



FOUNDERS Start

At the University of Cambridge

COHORT 1.0



CONTENTS

04	Our cohort
05	Word from our Programme Director
06-07	Cohort 1.0 in numbers
08-09	AETOSENSE
10-11	BIOTRYP THERAPEUTICS
12-13	BRAVELYCULTURED
14-15	CAMBRIDGE VISION TECHNOLOGY
16-17	MOLYON
18-19	NANOMATION
20-21	ORBIT
22-23	PROTONERA
24-25	VOLTQUANT
26-27	WILLIAM OAK DIAGNOSTICS
28-29	XTERNA
30-31	OUR TEAM



ACCELERATING IMPACTFUL JOURNEYS FOR BRILLIANT MINDS.

Thank you to our investment partner:

Parkwalk
Investing in Innovation

our sponsor partners:

AstraZeneca

HITACHI
Inspire the Next

KPMG

and to our community partners:

**Babraham
Research
Campus**

**UNIVERSITY OF
CAMBRIDGE**
Judge Business School

OUR COHORT



“We’re delighted to reveal the first 11 teams that will go through the inaugural Start Accelerator. We were impressed with the quality and quantity of all the companies that applied. Each selected start-up is working on deep science to tackle difficult problems, from health and air quality to semiconductors. This programme will help them turn the science into practical reality. I can’t wait to see how they progress.”



Mark Lazar
Programme Director

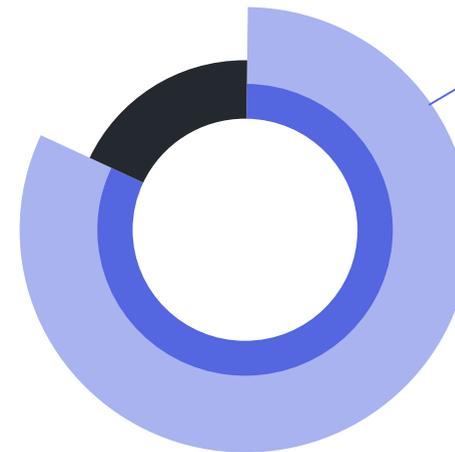
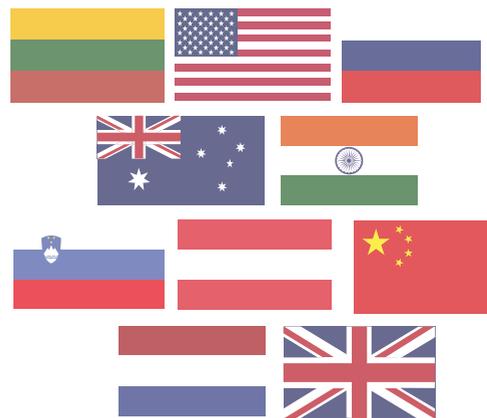
OUR COHORT IN NUMBERS



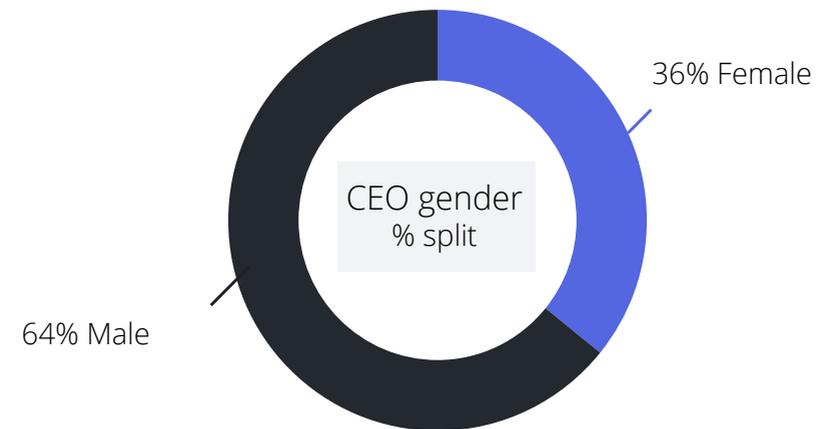
The Start Accelerator 1.0 is for early-stage deep tech companies, with a connection to Cambridge, either as a recent graduate, researcher or academic, and are working on difficult challenges across hardware, life sciences and sustainability.

