



SUSTAINABILITY TODAY

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Five year growth target set to €100 million

Quuppa, a global provider of Real-Time Locating Systems (RTLS), recently announced its first ever round of funding, worth EUR20 million. The investors for the round are Finland-based private equity fund Bocap, which focuses on high-growth small and medium size enterprises, and Tech Consulting Group TCG Oy (TCG) with solid experience and track record of growing Finnish technology companies in the international market.



establish our position as a market leader," says Kimmo Kalliola, CEO and Founding Partner of Quuppa.

Quuppa has already deployed more than 2,000 location-based service solutions and has over 170 partners worldwide. In addition to Finland, Quuppa has offices in the United States, China, Australia and the United Arab Emirates.

The global market for RTLS is expected to reach EUR7.5 billion by 2023, at an annual growth rate of 22.5% (MarketsandMarkets™). Investors in this round strongly believe in Quuppa's potential and are willing to contribute in both equity and strong expertise.

Quuppa – VP Marketing, Sari Arjamo-Tuominen
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Bocap – Partner, Vilma Torstila
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Since its establishment in 2012, Quuppa has enjoyed a healthy run of growth and cashflow, reaching a revenue of EUR10 million. Now the company aims at using the raised funds into taking a bigger leap into global markets.

"With the new investment, we are able to scale up our services, support our global partner network better and further develop our technology and services. Our aim is to grow from EUR10 million to EUR100 million in five years and

Three Goupil G4s to help clean up Brighton streets

Brighton & Hove City Council has committed to becoming a carbon-neutral city by 2030. The city aims to reduce as many climate-damaging carbon emissions as possible, and the three new all-electric Goupil G4s delivered to the City Council are positive steps to help achieve its goals.



and half dropdown door to the nearside.

With four battery options, the Goupils are configurable to suit varying demands, the 15.4kWh lead-acid model Brighton & Hove added to its fleet provides a balance of power, range, payload and budget, in this configuration delivering a 763kg payload and 49 mile WLTP range.

The Goupil G4 meets the needs of professionals and municipals. With 11 standard bodies to choose from, the G4s are available with pick-up, cage, and high-tip bodies, pressure washers and leaf collector.

Find out more about the Bradshaw Electric Vehicles range at: www.bradshawev.com or speak to one of the team on 01780 782621.

Added to the City's fleet for parks, gardens, and cemeteries, the Goupils will carry out their tasks with zero vehicle emissions, quietly and efficiently.

The Chair of the Environment, Transport and Sustainability Committee said, "The council has set an ambitious target to be carbon neutral by 2030 and the more electric vehicles we have on our roads, the better."

The G4 cage body includes: hydraulic tipping controlled by a cab mounted wander lead, aluminium dropdown and detachable sides and rear tailgate, and twin rear opening barn doors

iLOQ's drive to succeed

As a company, iLOQ has always had a strong presence in the Nordic countries. Lately we have been growing quickly throughout central and southern Europe with sales booming in France and Spain. But our long-term goal is to see our state-of-the-art battery-free digital locking and mobile access solutions making life accessible worldwide.



upcoming talent; those that, like iLOQ, have the potential to achieve great things. We have therefore started co-operation with 22 year old golf professional, Alex Hietala, from Sipoo in Southern Finland.

Alex had an extremely successful amateur career winning many tournaments with the highlight being crowned Finnish Amateur Champion in 2018. His professional career stalled at the beginning of 2020 with the advent of the coronavirus, but he spent the downtime training hard and honing his skills. At the time of writing, he is leading the overall competition in the Finnish PGA Golf Tour.

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To raise the profile of our global brand, we have been partnering with key sporting personalities. Perhaps our most well-known partnership is with Formula 1 superstar, Kimi Räikkönen. As well as helping us create unique customer experiences at Formula 1 events and at our exhibitions, he also strongly features in our social media and sales and marketing campaigns.

iLOQ as a company started from very humble beginnings – one man's vision on how to shape the future of locking and bring it into the digital forum. With that in mind, we also like to showcase young,

The University of Warwick uses a fleet of Goupils to support its net-zero carbon targets

The University of Warwick has purchased three Goupils from Bradshaw Electric Vehicles, two G4-07s and a G5-07, both models with an integral 200 litre pressure washer.



Based on the outskirts of Coventry between the West Midlands and Warwickshire, The University of Warwick is committed to lowering its carbon emissions. Provost, Christine Ennew, said, "We have a responsibility as a community and organisation to help combat climate change through our individual actions, our research and teaching, and how we run and develop our university." The University's Strategy 2030 includes an explicit commitment to develop sustainable transport, energy, and a green campus to reach net zero carbon from direct emissions by 2030.

The new Goupils will go a long way to help the University to achieve its goal. 100% electric, the two Goupil G4s and G5 offer a sustainable and environmental alternative to petrol and diesel vehicles.

The main Warwick campus occupies 710 acres (2.88km²). Road going Goupils allow the vehicles to travel between campuses easily to complete their daily tasks without any vehicle emissions. Both Goupil models include cage bodies for waste collection and an integral 200 litre high-pressure washer.

