

Welcome to Eastern Arc's Annual Report 2022-23



Last year I spoke about our work in mapping out the challenges and opportunities for our region. In 2022-23 we started to address these, beginning with our coastal communities.

In this report you will hear about our baseline survey, which set out the social and economic context of the coastal towns and communities (CTCs) in our region, from the Wash to the White Cliffs. There are clear issues of deprivation, with the associated impact on health and wellbeing (as identified in the Chief Medical Officer's report), but also real opportunity through the green and cultural economies.

Following publication, we held our flagship conference that focussed on 'the collaborative coast'. It was our most successful yet, with over 140 delegates, a third of whom were external to the Eastern Arc universities. Having that engagement is crucial to ensuring that our research is relevant to the communities and regions of which we're proud to be a part.

We then worked with the keynote speaker, Prof Jules Pretty (Essex), to develop a manifesto for a 'blue-green revolution,' recognising that there is hope and opportunity for our CTCs if there is the imagination and political will to realise it.

The manifesto kick-started a conversation with Southend-on-Sea City Council, and we held an innovative

workshop with residents and stakeholders to explore how a city at the sharp end of climate change can work to address its causes.

We also established the Coastal Data (or 'Coda') Network, which brings together colleagues in local authorities and the NHS to look at ways to tackle the 'paucity of data' identified by Chris Whitty. The work of the Network is ongoing, and we hope to announce a further workshop soon.

However, it's not all been about the coast. This year we also began the work of opening up our resources across the Arc, starting with our imaging equipment. It's a clear demonstration that all three universities are open to working differently and collaborating for the mutual benefit of all.

This is just scratching at the surface of our activity this year. Do take time to find out more about all of our work, from the creation and facilitation of networks of peers, to advocating actively on behalf of our members and our region.

If you want to find out more about any of our work, or get involved with our consortium-building, do drop me a line. As 2022-23 has shown, by working together we can achieve much more than we can separately.

Phil Ward
Director of Eastern Arc



Mapping the health and economic inequalities of the coast

October 2022



The Eastern Arc region is unique. Stretching across the East and South East of England, ours is a region of contrasts. It is a region of significant prosperity and stark deprivation, of urban centres and agricultural richness, of natural beauty and historic significance, of trade, transport, migration and movement.

As part of our work as an advocate for the region and a proactive partner within it, we commissioned a report that highlighted both the challenges and the opportunities facing our coast.

Undertaken by KADA research, the report used data from the Office for National Statistics and other sources to create a clear and comprehensive picture of the economic and social deprivation in our coastal towns and communities, including the 'health deficit' identified by Professor Chris Whitty in his annual report 2021.

It also identified the unique strengths in our region, from clean energy generation and developments around our aquaculture, to our cultural, creative, heritage and visitor economies.

Amongst other findings, the report highlighted the following:

- The coastal districts identified in the report are all in the top 20% of the most deprived areas in England;
- The coastal towns across the South East have the lowest average pay in the region, and 95% of areas analysed fall below the national average;
- Over a third of districts in the EARC region have a higher than average number of claimants, suggesting a significant percentage of economic inactivity and unemployment in the working age population;

- In the South East of England coastal communities have the lowest skills and education in the region;
- Life expectancy across the Eastern Arc area is lower on the coast, and in a third of districts it was lower than the national average;
- In the South East, coastal towns and communities (CTCs) have the highest numbers of people living in fuel poverty across the region.

More positively, the report noted significant strengths in the area, including:

 A clustering of creative sector employment along the coast that is higher than the national average, particularly in Norfolk and in the Kent districts of Dover, Folkestone and Hythe, and Canterbury;

- A concentration of heritage assets along the coast, particularly around Dover and Folkestone, the Medway and Thames estuaries, Colchester, Felixstowe to Aldeburgh, and North Norfolk;
- Very high concentrations of energy sector employment along the coast, particularly around low carbon and renewable generation. Notably, Suffolk recorded a quotient over five times higher than the average in England;
- A significant number of important transport hubs and ports, including thirteen commercial ports, six passenger ports and five container ports, many of which are being developed into Freeports.

To read the report in full, go to https://bit.ly/EARCcoastalhealth





'The Collaborative Coast'

September 2022

Our 2022 conference brought together academics and external stakeholders to discuss key questions facing our coast, from addressing health inequalities to preparing for climate change, from harnessing renewable energy to supporting our creative community.

