

Nedra Dickson

Global Supplier Inclusion & Sustainability Lead Accenture

Denis Ford

International Sourcing Leader EMEA - Corporate Indirect Purchasing Cummins

A big thank you to **Jessica Huie MBE** for moderating the Innovation
Challenge Finals and special thanks
to **Trevor Lee** for running the pitchtraining workshop for all our finalists
and for helping them to be prepared
and ready for the finals.









THE THREE INNOVATION CHALLENGE CATEGORIES

The theme for this year's Innovation Challenge was Corporate Sustainability and how our EMBs can help corporates with this through their solutions. Corporate Sustainability is more than just protecting the environment; a sustainable business is one that works in conjunction with societal

and environmental goals, rather than at odds with them. Done well, it is also a business strategy for long-term growth that works in harmony with people and the planet.

For Innovation Challenge 2022, we split the competition into three categories: economic, environmental and social. Ethnic minority-led

businesses were able to choose to apply to one of these three categories, telling us about their sustainable business solutions and how they can help to support larger corporate organisations by implementing these solutions into their operations and business practices.

THE ECONOMIC CATEGORY

SPONSORED BY EY

Helping corporates increase business efficiencies through sustainable practices. This may involve cost reduction by improving material engineering or packaging, better targeting of their customers to increase market share, or create new market opportunities for them.

6 / FullSpektrum

8 / Kweevo

10 / UpSkill Digital

THE ENVIRONMENTAL CATEGORY

SPONSORED BY CUMMINS

Products, services or solutions that can help corporates be more environmentally conscious. Examples include sustainable packaging, recycling, waste management and locally sourced and manufactured products.

12 / Agave Networks

14 / Firstplanit

16 / ReCyrcle

THE SOCIAL CATEGORY

SPONSORED BY GSK

Solutions that promote the health, safety and wellbeing for employees, customers or communities of a corporate. Examples include skills development, childcare, social equality and helping those with disabilities.

18 / Aergo Health

20 / Charco Neurotech

22 / CONNECT Care



MEET ANDRÉ SKEPPLE

FOUNDER & CEO, FULLSPEKTRUM

CATEGORY: ECONOMIC

WEBSITE: WWW.FULLSPEKTRUM.CO.UK



Scan this QR code to access the FullSpektrum website and learn more about our 2022 finalist.

ABOUT ANDRÉ

André is the visionary Founder & CEO of FullSpektrum Ltd, dedicated to delivering better value, improved outcomes and societal impact to localised education and integrated care ecosystems throughout the country, particularly supporting neurodivergent children & young people identified with SEND (Special Educational Needs and Disability).

André leads a multidisciplinary team of innovation strategists, digital designers, software engineers, solution architects, data scientists, applied psychologists and SEND case management specialists, dedicated to initialising technology-based reforms in SEND and integrated care services at the institutional, local and national level.

André created FullSpektrum following his own personal hurdles in education, employment and training with severe dyspraxia and dyslexia, after waiting 5 years for a formal diagnosis and SEND support plan since first requesting it. Drawing on his technical backgrounds in biotechnology, life sciences, holistic innovation and digital diagnostics, he has since dedicated the last four years in researching, designing, testing and assembling his unique digital transformation solution.

ABOUT FULLSPEKTRUM

FullSpektrum is a London-based innovation company, providing ground-breaking technologies and services designed to facilitate the digital transformation of local education and integrated care services for neurodivergent people, including those with SEND.

Simply put, as digital changemakers, we are dedicated to redesign, redevelop, and systematically reform the National Curriculum by utilising a plethora of technological disciplines. This includes elements of applied diagnostic systems, cloud computing, Internet of Things (IoT), blockchain, data science and artificial intelligence (AI), all combined to holistically facilitate a truly personalised and 'neuro-inclusive' curriculum for learners from all backgrounds, despite their individual requirements.

THE PROBLEM:

Specialist educational provisions and support services for children and young people are at serious breaking point, with more than £1bn wasted by local authorities in legal battles with parents related to the continuous mismanagement of public services such as SEND, since 2014.



Local services and support agencies, including SEND are subjected to immense scrutiny, reviews and regulations without practical solutions in place to solve the issues raised. Increased numbers of referrals and a pressing need for change across the board has caused our local SEND & inclusion services to reach breaking point.

THE OPPORTUNITY:

Over the next 5 years, we intend to remedy local service challenges by working with all stakeholders (including educators and parents), to develop data-driven ecosystems of support intelligence solutions, purposefully designed for the streamlined management and personalised support of neurodivergent young people.

This shall be in addition to a growing population of neurodivergent people of all ages and backgrounds facing specific difficulties in their learning and development.

FullSpektrum is now ready to disrupt a brand new multi-disciplinary

"FOR MANY YEARS, I'VE HAVE BEEN WORKING MY HARDEST TOWARDS THIS VENTURE, SO IT NOT ONLY GAINS THE RECOGNITION IT DESERVES, BUT TO ALSO BE PROVIDED A PLATFORM FOR US TO ERADICATE BARRIERS AND IMPROVE OUTCOMES FOR NEURODIVERGENT YOUNG PEOPLE, INCLUDING THOSE FROM VARIOUS ETHNICITIES AND SOCIOECONOMIC BACKGROUNDS WHO, LIKE ME AND MANY OTHERS, ARE NORMALLY LEFT BEHIND."

market, which is ready to embrace disruptive digital solutions to revolutionise education, health and social care services within the public and private sectors.

THE SOLUTION:

Now that we've secured funding from Innovate UK and from private investment, we will be working with schools, various agencies and local authorities as their digital transformation partners, regarding the design, development and deployment of the World's first support intelligence solution for SEND & inclusion called, 'FS:One'.