The high-pressure unit is equipped with flexible hose, lance and hydro jet with a high and low pressure nozzle, giving the operator access to awkward areas, clean bins, road signs, street furniture and pavements.

Find out more about the Bradshaw Electric Vehicles range at: www.bradshawev.com or speak to one of the team on 01780 782621.

iLOQ cooperates with Kuehne+Nagel

iLOQ manages its air and sea transport in a CO₂-neutral manner in cooperation with Kuehne+Nagel. Through its Net Zero Carbon environmental programme, Kuehne+Nagel offers companies an easy solution to neutralise CO₂ emissions from transportation.



iLOQ offsets emissions from its transportation through Kuehne+Nagel to verified environmental projects that absorb carbon dioxide from the atmosphere. The projects are certified according to the Verified Carbon Standard (VCS) or the Gold Standard and comply with UN sustainable development goals and support and improve basic living conditions in developing countries. Projects change subject to availability. You can find more information about some of the ongoing projects below:

- ▼ Cordillera Azul National Park REDD+ – Conservation of 1.6 million hectares of forest in the Amazon region
- ▼ Katingan Mentaya project –

Conservation of 44 endangered species in Indonesia
▼ **Guatemalan Conservation Coast** – Making healthcare accessible to 1,300 people

Kuehne+Nagel is motivated to support the reduction of the carbon footprint of the supply chains of its customers. This is illustrated, among other things, by the Net Zero Carbon environmental programme launched by Kuehne+Nagel in 2020, to automatically offset emissions on all LCL (less than container load) sea freight shipments globally.

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Housing for the future

A ground-breaking project in Berlin could show the future way homes are built and operated.



Residents of the Future Living Berlin development can generate up to 90% of their own energy needs through air-to-water heat pumps, and solar photovoltaics linked to a battery storage system.

The main technology provider, Panasonic, has installed 17 Aquarea heat pumps on the site along with 600 HIT PV panels.

Panasonic has also developed an intelligent energy management solution to optimise the use of energy and couple electricity with the heating sector.

Utilising the renewable energy, the air to water system is used for space heating and warm water generation but can also be used for cooling. For increased performance, the heat pumps include a Cloud-based connectivity feature for installers called Aquarea Service Cloud which makes them even more reliable.

This Cloud technology saves further CO₂ emissions as maintenance

visits can be organised much more efficiently and partly even conducted remotely.

The digital and connected goal of Future Living Berlin starts within the residential apartments. Panasonic TVs and smart speakers are part of an overall IoT infrastructure, which includes an apartment manager as the central hub.

Digital and connected solutions are further extended to include wider security, safety, and smart building solutions that enhance the overall comfort of residents.

Panasonic has no doubts that the technologies could be reproduced elsewhere in Europe. "There is ample scope to reproduce it in the UK," said Enrique Vilamitjana, managing director, Panasonic AC & Heating Europe.

T 01344 853182
uk-aircon@eu.panasonic.com
www.aircon.panasonic.co.uk

Delivering certainty: Low Carbon Agriculture show goes digital for 2021 event

Energy Now Expo, held at the East of England Arena, Peterborough, from 3-4 March 2020, is dedicated to the growth of renewable energy within the agricultural and rural communities of the UK and brings together farmers, landowners and rural businesses to engage with industry experts on the latest renewable energy opportunities available, including best practice in energy efficiency and energy generation.

Now, building on the success of the Expo, it and new related events have been rebranded by the organisers. Low Carbon Agriculture show, the new event showcasing opportunities in low carbon energy, technological advances and Environmental Land Management (ELM), for a profitable and sustainable future in farming, has announced it will certainly go ahead in March 2021 – online.

Held in association with the National Farmers Union (NFU), the show will move to a fully interactive digital format on 9 and 10 March 2021, to support farmers during not only the challenging COVID-19 pandemic, but through a rapidly evolving industry.



Maintaining its renowned multi-streamed conference, exhibition, networking benefits, and four key areas of focus – Energy Now Expo, Environmental Business Expo, Low Emission Vehicles Expo and Farm Technology Expo, Low Carbon Agriculture Show has extensively analysed different formats, gaining feedback from farmers who have attended online conferences, to create a digital event which delivers.

This is our pick of the best exhibitors from this year's Energy Now Expo show, listed here in alphabetical order: Anthropods, Bradshaw Electric Vehicles, Orangehouse Renewables & Solar Gate Systems. Further details can be found on this page.

<https://lowcarbonagricultureshow.co.uk>

Solar Gate Systems

Solar Gate Systems is the UK's leader in solar powered gate automation. With its award winning Winter Harvesting solar panel mounts, use of state of the art Brushless Motor Technology and Smart MPPT solar charge controllers, it is no surprise that it has supplied and installed literally hundreds of systems right across the UK. As MD Mike Yeats says, "No Mains, No Problem!"

