

Directorate for Research, Innovation and Enterprise Annual Report 2022-2023

Introduction



The Directorate for Research, Innovation and Enterprise (RIE) was established in August 2022 to strengthen support for these activities. RIE has taken

over all the functions covered by the former Research and Business Development Office (RBDO), which was located in the Directorate of Finance and Legal Services. Some of those functions have been reviewed and restructured. Responsibilities have also been added to RIE's brief to respond to the needs of our thriving and growing agenda on research and innovation.

In its first year of activity, colleagues in RIE have also pro-actively engaged with our local community and innovation ecosystem. RIE has been described in the Oxfordshire's Innovation Engine 2023 report as providing "a first point of entry for stakeholders to access the community of researchers, innovators and entrepreneurs across Brookes' four faculties."

RIE is now a well-established new Directorate with a clear structure of three teams to deliver its services and objectives: Research Support and Governance, Knowledge Exchange and Impact, and Enterprise. During this first year much has been achieved thanks to the hard work, dedication and commitment of our existing and new colleagues who have joined RIE.

We also owe our first successful year to many colleagues in the Faculties and other Directorates who have supported us and to the PVC Research and Global Partnerships, Professor Linda King, who has provided most valuable guidance and advice.

The purpose of this report is to offer an overview of all the functions and work covered by the new Directorate and to highlight some of the key activities and achievements of its first year. We look forward to our second year of activity and to continue engaging with colleagues across the university as well as our external stakeholders to implement RIE's mission to:

- **Support** the university to achieve its ambitions for research, innovation, knowledge exchange and enterprise (RIKE)
- **Connect** researchers, support and professional staff and RIKE activities across the university
- **Engage** external stakeholders and beneficiaries of research
- **Innovate** to promote transformational research with impact and enterprise
- **Celebrate** all the wonderful things our researchers, innovators and entrepreneurs achieve

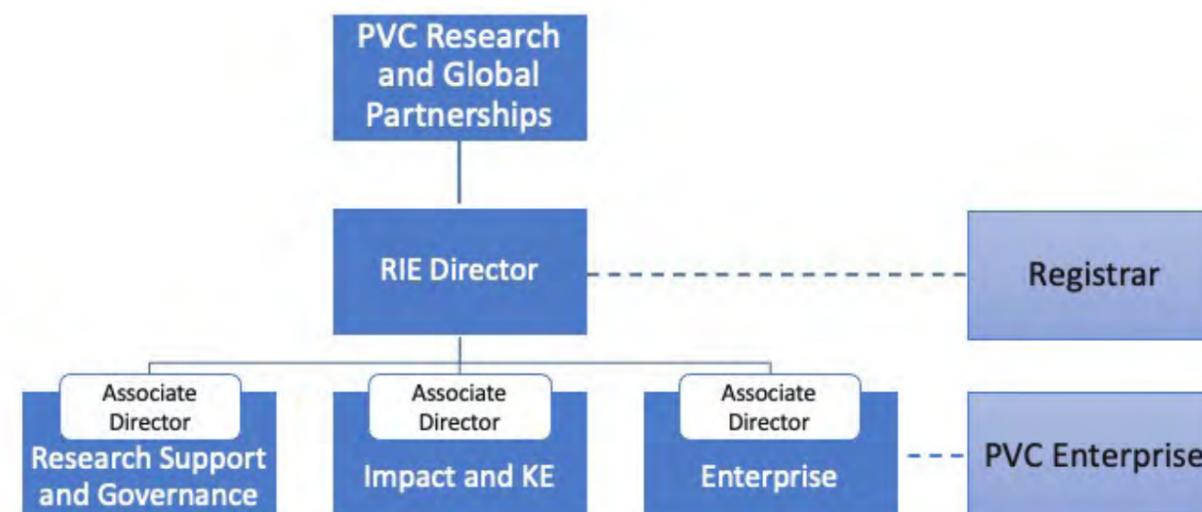
I hope you will find this report useful and informative.