Our platform shall be capable of simultaneous support operations across a multitude of locations, schools and care agencies, as well as between local authorities, which is a highly attractive and exclusive feature for B2G (Business to Government) and B2B (Business to Business) clients.

This is the start in our revolutionary journey in becoming the 'Google of education, health and social care'.

"I'M TRULY GRATEFUL FOR THIS AMAZING OPPORTUNITY!"





MEET AUDREY LIMERY

FOUNDER & CEO, KWEEVO

CATEGORY: ECONOMIC

WEBSITE: WWW.KWEEVO.COM



Scan this QR code to access the Kweevo website and learn more about our 2022 finalist.

ABOUT AUDREY

Audrey Limery is the CEO & Founder of Kweevo. She's a seasoned data expert and an award-winning entrepreneur. Audrey founded Kweevo in January 2020 to provide an innovative solution allowing businesses to generate insights quickly and make data-driven decisions.

With a Supply Chain background, Audrey took notice of the ongoing supply chain disruptions and the increasing food wastage in the UK. Food waste negatively impacts business revenue, global emissions, resource scarcity, food insecurity and cost of living. Over 4.2 million tonnes of food is wasted in the UK supply chain; these inefficiencies cost businesses over £1.5 billion annually. To address these challenges, organisations require supply chain management tools that

create digitised, monitored, resilient and sustainable supply chains.

Audrey has therefore combined her Supply Chain background and data expertise to help tackle these supply chain issues and offer innovative Supply Chain & CleanTech solutions with Kweevo.

ABOUT KWEEVO

Kweevo is a SaaS (Software as a Service) analytics platform offering pre-built and automated innovative dashboards, designed to help businesses generate insights quickly and make informed decisions. Kweevo is industry-agnostic and currently provides solutions across four verticals: Supply Chain, Retail, Finance, Marketing.

Kweevo has three core missions:

 Driving digital transformation through data and AI (Artificial Intelligence)

- 2. Boosting the tech ecosystem
- 3. Supporting decarbonisation and waste reduction with Supply Chain & Cleantech solutions.

By pursuing their core missions, supported by four key pillars – digitisation, innovation, diversity, sustainability – Kweevo believe that they can make a significant impact on an economic, societal and environmental level.

THE PROBLEM:

The UK generates over 220 million tonnes of waste annually with an estimated 4.2 million tonnes of food lost/wasted across the food supply chain. This is enough to feed the UK's 68 million population for 39 days. Food waste accounts for 8% of global greenhouse emissions with greenhouse gas emissions from



UK food retail equivalent to 5.3 million tonnes of CO₂. The supply chain is responsible for 90% of a company's environmental impact and inefficiencies are costing UK businesses over £1.5 billion a year. Global supply chain disruptions caused by COVID-19 have resulted in 75% of companies increasing inventory excess by 10%, negatively impacting operational waste and revenue.

THE OPPORTUNITY:

Reducing food waste delivers a triple win. It saves money for producers/retailers/households, addresses food insecurity/poverty and alleviates pressure on climate/ water/land resources.

The key challenge in reducing supply chain waste and carbon emissions is building a resilient, digitised, and sustainable supply chain that is automatically monitored in real-time and adapts to manage disruptions and changing pressures.

Kweevo's B2B (Business to Business) addressable and serviceable

"BEING AN MSDUK INNOVATION CHALLENGE FINALIST IS A TESTAMENT TO OUR INNOVATIVE WORK AT KWEEVO, AS WE PUSH BOUNDARIES TO DRIVE SUPPLY CHAIN SUSTAINABILITY AND OFFER SOLUTIONS POSITIVELY IMPACTING MANY ON AN ECONOMIC, SOCIETAL AND ENVIRONMENTAL LEVEL. IT IS, THEREFORE, AN IMMENSE PRIVILEGE TO REPRESENT KWEEVO AT THE FINALS AND INTRODUCE OUR SUPPLY CHAIN & CLEANTECH OFFERING."

markets consist of retailers and food retailers, with a size of £792 million a year and £84 million a year, respectively (food retailers represent 10.6% of total UK retailers, 10.6% x £792 million = £84 million). The global and UK annual addressable/serviceable markets are £32 billion/£792 million and £3.36 billion/£84 million, respectively.

THE SOLUTION:

Kweevo offers a suite of innovative Supply Chain AI applications/ dashboards, helping businesses visualise their supply chains and monitor, minimise and prevent supply chain carbon emissions and waste. Their solution allows organisations to build supply chain digital twins to simulate scenarios, evaluate waste and carbon footprint across the supply chain, and assess any supply chain changes' environmental and cost impacts before implementation.

Kweevo aims to help businesses optimise their supply chains, reduce their waste and carbon footprint, support the mitigation of their supply chain risks and contribute to reducing CO2 emissions in line with the "Net Zero" initiative.





MEET GORI YAHAYA

FOUNDER & CEO, UPSKILL DIGITAL

CATEGORY: ECONOMIC

WEBSITE: WWW.UPSKILLDIGITAL.COM



Scan this QR code to access the UpSkill Digital website and learn more about our 2022 finalist.

ABOUT GORI

I'm an award-winning serial entrepreneur. CEO and Founder of UpSkill Digital, a leading organisation in the world of digital education and inclusion. Whilst studying for a chemistry degree at Manchester University. I was fairly unsettled by the lack of relevant skills the UK education system equips you with for the workforce and excited by the opportunity entrepreneurialism could bring. I founded a few startups from a digital social dining app in New York, a Sports-Lux online platform called SportStylist, to an image recognition e-commerce software called Style Tag.

I have been able to build a scaling organisation, as the sole founder launching the organisation in 2015. The organisation has grown between 80% - 110% year-on-year, even throughout the pandemic,

reaching over 615,000 individuals trained and being the driving force behind the UK's largest digital skills and inclusion programmes such as the Google Digital Garage, Lloyds Bank Academy, Walmart Academy and BT Skills for tomorrow.

