

MEET OUR HARTPURY TECH BOX & BARCLAYS EAGLE LABS COHORT101

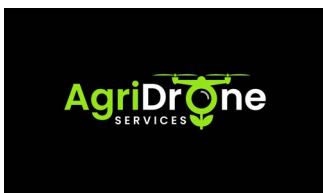
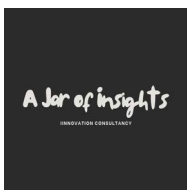
SMEs soaring into the agricultural industry



An innovative group of pioneering businesses are embarking on an agricultural adventure, fuelled by a partnership between Barclays Eagle Labs and Hartpury University. This unique collaboration, supported by the Department for Science, Innovation, and Technology, equips SMEs with fully funded memberships at Hartpury Tech Box Park. Here, they receive comprehensive support to navigate the industry's challenges and opportunities.

From sensors data and IoT to vertical farming and compostable packaging, these diverse ventures are poised to revolutionise agriculture.

With tailored scale-up services and a vibrant ecosystem, they're primed to connect, grow and scale in this dynamic sector - marking the beginning of an exciting journey into agricultural innovation.





A Jar of Insights

Iryna Okhrymenko

www.jar-of-insights.com

Our mission is to help small businesses thrive by crafting customer experience strategies that resonate, engage, and inspire loyalty. With a foundation in Design Thinking and a keen understanding of the customer journey, we specialise in creating experiences that leave a lasting impression: from brand interactions to post-purchase support. Our approach is rooted in gathering deep insights into your customers' needs, preferences, and behaviours. By analysing data, conducting customer research, and leveraging innovative methodologies, we can help you uncover valuable insights to inform your strategy. By applying customer experience strategies to the agriculture sector, I can help agricultural business understand the needs and preferences of their customers, whether they are consumers, distributors, or retailers.



“We are your partner in innovation, dedicated to transform agriculture business through the power of Design Thinking. We focus on problem solving and value creation for both your business and your customers. By putting the customer at the centre of the innovation process, we can ensure that every strategy we develop resonates deeply with your target audience, whether they are consumers, distributors or retailers.”

Iryna Okhrymenko,
Founder



Advantronix
Matt Hamilton

www.advantronix.co.uk

Advantronix Solutions is at the forefront of innovation, empowering industries with AI-driven solutions that drive efficiency, productivity, and profitability. At Advantronix, we are passionate about harnessing the power of AI and automation to transform businesses and improve lives. Our AI implementations have helped businesses across diverse industries achieve increased efficiency, reduced costs, improved quality, and accelerated growth.

With our deep understanding of cutting-edge technologies and extensive industry knowledge, we develop advanced solutions tailored to meet the unique needs of our clients. We excel in leveraging the capabilities of artificial intelligence and automation to streamline processes, automate repetitive tasks, and enable intelligent decision-making. Our team is adept at developing AI algorithms, machine learning models, and robotics systems that optimise efficiency and unlock new possibilities for businesses.



AgriDrone Services – DR1 Aerial Ltd

Jack Hind

www.agridroneservices.farm

AgriDrone Services is a leading provider of precision farming aerial solutions. Based in North Yorkshire, we take advantage of the latest drone technology to improve efficiency on farm.

Our crop health scanning service can help detect in-field issues up to two weeks in advance before any visible change, highlighting problem areas in their early stages to mitigate any potential losses. By utilising this on farm, not only does it improve crop yield and reduces costs on inputs, but with the upcoming rollout of the SFI 2024 agreement, you could also claim up to £70/ha for nutrient and weed management.



“We are now able to take AgriDrone to the next level and open up our services to a much wider network of innovative farming professionals.”

Jack Hind,
Director and Drone Operator



AgriEnable

David Farley

www.agrienable.co.uk

Founded in 2022, AgriEnable is a bespoke consultancy service working with stakeholders across the supply chain from field to fork. We believe in the ability of every business to uncover its potential and find optimal performance. All too often what's missing is support: the right kind, in the right place, at the right time. We add value to clients through first-hand working insight and perspective gained from a 25 year career including senior leadership roles across the supply-chain – from primary agriculture, supply-chain management, retail supply, processing and general management.

Our bespoke proposition means that we do not offer 'template' solutions. We prefer to engage with potential clients to understand their challenges; before tailoring a proposal that can deliver. Services include – business appraisal, troubleshooting and change management; new enterprise research and planning; collaboration and project management.



