

Ideas to Reality 2020

#I2R2020



Ideas to Reality 2020

A showcase and celebration of our academics' success in commercialising the results of their research and expertise through consultancy, licensing and company creation.



Event themes:

Drug discovery

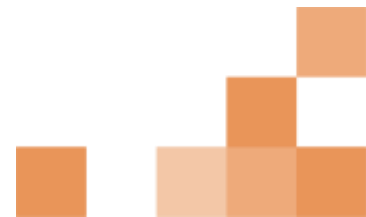
**Sustainable
solutions**

**Arts, Humanities,
Social Sciences &
social enterprise**

**Collaborations &
partnerships**

Leading the way

Global impact



"Cambridge Enterprise has invested in all of my five spin-offs and this was key to our success. They have not only been an investor but more like a founder, putting energy, enthusiasm and soul into the spin-offs."

Professor Florin Udrea
Department of Engineering



Drug discovery





Founded by Dr Freya Jephcott from the Department of Veterinary Medicine, Univursa seeks to solve the problem that outbreaks are easiest to control when they are in their earliest stages, but many low and middle-income countries lack adequate infrastructure to diagnose, detect, and respond to them early on.

Univursa is building a lightweight application that helps outbreak responders process data, predict an outbreak's cause, and collect more informative data. When tested on historic data, their algorithms can already predict outbreak causes more reliably than anything on the market, including the system currently used by the World Health Organization (WHO).

They are working with public health partners to start field testing shortly.

Univursa aims to become a platform for translating academic epidemiological innovations into tools for health impact.

In this current pandemic these tools are more important than ever.

Based on the work of Professor Jim Huntington (Cambridge Institute for Medical Research) and Dr Trevor Baglin (Cambridge University Hospitals), Apcintex is developing a new therapy for haemophilia.

Apcintex's drug, SerpinPC, helps blood to clot by inhibiting an anticoagulant enzyme, activated protein C, instead of replacing the missing coagulation factor. This unique mode of action results in a reduction of blood loss.



2014

ApcinteX is spun out of the University of Cambridge.

February 2020

Dosing of the final cohort of healthy volunteers (Part 1A of the study) is completed.

March 2020

ApcinteX announces the first dose of SerpinPC in a haemophilia patient following successful completion of dose escalation in healthy volunteers. The study, known as AP-0101, is now open to trial patients with severe haemophilia A and B, with or without inhibitors (Part 1B of the study). Patients who participate in this stage of the trial will have the option to continue into the six-month, multiple dosing Part 2 of the study, scheduled to begin in summer 2020.

October 2019

ApcinteX begins dosing in a Phase I/II clinical trial with a single ascending dose of its investigational drug SerpinPC. The principal aim of the clinical trial protocol is to test the safety and tolerability of SerpinPC in healthy volunteers and people with haemophilia.

Co-founded by Professor Ken Smith and University of Cambridge researchers, PredictImmune develops pioneering prognostic tools for guiding treatment options and improving patient outcomes in immune-mediated diseases. In July 2019 PredictImmune announced the completion of a £10m Series B funding round.

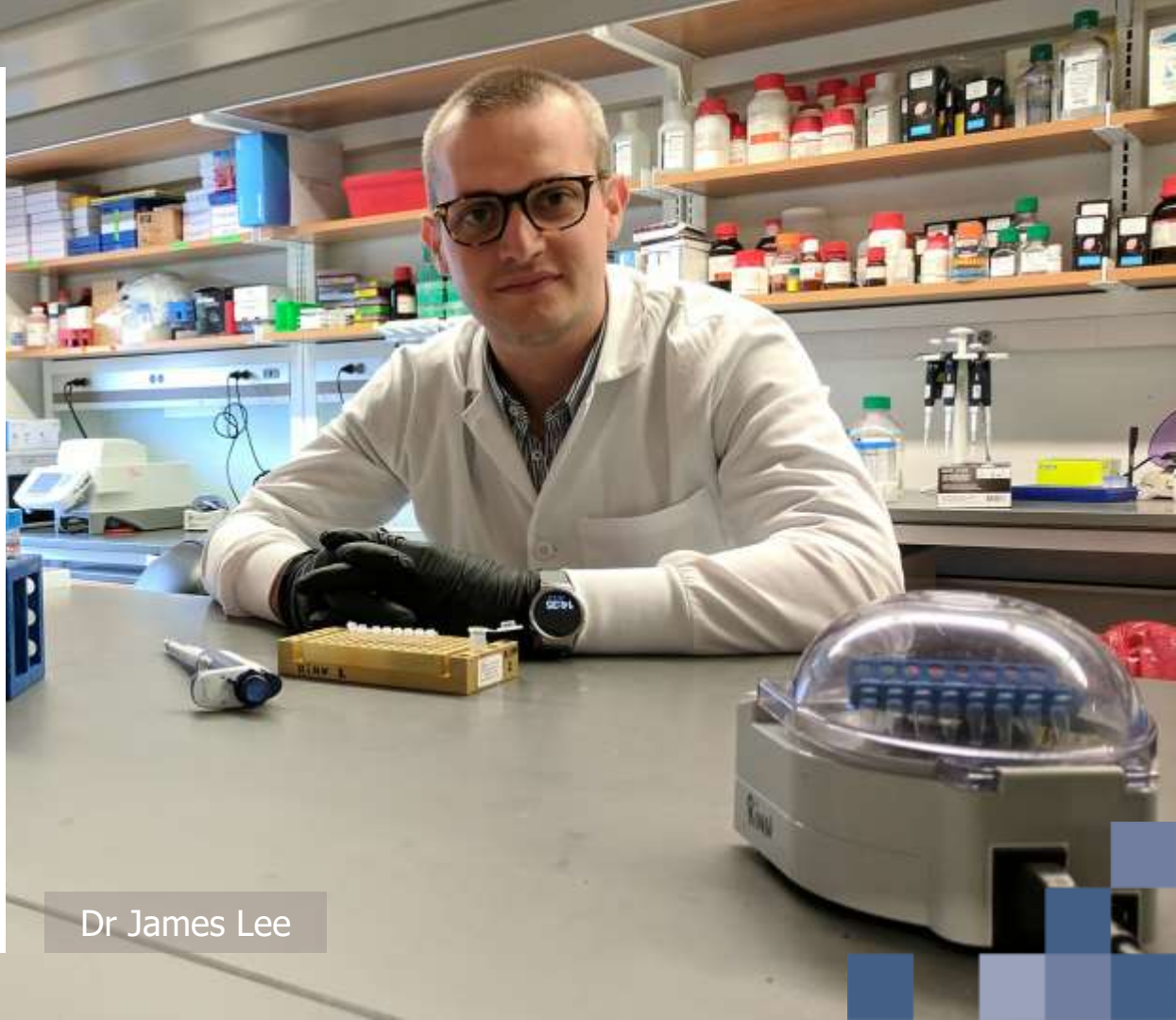
PredictImmune's first prognostic product, PredictSURE IBD™, is the world's first, truly validated and CE-marked prognostic test for guiding treatment options in Inflammatory Bowel Disease (IBD).

The logo for PredictImmune, featuring the word "predict" in a teal, lowercase, sans-serif font with a stylized "E" that has three horizontal bars. Below it, the word "IMMUNE" is written in a smaller, uppercase, black, sans-serif font.

predict
IMMUNE

The new investment will enable commercial expansion across the UK, Europe, USA and rest of the world. It also allows the organisation to expand its product development and existing activities in IBD (Crohn's disease and ulcerative colitis) and a range of additional autoimmune areas including Systemic Lupus Erythematosus (SLE).

The objective is to build a portfolio of new products to complement and enrich PredictImmune's prognostic test pipeline in the coming years.