140 delegates joined us at the University of Essex campus. They came from the three EARC universities, but also from local authorities, NHS Trusts, charities, funders and other organisations.

The keynote address was given by <u>Prof Jules Pretty</u> (University of Essex, pictured speaking) who outlined a <u>'vision of hope'</u> for our coastal communities and ecosystems, based on evidence from

around the world, and an understanding of the broader historic context. He outlined a route map for the way ahead, towards a future forged from 'blue-green regeneration'.

It was an inspiring provocation, and following the event he drafted a manifesto based on it (see page 8). It set the tone for the sessions that followed, which explored:



- Art and culture as a driver in place-making and levelling up
- Localising human rights, including a case study looking at providing emergency homelessness assistance
- Place-based approaches to health and wellbeing
- Sustainable coastal ecosystems and opportunities for regional development
- The revival of the seaside resort
- Improving mental health and wellbeing in seldom heard communities
- Governing offshore wind developments in the East of England

The conference closed with a recorded address by the Chief Medical Officer, Prof Sir Chris Whitty, who outlined the findings of his report on the coastal health deficit, and its relevance to the Eastern Arc coast. It was followed by a panel discussion involving Lucy Wightman (Director of Public Health, Essex County Council), Ed Garratt (Chair, Suffolk and NE Essex ICB) and Abraham George (Deputy Director of Public Health, Kent County Council), which explored the next steps in enacting the recommendations of the report.

To find out more, go to https://easternarc.ac.uk/earc2022resources/, where recordings, photographs and slides from the event are available.

Blue-Green Regeneration: A manifesto for our coast

February 2023

Following our conference (p6-7) Prof Pretty developed his talk into a manifesto for change. Entitled 'Blue-Green Coastal and Seaside Regeneeration for Seaside Communities and Coastal Ecosystems: Renewal Principles, Priorities and Evidence', the manifesto brought a new focus on the value of healing whole systems at the margins of land and sea, forming new natural, social and cultural assets, engaging the public and citizens in new ways, and creating positive side-effects to advance a circular and low-carbon bioeconomy.

It presented examples of 'evidence for hope,' and suggest that stories, support and appropriate policies can boost blue-green transitions that will help rebuild economic and social systems at all seaside and coastal locations.

It concluded with ten policy proposals that challenge the current status quo, and through which blue-green regeneration can be achieved.

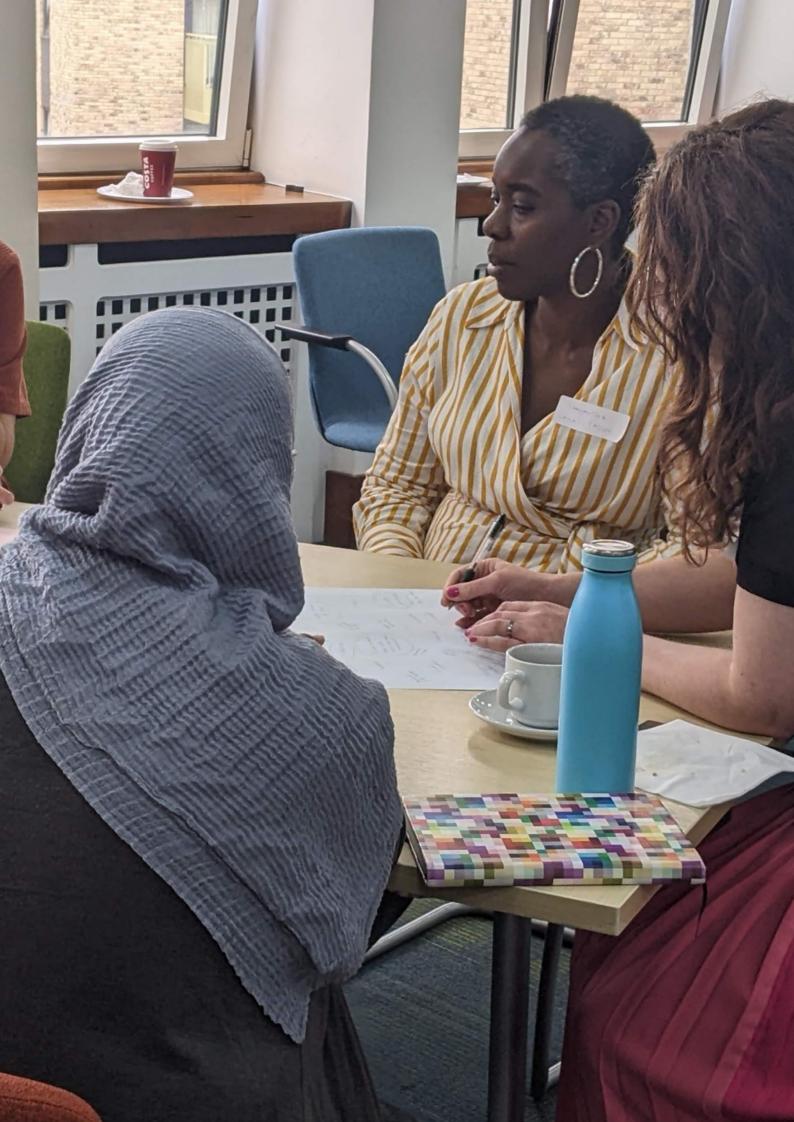
'Coastal locations have rarely been treated by research and policy as being part of the same connected system,' said Prof Pretty. 'Different agencies, ministries and departments, different businesses and third sector organisations, tend to approach coastal locations with only narrow interests.