Of the 30 founding team members taking part in the first-ever cohort, 76% have a PhD with 10 different nationalities represented between them. The average age is 34 and the average CEO age is 29. Around a fifth of the founding teams and 36% of the CEOs are women.

10 nationalities



76% of teams have at least 1 PhD



CEO gender % split

AETOSENSE



AetoSense is on a mission to provide a data-based equilibrium for energy and air quality. Their focus is on the critical impact of airborne particles on health and energy efficiency, and their innovative solutions are designed to address these challenges head-on.

Led by co-founders and PI/Executive Scientist Adam Boies, AetoSense's technology provides an innovative solution for balancing indoor air quality and energy consumption in buildings.

The scalable technology supports international initiatives, including EU and UK Parliament goals and the World Health Organization's call for city-wide evidence of particle concentration hot spots. With exciting pilots set to come in 2024 at Heathrow and Dublin City, AetoSense are set to take flight.

aetosense.co.uk/ 

#AirQualityMatters

Co-Founders



Molly Haugen 
CEO

Department of Chemistry

Molly leads the research and development of low-cost and high-accuracy sensors for monitoring and improving indoor and outdoor air quality. With a PhD in Chemistry and over five years of postdoctoral experience at the University of Cambridge, she has a strong background and passion for understanding and solving complex environmental challenges.



Shaamrit Balendra 
CTO

Department of Engineering

Shaamrit is working as a PhD researcher at the Boies Research Group within the Department of Engineering. With interests including innovation, entrepreneurship, product development and sensors, he has previously worked on semi-conductor test/inspection instrument manufacture and asthma inhaler device modelling with Kindeva Drug Delivery (formerly 3M Healthcare, UK).



Dr Lee Weller 
Head of Sales

Department of Engineering

Lee is spearheading the development and promotion of their innovative air quality sensor solutions for environmental monitoring. With a rich background in Physics and engineering, coupled with a dedication to advancing diagnostic technology, Lee drives the mission of Aetosense towards creating impactful solutions for improving air quality worldwide.

BIOTRYP THERAPEUTICS



Bacteria form biofilms as a protective shield against the immune system and antibiotics. Within biofilms, bacteria thrive, meaning that infection worsens, and treatments fail. By inhibiting biofilms, BioTryp's technology has the potential to revolutionise how we treat infection, providing a much-needed alternative to traditional antibiotic treatment.

UTIs affect 400 million people annually, and biofilms in UTIs contribute to treatment failure and severe complications. With an initial focus on addressing the widespread issue of urinary tract infections (UTIs), BioTryp are developing novel small-molecule antibiofilms for bacterial infections.

The co-founders along with Scientific Advisor, Dr. David Summers, have already gained traction with the award of the Hellings Prize as part of the Trinity Bradfield Prizes 2024.

biotryp.com/ 

#MedTech

Co-Founders



Dr Ashraf Zaran 

CEO

Department of Genetics

Ashraf, BioTryp's CEO and technology co-inventor, holds a Ph.D. in Biochemistry from the University of Cambridge, contributing over a decade of expertise in infectious disease research. As a Research Fellow at Cambridge's Department of Genetics, his versatile background spans microbiology, bacterial genetics, antimicrobial resistance, and small molecule drug discovery.



Dr Jehangir Cama 

Commerical Advisor

Department of Material Sciences

Jehangir is a biophysicist with a decade-plus in antimicrobial research, specialising in bacterial signalling and microfluidic technologies. As a Fellow at Clare Hall, Cambridge, and Research Associate at the University's Department of Material Sciences, his expertise extends to the socio-economics of antimicrobial resistance, bringing insights for optimal business and clinical translation.

BRAVELYCULTURED



Using proprietary marine microbial biobank and solid-state cultivation methods, BravelyCultured is replacing animal- and petroleum-based products, starting with producing eco-friendly biosurfactants that replace their petroleum-derived counterparts.

Natalija Stepurko and James Dunce are the co-founders facing the pressing need for sustainable and eco-friendly alternatives in the surfactant. Their technology reduces environmental pollution, avoids reliance on fossil fuels, minimizes deforestation, and significantly lowers CO2 emissions.

