

UCL Policy Impact Unit – Update

October 2024



It's officially spooky season and this month we're excited to share some spooktacular news and updates from the PIU Team. We hope you'll enjoy reading about what's been brewing in our cauldron!

Addressing global challenges through engineering biology



How can we harness the power of biological sciences to build healthier, more resilient and more sustainable future generations? This is the question we explored with policy and industry partners at a strategic event in collaboration with the [Future of Targeted Healthcare Hub](#) (FTHM).

Discussions ranged from how we can apply engineering biology to tackle antimicrobial resistance, increase food security, prevent plastic pollution and enhance carbon capture. But for this to happen, we need capital funding for new facilities to support the scale-up of new technologies, and to stimulate demand for sustainably made medicines to drive job creation and economic growth. PIU will work with policy partners and the FTHM Hub to build on these insights and develop effective policy solutions.



Mathematical Models for Twenty-First Century Decisions

Mathematical models are already used to address many real-world problems. As computing power increases, methods improve and new tools become available, what do policy professionals need to know to sidestep pitfalls and use models effectively for critical decision-making? The PIU working in partnership with [Dr Erica Thompson](#) will develop a new policy brief to address this question – including practical recommendations to strengthen dialogue between modellers and policymakers.

Faculty spotlight: We would like to put spotlight on STEaPP faculty members for their achievements and impact. Congratulations to Erica for leading the organisation of a week-long [conference](#) on real-world applications of mathematical models at the [International Centre for Mathematical Sciences](#) in Edinburgh, and Elise Pi for the policy support. Attendees drew from a wide range of policy experiences, including Scottish Government, the Defence Science and Technology Laboratory, the Environment Agency, the Scientific Advisory Group for Emergencies, and more.

New policy brief on cyber-resilience of connected places

Drawing on new research by Meha Shukla and Professor Peter Jones at the [Dawes Institute of Future Crime](#), the PIU has published a [policy brief](#) (excerpt below) highlighting key recommendations on how to strengthen the resilience of connected places, which has direct implications on upcoming pieces of legislation such as the [Cybersecurity and Resilience Bill](#).

If you are a policymaker interested in learning more, please contact luis.lacerda@ucl.ac.uk

New Project!

PIU dove into the kick-off meeting for the new “AIR Safety Project”, led by [Professor Laurence Lovat](#). This project is aiming to understand the determinants for airborne disease transmission and how an Artificial Intelligence driven air-Safety Tool (AISaT) can be used to implement user-introduced mitigations measures.



PIU's October highlights also included...

- Delivered an integrative workshop on developing impactful Ministerial Submissions to STEaPP MPA students;
- Delivered an Area of Research Interest (ARI) Workshop for the Gender and Tech Research Group, focusing on questions from the Home Office and DSIT;
- Supported the Home Office with Violence Against Women and Girls (VAWG) policy development;
- Met with colleagues from DHSC to discuss policy priorities in relation to vaccine manufacturing, including how research from [VaxHub Global](#) and [VaxHub Sustainable](#) could inform approaches;
- VaxHub Global Co-Director Prof Cath Green, Co-Investigator Dr Alexander (Sandy) Douglas and Dr Adam Ritchie [gave evidence on lessons learned from the Covid-19 vaccine rollout](#) to the UK House of Lords Science and Technology Select Committee. The insights from the evidence session will shape and inform VaxHub's future policy work led by PIU.

Welcome Rhiannon!



Please join us in welcoming Rhiannon Van Vliet to the PIU team.

Rhiannon joins us from Melbourne Australia, where she worked as a Senior Policy and Research Officer and led on policy development for the police across a range of issues affecting the community including family and domestic violence, strategic foresight/futures thinking and cybercrime. At PIU, Rhiannon's early priorities include redefining our approach to horizon scanning and developing a fresh policy engagement plan for STEaPP. If you would like to reach out for a chat, please get in touch here – r.vanvliet@ucl.ac.uk.