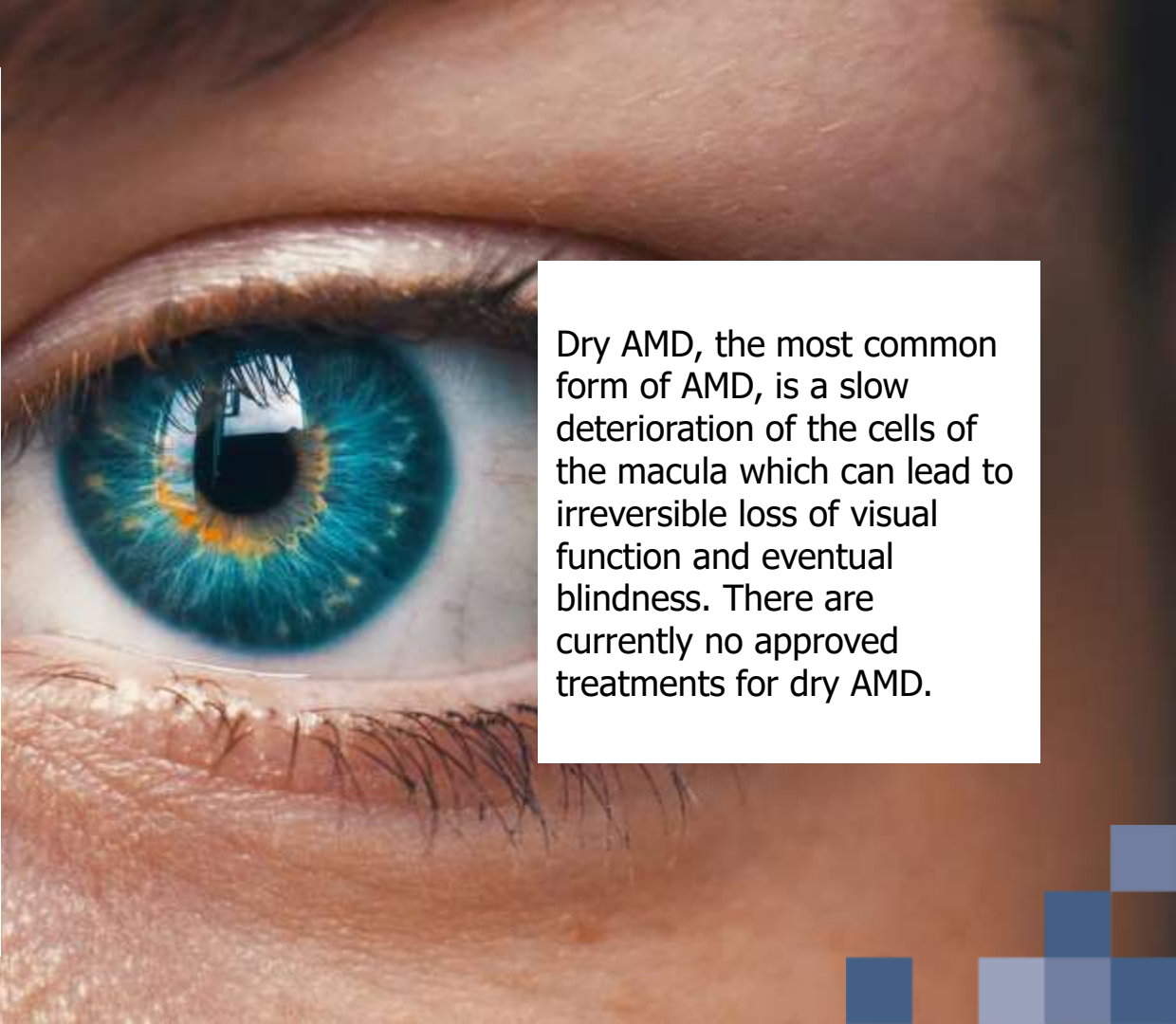


Dr James Lee



Gyroscope Therapeutics is an ophthalmology company that develops genetically defined therapies and surgical delivery systems for retinal diseases. Their lead product (GT0005) uses a novel therapeutic approach in dry Age-related Macular Degeneration (AMD).

AMD is one of the leading causes of blindness. By the end of 2020, an estimated 196 million people globally will have AMD.

A close-up photograph of a human eye with a vibrant blue iris. The pupil is dark, and there are visible signs of macular degeneration, including yellowish-orange deposits (drusen) and some retinal discoloration around the macula. The surrounding skin and eyelashes are also visible.

Dry AMD, the most common form of AMD, is a slow deterioration of the cells of the macula which can lead to irreversible loss of visual function and eventual blindness. There are currently no approved treatments for dry AMD.

2016

Gyroscope Therapeutics spins out of the University of Cambridge. A significant portion of Gyroscope's founding intellectual property arises from the work of the laboratory of Professor Sir Peter Lachmann (Veterinary Medicine, Emeritus).

September 2019

Cambridge Enterprise sister organisation Cambridge Innovation Capital (CIC) joins lead investor Syncona Ltd in Gyroscope's £50.4m Series B funding round.

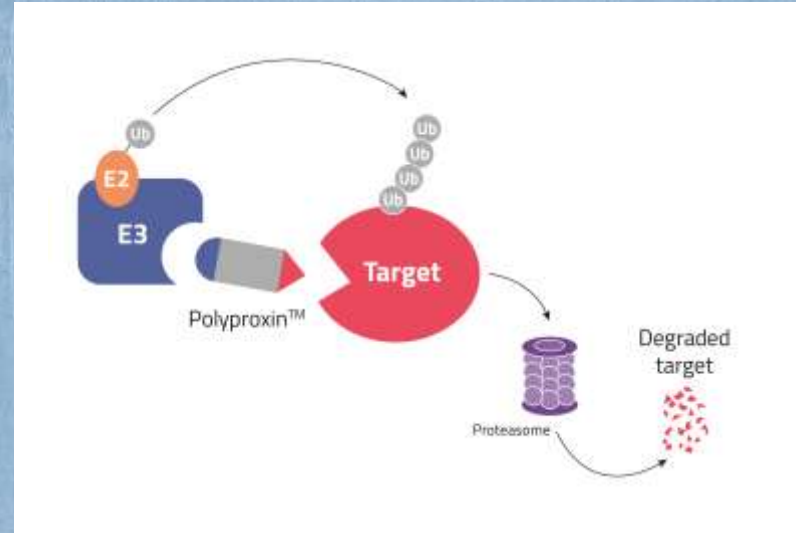
February 2019

Gyroscope announces that the first patient had been successfully dosed in a Phase I/II clinical trial to assess the safety and biological activity of GT0005.

POLYPROX THERAPEUTICS

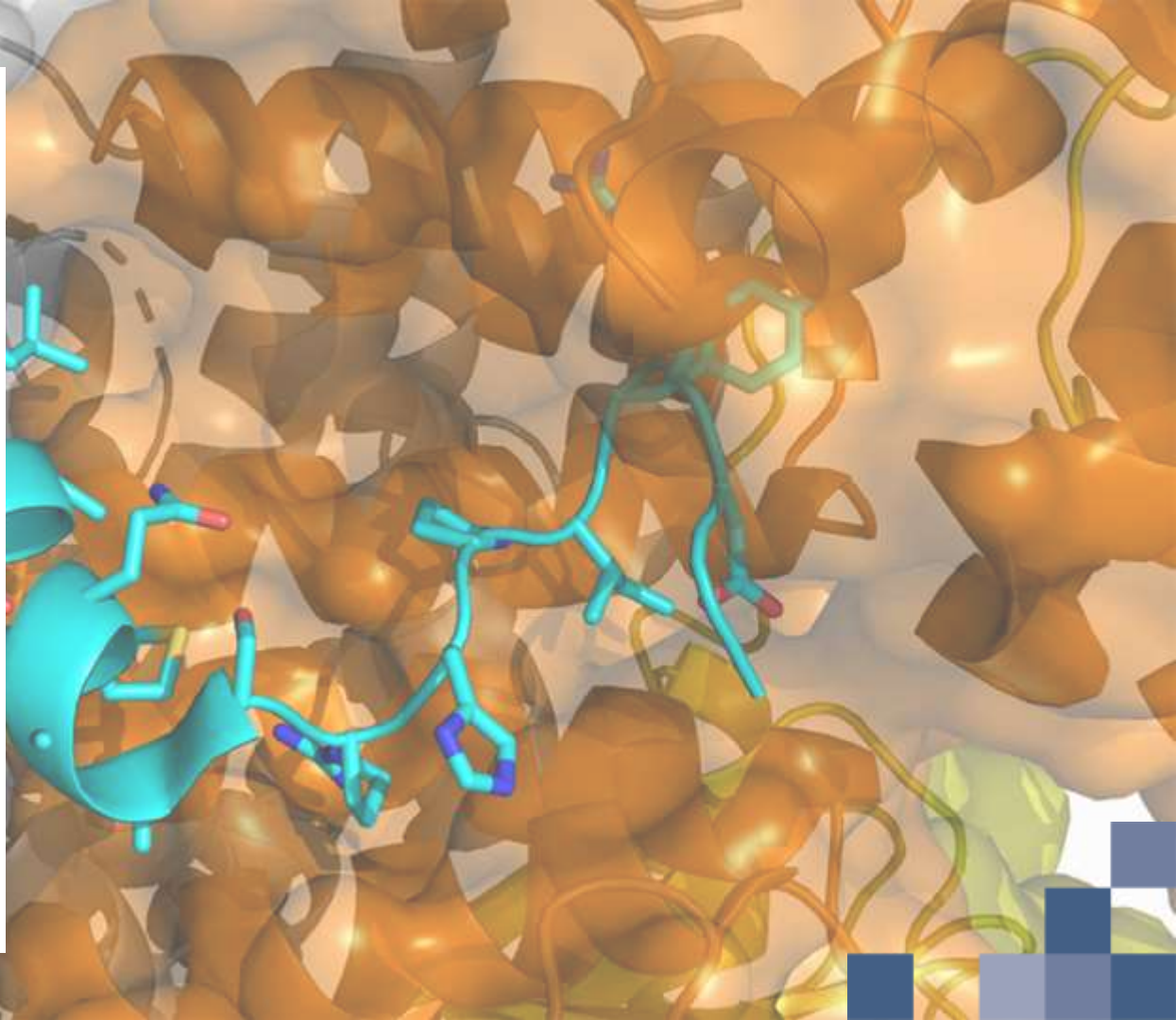
Founded in 2018, PolyProx Therapeutics is a spin-out of the Department of Pharmacology and is based on over a decade of research and IP from founder Professor Laura Itzhaki's lab.

They are developing a new class of drugs called Polyproxin[®] molecules, that selectively target disease causing proteins and use natural cellular pathways to destroy them.



In April 2020, PolyProx Therapeutics announced it had raised an impressive seed round of £3.4 million. This funding will support research operations to validate the technology across a range of tumour targets over the next two years.

The protein-degrading drugs they are developing are not just potential cancer treatments. They could also help treat other diseases involving faulty proteins, such as Alzheimer's disease.