With demonstrated market interest and plans for expansion into various sectors, BravelyCultured is on a journey to disrupt the surfactant market sustainably.



[#EcoFriendly](#)

Co-Founders



Dr Natalija Stepurko

CEO

Cambridge Judge Business School

Defying convention, Natalija swapped medical school for biochemistry, where she topped her class and leaped straight into a PhD at the University of Cambridge. She honed her business acumen at Cambridge Judge Business School, blending scientific expertise with entrepreneurial insight. She also shines as an improv performer and is a passionate diver.



Dr James Dunce

CSO

Department of Biochemistry

James grew up by the coast of Northeast England, is passionate about the ocean, and has a Biochemistry PhD from Newcastle University. He moved to the Department of Biochemistry, University of Cambridge, and now leads BravelyCultured's technical team, using marine microorganisms to create natural alternatives to synthetic household product components.

CAMBRIDGE VISION TECHNOLOGY



Cambridge Vison Technology has developed an integrated hardware/software platform for early-detection of Alzheimer's disease to enable cost effective, non-invasive and scalable screening of high-risk patients at the population level.

Early-detection is key; recent advances in disease-modifying therapies now offer patients an approved treatment to delay the onset of the disease. Built around the recent advances in ocular biomarker sciences, CVT's technology promises to overcome challenges in scalable identification of patients suffering from Mild Cognitive Impairment (MCI) due to dementia - the disease stage where the recently approved monoclonal antibody treatments are most effective.

CVT's approach has been validated by the awarding of SBRI pre-procurement contract for the UK government, to translate their existing technology a production-scale system that can be deployed at-scale.

cambridgevisiontechnology.com/ 

#EarlyDetection

Co-Founders



Dr Andrew Kadis 
CEO

Department of Engineering

Andrew is a seasoned technology consultant specialising in connected medical-device IoT applications. With 15 years of expertise, he contributed to innovative projects like wearable fitness trackers and the world's first COPD smart asthma inhaler. His portfolio includes managing R&D for Boston Scientific and GE Healthcare and did his PhD in the Engineering Department in Cambridge.



James Wood
**Software Strategist and
Business Development Lead**

James founded his first company in 2006 after completing his degree in Physics at Oxford. Data Transparency pioneered the first electronic clinical referral system used by the NHS, still in use today with over 200,000 patients transferred. In 2016 he attended Columbia University's MBA program and has since acted as Head of Strategy and Machine Learning at PPAYA, an award winning platform that uses AI to help trade renewable energy.

MOLYON

Molyon

Molyon (previously MoSTLi) is producing the next generation energy storage solution; the lithium-sulfur battery.

The Paris Agreement states emissions need to be reduced by 45% by 2030 to reach net zero by 2050. A commercial Li-S battery based on Molyon's innovation provides superior performance at a low cost. By decarbonising transport like aviation and heavy vehicles Molyon's mission can help the UK and globally meet net zero targets, as well as to reduce the use of critical rare materials such as cobalt, nickel and manganese, diversifying from child slavery and volatile supply chains.

Supported by Commercial Advisor Dr Sai Shivareddy, the co-founder's long-life lithium-sulfur batteries deliver twice the energy density of current lithium-ion batteries on the market, at a fraction of the price due to more abundant materials.

www.molyon.com 

[#NetZeroEnergy](https://twitter.com/NetZeroEnergy)

Co-Founders



Dr Ismail Sami 

CEO

Department of Materials Science & Metallurgy

Since completing his PhD from Cambridge, Ismail is now a Research Fellow at the Faraday Institution, Lead of the Henry Royce Battery Suite, Postdoctoral Researcher in Materials Science, Research Associate in King's College Cambridge, and winner of the Cambridge Enterprise Chris Abel Postdoc Business Plan Competition 2023 for Molyon.



Zhuangnan Li

CTO

Zhuangnan obtained his Chemistry PhD from University College London before joining University of Cambridge as a postdoctoral researcher. He is now a Herchel Smith Postdoctoral Fellow and Research Fellow at King's College. His research interest is in next-generation energy storage technologies, particularly focusing on atomically thin two-dimensional materials for high-energy, fast-charging and long-life batteries.