“AgriEnable specialises in delivering change for food and farming clients. Increasingly, the pragmatic application of technology is the agent for change. To this end, the Tech Box community is a logical fit for our business, and we are really excited about networking, and eventually collaborating with other members and stakeholders.”

David Farley,
Principal Consultant & Director



Persona Systems Ltd

Jim Goodman

www.agrimax.uk (*Website under development*)

www.personadesktop.com

Persona Systems proudly presents AgriMax, a groundbreaking IoT hub and cloud platform tailored for the agricultural sector. Designed to revolutionise farming through advanced technology, AgriMax offers unparalleled precision, efficiency and connectivity. By integrating real-time data analytics, AI-driven insights, and seamless third-party AgriTech product integration, we empower farmers, educators, and industry stakeholders to optimise operations, enhance productivity, and navigate the complexities of grant management.

AgriMax is more than a product; it's a commitment to sustainable and innovative farming, ensuring every stakeholder in agriculture has the tools to thrive in today's dynamic environment.



Bio Natural Solutions (BNS)

Miguel Malnati

www.bionatsolutions.com

Bio Natural Solutions (BNS) is a company focused on product innovation for the agri-food sector, to help reduce food waste and combat climate change. We want to change the world through biotechnology, creating sustainable and innovative solutions that provide a positive impact on the environment and society from the reuse of organic waste from agribusiness. We add value by transforming agribusiness waste such as peels and seeds that are trash today, creating solutions that improve the quality of the same fruits in post-harvest. We generate value from waste and avoid the use of harmful chemicals. The technology is patented globally, and we have a presence in five markets globally.



BioViron International

Bruce Bodio

www.bioviron.com

BioViron International has established itself as a 'one stop' source for companies and the public sector organisations in delivering environmentally friendly products that support a reduced carbon footprint, as well as a zero-plastic solution to modern day material and packaging needs. We offer industries and businesses 100% plant-based compostable and biodegradable film, foam, and form for packaging and protection.

Our four products offer a great replacement for polyethylene and polyurethane foams, alternatives for polystyrene and plastic films used for wrapping and protecting, as well as a sustainable option to replace fossil-based plastics such as polypropylene. These are 100% compostable and biodegradable and offer one of the best alternatives to plastic packaging.



"We are working with the Tech Box to establish a testing programme for two of our materials for use as tree guards and certain crop protection."

Bruce Bodio,
BioViron International



Carbon Magics Ltd
Karikalan Sekar

www.carbonmagics.com

Carbon Magics specialises in sustainability and engineering solutions, offering services such as carbon footprint and greenhouse gas emissions assessment, ESG reporting, product design, modelling and simulation, data science and data analytics. Our current research includes soil carbon measurement systems and leveraging advanced sensors for precise data. Our pipeline development includes drones for remote sensing, digital mapping, solar panel inspection and cleaning for optimal performance. We also offer accounting and payroll services tailored to agricultural businesses, cottage owners and farmers. With these end-to-end capabilities, we are able to empower our clients in their journey towards zero-carbon and sustainability goals.



“As a scale-up company, I benefit greatly from the incredible support of Hartpury’s academic expertise that complements our access to the best training opportunities and access to Hartpury’s drone-friendly working farm to enable our field tests.”

Hamsapriya Vijayakumar,
Director & Founder



Dexdyne Ltd

Bharat Gupta

www.dexdyne.com

Dexdyne is a well-established provider of end-to-end IoT solutions. Our IoT hardware, combined with platform-independent Cloud based Dashboard software, gives the user an easy-to-use solution to monitor and control remote plants and processes anywhere in the world. Our system integration service offers a quick and efficient route to Cloud-enabling your project. Captured data can be visualised and also analysed to create process insights. Dexdyne's Cloud hosting services and Dashboard can be located on any platform such as Microsoft Azure and AWS. Our service permits an unlimited number of users at no extra cost.



“Partnering with Hartpury provides an ideal opportunity for us to network and co-operate with farmers and forward-looking companies in the South West operating in the Smart Agriculture sector.”

Bharat Gupta
Managing Director



Ento U.P Ltd
Emma Strong & Mike Bolton

www.entoup.co.uk

Ento U.P are organic and ethical breeders of mealworms, for alternative proteins, organic fertilisers, and waterproof packaging films. We provide sustainable options for a wide audience, using mealworms and their naturally occurring by-products. We started the business because we wanted to provide alternative, environmentally sustainable options for health-conscious individuals who wanted to make changes in their lifestyle.