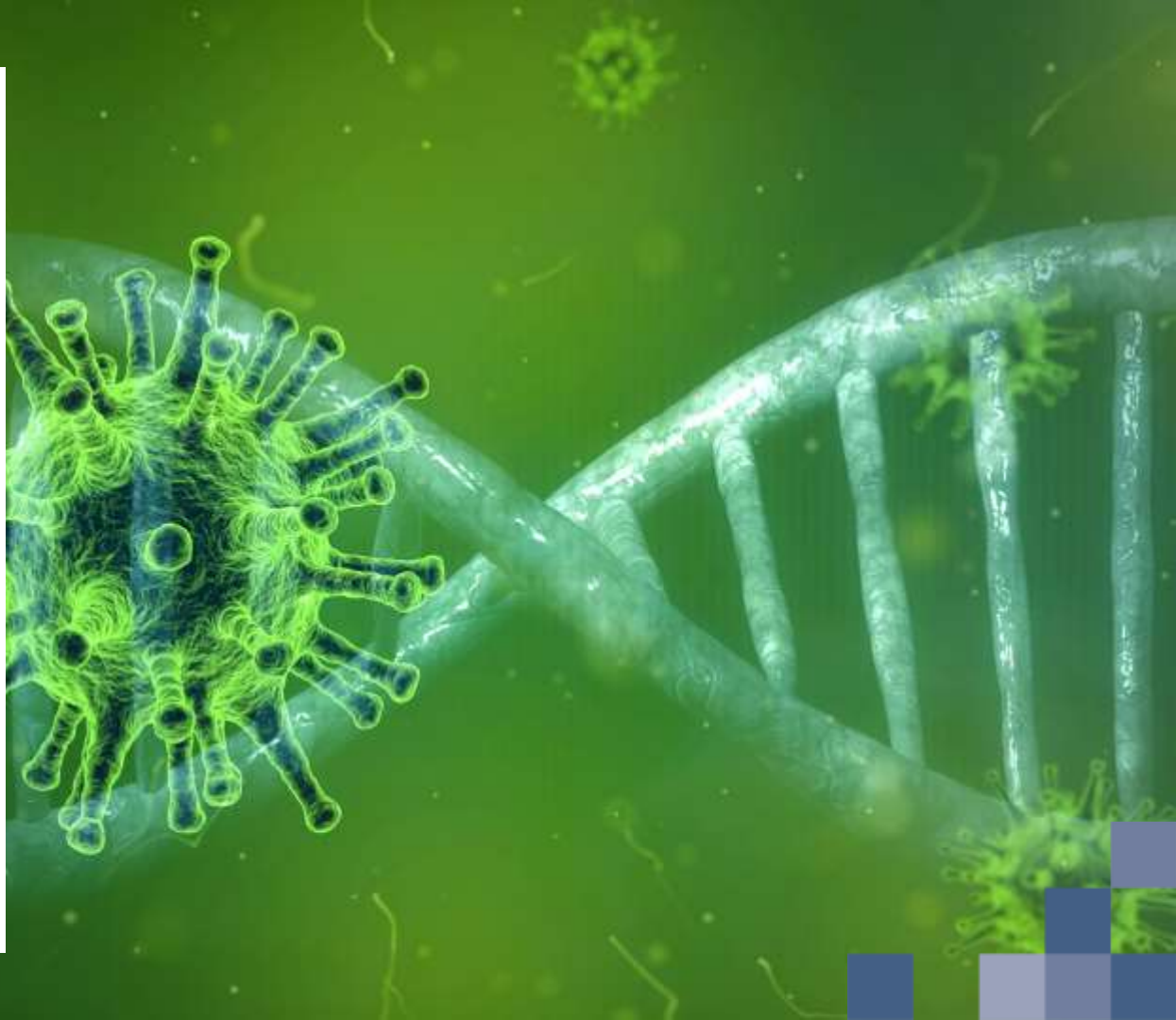
“Without the intellectual input and strategic, business and IP know-how of Cambridge Enterprise, I would not have been able to realise the commercialisation of my research. It has been a great privilege to work with them. They are most definitely unsung heroes of the University.”

Professor Laura Itzhaki
PolyProx Therapeutics

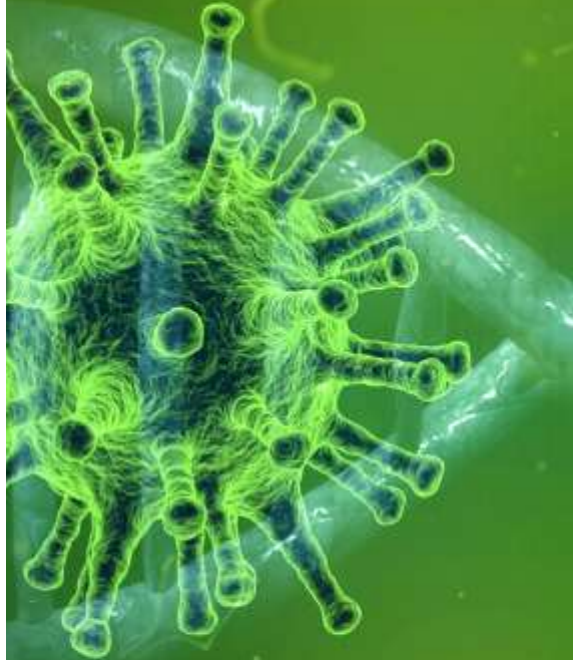


DIOS VAX

Founded by Professor Jonathan Heeney and his team in 2017, DIOSynVax sought to solve the problem that over the years, vaccine development has primarily focused on vaccine delivery. Research into the antigen, the key component of a vaccine that directs our immune system to protect us, has not been optimised to its full potential.



DIOSynVax has developed a novel, innovative technology platform to accelerate the production of more effective vaccines. The focus is to identify and target vulnerabilities within the genetic sequence of related viruses. Using sequence data from outbreaks with computational modelling and synthetic gene technology, optimised vaccine antigens are generated.

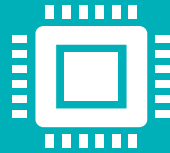


The end result is a vaccine that induces an increased breadth of protection for future outbreaks and has applications to many infectious diseases, from seasonal flu to Ebola and most recently SARS-CoV-2.

Useful Links:

Univursa	Univursa website
Apcintex	News: Apcintex begins dosing haemophilia patients in second part of clinical trial
	News: Apcintex starts clinical trials of novel haemophilia drug
	Apcintex website
PredictImmune	News: PredictImmune closes Series B funding round raising £10m
	PredictImmune website
Gyroscope Therapeutics	News: Cambridge Innovation Capital makes investment in Gyroscope Therapeutics
	News: Gyroscope Therapeutics raises £50.4m in Series B funding
	Gyroscope Therapeutics website
Polyprox Therapeutics	Case study: Polyprox Therapeutics - A new class of drugs to halt difficult to drug cancers
	PolyProx Therapeutics website
DIOSynVax	News: University spin-out works towards vaccine against COVID-19
	DIOSynVax website

Sustainable solutions



Lithium-ion battery performance is a critical bottleneck for sustainable electrification of electric vehicles and other applications. Current lithium-ion batteries are limited in how fast they can charge due to safety risks. This leads to large, expensive and inconvenient power packs for the end-user.

Two University of Cambridge spin-outs have each developed novel solutions to this problem.



Founded by the Boies and De Volder research groups, Echion Technologies have developed a portfolio of advanced battery active materials.

These new materials provide: ultra-fast charging, high energy with no need to sacrifice energy for power, a sustainable solution, safe charging without dangerous lithium dendrites, and a cost-effective solution, which will accelerate the mass-market electrification movement. They are engaging with chemical and battery cell manufacturers to integrate the new material solutions into the manufacturers' next-generation products.



Jean de La Verpillière



CB2tech is developing a new material which enables ultrafast charging of batteries in seconds rather than hours. The material's crystal structure, discovered by Professor Clare Grey's team at the University of Cambridge, offers the fastest transport and storage properties for lithium ions inside an anode material.

The battery technology is a drop-in solution to existing manufacturing processes. It offers fast charging while overcoming key challenges in safety and degradation of battery lifetime that plague other state-of-the-art fast charging technologies.



Founded by Dr Steve Brierley, Riverlane is Europe's most advanced quantum computing software developer. They are building a simulation engine for microscopic systems enabling the replacement of expensive laboratory tests with computer simulation.

Their software leverages the capabilities of the quantum computer, which operates using the principles of quantum mechanics. As graphics processing units accelerate machine learning workloads, Riverlane uses quantum computers to accelerate the simulation of quantum systems.

The logo for Riverlane, consisting of the word "riverlane" in a lowercase, sans-serif font, centered within a white rectangular box. The background of the entire slide is a complex, low-poly geometric pattern in shades of blue and purple, resembling a crystalline or molecular structure.

Riverlane is working with leading academics and companies on critical early-use cases for its software, such as developing new battery materials and drug treatments.

Using their recent £3.25m seed funding, Riverlane are looking to demonstrate the technology across a range of quantum computing hardware platforms, focused on early adopters in materials design and drug discovery. Riverlane will also expand its team of quantum software researchers and computational physicists.



Ophelia Crawford, Dan Underwood, Steve Brierley, Tom Parks & Amy Flower

Co-founded by Dr Carmen Palacios-Berraquero and Dr Matthew Applegate, Nu Quantum is building high-performance, single-photon sources and detectors that work at room temperature. These devices are the building blocks that will enable a range of quantum technologies, the most near-term being quantum key distribution (QKD) systems. QKD systems enable communication links that are completely secure as end users are able to detect any disruption to the photons exchanged over quantum communications channel caused by an eavesdropper.