ABOUT UPSKILL DIGITAL

UpSkill Digital is a leading organisation in the world of digital education and inclusion, delivering flexible learning solutions that support those who need it most to get the skills to thrive in the digital age. Working with many of the largest multinational organisations such as Walmart, TikTok, Google, and HSBC, we're dedicated to minimising the global digital skills gap, driving sustainability across SMEs, and building inclusive and equitable workplaces where all employees are valued and contribute to the success of an organisation.

THE PROBLEM:

There is a skills mismatch in the labour market as 69% of employers globally struggle to attract and retain a diverse workforce with relevant skills, especially in highdemand and emerging technology areas like Software Engineering, Data Science, Cyber Security and Digital Marketing. Talent is evenly distributed, but opportunity is not. We need to level the playing field for access to and progression within the workforce for diverse talent. As employee turnover within businesses increases disproportionally for diverse talent, employers need to recognise that employees' intentions to remain with their employer increase when businesses address employee needs from inclusion and diversity to sustainability and reskilling.



THE OPPORTUNITY:

Investment in attracting and promoting diverse talent has a positive impact on profitability. The top quartile businesses of the most diverse executive teams are 36% more profitable than bottom quartile businesses. When employees feel included, they're more engaged. Highly engaged employees go the extra mile for the organisation. This higher engagement has a ripple effect on profitability, team morale, and retention. Increasingly, organisations are moving from a "buy" model (too long), to a "build" model for talent (76% in 2020), investing in upskilling and reskilling staff in more efficient ways. Learners are also taking their future into their own hands with PwC reporting 77% are ready to learn new skills or completely re-train since the pandemic.

"IT'S SUCH A PRIVILEGE TO BE RECOGNISED FOR
THE WORK UPSKILL DIGITAL ARE DOING TO EDUCATE
AND DRIVE MORE INCLUSIVE BEHAVIOURS ACROSS
ORGANISATIONS, BUILD THE NEXT GENERATION
OF DIVERSE TECH LEADERS, AND SUPPORT
CORPORATES TO FULFIL THEIR CORPORATE
SOCIAL RESPONSIBILITY COMMITMENTS."

THE SOLUTION:

We deliver our solutions across three main pillars: Skills, Talent & Inclusion. For organisations looking to reskill their current workforce, UpSkill Digital provides flexible learning solutions, structured around existing working commitments, allowing individuals to develop the required skills at their own pace. Our UpSkill Academy Programmes tackle the lack of representation in the tech industry by equipping underrepresented and marginalised individuals with skills in emerging

technologies and pathways into organisations. We further support large organisations to drive better representation and progression of diverse talent through immersive inclusive leadership and targeted equitable development programmes to ensure diverse talent can thrive in an inclusive environment in the organisation.





MEET **DANIEL BYRD SUÁREZ**

CO-FOUNDER, AGAVE NETWORKS

CATEGORY: ENVIRONMENTAL

WEBSITE: WWW.AGAVENETWORKS.CO



Scan this QR code to access the Agave Networks website and learn more about our 2022 finalist.

ABOUT DANIEL

My name is Daniel Byrd, an impactdriven entrepreneur from Mexico. I am passionate about creating a reality where the manufacturing and construction industries openly share our scarce resources, eliminating waste from the system.

My entrepreneurial journey in the circular economy began when I was 18 years old, by reselling over-inventory stock from a manufacturing company in 2015 in my home country, Mexico. After years of constant learning, I am on the mission of creating the first machine learning platform enabling SME (small and medium-sized enterprise) manufacturers and construction businesses to exchange their excess materials and products.

ABOUT AGAVE NETWORKS

Agave Networks is an online marketplace platform that enables manufacturing industries and building owners to achieve zero avoidable waste by identifying excess products and materials in their systems and matching them with local reusing opportunities.

We do this by generating digital product passports from excess raw materials, work-in-progress and even finished products from our users using visual recognition and machine learning algorithms, to later match them with potential reusing opportunities in the market. Our users propel profitability, get visibility of their materials allocation and take a step further in their net-zero waste objectives by exchanging their excess resources with one another.

THE PROBLEM:

Every year, the UK manufacturing and construction industries generate more than 70 million tons of valuable materials that could be upcycled, reused, repurposed or recycled, that end up as waste. Not only is the industry being affected by losing these valuable resources, but our environment is affected the greatest. If these materials are still valuable, why do they end up filling our landfills? The root problem is a lack of visibility, traceability and connection between these materials and their potential uses.



THE OPPORTUNITY:

With more than 130,000 SME manufacturers and 50,000 yearly demolitions happening in the UK every year, there is an untapped billionaire market of excess resource sharing. On a global scale, the market of excess materials sharing in these industries accounts for more than \$350 billion. We are in the right place and time to develop a solution that empowers the industry to exchange their excess materials.

THE SOLUTION:

Our solution is an easy-to-use platform that SME manufacturers and construction companies use to locate excess materials and share them using our 3 step method:

- Collect Our ML (Machine Learning) algorithms create digital product passports from excess materials with data including materials composition, location, and manufacturing dates
- Match We match our users' excess materials digital product passports with potential uses in the market considering the waste hierarchy, logistics, costs and revenue, ensuring an optimal resources relocation
- Track After a successful match is made, our platform records the materials transformations in their life cycle in the digital [product passports, ensuring a visible and traceable circular economy.

"TO BE AN INNOVATION CHALLENGE FINALIST
MEANS THAT REGARDLESS OF YOUR BACKGROUND,
EXPERIENCE OR EVEN ETHNICITY, THERE IS ALWAYS
AN OPPORTUNITY FOR YOU IF YOUR MISSION IS
TO LEAVE THE WORLD BETTER THAN YOU FIND IT."





