University of Essex

Fresh thinking, to help business flourish.

Knowledge Transfer Partnerships

Innovate UK
Knowledge Transfer Network

The facts

#1 We are number 1 in the East of England and London for the number of KTPs

TOP 10 We are top 10 in the UK for the number of KTPs

TOP 20 We are top 20 for research excellence (Research Excellence Framework 2014)

Best of the BEST We hold the Innovate UK *Best of the Best* Partnership Award

Our research

At Essex, we are passionate about business impact, growth and innovation that complements our research.

Our research shapes thinking and influences policy. We're home to the first UNESCO Chair in Analytics and Data Science, Professor Maria Fasli, and we're top 20 in the UK for research excellence (Research Excellence Framework 2014).

Our academics are involved in a number of high impact collaborative partnerships, transferring their expertise and knowledge to enhance the development of new products and services for businesses throughout the UK.

Knowledge Transfer Partnerships

Accelerate innovation in your business with our world-class expertise.

If you're looking to develop a new product or improve a process, Knowledge Transfer Partnerships (KTPs) at the University of Essex can give your business a competitive advantage.

KTPs are an established and successful initiative, funded by Innovate UK and Research Councils, that bring together businesses with research expertise.

They're a three-way partnership between your business, a leading academic and a high-calibre postgraduate associate and can last between 12 months to three years.

Sector-wide expertise

At Essex we work with businesses from IT, telecoms, logistics, finance, defence, agriculture and manufacturing. Our current Knowledge Transfer Partnership portfolio focuses on areas such as data science, embedded systems, Internet of things (IoT), artificial intelligence, big data, and robotics.

The benefits of partnership

KTPs help you to gain competitive advantage and ultimately improve profitability through:

- Access to highly qualified and motivated graduates
- Links to university expertise
- Innovative solutions to help your business grow
- Ideas to help develop your company for today's markets
- Investment in research and development
- KTPs are eligible for R&D tax credits

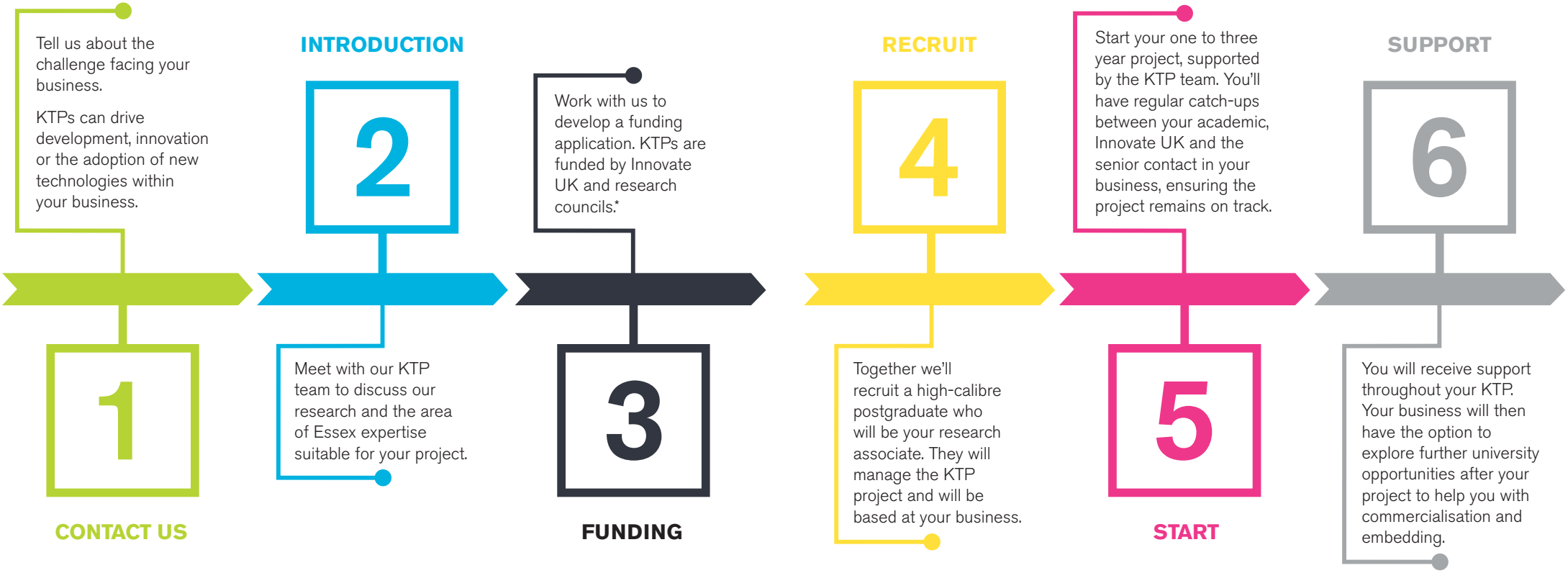
Our funding approval success rate is 95% for KTP projects.