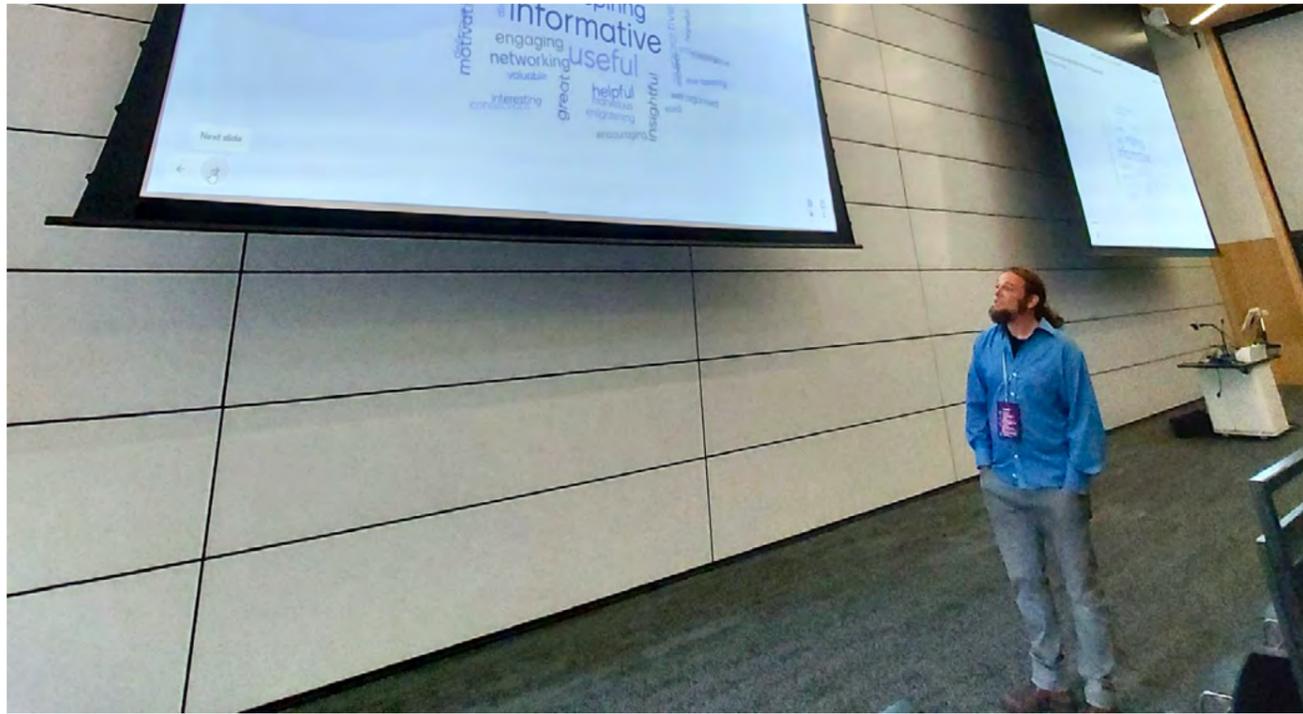
Professor Simonetta Manfredi

Director of Research, Innovation and Enterprise



RIE structure at a glance





Research Support and Governance



The Research Support and Governance team is headed by **Dr Tudor Georgescu, Associate Director of Research Support and Governance**. He is currently seconded from the Faculty of Technology, Design and the Environment. This team is articulated into three sub-teams: pre-award, post-award, and research culture and practice. These work very closely with the Faculties' Research Offices (FRO).