MEET ANKITA DWIVEDI

FOUNDER & CEO, FIRSTPLANIT

CATEGORY: ENVIRONMENTAL
WEBSITE: WWW.FIRSTPLANIT.COM



Scan this QR code to access the Firstplanit website and learn more about our 2022 finalist.

ABOUT ANKITA

For the past 22 years, Ankita has led Architecture, Design, and Sustainability teams globally.

She has worked on buildings in Potsdamer Platz in Berlin in the early noughties and Heins, WPP, NYU projects in New York. One of the most celebrated destinations, 'The Avenues' in Kuwait, was led by her at Gensler, followed by a list of top brands like Apple, Ferrari, Selfridges, Citi, and JP Morgan in London.

Ankita was one of the early professionals to get her Sustainable Buildings LEED (Leadership in Energy and Environmental Design) accreditation in the early noughties and became the European Head of Design Resilience at Gensler. She also holds a Master's degree in 'Health Wellbeing and Sustainable Buildings' from The Bartlett at University College London.

Despite an established career, Ankita left business-as-usual behind and founded Firstplanit to rapidly accelerate and scale the adoption of sensible, holistically sustainable building decisions by anyone, anywhere.

ABOUT FIRSTPLANIT

Firstplanit is a B2B2C (Business to Business to Consumer) digital platform that makes sustainable buildings attainable. Firstplanit's patent-pending innovation delivers quantifiable benefits of green choices early. Indices help reduce Co2 emissions but go way beyond providing quantifiable environmental, social, health and monetary impacts using 50.000 real-world data points. The platform itself is a kit of parts - a networked service with a SaaS (Software as a Service) at its heart that runs on novel algorithms.

THE PROBLEM:

80% of building project teams are extremely keen on selecting sustainable building products as well as materials procurement, but only 20% act. This is because there are more than 150 eco-labels and a lot of green-washing. Experts are very expensive and hard to find, and benefits of this effort are difficult to measure.

THE OPPORTUNITY:

Today 12 million building projects are undertaken in the UK every year: everything from a skyscraper to a paint job. Buildings create 40% of Co2 emissions, waste, pollution and environment-related health problems. The demand for green construction has skyrocketed.



Tightening legislation and consumer demand for sustainable practices have led to imminent reporting demands around carbon, ESG (environmental, social and governance), health and social impact of building and maintaining building infrastructure. Concurrently the construction sector needs rapid digitalisation to support fragmented teams and information. A digital tool to help solve the sustainability crisis in construction is an enormous need begging to be met.

THE SOLUTION:

Firstplanit makes complex, sustainable material and product decisions simple, measurable and shareable quickly. It takes 1% of the time and 1% of the cost compared to what is possible today. Current models rely on expert appointments at an early stage and deliver guidance that doesn't translate because decision-makers are non-technical. Firstplanit turns that around by bringing stakeholders together early and becoming the one-stop shop for positive impact product procurement decisions.

"I DEVOTE MYSELF TO TRANSFORMING THE CONSTRUCTION INDUSTRY BY BREAKING DOWN ITS TRADITIONAL WALLS AND HELPING IT EMBRACE CHANGE. BEING CHOSEN AS AN INNOVATION CHALLENGE FINALIST HAS BROUGHT ME ONE STEP CLOSER TO MY GOAL - RAPIDLY AND RADICALLY TRANSFORMING THE WAY 10 MILLION PROJECTS SELECT THEIR PRODUCTS AND MATERIALS IN 5 YEARS."





MEET SAMREEN NURULLAH

CO-FOUNDER & DIRECTOR, RECYRCLE

CATEGORY: ENVIRONMENTAL
WEBSITE: WWW.RECYRCLE.CO.UK



Scan this QR code to access the ReCyrcle website and learn more about our 2022 finalist.

ABOUT SAMREEN

I am the Co-Founder/Director of ReCyrcle. I have previously worked with robotic manufacturing in the apparel industry in Bangladesh and I came to the UK in 2017 to do my MSc in Business Intelligence. I designed a Blockchain-based Incentivised Recycling Scheme for my dissertation and my supervisor offered me a PhD to further my research but I wanted a more practical demonstration of my model, therefore I opted for the business route and was granted the Innovator Visa. I met my Co-Founder in 2019 and we set up ReCyrcle. In 2020, we hired our first employees. in 2021 we started our collections from universities, and this year we moved to our workshop space and have thus far supplied locally sourced materials to the council and received GLA (Greater London Authority) funding. I am looking

forward to collaborating with more organisations to deliver circular waste systems.

ABOUT RECYRCLE

ReCyrcle is a cleantech company working towards establishing a circular waste system by enabling design from recycled materials. We were nominated as one of the 30 Key Industry Figures of 2022 at the London Festival of Architecture and we have received funding from the GLA to set up Recycle Dock - a Circular Makerspace in the Royal Docks. We have been featured in Forbes and participated in the UK Space Agency Leo Programme in 2021 to explore circularity and sustainable material recycling in space. We work with a variety of plastic waste and offer consultancies for setting up circular waste systems.

THE PROBLEM:

Plastic is synthesized from oil. It takes 3 tonnes of oil to make a tonne of plastic, yet we dispose of it in landfills. Poor recycling rates contribute to both environmental and economic loss; more than £513 billion worth of recyclable plastics end up in landfills every year.

Studies show that plastic pollution is a threat to human health; on average, a person is ingesting 5 grams of microplastics every week – that's equivalent to the weight of a credit card. Recent data also suggests that London has the highest level of microplastics compared to other major cities in the world.



THE OPPORTUNITY:

The current global plastic industry is worth more than \$1.1 trillion, offering over 1.5 million jobs in Europe alone and is the 3rd largest employer in the UK manufacturing sector. It would take decades for the industry to switch to sustainable plastic alternatives and with each passing minute, a truck full of plastics is being dumped into our oceans and landfills. The shift to the circular economy creates a \$4.5 trillion opportunity for circular waste system companies like us to bridge the infrastructure gap with our technologies and accelerate society towards a sustainable future.