NANOMATION

NANOMATION

Nanomation provides computer-vision software to the semiconductor industry, enabling clients to manufacture with advanced nanomaterials that are otherwise not usable within industry settings.

Manufacturing semiconductors with nanomaterials (e.g. quantum emitters, nanowires, and 2D materials) improves chip power efficiency and is therefore highly appealing. However, it is currently impossible to do this at scale because nanomaterials grow randomly over substrates and conventional circuit arrays are therefore in the wrong position.

Currently resolving this requires humans to locate nanomaterials and manually design supporting electronics in a prolonged process. This locks the enormous potential value of nanomaterials behind barriers to scalability.

Nanomation addresses several critical societal, sustainable and strategic goals, and will facilitate the scalable exploration and use of nanomaterials within the semiconductor industry and adjacent markets.

nanomation.tech/ 

[#Nanomaterials](https://twitter.com/Nanomaterials)

Co-Founders



Dr Teja Potocnik 

CEO

Department of Engineering

Teja is the CEO and co-founder of Nanomation, commercialising the research she developed during her PhD at the Department of Engineering. Nanomation is a semiconductor software company that automates manufacturing with advanced nanomaterials for the first time.



Charlotte Esler 

COO

Cambridge Judge Business School

Charlotte holds an MBA from Cambridge Judge Business School where she focused on digital transformation, deep technology, and cybersecurity. Prior to Cambridge, she gained a Master in Public Policy (MPP) from Harvard University and was a research assistant at Harvard's Belfer Center for Science and International Affairs. Previous to her postgraduate education, she was a Vice President in the Equities Department of Mizuho Securities, the global investment banking and securities subsidiary of Mizuho Financial Group, the world's 13th-largest bank.



Dr Jack Alexander-Webber

CSO

Jack is a Royal Society Dorothy Hodgkin Research Fellow at the University of Cambridge. He has a DPhil in Condensed Matter Physics from the University of Oxford, and MSci in Physics from Royal Holloway, University of London. He provides the team with extensive scientific knowledge and advice.



Professor Peter J. Christopher 

CIO

Electrical Engineering Department

Peter was a PhD, PDRA and then Research Fellow in the Electrical Engineering Department at the University of Cambridge. While there he helped start-up three companies: Exobotics, ProSpectral and Nanomation. He's now an Assistant Professor at the University of Nottingham and works at Nanomation on algorithm design and business strategy.

ORBIT



Positioned in the intersection of DeepTech, Hardware, and Digital Health, Orbit addresses the market for mental health tracking using non-invasive neurotechnology. The product aims help people regain happiness by making mental health as transparent and actionable as physical health, offering a solution for users looking to improve their overall well-being.

Despite the continuous and rapid technological advancements, mental health and well-being is still not well understood. By collecting unprecedented amounts of functional brain data, Orbit aims to shine a bit of light (literally) into the black box that's our brains.

As a solo-founder, Akshat is developing his state-of-the-art neurotechnology wearable, supported by advisors Chris Mairs CBE, and Dr Gemma Bale. Together they plan to unlock cognition by building the first foundation model of the real-world brain using non-invasive neurotechnology.

tryorbit.co 

#Neurotechnology

Founder



Akshat Sharma 
Founder

**Department of Engineering -
Neuro-Optics Laboratory**

Akshat spent his Master's in the Neuro-Optics Lab shining light (literally) into the biggest black-box known to humanity - the brain. He built the first Brain-Computer-Interface using a novel neuro-imaging modality (High Density Diffuse Optical Tomography). After winning prizes at several international conferences, he focused his efforts into empowering people outside the lab with the wonders of neurotechnology, and Orbit was born!

PROTONERA



Protonera aims to realise the scalability of a novel plastic upcycling technology to transform waste plastics into green hydrogen and other value-added commodities.

There are three major bottlenecks that plague plastic recycling: the inability to process low-grade waste feedstocks, high operational costs from sorting contaminated feedstocks, and poor revenue from low-value products.

With a focus on addressing critical challenges within a substantial plastic recycling market, the team are creating a solution that degrades low-grade waste plastics that are not currently recycled and realises high profitability from product revenue.