Pre- and post-award teams

Pre-Award

- ✓ Manage the final approval process, working with colleagues in Faculty Research Offices to get approvals to the end point

Post-Award

- ✓ Work with Faculties on Financial Monitoring of Research Projects
- ✓ Submission of Interim and Final financial statements
- ✓ Preparation of annual HE-BCI Return
- ✓ Preparation of annual allocation of QR Income to Faculties
- ✓ Provide contract support for research grants



Pre-and post-award teams highlights

- In 2022-23 the pre-award team supported and processed almost £59M worth of bids which represents a 64% increase compared to just over £36M the previous year. However, the full outcome of the increased bidding activities will not be known until 2023-24. At the end of 22-23, OBU was awarded £6M of grants which is slightly less compared with £6.5M the previous year with a number of large awards (e.g., ERSC £4.6M, DEFRA £680K) just tipping over into 2023-24.
- The post-award team prepared the annual return of KE activities to the Higher Education Statistics Agency (HESA) through the Higher Education Business & Community Interaction survey (HE-BCI). The metrics within the survey are largely financial and report income derived from seven categories of activity including Contract research, Collaborative research, CPD, Consultancy, InnovateUK and IP income streams. The survey results are publicly available and are used to benchmark performance across the HE sector. The latest return for 2021-22 shows that commercialisation and knowledge exchange (KE) income was £19.3M which represent an increase of just over 19% on the previous year continuing the upward trend of recent years. This has resulted in a 9% increase in the Higher Education Innovation Fund (HEIF) to the university for 2023-24.
- Workshops have been held to facilitate closer working with FROs and will continue to be held on a quarterly basis. Moreover, events have been organised with the participation of research funders to support bidding activities (see RIE events for details).

Research Culture & Practice

- ✓ Assisting researchers meet regulatory and Concordat requirements
- ✓ Research ethics approvals and good practice
- ✓ Research data management – working with the Library and IT – to support researchers manage, store, archive and share their data appropriately
- ✓ Open research – making the process of research more accountable and transparent, working towards more reproducible results, shared widely
- ✓ Awards to enhance Research Culture



Professor David Foxcroft
Open Research Champion



Professor Sarah Quinton
Chair, UREC

Researcher Development

- ✓ External action plans & reporting – HR Excellence in Research Award; Concordat to Support the Career Development of Researchers
- ✓ University Research Staff Mentoring Scheme
- ✓ University Research & KE Training Programme – First Three Years and EXPLORE@Brookes in collaboration with Oxford CAED
- ✓ Support for Research Awardse.g. Research Excellence Awards



Professor Susan Brooks
Director of Researcher Development

Researchers Development is overseen by Professor Susan Brooks with support from Jennie Cripps who coordinates a very effective programme of training for researchers. The overall results of feedback gathered after each individual training event during 22/23, indicated an average usefulness rating of content of 4.2 out of 5, on a scale where 1 is “Not at all useful” and 5 is “Extremely useful”. Those who attended the Managers of Researchers Training rated the average usefulness of content in relation to their “Concordat to Support the Career Development of Researchers” responsibilities as a Manager of Researchers 4.2 out of 5. As one of them said:

“I thought this was really good in acknowledging that we as academics aren’t always trained to be managers, or see ourselves as such - that’s often assumed, but not spelled out.”

The high quality of these training programmes and initiatives is reflected in the results of the national survey on the Culture, Employment and Development in Academic Research Survey (CEDARS 2023). Our research-only staff and their line managers exceeded the sector average in their evaluation of the environment, working conditions, support and development available to them at OBU in many areas. Notably, both groups rated the recruitment and selection process; experience of induction; job satisfaction; feeling valued at work; promotion of good work-life balance; feeling of inclusion in their immediate research environment/group; and being encouraged to maintain good mental health and wellbeing as more positive than the sector average. In addition, 90% of Research Staff reported that they would recommend Oxford Brookes to prospective researchers.