THE SOLUTION:

We strongly believe that the poor recycling rate is not a habit problem but a perception problem and we have research to support it. Most people don't realise that waste is a resource with an economic value and recycling can be a profitable practice. Our app encourages people to recycle by offering rewards for recycling in the form of digital tokens. The app shows the journey of a plastic bottle from the point of collection to being processed into new products so a user can track their recycling habits and buy products made from their recycled waste.

"BEING AN INNOVATION CHALLENGE FINALIST OFFERS ME AN EQUAL OPPORTUNITY TO SHARE MY VISION WITH A NETWORK OF LIKE-MINDED PEOPLE AND SEEK PARTNERSHIPS FOR GROWTH."





MEET SHEANA YU

FOUNDER & CEO, AERGO HEALTH

CATEGORY: SOCIAL

WEBSITE: WWW.AERGOHEALTH.COM



Scan this QR code to access the Aergo Health website and learn more about our 2022 finalist.

ABOUT SHEANA

Sheana Yu is an award-winning Design Engineer originally from Taiwan, with a double MSc in Global Innovation Design from the Royal College of Art and Imperial College London. Before founding Aergo Health, her creations have been exhibited worldwide in places such as Dubai Design District, Tokyo Design Week and Milan Design Museum. She is driven by a passion to deliver social impact and change through design: this has been partly influenced by her own experience of scoliosis (curvature of the spine). Sheana founded Aergo Health to support seated wellbeing for people affected by neuromuscular disorders. Her early prototype has gained support from the James Dyson Foundation and the Royal Academy of Engineering. She was a winner of the Innovate UK Women In Innovation competition, which

enabled her to scale her business and commercialise Aergo Health's core technology.

ABOUT AERGO HEALTH

Aergo Health is passionate about improving lives and making things better. Its core business focuses on developing smarter postural management solutions for wheelchair users affected by neuromuscular disorders. The multidisciplinary team behind Aergo Health are user centered designers and engineers with a passion for improving people's lives. The company has partnered with specialist distributors in the UK and EU to deliver the Aergo PS to user's hands and are collaborating with specialist NHS wheelchair clinics to create integrated technology solutions to support more complex disabilities.

THE PROBLEM:

Maintaining a healthy posture is a challenge for over 1 million wheelchair users in the UK. Postural support seating systems in the market are static and require frequent adjustment to keep users in a healthy seated position. Without appropriate management of posture and access to adequate specialist equipment, further spinal deformities can develop resulting in organ compression and deteriorates respiration and digestion. Poor posture also leads to uneven weight distribution during a seated position, causing high pressure build-up at the sacrum that lead to skin ulceration. Pressure ulcer alone costs the NHS 4% of their annual expenditure and is highly labour intensive to treat.



THE OPPORTUNITY:

Many healthcare systems, especially publicly funded, are struggling to provide timely access to clinical support. Current specialist equipment requires in-person assessment, frequent intervention and maintenance, but wheelchair providers are experiencing high volumes of backlogs post-COVID. Clinicians are unable to visit and support their clients in a timely manner and the resulting wait times are leaving wheelchair users with no or outdated equipment that is no longer effective in supporting their needs. Conversely, telehealth is becoming more widely adopted by healthcare professionals and studies have demonstrated long-term health economic benefits in terms of cost-saving and quality of care. This opens up an opportunity for new digital solution to service the wheelchair users.

"BEING A FINALIST OF THE INNOVATION CHALLENGE PROVIDES US WITH THE OPPORTUNITY TO SHOW THE WORLD HOW WE ARE SUPPORTING THE WHEELCHAIR COMMUNITY AND IMPROVING DISABLED PEOPLE'S QUALITY OF LIFE THROUGH OUR AIR CELL TECHNOLOGY."

THE SOLUTION:

Aergo Health has created a smart wheelchair seating system, Aergo PS, designed to dynamically support wheelchair users affected by neuromuscular disorders.

The air cells within the PS correct poor posture by actively inflating and deflating each critical support area to reposition the user's body. This replaces the traditional method of fixing the user into a single position, which restricts movement and reduces independence.

Clinicians can also access the PS through our web portal and provide remote monitoring and adjustment. This improves access to clinical support for patients while supporting clinicians in managing caseloads efficiently.

Our long-term vision is to integrate our technology into a wider range of weight supporting surfaces and expand the clinical benefits to support more disabled people globally.





MEET LUCY JUNG

CO-FOUNDER & CEO, CHARCO NEUROTECH

CATEGORY: SOCIAL

WEBSITE: WWW.CHARCONEUROTECH.COM



Scan this QR code to access the Charco Neurotech website and learn more about our 2022 finalist.

ABOUT LUCY

Lucy Jung co-founded Charco Neurotech after meeting members of the Parkinson's community whose symptoms prevented them from smiling. From then, it has been Charco's goal to bring back smiles for people with long term conditions. With a background in product design. Lucy conceived the CUE1 whilst studying the Innovation Design Engineering Master's at Imperial College and the Royal College of Art. With the support of some incredible institutions, advisors, and people with Parkinson's, this went on to become Charco Neurotech.

ABOUT CHARCO NEUROTECH

Charco Neurotech, established in 2019 by Lucy Jung and Floyd Pierres, was founded with one ambition: to bring back smiles for people with Parkinson's.

This led to their design of the CUE1, a non-invasive wearable device. The CUE1 alleviates certain Parkinson's symptoms, including stiffness and slowness of movement. It achieves this by utilising two vibration-based therapies: focused stimulation and cueing, both of which are research-validated. It also incorporates discreet medication reminders and an accompanying app, which enable the user to track their symptoms. Through these innovations, we hope to improve quality of life for all with Parkinson's.