Nu Quantum are currently focusing on ways to improve cyber security by partnering existing technology with IP related to random number generation. The unpredictability at the heart of quantum-mechanical measurement can be used to create very secure encryption codes.

Nu Quantum aims to establish national and global capabilities for single photon components by first focussing on communication. Their vision is to work with telecoms companies, integrating their photonic technologies into the 5G communication infrastructure.




Dr Carmen Palacios-Berraquero
& Dr Matthew Applegate



POROTECH

Solid-state lighting using LEDs is extremely energy-efficient and can save as much as 50% in electricity. However, LEDs are expensive and complex to manufacture, limiting these new devices for widespread adoption.

Porotech's porous gallium nitride (GaN) technology holds strong potential to improve solid-state lighting device performance at a lower cost than existing solutions.



Founded by Dr Tongtong Zhu, Dr Yingjun Liu and Professor Rachel Oliver, Porotech aims to provide semiconductor wafers and material solutions with sub-surface 3D porous nanostructures and tuneable properties for the semiconductor industry in a number of areas, from optoelectronics, power electronics and sensors.

In their current research and development, the aim is to exploit their innovations through partnerships, outsourcing and licensing to enable porous GaN technology and materials to be taken up in real-world devices and applications.



An aerial photograph of a building's rooftop HVAC system. The image shows several large, industrial air conditioning units with circular fans, connected by a network of pipes and ductwork. The rooftop is densely packed with this equipment, and the surrounding urban environment is visible in the background.

BAROCAL

As the world gets hotter, the number of air conditioners will skyrocket. Cooling equipment already devours 20% of the world's electricity.

Co-founded by Dr Xavier Moya and William Averdieck, Barocal's technology harnesses pressure-induced thermal changes and uses more efficient materials than traditional devices.

Barocal was named a finalist in the Global Cooling Prize, an international innovation competition designed to stimulate invention and production of super-efficient and climate-friendly residential cooling solutions.

Founding partner of the competition, Jules Kortenhorst, said "A breakthrough technology has the potential to prevent up to 75 gigatons (GT) of CO₂-equivalent emissions by 2050, whilst providing affordable access to cooling in parts of the world where it is becoming a critical need."





Plastic is choking the planet and a sustainable alternative needs to be found.

Founded by Professor Tuomas Knowles and Dr Marc Rodriguez-Garcia, Xampla has developed an entirely new material, made from peas. It's entirely natural, biodegradable and biocompatible. The team has developed innovative processes to create products and solutions based on Supramolecular Engineered Protein (SEP).

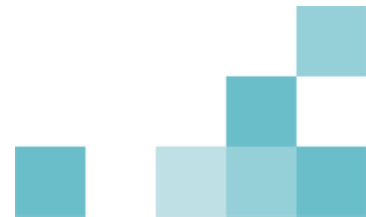


Xampla's products and solutions offer industry partners new sustainable choices for plastics in applications in food, cosmetics, household products, animal feed, packaging and medicine.



Useful Links:

Echion	<u>Echion Technologies website</u>
CB2tech	<u>CB2tech website</u>
Riverlane	<u>Riverlane website</u>
NuQuantum	<u>NuQuantum website</u>
Porotech	<u>Porotech website</u>
Barocal	<u>Barocal website</u>
Xampla	<u>Xampla website</u>



Arts, Humanities, Social Sciences & social enterprise



Creative Cambridge

Creative Cambridge is a conference designed to bring together Cambridge academics, knowledge exchange facilitators, and professionals from the creative sector, including museums, theatres, creative agencies, design, gaming, media and more. The aim is to make visible a community of experts and practitioners who are open to collaboration and conversation.

A profound takeaway from the first conference was how valuable it is to open our networks to each other. Exciting possibilities become apparent as technical, academic and creative skills and experiences mix.

"Creative Cambridge was the first of a series of events to reach into the humanities sector of the university and encourage the latent talent there to look at ways of engaging with Cambridge Enterprise and the local start-up culture.

Talks explored creativity across media, games, education, museums and immersive experiences and demonstrated the world-leading abilities the University has in these sectors. We are already seeing ideas from this event being worked up into propositions that can apply to us for seed funds, and we hope many more will follow."

Chris Doran
Entrepreneur in Residence, Cambridge Enterprise





Dish Life

"The route to scientific discovery can feel like a mystery to many of us," said Dr Karen Jent from the ReproSoc group in Cambridge's Department of Sociology.

Following on from a short film released in 2016 also called Dish Life, Dr Karen Jent wanted to "use gaming to have a different kind of conversation about science".



Productivity



Happiness



Medium



Dish Life, the game, requires players to create their own scientist, grow the stem cells, develop the lab and deal with a range of dilemmas that occur while working in research. Such dilemmas include workplace issues such as bullying and maternity cover, through to societal dramas—for instance, media controversies and government committees—and ethical quandaries encompassing animal testing and CRISPR.

With stem cells set to change healthcare, Jent and her team want to make biotechnology more accessible by showing how science is really done.



The game was released in February 2020 and was featured on BBC Look East News.

Versed AI

Supply chain risk management is a highly inefficient market as current mapping methods are expensive, slow and static.

Versed AI uses Natural Language Processing to automatically map organisation supply chains and relations from millions of news articles and business reports. Its software analyses supply dependencies and predicts potential supply links. The extracted information is aggregated into vast knowledge networks that are presented in a user-friendly graphical interface.



Beyond manufacturing, key organisations that can benefit from this product include finance and insurance providers that need to assess their clients' supply chain risks, as well as governmental organisations that oversee regulation compliance and profile risks in key industries and sectors.

Versed AI was founded by Simon Baker who won the Cambridge Enterprise Postdoc Business Plan Competition in 2019.



“The market research we had to do for the competition helped us accelerate our start-up tremendously. We were also put in contact with the most amazing mentor: a very experienced industry veteran who helped with business strategy, long term funding advice, and even client relations. The connections we made with Cambridge Enterprise will take us beyond what we have achieved in the competition alone.”

Simon Baker
Versed AI

Postdoc Business Plan Competition
Winner 2019



Astrologaster

In the decades around 1600, astrologers Simon Forman and Richard Napier produced one of the largest surviving sets of medical records. The Casebooks Project, a team of scholars led by Professor Lauren Kassell, has transformed one of these papers into an accessible digital archive.

In 2015, independent game developer Nyamyam decided to create a video game in which players would assume the role of Forman and help him win a medical licence.

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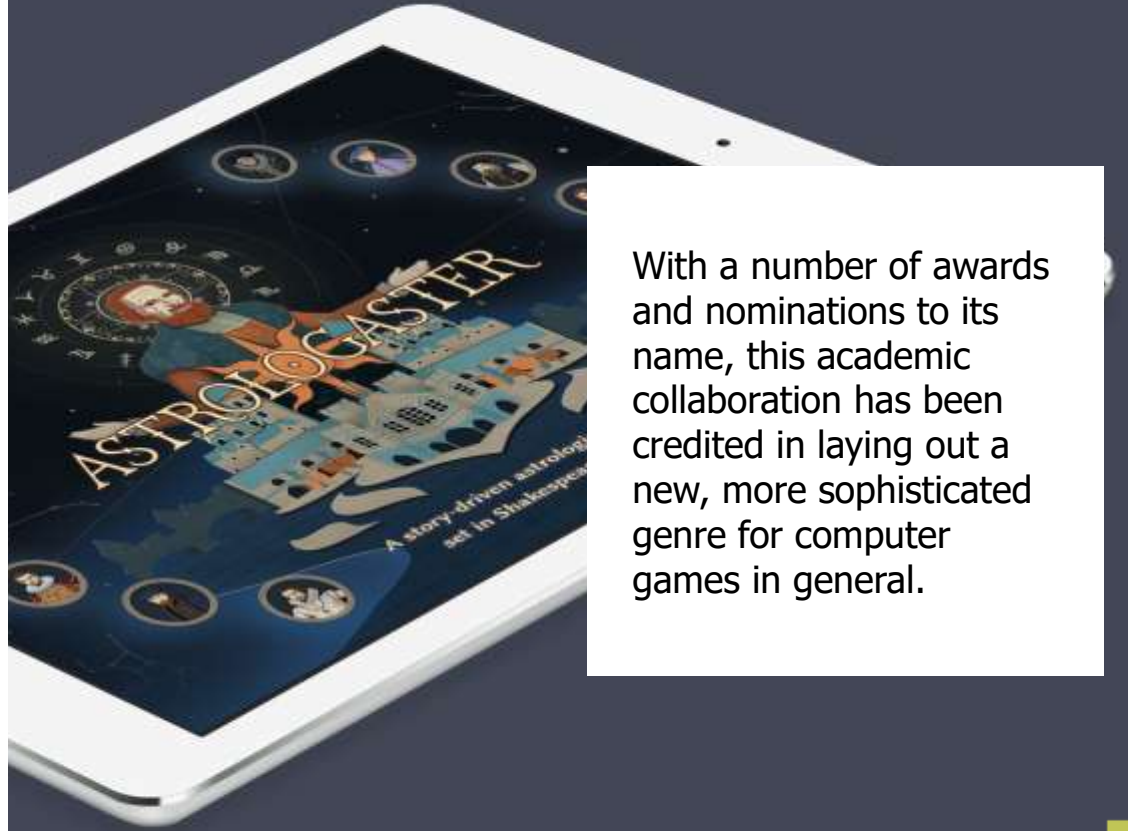
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Through a consultancy project supported by Cambridge Enterprise, Kassell and the Casebooks team acted as historical consultants for the game, reading drafts of the character summaries, storylines and scripts, and checking for historical accuracy.