Research Culture and Practice highlights

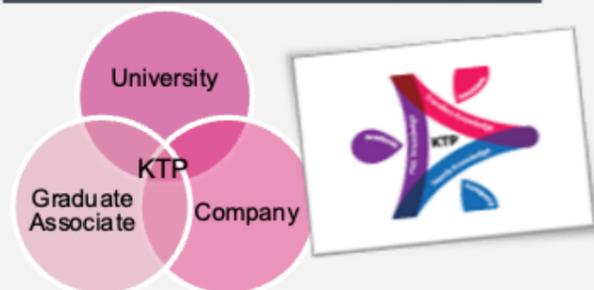
UKRN Open Research Programme (ORP). Oxford Brookes is part of a consortium of 18 universities that have been awarded funding under the Research England Development (RED) Fund for a five-year programme of work to accelerate the update of high quality open research practices.

Professor David Foxcroft is the current Brookes senior academic lead and is supported by Dr Joe Corneli who is based in the Research Culture and Practice team. Dr Eric White, Reader in American Literature in HSS, will take on the role of senior academic lead for this project in January 2024. Following a very successful open research workshop for Brookes staff, facilitated by Dr Joe Corneli, an initial draft open research plan is starting to take shape.

This research plan synthesises insights gained in interviews with members of the ad hoc Open Research Advisory Group, as well as input from a day-long workshop with this group, RIKE network leads, and other stakeholders. Oxford Brookes has also contributed to the development of a strategy for training evaluation to the Open Research Programme.

KE & Impact Team: What do they do?

- ✓ Support Knowledge Exchange activities – consultancy, CPD and collaborative research, business development
- ✓ Support and manage Innovate UK KTPs
- ✓ Coordinate our return to KEF and oversee the KE Concordat and Action Plan
- ✓ Facilitate and manage Commercialisation of Research (IP, spinouts, licences)
- ✓ Coordinate and support Public and Community engagement with research
- ✓ Facilitate and support impact of research
- ✓ Support our RIKE networks



The KE and Impact team is headed by Dr Carol Mcanally, Associate Director (KE and Impact) who joined RIE in mid-April. Carol used to work at the University of Reading in a similar role and prior to that she worked for the EPSRC.

KE and Impact Highlights

Research, Innovation and Knowledge Exchange Networks (RIKE)

RIE supports the university-wide RIKE networks which bring together researchers from different disciplines across the four faculties and professional staff, as well as external stakeholders, with an interest in a particular area. These are:



Migration and Refugees



Healthy ageing and care



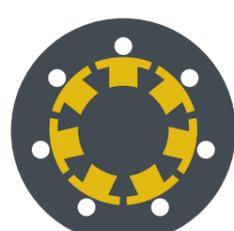
Children and young people



Artificial intelligence and data



Sustainable and Resilient Futures



Equality, Diversity and Inclusion



Creative Industries

RIKE networks design and deliver outreach activities to engage with the public, specific groups and the potential beneficiaries of their members' research. Examples of RIKE activities supported by RIE include:



Migration and Refugee Research Network

The Migration and Refugee Research Network held its inaugural postgraduate Summer School in Migration and Refugee Studies from 5th to 9th June 2023. This was delivered online with successful students receiving certificates in migration and refugee studies. The course was funded by the Jean Monnet Programme of the European Commission and enabled students to attend this course for free.

For more details: www.brookes.ac.uk/research/networks/migration-and-refugees-research-network/jean-monnet-postgraduate-summer-school

Creative Industries Network

The Creative Industries Network ran the 3rd Creative Industries Festival between 9-16 May, with over 50 artists, performers, researchers and professionals enlivening 20 interdisciplinary talks, workshops and performances around the themes of All-embracing Creativity, Climate Crisis, Impacting the Future, Social Justice and Space(s) for Resistance.

For more information: www.brookes.ac.uk/research/networks/creative-industries-research-and-innovation/festival-2023



Children and Young People Network

The Children and Young People Network hosted a Festival of Research for Year 9 students, their teachers and schools on 19 April 2023. The purpose of the event was to increase young people's understanding of research and its relevance to their lives now and in the future. The session was also a space to hear what students think should be the key priorities for research that can help to shape a better future for children and young people.

