'The End of an EIRA'

Sarah Birch (EIRA Project Manager) – August 2021

The Enabling Innovation: Research to Application (EIRA) project is coming to its 3 year conclusion. What has the overall impact of this project been to the consortium? Where have the effects been felt at the University of Kent and the Kent region? How do we move forward with the lessons learnt? Here we delve deeper into these questions to show how EIRA's impact will leave a legacy through various sectors, different businesses and University divisions.

Overall Impact

EIRA has been a ground-breaking, cross-consortium, multi-disciplinary collaboration involving 7 partner Higher Education Institutions; University of Essex (lead institution), University of East Anglia, University of Kent, University of Suffolk, Norwich University of the Arts, Writtle and Harlow College. It aimed to enable innovation, move research to impact, enhance collaboration and increasing economic growth and business productivity in the Eastern England region through nine interventions from 2018-2021:

Proof of concept grants provided support for academic staff to develop an idea with a commercial focus.

Innovation Vouchers provided SMEs with up to £6k to engage with EIRA expertise.

Research and Development Grants provided companies of all sizes with £20-50k of funded support for collaborative R&D activity.

Innovation Internships SMEs could apply to host a student intern from a partner University/college.

i-Teams Combined a team of interdisciplinary students with industry mentors, who worked together to develop a product solution for issues affecting an organisation.

Microfinance Grants Students and recent graduates from across the EIRA network could apply for a grant of up to £3k to help kick-start a business idea.

Enterprise Accelerator Events for HE students from EIRA institutions to build entrepreneurial skills and thinking.

Digihub Events

Hothouse Events Business and academic collaboration and networking on industry-specific topics.
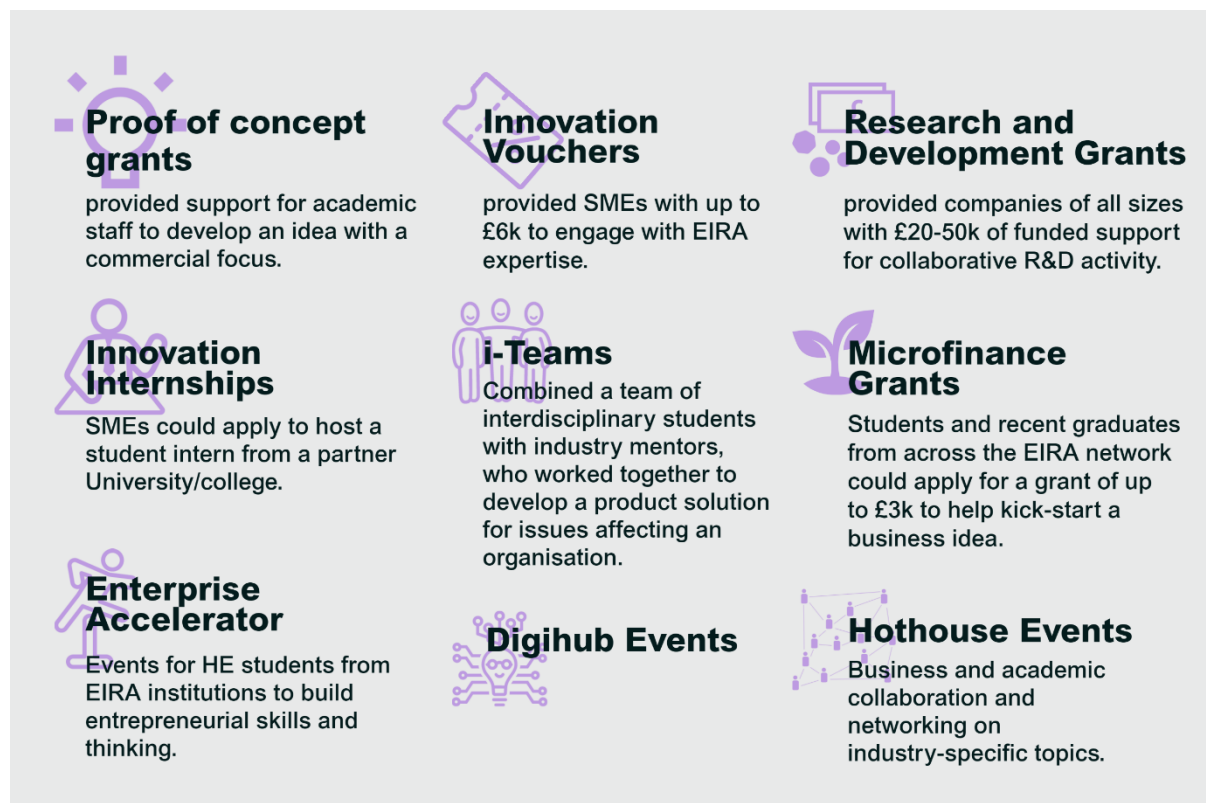
Figure 1: The 9 EIRA Interventions: Proof of concept grants, Innovation Internships, Enterprise Accelerator, Innovation Vouchers, i-Teams, Digihub Events, Research and Innovation Grants, Microfinance Grants and Hothouse Events.

