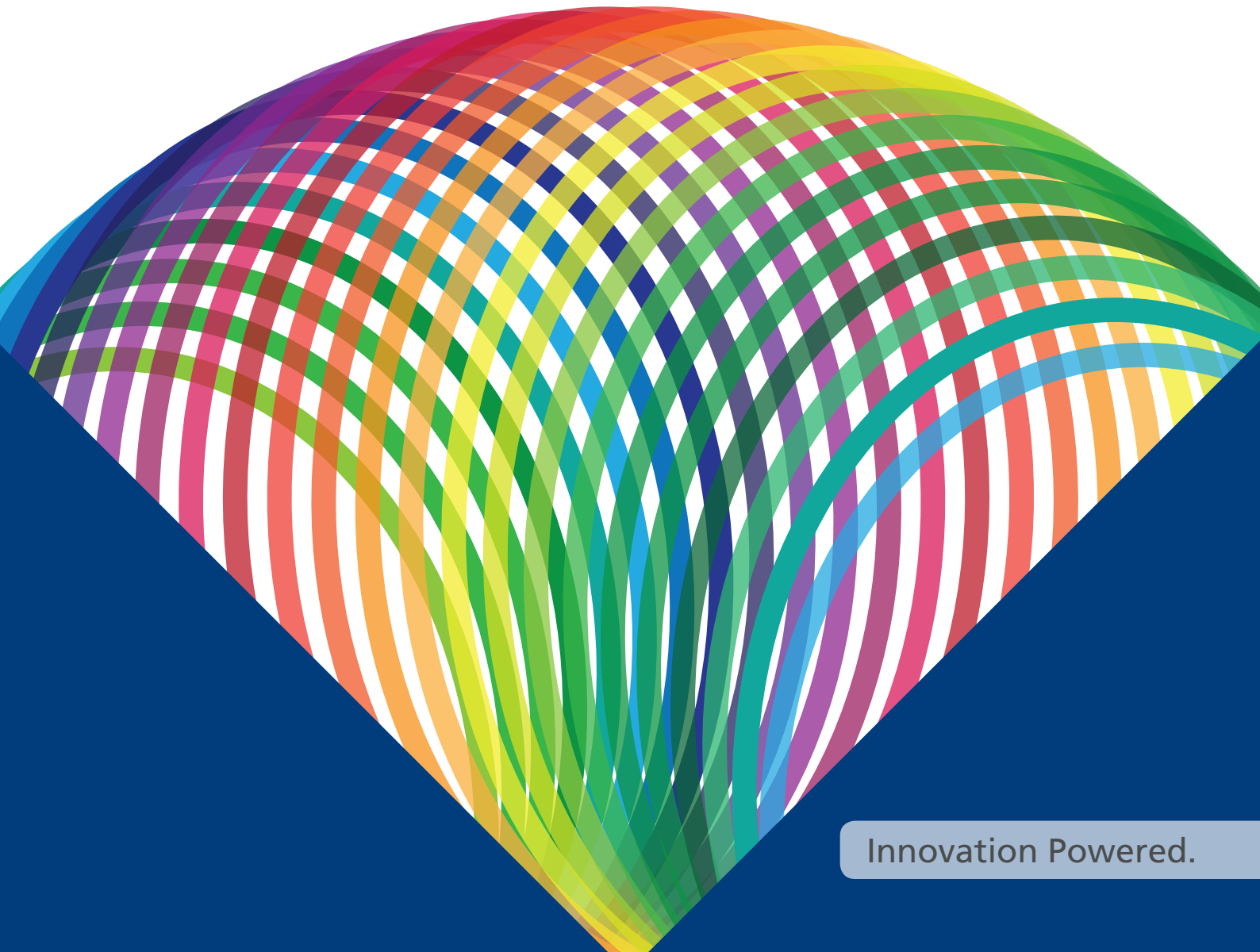


# Surrey Knowledge Transfer Account



# Innovation Powered

Innovation is vital if the UK is to remain competitive on the world stage.

The University of Surrey has a track record of successful collaborations with industry and excellent research.

Work with us to drive the innovation of the future.



## The Surrey Knowledge Transfer Account

The Surrey Knowledge Transfer Account is designed to bridge the gap between excellent research and innovation by providing easy mechanisms for industry to make best use of the capabilities stored within the University and our key partners.

It can provide your organisation with a range of opportunities including:

- Access to funding for Pilot Projects and Demonstrator Programmes
- Increased speed and reduced cost of innovation via industry/academic exchange
- Access to a wide range of laboratory facilities and academic expertise
- Innovative research outputs and the capability to match industrial needs

“The Surrey Ion Beam Centre provides a prompt and flexible response, with fast turnaround that meets the demands of rapid process development and pilot production in the manufacturing industry.”

Bookham, now Oclaro Inc.