More details here:
www.brookes.ac.uk/research/networks/children-and-young-people/events/2023/children-and-young-people-festival-of-research



Artificial Intelligence and Data Network

The Artificial Intelligence and Data Network launched last February for the first time at the Festival of AI. The programme involved a mix of in-person and online events. To maximise engagement, most sessions were free and open to the public. These included panels on AI in life sciences and the arts, autonomous vehicles and AI ethics, with hands-on, practical advice on how to maximise the benefits of the new technologies for employees, customers, and society as a whole. Some of the activities were hosted by Blenheim Palace.

For more details:
www.brookes.ac.uk/research/networks/artificial-intelligence-and-data/news/2023/ai-at-blenheim-palace



Public and community engagement

RIE supports public and community engagement (PCE) activities that are championed by Professor Anna Nekaris (leading on research engagement) and Michelle Montgomery, Associate Dean Strategy in HSS, who leads the university-wide public and community engagement steering group. In addition to leading on key Brookes events, RIE supports the co-ordination of activities across the university, builds connections and knowledge with experts outside Brookes. Examples of PCE included:



The Science Bazaar is a well-established yearly event that takes place at Headington Campus. On average, is attended by over 3,200 visitors from across Oxfordshire. In order to widen access to the Oxford Brookes Science Bazaar for the first time,

in February 2023, a relaxed autism-friendly early opening was held. This quieter, less crowded, session allowed for 200 visitors to explore the exciting activities that were on offer. Training was given to staff and students taking part in the Bazaar to ensure that they were prepared for the autism-friendly session. Feedback from the visitors was hugely positive and the autism-friendly session will now be a regular feature of the Bazaar.

For more details:
www.brookes.ac.uk/science-bazaar/



The Science Bazaar in the community

This was another first for the Science Bazaar which was taken to communities of children from socio-economically disadvantaged backgrounds through the Community Project at Rose Hill Junior Youth Club (RHJYC). Staff and students from across all 4 faculties support the project in collaboration with youth workers from RHJYC.

Dr Sam Kamperis, Lecturer from the School of Engineering, Computer Science and Math, set a fun geometry challenge and introduced the children to Cozmo Robots.

[Watch the video](#)



The Willow project involved the creation of an outdoor sculpture entirely made of willow to provide a safe and sheltered space to meet in and encourage collective creativity and environmental learning. It was designed by Lilli Tranborg, artist and postgraduate student in TDE, and built by citizen artists (staff, students and members of the local community) for citizen science and undertaken in collaboration with Michelle Morley, Head of Environmental Sustainability, in the Directorate of Estate and Facilities. The development of the Willow project also involved a series of workshops, including one with 32 children aged between 5-9 years that was filmed by ITV news.

Knowledge Exchange projects

RIE manages the university's HEIF Funding and reporting and manages an internal funding scheme for staff to support small KE projects, typically between £5-10K. Between 2022-23, 18 small KE projects were awarded and examples include:

- **Post-Disaster Housing Knowledge Exchange for Impact:** Academics in TDE are leading a project that aims to develop knowledge exchange activities with industry partners involved in post-disaster housing. It disseminates and promotes the research of CENDEP and their partners to apply it to practice related to shelter self-recovery and the connections between post-crisis housing and health.
- **An exploration of the UK consumers' response to new eco labelling on food products and how the label impacts decision making:** Academics from OBBS and HLS have been funded to work in collaboration with SunBear Bioworks, a company located in the Brookes' Enterprise Centre focusing on developing synthetic palm oil. This project investigates the impact of new eco-labelling on consumers' purchasing decisions.

Research impact

RIE, as the system owner of the Impact Tracker, has gathered feedback on improvements across Faculties and managing implementation. It supports Professor Tina Miller, the University Research Impact Champion, to implement the Research Impact strategy and to assist Faculty Impact Champions with the preparation of research impact cases for the next REF. Collecting evidence of impact enables the university to measure the difference that its research is making to the world. New materials to support impact development are being developed and will be made available online in semester one, 2023-24. Twenty-two Impact Development proposals have recently received Central Research funding and there will be further Impact funding opportunities in the future.