The EIRA interventions successfully supported businesses of all different types and sizes in the East of England, with the greatest uptake being via the region's micro and SME sector (Figure 2A). The place-based criteria of the EIRA funding can clearly be seen in Figure 2B, showing the geographic spread of businesses that accessed EIRA interventions throughout the East of England.
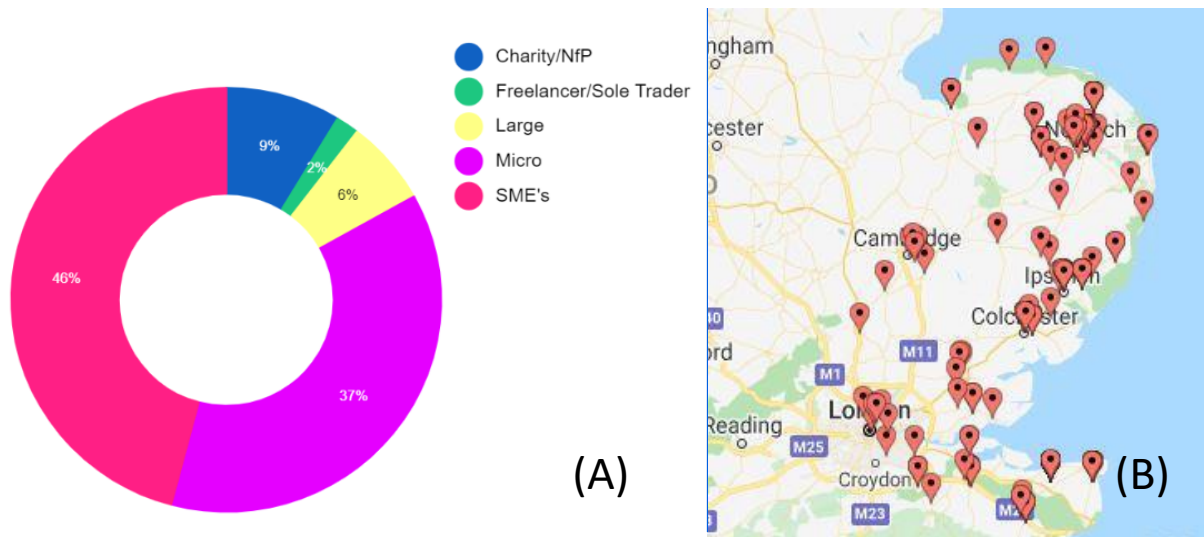
Figure 2: (A) The split of business types (46% SME's, 37% Micro, 9% Charity/NTP, 7% Freelancer/Sole Trader, and 6& Large Businesses) and (B) The spread of business locations throughout the East of England directly supported by the EIRA interventions (the area between North Norfolk, London and South-East Kent).