THE PROBLEM:

Parkinson's is a neurodegenerative disorder affecting 10 million people worldwide. It is characterised by the symptoms of bradykinesia (slowness in movement), rigidity (stiffness), tremor and postural instability. The motor symptoms can manifest in a multitude of ways such as

lack of facial expression, difficulty performing fine motor tasks and falls. Despite the best available medical and surgical interventions, people are often frustrated, as they remain significantly limited in their activities; their quality of life is often lowered and even simple things such as writing and walking become challenging.

THE OPPORTUNITY:

Many with Parkinson's start on medications such as Levodopa at time of diagnosis; some symptoms are better managed than others through these treatments, with changes in efficacy and worsening side-effects potentially complicating management over time. A small portion of patients are offered Deep



Brain Stimulation (DBS), by which microelectrodes are implanted in the brain to directly stimulate neurons. DBS is effective at reducing many symptoms, but requires invasive brain surgery with associated risks, and can be expensive.

THE SOLUTION:

This led to our design of the CUE1, a non-invasive wearable device combining two research-validated vibration-based therapies: focussed stimulation and cueing. These have been shown to improve motor symptoms of Parkinson's disease such as slowness, rigidity and freezing of gait. The CUE1 is affixed to the user via medical grade adhesives and emits mechanical vibrations that have been shown to improve symptoms such as bradykinesia and dyskinesia, all whilst being easily concealed under clothing. This gives those with Parkinson's back greater freedom of movement, with a minimal impact on their daily life.

"INVENTION AND CREATIVITY ARE KEY TO WHAT WE DO AT CHARCO NEUROTECH, AND I'M SO EXCITED TO BE INCLUDED AMONGST THIS YEAR'S INNOVATION CHALLENGE FINALISTS."





MEET ISSA DASU PATEL

FOUNDER, CONNECT CARE

CATEGORY: SOCIAL

WEBSITE: WWW.WECONNECTCARE.NOTION.SITE



Scan this QR code
to access the CONNECT
Care website and learn
more about our
2022 finalist.

ABOUT ISSA

Issa is Founder of an Innovate UK-backed health tech start-up, supporting people to get the most out of their medicines.

During the pandemic, Issa was a digital & data advisor to NHS Digital, managing the rollout of a major national COVID programme, COVID Oximetry@home, laying the groundwork for the wider NHS@home remote monitoring programme — delivering better, more personalised and connected care from patients' own homes.

Prior to this, Issa worked with his family charity, leading their COVID-19 relief efforts. Here, he managed a major national campaign in partnership with Daily Mail's Mail Force Charity (40 million units of PPE (Personal Protective Equipment) donated to DHSC (Department of Health and Social Care), the majority of which were domestically manufactured) as well as other philanthropic initiatives globally with the scheinbergfund.org.

ABOUT CONNECT CARE

CONNECT Care is a young startup, backed by Innovate UK, having won over £1 million in Government grants. We're an eclectic and diverse bunch, coming from all walks of life and working from all over the UK.

With all the noise around digital products these days, we often forget about how things used to be, especially around care and medicines: the relationships between patients, pharmacists and carers were highly personal. CONNECT Care is building a platform that captures this type of individualised advice, providing services with empathy at their core.

THE PROBLEM:

Managing medicines is too difficult. We already know that up to 50% of patients struggle to take their medicines – patients are not well-supported and too often it remains a hidden problem until it's too late. It's a particular problem for older and more vulnerable people.

THE OPPORTUNITY:

To address this problem, there is a missed opportunity in bringing together the individualised support of traditional pharmacies with the latest digital tools; transforming how medicines are managed in the community and generating actionable insights that improve care. CONNECT Care does exactly this – making it easier for patients and the people who care for them.



THE SOLUTION:

Our solutions empower people to take the right medicines at the right time, giving them and their loved one's peace of mind. They help carers understand the medicines their patients are taking and get information about how to best support them, and they make sure everyone can easily access the shared insights they need to plan ahead and offer joined-up, informed care.

We're not simply another app. Our technology integrates with existing systems to ensure care can be managed through one interface and that all patients can be supported, whatever their medication needs. We add value by making things simpler.

"AS A COMPANY THAT PRIDES ITSELF ON SUPPORTING SOME OF THE MOST VULNERABLE PEOPLE IN SOCIETY (THOSE THAT HAVE BEEN LEFT BEHIND BY THE DIGITISATION OF CARE), WE ARE SO HUMBLED TO HAVE BEEN SELECTED AS A FINALIST IN MSDUK'S INNOVATION CHALLENGE AND RECOGNISED FOR OUR INCLUSIVITY!"



OUR TOP 20 2022 INNOVATORS

THANK YOU TO EVERYONE WHO APPLIED FOR THIS YEAR'S INNOVATION CHALLENGE; WITH JUST OVER 100 APPLICATIONS RECEIVED, IT HAS BEEN BRILLIANT TO SEE ALL THE INNOVATIVE SUSTAINABLE BUSINESS SOLUTIONS THAT ARE TAKING SHAPE WITHIN OUR ECO-SYSTEM.

