impulse
for tech innovators
WHERE CHANCE ENCOUNTERS HAPPEN
25 April - 14 July 2023
About impulse

**impulse** serves as a catalyst for entrepreneurship and intrapreneurship. The programme enables the development of high-potential technology innovation into a commercial proposition, for individuals and companies. It is an established action-learning programme of global significance with a sharp focus on prioritising and developing “high-potential” business cases. The core of **impulse**’s approach is a network of passionate mentors and experienced entrepreneurs who act as role models and provide valuable guidance from this highly respected, unique Cambridge innovation cluster.

**impulse** is challenging, inspirational, global, educational and, at the same time, fun. The length of programme is designed to give invaluable time for reflection whilst maintaining the pace and bring ideas onto the right path for success.

“**I believe we need to encourage the brightest people with the big ideas and create a truly inspirational environment and provide the correct support. I fully support **impulse** which will allow researchers and innovators to test their clever ideas and execute them successfully.”

– Dr Hermann Hauser, Serial Entrepreneur, Venture Capitalist

**impulse** Advisory Board

- Matthew Bullock
- Dr David Clevelly
- Prof Anne Ferguson-Smith
- Prof Sir Richard Friend
- Dr Deborah Harland
- Dr Hermann Hauser
- Dr Elaine Loukes
- Prof Chris Lowe
- Prof Florin Udrea
- Prof Sir Mark Welland
About the University of Cambridge and the Maxwell Centre

The University of Cambridge was established in 1209 and comprises of 100 departments, faculties and schools, and 31 Colleges. The annual student intake is 24,270 (2020-21) (Undergraduates 12,940, Postgraduates 11,300) with 40% from overseas representing 146 countries. To date, there have been 121 Nobel laureates (2020), making it the 2nd largest recipient worldwide with 80% from Physics, Chemistry, Medicine/Physiology.

The University of Cambridge is consistently listed in the Top 10 Universities in the World in Times Higher Education (currently fifth - 2022) and is third in The QS World University Rankings 2022.

The impulse programme is based at the Maxwell Centre, the hub for industry and research on the West Cambridge Science and Technology Campus.

Operating since 2016, The Maxwell Centre forms part of the world-renowned Cavendish Laboratory and provides a centrepiece for industrial partnership with the physical sciences and engineering.

The Centre was funded from UK Government (£21m UKRPIF scheme), the University of Cambridge (£4.6m) and with match funding of £42m from industry partners Winton Programme, Hitachi Ltd., Toshiba Ltd., the Wellcome Trust, the Raymond and Beverly Sackler Foundation, Tata Steel and many other industrial supporters.

To date the Maxwell Centre has invested £63m into academia-industry collaborations.

**impulse is perfectly aligned to the Maxwell Centre’s strategic vision of a Zero Carbon future and supporting Sci-Tech-Med initiatives.**

“**impulse** provides a totally different learning environment for researchers, scientists and intrapreneurs, enabling them to reach their full potential and develop their ideas. The involvement of real business practitioners with industry knowledge and experience, together with the Cambridge community, sets this programme apart.”

— Prof Sir Richard Friend, Founding Director of the Maxwell Centre
Cambridge innovation in numbers

The University of Cambridge sits at the heart of one of the world’s most successful innovation and technology clusters.

- **308.7** patent applications per 100,000 residents – highest in the UK and more than twice the rate of any other UK city.
- **6.4%** year-on-year increase in knowledge-intensive jobs in Cambridge city region over the last six years.
- **23** billion-dollar businesses based in Cambridge.
- **3,000+** IT and telecoms companies.
- **£18bn** in total annual turnover generated by knowledge-intensive firms.
- **800+** high-tech manufacturing companies.
- **800** knowledge-intensive services companies.
- **67,800+** people work for knowledge-intensive firms.
- **5,300+** knowledge-intensive firms.
- **600+** life sciences companies.

[https://www.cam.ac.uk/sites/www.cam.ac.uk/files/innovation_in_numbers_december_2021_2.pdf](https://www.cam.ac.uk/sites/www.cam.ac.uk/files/innovation_in_numbers_december_2021_2.pdf)
Cambridge’s unique entrepreneurial ecosystem

Cambridge is much more than the University of Cambridge. In fact, the majority of high technology companies that have shaped the success of the Cambridge cluster are connected to a handful of serial entrepreneurs, business angels and venture capitalists.

