

October 2021

# UK-Latin America Net Zero Solutions

## UK-São Paulo Partnership for the Race to Zero

**CATAPULT**  
Connected Places

In partnership with



# Introductions

As the global focus shifts inexorably towards the decarbonisation of our places, transport, and energy systems coupled with the pursuit for green recovery from Covid-19, it has never been more crucial to create cross-national, prosperous partnerships to promote clean and resilient growth for all.

The decisions we take over the next 10 years about how we live, move and generate our energy will be critical in defining the future of our planet and how we interact with it. We share the urgent, complex challenge of how to transition to a low carbon future and best protect our rich biodiversity. All of us should expect to make changes if we are to be successful - governments, businesses and individuals. It sounds daunting, but I am optimistic that it is achievable if we work together.

The UK government has set out its commitment to providing the framework and investment to encourage scientific research and the development of new technologies to help us tackle Net Zero challenges through our recently published 'Integrated Review' and 'Innovation Strategy'. These documents set out our vision of harnessing the full potential of research and innovation to secure our shared security, prosperity and sustainability.

Many of the solutions we will need to 'build back better' post pandemic will come from our innovative companies. This project brings together some of our excellent UK and Brazilian companies to showcase how their expertise can be used to deliver innovative solutions that will improve how we live.

It is our pleasure to work with the Connected Places Catapult, IdeiaGov and InvestSP on this project.

We share a common belief in the value of nurturing innovation and supporting tech companies as drivers of positive change. Although this project is focussed on São Paulo state, the challenges and solutions will have direct applicability to many other cities, states and countries.

This portfolio shares information about UK and Brazilian companies that have the potential to deliver solutions to real problems facing our societies. I hope that you find inspiration within these pages and identify new partners to work with in the future. My best wishes to all involved in this initiative.



**Cindy Parker**, Head of Science Team Latin America FCDO - British Embassy Brazil

Never before has the necessity for us to act to tackle Climate Change been so huge. We can already see, hear, and feel Planet Earth calling for a solution and there is no better and more efficient way to really make impactful change than doing it together.

This program is a demonstration of this belief. This commitment to collaborative change is seen, not only through our partnership with Connected Places Catapult and InvestSP and the commitment and support from the UK and São Paulo Government, but also within the companies in this portfolio. Each company has learnt, collaborated, and developed through this program's journey.

The aim of this program is for the SMEs to leave even more prepared to make long term, impactful partnerships with public and private organisations in Brazil and worldwide. Throughout this three-month program, these companies have had access to connections in Sao Paulo and the UK and have been promoted widely. This is to aid their impact through

Latin America is facing the reality of encouraging economic growth and social development whilst moving towards a green economy. This raises many challenges. How do we reduce our emissions? How do we change the current energy matrix? How do we make mobility more sustainable? And how do we ensure our cities are resilient? These challenges provide UK and Brazilian businesses and organisations the opportunity for equitable partnerships and business engagement.

São Paulo State is at the forefront of innovation and has a strong commitment to tackling climate change with its recent engagement with the Race to Zero campaign. Connected Places Catapult is therefore pleased to partner with Ideiagov and InvestSP to foster and promote business-led research & innovation partnerships between the UK and São Paulo who have solutions for the most pressing Net Zero challenges in the UK, State of São Paulo, Latin America and beyond. We would like to thank the Foreign Commonwealth and Development Office in Brazil via the Science and Innovation Network for supporting this initiative.

scaling and being even more effective when creating solutions to our Net-Zero Agenda whilst generating social gains.

I hope that you find in this portfolio some new and inspiring solutions to connect and collaborate with.



**Patricia Ellen da Silva**, Secretary of Economic development from the State of São Paulo

This portfolio presents innovative SMEs from across the UK and LatAm that are working to address the key challenges we face when progressing to a Net Zero economy. Do not hesitate to reach out to these SMEs to see how you can work with them.

We look forward to connecting UK and LatAm entrepreneurs through future collaborations and equitable partnerships that create impactful economic and social benefits for all.



**Dr Amy Hochadel**, Director of Global Business Growth, Connected Places Catapult

# UK SMEs



## 3SC Ltd



**Headquarters location:** Hathersage, Derbyshire, UK

**Website:** <https://3sc.ltd.uk>

**Contact details:** Dave Burke, PRT Operations Specialist

**Email:** [dave.burke@3sc.ltd.uk](mailto:dave.burke@3sc.ltd.uk)

**Telephone:** +44 (0)7951 282 761

**LinkedIn:** <https://www.linkedin.com/company/3sc-limited>

**Industry sector:** Urban Mobility /Passenger, Freight and Waste, First/Last mile transit solutions

**Looking for:** Supplier, Government buyer, joint venture, or strategic partners. For 3Sc we provide the operational control and scheduling of the system, user interfaces and all other control systems



3SC LTD are industry leaders in the development, delivery and operational support of Personal Rapid Transit Systems. 3SC LTD were integral in designing and commissioning the world's first PRT system of its kind at the prestigious Heathrow Airport which we still provide O&M support and system development for. As a Net Zero, Autonomous, Driverless, zero emission Urban Transport Solution, our PRT system combines the benefits of private travel with the convenience of an on demand public transport and/or freight transport system that is designed from its roots up to be built in and around existing urban infrastructure, at a fraction of the cost, resource requirement and time requirement of more traditional heavier polluting forms of public transit.

### Overview

3SC LTD are a software engineering company, with a background in high integrity control system automation software (oil, steel, power etc), doing full lifecycle projects from systems analysis, design, modelling and implementation, through testing and operation. Over the last 15 years, we've developed, delivered and maintained fully autonomous Personal Rapid Transit systems – designing, commissioning, testing control systems, passenger interfaces, operator user interfaces etc. We work with partners, to deliver full systems and we are currently working with CREEC in China on a new PRT system in Chengdu, going live next year.

PRT Systems provide zero emission, on demand driverless transport whilst ensuring land value uplift through the lightweight guideway construction.

### The Net Zero Challenge

Delivering driverless zero emission transit systems for deployment in both developed Urban Areas, and new development conurbations removing the requirement for private vehicle transport and providing links to existing systems for a 'connected cities' approach. Removing CO<sub>2</sub> and other particulate emissions from the locale by removing the need for polluting transport and transit systems. (The Heathrow System removes 70,000 bus journeys from the local roads thereby easing congestion and reduces / removes 100 tons of CO<sub>2</sub> from the locality per year).

- Energy efficient
- Lightweight, electric vehicles
- Avoid 'stop and go' waste
- Low external noise
- 50% carbon benefit over train / bus
- Meets the 2016 Paris Agreement
- Move only when user demand
- Zero onsite emissions
- 70% carbon benefit over car transport

### Work with us

3SC are focused on providing reliable, safe, maintainable, configurable and expandable solutions. We are incredibly proud of what we supply and are continually looking to improve what we do, especially the personal rapid transit system that we believe to be a perfect 'Last Mile', integrated transport solution.

“

Proven, clean, green, on demand personal rapid transport solution that delivers a highly available, reliable, efficient passenger and freight service.

”

## Applied Negative Emissions Centre



**Head quarters location:** Edinburgh, UK

**Website:** [www.negativeemissionscentre.co.uk](http://www.negativeemissionscentre.co.uk)

**Contact details:** Karen Rossell, Co-founder & Managing Director

**Email:** [karen.rossell@negativeemissionscentre.co.uk](mailto:karen.rossell@negativeemissionscentre.co.uk)

**Telephone:** +44 (0)7902 982 935

**LinkedIn:** <https://www.linkedin.com/company/applied-negative-emissions-centre>

**Twitter:** @ANEC\_global

**Industry sector:** Carbon Removal

**Looking for:** Government buyer, private buyer, technology partner, investor, joint venture



### Overview

Applied Negative Emissions Centre (ANEC) is a leading expert in carbon removal integrated systems, helping organisations achieve their climate and Net Zero targets through closing their carbon gap and removing their residual emissions (e.g., from supply chains or scope 3 emissions) with an effective integrated carbon removal systems approach targeting on-site and off-site operations. ANEC designs an integrated, cost-effective carbon removal approach that allows quicker implementation ensuring successful carbon removal deployment.

### The Net Zero Challenge

The world is dealing with a climate emergency and carbon removal solutions need to be implemented on a larger scale. ANEC helps organisations achieve their Net Zero targets and get rid of their residual emissions after all behavioural change and energy efficiency practices have been done. The company incorporates a range of nature and technology-based carbon removal solutions, delivering cost-effective strategies that generate by-products and support the circular economy. ANEC has worked with a variety of regional authorities and organisations and has helped deliver Net Zero strategies that focus on providing community, biodiversity, and other environmental benefits.

### Work with us

ANEC creates tailored strategies providing a unique service for organisations by designing a cost-effective approach to carbon removal. They help organisations achieve their climate targets by providing tangible and scalable carbon removal solutions, making the process easy, ethical, and collaborative.

“

Carbon removal is more than just carbon credits or offsetting schemes; ANEC provides on-site carbon removal solutions and inssetting opportunities.

”

## Awen Collective



**Headquarters location:** Caerphilly, Wales, UK

**Website:** <https://www.awencollective.com/>

**Contact details:** Daniel Lewis, CEO & Founder

**Email:** [daniel@awencollective.com](mailto:daniel@awencollective.com)

**Telephone:** +44 (0)7834 355 516

**LinkedIn:** <https://linkedin.com/company/AwenCollective>

**Twitter:** @AwenCollective

**Industry sector:** Cyber Security

**Looking for:** Government Buyer, Private Buyer, Technology Partner



### Overview

Awen Collective's mission is to make society safer by reducing risks of cyber attacks within organisations that we rely on daily such as critical infrastructure, manufacturers and smart cities. Awen does this by developing quality cyber security software.

Awen has two products: **Profile** helps organisations to assess and improve their cyber security practices efficiently and collaboratively. **Dot** is a device discovery and cyber vulnerability analysis system, which provides an organisation actionable intelligence on how to reduce cyber risks and increase operational resiliency. Dot specifically supports Operational Technologies (OT), Building Automation & Control (BAC) and 4th Industrial Revolution technologies.

### The Net Zero Challenge

The road to Net Zero inevitably requires new technologies to be developed and then deployed. These technologies should be smart, and in order for them to be truly smart they need to have security. This is difficult to achieve, particularly when new internet connected technologies are being combined with legacy equipment - leading to cyber vulnerabilities. The road to Net Zero should not only be quick, but should also be resilient, and that also includes cyber resilience. Awen Collective is providing the first steps in reducing the risk of cyber attacks, and continuously helping to improve the resiliency.

### Work with us

The first steps in reducing cyber risk is to identify and protect devices and networks, Awen tackles these steps within critical sectors such as energy, water, transportation and government. Most solutions in industrial cyber security are only available to the very cyber mature minority; Awen is for the majority.

“

Dot by Awen Collective is the first step towards increased cyber resiliency for industrial and smart city organisations.

”

## Camnexus Ltd

**Head quarters location:** Cambridge, UK

**Website:** <https://www.camnexus.io/>

**Contact details:** Dr Jessica Ocampos, Director

**Email:** [director@camnexus.io](mailto:director@camnexus.io)

**Telephone:** +44 (0)7527 315 462

**LinkedIn:** <https://www.linkedin.com/company/11301945/admin/>

**Twitter:** @camnexusiot

**Industry sector:** Digital, IoT, sensors technology

**Looking for:** Government buyer; investment; engagement with potential clients in the sector of water utilities, energy generators and distributor, smart cities; partners from local telecom companies and local integrators

Camnexus is enabling businesses operating in the water, food, and energy sectors to achieve their sustainability targets with a low-power Internet of Things and real-time cloud-based automatic anomaly detection systems.



camnexus

### Overview

Camnexus is an award-winning clean-tech start-up of the University of Cambridge that develops end-to-end Internet of Things (IoT) solutions for business clients in remote and industrial operations. With pilots in Brazil, Chile, Uganda and the UK, Camnexus' mission is to enable businesses operating in the water, food and energy sectors to achieve their sustainability targets with **low-power IoT and real-time cloud-based automatic anomaly detection**. The intuitive user-centric interface developed by Camnexus connects and informs workers in the field reducing down-time and increasing productivity. Camnexus IoT deployment includes underground sewage chambers, city buildings, open-pit mines, and agriculture greenhouses.