Solar Gate Systems has developed its system so that it can be used on 99% of existing gates, both metal or wooden, with bespoke steel gates up to 7 metres (23 feet) now being automated. Over 80 daily openings a day right throughout the winter are commonplace. A complete range of opening controls, all available on a 'mix and match' basis can be supplied, from hand held remotes to coded keypads, vehicle sensing and now a system where you can open your gate even from your mobile phone.

"Our solar powered gate system is helping many



farmers win their battle against rural crime," says Mike, "they are now able to have a closed and locked gate keeping out thieves, with the convenience that gate automation brings to a busy entrance way."

T 01993 840066
www.solargatesystems.co.uk

Glampers seek more luxury and new experiences

The Glamping market is not only growing rapidly but is becoming more discriminating. It was not long ago that the glamping phenomena (luxury camping) was characterised by crudely adapted garden sheds but today's consumers are demanding more. More luxury, more innovation and new, natural, experiences. Once yurts and shepherd's huts were the 'in thing', but now, as more people want to experience the great outdoors, and COVID-19 is accelerating the UK staycation market, it means that pod manufacturers are having to deliver more than nailed plank walls and bare floors.

When Anthropods' CEO and inventor,



Rik Currie, first set out to create an Anthropod he used all his industrial design skills (Rik once designed trains for Dutch railways) to build a sustainable, warm and stylish pod like no other. Drawing his inspiration from legendary French aviator, Louis Bleriot, the resulting Bleriot model range features a monocoque timber frame structure like an aircraft that creates extra interior space with a smaller floor footprint. Using only timber from sustainable sources and recycled plastic bottles for insulation Anthropods tick the green boxes.

From the day of the prototype launch in September 2018 at the Glamping Show, consumers have been wowed by the unique designs and funky, adjustable off-ground leg configurations. Anthropods can be up to 5 metres high at under tree canopy level or closer to the ground at 3 metres. This means Anthropods can be located where there is water run-off or flooding. Also, they can be placed on uneven ground and hillsides using the special rake-leg configuration.

Comfort, luxury have always been



paramount coupled with every modern convenience: wet room with shower, toilet and basin, kitchen with hob, cooker, fridge and sink, heaters (and wood burning stove options), media area, storage, wardrobes and Bluetooth speakers.

Anthropods are sold on or off-grid. So for the discerning gl camper who wants it all, at any time of the year, there's only one solution, Anthropods.

Contact
M 07860 420763
doug@anthropods.co.uk
www.anthropods.co.uk

Bradshaw Electric Vehicles

Bradshaw Electric Vehicles has been manufacturing industrial electric vehicles since 1976 and has a reputation for building the safest and most robust vehicles in the market.

If your business needs to transport goods, materials or people, then we have the solution. We offer a wide range of electric vehicles from tow tractors and load carriers through to trailers and pedestrian-controlled vehicles. With over 40 years' experience in the industry, we can offer expert advice on the best electric vehicle for your requirements.

Our extensive range of tow tractors includes narrow width, mid-range, and high capacity tractors, offering load capacities between 1 and 25 tonnes.

The load carrier range has a payload up to 3 tonnes, and 6,000kg tow capacity which quickly and efficiently transports larger loads around sites.

The pedestrian-controlled tow and load carriers



are an ideal alternative to areas restricted to conventional vehicles, confined spaces & areas with heavy footfall, all offering high-quality performance in a safe and compact design.

All our models are available with a range of body options to suit specific operational requirements, and should you need something a little more specific, our team of engineers have created a number of bespoke builds to the customer's exact specifications.

To find out more, visit: www.bradshawev.com

Heating the future

The way we heat buildings is changing rapidly. Saving carbon is driving massive changes. No new gas from 2025. Oil installations banned in some areas and penalised by SAP. Hydrogen is an option but there are big questions about its production, transport and safety. Heat pumps have been used for heating all sizes and types of buildings in Europe for many years, but due to plentiful coal supplies with North Sea oil and gas reserves we're late to the party.

Many heat pump systems work brilliantly but poor installations can lead to issues. Recently the industry has developed with a huge increase in the quality of installations and installer training. Getting heat pump specialists involved early in a project helps confirm plant

sizes, system specification and performance, electrical demand, heat collector design, emitter systems, grants and paybacks. The kit is expensive and needs to be designed and fitted properly to be efficient and effective.

Underfloor heating is the perfect partner for a heat pump as the low flow temperatures ensure optimal performance. Increasingly heat pumps are teamed up with mechanical ventilation and heat recovery (MVHR) systems. Integration with solar PV systems, batteries or flexible electricity tariffs can further reduce running costs and carbon emissions.

Orangehouse Renewables knows each project is different so we carefully design bespoke systems tailored to the needs



of the project. We have a responsibility to deliver the low carbon future, heat pumps are headlining the charge. Orangehouse Renewables Ltd is a specialist installer of air, ground and water sourced heat pumps across a wide range of projects.

Please contact: enquiries@ohrenewables.co.uk or call 01780 490095.