“impulse provides researchers and scientists with the ideal environment for those all-important chance encounters, sparking and inspiring fresh generations of science and technology entrepreneurs as has clearly been evidenced. It is here that the cross-pollination of ideas, technologies and industry knowledge of like-minded individuals, from both entrepreneur and business worlds, enables the participants to reach their full potential and, importantly, transform their research into a viable business.”

– Prof Sir Mark Welland, Director of the Maxwell Centre

impulse participants and alumni have ongoing access to:

- Entrepreneurs
- University of Cambridge
- Legal framework
- Funding
- Research labs
- Tech consultancies
- Networking and meeting places
- Business parks / research parks / innovation centres
- Service organisations
- Rich networks
- Tech investor community
- Accelerators and incubators
impulse is a hybrid programme with flexible learning schedules that run over 12 weeks.

The programme is comprised of three modules. Two residential modules and one online module in between. Programme details are subject to change.

**Module A**
25-28 April, 2-4 May
- Opening and welcome reception
- Value propositions
- Marketing strategy & planning
- Market research
- Business models
- Funding sources
- Clarifying financial needs
- Intrapreneuring & stakeholder analysis
- **Mentoring:** preparing projects

**Module B**
May-July
- IP basics
- Legal issues in starting a business
- Presentation skills
- Networking
- One-on-one discussions with business experts
- Individual work: market research, customer validation, talking to investors, team building
- Building business partnerships
- Selling & negotiation skills
- **Mentoring:** refining projects

**Module C**
11-14 July
- Future of innovation for entrepreneurs
- Building a great team
- Leading a diverse team
- Fundraising
- Pitch practice and training
- Pitch to investors and innovators
- **Mentoring:** validating projects

**Follow-up support**
Oct-Feb
- **Business meets ideas**
  (Jan)
- impulse alumni showcase their innovative ideas and ventures to business leaders and corporate innovators
- **Master classes**
  (Oct - Jan)
- Alumni mentoring
  (Jan-Feb)

In addition to the modules, participants network and build one-on-one relationship with 120+ mentors, investors and top-tier experienced entrepreneurs pertinent to their tech innovation.

After three months, our alumni take away:

- deep relationship with key connections in the world-renowned Cambridge Cluster
- a high-potential business case after intensive review and refinement
- a technology mindset towards a broader business perspective
- new skills and frameworks to accelerate the success of the business idea/venture
- experience in pitching with invaluable feedback from experienced investors.
“impulse is an inclusive programme for both entrepreneurs and intrapreneurs. We foster collaborations between innovators from a range of diverse disciplines, industries, perspectives and backgrounds. We are passionate about helping the next generation of science and technology entrepreneurs succeed.”

– Yupar Myint, Head of impulse
An insight into our alumni

Since 2017, 49% of our alumni have raised £101 million of funding and have created 392 jobs*. Hear about some of their experiences.

“As a female entrepreneur, I have found the whole ecosystem created by the impulse programme highly inclusive and motivating, both for one’s own growth and for the growth of an idea and its transformation into a startup business. It has also been an invaluable opportunity to get to know like-minded people and to receive mentorship and guidance from high-stake entrepreneurs.”

– Mariam Makramalla, RENEWED MIND

“impulse has been instrumental to the creation of Tenys! It is the blend of invaluable knowledge, exchanging ideas with peers and growing a network of astonishing mentors, advisors and experts that makes the impulse experience unforgettable. The programme helps you look at your business idea from different perspectives and discover the blindspots that you would have never seen alone.”

– Botty Dimanov, Dmitry Kazhdan

“Not only does impulse provide direct access to market and world-leading experts covering the full breadth of entrepreneurial needs, it does so with inspirational individuals who passionately provide open, clear and transparent advice to the entrepreneurs. The knowledge, network and information provided by the lecturers and mentors are matched by the community ethos and spirit the course instills. It has helped to super-charge multiple aspects of our business and I look forward to future interactions.”