### The Net Zero Challenge

Camnexus enables business to tackle their sustainable challenges with Camnexus' own solution based on low-carbon emission technologies. Camnexus development of energy efficient communication technologies and assets monitoring system, extends sensors battery-life up to 10 years reducing waste and maintenance costs. Camnexus solution, based on low-power wireless communication sensors-gateway, allows scalability up to thousands of connected devices and large area coverage, extending connectivity access even in remote areas without cellular infrastructure and reducing infrastructure costs up to 50%. In Brazil, our system provided a user-friendly solution for urban greenhouse system, reducing up to 20% of excess fertiliser, energy usage and 30% of water losses.

### Work with us

Experts in Digital Transformation for a Sustainable Future: Camnexus is about tackling global challenges through the use of low power technologies and improving productivity in a sustainable and inclusive way.

## INTERNATIONAL AND INDUSTRIAL EXPERTISE

From Cambridge UK, our international team is impacting the world with IoT and AI solutions for key industrial sectors who are looking for a digital transformation that enables them to achieve their sustainability targets.



“

A novel approach of Enterprise Asset Management and anomaly detection with intuitive user-centric interface for workers in the field reducing down-time and increasing productivity.

”

## Concrete4Change Ltd

**Headquarters location:** Sheffield, UK

**Website:** [www.concrete4change.com](http://www.concrete4change.com)

**Contact details:** Dr. Sid Pourfalah, CEO and Founder

**Email:** [s.pourfalah@concrete4change.com](mailto:s.pourfalah@concrete4change.com)

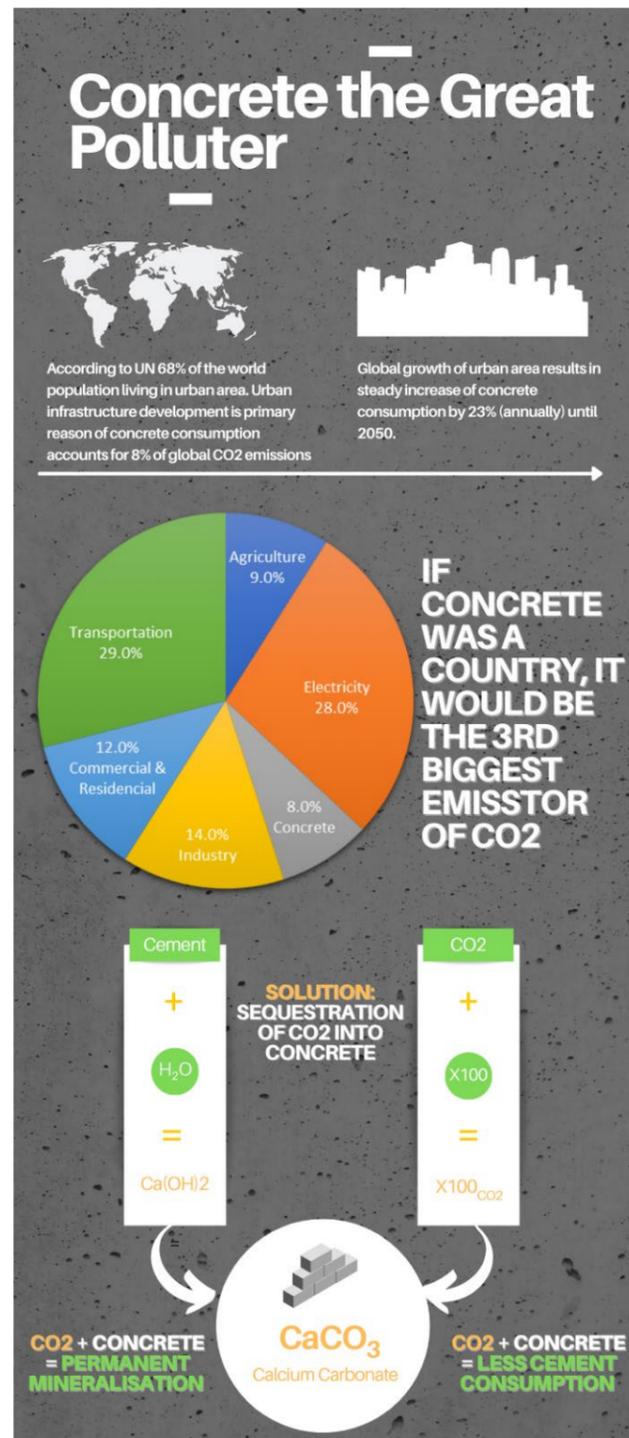
**Telephone:** +44 (0)7719 796 299

**LinkedIn:** <https://www.linkedin.com/company/concrete4change-ltd/>

**Twitter:** @concrete4change

**Industry sector:** Construction industry – Transition to zero carbon concrete

**Looking for:** Investors, Industrial partner, joint venture, industrial deployment opportunities of our technologies and customers



### Overview

Concrete4Change (C4C) is a climate-tech company focusing on helping build a Net Zero concrete industry which is responsible for 8% of the global CO<sub>2</sub> emission. It is the brainchild of Dr. Sid Pourfalah (Sheffield University) and Dr. Michael Wise (Imperial Collage). Sid is a concrete specialist, chartered civil engineer, serial entrepreneur with over two decades experience in the industry. Michael is a Process Scale-up specialist, Lead Chemical Engineer and entrepreneur with a track record of taking processes from lab to scale through R&D program and commercialisation strategy development.

### The Net Zero Challenge

Concrete is the second most consumed material in the world and accounts for 8% of the global CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) emissions. Concrete4Change Ltd. (C4C) is developing a technology capable of sequestering significant amounts of CO<sub>2</sub> in concrete (up to 30%). The sequestration of CO<sub>2</sub> results in the strength enhancement of concrete; hence, reducing the amount of cement required to produce equivalent-strength concrete. Both CO<sub>2</sub> sequestration and cement reduction can contribute to the reduction of the concrete's CO<sub>2</sub> footprint – up to 60%. This technology has the potential to mitigate 2 billion tonnes of CO<sub>2</sub>e emissions, the equivalent of 4% of global CO<sub>2</sub>e emissions.

### Work with us

C4C's team has developed a technology that is 10 times more efficient than all other competitors in the market. The company is also supported by industry leaders such as Hanson, Kier, Morgan Sindall and Skanska, and furthermore works with the top universities (i.e. WMG, Universities of Sheffield, Cambridge and Loughborough) and research organisations in the world to remain the best in the market.

“

The technology of Concrete4Change enables the construction and concrete industry to transition from CO<sub>2</sub> emitters to CO<sub>2</sub> sinks.

”

## Energy Garden Limited

**Headquarters location:** London, UK

**Website:** [www.energygarden.org.uk](http://www.energygarden.org.uk)

**Contact details:** Agamemnon Otero MBE, Founder & CEO

**Email:** [agamemnon@energygarden.org.uk](mailto:agamemnon@energygarden.org.uk)

**Telephone:** +44 (0)7960 829 826

**LinkedIn:** [https://www.linkedin.com/search/results/all/?keywords=energy%20garden&origin=RICH\\_QUERY\\_SUGGESTION&position=0&searchId=412cea0b-5db5-4bee-84a2-3091474e682c&sid=\(13](https://www.linkedin.com/search/results/all/?keywords=energy%20garden&origin=RICH_QUERY_SUGGESTION&position=0&searchId=412cea0b-5db5-4bee-84a2-3091474e682c&sid=(13)

**Twitter:** @EnergyGardenLDN

**Industry sector:** Renewable energy, community development, horticulture and education, biodiversity, circular economy

**Looking for:** Public and private city-wide businesses such as municipalities, rail operators, corporate energy consumers, and health care facilities



### Overview

Energy Garden is a citywide network of community gardens funded by community-owned renewable energy. It supports communities across London to turn overground train platforms into biodiverse gardens with solar-powered station amenities. The sale of electricity from the community-owned solar panel portfolio provides funding for all environmental and social impact programmes.

Energy Garden focuses on decarbonising transport networks, one of the city's most carbon-intensive sectors. Energy Garden puts people at the heart of this transition, by bringing together community horticulture initiatives with clean energy generation. This helps cities become healthier, more equitable places, and increases civic engagement in the just transition.

### The Net Zero Challenge

Energy Garden offers a platform for communities and companies to cooperatively own energy assets and the associated social and environmental outcomes. This facilitates a triple bottom line ESG programme:

1. **Environmental:** Clean energy generation and green spaces. This results in carbon reduction, increased biodiversity, soil regeneration, and better air quality
2. **Social:** Community-run gardens provide spaces for place-based training and increase citizen engagement with social and environmental issues
3. **Governance:** Not-for-profit society that exists solely for the benefit of the community it serves

### Work with us

Energy Garden's directors have a combined 87 years of renewable energy development experience. It reports on all works in accordance with the UN SDGs and have won awards for our circular economy approach. EnergyGarden offer a social return of £3.01 per £1 invested on top of a 4% financial return.

“

The Energy Garden model proposes an important way to pair retail and institutional investors in a process that helps solve our looming climate crisis, builds community wealth and empowers neighbourhoods.

**Michael Berkowitz** former CEO of Rockefeller's 100 Resilient Cities

”

## Equipmake Limited



**Head quarters location:** Snetterton, Norfolk, UK

**Website:** [www.equipmake.co.uk](http://www.equipmake.co.uk)

**Contact details:** Jasmine Bishop, Head of Marketing & Sales

**Email:** [jasmine.bishop@equipmake.co.uk](mailto:jasmine.bishop@equipmake.co.uk)

**Telephone:** +44 (0)7428 607 055

**LinkedIn:** <https://www.linkedin.com/company/equipmake/>

**Twitter:** @equipmake

**Industry sector:** Electric urban mobility

**Looking for:** Supplier, Government buyer



### Overview

Equipmake are engineering an electric future, with patented technology and a range of electric powertrain solutions for global automotive, aerospace, marine, construction & bus markets. Founded in 1997, by Managing Director Ian Foley, a highly experienced engineer who has worked in global motorsport at the highest level from Le Mans to F1. Equipmake are a UK manufacturer of electric drivetrains, electric motors, inverters (Insulated-gate bipolar transistor (IGBT) & Silicon carbide inverter (SiC)), power electronics, battery packs, control systems and Heating, ventilation, and air conditioning (HVAC).

### The Net Zero Challenge

The mission is to create sustainable integrated electric drivetrain solutions that make e-mobility:

- Safer
- Faster
- More efficient
- More reliable
- Affordable

This is the mission Equipmake pursues – every day. As engineers Equipmake's core work is the link between scientific discoveries and the commercial applications that meet societal and consumer needs. From Formula-E applications to the bus industry. Equipmake's team of expert engineers can take a project from initial specifications through modelling, simulation, design, prototyping, testing and to production in industry-leading timescales.

### Work with us

Equipmake's approach is flexible and collaborative. In-house capabilities and vertical integration offer enhanced speed of delivery and cost competitiveness. Equipmake proudly offers both off-the shelf and bespoke options at low – mid volumes with aftercare support you can rely on.

“

A novel approach of Enterprise Asset Management and anomaly detection with intuitive user-centric interface for workers in the field reducing down-time and increasing productivity.