INNOVATION SPEEDS RETURN ON INVESTMENT



The Anthropod 2/4 Berth Bleriot 72 'Daddy Long Legs'



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Today's glamping customers are demanding; they seek new experiences, authenticity and quality accommodation. And are prepared to pay for it.

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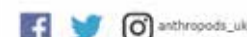
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Anthropods & Co Ltd, 6A Hambleton Grove, Knaresborough, North Yorkshire HG5 0DB

anthropods



WE UNDERSTAND THE COUNTRYSIDE

For your carpet waste

By Allen Jackson, Director of textek

As the founder of textek, overcoming recycling problems has always been an ambition of mine. Upon successfully diverting a million mattresses from landfills by creating a bespoke line through tireless R&D and support from JPE Aggregates, Untha and Blue, ingenuity met mattresses and Matrenitiuity was born. This colossal feat has brought forward-thinking councils, mattress manufacturers, and other waste management and recycling companies on board, who share the vision to tackle the mattress problem facing us in the UK by utilising textek in a practical and meaningful solution.

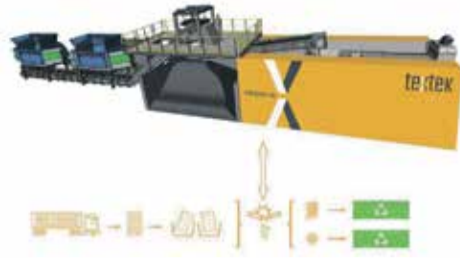
Seeing the success and scale of textek, we received requests to tackle the problem regarding the waste carpet piling into our landfills. What recycling answer

could we bring? So 4 your waste was created to diversify other waste streams. Setting our sights high, we implemented rigorous quality control and a process that creates a phenomenal product for equestrian flooring, achieving a 98% recycling rate.

As a principle we are always looking for ways to improve what we are doing and will now turn the focus on extensive R&D for carpet, and look at further sustainable ways for other waste streams including tyres – watch this space. The 4 your waste name encapsulates a light-hearted yet serious acknowledgment that we are here to solve all your problems 4 your waste.

M 07597 864491
sales@4yourwaste.co.uk

Introducing the UK's most advanced Bulk Waste Processing Plant.



Keep planet safe by recycling PPE waste

With millions of gloves and masks being thrown away every day, it's not hard to see why conservationists around the world are sounding the alarm



over where all these single-use products are ending up. Single-use PPE masks and gloves are considered 'non-recyclable' types of waste in the traditional recycling systems. TerraCycle however offers a solution to collect and recycle PPE via its Zero Waste Box system – a turnkey solution to recycle hard-to-recycle waste for individuals, households, schools, businesses, manufacturing facilities, and events looking to offset their impacts and lighten their environmental footprint.

When placed in public spaces such as shops or within businesses, TerraCycle's Zero Waste Boxes for PPE encourage people to responsibly dispose of their PPE for recycling instead of throwing these items into landfill bins or often simply throwing them on the ground after use.

To recycle PPE waste in the UK, TerraCycle offers a variety of different Zero Waste Boxes, including its latest box dedicated specifically to the recycling of disposable face masks:

- ▼ **Disposable Gloves and Face Masks Zero Waste Box** – to recycle both surgical, industrial face masks and to recycle vinyl, nitrile, and latex gloves
- ▼ **Disposable Face Masks Zero Waste Box** – to recycle surgical and industrial face masks
- ▼ **Disposable Gloves Zero Waste Box** – to recycle vinyl, nitrile, and latex gloves
- ▼ **Safety Equipment & Protective Gear Zero Waste Box** – to recycle disposable safety gear including garments, gloves, masks and safety glasses

www.terracycle.co.uk
<https://zerowasteboxes.terracycle.co.uk/pages/how-it-works-1>



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Nordic countries' first textile refinement plant

The Nordic countries' first industrial end-of-life textile refinement plant will



open in Paimio in 2021. Rester Oy, which is developing the plant in Paimio, recycles companies' end-of-life textiles, and Lounais-Suomen Jätehuolto Oy (LSJH), which will hire a production area at the same facility, processes households' end-of-life textiles. The plant will process 12,000 tonnes of end-of-life textiles every year, which represents about 10% of Finland's textile waste.

The textile industry's end-of-life textile problem is intolerable. Natural resources are increasingly used to manufacture products, but these materials are lost at the end of their life cycle. About 100 million kilograms of textile waste are generated annually in Finland alone. Reusing this material could reduce the textile industry's carbon footprint and significantly reduce the use of natural resources.

Rester Oy and LSJH will drive the textile sector towards a circular economy and begin processing textile waste as an industrial raw material. The Nordic countries' first industrial end-of-textile refinement plant will open in Paimio in 2021. The 3,000m² plant is being developed by Rester Oy, which recycles companies' end-of-life textiles and industrial waste materials. LSJH, which processes households' end-of-life textiles on its production line, will hire part of the plant.