Knowledge Transfer Partnerships

KTPs are funded by InnovateUK to help companies develop by providing financial support to access specialised academic knowledge. RIE facilitate matching between companies' business needs and specialised academic expertise and provides faculties with pre and post award support with KTPs.

Currently, we have seven KTPs, five led by OBBS, with one being a collaboration with TDE. The latter involves Blenheim Palace and provides cutting-edge AI expertise to track and gauge visitor numbers. Another KTP led by TDE uses the expertise in computer vision from the Visual Artificial Intelligence Laboratory that will transform the way in which virtual adverts are played on the boards of sports pitches. The most recent KTP, Think Through Nutrition, is led by HLS and more potential applications are in the pipeline.

With faculties, RIE has put in place plans to grow the KTP portfolio to at least 15 projects, at any given time, over the next

three years, which would place Oxford Brookes in the top 25 of all HEIs. To this end, RIE successfully applied for a grant to InnovateUK (£30K) to step up marketing activities and part-fund a post to provide additional support to manage pre- and post-award applications. Examples of marketing activities include an event in February 23 with a panel of company CEOs who shared their positive experiences and outcomes of working with Brookes' academics.

A T&F Group has been established to review our processes to ensure more agile and effective support at both pre- and post-KTP award stages. This review includes Dr Matt Hogan an InnovateUK KTP adviser, and colleagues from Legal Services and Faculties. This work will be concluded in Autumn 2023.

[Watch our KTP video with Blenheim](#)



Commercialisation of Research Highlights

Income from intellectual property (IP) in 2021-22 was at record levels of £5.3M – continuing the upward trend of recent years. Oxford Brookes ranked 9th for IP income out of 160 UK universities (HESA data) and above many research-intensive institutions. In 2022-23, there have been two new invention disclosures; RIE has responsibility for capturing invention disclosures and management of our patent and licence portfolio.

Oxford Brookes University Patents portfolio

The university has currently a portfolio of 38 patents split between Engineering, Computing and Life Sciences to protect inventions in:

- Medical diagnostics
- Cancer therapeutics
- Sensors
- Encryption technology for secure communication and unclonable chip devices
- Electronics
- Chip Design (Memristor)

One new patent was granted in 2022/23 – Memristor electronics.

Proof of Concept Awards

RIE manages the HEIF and supports the use of this to invest in Proof-of-Concept Funding that supports feasibility, market assessment and projects with commercial potential; each project is typically £20-£30k. There are currently four funded projects:

- Knee Surgery Modelling (TDE)
- Non-metallic conductor for MRI (TDE)
- Hand Held Health App for lung cancer and COPD patients rehabilitation (HLS)
- Metastatic and early-stage cancer diagnostic (HLS)

ICURe InnovateUK applications

The ICURe programme run by InnovateUK provides funds to accelerate commercialisation of research. Two successful applications were made in 2022/23: Second Life EV battery and AI Trustworthiness Tool in TDE. Over the last four years, Oxford Brookes innovators have been supported to make nine successful applications to the ICURe programme, including the two granted in 2022/23, to accelerate commercialisation of our technologies.

Spinouts

In 2022-23, two new spinout companies have been created which cumulatively attracted £510K of funding from InnovateUK: MetaguideX Cancer Diagnostic and Oxford Target Therapeutics. This brings the total number of Brookes active spinouts to three, including Oxford Expression Technologies, a company established several years ago and co-founded by Professor Linda King.



Enterprise Team



The Enterprise Team is headed by **Dr Philip Clegg, Associate Director (Enterprise)**. Phil has been former Vice-President and Director of Enterprise Educators UK (2016-2022) and has developed a new Enterprise strategy for the university, which is seeking to enhance Enterprise support provisions for our students and for the new Enterprise Centre (see below) to become a ‘living lab’ providing opportunities for students to become engaged in and understand the role of enterprise and entrepreneurship activity.