Through the three core themes: Artificial Intelligence, Biotechnology and Digital Creative, the EIRA project has had a demonstrable economic impact in the region, as shown by the impact infographic in Figure 3. Specifically in terms of economic impact, the project has contributed £8.27 million to the East of England economy and enabled £2.78 million in leverage funding. Throughout the consortium, the programme has engaged over 550 students, 107 academics and 231 businesses, and provided training to180 staff in commercialisation and knowledge exchange across the network.
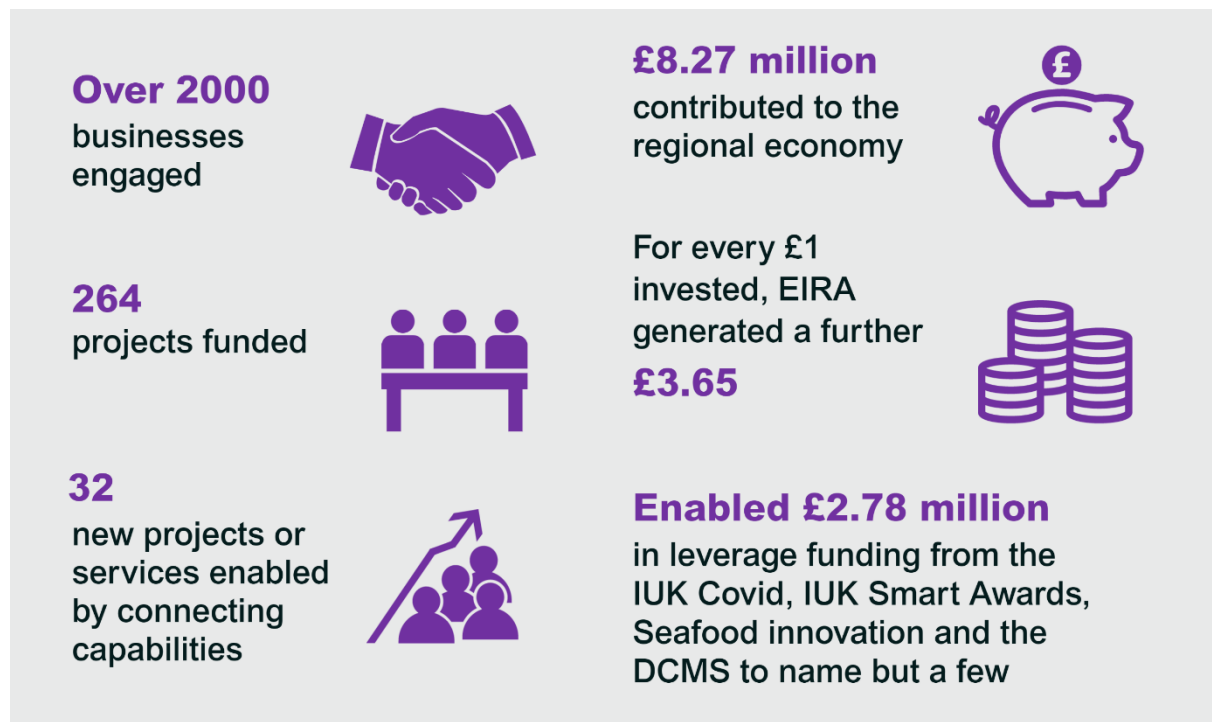

Figure 3: The impact of EIRA on business engagement, project funding and economic impact to the region. It has engaged over 200 businesses, funded 264 projects, enabled 32 new projects or services by connecting capabilities, contributed £8.27 million to the regional economy, generated £3.65 for every £1 invested and

enabled £2.78 million in leverage funding from the IUK Covid, IUK Smart Awards, Seafood innovation and the DCMS to name a few.

