

# The Pentland Centre for Sustainability in Business

Annual Report 2023



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# Review of the year and news from the Director



The past two years have seen the Pentland Centre for Sustainability in Business emerge from the enforced shutdown of the pandemic to widen our membership base and develop a lively programme of events alongside a greater focus on impact on business.

Our membership base at the end of 2023 numbered 116, spread across and beyond Lancaster University and reflecting the myriad roles that our members undertake. We have completed our pilot of professional services membership within Lancaster University Management School (LUMS) and are planning to roll this out across the University. Professional services colleagues are those that ensure University runs effectively rather than having teaching and/or research contracts. Our professional services colleagues have taken insights about sustainability in business into their support for research, teaching and engagement activities, how the University estate is managed, as well as how we communicate about sustainability to external audiences. We also learn from their depth of experience and understanding about how to take a whole institution approach to sustainability.

Accreditations obtained this year in LUMS have reflected commitments to sustainability, and these external reviews highlighted our sustainability achievements. Our research-focused members continue to explore a wide array of topic areas, often drawing down research grants to support their work and resulting in publications that codify knowledge that becomes the basis for informing practice and policy as well as being central to teaching and learning activities (see Appendix 3).

2023 has also seen the development of Knowledge and Action Hubs within the Centre. These Hubs focus on areas where there is a concentration of members, funded projects and practice engagements around a thematic area (see pages 12-16 for more detail). Hubs exist in the areas of:

- Business and Biodiversity (reflecting the increasing salience of this topic in policy and practice agendas),
- Modern Slavery, Justice and Complex Supply Chains (drawing together existing strengths in business and human rights links and supply chain research),
- People and the Ocean (focusing on the marine space and drawing from a wide variety of disciplines to understand what a holistic ocean view might entail), and
- Transition and Transformation (focusing on how sustainability innovations arise, as well as how they can be shared and acted upon beyond their point of origin).

Using the example of the Business and Biodiversity Hub, our focus has expanded in line with changing circumstances. Late in 2022, governments agreed the Kunming-Montreal Global Biodiversity Framework Agreement, which has the same status as the UN Sustainable Development Goals and the Paris Climate Agreement. This has resulted in greater attention being paid to nature and biodiversity issues globally and the integration of nature and climate ambitions. We are now seeing the language of net-zero, nature positive and just transitions in corporate strategies. This requires a rapid response from researchers to understand emerging best practice and to share this with business: a process from which we both learn.

Indeed, I have been active over the last two years supporting the creation of materials for corporate sustainability action and accountability for biodiversity. I was part of the group of experts who produced the **Intergovernmental Panel of Biodiversity and Ecosystem Services, Business and Biodiversity methodological scoping report**, the detail of which is now being developed further. This material will influence how governments integrate nature conservation with corporate governance. I was also on the expert advisory group that led the refresh of the **Global Reporting Initiative's standard on biodiversity**, which was published in January 2024. This guidance took some 30 months to develop and shapes how corporations will report on their nature and biodiversity impacts. This kind of reporting dovetails with private sector guidance on this topic, such as the Taskforce for Nature-related Financial Disclosures (colleagues in the Centre are researching this initiative).

I have also continued to foster a close partnership between the Centre and the Institute of Chartered Accountants of England and Wales (ICAEW) through membership of their Research and Sustainability Committees, as well as launching an **on-line learning resource** for university students, called the Fundamentals of Sustainability Programme. This programme can be completed as self-directed learning but is also being used by universities in their formal teaching programmes. The ICAEW and the Pentland Centre are also working together on the issue of business and biodiversity (see more on page 12).

Two other external engagements warrant mention. First, I co-led the development of sustainability guidance **for ports**, developed under the auspices of the United Nations Global Compact Ocean Stewardship Coalition.

Ports are starting to be appreciated as business locations where ocean stewardship might be enabled and understanding ports forms part of the People and the Ocean Hub. Second, the University has entered a Knowledge Exchange Partnership with Lake District Farmers (a local business that connects farms across Cumbria) to understand how an ambition for a net-zero business might evolve (see pages 15-16). These practice-based settings prompt research questions, while research supports action in practice: this is the virtuous circle that the Pentland Centre seeks to foster.