Astrologaster, the narrative-based comedy game born from this collaboration, brings Forman's cases and Shakespeare's London to life in a new and accessible way.



With a number of awards and nominations to its name, this academic collaboration has been credited in laying out a new, more sophisticated genre for computer games in general.

Around 100 billion articles of clothing are made every year. This comes at a huge cost to the environment, from the raw materials used to the industrial production processes. According to the World Bank, textile dyeing accounts for around 20% of global industrial water pollution.

Co-founded by Dr Jim Ajioka and Dr Orr Yarkoni, Colorifix has developed a novel approach to the dyeing process using synthetic biology which removes the need for harsh chemistry in the creation or deposition of dyes.



Using DNA sequencing, Colorifix works out the encoding of natural pigments and then translates the message into engineered microorganisms which can be used to grow and transfer the colour.

The microorganisms can be used directly in place of dye liquor, requiring no additional specialist equipment or toxic chemicals and one tenth of the water used by standard processes.



Useful Links:

Creative Cambridge	Blog: Creative Cambridge - Learning from, with and between academia and the creative industries
	Creative Cambridge 2019 schedule and speakers
Dish Life	News: 'Lab in your phone' lets you play the scientific life
	Dish Life website
Versed AI	News: Versed AI wins the 2019 Postdoc Business Plan Competition
	Versed AI website
Astrologaster	Case study: Astrologaster - A story-driven astrological video game set in Shakespeare's London
	Astrologaster website
Colorifix	Colorifix website

Collaborations & partnerships





Launched in 2016 by University of Cambridge, Imperial College London and University College London with industrial partners AstraZeneca, GlaxoSmithKline, Johnson & Johnson Innovation.

The aim was to translate basic research into new therapeutics and has resulted in a novel, collaborative venture connecting world-leading university research to professional drug discovery.



Impact

3

Cambridge projects in licensing discussions

180

Projects reviewed across three universities

11

Cambridge projects supported

£15m

Committed to Cambridge

Current Cambridge Projects

Professor Clare Bryant (Veterinary Medicine) & Professor David Klenerman (Chemistry)

Dr Marko Hyvönen (Biochemistry) & Professor David Spring (Chemistry)

Professor Randall Johnson (Physiology)

Professor Edmund Kunji (MRC Mitochondrial Biology Unit)

Professor Yorgo Modis (Medicine)

Professor John Trowsdale (Pathology)



Ceres Agri-Tech Knowledge Exchange Partnership is a unique platform to identify, incubate, invest in and run commercially viable agri-tech development projects coming out of Ceres universities.

The partnership also has links with three leading agricultural research institutes and has received commitment for investment from technology investors, corporates and Research England.



Partner university



Partner university



Partner university



Partner university



Partner university



£4.78 million of funding



Research institute



Research institute



Research institute



76
New opportunities
identified



20
Project
pitches



6
Investment
committees
held



£15m

Committed
investment from
technology
investors &
corporates

11
Projects
Awarded



£2.5m
Already
Committed



£1.5m
Minimum
available



£650k

Committed from
University &
Research
Institute partners

22
Months
average term



£223k
Average
awarded per
project



Social Ventures partnership

A Social Ventures partnership between Cambridge Enterprise and Cambridge Social Ventures (part of the Judge Business School) launched in 2017 to provide early-stage funding for research and expertise-led social enterprises spinning out of the University.



Cambridge
**Social
Ventures**



UNIVERSITY OF
CAMBRIDGE
Judge Business School



UNIVERSITY OF
CAMBRIDGE
enterprise

The partnership combines Cambridge Social Ventures' expert incubation and evidence-led approach to social and environmental impact with the early investment capabilities and business support of Cambridge Enterprise.

The partnership is driving global societal reform through research, expertise and social entrepreneurship.

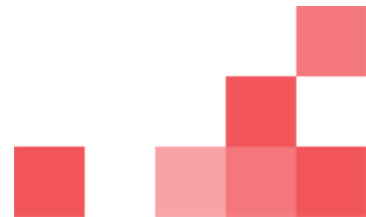


So far, the partnership has brought to market social innovations in health, finance, employment and corporate social responsibility.



Useful Links:

Partnerships	<u>Cambridge Enterprise partnerships</u>
Apollo Therapeutics	<u>Apollo Therapeutics website</u>
Ceres Agri-Tech	<u>Ceres Agri-Tech website</u>
Social Ventures Partnerships	<u>Cambridge Social Ventures website</u>



Leading the way



“Cambridge Enterprise has been tremendously supportive over the last 20 years, and has been instrumental in helping me to create two companies and achieve a successful exit from the first. I really value the relationship that we have built together based on trust and a very high level of personalised input.”

Professor Sabine Bahn
Department of Chemical Engineering
& Biotechnology



Long term support

Cambridge Enterprise's work does not end when a new licence is signed or a new company spins out of the University.

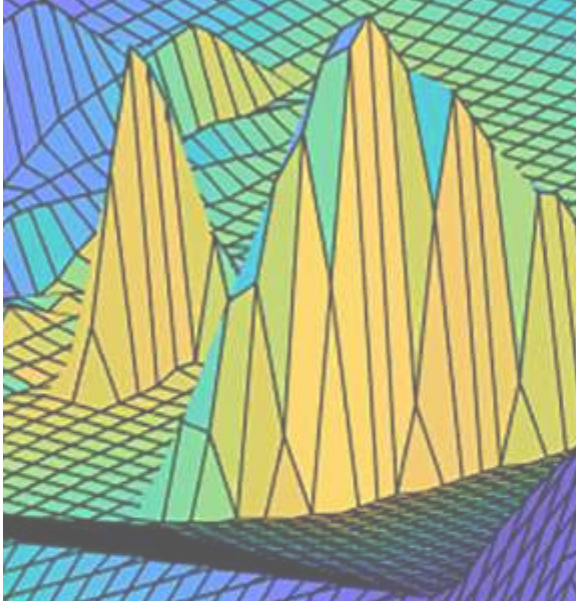
After intellectual property (IP) is licensed, Cambridge Enterprise remains involved, sometimes for decades. As spin-outs grow and commercial contexts change, we continue to help inventors and founders realise their vision.

Two examples of this are materials software pioneers Granta Design and CASTEP, two of our longest-standing cases, with whom Cambridge Enterprise has worked for over 25 years.



Granta Design

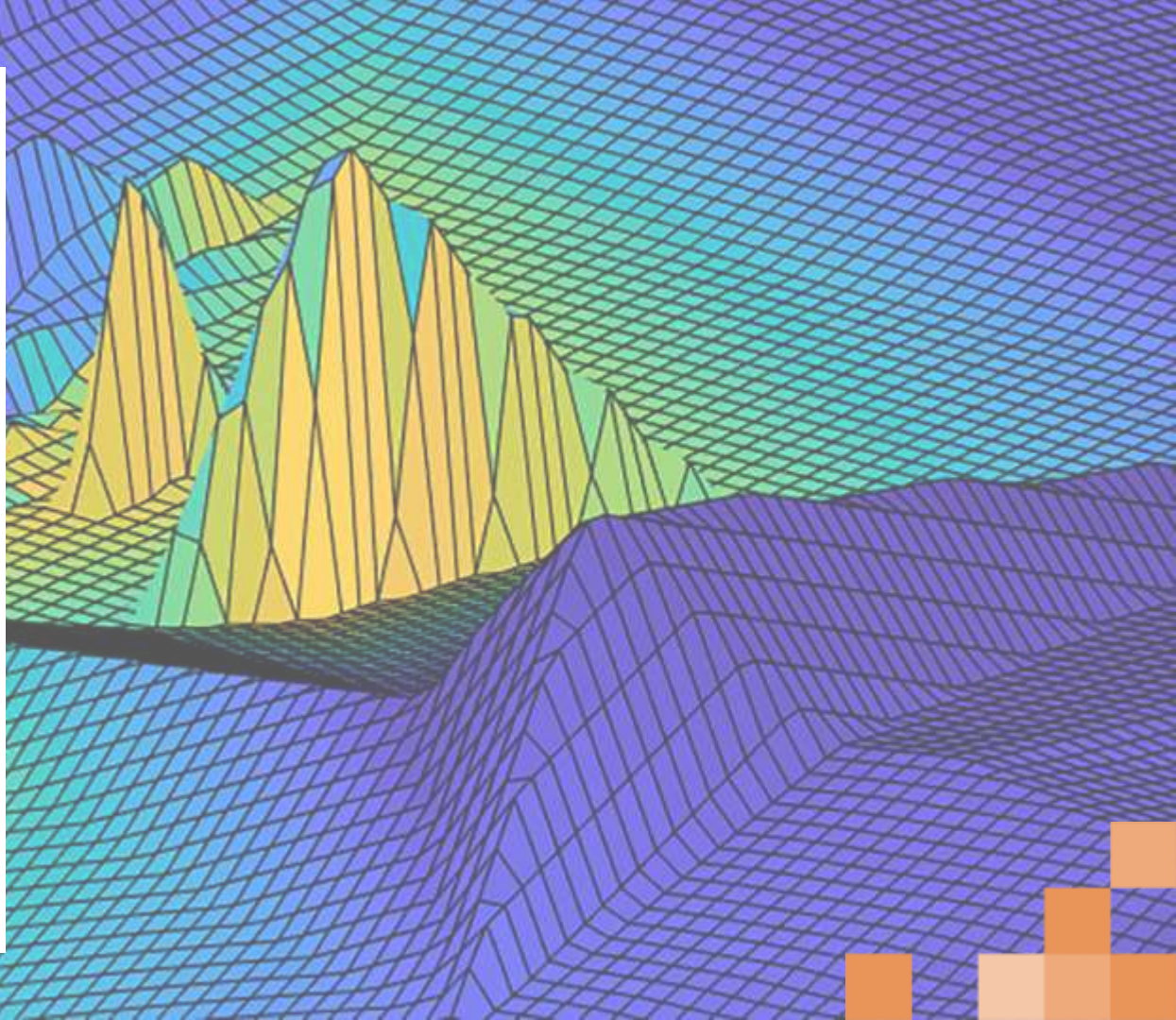
Professors Mike Ashby and David Cebon revolutionised materials selection in product development. Granta Design's materials information management software uses extensive material information to enable optimal decision-making on design, manufacture, maintenance and recycling.