”

## Innovation Factory Limited



**Head quarters location:** Birmingham, West Midlands, UK

**Website:** <https://www.innovfactory.com/>

**Contact details:** Anwar Almojarkesh

**Email:** [almojarkesh@innovfactory.com](mailto:almojarkesh@innovfactory.com)

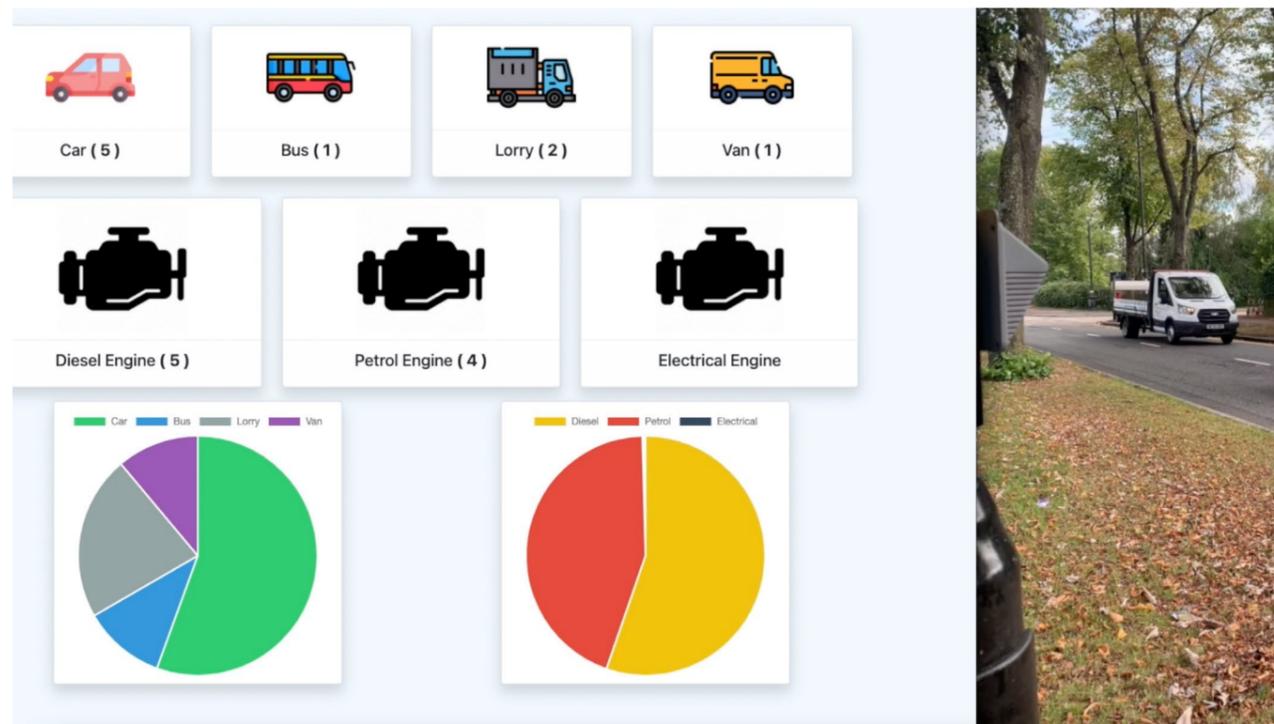
**Telephone:** +44 (0)7528 643 220

**LinkedIn:** <https://uk.linkedin.com/in/anwar-almojarkesh-52240025>

**Twitter:** <https://twitter.com/anwarmojarkesh?lang=en>

**Industry sector:** Non-speech classification, wearable technology, Machine learning, deep learning, Artificial Intelligence

**Looking for:** Government buyer, joint venture and grant funding



### Overview

Innovation Factory is a Birmingham-based tech start-up company founded in 2017 that is dedicated to developing sound recognition algorithms for a wide range of industries such as safety, security, comfort and the healthcare sector. The purpose is to drive the research of sound recognition algorithms for the purpose of enhancing security, self-reliance and cost-effective measures in the automation and artificial intelligence fields. Innovation Factory offers the most advanced, robust and affordable sound classification platform and provides consultation to clients from the ideation stage to the marketing stage. Their technology is also compatible on any platform ranging from smartphones to micro-controllers.

### The Net Zero Challenge

Innovation Factory has developed a low-cost acoustic sensor called **Traffic Ear** that aims to monitor and predict traffic in hot spot areas, which in turn provides a new framework to use Spatiotemporal Context in traffic modelling and vehicle emissions. The technology detects vehicle movement using tyre noise within city and motorway environments by utilising our deep learning algorithms, highly detailed data is captured to:

1. Detect the number and size of vehicles, analysing traffic movements and congestion causes
2. Detect vehicle emission levels by using acoustic AI models to analyse both size of the vehicle and the engine noise to identify engine type

### Work with us

Innovation Factory is at rapid commercialisation stage where a successful trial in demonstrator sites can be commercialised rapidly to other local authorities ahead of international markets by mid-2024. With a strong business plan, the project is in an ideal stage to involve senior leadership teams from all partners.

“

Innovation Factory presents the Traffic Ear technology, a low-cost acoustic sensor to monitor, analyse and predict traffic and vehicular emissions with Spatiotemporal Context.

”

## ISCleanAir Global Solutions - IGS LTD



**Head quarters location:** London, UK

**Website:** <https://www.iscleanair.com/wp/?lang=en>

**Contact details:** Giuseppe Spanto, Managing Director – Chiara Verderese, Business Developer & Commercial Services Manager

**Email:** [jgspanto@iscleanair.com](mailto:jgspanto@iscleanair.com) – [cverderese@iscleanair.com](mailto:cverderese@iscleanair.com)

**Telephone:** +39 3891 489 231 – +39 3929 574 967

**LinkedIn:** <https://www.linkedin.com/company/iscleanair>

**Twitter:** <https://twitter.com/IsCleanAir>

**Industry sector:** Cleantech, Air Cleaning, Health & Life Sciences

**Looking for:** Local partners /stakeholders; investors; advisors / experts; Joint Venture Agreements; ad hoc / special projects; R&D projects; government buyers

### Overview

ISCLEANAIR/APA has been operating since April 2017. The company's certifications, positioning and technological superiority in the air cleaning sector enables it to be classified as a Global Leader Technology and Solutions (GLETS).

ISCLEANAIR is pursuing the development, the industrialization and the commercialization of the APA - Air Pollution Abatement filter-less technology and the related «CLEAN AIR» services and solutions, with multi-disciplinary integrations at global scale as well as transfer of the IP. APA is an open, smart, modular, and multiservice platform which follows the circular economy paradigms to achieve social, ecological, and economic sustainability.

### The Net Zero Challenge

APA represents a paradigm shift in the world of air purification and reduction of CO<sub>2</sub> from the air, since it does not make use of filters nor chemicals and has been recognised as a BAT (Best Available Technology) and become certified as a medical device.

In contrast to other pollution abatement technology, APA is based on the use of water and physical processes and operates at ground level and in a distributed manner (granted patent), delivering an effective measurable abatement of the widest range of pollutants, including CO<sub>2</sub>, viruses and bacteria present in the air we breathe.

### Work with us

Partners who work with us can take advantage of an exclusive technology which brings perceived and real value (the only solution in the world that doesn't use filters nor generate special waste); is water-based; is applicable both indoor & outdoor; guarantees constant high performance over time; has low maintenance costs; has low-energy consumption; and kills viruses and bacteria (which is the company's strategic market differentiation).

“

Air Pollution Abatement technology cleans the air in an efficient and natural way, responding to the nearly zero emissions principles.

”



## Naked Energy

**Head quarters location:** London, UK

**Website:** [www.nakedenergy.co.uk](http://www.nakedenergy.co.uk)

**Contact details:** Mr Jonny Williams, Strategy and Partnerships Lead

**Email:** [j.williams@nakedenergy.co.uk](mailto:j.williams@nakedenergy.co.uk)

**Telephone:** +44 (0)7733 322 350

**LinkedIn:** <https://www.linkedin.com/company/naked-energy-limited/>

**Twitter:** @nakedenergyltd @jonnywilliams11

**Industry sector:** Renewable Energy, Hotels, Residential / construction, Food and beverage, Manufacturing, Hospitals

**Looking for:** Naked Energy is looking for partners to help them scale their business, e.g. end customers, distributors, agents, general market knowledge

# Naked Energy.



### Overview

Naked Energy's product "Virtu" is an innovative solar collector that combines the best of solar thermal and photovoltaic to produce the world's highest energy density rooftop solar product. The company have two main products virtuPVT producing heat and power, and virtuHOT producing heat only.

Having launched in 2011 Naked Energy, have benefitted from grant funding and other government support to grow the business to the point at which they have successfully secured Series A funding in November 2019. They currently have a team of 17 engineers, scientists and entrepreneurs selling products globally.

### The Net Zero Challenge

Naked Energy is focused on the decarbonisation of heat and power. Consumption of heat energy accounts for over 50% of global energy demand (IEA Analysis and Forecast to 2024).

Their solution reduces carbon emissions where there is a heat demand. Virtu can be fitted to a variety of roof types and can generate significant energy from relatively small area. When compared to other technologies, they save significantly more carbon per unit area at a much lower cost per unit area.

Virtu is well suited to urban areas where roof space is at a premium.

### Work with us

To grow each other's businesses, redefine solar and bring about change for good.

“

Virtu is architecturally beautiful, and decarbonizes heat and power in hard to reach market sectors, such as hotels and apartments.

”

## Njorth Bio Science Ltd



**Head quarters location:** Milton, Cambridge

**Website:** [www.njorthbio.com](http://www.njorthbio.com)

**Contact details:** Jan Buch Andersen, Ph.D., CEO

**Email:** [jan.andersen@njorthbio.com](mailto:jan.andersen@njorthbio.com)

**Telephone:** +44 (0)7501 530 619

**LinkedIn:** <https://www.linkedin.com/in/jan-buch-andersen-4127101/>

**Industry sector:** Biotechnology, Sustainability, Valorisation of waste streams/sidestreams

**Looking for:** Njorth Bio Science is looking for customers interested in making value out of side streams

**Sustainable solutions - Value Creation for Biomass Owners**

- 1 hour from minced fish carcass to fish oil, proteins and skin/bones
- Value 3-50 times up
- Gentle process – raw materials for further processing to higher value
- Yields
  - Very pure oil
  - Healthy proteins
  - Collagen for nutraceuticals from skin
  - Minerals from bone



### Overview

Njorth Bio Science (NBS) provides help on building sustainable, value creating processes on waste/sidestreams of biomass of various origins. NBS has over time worked on sidestreams in the fish industry valorising cut-offs – improving the oil quality, making healthy hydrolysed proteins from skin/bone and head and mineral supplements from the bones. The technology is a combination of hardware and enzymes and can be employed in a variety of sectors where biomass is available. Fish and shellfish, slaughterhouses, bagasse, coconuts and various areas in agriculture are among the target areas. Complex materials such as certain types of industrial waste and household waste can be looked upon providing the right mix of methods being applied.

### The Net Zero Challenge

Njorth Bio Science is working with biomasses that are often a cumbersome waste product and by turning these materials into value NBS solves a difficult problem in often densely populated areas. Bad odour and pollution with nutrients leaking into waterways is a common problem. The company's approach is to take value components out step by step from a given raw material until the last step which will typically be a fermentation step giving rise to biogas or bioethanol. The remaining fraction can then be combusted also providing sustainable energy leaving the system fully contained.

### Work with us

Njorth Bio Science will help potential partners harvest the gold in their biomass waste. What is a troublesome and expensive material today can be your prosperity tomorrow.

“

Brainpower mainly and hands-on development of your process on site – connecting you with a world of experience on making value from biomass.