– Dr Rob Simpson, celsiushealth

“impulse was a fantastic opportunity to open doors into the world of business and grow as an entrepreneur. The mentors, business experts and facilitators were extremely approachable, honest, and inspirational people who gave their support and expert advice for my business case. Combined with the workshops and course material, I now feel I have the tools required to take the next big leap with my business idea. I could not recommend this programme highly enough.”

– Elena Watts, Department of Materials

*Source: Alumni Survey 2021; funding announcements
Who should attend?

*impulse* participations come from a range of areas including:

- PhDs, PostDocs and researchers across different fields of Physical Sciences, Technology and Life Sciences
- Early-stage entrepreneurs
- Researchers/engineers/managers from large corporates and organisations.

We naturally welcome participation locally from the University of Cambridge and businesses within the science and innovation cluster. But our alumni reach all corners of the world – from China, to America, India to Spain representing PostDocs from other universities and public and private sector organisations.

Areas of research

- AgriTech
- Artificial Intelligence
- Biotechnology
- Clean Energy/Material Sciences
- Education
- Fintech
- Graphene
- Graphics
- Health and Wellbeing
- Machine Learning
- Med Tech/Healthcare/Therapeutics
- Sensors
- Software
- Water Tech
- IoT
- Quantum Technologies


Benefits of participating

**impulse** is an intense but time-limited, high-learning curve experience. It is specifically designed to simultaneously host both entrepreneurs and intrapreneurs with the newest ideas, or ideas that will challenge or evolve out of a corporate environment.

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<tr>
<th>For researchers and entrepreneurs:</th>
<th>For research organisations:</th>
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<tr>
<td>Determine the best business models and marketing strategies for your idea</td>
<td>Get advice and feedback directly from 100+ successful entrepreneurs, innovators and investors</td>
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<td>Develop business skills within an objective but safe environment</td>
<td>Improve pitching skills and build your network of contacts with the business community and other like-minded entrepreneurs.</td>
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<td>Identify sources of help and advice for the early stages of business development</td>
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<td>Test and validate ideas with experienced entrepreneurs and innovators</td>
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<th>For corporates encouraging intrapreneurship:</th>
<th>For inhouse researchers, engineers, managers and employees:</th>
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<tr>
<td>Empower your employees to generate future business opportunities</td>
<td>Develop key commercial skills and tools in opportunity evaluation</td>
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<td>Cultivate innovative mindsets and entrepreneurial thinking among your employees, supported by mentors</td>
<td>Apply developed skills and get 'external' views on your business opportunities within an objective but safe environment</td>
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<td>Provide an opportunity for personal development with an affordable “mini-MBA” experience which can be applied to your employees’ daily work</td>
<td>Gain direct experience in working on real challenges of commercialising an innovative idea in a team (your fellow colleagues from other disciplines, business units, countries)</td>
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<td>Encourage motivation and skills among your employees to allow your organisation to exploit new ideas more effectively</td>
<td>Participate in mentoring sessions with business experts who are used to evaluating new business opportunities</td>
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<td>Learn directly from experts, experienced entrepreneurs, innovators, venture capitalists, business angels and other professionals.</td>
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impulse Partners

Our partners take many forms. In addition to our inhouse partners who introduce PhD students, Postdocs and research professors, we have a varied range of external corporate partners who send their own employees or provide sponsored support in specific technology areas.

“I have been delighted to sponsor NPL's participation in impulse. It has provided huge benefits to our entrepreneurial team - with engaging people, great content and access to expert guidance and networks. This world-class support has provided a real boost to our commitment to accelerate impact from our science and to support our scientists. Even the challenges of operating during the lockdown years did not diminish impulse's warm welcome and invaluable benefits!”

- Lucy Caffery, Head of Product Management,
How to apply

The next impulse programme runs from 25 April to 14 July 2023 at the Maxwell Centre, University of Cambridge, and is available online and in-person.

All candidates need to complete an application form to apply for the impulse programme at: https://www.maxwell.cam.ac.uk/impulse-2023-application. Applicants will be interviewed before being accepted on to the programme.

Programme fees

Cambridge University members £1,250  
External partners £3,000  
Corporate participants £5,000

We also have partner-sponsored places available for certain technology and research areas.

The fees cover the programme and catering. Accommodation, travel costs and daily allowance are not included. If you are self-funded (a researcher at another university or an entrepreneur) please get in touch to discuss details.

Get in touch

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