Led by Jack Chengzhi Guo and Erwin Reisner, they are also supported by Technology Advisor, Professor Florian Hollfelder.

protonera.com 

[#PlasticRecycling](https://twitter.com/Protonera)

Co-Founders



Dr Jack Chengzhi Guo 
CEO

Departments of Biochemistry & Chemistry

After repeatedly telling his grandfather to stop picking up trash plastic bottles by the curb, Jack grew tired of such futile endeavour and aimed to tackle plastic pollution altogether. During his PhD, he focused on developing biocatalysts to break down petrol-derived polymers. He is now moving forward with commercialising a waste-to-value technology at Protonera.

Professor Erwin Reisner
CSO

Department of Chemistry

Erwin is the Professor of Energy and Sustainability in the Department of Chemistry and a Fellow of St. John's College. He is an expert in renewable energy and sustainable chemistry, in particular the sunlight-powered production of sustainable fuels and platform chemicals. His cross-disciplinary research has been supported and recognised by several grants, most recently the Galvani Prize of the Bioelectrochemical Society (2022) and the Hughes Medal by the Royal Society (2023).

VOLTQUANT



VOLTQUANT

VOLTQUANT is a pioneering company that offers the world's first search engine for grid connections, primarily aimed at empowering project developers to seamlessly connect to the grid using a machine-learning-enabled platform.

The company's focus on the UK's advanced smart energy grid aims to tackle challenges associated with the transition to net-zero energy infrastructure, particularly the instability of renewable sources. By providing solutions for stakeholders and navigating the complexities of the UK's smart grid, VOLTQUANT aims to contribute to global efforts in sustainable energy development and assist other countries facing similar challenges in achieving their net-zero goals.

voltquant.com 

#SmartEnergy

Co-Founders



Nikita Dabizha 
CEO

**Department of Engineering,
Institute for Manufacturing**

Nikita holds a Master's in Industrial Systems, Manufacturing and Management from the Institute for Manufacturing. The idea for VOLTQUANT came to him whilst he was working at an investment firm and he saw the real-life impacts that grid issues were having on renewable energy projects.



George Kolokotronis 
CTO

**Department of Engineering,
Institute for Manufacturing**

George holds a Masters in Industrial Systems, Manufacturing and Management at the Institute of Manufacturing (IfM), within the Department of Engineering. He previously worked within Amazon Web Services, helping scale companies with cutting edge technology cost-efficiently.

Gareth Dauley
CRO

With over 15 years of experience in the clean energy and energy storage industry, Gareth is the founder and CEO of KOE Group, delivering renewable energy solutions via solar and energy storage to the global markets. He is also managing director of ESU Consulting, specialising in energy solutions and emerging technologies for the energy sector.

WILLIAM OAK DIAGNOSTICS



William Oak Diagnostics is developing a point-of-care test for micronutrient deficiencies for maternal, infant and child health, bringing a better standard of health around the world.

Their micronutrient test has significant social impact, improving healthcare access and enabling early intervention. Focused on maternal and child health, it addresses issues like iron deficiency anaemia and other deficiencies that can have serious health implications, offering quick results and reducing the costs of hospital-based tests.

Their innovative approach will simplify blood collection, providing clear results through a phone app, having the potential to personalise nutritional health monitoring for individuals. Ultimately, it will empower individuals to foster healthier lives and prevent the serious consequences of vitamin deficiency in vulnerable social groups - pregnant women and infants.

williamoakdiagnostics.com 

[#MedDiagnostics](https://twitter.com/MedDiagnostics)

Co-Founders



Dr Alexander Patto 

CEO

**Department of Physics,
Department of Veterinary Medicine**

Alex is CEO and co-founder of William Oak Diagnostics. He holds a PhD in Genetics from the University of Cambridge and is a Royal Academy of Engineering Enterprise Fellow, as well as a Borysiewicz Biomedical Fellow. Previously Alex was CEO of social enterprise WaterScope, a University of Cambridge spin-out.