”

## SEAB Energy

**Headquarters location:** London, UK

**Website:** [www.seabenergy.com](http://www.seabenergy.com)

**Contact details:** Bianca Sassow, Marketing and Communications Executive

**Email:** [Sales@seabenergy.com](mailto:Sales@seabenergy.com)

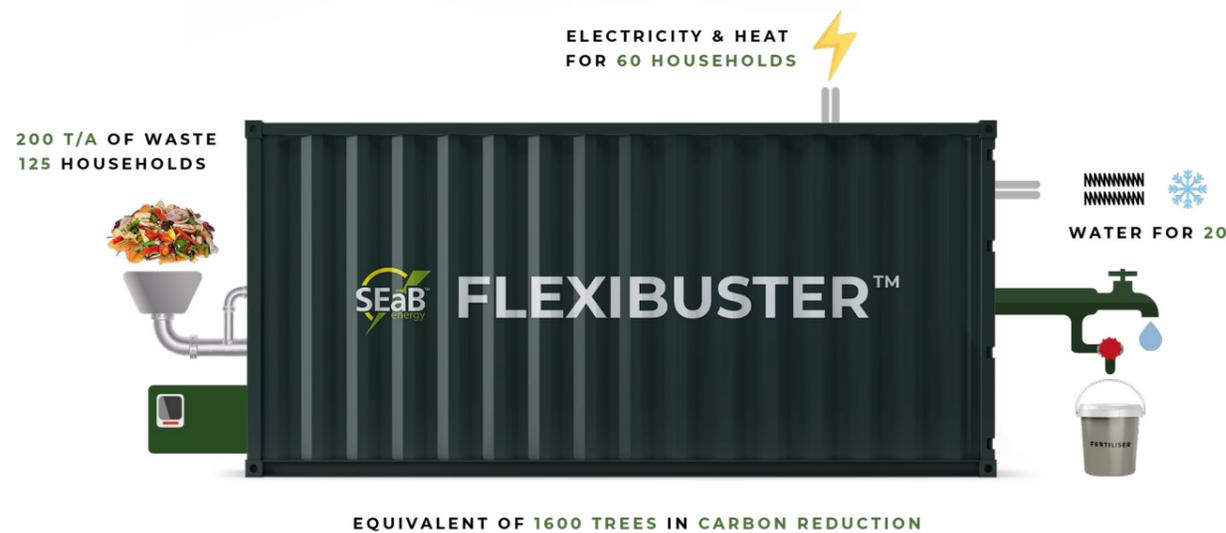
**Telephone:** +44 20 3003 5086 x305

**LinkedIn:** <https://www.linkedin.com/company/seab-energy>

**Twitter:** <https://twitter.com/SeabEnergy>

**Industry sector:** Waste to energy, circular economy

**Looking for:** Funded pilot project in São Paulo for a circular waste management project situated in a residential area in order to improve the sustainability and liveability of the community



### Overview

SEaB is the inventor of small-scale waste-to-energy appliance: the award-winning and patented FLEXIBUSTER™ & MUCKBUSTER® which allow businesses & communities to process their organic waste on-site and convert it into carbon-free electricity, heat, water and fertilizer. The systems are factory-assembled through contact manufacturers and housed in shipping containers, enabling quick and low-cost delivery and installation anywhere in the world. The fully automated control system and remote monitoring capability allow simple and safe operation without requiring expert knowledge.

SEaB targets markets with catering waste such as production, hospitals, prisons, offices & developers. They benefit from the FLEXIBUSTER™ by significantly reducing waste disposal costs while generating green energy. Geographic focus is UK, France, Portugal, Spain and USA with through local agents and global waste companies. Investors include founders, HNW, family office and Enagas Emprende.

### The Net Zero Challenge

Flexibuster™ and Muckbuster® provide a single on site solution for circular waste management and are an all in one solution for resilient municipalities and sustainable cities by addressing the following São Paulo Climate Action Plan goals:

- **Renewable energy** - Flexibuster™ and Muckbuster® provide a reliable supply of renewable energy at the point of waste generation
- **Low carbon agriculture** - Flexibuster™ acts as a source of renewable organic fertiliser which can be used to improve soil quality without the need for unsustainable chemical fertiliser
- **Pollution control and prevention** - Flexibuster™ and Muckbuster® eliminate any potential watercourse pollution from waste runoff at landfills and on farms
- **Air quality** - Improve urban air quality by reducing waste transport to landfills
- **Water security** - Flexibuster™ and Muckbuster® recover water content from waste and produce grey water which can be used for irrigation or other grey water applications
- **Environmental sanitation** - Flexibuster™ can be used to safely and effectively break down sewage and animal slurries and are net energy producers, consuming no external water, chemicals or energy to process the waste

### Work with us

SEaB is the only company that managed to develop an end-to-end small-scale technology that can be applied in cities, next to, or even inside buildings for on site food waste processing for sites including supermarkets, university campuses, office parks, hospitals, municipal waste transfer sites.

“

“pioneering pilot project” “efficient use of natural resources”

**José Fortunato**, Director of Sonae MC, Portugal

”

## TravelAi Ltd



**Headquarters location:** London, UK (team also in Portugal and Finland)

**Website:** [www.travelai.info](http://www.travelai.info)

**Contact details:** Andreas Zachariah, CEO – Peter Lindgren, COO

**Email:** [Zac@travelai.co.uk](mailto:Zac@travelai.co.uk) – [Peter@travelai.co.uk](mailto:Peter@travelai.co.uk)

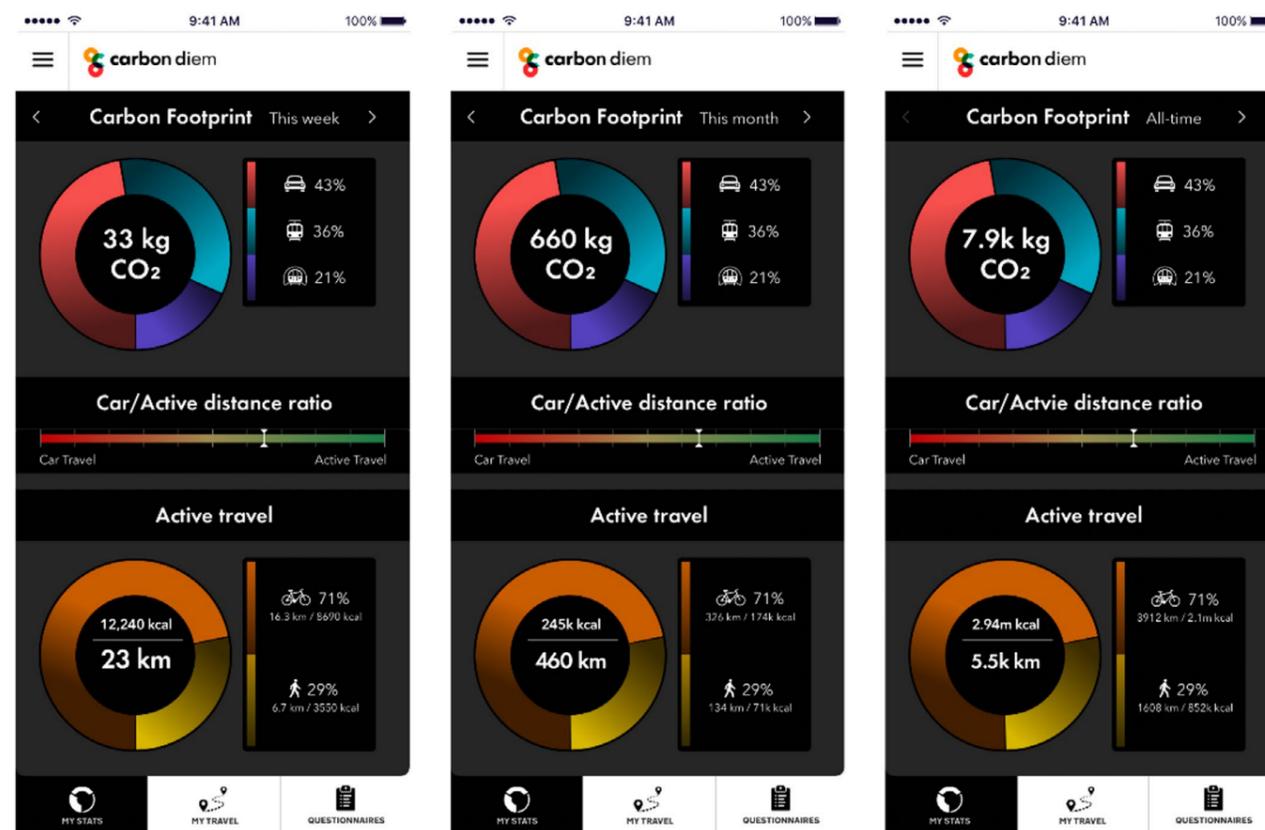
**Telephone:** +44 (0)7976 717 909 – +44 (0)78171 67 442

**LinkedIn:** <https://www.linkedin.com/company/9235517/>

**Twitter:** @travelai\_world

**Industry sector:** Mobility, data, carbon footprinting, geospatial services, edge computing, AI/ML, infrastructure planning, smart cities

**Looking for:** JV (joint ventures), government or commercial buyers, technology partners, supranational lenders to infrastructure (e.g. IMF, World Bank)



### Overview

TravelAi is a European Space agency incubated software and business intelligence developer helping to capture people's multimodal mobility habits. Be that by private, public transit or active travel, their solution is designed for scale and creating longitudinal time-series data.

They utilise over 15m Kms of GDPR compliant training data generated by its IP and users from across Europe, N.America and Australasia. With an IP stack that has collected almost 40 patent citations from the likes of Google, Microsoft, Ford, Toyota, Nokia and BMW to name a few. And working with international privacy advocates to release privacy protecting tools.

### The Net Zero Challenge

- To reduce one's environmental impact one must first measure it, and TravelAi's award winning team help make footprinting emissions from one's transport choices effortless, scalable and personal
- Their quest is to accelerate the decarbonisation of transport, including data for infrastructure owners to better target investment
- They provide tools to help consumers and small businesses make the move from ICE vehicles to EV (electric vehicles) with confidence, and locating new charger points
- Providing data to inform smarter transport systems by enabling the digitisation of mobility to be freed of legacy IT systems and data silos
- They also unlock millions for investing in cycling

### Work with us

TravelAi has almost a decade of expertise working with smartphone sensors, their operating systems and even manufacturers to generate insights and value from geospatial data. They are one of only a handful of operators globally offering automatic multi-modal detection at a multi-country level for licensing to 3rd parties in transport space.

“

CarbonDiem made understanding my transport carbon footprint so easy that that I suggested my employer (SME) use it for Scope 3 reporting.

”

## Wondrwall Group

**Head quarters location:** Manchester, UK

**Website:** <https://wondrwall.co.uk/>

**Contact details:** Daniel Burton, CEO & Founder

**Email:** [d.burton@wondrwall.co.uk](mailto:d.burton@wondrwall.co.uk)

**Telephone:** +44 (0)1615 330 150

**LinkedIn:** <https://www.linkedin.com/company/wondrwall/>

**Twitter:** <https://twitter.com/Wondrwall>

**Industry sector:** CleanTech

**Looking for:** Supply partners, Government buyers, Investors, Joint venture

# wondrwall®

INTELLIGENT LIVING



### Overview

The Wondrwall Group is an award winning cleantech organisation committed to delivering a future where sustainable carbon-free living can be achieved together with:

- Achieving environmental, economical & social sustainability;
- Reducing consumer energy bills & fuel poverty;
- Redistributing excess energy within neighbourhoods;
- Reducing impact on local and national electricity grids, and;
- Continuously adapting to the changing energy market.

### The Net Zero Challenge

Domestic CO2 still represents nearly 20% of our total GHG emissions. Decarbonising our housing stock will be one of the most significant challenges we face internationally to maintain a balanced pathway to Net Zero.

The Wondrwall Light Switch houses 13 sensors, which when installed throughout the home, mesh together to form an advanced multi-sensory network. This enables an intelligent Wondrwall home to learn how the home is used and performs. Wondrwall AI analyses 20,000 thousand datapoints each day to plot the optimal heating, cooling, lighting and security of the home while maximising the home's energy performance and minimising cost.

### Work with us

Wondrwall is the only fully integrated, economically-viable, domestic energy solution that uses AI to learn your behaviours and maximises both domestic self-sufficiency and efficiency to achieve carbon Net Zero results.

“

Intelligent living which doesn't cost the earth.