The main benefit of mealworm derived products is that they are high in nutrients. Organic fertiliser made with mealworm frass is high in nitrogen, phosphorus, and potassium. Farming mealworms requires a lot less space compared to a normal livestock farm, helping to prevent deforestation and the loss of natural habitats.



“We’re excited to join the Tech Box community so that we can design, build and develop into a scalable business to benefit UK farming.”

Emma Strong and Mike Bolton,
Founders, Ento U.P Ltd



AJW Solutions – Equi-Pad

Andy Western

www.ajwsolutions.org

Equi-Pad is a sustainable, holistic product that harnesses the power of nature's sources, this product is carefully formulated with wool extracts, and other sustainable materials renowned for their beneficial properties and harmless ingredients. This product is crafted to promote positive wellbeing, while minimising the risk of adverse effects.

By embracing Equi-Pad, we acknowledge the interconnectedness of various aspects of horse play, including mental, and emotional wellbeing. It strives to support this delicate equilibrium, allowing horses to thrive in an environment that respects their innate nature and promotes their wellbeing balance. Equi-Pad aims to synchronise all aspects of horse interplay, ensuring the playful interaction, calming approach to work together seamlessly to create a symphony of wellness within our equine companions.



CIRCULAR DESIGN DEVELOPMENTS

Forest Retrofit Ltd

Marcus Morley-Jones

www.forestretrofit.com

Forest Retrofit Ltd is a Joint Venture Partnership between The MF Freeman Group & Hemspan Ltd - pioneering new biocomposite materials and innovative building systems that empower both the local agricultural and construction industries.

Lead by CEO and Entrepreneur Marcus Morley-Jones, Forest Retrofit has gained support from the Barclays Eagle Labs and Hartpury Innovation Farm Accelerator Programme to launch its groundbreaking Circular R&D initiative. The programme will showcase the BIOHAUS® Standard within the local new build sector and bio-alternative carbon negative insulation materials in the swelling retrofit market. The JV is focused on making sustainable and affordable housing a reality by utilising hemp biofibre as its primary building fabric.

The organisation has secured a pilot site in Newnham-on-Severn to trial the BIOHAUS® System and will work closely with the university to identify a sustainable retrofit testbed on campus.



“The (bio)construction industry has never been more ready for positive, meaningful change and we at Forest Retrofit are proud to be at the forefront of this evolution here at Hartpury.”

Marcus Morley-Jones,
Co-Founder, Forest Retrofit Ltd



JB Unmanned Aerial Systems (JBUAS)

Jonathan Brindley

www.jbuas.co.uk

JB Unmanned Aerial Systems (JBUAS) is working with industry partners, commercialising drone-based sensor solutions. As the UK authorised partner for UgCS Integrated Systems, they support businesses and organisations to innovate using geophysical sensors. These include methane gas detectors, ground penetrating radars (GPR), magnetometers, bathymetry echosounders, water velocity and level sensors, as well as other sensor systems. JBUAS provides thermal cameras for a range of inspection and survey applications including surveys of crop health. JBUAS also provides a range of drone software including the innovative AI driven DroneGIS. DroneGIS with its innovative AI engine, has proven invaluable for many applications in agriculture and horticulture.



“Growing up around a farming community in rural Lincolnshire, I have seen first-hand how technology has become a facilitator for farming success. JBUAS aims to explore how the introduction of new drone geophysical sensor technology can provide practical solutions and deliver tangible value to farmers in their everyday operations. The Hartpury Tech Box Programme is clearly the enabler for JBUAS to achieve this aim and we look forward to being a part of it.”

Jonathan Brindley,
JB Unmanned Aerial Systems (JBUAS)



L4 Agriculture

Ryan Lanfear

www.l4agriculture.co.uk

L4 Agriculture is a startup agricultural business specialising in the sale and rental of tractors, trailers and agricultural machinery to support local farmers in optimising their operations. Located outside Gloucester, our business aims to fill a gap in the market for reliable, high-quality equipment and exceptional customer service. With a focus on sustainability, community engagement and customer satisfaction, we are poised to become a trusted partner for farmers in the region.

We will operate as a full-service agricultural equipment provider, offering a range of tractors, trailers, and related accessories for sale and hire. Our inventory will include both new and used equipment, catering to the diverse needs and budgets of our customers. Additionally, we will offer maintenance and repair services to ensure the longevity and efficiency of the equipment we provide.



