

# **KNOWLEDGE EXCHANGE NEWS 22**



# EUROPEAN BUSINESS COLLABORATIONS ON THE HORIZON

Horizon Europe is a €96 billion research and innovation funding programme, that UK organisations which are (or could be) engaged in research and innovation, can apply to, often in collaboration with partners in Europe and further afield.

Horizon Europe operates through different funding streams from individual fellowships and doctoral training networks to large collaborative awards across different Technology Readiness Levels. Funding can be used to help move technology closer to market, for applied collaborative research grants on topics of European importance and to fund excellent discovery research in any discipline.

The Horizon Europe framework programme supports several priorities such as:

- Tackling climate change
- Helping to achieve the UN's Sustainable Development Goals
- Boosting the EU's competitiveness and growth
- Facilitating collaboration and strengthening the impact of

- research and innovation in developing, supporting and implementing EU policies
- Supporting the creation and better diffusion of excellent knowledge and technologies
- Creating jobs engaging the EU's talent pool to boost economic growth, promote industrial competitiveness and optimise investment impact.

Within Horizon Europe, the European Innovation Council (EIC) funds researchers and innovators to create markets of the future and scale up their technology and/or companies by awarding early technology or proof of concept (Pathfinder awards), pre-commercialisation (Transition awards), and market and scale-up (Accelerator awards).

Large collaborative projects are organised into six clusters, with

clear work programmes detailing the call topics and expected outcomes, including opportunities for future impact in helping to improve society, economy and environment.

New work programmes, setting out forthcoming calls for new research and innovation proposals, are expected later this year covering:

- Health
- Culture, Creativity and Inclusive Societies
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment.

The University's Horizon Europe web pages provide an introduction and signposting to detailed resources

#### EUROPEAN BUSINESS COLLABORATIONS ON THE HORIZON continued

and events, including brokerage and networking events which help promote knowledge and engagement with Horizon Europe. Find out more at Innovate UK's dedicated web pages (including Innovate's pump priming for Small and medium-sized enterprise (SME) participation) and the UK Research Office in Brussels (part of UK Research and Innovation (UKRI)) provides a wealth of information (University of York staff access only).



### YORK EQUITABLE TECHNOLOGIES LABORATORY (ETL)

At the York Equitable Technologies Laboratory (ETL) we conduct academic research into the role of technology in inequality and marginalisation. We develop practical tools and methods for technology developers to improve how they design, test and translate their innovations.

This focus reflects a common problem with how technologies are developed and deployed. There is a persistent and well-documented failure of technology to deliver outcomes that are equitably distributed across society: end-user needs are unmet, and society's structural biases, such as those connected to gender, age or physical ability are reinforced, compounding social and economic marginalisation. So, for example, water quality monitoring technologies are rarely appropriate for the places where people live in many developing countries, contributing to the prevalence of diarrhoeal diseases that kill 1,000 children every day. Or, gender biases in the training data that underpins computer-aided medicine has led to the misdiagnosis of severe acute coronary syndrome in women.

Underlying this is a failure of innovation processes to engage adequately with the social and political context within which technologies are produced and used.

Funded by the University Sparks

programme, the ETL responds to these shortcomings by developing ways of working with end-users to co-produce technologies. The goal is not only to respond to user requirements but also to the context in which technologies are used. By working with end users from the outset, our approach ensures that technologies are designed precisely to meet the needs, skills and environment in which people live.

Moreover, we recognise that the social, institutional and economic settings in which technologies are developed and used are as significant as the technology itself in defining the outcome of innovations. Our approach responds to this by integrating technology specification, design and implementation with institutional analysis and development. Participatory methods that allow consideration of the technical and scientific needs are employed alongside those that explore the social, political and economic systems the technology



will be used within, enabling an iterative approach to designing the technical and institutional components of appropriate and sustainable innovations.

At ETL, we can help in the submission of technology development funding proposals that need or would benefit from end-user engagement. The support we offer includes working with colleagues to develop a robust strategy for technology co-production; contributing to the writing of funding proposals, including credible statements on technology co-production, research impact and responsible research and innovation; and sharing a range of practical tools and methods for use with different end-user groups.