Highlights

The Enterprise Centre (EC), established in collaboration with OxLEP whom provided part-funding of c.£850K, was completed in February and formally launched in September 2022. The formal launch was very successful with over 80 attendees including a mix of businesses from the Oxfordshire innovation ecosystem, professionals involved in the creation of start-ups and spin-out companies, local councillors and politicians, as well as members of staff. Over a 4-year timeframe, the ambition is to support 17 companies and 74 new jobs. We are on course to meet or exceed the OxLEP KPIs for the period covering April 2022-March 2023 and these are:

- Start-ups created: Projected 5. Delivered 5, including those supported by the Enterprise Support team which are part of OxLEP KPIs
- Jobs at start up: Projected 5. Delivered 5.75
- Jobs created (growth of companies): Projected 13. Delivered 14.4

The EC offers office and lab space (Bioinnovation Hub) for digital- and life sciences-focused start-ups, spinouts and shared/co-working spaces. It currently hosts eight companies: Coding Bio, Sun Bear Bioworks, Sensible Bio, Femtech and Brookes spinouts Oxford Expression Technologies, Oxford Target Therapeutics and MetaGuideX.

A new Business Start-Up Manager and two Business Start-Up Advisors will start at the beginning of semester one. Their work will be complemented by the work of Enterprise Fellows in all faculties.



During its first year the Directorate of Research, Innovation and Enterprise (RIE) delivered a series of both internal and externally facing events. The latter aim to promote our research and innovation activities and these were:



Working collaboratively with colleagues in the Business School and the Faculty of Technology, Design and the Environment, the Enterprise Team contributed to a successful proposal to host an **EEUK Enterprise Exchange Event on Supporting Digital Entrepreneurship: The Role of University Incubators** in February. That event was attended by external university colleagues from across

the UK, and a follow up session is to be presented at this year’s International Entrepreneurship Educators Conference in Surrey in September.



Women, STEM and Investment: Closing the Gender Gap (June 2023) in collaboration with the UK Business Angels Association (UKBAA). It brought together female researchers in STEM and founders of university spinouts, female Business Angels and investors, as well as key figures from the enterprise ecosystem including Innovate UK, the Royal Academy of Engineering, the Royal Society of Chemistry, the

Francis Crick Institute, British Business Bank and the NatWest Group. It concluded with a dinner with our VC, Professor Alistair Fitt and the VC of the University of Oxford, Professor Irene Tracey, who is leading a review of university spinout companies commissioned by HM Treasury.

[Watch the event video](#)



We hosted two events with B4, a regional business network. These events provided an excellent platform for networking, knowledge sharing, and the establishing of meaningful connections within our business community.



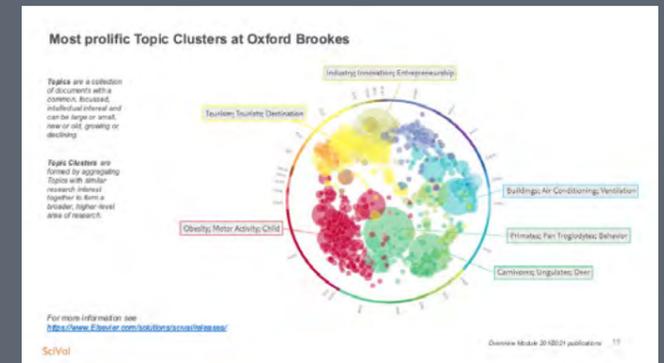
We hosted a talk by Professor Nigel Crook about how AI, Machine Learning and Big Data are impacting and changing businesses as well as Dr Paul Jackson on the benefits for businesses of KTPs. This event was organised in association with Freeths Solicitors who kindly sponsored networking drinks.



We also held a webinar with academics from the Sustainable and Resilient Futures Network and Toby Newman Chief Operating Officer of Enistic Energy Management Systems. The panel discussed leading issues in achieving Net Zero and dispel myths that surround becoming more sustainable, as well as how transitioning to being more sustainable can have beneficial impacts on organisations.