OUR 2022 SHORTLIST APPLICANTS:

ECONOMIC:

Amy Simpson

Geeks Ltd

www.digence.com

Drishdey Caullychurn

TEXpert AI

www.texpertai.co.uk

Mandeep Soor

Bendi

www.bendi.wtf

Mayur Upadhyaya

Contxt

www.contxt.id

Mo Kanjilal

Watch This Sp_ce www.watchthisspace.uk

Pranav Chopra

NFMI Teas

www.nemiteas.com

Tarun Kumar

Data Gardner

www.datagardener.com

SOCIAL:

Erika Brodnock

Kami

www.usekami.com

Felicity Gain

Smile Science Harley Street www.smile-science.co.uk

Hansa Shree

Sukoon Care

www.sukooncare.com

Kevin Kwong

Heyr

www.heyr.app

Marouf Khan

WellBuddv

www.wellbuddv.co

Sarah Fraikue

Evermind

www.evermind.world

Vinay Nair

Liahtful

www.lightful.com

ENVIRONMENTAL:

Ali Nourbakhsh

Rootip

www.rootip.io

Ameenah Begum

Planet Friendly Paint

www.planetfriendlypaint.com

Ethar Alali

Automedi

www.automedi.co.uk

James Omisakin

Compare Ethics

www.compareethics.com

Mohamed Hanslod

Brie-Tek Technologies

www.britektechnologies.com

Shamanth Pereira

Something Co

www.somethingco.com

SPECIAL RECOGNITION AWARD 2022



FOR THIS YEAR'S COMPETITION, WE ALSO HAD SPECIAL AWARD PRIZES, WHERE EACH OF OUR SPONSORS PROVIDED A CHALLENGE STATEMENT FOR OUR APPLICANTS TO TRY AND ADDRESS. EACH SPECIAL AWARD HAS A CASH PRIZE OF £2000.

EY's Challenge Statement: Do you have sustainable solutions to help EY increase their business efficiencies and reduce carbon emissions?

Cummins' Challenge Statement: Can you help Cummins within its facilities management or operations department in the area of Water, Waste and Energy?

GSK's Challenge Statement: Can you help GSK improve good health and wellbeing for their internal and external communities?

CONGRATULATIONS NAVJOT SAWHNEY

FOUNDER & CEO,

THE WASHING MACHINE PROJECT CIC

CATEGORY: SOCIAL

WEBSITE: WWW.THEWASHING MACHINEPROJECT.ORG

We're delighted to announce that Navjot Sawhney, Founder and CEO of The Washing Machine Project CIC, has been awarded the Special Award in the Social Category of this year's competition. The Washing Machine Project was founded in 2019. Navjot moved to South India to make cookstoves with Engineers Without Borders UK, where he met his neighbour, Divya. Divya's struggle with everyday tasks inspired Navjot to find a solution and he promised her a washing machine, and after returning home, he developed the first prototype.

Since then, The Washing Machine Project has conducted ethnographic research in 17 countries, interviewing over 3,000 families in countries including Uganda, Jamaica, Nepal, India, and the Philippines, to gain an insight into their washing tendencies. The Washing Machine Project has partnered up with some of the most prominent international

non-governmental organisations (NGOs), such as United Nations High Commissioner for Refugees (UNHCR), Save The Children, Oxfam, Care International and Plan International.

They have successfully carried out pilots in Iraq and Lebanon and received orders from multiple countries for over 3,000 washing machines. In 2022 The Washing Machine Project's plans are to fulfil these orders and scale-up across numerous countries.





OVERALL WINNER (SOCIAL INNOVATION)

FOONG WAI NG, MATCHABLE

Matchable is a B2B platform matching companies and their employees with innovative skilled volunteering projects at non-profits and impact start-ups. They are a certified B Corp (recently recognised as one of the Best for the World!) and Top 100 Escape the City company.

www.wearematchable.com

CATEGORY WINNER (SUSTAINABLE FUTURES)

XIAOBIN ZHAO, CAMBOND

Cambond has invented a low carbon, plant-based bio adhesive to replace oil-based formaldehyde resin in the wood panel industry. It is non-toxic, low-cost and made from waste and can be combined with wood or non-wood plant fibre to form low carbon biobased construction building materials. www.cambond.co.uk



DR CHEN MAO, LATCHAID

An award-winning Femtech start-up using cutting-edge 3D technology & A.I. to help mothers learn breastfeeding skills intuitively and access personalised motherhood support 24/7. Gained Beta users from 20 countries across 6 continents and is partnering with 12 NHS trusts & VirginCare for app pilots. www.latchaid.com



DHRUV GHULATI, FACTMATA

Factmata helps companies identify harmful online content and enabling faster, smarter responses before toxic narratives become mainstream. They scan Internet content and use their proprietary 'topic clustering' A.I. to group similar opinions together to quickly understand the narratives.

www.factmata.com





OVERALL WINNER (HEALTHCARE AND WELLBEING)

UDDHAV VAGHELA, VUI DIAGNOSTICS

VUI has developed retinal screening tech that helps doctors detect eye diseases earlier. The product, ViewEye, is a joint hardware and software platform encompassing a standalone, handheld retinal imaging device with a remote viewing and health record software.



CATEGORY WINNER (ADVANCED DIGITAL TECHNOLOGIES)

BELLA NGO, BRARISTA

Brarista exists to solve the problem of 80% of women shopping for and wearing the wrong bra size. As a SaaS (software as a service) provider via partnered retailers, they enable bra-wearers to self-measure and shop for the correct bra sizes using their digital cameras.



CATEGORY WINNER (SOCIAL INNOVATION)

FAISAL GHANI, SOLARISKIT

SolarisKit is on a mission to provide affordable, clean energy solutions to both developing and industrialised economies. Focusing on the decarbonisation of heat, SolarisKit has developed the world's first flat-packable solar thermal collector.

www.solariskit.com



CATEGORY WINNER (SUSTAINABLE FUTURES)

JEROO DHOODMAL, PIP & HENRY

Pip and Henry is a 'truly' sustainable children's footwear brand. They create beautiful, high-quality footwear from renewable materials, taking responsibility for providing parents with eco-friendly products. www.pipandhenry.com



OVERALL WINNER (SOCIAL INNOVATION)

FAHIM POUR, PUKKET

Pukket is your AI assistant, helping you to automatically build and manage your social media community, resulting in brand advocacy and word-of-mouth at scale. They automatically identify your loyal brand advocates on social media, onboard them and help you manage them with ease.