Contact: Outi Luukko; Rester Oy, board chair;
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Waste is a valuable resource and ideally, reusing or recycling should be our main focus. However, efficiently recovering energy from residual waste has a valuable role to play in both diverting waste from landfill and in energy generation. RDF, or Refuse Derived Fuel, uses a technology that produces energy from waste that is unsuitable for traditional recycling. Recognising the need for a baling wire that is suitable for RDF, D R Baling Wire are proud to be at the forefront of technology by developing a product which is suitable for baling waste for incineration purposes.

When baling and strapping solid waste for incineration, the traditional steel baling wire must be removed before the burning process begins which is labour intensive and costly. Our new Plasloc wire exclusively established and manufactured by DRB can be burnt during the incineration process, providing a calorific value. Bales can be loaded in to furnaces fully wrapped without intervention which will significantly save time and money by improving the processing system.

Plasloc is available in various reel sizes up to 13,000 metres per reel.

DRB are the only manufacturing company in Europe that offer the complete package for all your baling wire needs.

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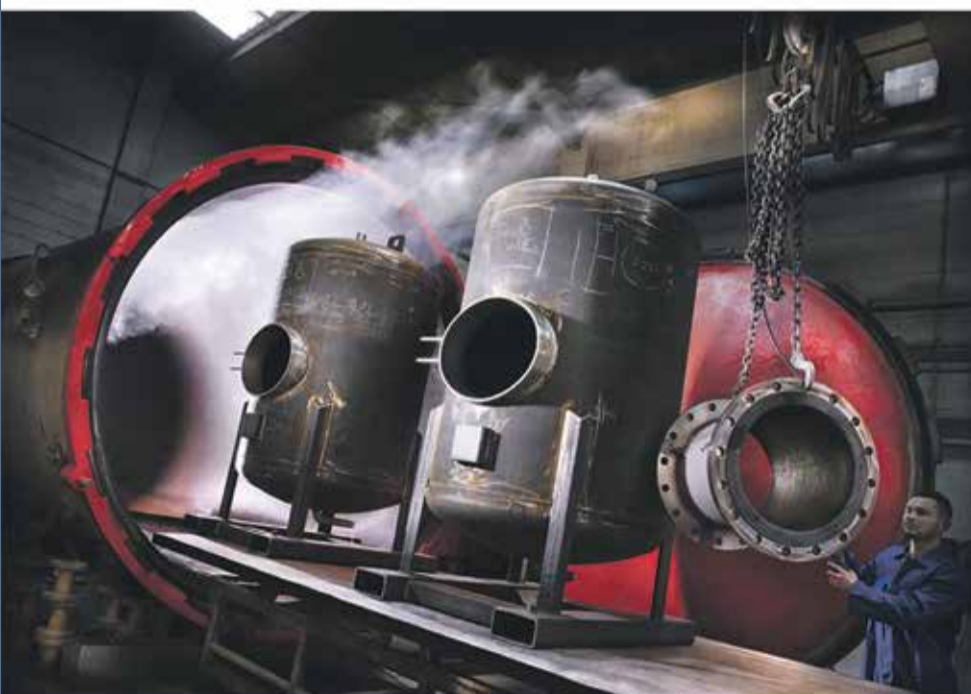
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Rotary Lobe Pumps ensure water recycling in mine

A manufacturer of mobile water treatment systems was in urgent need of high flow flocculant transfer pumps to enable water to be recycled and reused within a mine.

The mine was currently utilising water from a local reservoir, but with storage levels falling below 5%, fresh water supply to a nearby town was at risk of being halted.

North Ridge worked with a manufacturer of a Dissolved Air Flotation (DAF) System to utilise contaminated borehole water with high salinity, within the mine for operational and maintenance services. To achieve this a flocculant was dosed into contaminated water, combining suspended solids within the water, with secondary filtration used to collect and remove



unwanted particles.

The rotary lobe pumps were positioned between the DAF System and the secondary filter, working at a flowrate up to 80m³/hour ensuring mining operation demand was

met and processes unaffected.

Rotary lobe pumps are positive displacement units meaning they will continue to transfer fluid at the required flowrate, despite changes in back pressure which can be experienced as filters become clogged.

The operating speed of the units was a very low 428rpm, meaning the units would operate for long periods of time without maintenance, and with low amounts of wear. Furthermore the gentle operating motion ensures that the transportation of flocculant – which is shear sensitive, is performed without damage, or compromise to process.

For more info, visit: www.northridgepumps.com or phone +44 (0)1773 302660.

New instrument prevents accidental pollution

The detection of accidental contamination and spills into waterways, drains and waste water systems is now vital for environmental, financial and PR security. A lack of monitoring puts many companies at risk.



To meet these needs, Multisensor Systems is launching the MS1900 Monitor, designed to detect fuels, oils and other pollutants in outflows from industrial, food and beverage and transport facilities.

The MS1900 effluent monitor is a vital component in the defence of the environment, the avoidance of heavy fines for illegal discharges and the PR disasters which follow.

Multisensor Systems' MS1900 works in the harshest conditions with long service periods, reducing operating costs and without needing reagents or other hazardous materials. The MS1900 can detect contamination down to 100ppb and samples as frequently as every two seconds.