Internal events aim to inform staff and research students, and facilitate networking with UKRI representatives, industry and other organisations. In 2022/23 RIE hosted the following events:

A talk, in November, by Dr Lesley Thompson, Vice-President Academic and Government Strategic Alliance at Elsevier. Dr Thompson presented an analysis of research trends at Oxford Brookes, which also highlighted the most prolific topic cluster at OBU.



The research and innovation awayday in January included talks from senior representatives from InnovateUK and the Royal Society.

A talk by Professor Paul Beasley, Head of R&D at Siemens, on their strategic research and innovation engagement scheme and how to become a strategic university partner.



A whole day event in July with UKRO representative Dr Branwen Hide that involved two plenary sessions: "Horizon Europe: Where we are, and where we are heading?" This talk offered an overview of key upcoming EU funding calls (e.g. MSCA, ERC starter, and Consolidator awards).

"How to Apply for and Manage EU Awards." This talk focused on the EU funding application process (e.g. how to work with the lump sum funding model), as well as the requirements (and realities) of managing live awards (e.g. time sheets, reporting). This event proved particularly timely especially as the UK has now re-joined the Horizon programme. It also involved one to one sessions between Dr Branwen Hide and Oxford Brookes' researchers who wish to apply for funding to Horizon Europe.



Most speakers slides presented at these events are available [here](#).



Working with external groups and organisations

Many RIE functions and activities are outward facing. RIE staff engage and collaborate with external local, national and international groups and organisations. Examples of these activities include:

- Involvement in the creation of the Headington Health and Life Sciences Cluster. Colleagues in the Enterprise Centre and Bioinnovation Hub have been working with several organisations within Headington that are centred around innovation, including The Oxford Trust's Wood Centre for Innovation, Barclays Eagle Labs, Oxford Innovation Space, The Hill, and the BioEscalator which support and host a large number of science and tech start-ups and spinouts, working on ground-breaking research. The aim is to establish and promote Headington's Health and Life Sciences Cluster as a vibrant launchpad of innovation and excellence in healthcare and life sciences.
- Collaboration with University Alliance (UA) mission group to develop a bid to the Connecting Capabilities Fund (CCF) to increase capacity to commercialise research within UA members.
- Work with Advanced Oxford, at not-for-profit membership organisation that supports R&D based innovative companies across Oxfordshire and which produced the Innovation Engine report 2023. This was complemented by a **Gender Diversity Report** to shine a light on poor levels of female representation in founding & leadership teams.
- Co-applicant with the University of Reading, which has led a bid to the CCF to establish a network of Angel Investors to support university spinouts. This bid was submitted in July and the outcome is currently pending.
- Developing collaborative links with the Universitat Politècnica de València (UPV), Spain, by hosting a study visit from colleagues from this institution. UPV has well-developed enterprise incubator and accelerator facilities to support student start-ups and staff spinouts.

NEXT YEAR KEY PRIORITIES



- Continue to work closely with faculty research offices to support faculties to increase external funding for research, knowledge exchange and consultancy
- Support the PVC RGP and faculties with planning for the next REF including a review of research centres as part of the environment we provide to support high quality research and Research Impact
- Improve our Research Information Systems in collaboration with IT
- Increase capacity to commercialise research diversifying disciplines involved
- Deliver and implement a new Enterprise Strategy and a programme of activities for UG, PG students and graduates to develop entrepreneurial skills and start their own businesses

A list of all colleagues working in RIE teams can be accessed here:
[**www.brookes.ac.uk/rie/team**](http://www.brookes.ac.uk/rie/team)

Get in touch if you need our help and support, if you wish provide feedback or
share ideas email us:

[**rieenquiries@brookes.ac.uk**](mailto:rieenquiries@brookes.ac.uk)

[**www.brookes.ac.uk/rie**](http://www.brookes.ac.uk/rie)

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