The award winners at the University of Essex KTP Winter Celebration 2017.

Understanding the KTP process

KTPs can drive development, innovation or the adoption of new technologies within your business.

Follow our six simple steps to help you understand if KTPs are right for your company.



**Funding is equal to 67% of the project costs for an SME and 50% of the project costs for larger companies.*

Applied commercial research

These are just some of our research areas related to industry and current KTP projects. We are also conducting world leading research in psychology, maths, gaming and sports rehabilitation.

Artificial intelligence

We can help you use machine learning and AI to solve complex, often daunting business challenges in sectors ranging from finance to healthcare.

Our expertise in computational finance and algorithmic trading can offer novel solutions to the service industry where added insights deliver true value to the bottom line.

Our knowledge of human language science and natural language processing makes sense of high volumes of unstructured text data, to find business meaning and value in areas such as media monitoring and chatbot development.

Immersive reality

Our Immersive Education Lab (iEL) carries out research into virtual and mixed-reality systems to support business innovation in work force deployment and aerial surveying using drones. Immersive research development is moving beyond the use of virtual worlds to become more embedded in our physical world. This has many applications in industry including improving the customer journey and experience.

Robotics

Our Robotics Research Group are pushing the boundaries of automation through collaborations in areas such as manufacturing and measurement. We are leading the way in developing robotic Unmanned Aerial Vehicles (UAVs) to solve grand societal challenges in areas such as renewables and security.

Agritech

Our Plant Productivity Group helps agriculture embrace the new world of agritech with our knowledge, research and insights. At an interdisciplinary level, our computer scientists work closely with our Plant Physiology Research Group to develop novel solutions in areas such as productivity and disease.

Intelligent systems

Our researchers are developing Internet of Things (IoT) solutions across a broad range of business challenges, from hi-tech security solutions to innovation in healthcare. Our pioneering work in communications including our development of future networks and optoelectronics has resulted in award winning partnerships across the rail sector to develop a new 5G network.

Innovation Snapshot

Artificial Intelligence

Signal Media

The business need

Signal is a media monitoring service provider that wanted to develop cutting-edge, highly scalable natural language processing applications that monitor and analyse the world's news.

The expertise

Using our expertise in natural language engineering, we took a leading role on a project that saw Signal develop the capabilities to retrieve, clean and analyse huge data sets consisting of millions of pieces of media content.

This enables Signal's clients to instantly and accurately search global media in real-time, and it has quickly become central to their service offering. This played a pivotal and transformative role in the development of Signal's AI-powered media monitoring capabilities as well as the company's growth.

The value

We are now starting our second KTP with Signal Media. Our first helped the company secure investment of over £5.8m and increase from a three-person operation to over 70 employees.

Signal have recently announced they had raised £12m through their Series B investment round.

Hood Group

Hood Group is an expert in general insurance including home, travel and pet.

The company wanted to embed machine learning and artificial intelligence to help them personalise the customer journey and expand to new markets.

The two year KTP project hopes to lead data driven innovation and add value to both Hood Group's partners and its customers.

Innovation Snapshot

Augmented and Virtual Reality

BT Group

The business need

BT is one of the world's leading communications services companies, with a large field service workforce, BT continuously work on enhancing talent development. They joined forces with Essex to explore the use of mixed reality technologies to empower their engineers.

The expertise

This project used Essex expertise in computational intelligence and mixed reality to develop decision-support solutions. Using augmented reality headsets senior BT field engineers were able to guide and remotely advise junior colleagues on different engineering tasks.

The value

This innovation helped BT realise business efficiency and operational transformation by providing on-the-job assistance in unfamiliar situations, which aids decision making and provides an immersive hands-on platform for active training.

This work could help reduce the costs of manual effort and response times, optimising resources and reducing impact of task interruptions and errors for better customer experience.