'This manifesto deliberately and necessarily takes a different approach. We view the coast as a whole, from fishing villages to tourist resorts, from delicate natural ecosystems to large industrial container ports. They are all interlinked, and we must work holistically to address the significant and entrenched issues they face. Working together, we want to build on the opportunities that exist for regeneration and renewal.'

Following publication of the manifesto, Eastern Arc has been working with Southend-on-Sea City Council to explore the possibility of implementing a small number of its recommendations on a local level. The first event based on this was the co-hosted 'Coastal Climate Conversations' workshop held with stakeholders in Southend in July 2023 (pictured right).

To read the manifesto go to https://bit.ly/EARC-BGmanifesto





Sharing our equipment and facilities

At the centre of our work is collaboration. This includes the sharing of our resources, and in 2022/23 we developed a framework for sharing our scientific equipment and facilities. In July the pro-vice-chancellors signed a memorandum of understanding (MoU) to establish an Imaging Platform Alliance (IPA), through which significant microscopes and other imaging facilities (such as the joint lightsheet microscope at Essex, below), could be made available to colleagues at all of the EARC universities. The principles underlying the MoU ensure that the Alliance is as simple, unbureaucratic and flexible as possible.

The consortium is also working with external partners, including Jisc (see right), to share its knowledge and insights, as well as learning from others seeking to share equipment.

To find out more about the IPA, go to easternarc.ac.uk/ipa/

EARC wins funding for microscope that will allow scientists to observe delicate cells

October 2022

The Biotechnology and Biological Sciences Research Council (BBSRC) awarded Eastern Arc a £480k grant in October for a state-of-the-art lightsheet microscope that will enable scientists to observe delicate cells, tissues and whole organisms without damaging them with intense light.

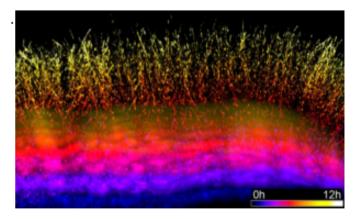
Dr Philippe Laissue, who led the bid and will host the facility at the University of Essex, explained why this is so important. 'Microscopy has turned into an incredibly exciting area of research over the last two decades, with several recent Nobel Prizes and many new technological developments.

'However cells are easily damaged if intense light is focussed on them – and many conventional microscopy techniques use very bright light.

'Lightsheet microscopy can solve this issue by providing good images at low light intensity. Using a 'sheet' or plane of light, cells can be observed gently over days and without damage, producing breathtaking movies. So getting this light-sheet microscope is a fantastic opportunity and enables us to do research that is not possible with any other technique.'

Together with collaborators across the Eastern Arc,

Laissue will use the high-end light-sheet microscope in combination with cutting-edge software to address new and exciting biological questions in biomedical and environmental research.



Growth of Candida albicans over half a day, imaged using light-sheet microscopy. This human pathogen can form thin films on voice prostheses and catheters. A better understanding of how it grows can help us identify new ways to prevent it. Time is colour-coded, showing the start of growth in blue (Oh) and ending in yellow-white (12h). Image credit: Philippe Laissue, Campbell Gourlay Dan Pentland and Intelligent Imaging Innovations.