”

## Zenobē

# ZENOBĒ

**Head quarters location:** London

**Website:** <https://www.zenobe.com/>

**Contact details:** Dr Robert Newton, Regulation and Public Affairs Associate

**Email:** [robert.newton@zenobe.co.uk](mailto:robert.newton@zenobe.co.uk)

**Telephone:** +44 (0)7342 169 677

**LinkedIn:** <https://www.linkedin.com/company/zenobe-energy-ltd/>

**Twitter:** <https://twitter.com/ZenobeEnergy>

**Industry sector:** Energy storage, network infrastructure, transport electrification, second-life batteries

**Looking for:** Joint venture



### Overview

Our purpose at Zenobē is twofold. Firstly, we drive the uptake of renewables through the intelligent use of grid-scale battery storage. Secondly, we enable the electrification of bus fleets, facilitating the Net Zero transition for operators and local governments. We take on the financial, technological and performance risks associated with bus electrification, and we look after all aspects of fleet charging and battery lifecycles. We own and operate one third of the UK's electric bus fleet (16 depots and over 300 e-buses), and we have approximately 240MW of batteries operating or under construction.

### The Net Zero Challenge

We intend to help São Paulo to execute its Climate Action Plan by accelerating bus electrification. Our business model enables operators and local governments to adopt zero-emissions public transport. We reduce the costs and complexity of transport decarbonisation by fully financing bus and depot electrification. We then optimise fleet charging with our proprietary software. Where local grid capacity is limited, we install batteries at depots, reducing energy demand and allowing operators to avoid paying for expensive network upgrades. Our charging infrastructure and storage systems also provide grid services (V1G, V2G or demand response), and our vehicle telematics improve EV efficiency.

### Work with us

We have developed unique core capabilities that remove the financial, infrastructural and operational barriers to bus electrification. We have substantial project delivery experience, decarbonising fleets and depots for local governments and operators. Our software and operational expertise allows us to optimise fleet charging while reducing its costs.

“

Zenobē are absolutely integral to our electric vision and have overcome all the challenges with us.

**Scott Pearson**, Managing Director at Newport Transport Ltd

”

# Latin American SMEs



## B4waste



**Head quarters location:** São Paulo, Brazil

**Website:** <http://www.b4waste.com.br>

**Contact details:** Daniel Neuman, CEO

**Email:** [daniel@b4waste.com.br](mailto:daniel@b4waste.com.br)

**Telephone:** +55 11 999611-8468

**LinkedIn:** <https://www.linkedin.com/company/b4waste/>

**Industry sector:** Information Technology & Services

**Looking for:** Supplier, New partners

### B4WASTE

B4waste is a marketplace that connects industries & retailers with consumers looking for shorter shelf-life goods in perfect conditions, with a minimum 50% discount.



Our **purpose** is to tackle the dramatic food waste problem in a **disruptive** way creating **sustainable value** for sellers, buyers and the planet.



#### Overview

B4waste is a digital marketplace that connects industries & retailers with consumers looking for shorter shelf-life goods in perfect conditions, with a minimum 50% discount. Our purpose is to tackle the dramatic food waste problem in a disruptive way by creating sustainable value for sellers, buyers and the planet.

#### The Net Zero Challenge

B4waste is focused on selling shorter shelf-life goods, converting waste into consumables, reducing waste on the planet and also creating financial value for the market.

#### Work with us

B4waste's partners can convert their wasted goods into revenue, helping through financial benefits and also reducing their waste.

“Connecting for less waste.”

## TerraByte Sociedade Simples Ltda / Sistema de Comunicação de Emergência - CEM



**Head quarters location:** Niterói, State of Rio de Janeiro, Brazil

**Website:** [www.emergenciacement.com](http://www.emergenciacement.com)

**Contact details:** Julio Cezar Portugal Valente, CEO/Fundador

**Email:** [jvalente@emergenciacement.com](mailto:jvalente@emergenciacement.com)

**Telephone:** +55 21 99668-1260

**Linkedln:** <https://www.linkedin.com/company/sistema-de-comunica%C3%A7%C3%A3o-de-emerg%C3%Aancia-цем/?viewAsMember=true>

**Industry sector:** Human Security, IoT, Resilient Cities

**Looking for:** Government Procurement, Investor, Joint Venture

**SISTEMA DE COMUNICAÇÃO DE EMERGÊNCIA**  
Emergency Communication System

Do you have an ANDROID device?

CEM uses existing technologies, modern or not

All people are located, but the most vulnerable are highlighted, so that it's rescue becomes a priority

Your device's GPS will tell us your exact location, how it works in apps like google maps, for example

No personal data will be requested by the app. Will be created a random code to alert your device to emergency and / or alerts in general

**Other uses of CEM**

CEM integrates with sensors and control centers, reading and interpreting situations that can be dangerous. So all teams defined in emergency protocols are alerted and are now administered by CEM.

In cases considered as critical and special, where the response time becomes crucial, the system can automatically locate and issue alerts and alarms directly to the population located in the risk area, through radios, bells and church speakers, and the devices where the CEM application is installed.

CEM does not depend on the purchase of any hardware or auxiliary software, can be operated by tablets, smartphones, notebooks and desktops in office environment or on field, directly in the operation. This all makes CEM the lowest cost solution on the market!

**1 Download app**

Open the "play app store" on your device

Search for "CEM" and download the app

**2 Fill the form**

Open the application and fill in the form that will appear on your screen

**DONE! CEM IS ALREADY AWARE OF YOUR SITUATION AND LOCATION, AND WILL WARN YOU IF SOMETHING HAPPENS**

Ohh, that's gonna be expensive

HOW WILL YOU KNOW WHERE I AM?

WHAT MORE CAN THIS SYSTEM DO?

AND MY PRIVACY?

### Overview

CEM works from the perspective of Human Security. Thus, people are always in the foreground when disaster and/or calamity situations arise. We believe without a shadow of a doubt that there is no "Planet B" and in face of future threats that climate change poses to us we emphasize that never, under any imagined circumstance, will any of us have a "Life B". Thus, helping to preserve human life is the mission that CEM has taken on since its ideation phase.

### The Net Zero Challenge

CEM is a Startup with a product perfectly engaged with most modern available technology (IoT, WebService, App, etc.) in the service of Human Security and dedicated to saving lives. However, that is not all - on the other side, there is the human who is the user and object of all this effort. Our product is designed and "agreed on" with users, especially residents in risky areas. This way, we seek to ensure maximum social engagement, without which we would be just another technological tool partially fulfilling its role.

### Work with us

CEM is dedicated to using the most modern technology in service of Human Security, helping to save lives. We have already recognised that there is no "Planet B" and this is fundamental, but it is urgent now to recognise that we will never have a "Life B" and its preservation is a goal to be pursued on a daily basis.

Helping to preserve human life is the mission that CEM has taken on, as no one has a B Life.

## Ecomilhas

**Head quarters location:** Campinas, Spain

**Website:** <https://ecomilhas.me>

**Contact details:** Lucas da Silva Nicoleti, CEO

**Email:** [lucas@ecomilhas.me](mailto:lucas@ecomilhas.me)

**Telephone:** +55 19 984 487 675

**LinkedIn:** [www.linkedin.com/ecomiles](http://www.linkedin.com/ecomiles)

**Twitter:** [https://twitter.com/eco\\_milhas](https://twitter.com/eco_milhas)

**Facebook:** <https://www.facebook.com/Ecomilhas/>

**Instagram:** <https://www.instagram.com/eco.milhas/>

**Industry sector:** Urban Mobility, big data, carbon offset

**Looking for:** Key accounts, smart cities, series A round



### Overview

Ecomilhas offers an urban miles system that rewards users for using sustainable mobility alternatives and offsets carbon from companies committed to ESG metrics. Their solution incorporates blockchain for route validation.

### The Net Zero Challenge

We reward sustainable trips made by walk, bike, even public transport with money provided by companies aligned with agenda 2030, offsetting carbon emissions with sustainable mobility.

### Work with us

We are the first urban miles system which is aligned with green metrics to transform the way how people move, not only by one transportation, but multi modal for sustainability, we don't wanna reinvent the wheel, we just wanna use it in a green way.

“

We offer a urban miles system through our app to offset carbon emissions and reward users in sustainable mobility.

”

## Endelevo



**Head quarters location:** Vitória, Espírito Santo, Brazil

**Website:** [https://www.instagram.com/endelevo\\_/](https://www.instagram.com/endelevo_/)

**Contact details:** João Vitor Valdo Freire, CEO

**Email:** joao-vvf@hotmail.com – joao.endelevo@gmail.com – endelevo@gmail.com

**Telephone:** +55 (027) 99972-7103

**LinkedIn:** <https://www.linkedin.com/company/endelevo>

**Instagram:** [https://www.instagram.com/endelevo\\_/](https://www.instagram.com/endelevo_/)

**Industry sector:** Sustainable Buildings

**Looking for:** Partnership for the technology application, Supplier, Government buyer, Joint venture



### Overview

Construtech Endelevo is made up of three founding partners, two of whom are women, both direct multidisciplinary teams that integrate knowledge in the areas of design, architecture and engineering. United for the purpose of transforming society's lifestyle through sustainable practices and stimulating environmental awareness. The team has raised approximately 205,000 reais via economic subsidy notices, developing its business and technology with universities and technological innovation institutions such as Unisinos, Senai Institute, FindesLab and FAPES. Having already participated in acceleration, incubation and internationalization processes via Azys, InovAtiva Brasil and Impacto, TECNOSINOS and Apex Brasil, they are currently prospecting partner customers.

### The Net Zero Challenge

Endelevo focuses on solving the problem of high energy costs in buildings, in particular to maintain thermal comfort. Acting today as an integrator of the solutions for each specific scenario. These solutions range from consumer education to work on the structure of buildings. They direct solar capture and natural mechanisms to promote thermal comfort, such as ventilated facades and vertical gardens. By encompassing the ideal configuration, there are multiple benefits to the constructions themselves and to the urban environment as a whole. Endelevo contributes to Net Zero by changing the energy matrix and reducing greenhouse gas emissions.

### Work with us

Endelevo is a truly more sustainable technology that presents the greatest efficiency in the investment-benefit ratio. New technologies are integrated for the best result in energy efficiency and thermal comfort whilst providing the best cost of acquisition, maintenance and recycling and/or reuse. Constantly seeking improvement with partnerships.

“

Endelevo's efficient facade modules are the sustainable construction products capable of raising energy efficiency to a superior standard with practicality.

”

## Entech Soluções Em Energia Renovável Ltda



**Head quarters location:** Taubaté, Brazil

**Website:** <https://entechrenovaveis.com>

**Contact details:** Rodrigo Magalhães Campos Batista, Chief Technology Officer – Mauricio da Silva Sant'Anna, Chief Executive Officer

**Email:** [rbatista@entechrenovaveis.com](mailto:rbatista@entechrenovaveis.com) – [mauricio.santanna@entechrenovaveis.com](mailto:mauricio.santanna@entechrenovaveis.com)

**Telephone:** +55 12 98220-5755 – +55 21 99178-3117

**LinkedIn:** <https://www.linkedin.com/company/entech-renov%C3%A1veis>

**Instagram:** @entechrenovaveis

**Industry sector:** Renewable Energy, Electrical Mobility, Sustainability, Consulting, R&D

**Looking for:** Joint Venture, National and International expansion

# VOLTTA



### Overview

ENTECH is a startup with a mission to provide solutions in Renewable Energy, Distributed Generation and Electric Mobility, using state-of-the-art technology and pioneering global practices, helping to overcome the challenges of using renewable and clean energy.

### The Net Zero Challenge

ENTECH has a solution that enables electromobility through the provision of recharging mechanisms infrastructure for electric vehicles. This not only results in the non-emission from these EVs, but also ensures the use of renewable sources to supply them, all with data technology decentralised and digitised.

### Work with us

ENTECH are highly committed to help companies to achieve their goals in ESG with focus in GHG reduction and sustainability projects.

“As a Digital Platform Voltta enables electromobility to connect any CPO-Charging Point Operators and any EV-electric vehicles with possibility to get renewable sources to supply them.”