With a variety of sampling systems to remove the likelihood of blockages the MS1900 offers simplicity of installation and operation, working with 240 VAC or battery power and a variety of communications interfaces. A simple user interface allows programming of functions such as alarm thresholds and sampling frequency and all historical data is easily accessed.

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Water Boreholes and Ground Source Heating

Dragon Drilling is the largest environmental drilling company in the UK and specialises in water and ground source heating borehole installations.

Their services are ideal for most applications, including rural homes, new build, retro-fit homes, leisure facilities, care homes, caravan parks and farms. A water borehole enables you to become independent of mains water, whilst ground source heating is a sustainable energy which allows your property to have a constant heat whilst receiving payments from the Government's Renewable Heat Incentive scheme.

If you have high water or energy bills why not contact Dragon Drilling today for a free site assessment to see how they can start saving you money!

WATER BOREHOLES

If you currently use a large volume of water and face costly metered charges a water borehole can save you considerable sums of money. It also offers an excellent alternative if you have poor water quality or an unreliable supply. Sustainable in drought conditions and offering a reliable pressure, water boreholes can deliver safe, clean water direct to your property. Ideal for farms, caravan parks, leisure facilities and rural homes, water boreholes enable you to become independent of mains water.

Q&A: Water Boreholes

How much space do I need?
"The actual space required for a water borehole may be as small as a driveway. If you can get a Land Rover with a trailer to the drill location, our drilling rig should be able to gain access."

Can a water borehole be installed in a town property?
"Yes, we have installed water boreholes in many urban locations."

Do I still have to pay a water company once a water borehole has been installed?
"No, once installed your water will be supplied free of charge. You will only be subject to the running cost of the pump. If you are on mains sewage, you are still required to pay for this service."

What does the borehole look like at the surface?
"At the surface, we install an ordinary manhole cover, over which you can safely walk and drive."

How do you know if there is a sufficient water supply in the ground?
"We have an in-house geologist who assesses the underlying geology of the site and provides an anticipated drill depth for your borehole. At an additional cost and if required, the British Geological Survey can carry out a third party assessment. We cannot guarantee the quantity or quality of the water."

Is ground water safe to drink?
"Usually but not always. The water source may contain dissolved minerals that need to be removed. We recommend water quality tests are carried out and, if required, the installation of treatment systems."

Do I require a licence to install a water borehole?
"Anyone is allowed to extract up to 20,000 litres per day without a licence. If you require a greater volume of water, you will need an Abstraction Permit from the Environment Agency. We can assist with all licensing matters."

GROUND SOURCE HEATING

Extracting energy from the ground to heat a property is a sustainable use of the Earth's natural resources and could reduce your fuel bills. A few metres below the ground, the temperature is constant throughout the year and this energy can be harnessed to heat your home and water.

The benefits of ground source heating systems include:

- On average, 75% free renewable energy
- Government incentives available
- Fixed and stable energy costs
- Lower carbon emissions
- Constant heat 24 hours a day
- Fuels both hot water and heating
- Directly replaces your existing boiler
- Reversible to provide cooler temperatures in summer
- Can add value to property

Q&A: Ground Source Heating

How much space do I need?
"The actual space required for a ground source heating borehole may be as small as a driveway. If you can get a Land Rover and trailer to the drill location, our drilling rig should be able to gain access."

Can I install ground source heating in an old property?
"Yes, this is possible."

How much will I save?
"You could save up to 75% of your fuel bill."

What does the borehole look like at the surface?
"Each borehole is covered with a manhole of around 15cm"

How many boreholes will I need?
"This depends on how much heat is naturally lost from your building and the

kilowatt capacity of your system. Generally, the bigger the property, the more boreholes you are likely to require. A typical four bedroom property may need two ground source heating boreholes."

If I need multiple boreholes, how far apart should they be?
"Ideally, ground source heating boreholes ought to be situated a minimum of six metres apart to maximise the efficiency of the heating pump system."

Do I need to gain permission to install a ground source heat borehole?
"Not usually. Permission may be required when drilling into an area containing coal. We can assist with all matters relating to permission and licensing."

Bluewater urges sports world to climate action

Water purification leader Bluewater told sustainability change-makers attending the virtual Sports Positive Summit in London in October that sports organisations can play a key role in harnessing the solutions able to tackle throwaway plastic bottle use.



"We know a show of support from the global sports community would send a powerful sustainability message to the general public," said Bluewater founder and CEO, Bengt Rittri (pictured).

Bluewater aligned itself behind the aim of the Summit to unlock the potential of sport to have a positive impact on climate and people and planet and spur the recovery from the COVID-19 pandemic..

"Event organisations and clubs hold the power to change opinion by demonstrating creative solutions that halt planet-wide pollution," said Dave Noble, Bluewater communications director and panelist at the Sports Positive Summit.

Noble noted Bluewater's mission is to create water purification products and solutions that are green, clean, and healthy – and empower sporting organisations to reduce environmental impact. Bluewater's unique water delivery solutions for major sporting events has proven a success at events such as the 148th Open Golf Tournament, Volvo Ocean Race, and Cape Town Marathon.