www.pukket.com

CATEGORY WINNER (HEALTHCARE AND WELLBEING)

HARVINDER POWER, MOTICS

Motics is geared towards helping patients with muscle rehabilitation using an innovative approach that will engage and empower users. The current method of providing suggested movement to regain motor function does not motivate patients to persevere with their physiotherapy programme.

www.motics.co.uk

CATEGORY WINNER (SUSTAINABLE FUTURES)

SIMON IGHOFOSE, PYROGENESYS

PyroGenesys is a bio-energy technology start-up founded in 2017. The company has developed a novel containerised waste-to-energy system called Pyrochemy that uses an advanced thermal technology called pyrolysis to generate electricity.

www.pyrogenesys.com

CATEGORY WINNER (INDUSTRY 4.0)

OLUKUNLE KAYODE, STATMETRIX

Statmetrix use A.I. technology to automate the collection of player performance data for football clubs, leveraging hardware that they already have. This provides clubs with more objective information to better coach and develop talented youth players.

www.statmetrix.co



WINNER

OLIVIA AHN & AARON KOSHY, POLIPOP (NOW PLANERA)

Sanitary pads are single use plastics. Our certified flushable and biodegradable sanitary products are highly absorbent and effortless to dispose away. Disintegrating away within minutes down your toilet, leaving behind 0 micro-plastics.

www.planera.care

RUNNER UP

ROTIMI ALABI, RAB-MICROFLUIDICS

RAB-Microfluidics is a Research & Development company developing cutting-edge microfluidic technology to solve oil analysis problems.

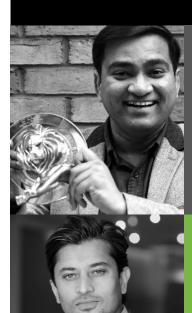
www.rab-microfluidics.co.uk

RUNNER UP

ELLENOR MCINTOSH & ALBORZ BOZORGI, TWIPES

Twipes are the world's only truly flushable wipes! 100% dispersible in water within 3 hours, unlike traditional "flushable" branded wipes that take 3-10 months.

www.twipes.uk



WINNER AMIT PATE, SNAPTIVITY

Snaptivity drives fans engagement by capturing the best moments at the stadium and delivering their stunning photos directly to their smartphones. Snaptivity gives every spectator their own story.

www.snaptivityapp.com

RUNNER UP

SYED AHMED, SAVORTEX

Savortex® is a multi-award winning British IoT (Internet of Things) Health-Tech company providing environmentally responsible, smart hygiene technology and solutions to the built environment. The company in partnership with ARM® has developed a hand sanitiser which uses technology to track use in real-time.

www.savortex.com



RUNNER UP

JOYEETA DAS, GYANA

Gyana is designed for making custom reports, for any data source, without writing code. You get the flexibility of code, with the usability of traditional reporting. Whatever report you want to build, you can build it with Gyana, without waiting on someone else.

www.gyana.co.uk

GET INVOLVED AND HELP BRING INNOVATION TO LIFE

THE SUCCESS OF MSDUK INNOVATION CHALLENGE TO UNLOCK INNOVATION THROUGH DIVERSITY IS DUE TO EXTENSIVE SUPPORT WE HAVE RECEIVED FROM OUR EXISTING PARTNERS. THIS IS JUST THE BEGINNING AND WE CAN DO EVEN BETTER IN LEVERAGING DIVERSITY OF THOUGHTS AND BACKGROUNDS TO DRIVE INNOVATION.

We are keen to partner with UNIVERSITIES, ACCELERATORS, INNOVATION CENTRES, CATAPULT CENTRES, INVESTORS, VCS AND INDUSTRY NETWORKS. Let us all work together to bring these news ideas to life, support growth of exceptionally talented entrepreneurs from ethnic minority communities and help leverage these great ideas! There are so many different ways to work with us and we welcome an opportunity to work with you.

GO-TO-MARKET PARTNER

Product co-development, R&D support, access to market, procurement.

SHARED RESOURCES

Provide free tools, spaces for networking, discounted services.

KNOWLEDGE PARTNER

Speak or facilitate a workshop, business support mentor or consult as a field expert, feature in podcasts and articles.

INVESTMENT PARTNER

Offer investment to start-ups, become resident investor, offer investment advise and conduct regular surgery for start-ups.

FUNDING PARTNER

Provide grants, funding advice or investment that can be used to support the scaling of innovative businesses. Sponsor Innovation Challenge, winners prizes. "THE INNOVATION
CHALLENGE NOT ONLY
HELPED ME PERSONALLY,
BUT INCLUDED KAPSULE IN
A SUPPORTIVE COMMUNITY.
IN THAT COMMUNITY WE
FOUND OUR ASSUMPTIONS
CHALLENGED, IDEAS
STRESS TESTED, AND
RECEIVED INVALUABLE
ADVICE." - DAVID CHEN,
KAPSULE, MSDUK
INNOVATION CHALLENGE
2019 FINALIST

MEDIA PARTNER

Publish or contribute content about entrepreneurship, social impact reports, thought-leadership on diversity and inclusion.

TO GET INVOLVED, CONTACT: INNOVATION@MSDUK.ORG.UK

MSDUK[®]

"WITHOUT THE MSDUK INNOVATION CHALLENGE I WOULD NEVER HAVE COME ACROSS MANY DIFFERENT ENTREPRENEURS - I'VE LEARNED A HUGE DEAL FROM THEM ON THEIR APPROACH TO BUSINESS AND GROWING AN INCLUSIVE TEAM CULTURE, AND THEN BEING ABLE TO IMPLEMENT THAT WITHIN MY OWN TEAM."- OLIVIA AHN, MSDUK INNOVATION CHALLENGE 2018 WINNER