## EZVOLT



**Head quarters location:** Rio de Janeiro, Brazil

**Website:** <https://ezvolt.com.br/>

**Contact details:** Diego Coelho de Souza Duarte, Partner

**Email:** [diego.duarte@ezvolt.com.br](mailto:diego.duarte@ezvolt.com.br)

**Telephone:** +21 98881-5464

**LinkedIn:** <https://www.linkedin.com/in/diegocsduarte/>

**Industry sector:** Electric Mobility, VE Recharge infrastructure

**Looking for:** Government partnership



### Overview

Our business is charging electric vehicles. EZVOLT is the largest electric vehicle charging network in Brazil, with more than 180 stations. We have our own stations installed in residential, commercial buildings and public sites.

### The Net Zero Challenge

The charging infrastructure increase motivates new users to adopt electric vehicles.

### Work with us

We are the sector leader in: size, technology and services.

“

Install for free and monetise by providing the recharge service.

”

## Green Mining

**Head quarters location:** São Paulo, Brazil

**Website:** <https://greenmining.com.br/en/home-en/>

**Contact details:** Rodrigo Oliveira, CEO

**Email:** [rodrigo@greenmining.com.br](mailto:rodrigo@greenmining.com.br)

**Telephone:** +55 11 99227-6464

**LinkedIn:** <https://www.linkedin.com/company/26586323/admin/>

**Industry sector:** Reverse Logistics of recyclables

**Looking for:** Investors, Government buyer, Corporate buyer



### Overview

Green Mining is a full solution for big companies to accomplish their ESG goals: Improve recyclables recovery guaranteeing labour compliance and governance tracking using blockchain technology.

Green Mining is a reverse logistics startup that uses innovative technology to recover recyclables cost-effectively. Using a unique system that treat sales data with exclusive algorithm to identify great volumes of post-consumer packaging generation. Green Mining hire waste pickers to enable consumer packaged goods industry accomplishing their role on environmental with 100% labour compliance. Green Mining traceability technology helps to engage community through incentives to improve recycling rates replacing natural exploration of raw material.

### The Net Zero Challenge

Natural extraction of raw material is the most hazard industry on climate change due to its intensive use of energy and GHG generation. By increasing recycling, decreases the amount of raw material needed to be extracted from the nature, therefore it reduces CO<sub>2</sub>e emissions. Every six tons of recycled glass, for example, avoids the emission of 1 ton of CO<sub>2</sub>. Green Mining already recovered more than 2,400 tons of poSt-consumer packaging material from cities in six states of Brazil.

### Work with us

We improve recycling material collection through an efficient reverse logistics using traceability with blockchain technology and incentives. We enable CPGs to accomplish their responsibility to recover post-consumer packaging in a cost-effective way with labour compliance. Thus, we reduce government spending on waste collection.

“

Intelligent Reverse Logistics: Tackling recycling with responsibility.

”

## MeteoIA Data Science



**Head quarters location:** São Paulo, Brazil

**Website:** <http://www.meteoia.com/>

**Contact details:** Thomas Martin

**Email:** [thomas@meteoia.com](mailto:thomas@meteoia.com)

**Telephone:** +55 11 97165558

**LinkedIn:** <https://www.linkedin.com/company/meteoia>

**Industry sector:** Meteorology, Data Science, artificial intelligence

**Looking for:** Government buyer, private buyer, technology partner



An Artificial Intelligence (AI) system to predict climate dependency in the supply chain and provide relevant information for decision making in climate sensitive sectors.



### Overview

MeteoIA is using AI to generate better climate information at a range of spatial and temporal scale, as well as, predicting climate dependency in the different aspects of society. Our mission is to enable private and public institutions to integrate climate variations into their decision making, through appropriate information or systems. We have built the MIA system, an AI based system to semi-automatically develop predictive models and applications for climate variables or that depend on climate. Currently, we are using the MIA system to make a long range forecast of water resources in the São Paulo state and to predict hydropower plant production in Brazil.

These products are delivered to energy trading and production companies, as well as water supply companies. We are also developing projections (2030-2050) of water resources, food production and thermal comfort for subnational governmental structures (cities and municipalities).

### The Net Zero Challenge

The MIA system provides accurate information on future hydro meteorological conditions for various regions of interest. This information forms the basis for decision-making in the public and private sector and enables proper management of environmental and water resources, minimising negative impacts on the environment and socioeconomic conditions. In addition, the products' unprecedented spatial resolution helps the development of nature-based solutions at the city scale, commonly called "ecosystem services".

### Work with us

MeteoIA has a flexible artificial intelligence system, which can be applied at multiple segments of the supply chain influenced by climate and the information can generate value in different ways, from personalised delivery to forecasts months in advance.

“

An Artificial Intelligence system to predict climate-dependent variables and provide relevant information for decision-making in climate-sensitive sectors.

”

## Morada da Floresta



**Head quarters location:** São Paulo, Brazil

**Website:** <https://moradadafloresta.eco.br/>

**Contact details:** Cláudio Spínola, CEO

**Email:** [claudio@moradadafloresta.eco.br](mailto:claudio@moradadafloresta.eco.br)

**Telephone:** +55 11 97121 0050

**LinkedIn:** <https://www.linkedin.com/company/7246712>  
<https://www.linkedin.com/company/morada-da-floresta>

**Industry sector:** Organic Waste Management

**Looking for:** Government buyer, Private buyer, Distributor, Investor, Joint Venture



### Overview

Morada da Floresta is a company with a social and environmental impact that aims to transform society's awareness and behavior in order to reduce waste disposal in the environment. Our solutions motivate people and organizations to positively impact the planet, generating well-being and happiness. For the recycling of organic waste, Morada da Floresta offers practical and scalable solutions to facilitate and enable on-site composting in residential and professional environments. It also develops and offers products to replace the consumption of disposable female diapers and sanitary napkins.

### The Net Zero Challenge

Morada da Floresta's on-site composting solutions contribute directly to the reduction of greenhouse gas emissions, and to the increase in carbon sequestration through plant fertilization and the application of the compost to the soil. On-site composting eliminates the consumption of fossil fuels, the emission of carbon monoxide and the production of methane (GHG). In addition to the environmental benefits, composting promotes environmental education, income generation, urban agriculture, food security, well-being, personal satisfaction, self-esteem and happiness..

### Work with us

Morada da Floresta's composting solutions are the best on-site composting products that exist in the world. In addition to the quality of the products, it has experience with social and government projects and high production capacity.

“Morada da Floresta offers practical and scalable solutions to enable on-site composting in residential and professional environments.”

## Nanotex - Center for Development and Solutions in Engineering and Nanotechnology



**Head quarters location:** Rio de Janeiro – RJ – Brazil

**Website:** [www.nanotex.com.br](http://www.nanotex.com.br)

**Contact details:** Luiz Carlos de Lima, MS, PhD – Rafael Santos da Cruz Paula, B Engr

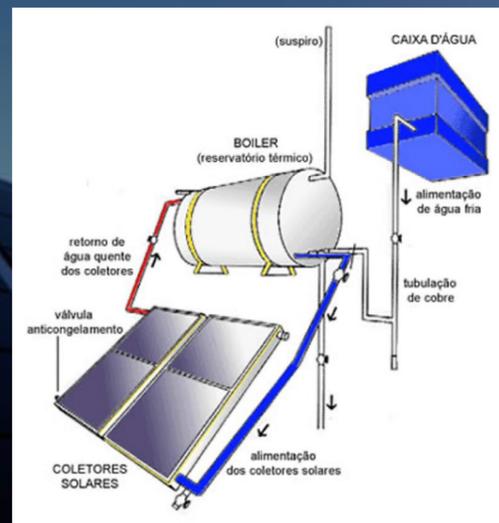
**Email:** [luizlimans@gmail.com](mailto:luizlimans@gmail.com) – [rafael\\_cruz@poli.ufrj.br](mailto:rafael_cruz@poli.ufrj.br)

**Telephone:** +55 21 981364587 – +55 21 98102833

**LinkedIn:** <https://www.linkedin.com/company/nanotex-smart-materials>

**Industry sector:** Clean Energy, Nanotechnology, Surface Engineering

**Looking for:** Joint Venture, Networking, Business Partners



### Overview

The company aims to provide energy solutions using clean and environmentally friendly nanotechnology, in order to add functionality and sustainability to traditional products. Our products are selective high-performance sunlight-absorbing surfaces. Those surfaces have a high rate of light absorption for solar radiation (95% efficiency) and are part of solar panels used in photothermal energy conversion, commonly applied in residential, commercial and industry use. Our surfaces are coatings with optimised optical properties in order to increase the performance of solar panels produced and currently marketed in Brazil.

### The Net Zero Challenge

A new technology capable of generating renewable high efficiency thermal or electrical energy through photothermal conversion at low cost and without harming the environment. This technology is essential in the implementation of thermo solar plants in Brazilian energy matrix. It is widely used solution for the food industry and other. Our product has a potential of tons of CO<sub>2</sub> emission reduction due to the replacement of thermo-electric power plant based on fossil fuels or biomass, making this a fundamental solution in the carbon credit market.

### Work with us

We are a Spin-off from UFRJ, formed by specialised engineers. We have developed a cheap technology, with a patented process, that generates photothermal heat with 95% efficiency. Our technology allows a solar panels size reduction making its application easier in several industries what increase its potential of reducing CO<sub>2</sub> emission.

“

High efficiency selective solar absorbing surface, with high heat generation and solar panels with smaller size.

”

## Óleo ponto



**Headquarters location:** Jardim, Mato Grosso do Sul, Brazil

**Website:** [www.oleoponto.com.br](http://www.oleoponto.com.br)

**Contact details:** Zadrik Mendonça, CEO

**Email:** [contato@oleoponto.com.br](mailto:contato@oleoponto.com.br)

**Telephone:** +55 67 8422-3333

**LinkedIn:** <https://www.linkedin.com/in/zadrik-mendon%C3%A7a/?originalSubdomain=br>

**Industry sector:** Reverse logistic

**Looking for:** Venture capital



### Overview

Óleo ponto is a technology-based startup, which created a solution to a major environmental problem that is the incorrect disposal of residential used cooking oil. It facilitates the collection, encourages and rewards the user for the correct disposal, and creates new habits in the population.

### The Net Zero Challenge

Óleo ponto is a technology-based startup that is a hub for sustainability. It encourages and stimulates the user of cooking oil to make the correct disposal, eliminating the discharge of oil into the environment, thus reducing pollution. It also substantially increases the supply of raw material for the production of clean energy in the biodiesel industry, and properly controls the life cycle of cooking oil, reducing impacts on water and soil.

### Work with us

Óleo ponto generates savings for the sanitation of the cities, reducing costs with water treatment and maintenance and unblocking of sewage networks. Our patented technology promotes the reverse logistics of cooking oil, increases the supply of raw material for biodiesel production, reducing collection costs and improving the quality of this raw material. Our solution is highly repeatable and scalable and contributes strongly to the ESG agenda.

“

We want to contribute to the environment and prevent the incorrect disposal of used cooking oil from contaminating rivers and lakes and thus ensure a better life for the next generations.