Eastern Arc contributes to Jisc report on equipment sharing

June 2023

Eastern Arc has been working with other regional consortia to support Jisc to better understand the opportunities and the challenges around equipment-sharing on a regional and national level. Jisc has now summarised the findings of these discussions in a recently-published report. It recognises the potential benefits of such initiatives, including:

- Reducing bureaucracy
- Building regional capacity
- Aligning with larger, national facilities
- Sharing good practice
- Developing skills training

The report seeks 'to build on the diversity of potential identified, highlighting the most useful, achievable and impactful routes to sector-wide optimisation.'

It will form the basis for further 'substantive and inclusive conversations' between stakeholders, and EARC will continue to engage with Jisc in these.

To read the Jisc report, go to https://bit.ly/JiscReport





Forging networks across EARC

In 2022-23 we continued our work in establishing networks that will enable colleagues to share knowledge and research across the Arc, helping to develop areas of common academic interest, and shared support to help embed a strong and creative research culture.

Articulation / Experience / Embodiment

Our experiences of the world are always embodied. We cannot help but speak from bodies; our bodies speak to us, in ways we may not consciously understand; and they also often speak for us in uncontrollable ways. As we articulate our embodied experiences, we bump against the understandings, experiences, and articulations of other-bodied people. The entanglements of articulation, experience, and embodiment mark every attempt to understand ourselves and every interaction with others.

Articulation / Experience / Embodiment probes these entanglements at the heart of the critical medical humanities. Through workshops, provocations, and dialogue, the network will examine crucial questions around the relationship between experience and representation; different forms, means and contexts of articulating knowledge and health and illness; and the methods for narrativizing embodied experience that open out techniques and spaces for empathy, healing and change.

Open Research Eastern Arc (Orea) Network

The Orea Network aims to highlight the importance of reproducible research and provide academics and researchers with the tools, advice and support necessary to ensure that their research is open and robust.

Led by Dr Stephanie Rossit (UEA), the Network will mirror and amplify, on a regional scale, the work of the UK Reproducibility Network.

As a first step, the Network has developed <u>a</u> website that will act as a 'one stop shop' for open research, signposting the support available at the universities of East Anglia, Essex and Kent, the resources available nationally, and the events that are open to those at the three universities.

In addition, it will launch a series of events including an annual conference to explore wider issues of open research and reproducibility.



Case study: a practice research workshop

Cross-consortium networks are invaluable in giving its members the opportunity to share their experience and learn from others working in a similar area, particularly if they work in a minority discipline. In January 2023 Eastern Arc hosted a one-day workshop for practice-based researchers working in the arts and humanities. The participants explored three areas: practice research and the REF; effectively managing practice research; and getting funding for practice research.

Practice Research and the REF

The first session heard from two REF sub-panellists who had assessed practice research outputs as part of their work: Professor Paul Allain (Kent) and Professor Anshuman Mondal (UEA).

'Practice research is treated very positively,' suggested Paul, 'but rigour is vital when making the case.' For complex or multi-component pieces, there needs to be an understandable structure with strong relationships between different elements, good signposting, and a clear articulation of the research dimension of the work. 'The panel needs to understand the research process, and it should not be assumed'.

Anshuman saw his work as a panellist as 'a privilege'. However, it wasn't easy. 'Everyone told me it would be brutal, and they were right,' he said, but suggested that 'creative outputs were 'some of the best things we read.'

Both panellists highlighted the value of practice research in impact case studies, where they were over-represented. It was something for which practitioners should be proud. They pointed to the <u>database of impact case studies</u>, describing it as 'an archive of great practice', and encouraged colleagues to look at it for inspiration and ideas.

Effectively managing practice research

The second session was led by four academics working with practice research: Ambrose Gillick (Kent), Annecy Lax (Essex), Mary Mazzilli (Essex) and Amy Sackville (Kent). They spoke about their individual experience of practice research, but also took part in a panel

session where they discussed their work with each other and responded to questions from the floor. They emphasised the importance of a practitioner documenting their work, to help articulate the process and development of their work, to provide the methodological evidence, and to provide a framework for their research.

Funding for practice research

For the final joint session Paul Allain was joined by Paola di Franco (Essex) to discuss their funding journey, and the different opportunities open to them. To support the session, EARC published a guide to funding available for practice research.

To read full notes on the workshop, and to access the guide, go to easternarc.ac.uk/parworkshop/



Advocacy and policy engagement

Eastern Arc acts as an advocate for both its members and the region as a whole. Throughout 2022-23 we continued to engage with external policymakers, think tanks, funders and other stakeholders to ensure our voice was heard.