Impact on Kent

EIRA has provided over £500K in intervention funding to the University of Kent, with £165K in AI projects, £115K in Biotechnology projects and £150K in Digital Creative projects together with £75K in student specific interventions. Figure 4 demonstrates the funding EIRA provided to Kent and this thematic split in funding.
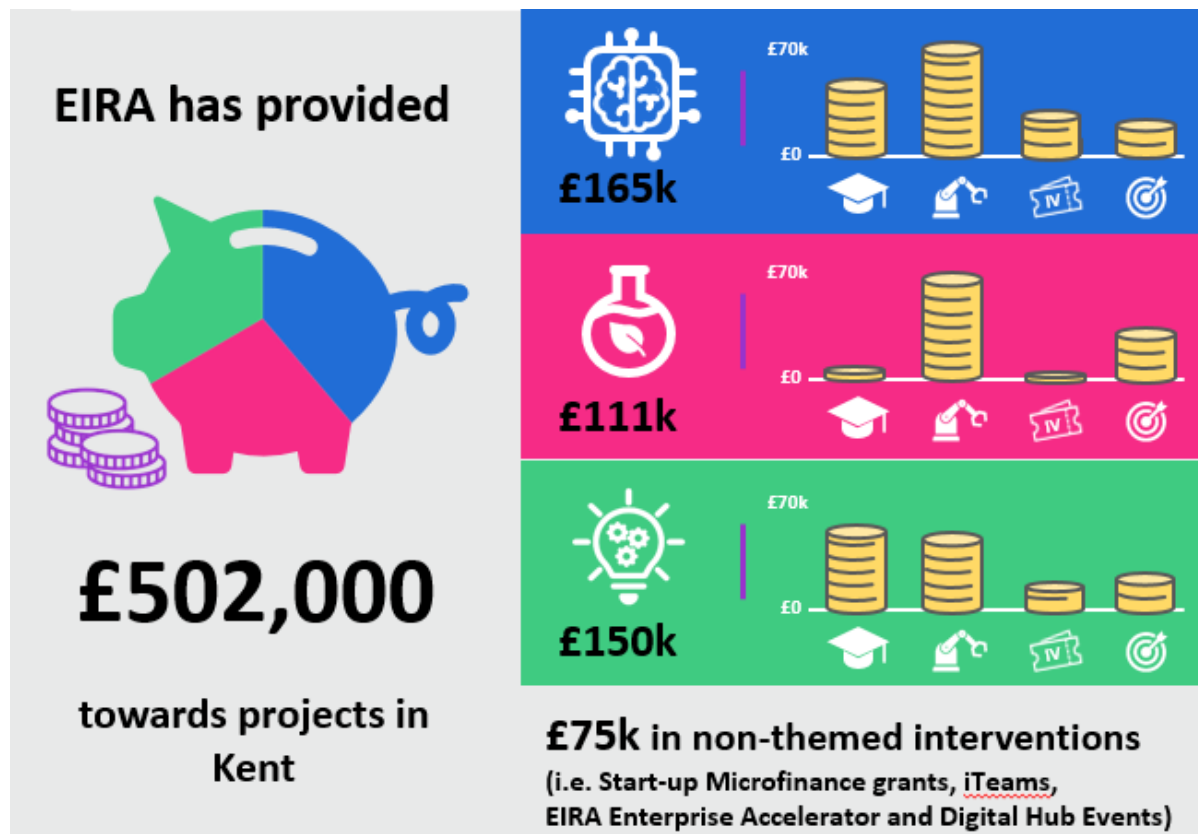

Figure 4: EIRA has provided Kent with £502K funding split into £165K in AI projects, £115K in Bio projects and £150K in Digital Creative projects through internships, R+D grants, Innovation vouchers and POC projects. In addition, EIRA has provided £75K towards cross disciplinary student specific interventions.

Kent Business Impact

Businesses in the region have benefitted hugely from receiving EIRA project funding. These range from new businesses starting their first collaborative step into the world of research with academics (e.g. Cryojuvenate, an SME in Sevenoaks working with Dr Glen Davidson in SSES on an innovation voucher project) to businesses with a long-standing relationship with University academics (e.g. Sekisui Diagnostics, a large Biotech company in Maidstone working with Prof Mark Smales) still gaining collaborative benefit for their innovative research ambitions.