Dr Tim Dwyer 

CTO

Tim is a biochemist with over 25 years of experience in designing, developing and commercializing novel medical device platform technologies. He has held significant scientific and leadership roles at a number of companies including Oxford Immunotec, Vivacta, Novartis, AgPlus Diagnostics and was most recently CTO of Mologic (now GADx). Tim also has an MBA and is a Fellow of the Royal Society of Biology.

XTERNA



Xterna's technology helps identify different cell types in the human body, through the engineering of cell specific binders.

Although promising in the test tube, many therapeutics simply don't get to the diseased organ or cell type at a high enough dose to be of use. A new drug for Alzheimer's disease, for example, will not lead to therapeutic benefit if most of it accumulates in the liver instead of the brain. Xterna's binders could be used for diagnostic applications or be coupled with therapeutics to aid delivery of drugs to specific cells.

Focusing on addressing the bottleneck of drug delivery relevant for many industries including pharmaceutical, the co-founding team are leveraging Jessica's experiences at AstraZeneca and recognise the pivotal role of efficient delivery, irrespective of a drug's specificity.

xterna.uk/ 

[#PharmaTech](https://twitter.com/XternaUK)

Co-Founders



Dr Jessica Corry 
CEO

Department of Biochemistry

Jess is CEO and co-founder of Xterna. A cancer biologist by background, Jess was previously a PhD student at Caius College in the Department of Biochemistry, working in collaboration with AstraZeneca, and is currently a postdoctoral fellow at the Francis Crick Institute.



Dr Chris Wan 
CSO

Laboratory of Molecular Biology

Chris is CSO and co-founder of Xterna. Originally from Hong Kong, Chris read Natural Sciences at Magdalene College, Cambridge, and subsequently completed a PhD in synthetic biology at the Laboratory of Molecular Biology with Dr. Philipp Holliger. Chris is currently a postdoctoral fellow at the Francis Crick Institute in London.

OUR TEAM



Alena Protasova [in](#)
Programme Associate

Before joining us to build and manage our educational programmes, Alena led a research agency for start-ups, assisting entrepreneurs in market growth and development, and conducted over 120 research projects across various business sectors. Additionally, she served as a methodologist and a lecturer for the master's program in Technological Entrepreneurship at a Russian IT university.



Anca Belu [in](#)
Global Community Lead

Anca has been working in the start-up world for over 10 years, with community building at the core of her roles. With a genuine passion for fostering innovation and entrepreneurship her projects took her to Spain, Manchester, and London. In 2016 she played a key role in the opening of The Bradfield Centre before becoming part of the team that delivered the first genomics and biodata entrepreneurship programme at The Wellcome Genome Campus.



Dr Anne Dobrée [in](#)
Director of Programming

A part of technology commercialisation at the University of Cambridge since 2001, Anne has overseen strong growth in Cambridge Enterprise's investment activities totalling in excess of £30m investment. Anne was also instrumental in establishing the University of Cambridge Enterprise Fund with Parkwalk Advisors and spinning out Cambridge Innovation Capital from the University of Cambridge.



Gerard Grech [in](#)
Managing Director

Gerard Grech is the former founding CEO of Tech Nation, a pioneering UK Government-backed initiative that shaped Europe's most productive digital ecosystem. Gerard is also a member of the UK Government's Digital Economy Council and the World Economic Forum's Digital Board. Previously, he worked at the intersection of mobile, digital media and venture capital in New York, London and Paris.



Mark Lazar [in](#)
Programme Director

Mark has spent over 10 years in the start-up world. Most recently, he spent 5 years at PUBLIC, joining as the first FTE and leaving with 100+ people in the organisation. He led innovation programmes for over ten UK and Danish government departments and built and delivered GovTech specific startup accelerators. Previously he was at Techstars, where he delivered five startup accelerator programmes and opened an office in Tel Aviv.



Winnie Sanchita [in](#)
Operations Intern

Previously the Operations Associate at KCHPL and Chief Operations Officer at Wildya, with a Masters in Philosophy from University of Cambridge, Winnie has multidisciplinary exploration and problem-solving skills. While helping to operationalise our programmes, Winnie is combining her knowledge of these systems with market insights to guide technology commercialisation.

FOUNDERS.

At the University of Cambridge



UNIVERSITY OF
CAMBRIDGE
enterprise