Our evolving relationship with Europe

In 2022-23 EARC provided a united voice for the three universities as the uncertain situation around the UK's association with the Horizon Europe, the EU's research and innovation programme, developed.

The issue was critical to the Eastern Arc universities, which have a strong relationship with mainland Europe. All three are members of active networks of European universities (Aurora, Yufe, Yerun and 3i), and in the European Commission's last research and innovation funding programme, Horizon 2020, the three universities collectively secured £74m for 168 projects.

The Government's proposals to an alternative to Horizon Europe

August 2022

In the summer the Government published its proposals for an alternative framework to support UK R&D 'beyond European programmes.' Although EARC welcomed the Government's provision of a funding guarantee for UK projects approved by the EC, as well as its work in contingency planning, it made clear that this was an imperfect solution, More specifically it highlighted the administrative burden that would inevitably result from implementing an alternative framework programme, and questioned whether resources would be made available for UKRI and institutions to deal with this.

It was also concerned about the process by which universities of different scales and engagement with Europe were consulted and included in discussions about the alternative arrangements. It encouraged the Government to open up international funding to a wider and more diverse range of institutions, including both large and small universities, institutions and research centres.

The Windsor Framework

March 2023

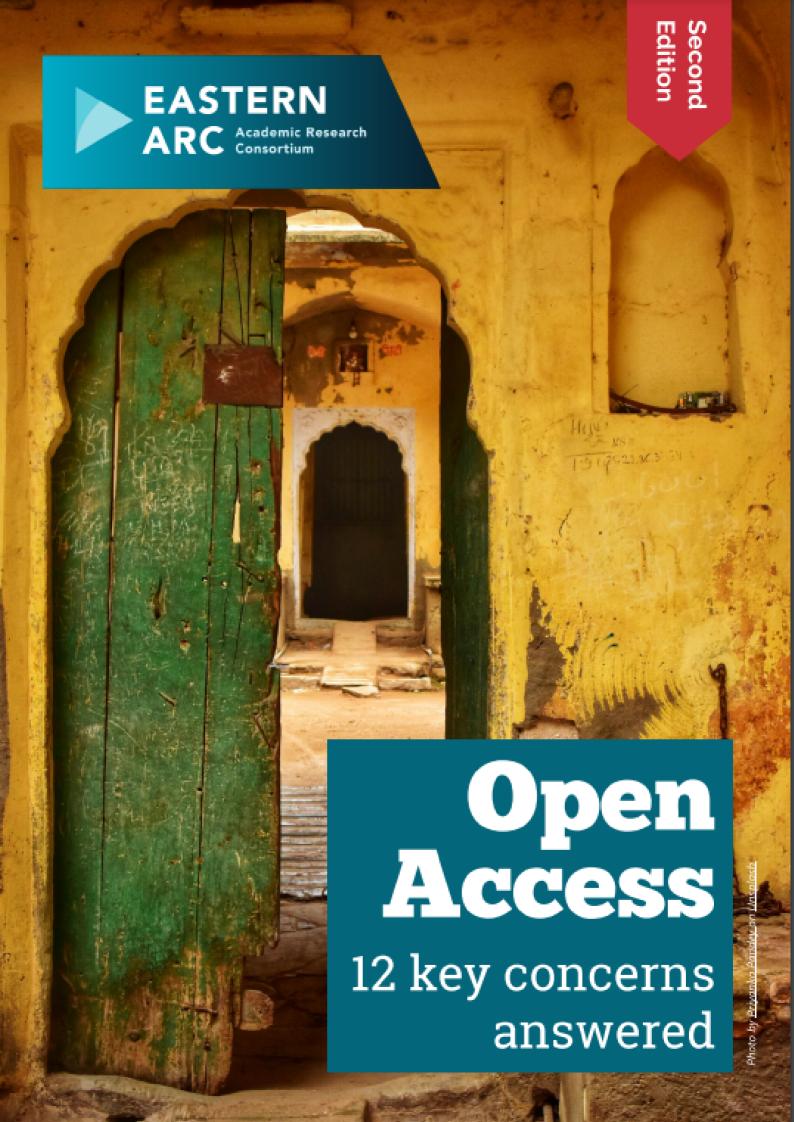
With the positive developments in the spring, EARC joined with other university, business and funder groups to welcome the signing of the Windsor Framework, and the statement by the EC President, Ursula von der Leyen, that she was 'happy to start...work on an association agreement' as soon as the Framework was implemented.