## New Solutions, New Opportunities

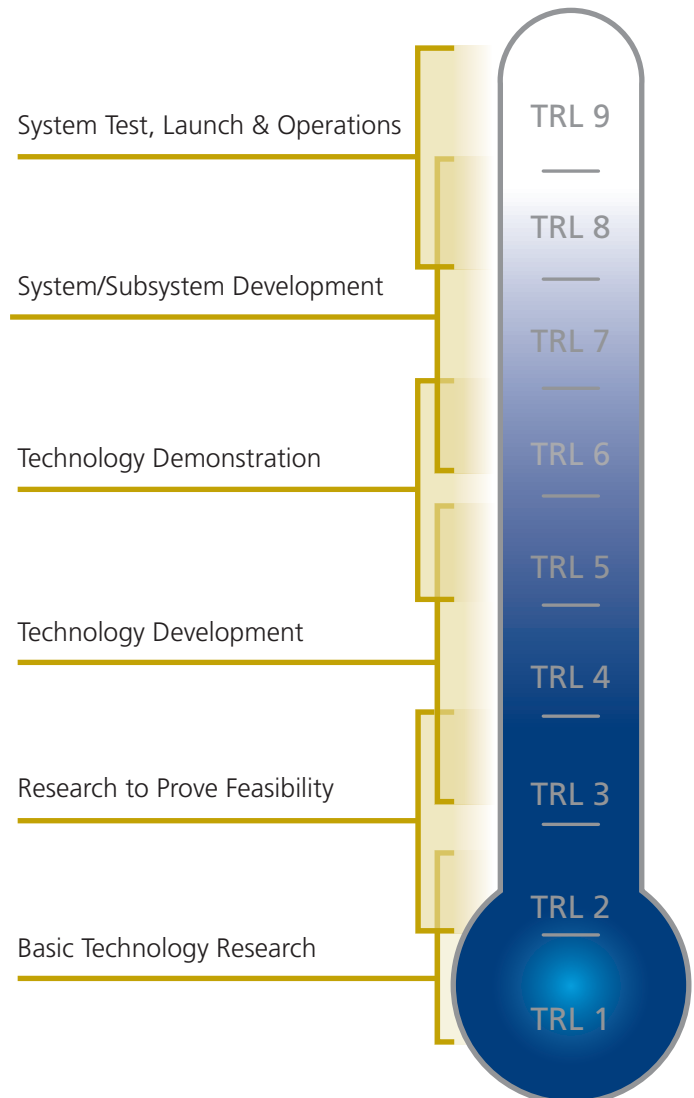
The aim of the Surrey Knowledge Transfer Account (KTA) is to exploit a wide range of existing research results by connecting them to industrial needs and more widely engaging with industry in areas of research excellence.

Funding is provided to bring academia and industry together to solve existing problems, create innovation and pump prime new market opportunities. The emphasis is on Technology Readiness Levels (TRLs) of level 4 and above.

The Surrey KTA can provide a number of benefits to your organisation, including:

- Competitive advantage through innovation
- Long-term and short-term problem solving
- Access to expert resources
- Network events

Surrey's researchers are right at the cutting-edge of their fields and this offers outstanding opportunities for commercial impact.



## Exploiting Excellence through Innovation

The prestigious Knowledge Transfer Accounts are funded by the Engineering and Physical Sciences Research Council (EPSRC).

At the University of Surrey our KTA is hosted in collaboration with our key partner the National Physical Laboratory (NPL).

The University of Surrey and the NPL are two world-leading institutions. The KTA will provide your organisation unique access to their combined resources and state-of-the-art facilities.

The range and quality of facilities Surrey offers access to would be outside the range of most SMEs – so the KTA really opens up the possibilities their use provides.

## Helping industry engage with Surrey researchers

The Surrey KTA will fund collaborative programmes to solve key industrial challenges, using the expertise and technology developed at the University of Surrey.

The programme supports the needs of industry through a number of initiatives and will:

- Fund short-term consultancy work where industry needs expertise from University researchers
- Enable industry employees to work at the University, to access facilities and expertise
- Provide seed funding to develop prototypes and proof of concept models where the investments are of high risk
- Fund feasibility studies to validate the exploitation potential of new technologies
- Support Knowledge Transfer Partnerships (KTPs) to encourage personal exchange between the University and industry ([www.ktponline.org.uk](http://www.ktponline.org.uk))
- Fund the design and development of large demonstrators
- Develop industry focused training courses
- Organise networking events to encourage industry/academia interactions
- Involve minimal paperwork and bureaucracy



## Business Success Built upon Research Excellence

The Surrey KTA focuses on three areas of technology ('Platforms') that incorporate International Centres of Excellence in areas for which we are renowned:

- Communications and Signal Processing
- Nanotechnology and Photonics
- Next Generation Materials and Characterisation

Each platform has a specialist knowledge exchange professional (a Platform Director), with experience in connecting academia to industry, working closely with a senior Academic Lead with an international research reputation and experience of exploitation of research outputs.