For more information about the work of the ETL and how we can help support the research of colleagues across the university please get in touch at etl-enquiries@york.ac.uk

#### RESEARCH SUPPORT CONFERENCE 12 June 2024

150 staff from the Research Innovation and Knowledge Exchange Directorate (RIKE) and the University research community welcomed the opportunity to connect, reconnect and meet new colleagues.

Justine Daniels, Director of RIKE, shared insights on current sector pressures and challenges as we support the implementation of the University Research Strategy and continue to build new business partnerships and grow external income. Staff were encouraged to think openly and positively about the future, and to consider how they can play their part in the University's ambitions by developing high-quality support and service to our academic and professional services colleagues across the institution.

Sarah Thompson, Associate Pro-Vice-Chancellor Research, highlighted York's past and future successes and strengths, including Gold in the national Teaching Excellence Framework (TEF) and in the Research Excellence Framework (REF) York was ranked in the top 10 in the UK for the quality of its research. Sarah highlighted the strategic research objectives, focusing on vital interdisciplinary and translational research through the three translational schools, partnerships with centres and institutes, ambitious new projects such as Sparks and Transformative initiatives such as the Building Industrial Engagement and Impact (BIEI).

Throughout the day, colleagues were invited to attend various break-out sessions (below) delivered by both RIKE and academic colleagues.

Trusted Research: Dr Andrew
Taylor, Head of Policy, Integrity
and Performance.
The focus on research security is
increasing. Where any potential
risks are identified, these should
be discussed with the Policy,
Integrity and Performance Team at
the earliest opportunity, trustedresearch@york.ac.uk and policy-



integrity-performance@york. ac.uk.

- York Economic Development
   Projects: Edward Twiddy, cofounder Atom Bank and chair of
   Northstar Ventures and non-exector Arlington-McLaren, York
   Central Developers.
   Prime development site in
   the UK and a major 'once in a
   lifetime' economic development
   opportunity for the City of York and
   the region.
- Creative Industries: Professor Damian Murphy, Professor of Sound and Music Computing. Supporting Innovation for the Creative Industries through R&D as a driver of regional economic growth as a University for Public Good.
- Valuing Voices: Megan
   McLoughlin, Head of Building
   Research and Innovation Capacity
   (BRIC).
   The Valuing Voices for Equitable
   and Posponsible Passarch project

The Valuing Voices for Equitable and Responsible Research project supports best practice in research and research culture creating policies and systems that recognise and reward working in equitable

and responsible ways.

- Supporting the Associate Deans for Partnerships, Engagement and Innovation: Professor John Mateer, Professor Tarl Prow, Professor Mark Freeman. Aligning the University's strengths with external demand. Detailed discussions will help improve the "match and deliver" process. Academics gain an understanding of the relationship between external/industry engagement and research, and developing projects that involve both can provide greater benefit and impact than either activity alone.
- Sparks: Supporting Future
   Research Strengths: Dr Dave
   Diston, Head of Research,
   Innovation and Development, RIKE.
   Sparks is an ambitious research
   programme linked to our vision as
   a University for Public Good.

Thank you to all our speakers who presented a captivating range of sessions and to all staff who were able to commit to attending the conference, welcoming the ambition and positivity for a future of inspirational research at York.

# COMPUTER SAYS NO: THE BENEFITS AND BURDENS OF ARTIFICIAL INTELLIGENCE ON CLINICIANS

As healthcare systems worldwide face increasing strain, Artificial Intelligence (AI) is often heralded as a solution to bridge the gap between healthcare capacity and demand. AI technologies can process vast amounts of data and improve the accuracy and efficiency of medical care, potentially allowing clinicians to spend more time listening to patients and nurturing the patient-clinician bond.



But this positive story will only come true if policymakers pay attention to how AI-based technologies are integrated into clinical environments, and how they are used by clinicians.