However, like others, EARC had strong concerns as to the timeframe for this work and was alarmed that, having reached this point, the Prime Minister was said to be 'sceptical' about the value of the programme.

Eastern Arc urged the Government to pursue full association with Horizon Europe as a matter of urgency to ensure that UK researchers did not lose out on the opportunity to engage and build on strong collaborations with European partners, and was pleased when, early in the following academic year, the UK formally associated with Horizon Europe.

The process has shown that speaking with a united voice and acting in concert has amplified the message - not just of the Consortium, but the UK R&D sector as a whole - and has ensured that positive change happens.





Eastern Arc contributes to the 'Discovery Decade'

February 2023

Eastern Arc was one of ten regional and national groups invited by CaSE –the Campaign for Science and Engineering – to contribute to its Discovery Decade programme.

The programme seeks to understand the role that research and development has on people's lives, and how universities can better share this with the communities of which they're part. Universities such as UEA, Essex and Kent are regional, but those living close to them don't always realise the world-leading research that is going on within them

Discovery Decade is looking at what universities can do to share the excitement and knowledge of cutting-edge research. This can include close, community connections and collaborations, and working with non-academic R&D champions to celebrate work that is making a difference and having a positive effect on people's futures.

To find out more about the work of the Discovery Decade, and to read the report, go to https://bit.ly/CaseDecade



Second edition of Eastern Arc OA booklet published

March 2023

Open access (OA) has increased in profile and acceptance as a route for publishing academic articles and monographs, with a number of funders, including UKRI, mandating its use.

However, there is still some uncertainty, confusion and concern about OA amongst some academics. Eastern Arc published a booklet last year that addressed 12 of the most common concerns. It was written in a straightforward, jargon-free way, and offered some simple explanations of what OA is and the effect it will have on academic research, as well as an honest look at both the pros and cons.

The booklet was very popular, and as a result a second edition (left) was published in March to update it with new content around intellectual property and copyright.

The second edition is now available here: https://bit.ly/EARC-12OA

Over 40 technicians from across the three universities of UEA. Essex and Kent took part in the launch of the Technicians' Network in July at the University of Essex. It was an opportunity to discuss the issues they face, and to work together to develop solutions to them.

The session was opened by **Prof** Edd Codling, the Faculty Dean of Research at Essex. A strong advocate for technicians, he leads on the Technician Commitment for the University, and made clear how essential they were to both the teaching and research being undertaken at all three universities.

This was echoed by **Phil Ward**, Director of Eastern Arc. 'Research and teaching, particularly in the sciences, cannot happen in many disciplines without technicians,' he said. 'Having a strong and active voice for them is essential, and the new Network will be just that.

In the morning the Network discussed how to build a collaboration, and what it hoped to achieve. Participants talked about the challenges they faced, and how a collective voice could overcome these.

These issues were explored further by Catrin Harris, TALENT Research Fellow, who had undertaken a project to look at these issues.

'Many people don't realise how many responsibilities and jobs technicians have,' she said. 'From preparation to training, from programme and people management to data analysis, maintenance and sustainability, technicians are involved and leading every step of the way.'

However, only 30% of technicians feel included in the research culture, and only 37% feel valued by it. 63% of technicians and 52% of non-technical staff and students believe that technicians aren't appropriately credited for their contribution to research.

After lunch the technicians had the opportunity to tour the University's facilities, and heard about the experience of Jo Scamp (Kent) in working with the Science Museum's Gallery Archives programme for encouraging and developing future technicians to enter the profession.

The event ended by looking forward, and thinking about positive next steps. It was agreed to hold an annual symposium, as well as establishing an online forum for sharing insights and asking questions, as well as the opportunity to shadow and take part in exchanges between the universities.

The launch of the EARC Technicians' **Network**

July 2023



To find out more about the Technicians' Network, go to easternarc.ac.uk/technicians-network/



With radical hearts and open minds

Eastern Arc is the regional research consortium that brings together the universities of East Anglia, Essex and Kent.

All three universities were established in the 1960s to be a different type of institution, aiming to work across disciplinary boundaries, and to offer alternative ways of thinking.

In addition, they are all situated on the eastern seaboard of England, in regions shaped by agriculture, but also by transport, trade, and migration

As a result they are both outward looking and believe in the value of 'doing different'. Eastern Arc was established to support and develop this, to encourage and support collaboration, and to work together for the benefit of our universities, the people who work within them, and the regions of which we're part.

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