For more information, contact Dave Noble, Bluewater Communications Director, at: david.noble@bluewatergroup.com or call +44 (0)7785 302694 for information about Bluewater's best practice sustainability initiatives to create a world where everyone has access to safe drinking water.

www.bluewatergroup.com

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Floodex Review – Top Exhibitors

Working exhibits for 2021

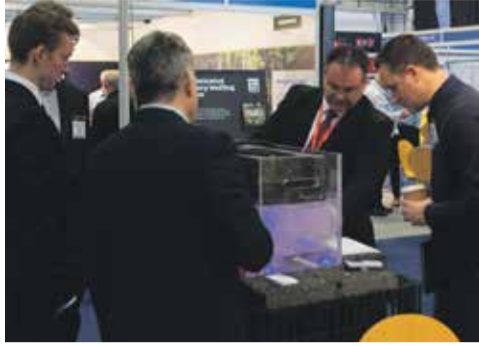
The Floodex organisers have, for the first time, the facility to display working outdoor exhibits at the 2021 event, which is something they believe no similar events currently offer. These will be on limited availability for 2021, so it is advised to book a plot early. As the event goes forward, organisers hope to develop and expand this area, as an added feature for working plant and machinery.

Floodex is delighted to confirm that the 7-8 April dates for Floodex 2021 remain firm, but we have made some contingency plans.

In the unlikely event that the 2m rule may still apply, we have increased aisles to 4m wide and the seminar areas will be made larger and spaced out accordingly, as will any eating and seating areas.

We are also fortunate that, if we have to, we have the facility to move the event back by up to a couple of months, or even switch to a 1 day outdoor event, so whatever happens, Floodex will run.

Visitors can meet senior level people from the Internal Drainage Boards, member flood officers and engineers from the Association of SuDS Authorities, relevant people from the Environment Agency, Local Authorities, engineering firms,



contractors and many others.

Floodex attracts a concentrated audience of high level decision makers and influencers, many of whom you won't get to talk to anywhere else.

This is our pick of the best exhibitors from this year's event, held at Peterborough Arena from 26-27 February 2020, listed here in alphabetical order: Dutypoint & Royal Smals. Further details can be found on this page.

www.floodex.co.uk

Desilting works in an eco-friendly and environmental friendly way

Royal Smals, founded in 1885, satisfactorily completes maintenance dredging works in the UK inland waters. With a specialism in hydraulic cutter suction dredging (20 vessels of which 3 vessels are full electric), the innovative company is a welcome guest for drainage boards and harbour authorities in Western Europe. All with the purpose to restore the capacity of navigation channels and inland harbours (for flood protection and access to the shipping industry).



All dredging operations take place using road transportable small scale cutter suction dredgers (6", 8", 10" up to 600mm) reaching all narrow corners to a depth of 7.5m. Like a vacuum cleaner, gently manoeuvring over the bottom of the waterways, the silt and sediment is dredged up with an articulated swing ladder in an almost noiseless way. By means of pipelines (distance 3km) the material is transported to a lagoon or depository site for dewatering (and re-use?).

The hydraulic dredging approach saves eco life while also reducing the impact of the work on the environment and wider community (no lorries or other equipment on quays or embankments). Royal Smals always wants to be your unburdening partner in water management.

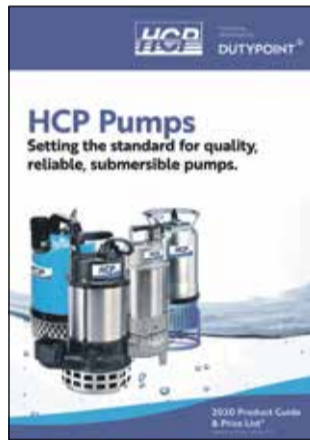
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We have access to a full range of leading manufacturers' pumps and offer many best-selling products from stock. Dutypoint has a production

facility in Gloucester that manufactures a wide range of clean water booster sets, waste water packaged systems and offsite bespoke solutions. Dutypoint offers a wide range of spares and ancillaries to ensure you always have access to parts you need to repair and refurbish your equipment, whether it is spare parts for a pump or components to facilitate installation.

Whatever your challenge, from identifying a 40 year old pump and finding an alternative to providing same day delivery, we'll work with you to find a solution.

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Greenbuild News

Switch to renewables

Homeowners urged to find the energy to switch to renewables ahead of UK climate change target



Renewable energy is becoming the norm and, with climate change now a very real problem, more people are thinking about investing in a renewable energy source. One of the main questions people ask when making the switch to renewable energy is how they can generate their own heat and use it most efficiently. This is where underfloor heating expert Wunda Group plc and its rapid response, 'no need to dig up floors' Wundatherm system comes in.