These questions are being explored in a multi-disciplinary project between the University of York's Assuring Autonomy International Programme and the Bradford Institute for Health Research. The project, called Shared CAIRE (AI In Healthcare: Testing different Human-Machine Interaction models for shared decision-making, and their ethical and legal implications), is funded by the Medical Protection Society Foundation.

The project considers one type of application of AI in healthcare namely, the AI-based decision support system and evaluates how such systems are used by clinicians. The standard model is

that the clinician considers the Al's recommendations alongside information from other sources, including from discussion with the patient, and then either accepts the Al's recommendation as-is or overrides it with a decision they make themselves. One concern, however, is that rather than increasing the time the clinician can spend with the patient, the clinician is burdened with the additional task of overseeing a complex machine.

A further concern is when the clinician disagrees with the Al's recommendations, especially in unclear cases. Studies, including feedback from the Shared CAIRE Patient Panel, suggest it might be unreasonable for clinicians to ignore Al recommendations, potentially forcing them to follow Al advice to avoid liability, increasing their psychological burden.

The Shared CAIRE project

examines these ethical and legal consequences, exploring ways AI can support clinicians and contribute to shared decision-making with patients. The project will produce various publications including a white paper with policy recommendations to help ensure AI technologies are beneficial and do not inadvertently increase the burden on clinicians and which are positively transformative for patients and clinicians alike.

#### **Links to papers:**

Clinicians Risk Becoming "Liability Sinks" for Artificial Intelligence

Development and Translation of Human-Al Interaction Models into Working Prototypes for Clinical Decision-making

## SHARING OF BEST PRACTICE AT IMPACT AND KE LEADS AWAY DAY 23 May 2024

Within the University, each Department and School has a designated **Impact and Knowledge Exchange (KE) Lead**, an academic who serves as a champion for impact and KE by:

- promoting a strong impact culture
- providing guidance and signposting to support, and
- serving as a point of contact for impact and KErelated information.

On 23 May, Impact and KE leads from across the University met to network and share best practice and insights around research impact.

Topics included promoting a healthy impact culture and different departmental approaches to developing future REF impact case studies. The 30 attendees also had the opportunity to meet with representatives from professional services teams that support impact and KE activity and hear about the services they provide.



#### FIRST 100 DAYS....

Amy Newman tells us about her first hundred days as Impact and Knowledge Exchange (KE) Training Officer.



I started my role as Impact and Knowledge Exchange Training Officer in February, and the first few months have flown by! I'm no stranger to campus; before joining the university I worked at STEM Learning, an education-related nonprofit based next to the medical school, where I enjoyed many a lunchtime walk to visit Long Boi. My academic background is in biology, and for my PhD I researched how plants interact with microbes that live in soil. This involved digging up lots of soil and I ended up dreaming about worms more than once! I did many different public engagement activities during that time, which kept me motivated through the highs and lows of research.

I've always been keen to do work that makes a positive difference and this role allows me to be closer to research again while supporting others. This role has been developed to deliver a programme of Impact and KE training and related activities to increase people's knowledge and skills and to raise awareness of the support available for Impact and KE at the University.

Mindful of making our offerings suitable for busy colleagues, I am developing a range of face-to-face and virtual opportunities on different topics, as well as online content that people can access in their own time. I recently ran an in-person Introduction to Research Impact and KE session which got great engagement from colleagues across all faculties and many PS teams. Watch this space for more information about these sessions including future delivery dates.

I've enjoyed getting stuck into the role and meeting colleagues from different parts of the university. The opportunity to be on the judging panel for the audition stage of York's 3 Minute Thesis competition and to attend PraxisAuril's conference in Blackpool have been just some of the additional highlights.

I'll be publicising more opportunities and resources available for impact and KE in the coming months, and if you'd like to talk more about training in this area, please feel free to get in touch, amy.newman@york.ac.uk.

Contact us: Clare Murgatroyd clare.murgatroyd@york.ac.uk
Support for KnowledgeExchange at York

To find out more visit the dedicated KE Concordat portal: www.keconcordat.ac.uk