**Zadrik Mendonça**, Founder and CEO

”

## Plantae Ecosystemas



**Head quarters location:** Palmas, Tocantins, Brazil

**Website:** plantae.eco

**Contact details:** Wagner Machado, CEO and Co-Founder

**Email:** wagner@plantae.eco

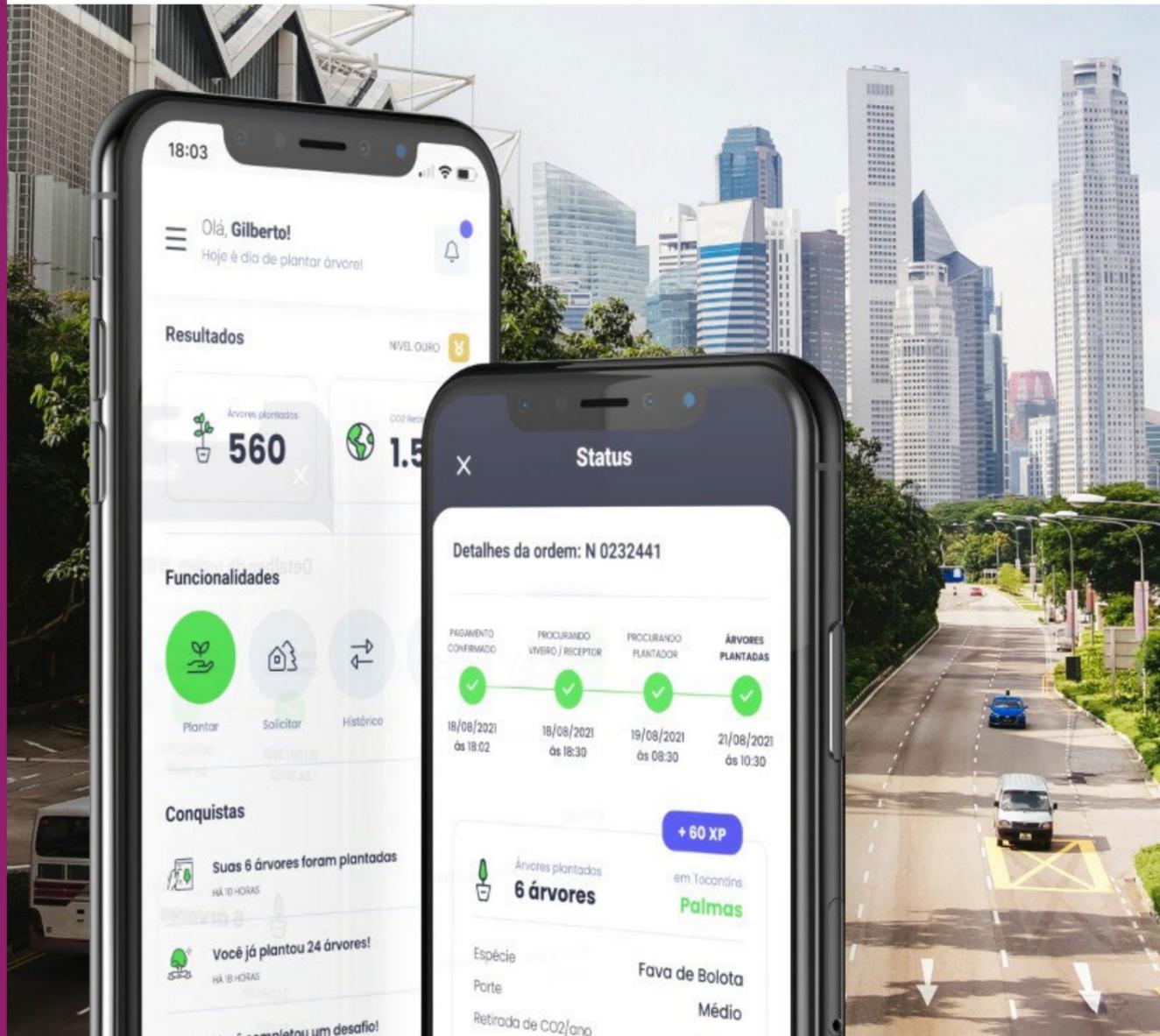
**Telephone:** +55 63 98512-1582

**LinkedIn:** linkedin.com/in/wagner-machado-927a3795

**Instagram:** @plantae.eco

**Industry sector:** Services

**Looking for:** Climate tech, green startup, tree planting



### Overview

Plantae is a Socio-Environmental Impact Platform that brings together people, companies, and government towards the same goal: Lower the temperature of our cities while capturing carbon from the atmosphere.

The process involves local agents in solutions aimed at planting trees distributing income to the less fortunate while making the cities more environmentally sustainable.

A profitable Startup is applicable in any city in the world, which makes it scalable and geographically free. Plantae believes that the future of cities is at the origin of everything. Its vision is to promote a service of public interest and efficient in the implementation of urban afforestation projects.

### The Net Zero Challenge

Plantae involves several agents and brings real results in the planting of trees, intending to make cities more environmentally sustainable. Planting trees is the best way to bring back fresh air, greenery, shadows, birds, a better climate, social welfare into cities. Plantae is made up of agents who care to return to the planet part of what was taken from it, bringing the forest and nature into cities. It is to integrate the forest with the city. Plantae Ecosystemas is the innovation in environmental transformation for any city in the world. It is the possibility for conscientious agents to exercise their will to contribute to a better present and future.

### Work with us

Plantae is a great business opportunity that connects the environmental transformation to the ideal of achievement sought by people, companies, government, and organizations that want to sponsor or compensate for what they consume environmentally in cities and on the planet.

“A social and environmental impact platform that makes cities more sustainable allowing people to make money by planting trees.”

## PROSUMIR Energy Recovery

**Head quarters location:** Cachoeirinha, Rio Grande do Sul, Brazil

**Website:** [www.prosumir.com.br](http://www.prosumir.com.br)

**Contact details:** Gabriel Wieczorek, Project Manager

**Email:** [gabriel.w@prosumir.com.br](mailto:gabriel.w@prosumir.com.br)

**Telephone:** +55 51 998151830

**LinkedIn:** <https://www.linkedin.com/company/prosumir-aproveitamento-energ%C3%A9tico/mycompany/?viewAsMember=true>

**Industry sector:** Renewable energy

**Looking for:** Investors and Joint Ventures



### Overview

PROSUMIR is a Brazilian Startup focused on developing innovative solutions to transform energy waste into opportunities, working with energy efficiency, renewable energy, and cogeneration.

Our main product is the Pressure Reducing Turbine (PRT), an equipment engineered by PROSUMIR to replace pressure reducing valves in steam systems. The turbine can generate up to 990 kW of electrical energy proceeding the same functions of reducing and controlling steam pressure once done by these valves.

### The Net Zero Challenge

PROSUMIR can contribute to a sustainable world based on energy efficiency, renewable energy, and decentralised generation. Centralised power plants, as thermal power plants and hydroelectric dams, cause environmental damages. We help industries to generate energy inside their factories, using only the infrastructure they already have.

### Work with us

The partnership with PROSUMIR can bring an exponential energy solution to your portfolio. The turbine was entirely developed by PROSUMIR's engineering team, the heart of the company, and we have patents of the technology.

“

Pressure Reducing Turbine is an equipment engineered by PROSUMIR to replace pressure reducing valves in steam systems.

”

## Quanta Energy

**Head quarters location:** Piracicaba/SP, Brazil

**Website:** [www.quantaresiduos.com.br](http://www.quantaresiduos.com.br)

**Contact details:** Fernando Saes, CEO

**Email:** fernandoSão@hotmail.com

**Telephone:** +19-981453687

**LinkedIn:** <https://www.linkedin.com/in/fauzi-shubeita-64aab317/?originalSubdomain=br>  
<https://www.linkedin.com/in/ederaldo-godoy-junior-6bb81053/?originalSubdomain=br>

**Industry sector:** Waste Treatment

**Looking for:** Suppliers, Investors



### Overview

Quanta Energy is a CleanTech Startup located in Piracicaba/São Paulo, Brazil. Quanta Energy is a waste treatment technology provider for refuse from municipal residences and businesses. It results from over a decade of studies and projects developed by the company's team in Europe. Also, several Brazilian Agribusiness and urban projects providing a 100% Brazilian self-generated high-performance and cost-effective technology. The Quanta Energy waste treatment technology generates biogas and fertilizer. Biogas can be transmogrified into electric power.

### The Net Zero Challenge

Quanta Energy provides technology for waste treatment making landfills unnecessary. Landfills, according to recent academic publications, are ten times more aggressive to the environment than previously known, expelling highly toxic gases into the atmosphere. Considering Brazil generates 110,000 tons of treatable organic waste a day while not having technology for waste treatment, Quanta Energy is capable of contributing largely towards the Net Zero challenge.

### Work with us

Quanta Energy is the best waste treatment technology provider in Brazil. While there are other options in the market, they do not generate energy. Quanta Energy is the sole Brazilian technology provider of renewable energy originating from waste treatment. Quanta Energy is cost-effective when compared to imported technology options.

“

Quanta Energy Biodigesters are custom-made to best harness waste energy catering from small to large scale municipal demands.

”

## Recigases



**Head quarters location:** Rio de Janeiro, Brazil

**Website:** [www.recigases.com](http://www.recigases.com)

**Contact details:** Filipe Colaço, CEO

**Email:** [filipe@recigases.com](mailto:filipe@recigases.com)

**Telephone:** +55 21976685042

**LinkedIn:** [linkedin.com/company/recigases/](https://linkedin.com/company/recigases/)

**Instagram:** @recigases

**Industry sector:** HVAC

**Looking for:** Partnerships

### RECLAMATION CYCLE



#### Overview

Recigases was founded in 2007 with the purpose to introduce a circular economy model on HVAC refrigerants in Brazil through reclaiming those refrigerants. This avoids ventilating harmful substances to the environment and curbs the need for new refrigerants. Recigases is the reference in Brazil for those willing to reduce their impact on the HVAC segment and their refrigerant costs. Quality of our reclaimed refrigerants has been the key to our growth as we make sure to follow AHRI 700 /2019 standards.

#### The Net Zero Challenge

Recigases, recovers and reclaims fluorinated gases for further use, offering refrigerant management solutions capturing tons of gas that may otherwise have been released into the atmosphere.

#### Work with us

Brazil imports 100% of its refrigerants averaging around 25.000 tons a year. Recigases developed their own reclamation technology using distillation and is ready to boost their refrigerant reclamation market share.

Recigases is looking to further expand their reach throughout our big country and to grow our sales capabilities.

“ Solutions for Refrigerant management at its finest. ”

## Scipopulis



**Head quarters location:** São Paulo, Brazil

**Website:** [www.scipopulis.com](http://www.scipopulis.com)

**Contact details:** Roberto Speicys, CEO

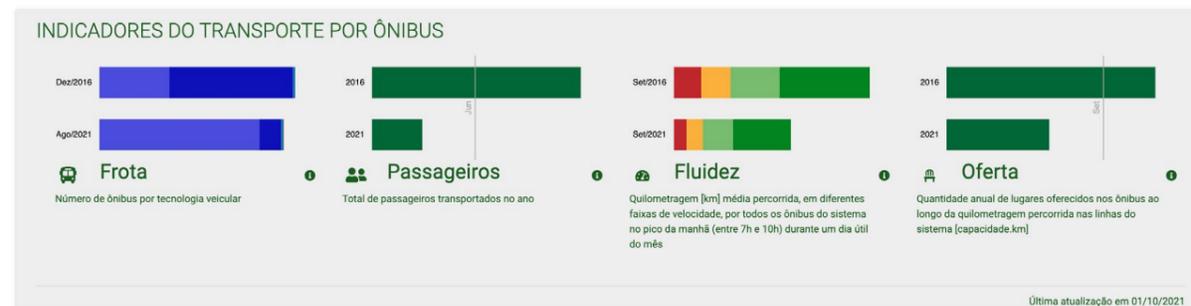
**Email:** [roberto.speicys@scipopulis.com](mailto:roberto.speicys@scipopulis.com)

**Telephone:** +55 1199294-9218 2

**LinkedIn:** <https://www.linkedin.com/company/scipopulis/>

**Industry sector:** Technology for Smart Cities

**Looking for:** Government buyer, private buyer, technology partner



### Overview

Scipopulis – a green4T company – is an innovation company recognised and awarded for its experience working with data analysis, processing, integration, and visualisation, focusing on turning cities into “smart cities”. Since 2014, Scipopulis mission is to build more human, sustainable, and accessible cities, with a team of experts in technology, urbanism and design. Among Scipopulis customers are entities such as the World Bank, the Interamerican Development Bank (IDB) and the city of São Paulo. Scipopulis, data analytics platform, is running in 10 different cities in Latin America, including São Paulo, Rio de Janeiro and Santiago in Chile.

### The Net Zero Challenge

The transport sector is responsible for more than a third of CO<sub>2</sub> emissions in Latin America, with the highest growth. To reach the zero emissions goal by 2050, a sustainable transport system is essential, and one of the most important actions to achieve this is the decarbonisation of public transport.