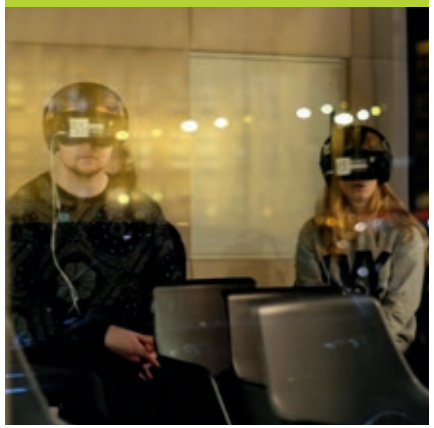
The work was awarded with a Global Telecoms Business Innovation Award (2017), highly commended at the IET Innovation Awards (2018), and it has been showcased on BBC News, Wired Smarter and London Tech Week.

CGEye

CGEye provide computer-generated imagery for many different sectors, including property, retail and project design.

To help their business move forward, CGEye teamed up with our computer scientists to help them develop, test and licence a software development kit that enables augmented reality developers to produce GPS-based mobile apps.

The project will open up the market and allow end users to contribute and share augmented reality content with other users.



Innovation Snapshot

Emerging Technology

Above Surveying

The business need

Above Surveying, based in Colchester, is the UK's leading aerial thermographic solar inspection specialist and a pioneer in using unmanned aerial vehicles (UAVs) for solar farm monitoring. They joined forces with Essex to refine their smart drone technology and develop a sophisticated, accurate and automated monitoring service for Europe's booming solar farms.

The expertise

Solar farms use thousands of solar PV panels and identifying problems and defects is a significant challenge.

This project used Essex expertise in embedded systems and advanced image recognition to measure and identify deterioration of PV panels across the growing number of large-scale solar farms.

The value

Above Surveying Managing Director, Will Hitchcock, said: "Our partnership with the University of Essex and Innovate UK will give us the combined expertise to take our innovative UAV technology to the next level, keeping our business at the forefront of this developing market."

August International

August International leads the research, development and supply of consumer electronic products.

The aim of the KTP was to develop an intelligent wearable product that is used to monitor the health condition of disabled and elderly people improving their quality of life.

The partnership with Essex enhanced the company's focus on product development and has played a vital role in their expansion into the healthcare industry.

Our partnership with August International was ranked as outstanding by Innovate UK thanks to its business impact.

Innovation Snapshot

Manufacturing

Fläkt Woods

The business need

Fläkt Woods makes a range of fans that incorporate electrical motors, but the efficiency of the fans had reached the optimum level.

The company wanted to tackle this by using Electronically Commutated (EC) motors, which would increase efficiency by integrating electronic controls.

The expertise

Fläkt Woods sought expertise from the School of Computer Science and Electronic Engineering. We applied computational intelligence techniques and learning algorithms to develop integrated systems that developed a new EC motor fan. This new product is better performing, more energy efficient, economical and environmentally friendly.

The value

The KTP project enabled Fläkt Woods to develop a new product and the company is looking to start a second KTP with Essex. This partnership was ranked as outstanding by Innovate UK thanks to its business impact.

Simon Chapman, R&D Director at Fläkt Woods, said: "This partnership has been a remarkable success, resulting in an outstanding product which enables us to offer a more efficient and flexible product to meet our customers' needs."

Port of Felixstowe

The Port of Felixstowe is the UK's busiest port. It wanted a solution that could improve its complex scheduling processes, so it could operate at an optimum level.

Using our leading expertise in developing optimisation algorithms using artificial intelligence, we devised a project that scheduled the labour force more intelligently.

The two-year KTP further enhanced the Port's labour deployment processes allowing it to reduce waste costs and improve customer service.

The Innovators

Meet the companies using Essex expertise through an Innovate UK backed Knowledge Transfer Partnership.

ABER instruments

abovesurveying
aerial thermographic surveying

AUGUST INTERNATIONAL

BT

cgeye

DataSpartan CONSULTING

dicam

elp
emergency lighting products

FILAMENTV
Helping organisations leverage AI & Machine Learning technologies

FläktWoods

hood group

msx INTERNATIONAL

objective

ORBITAL MEDIA

mondaq
Connecting knowledge & people

preqin
alternative assets. intelligent data.

Profusion
Audio semiconductors

PROFUSION

Provide

psl rheotek

SIGNAL

LPA
Long Life Reliability
does not cost the earth

FIND OUT MORE ABOUT KTPS

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