They devised a graphical approach for visualising complex information on material properties. The software guides the choice of material using a performance index based on the functions required of a potential product.

Former Deputy Director of Cambridge Enterprise, Dr Richard Jennings, steadfastly supported Granta Design through its spin-out and development and served on its board for 25 years:

“Granta represents the best of technology transfer. Its acquisition confirms the outstanding quality of the technology and once again enables the work of leading Cambridge academics to have a true global impact.”



1994

Granta Design was spun-out of the University. For several years it focused on the educational sector, producing the world's leading teaching resource for materials engineering, science, processing and design.

Having achieved successful organic growth in product range, turnover, staff and sites, the founders looked to the next stage. James Viggers, an investment banker and angel investor, approached Cambridge Enterprise to offer his expertise and worked with the founders and management to prepare and guide the company for sale.

2019

The completion of a successful exit to ANSYS, with whom Granta Design had collaborated for some years. The sale of Cambridge Enterprise's equity returned a large sum to the Department of Engineering and the University of Cambridge.

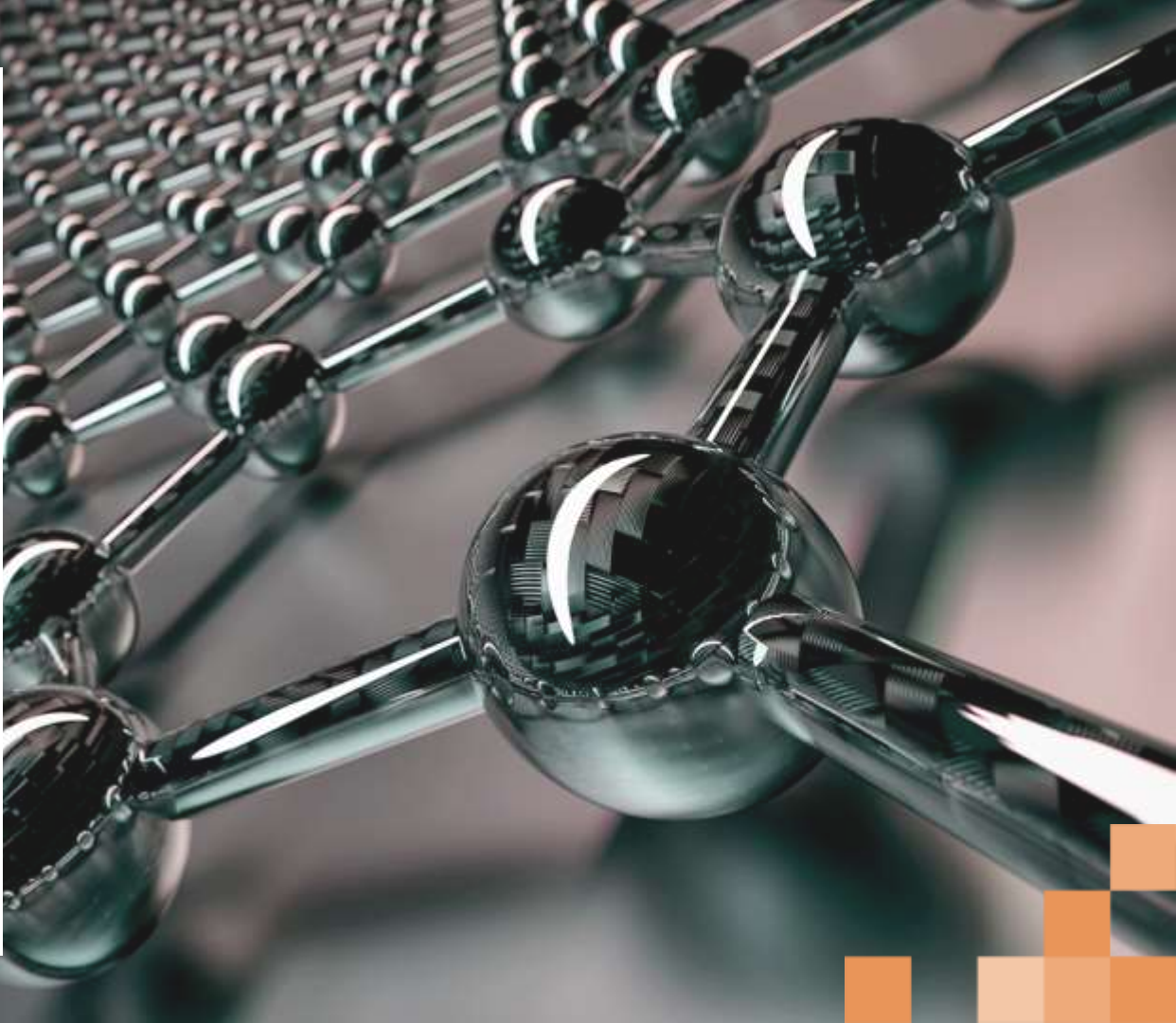
2000

Granta Design moved into the industrial market, with investment from ASM International. A Cambridge Enterprise contact, scientific software entrepreneur Patrick Coulter, joined as Chief Operating Officer.

CASTEP

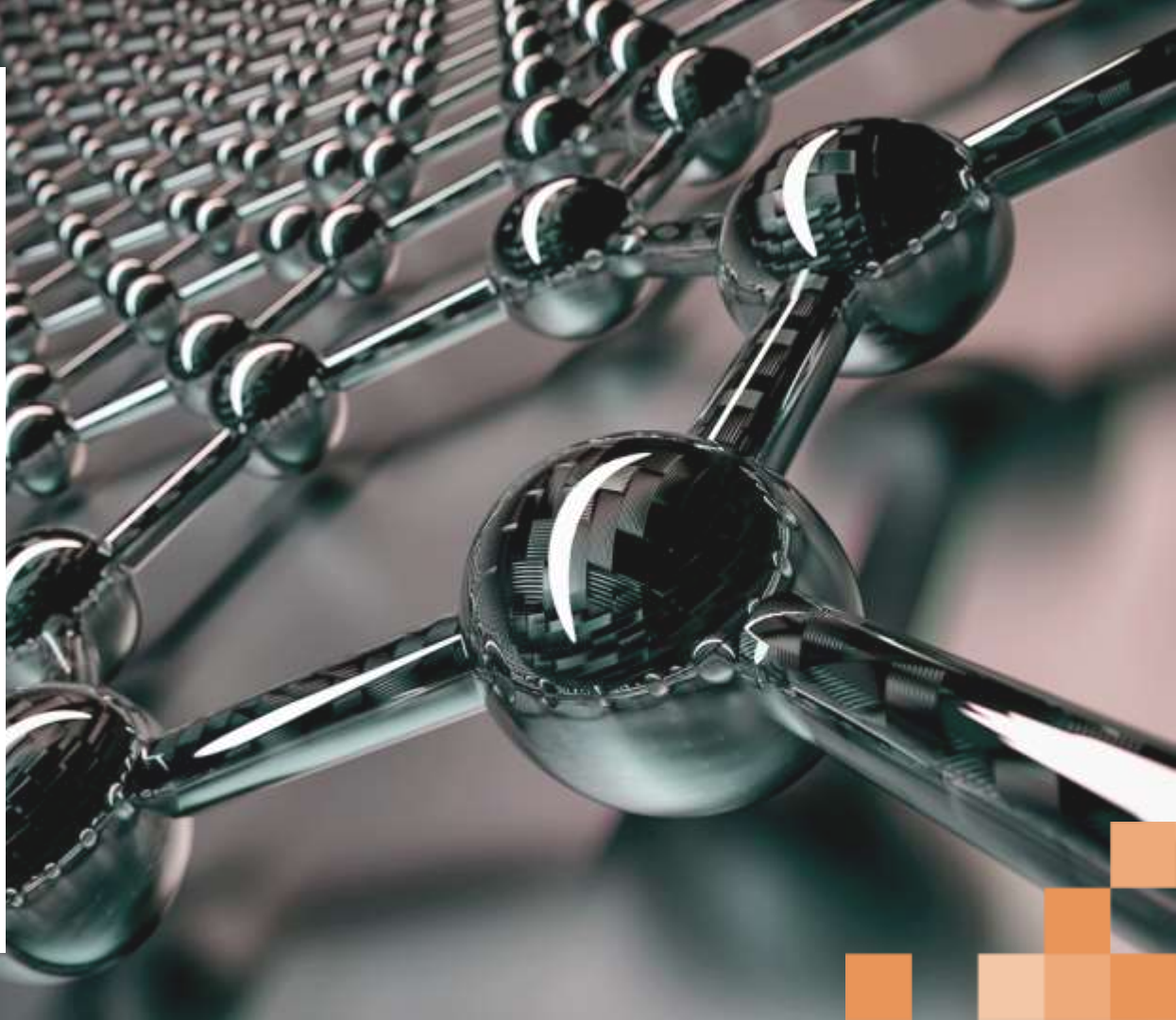
Based on the research of Professor Mike Payne, CASTEP is a computer code that utilises quantum mechanics to predict the behaviour and properties of novel materials before creation and offers a unique 'atom by atom' perspective.