The project introduced 185 new business connections to the Knowledge Exchange and Innovation team (37 AI, 31 Biotech, 102 Digital Creative and 15 cross-thematic) through a variety of business engagement activities including networking events, business meet-ups, network communications and EIRA/Kent promotion. As a result of the new and existing business links:

- 7 research and development grants were funded (2 AI, 3 Biotech, 2 DC);

- 10 innovation vouchers were awarded (6 AI, 1 Biotech, 3 DC); and
- 31 internships set-up (12 AI, 2 Biotech, 17 DC) across the themes.

Stronger engagements have also been made with other external stakeholders, including Kent Invicta Chamber of Commerce, the Local Enterprise Partnerships (LEPs) and science/industrial parks throughout the EIRA project.

There are a range of case studies for the Kent specific projects available which detail the projects, their impact and the next steps for the businesses and academics involved. Case studies include:

- A project led by Mindspire who worked collaboratively with Dr Palani Ramaswamy and Prof. Ian McLoughliin (School of Computing) on a R+D project developing an in-ear device and data collection concept to treat neurological disorders.
- A collaboration between Cryojuvenate and Dr. Glen Davison (School of Sport and Exercise Science) using an EIRA Innovation voucher award to investigate the effect cryotherapy can have on stress and perimenopausal symptoms.

Kent Academic Support
The Proof of Concept (POC) funding received an overwhelming number of submissions from Kent academics. 1 POC was funded for each core theme:

- A Fruit to Fuel Biotechnology project by Dr Mark Shepherd and Dr Gary Robinson awarded a POC extension for an economic appraisal report;
- A POC project with Prof. Theresa Gannon investigating the value of VR in simulating fire scenarios (digital creative) which also had a POC extension to fund further research; and
- A real-time AI-assisted voice reconstruction POC with Prof. Ian McLoughlin.

As well as specific intervention funding for academics and academic collaboration funding (via the innovation vouchers and R&D grants), EIRA provided Early Career Researcher (ECR) training to enhance academic staff skills in communication, commercialisation and collaboration.16 Kent academics (1 AI, 9 BIO, 4 DC, 2 cross disciplinary) received ECR training over the 2 sessions provided by EIRA.

The project has greatly enhanced interactions between Knowledge Exchange and Innovation and academics, together with forging strong links with the Directors of Innovations in each School, and regular communications and updates from the Head of Schools. Kent's academics have been keen to showcase projects and impact during our showcases, webinars and networking events and this has been a great success of the EIRA project.

Student Facing Interventions
The EIRA programme offered a variety of interventions for students, to enhance their key business skills and provide finance for innovative business ideas. As shown in Figure 5, 163 Kent students have engaged in various EIRA activities during the 3 years of the project. These activities include:

- The 2020 and 2021 iTeams programme which brought cross disciplinary students together to work on real commercial problems provided by 3 businesses each year.

A testimonial from an iTeams attendee shows the impact this type of experience can have to a student in their future career decisions:

"I never thought I would have a company… it [iTeams] showed me there are ways to get into business and how I could enjoy it. I now see the importance of linking business with the research";

- 7 microfinance grants funded to Kent students, including one student, founder of [Talman HR, granted £3,000 to develop solutions to recruitment diversity via VR experiences](#);
- Over 30 students engaged in EIRA Internships through the Employability Points scheme. The [Abbaltis Internship](#) is a fantastic example of the value and impact a student can bring to a business, and the valuable business skills and knowledge that the student can gain in return, especially during a pandemic! ;
- EIRA also hosted Innovation Weekender events in [2020](#) and [2021](#) aimed at bringing students together from the consortium to work on real-life business challenges with industry mentors. Over 30 students from the University of Kent attended these Weekender events.