With climate change targets causing uncertainty for current heating methods, choosing a solution that works with any heat source will give customers peace of mind knowing that they only have to buy once. Wet underfloor heating is a good first step to reducing a household's carbon footprint, and while the country is still deciding on the most cost-effective way to update millions of homes, it is reassuring to know that products like Wundatherm will work with both current and future resources. Wet underfloor heating is one of the only heating systems that runs efficiently with new low energy heat sources. It's already the first choice for many countries, and has been shown to be 25% more efficient than radiators and costs 60% less to run than electric underfloor heating.

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The Grote Geer family home: losing a key will no longer cost us money

With a single iLOQ key, the owner will be able to enter the Grote Geer family home, his own home and his other properties.

Thanks to the consistently high level of security guaranteed by iLOQ, residents at the Grote Geer family home will be able to feel at home even after a threat or unpleasant experience in their own home. But this was not the only reason for choosing iLOQ. The Grote Geer family home provides accommodation for 10 young people who, due to neglect, physical &/or mental abuse &/or other negative experiences, cannot live in their own home. Wim Diepeveen & Anja Reijersen van Buuren see a safe home as a precondition for building a successful future. When converting the former Grote Geer farm, built in 1708, into a family home, they chose iLOQ because a mechanical locking system presented too many challenges for residents that frequently change.

Sustainability and social responsibility are also important to Mr Diepeveen. With iLOQ's digital locking



solution, locks are powered by the motion of inserting the key into the lock – no batteries or cables are needed.

Contact: Ferry Nekkers, Country Manager, iLOQ
T +316 57157577
ferry.nekkers@iLOQ.com

iLOQ co-operation with Kaløvig Bådelaug

iLOQ has started co-operation with Kaløvig Bådelaug sailing club in Denmark.

With the signed agreement, Kaløvig Bådelaug is in an even better position to equip its properties with iLOQ's unique digital locking and access control solutions.

"iLOQ solutions enable Kaløvig Bådelaug to better maintain the safety of property and enable flexible access control in different situations. For example, iLOQ's locking system allows for the remote removal

of lost keys, keeping the security of the system always up to date. Access rights for the winter swimming facilities, kayaking department and sailing club can be programmed to the same key," explains Allan Rundberg, Captain of the harbour in Kaløvig Bådelaug.

"For us, this is an important cooperation and shows how significant our customers perceive the benefits of digital access management in their own operations," states iLOQ Denmark Sales Manager, Rasmus Lassen.



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Start your renewable energy journey with Waxman

Sustainability Today is proud to announce that Waxman Energy has been selected as our Renewable Energy Company of the Month.

As an award-winning renewable energy company, Waxman Energy is one of the UK's largest distributors of PV modules, battery storage, inverters and mounting systems.

"We offer a personable service suited to the needs and wants of each installer," explained Sarah Wallace, Sales Director. "From design right through to delivery and after sales support, our fantastic team is available over the phone, via email and on Zoom which in turn, has meant we have built strong relationships with our customers that last. Our extensive warehousing facility allows us to hold large stocks onsite, giving us the ability to supply for larger installations quickly and efficiently.

"We also offer free full product training within our training academy, ensuring installers are confident in the products they sell and install and can be assured we will only supply quality products at affordable prices. We also offer an in-house design service saving installers both



time and money and eliminating the need to shop around.

"The most recent addition to Waxman Energy's portfolio is the Alpha ESS – a cost-effective battery solution that is simple and easy to install. This has proven to be extremely popular within the industry and has given the installers we work with a great opportunity to sell a fantastic product, helped by our free Alpha ESS product training for both domestic and commercial projects."

Of course, this year has seen many challenges following COVID-19 and the nationwide lockdown, and Waxman Energy has quickly adapted to ensure installers still have access to training. "We now run regular webinars on Zoom," Sarah said. "Many of our customers were initially on furlough, so we gave them opportunities for online learning. This means when they return to work, they will have the tools they need to pursue sales leads confidently."

In fact, Waxman Energy has just finished its Autumn Webinar Series, which featured 10 weeks of weekly webinars jointly hosted by



some of the biggest solar manufacturers across the world, covering solar panels, EV charging, roof mounting systems, solar energy storage, and commercial funding. The webinars provided the tools and support needed to adapt to the ever-changing solar market without the need for installers to travel to Waxman Energy's site.

And, these webinars are not the only developments Waxman Energy has experienced from the COVID-19 pandemic. "Now that everyone seems to have come to terms with the



virus being around for some time, the industry is really bouncing back. Global warming and reducing the carbon footprint has really been emphasised during the pandemic. People seem to have slowed down their everyday life and actually looked around them, and finally realised something needs to be done."



So, what about the post-COVID green recovery? Is it feasible? "Of course," Sarah said. "I think more so than ever now. If COVID has done anything it has highlighted that we the human race are not invincible, and we need to look at the way we live and how this affects our only home – planet Earth.

"What better way than to relieve fuel poverty, boost the economy and get people into skilled work, while at the same time reducing our CO₂ emissions, pushing green energy, offering incentives, funding and offering free training? It can tick so many boxes at the same time."

If you're interested in discovering Waxman Energy's full-service package and how you can help secure the future of our planet, head to the website or get in touch.

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