The code is developed by the CASTEP Developers Group, consisting of academics from the Universities of Cambridge (Professor Mike Payne, Professor Chris Pickard and Dr Matthew Segall), York, Oxford, Daresbury and Royal Holloway.



CASTEP software can simulate a wide array of material properties, including energetics, structure at the atomic level and vibrational properties.

The software is used across industries to screen, model and develop new materials; to design products with improved performance and energy efficiency; and to help identify failures in devices.



1994

Available as shared source code to researchers, CASTEP was first licensed in 1994 to Molecular Simulations International

2014

Accelrys acquired by Dassault Systèmes

2019

Cambridge Enterprise worked with Dassault to conclude new licences that came into effect at the start of 2019, paving the way for the broader application of CASTEP for years to come.

1995

Acquired by Accelrys who handled sales of CASTEP for nearly 20 years. Cambridge Enterprise negotiated revised terms for CASTEP, as well as subsequently licensing new and complementary software packages to Accelrys.

“It’s hugely gratifying to see Cambridge Enterprise’s growth and achievements in knowledge transfer since its small beginnings in research commercialisation. Cambridge Enterprise has built on fortunate early successes by developing exceptional colleagues experienced in knowledge transfer as well as fostering long-term support from both the University and the Cambridge community.”

Dr Richard Jennings
Former Deputy Director,
Cambridge Enterprise



PraxisAuril, AUTM & ASTP

Cambridge Enterprise has been a key player in the creation and development of PraxisAuril. It is also a regular contributor to AUTM, a global organisation for technology transfer professionals, and to ASTP, which is fostering best practice in knowledge transfer in Europe.



TenU Collaboration

Cambridge Enterprise is a member of a collaboration of ten universities working across the UK, EU and the US, called 'TenU'.

This group of research commercialisation experts works together and with UK and US governments, to debate and develop best practice and to provide longer term insights that can be used to inform policy and develop best practice across the ten universities and the sector.



International Outreach

Through its International Outreach Programme, Cambridge Enterprise offers its international clients tailored training, consultancy and mentoring programmes, ranging from one day to several months or more.

Since inception of the Programme in 2011, Cambridge Enterprise has helped many academic and government partners worldwide.

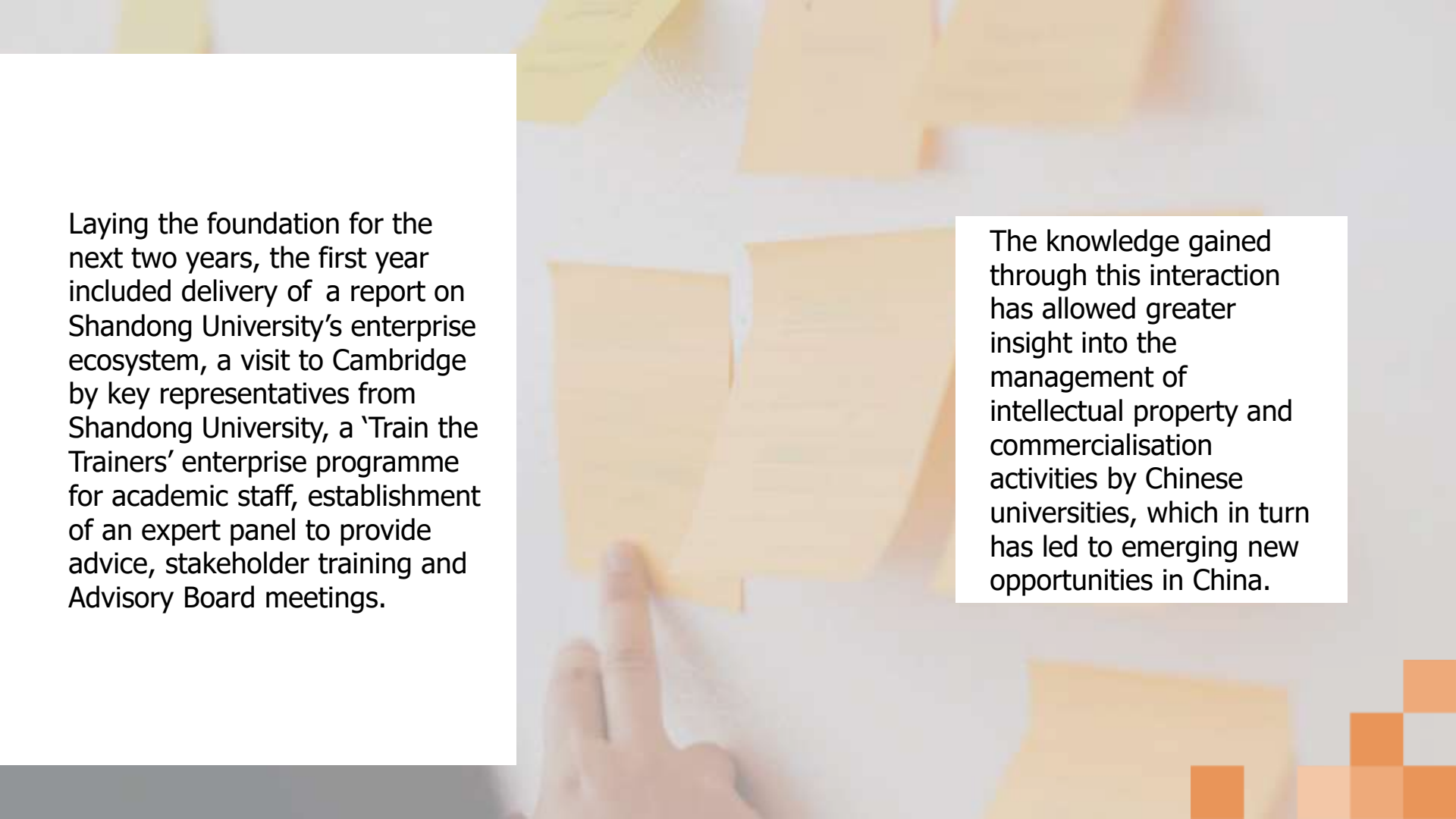


Countries include:
Botswana, Brazil, Chile,
China, Colombia, the Czech
Republic, Finland,
Kazakhstan, Lebanon,
Mexico, Mozambique,
Namibia, Norway, Pakistan,
Poland, Saudi Arabia,
Serbia, South Africa, Spain,
Thailand, Trinidad and
Turkey.

Supporting innovation and entrepreneurship in Qingdao

In 2018, Cambridge Enterprise signed an agreement with Shandong University and Shibei District of Qingdao, China, to provide consultancy and training advice for the establishment of the Shandong University School of Innovation and Entrepreneurship.





Laying the foundation for the next two years, the first year included delivery of a report on Shandong University's enterprise ecosystem, a visit to Cambridge by key representatives from Shandong University, a 'Train the Trainers' enterprise programme for academic staff, establishment of an expert panel to provide advice, stakeholder training and Advisory Board meetings.

The knowledge gained through this interaction has allowed greater insight into the management of intellectual property and commercialisation activities by Chinese universities, which in turn has led to emerging new opportunities in China.

"I became Head of International Relations and Outreach in March 2020. During this time I have been struck by the undiminishing desire and demand, despite the current climate, to learn from the incredible work that Cambridge Enterprise undertakes. Globally, other institutions and governments are still keen to develop their ecosystems and strategies based on our expertise and experience.

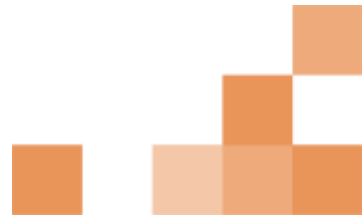
We continue to work with partners to find new and innovative ways to share our skills and knowledge, and I look forward to seeing the results of this richer and more varied approach to our international outreach."