MyOxygen
Andrew Farmer

www.myoxygen.co.uk

MyOxygen/ is a bespoke web and mobile app developer based in Bristol. In over 14 years of enterprise mobile app and web development, we have imagined, designed, built, and supported applications for some of the largest and most trusted organisations in the UK. Our mobile and web app development is a managed process, meaning you work with a technical partner who unpicks the complexities of security, hardware, and connecting to IoT and the digital space. User research and data will guide the evolution of your web & mobile app, to develop a secure, reliable, results-driven solution to a specific problem your business faces. We are developing a new platform called ARK which is a real-time nutrient management and pollution reduction platform which will support farmers and agricultural businesses.



Smart Oasis Farm (UK) Ltd
Robin Brownsell

www.smartoasis.life

Smart Oasis is on a mission to serve and support local communities, small and medium food growers, burdened to grow the majority of fresh produce globally. Our objective is to make food growers profitable and more resilient to face the impact of climate change. Our bespoke solution is tailored around restricted access to key resources such as land, water, energy, and labour. We offer technological, commercially viable solution that has a potential to function off grid connected to renewable energy sources, independent of water supply and with connectivity enabled. We developed modular controlled environment farms within thermally insulated super-structures, powered by a combination of CEA technology and comprehensive aeroponics irrigation. Our modular farms have a high level of automation. By speeding up the photosynthesis process we are able to intensify plant growth.



“We are excited to be involved with the Hartpury community and look forward to being able to showcase our technology to UK food producers and our customers from around the world. It’s great to be associated with a visionary centre of excellence and exploring how we can provide essential training for the CEA food producers of the future.”

Robin Brownsell,
Director, Smart Oasis Farm (UK) Ltd



Stonehealth Ltd
Angela Southern

www.stonehealth.com

Since 1989, Stonehealth has become the UK leading manufacturer of commercial systems presently used for masonry cleaning, for sensitive stonework restoration and conservation.

Stonehealth cleaning systems operate with super-heated steam at a temperature of 150 degrees centigrade. With on-going research and development, we have for some time believed this system could be used in the agricultural sector. We know that farm sterilisation is an important practice for protecting animal health and preventing the spread of disease and pests.

Our requirement will be for trials and lab testing to ascertain the performance of our systems to sterilise without the use of chemicals, as environmental impact continues to be a huge consideration for us and a key factor in our on-going development. Our machines will operate with red diesel and we are also researching other forms of clean energy and this will be available in the market soon.



Stroud Brewery

Greg Pilley

www.stroudbrewery.co.uk

Stroud Brewery is a dedicated organic brewery and a B Corps enterprise. We make a diverse range of beers sold in cask, keg and cans. The quality, provenance and environmental impact of the agricultural raw materials has always been an important consideration for the business. We value regenerative practices that work with nature and benefit the entire community. Our mission is to make outstanding organic beer and bring people together to inspire positive change.



“Through the Tech Box, we hope to strengthen our connection with the farmers that produce our ingredients and communicate our shared vision for a regenerated and productive landscape in the UK.”

Greg Pilley,
Managing Director



The Wild Hare Group Ltd
Dominie Fearn

www.thewildharegroup.co.uk

The Wild Hare Group is a carbon neutral ready meal company that creates sustainable dishes that are prepared with passion using the freshest ingredients sourced from reputable farmers. Our meat comes from grass-fed animals who are reared outdoors, and our poultry from high-welfare farms. We also use old-fashioned cuts of meat to capture that rich, unique flavour.

Wild Hare was introduced as a means for producing healthy, nutritious, sustainable dishes in order to simplify mealtimes in busy households. By implementing lots of ways to become fully sustainable and carbon-neutral, whilst supporting local farmers, Wild Hare is ensuring that sustainability and nutrition are prioritised when it comes to convenience meals. From sustainably sourced produce to recyclable packaging, Wild Hare is committed to providing environmentally friendly meals for families.



VerFacil
Rob Cartwright

www.verfacil.co.uk

We are a hardware solutions developer using long range wireless LoRaWAN, low power cellular NB-IoT and LTE-M as well as new low power satellite technologies to provide remote monitoring solutions on farm such as gate security, slurry management, bore hole depth and water management as well as energy saving solutions. We design automation control systems, create wiring diagrams, manufacture control panels, carry out the electrical installation, engineer the software strategies and commission the building management system into service. VerFacil Ltd supply and install LoRaWAN gateway antennas at dairy farm facilities and install a wide range of low power long range sensor devices to collect valuable data across these farms to benefit the dairy and environment sector.

