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UK-SEA Partnerships and Exchanges Baseline Research

UK-Southeast Asia <u>Partnerships</u> and <u>Exchanges</u> Baselin<u>e R</u>esearch (PEER Project)

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UK-East Asian Research and Innovation Partnerships

- What models of UK-East Asia partnerships in Research and Innovation have been prioritised and how do they compare across East Asian countries?
- How and by whom are inclusiveness and equality in partnerships defined and implemented?
- What emerging opportunities and ideas drive UK-East Asia partnerships in a post-Brexit and post-Covid era?

Definitions

Research - creation of new knowledge that can be theoretical and/or applied.

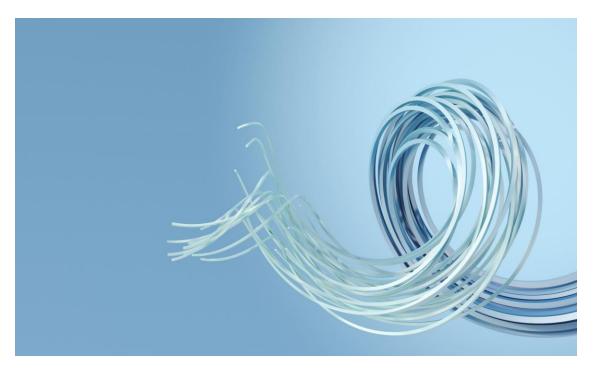
A process involving creative and critical thinking to develop ideas that [might] turn into an innovation.

Innovation - a multidimensional concept that refers to 'design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models that creates new value for customers and financial returns for the firm' (US Department of Commerce 2007).

A source of technological, social, and cultural change fundamental to economic growth and sustainability agendas worldwide.

Research and Innovation Partnerships

Cooperation between the UK and ASEAN governments, universities, third sector organisations, entrepreneurs, businesses and consumers in various combinations.



Case Studies for cross-case analysis

- Systems Analytics Approach to Reduce Plastic Waste in Indonesian Societies (PISCES) – Indonesia and UK
- 2. Institutional Links Digital twin model for structural health monitoring of lifeline infrastructures in Vietnam Vietnam and UK
- 3. Newton STFC-NARIT Exoplanet high resolution Spectrograph (EXOhSPEC) Thailand and UK
- 4. Future of HE: Centre for Engaged Global Higher Education ASEAN+3 partners, China, Japan, Hong Kong and UK.

Systems Analytics Approach to Reduce Plastic Waste in Indonesian Societies (PISCES)



Funding: UK Natural Environment Research Council (NERC) £3.56 million for the period of 2021 to 2024.

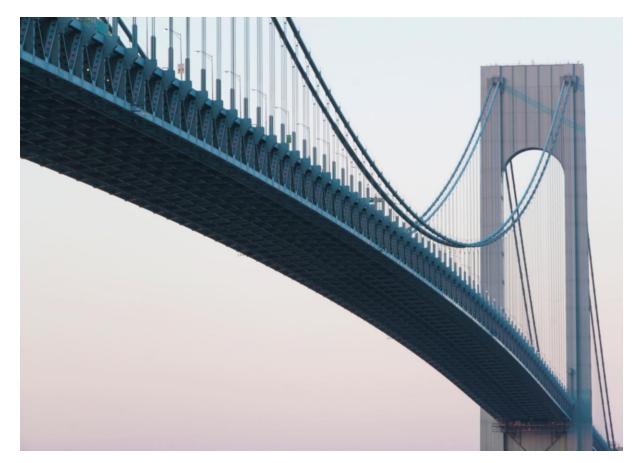
Partners: **Four** UK universities (Brunel University London, University of Leeds, University of Plymouth and Oxford University) and **five** Indonesian Universities (Institut Teknologi Bandung, Institut Teknologi Sepuluh Nopember, Universitas Esa Unggul, Airlangga and Udayana); the Indonesia National Research and Innovation Agency (BRIN); and many Indonesian governmental and civil society organisations.

Duration: January 2021 - July 2024

Institutional Links – Digital twin model for structural health monitoring of lifeline infrastructures in Viet Nam

Funding: Initial Newton Fund (2019/21) -> 3rd project VinGroup (Vietnam).

The bilateral project involved a partnership between the University of Transport and Communications (UTC) in Hanoi, Vietnam and Middlesex University, London, UK





STFC - Newton STFC-NARIT - EXOhSPEC (Exoplanet high-resolution Spectrograph)

National Astronomical Research Institute of Thailand (NARIT)

University of Hertfordshire (UK)

Duration of the partnership/cooperation: 3 years in 3 separate strands, 2017, 2018, and 2020, each for one year.

The funding model:

Co-funding scheme by UKRI and Thai Government: Newton Programme

Centre for Global Higher Education (CGHE)

Launched in 2016 – the largest research centre in the world (10 UK and international partners) focused on higher education and its future development & integrating local, national and international perspectives

Funding: UK Economic and Social research Council supported by Office for Students and Research England.