Trancity helps governments ensure the electrification process will be done as efficiently as possible by measuring greenhouse gas emissions from public transport. The platform allows the geolocation of information and identification of the most benefited areas with KPIs that can also be used by civil society to monitor these measures.

### Work with us

Scipopulis wants to collaborate with governments in the decarbonisation process developing their tool and generating new metrics and KPIs relevant to public transport energy transition. Scipopulis solutions provide decision-support data with real-time and historical information in a turn-key SaaS platform that does not require investments with computing infrastructure.

“Trancity is a public transport real-time data analytics platform that helps cities to plan and monitor the decarbonisation process.”

## Sipremo

**Head quarters location:** São Paulo, Brazil

**Website:** [www.sipremo.com](http://www.sipremo.com)

**Contact details:** Gabriel Savio, CEO

**Email:** [gabriel.savio@sipremo.com](mailto:gabriel.savio@sipremo.com)

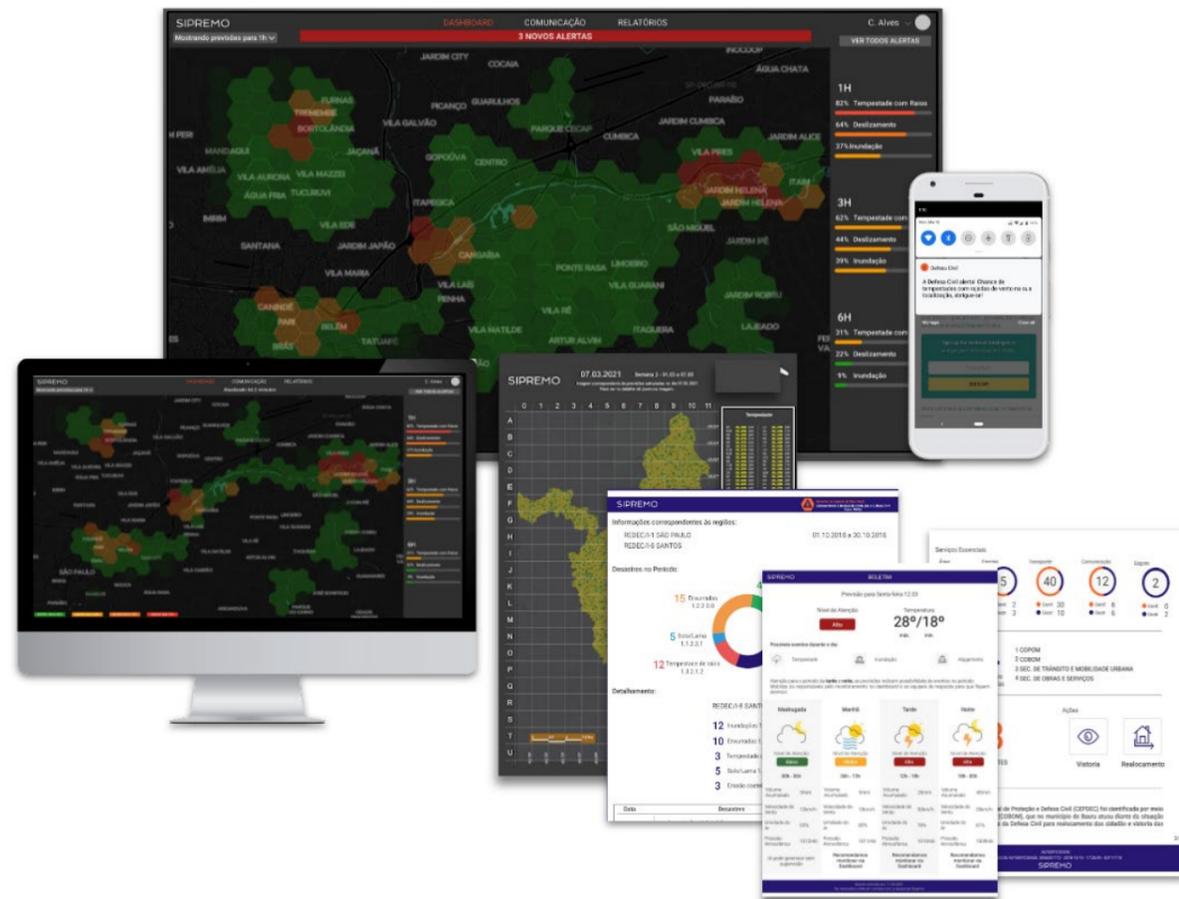
**Telephone:** +55 11 95953-5970

**LinkedIn:** <https://www.linkedin.com/company/sipremo>

**Instagram:** @sipremo\_oficial

**Industry sector:** ClimateTech

**Looking for:** International pilot opportunities. Sipremo is still looking for companies and governments who face problems with the climate and want to revolutionise their operations and take assertive decisions doing climate-friendly management



## SIPREMO

### Overview

Sipremo does natural disasters and climate change events forecast and monitoring. We empower intelligent decision making to take on climate change. We are an AI-driven solution for proactively building resilience, reducing the reactivity in natural disasters management.

Sipremo saves lives and improves critical decision making for companies and governments alike.

### The Net Zero Challenge

Sipremo contributes by generating operational insights on each business we are covering. Our technology considers all the variables involved in climate change and, from this perspective, offers our users support for critical decision making.

It means that our AI can forecast a climate event, considering all variables involved and relating it with each operation we are covering. We guide assertive decisions, offering even more value and a way for our partners to do climate-friendly management.

### Work with us

Sipremo is changing the norm of dealing with climate change events. Our technology offers a way to improve resilience besides taking assertive decisions on each operation touched by climate change. We want to empower people, companies, and governments while facing these events, helping our world be resilient and sustainable. By joining us, you will be supporting the same mission.

“

Sipremo was born inside of the State of São Paulo State Civil Defence Department, the most relevant player for the sector in South America. There, we created our AI technology which is capable of providing information on where, when, and what disaster or climate event can occur in the future. We offer our users a way to be proactive and act before it effectively happens mitigating or even avoiding the negative impact caused by these events.

”

## TrackLi

**Headquarters location:** Florianopolis, Brazil

**Website:** [www.trackli.com.br](http://www.trackli.com.br)

**Contact details:** Erico Reis, CRO

**Email:** [erico.reis@trackli.com.br](mailto:erico.reis@trackli.com.br)

**Telephone:** +55 48 99900 0337

**LinkedIn:** <http://www.linkedin.com/company/trackli>

**Industry sector:** IoT for Electric Vehicles

**Looking for:** Government buyer

## Product

- Location and tracking
- Performance and efficiency
- Maintenance management
- From any device



Confidential and Proprietary. Copyright by TrackLi. All Rights Reserved.



### Overview

TrackLi is taking vehicle telemetry into a new dimension with CANbus data gathering and AI to verify the best usage for electric vehicles.

### The Net Zero Challenge

We help organisations with electric vehicles to better organise data analysis and maximise the usage of EVs for a better future.

### Work with us

A few companies have the knowledge that we possess related to electric vehicle analysis and we can help boost its implementation.

“

TrackLi controls the assets' maintenance, providing preventive maintenance through remote monitoring to measure different data in each piece of equipment.

”

## Tradenergy



**Head quarters location:** João Pessoa, Brazil

**Website:** <https://en.tradenergytech.com/>

**Contact details:** Anderson Medeiros, CEO

**Email:** [anderson.medeiros@tradenergytech.com](mailto:anderson.medeiros@tradenergytech.com)

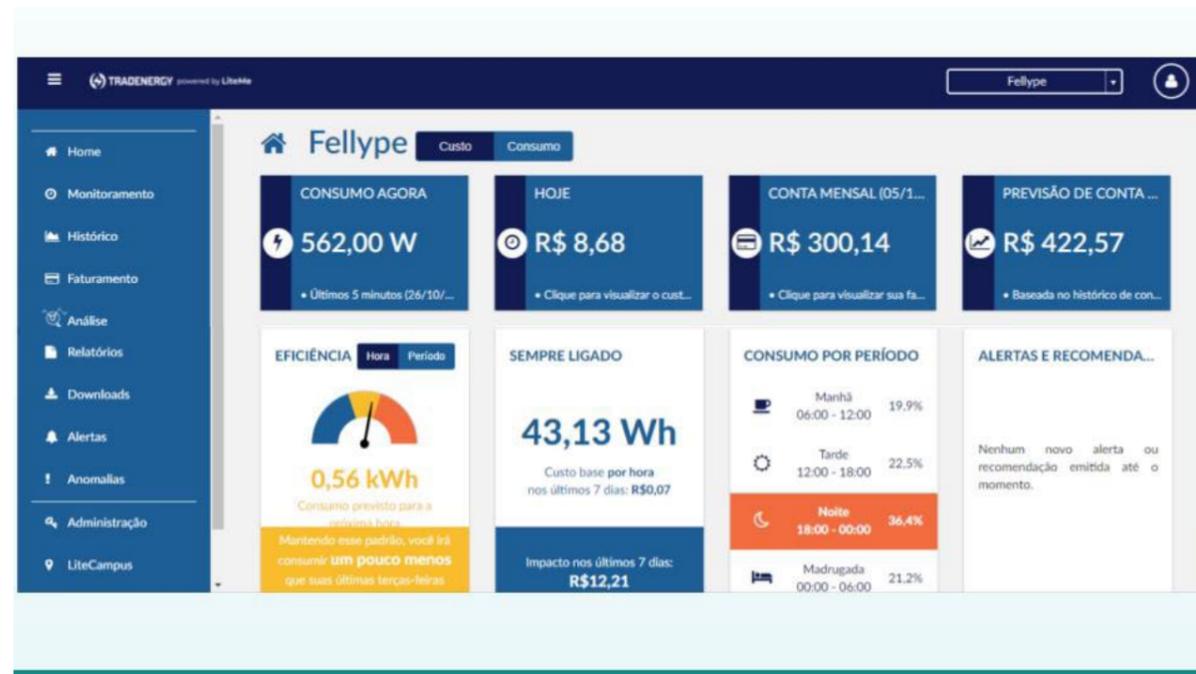
**Telephone:** +55 8398693-6401

**LinkedIn:** <https://www.linkedin.com/company/tradenergytech/>

**Instagram:** @tradenergy

**Industry sector:** Clean Tech and Clean Energy (Renewable Energies)

**Looking for:** Commercial Partnerships (Regulatory Sandbox), Government Pilot Project and Internationalisation by Softlanding



### Overview

Platform solution to connect renewable energy producers enabling the sale of energy to consumers including for mobility; car, motorbikes, scooter, bicycles.

Through the application, the consumer will be able to choose the producer and thus indicate, according to his needs, the amount of energy he needs.

The Tradenergy App will connect the producer directly to the consumer, indicating varied options of prices and quantities closer to the point of consumption.

Among the services offered, the App will allow the electric vehicle user to locate charging points, carry out the charging with monitoring and payment on line for the load used.

### The Net Zero Challenge

In terms of contribution to environmental sustainability, it is expected to obtain with a focus on rationalising the use of conventionally-based energy sources and on mobilising and enabling multiple uses of energy production from renewable sources (green energy), that result in the application of innovative methods and practices or the use of technological tools that promote gains in competitiveness through the production of energy for self-consumption and the production and distribution in a Smart Grid network.

### Work with us

Tradenergy seeks partners with the mindset to innovate in a booming market (Renewable Energies) applying Smart Grid, IoT and Machine Learning, providing a solution for producers and consumers (renewable or sustainable), enabling production and failures forecasting, which are the differentials of our platform.

“ Tradenergy is a platform web and mobile to connect producers and consumers of clean energy. ”



Visit our website  
[cp.catapult.org.uk](http://cp.catapult.org.uk)



Follow us on Twitter  
[@CPCatapult](https://twitter.com/CPCatapult)



Follow us on LinkedIn  
Connected Places Catapult

Email us  
[info@cp.catapult.org.uk](mailto:info@cp.catapult.org.uk)