This demonstrates the variety of student opportunities offered to students during the EIRA programme and the impact the funding has had to over 160 students at the University of Kent alone. The hope is that the learnings and the finance provided will support the students at the start of their careers and act as a springboard into impactful future business communications and activities. They will hopefully become our new business contacts in the near future!
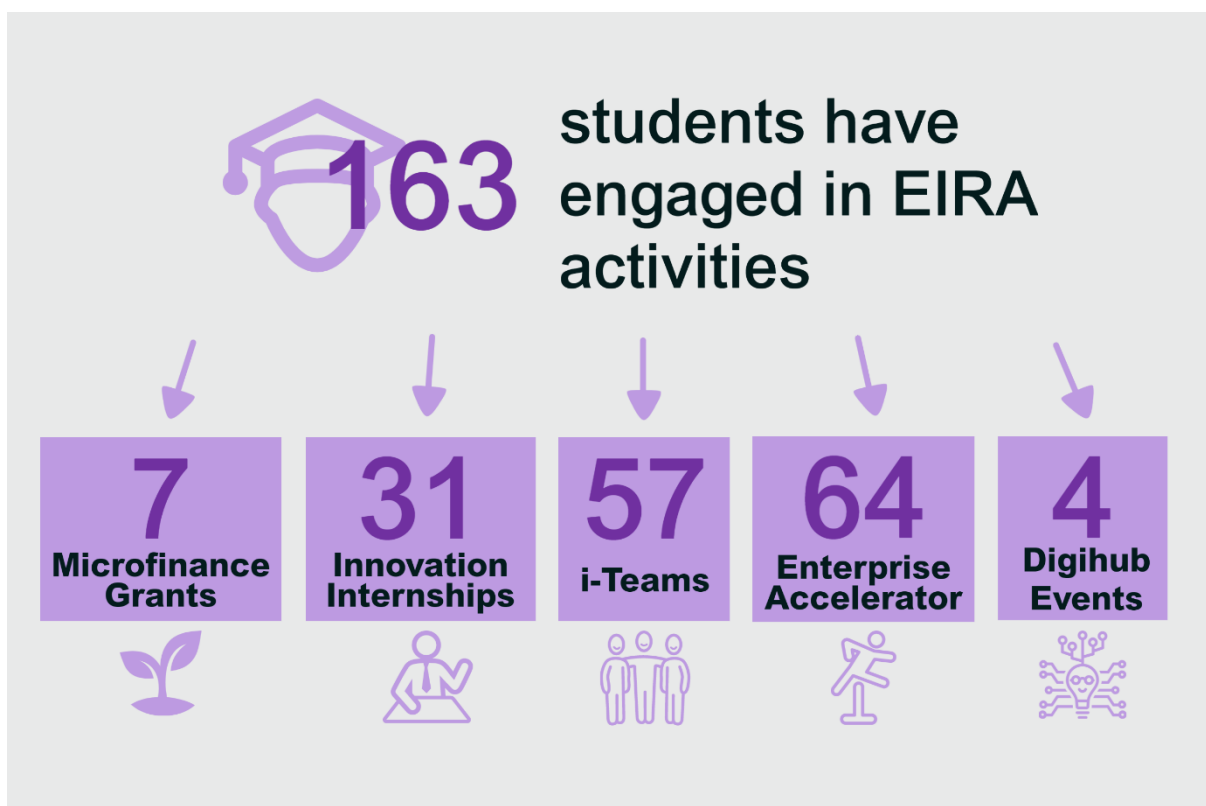

Figure 5: This shows the number of student at Kent who have engaged in the range of EIRA interventions offered by the project.

The un-measureable impact of EIRA

As can be seen, there are a lot of metrics that can demonstrate the success of EIRA. But what about the 'un-measurables'? EIRA has shown that there are advantages to having EIRA leads working closely with the University's academic Divisions. By linking EIRA's core themes to Kent's Schools, they established a close connection between the Biosciences, Engineering and Computing schools, enhancing communication and knowledge exchange between them. The ability to have a corridor chat with an academic, or a coffee room conversation with a member of the division has been unquestionably positive in terms of raising the knowledge exchange profile.

In addition, the promotion of a funding scheme to the outside community has created more opportunities to talk to various members of the external sectors and has given the KEI team an ability to move further forward in business relations. The KEI team have also been able to enhance and learn new ways of working collaboratively and different mechanisms of working by being part of a University network. Zoom was standard, regularly-used communication tool for the Knowledge Exchange Managers, even before the COVID pandemic hit!