Caroline Hyde, Cambridge Enterprise



Useful Links:

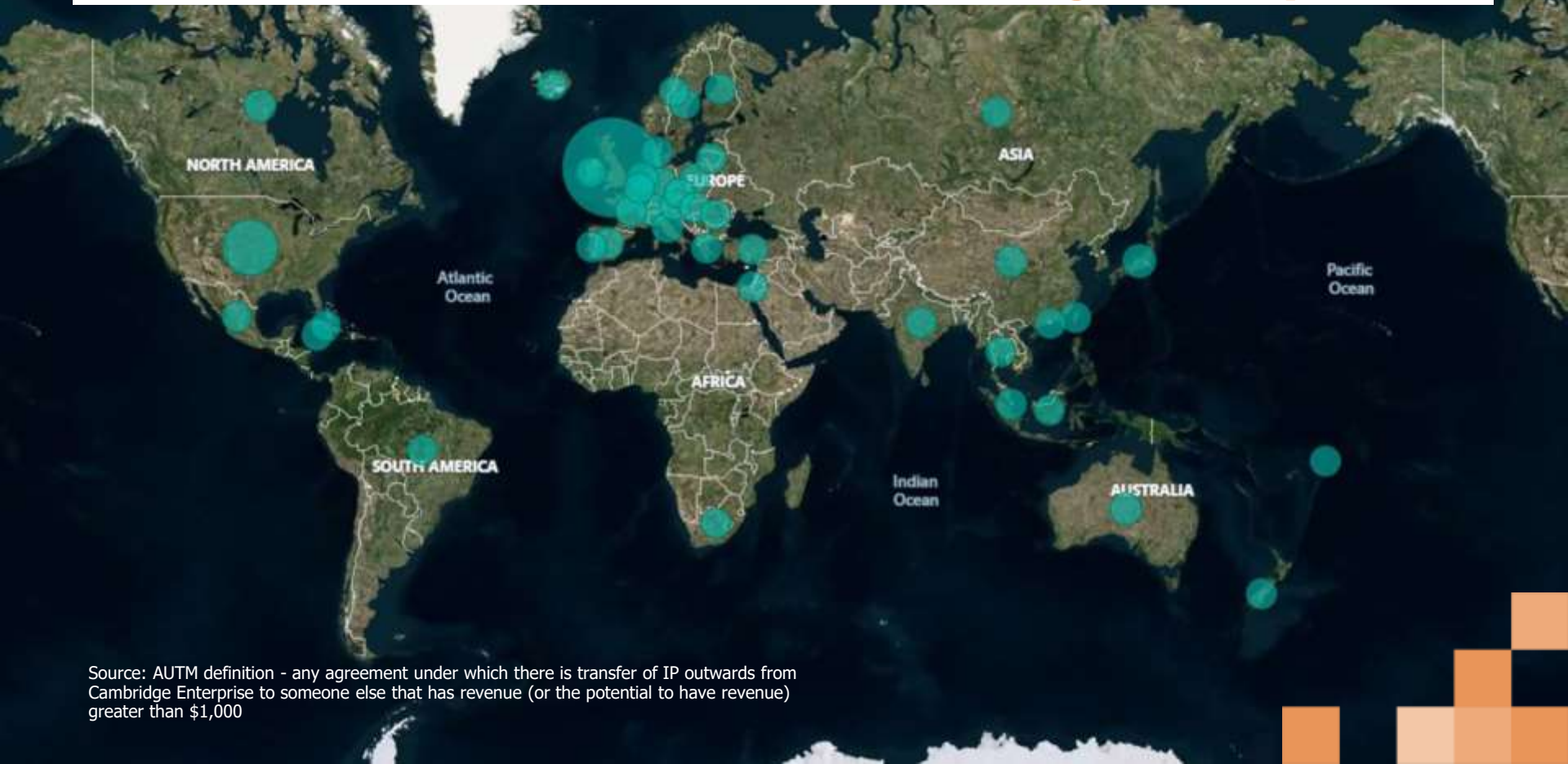
Granta & CASTEP	<u>Case study: Granta Design and CASTEP – Supporting materials software pioneers for 25 years</u>
PraxisAuril, AUTM & ASTP	<u>PraxisAuril website</u>
	<u>AUTM website</u>
	<u>ASTP website</u>
International Outreach	<u>Cambridge Enterprise International Outreach</u>



Global impact



Transfer of IP outward from Cambridge Enterprise



Source: AUTM definition - any agreement under which there is transfer of IP outwards from Cambridge Enterprise to someone else that has revenue (or the potential to have revenue) greater than \$1,000



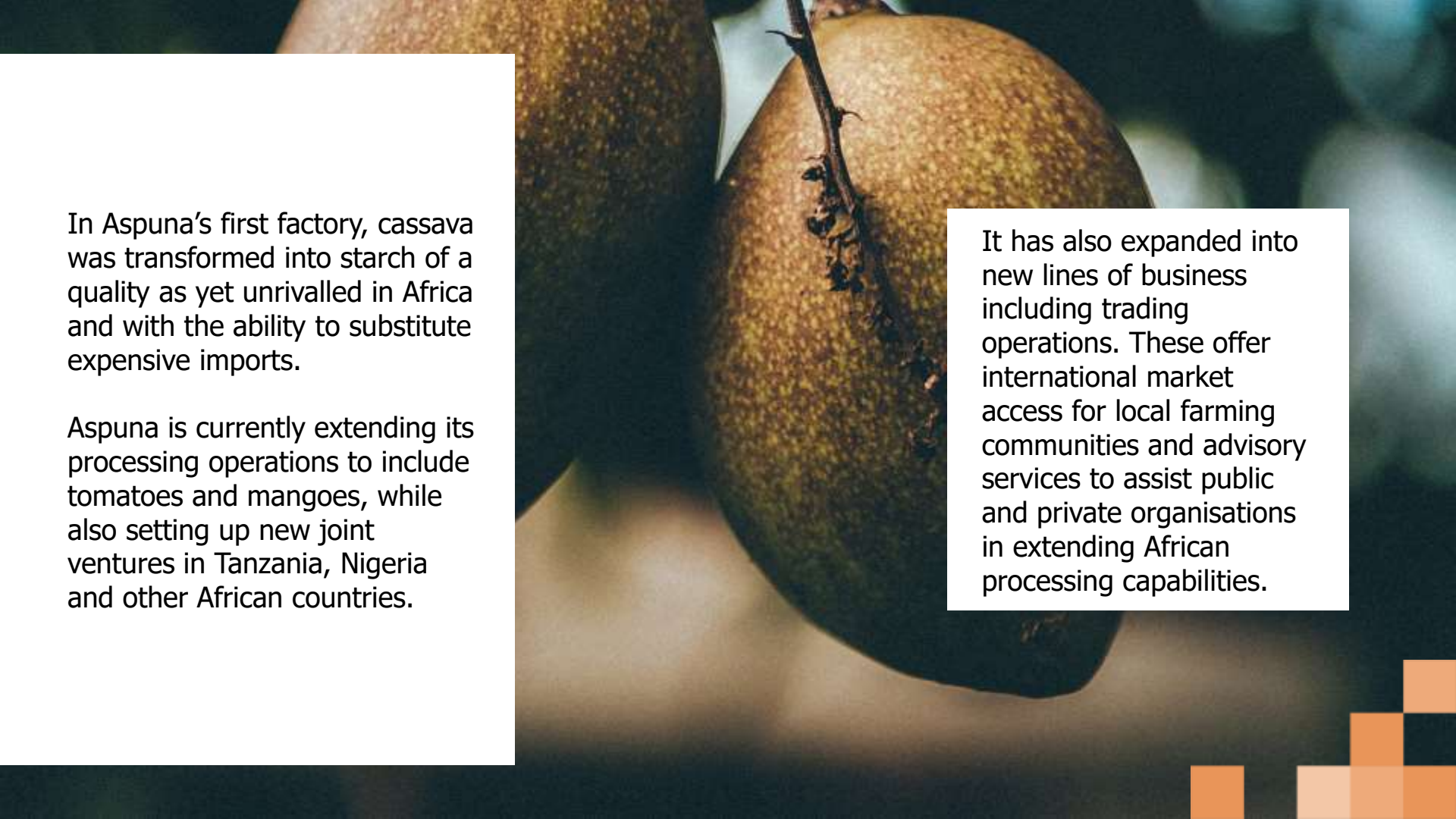
Aspuna Group, founded by Maria-Yassin Jah and Dr Luis Prazeres, is a fast-growing social impact commodities business which came through the Cambridge Social Venture Incubator.

Aspuna is seeking to unlock Africa's abundant but under-utilised agricultural wealth to help eradicate hunger, poverty and unemployment.

Aspuna Group initially targeted its efforts in Gambia, where it focused on building local processing capacities in partnerships with farming communities.

It was one of the first companies to receive Cambridge Enterprise's £20k Social Pathfinder, which it used to set up a factory, create a sustainable business and employ a team of 35 people.





In Aspuna's first factory, cassava was transformed into starch of a quality as yet unrivalled in Africa and with the ability to substitute expensive imports.

Aspuna is currently extending its processing operations to include tomatoes and mangoes, while also setting up new joint ventures in Tanzania, Nigeria and other African countries.

It has also expanded into new lines of business including trading operations. These offer international market access for local farming communities and advisory services to assist public and private organisations in extending African processing capabilities.

Evidence-Based Policing

Last year Professor Lawrence Sherman, Dr Peter Neyroud and other colleagues from the Institute of Criminology were contracted to run a two-year programme to train 600 mid-career police chiefs in India.



They worked with the Sardar Vallabhbhai Patel National Police Academy, the top police training institute in India, to develop a programme.

The programme covered police professionalism, Evidence-Based Policing, hotspot policing, drug trafficking, hostage negotiation, body-worn cameras and police ethics.



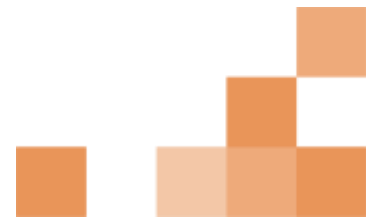
Having concluded its first two years, the programme has been judged a success. It was recently presented to Prime Minister Narendra Modi and the Indian Director-Generals of Police at the Prime Minister's annual conference with senior police chiefs in Pune.

Changing the culture of a police force is not a simple task, but it is one that the University is well-equipped to handle.



Useful Links:

Aspuna	Aspuna website
Evidence-Based Policing	Case study: Sharing expertise outside the University - Evidence-Based Policing goes to India



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