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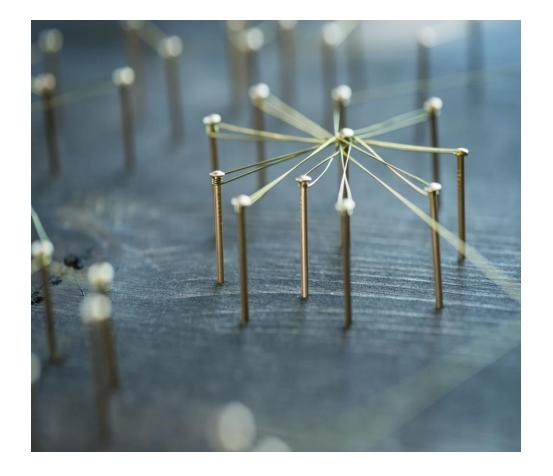






What models of UK-East Asia partnerships in Research and Innovation have been prioritised and how do they compare across East Asian countries?

- Mostly bottom up.
- Networking and small grants allow researchers to connect to share ideas and to generate larger project proposals.
- Personal connections "Chemistry like between friends ... same passion, same interests, different perspectives."
- Shared cultural origins of lead partners gives a boost to partnerships through innate cultural understanding "we can hit the ground running."



- Senior leadership support and validation is crucial; formalised agreements safeguard researchers, intellectual property etc once relationships are initiated.
- The establishment of MoUs between institutions is a ubiquitous minimum standard of commitment. Researchers possibly see these as less important than getting on with their research.
- It is important that partners bring different and complementary strengths to the research – the whole is greater than the sum of the parts.
- Individual researcher expertise is more important than the reputation or rankings of their institutions.

- Impact takes time but success breeds success - projects that build over time with injections of funding also build and consolidate the partnership.
- Consistency of core lead researchers appears to be high promoting project coherence
- ECR mobility is greater.

• Successful partnerships are dependent on mutual respect and building trust - "We need to work together. I work on data collected from the other side. If the data is not good, I mean if there are errors, or it is false or is simple [too basic] so I cannot prove something its [not good]."

- Outreach activities are increasingly valued for their inclusion and relevance to wider society and are acknowledged as important by researchers as a pathway to project impact and a marker of success. Do funders encourage these activities?
- In addition to project success, positive partnerships are characterised by longevity and breadth of collaborative activities. For example, project work can lead to TNE, teaching opportunities, exchanges, training etc.

- Partners need to be clear on what they will gain from the collaboration

 "measurable indicators of success are important." Shared goals, clear objectives and targets are important.
- Funder pressure through accountability can mean that UK partners have to be proactive in driving projects to achieve their objectives which might challenge the sense of an equal partnership.



How and by whom are inclusiveness and equality in partnerships defined and implemented?

Inclusion and Diversity in Research & Innovation

- At a structural, level projects can be designed to be inclusive - many stakeholders are involved and not just as beneficiaries further down the line.
- Tools, applications and software can now be made available as open access resources enhancing inclusion – is this something that all funders support and advocate?
- Partners are proactive in offering opportunity to expand partnerships to include institutions and colleagues from other ASEAN countries.

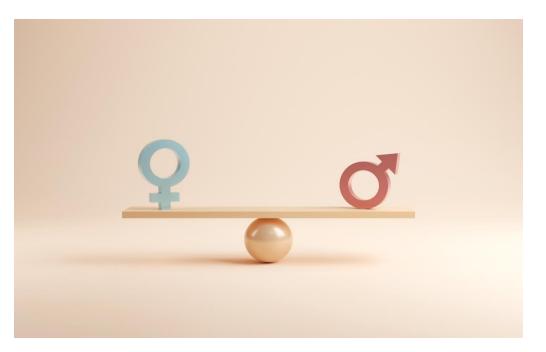
- There is recognition that structural inequalities and injustices do exist particularly related to career stage.
- ECRs and especially women face the greatest level of discrimination.



Inclusion and Diversity in Research & Innovation

- Project lead vision is important to optimise opportunities for ECRs such as provision of high-quality training.
- ECRs need to work alongside senior researchers to gain experience.
- Student exchange programmes have been promoted.
- Gender diversity may reflect disciplinary norms. Where women are involved in research projects their experience can be positive even though they are often in the minority or even lone females. Nevertheless, they are able to advocate for the inclusion of other women.

 High workloads (teaching and administration) in some ASEAN HEIs mean that it is a challenge to make time for research – is this an issue that funders could influence?



Emerging Opportunities

- Exploit our recently developed capacity for working in a hybrid way to open up research to a global audience - 'in person by default' is last century
- Sustain the next generation of researchers
 - prioritize development & networking opportunities for ECRs & women
- **Rethink** funding models and explore new sources of funding post-Brexit.







Questions and Ideas for Further Research

- Is there an optimal size for a partnership? Bilateral, trilateral, multilateral – what are the pros and cons of each?
- Are funders keen to promote the open access movement (open research and resources) and what does this mean for researchers?
- Do funders think it is useful to promote outreach activities to engage wider society in research and how might they do this?
- Support for ECRs appears good but experience at the intersection of gender and ECR status deserves further research and requires positive action – Discuss!