Some businesses have taken their first step into working collaboratively and innovatively with the University and the idea is that a 'stepping stone' effect into funded research will continue to drive further collaborations and projects. Passing on their positive experience to other people in the business environment will hopefully open doors into new business communications.

Legacy

EIRA leaves behind a lasting legacy that will be felt across the consortium. The benefits of EIRA have included:

- The sharing of best practice and academic expertise across this network;
- The use of joined up approaches to issues faced by numerous businesses across the region. By enabling collaboration, we have been able to foster support from the right academic teams across our network to get the absolute best out of the academic expertise in the geographic area;
- An established wider innovation network to stimulate growth and connections in research, which has increased opportunities for commercialisation. The EIRA animation ultimately shows the 'ripple' effect that this type of seed funding has generated and the impact to business in the East of England has been demonstrated both financially but also in terms of innovation progress. One quote from a business owner, which has been echoed by many others states:

  "We wouldn't have done the project without EIRA, businesses like ours don't know where to start with these things which is a problem… we are very lucky that funding is available and were very lucky to have that introduction to academics. We wouldn't have known enough about the opportunities or what was available without them."

EIRA commissioned an external evaluation of the programme to enable effective reporting to Research England. The external evaluators concluded their key findings about the project as:

- Partners and beneficiaries consistently reported that it has been delivered and managed well.

- The programme has established some important lessons which other programmes can learn from, in terms of how research-intensive universities can work successfully with non-research-intensives within the same region.
- The consistency and coherence of the communication of the programme as well as the strong relationships built between stakeholders at each institution are significant and notable. This combination allowed for the initial visibility of the programme to be raised to both internal and external stakeholders quickly and for this to be maintained throughout the programme.
- EIRA broke new ground through the activities chosen, for example iTeams, linking students to patent projects and the R&D and POC grants filled a gap identified by academics for the smaller, testing phase of research.
- The programme has done a lot to progress how universities can collaborate in local areas and support both university-university collaboration and university-business collaborations coherently in terms of both practice and behaviours.
- The collaborative culture created through EIRA is a really strong outcome. The programme crosses nearly all aspects of knowledge exchange and partners research intensives and non-research-intensive institutions.
- The 3 themes (digital creative, biotechnology and artificial intelligence) have provided a platform to better understand the expertise available within the HEIs and to have a focus to collaborate with businesses in a thematic area. This has also supported academic to academic collaborations and led to better quality external engagement due to the resources which were put in place to work coherently.

There are already projects exploring Knowledge Transfer Partnership opportunities (e.g. AI innovation voucher HRGO, AI R&D Mindspire, Biotech R&D Logixx Pharma), the knowledge exchange opportunity follow on funding (e.g. Prof. Mark Smales, Sekisui R&D) and liaising with the Business Opportunities team for future collaborative interest. Mindspire secured an Innovate UK Covid Grant and Infitex, Dr Caroline Li and Dr Lex Mauger together with 5 other companies submitted a bid for Innovate UK (totalling £1.18 million).

For members of the Research and Innovation professional services and academics looking for collaborative and commercialisation guidance, there are 8 EIRA Quick Guides on the brink of publication, hardwiring the learnings from the project into guides for the KE community within our institutes. In addition, the Kent EIRA team have written a variety of guides that can be used for induction and training for the Business Relationship team.

For the consortium members, the strength remains in the Eastern Arc partnership, as well as stronger relations made with KE teams between the HEIs. University of Suffolk have recently increased efforts in their Business Relations portfolio, and have already recruited 3 of the EIRA members from UEA and Essex into their newly established team.

So whilst it is an end of an era for EIRA, the legacy remains. EIRA has competed a successful series of 'Innovation Month' webinars available in each of our themes, as well as our student-facing showcase. The EIRA grand showcase event is also available to watch again with keynote speakers from our Pro VC and Deputy VC across the consortium, as well as business speakers detailing project and business impact across the sectors. We are currently awaiting the results of the Times Higher Education 2021 Award submission for 'Knowledge Exchange / Transfer Initiative of the Year so wish us luck. For now, the team are gradually signing off until our September completion and would like to thank you all for your support and input into making EIRA the success it has become!