## Innovation Platforms

### Communications and Signal Processing

Communications and Signal Processing (CSP) are the key enabling disciplines for the Digital Economy and provide the underpinning for Next Generation Networks, the Future Internet and smart services. They provide the technology for applications that help answer the grand challenges in healthcare, transport, security, energy and the environment, and sustainable societies.

The University of Surrey has one of the largest academic research groupings in CSP in Europe, with wide involvement with industry and an excellent record of creating spin outs and business impact. We participate in a large number of European collaborative projects and have strategic research links with the US, Japan, Korea, China and India.





### **Nanotechnology and Photonics**

At Surrey, we have identified nanotechnology as a key technology, which can help address the challenges we face today. Similarly, photonics is one of the fastest growing technology sectors, creating new markets and wealth generation opportunities for the UK.

The University of Surrey is at the forefront of nanotechnology and photonics research, which has led to the creation of several spin out companies. Key achievements include the creation of strained quantum well laser, which is used in every optical fibre system and CD/DVD player in the market.

### **Next Generation Materials and Characterisation**

Advanced materials underpin virtually all areas of economic activity in the UK, including energy, aerospace, transport, healthcare, packaging, defence and security. The continuing background of concerns about the environment, resource and energy pressures, and increasing global competitiveness mean that the innovation and application of advanced materials are vital for business success.

The University of Surrey is a world-leading institution in the development of materials, their characterisation and applications. We house one of the best selections of materials characterisation facilities to be found anywhere and are one of the largest recipients of support from the EPSRC.



## Bringing Industry and Academia Together

The Surrey KTA has been specifically designed to provide business with a bridge between academic excellence and industrial application.

With the funding and dedicated industrial specialists to connect our research with your organisation, we can identify appropriate partners and markets for exploitation and accelerate your opportunities for innovation.

The advantages to your organisation are:

- Access to a wide portfolio of EPSRC research results, some of which have not been exploited, whilst others remain ripe for exploitation in other application areas
- Access to a wide range of facilities and academic expertise
- Funding to allow projects to be taken from research to product prototypes
- Funding for larger demonstrators to allow industry to trial products
- Provision of innovation space for industry and academia to work together
- Funding to allow academics to spend short terms in industry and industrialists to spend short terms in the University to solve problems
- Provision of sector state-of-the-art, and brokerage for future research initiatives

The University of Surrey has a strong track record of research innovation and exploitation successes.



The University of Surrey, with the support of the UK Engineering and Physical Sciences Research Council (EPSRC) has launched the Surrey Knowledge Transfer Account to increase the industrial engagement with researchers, facilitate active knowledge exchange, fund seed ideas and develop new innovations in collaboration with industry.

### The Impact of Innovation

The Surrey KTA is able to translate the University of Surrey's extensive capabilities to help provide your business with the competitive edge to succeed in an increasingly competitive global market.

Put your organisation one step ahead by working with us on innovative solutions to your research and development challenges.

## Innovation in Action

### From space technology to computer games success...

The KTA provided critical early support to Dr Alexandre Pechev to repurpose software originally designed for satellite control and robotics into a revolutionary solution for real-time, lifelike animation of creatures or characters in computer games.

The Royal Academy of Engineering has given its entrepreneur award to Dr Alexandre Pechev for the 'IKinema' computer games technology.

IKinema is a revolutionary new approach to computer animation which animates the whole body of any character or creature and automatically takes into account gravity and balance to produce lifelike movements.

Dr Pechev was working on ways to control space satellites when he saw a solution that could be extended to robotics and from there also to the way avatars move in computer games.

The award was announced at a worldwide conference for the games industry in California. The Game Developers Conference (GDC) is the world's largest professionals-only game industry event. Held every spring in San Francisco, the conference is a forum for inspiration and networking for creators of computer, console, hand-held, mobile, and online games.

Dr Pechev's original research, at the Surrey Space Centre at the University, was on satellite control systems but it has the potential, recognised in this award, for unexpected and far reaching impacts.

[www2.surrey.ac.uk/spaceexpertgamesaward](http://www2.surrey.ac.uk/spaceexpertgamesaward)



## Contact Us

If you have a challenging problem that needs a solution, or think that the University's expertise, resources or technologies can enhance your business, please get in touch.

For more information, we recommend you contact the relevant Platform Director.

### Communications and Signal Processing

Platform Director: **Peter Lancaster**

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### Next Generation Materials and Characterisation

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[www.surrey.ac.uk/kta](http://www.surrey.ac.uk/kta)

The Surrey KTA has attracted world-class industry and sector leading Knowledge Exchange organisations as partners.



For more information on any of our KTA Platforms, contact the relevant Platform Director directly.

**Communications and  
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