Opportunities

- The Department for Science, Innovation and Technology has unveiled up to £20,000 in government grants for researchers focused on boosting society's resilience against AI risks such as deepfakes, misinformation, and cyber-attacks. Successful applicants will be confirmed in the end of January 2025, with the first round of grants then set to be awarded in February. For more information on how to apply for the grant scheme, [see here](#).
- The Government Office for Science is hiring scientific experts for high-profile roles, including Chief Scientific Adviser roles and Scientific Advisory Committees and Councils (SACs) positions. For more information, [see here](#).
- Register [your place](#) at a Sandpit for the Grand Challenge of Climate Crisis Pump-Priming Call – the sandpit sessions will support applicants to explore potential project ideas within the areas of public policy, law and regulation focusing on three themes: Food Security, Climate Governance and Sustainable Aviation.
- Baroness Bull and Dr Helen McCabe will discuss the value of academic and arts research in Parliament, and how researchers in these disciplines can share their expertise. This session is suitable for early career researchers, PhD students and researchers who are new to engaging with the UK Parliament as well as those who would benefit from a refresher. [Click here to register to attend the session](#) which takes place from 13:00-14:00 on 26 November.

➤ This month at STEaPP we.....

- Participated to the open part of the [Chief Science Advisors Roundtable](#) (CSAR-2024) at **UNESCO**. [[JMC](#)]
- Supporting **Government Office for Science** in taking a systems approach to the development of the Net Zero Technology Roadmap. [[PP](#)] [[PC](#)]
- **Participating** as a panellist at the **Royal Society of Chemistry** Pan Africa Chemistry Congress in Nairobi - Kenya from 29-31 October 2024, discussing the **UN Intergovernmental Science-Policy Panel** on chemicals, waste, and pollution prevention. [[FA](#)]
- Co-authored a report from the **University of Cambridge and LSE**: [Is reaching net zero a growth and prosperity plan? Economics, tools and actions for a rapidly changing world](#). It calls on **HM Treasury and UK policymakers** to take net zero seriously and seize the economic opportunities. [[ACA](#)]
- Appointed as a technical expert to the **LSE Cities** [Santiago Urban Age Task Force](#), supporting the **Regional Government of Santiago de Chile** in Blue-Green Infrastructure policy and planning. [[CLW](#)]
- Met with the new Chair of the **Business and Trade Select Committee**, Liam Byrne, and his parliamentary team to share ideas on using new methods for mobilising intelligence in parliament. [[GM](#)]
- Held a Scoping Committee meeting which included representation from **MHCLG**. [[JW](#)] [[PP](#)] [[PC](#)]
- Lead chapter on digital innovation, renewable energy, and governance for the UN Environment report, *Climate Technology Progress Report (CTPR) 2024* under the **UNFCCC**, with the report launched at an official [online webinar](#) and to be presented at COP29 in Baku. [[LS](#)]

- Published a chapter on '[Ethics to Inform Decision-Making](#)' , written with members of the **WHO's Global Outbreak Alert and Response Network**. [\[SE\]](#)
- Spoke at **The African Academy of Sciences' Science Diplomacy Symposium on Transboundary Nile Water Management** in Nairobi, Kenya. [\[SB\]](#)
- Participated as an expert in a [roundtable](#) of the select committee on Agriculture, Fisheries, Food Security and Nature of the **Dutch House of Representatives**. [\[AP\]](#)
- Participated in a workshop on Enhancing Transparency for Bioscience Research & Development ran by the **Nuclear Threat Initiative**. The outcomes of the workshop will be presented at the **UN Working Group meeting for the Biological Weapons Convention**. [\[AK\]](#)
- Met with the **UAE Ministry of Foreign Affairs** to scope a new science diplomacy training programme to be delivered in 2025. [\[IS\]](#) [\[JCM\]](#) [\[MC\]](#)
- Published a Conversation [article](#) calling for greater inclusion of critical voices in the governance of global **Earth cooling experiments**. [\[CC\]](#)
- Gave a keynote and participated in a panel discussion at the “‘Follow the Science’? Modelling for 21st Century Decisions’ event hosted by the **International Centre for Mathematical Sciences (ICMS)**. [\[ET\]](#)

Know a colleague who may be interested in receiving these updates? [Let us know!](#)

Thank you.