A final highlight of my year has been creating (in partnership with Centre member Paul Turner) a podcast series where we tell the wider world about our members' expertise and enthusiasms (see pages 10-11).

As we approach our 10 year anniversary, I am delighted by the network we have curated of enthusiastic and knowledgeable sustainability in business proponents.



**Professor Jan Bebbington**  
Director, Pentland Centre for Sustainability  
in Business



# A note from our founder and sponsor



It is amazing to think that in 2025 the Pentland Centre will be only ten years old. Achievements to date have led the dream to quickly become a force for good and under Professor Jan Bebbington the Centre is going from strength to strength. Sometime it takes an accountant to keep one's feet on the ground and to curate a steady and solid expansion of impact.

I am delighted that our Director is the inaugural Vice-Chair (Sustainability) for the **British Academy of Management** and was elected in 2023 as the Co-chair of the Council of the **Centre for Social and Environmental Accounting Research**. These roles focus on developing the capability and capacity for business, management and accounting academics to address sustainability issues. These appointments also show that we are a down to earth organisation, able to work alongside the needs of business itself.

It is gratifying to see that our podcasts are being listened to in at least twenty-five different countries, giving the Centre global reach. In addition, and in Appendix 3, you will see that over the year Centre members have produced seventy three publications.

In particular I am pleased that we have not just concentrated on the sustainability of the Earth itself, important as this subject is, but begun our investigation into other areas of importance. In particular, we at Pentland are keen to see progress being made in the area of modern slavery, justice and supply chains because this is a difficult subject for businesses. At the same time, workers in developing countries, often with no power of their own, need help to improve their conditions and standard of living. Knowing how this can be achieved is critical and this Knowledge and Action Hub will be important in this context.

Let us all do our best to continue the influence of the Centre, and Lancaster University itself, as we do our bit to tackle 'wicked problems' and make the world a much better place.

## **R. Stephen Rubin**

Chair of Advisory Board, Pentland Centre for Sustainability in Business

# Our plans

## What we planned to do in 2023

<b>Engagement</b>	External engagement has included work with the Institute for Chartered Accountants in England and Wales, Lake District Farmers and Pentland Brands, alongside contributing to the success of numerous small businesses in Lancashire and Cumbria. Internal engagement has included appointing a Principles of Responsible Management Education Co-ordinator to establish a network of PhD students focused on sustainability in business and to connect LUMS with the LU Sustainability Team.
<b>Developing interdisciplinary partnerships</b>	A new partnership between scientists in the Lancaster Environment Centre resulted in a Science paper titled ' <b>Hold big business to task on ecosystem restoration</b> '. Follow-on work to develop reporting protocols in this area is under way in 2024.
<b>Programmes of work</b>	Four Knowledge and Action Hubs have been developed on: Business and Biodiversity; Modern Slavery, Justice and Complex Supply Chains; People and the Ocean; and Transition and Transformation. These Hubs bring together members to advance thematic related work, to partner with external bodies and to provide a connection point to scholars outside of Lancaster University.
<b>Seminars and workshops</b>	Over the year we have put on 12 'regular' seminars – open to people across the University. We have also held four in-depth events that have engaged with key business areas, brought people together to develop new work, or enabled sharing of practice.
<b>Develop membership and members services</b>	Our membership numbers continue to grow. At the end of 2023 we have a total of 116 members (compared to 77 at the end of 2022). We are continuing to offer membership to professional services staff and seeking to widen this across the University. An innovation for this year has been creating a podcast series to showcase members' knowledge and insights. We have also added value to LUMS Pump Prime and Research Incentive funding by offering match funding for Centre members' applications.

## What we plan to do in 2024

<b>Engagement</b>	Drawing from research conducted in 2023, we are exploring the potential to develop a programme of related work that will support the transfer of sustainability innovations between businesses in Cumbria and Lancashire. Possibilities for achieving this with a prize component are being investigated.
<b>New work</b>	We will add a Waste and the Circular Economy Knowledge and Action Hub to our portfolio.
<b>Seminars and workshops</b>	Within and beyond the Knowledge and Action Hubs we will continue to offer a varied programme of events with a strong emphasis on bringing people together to discuss topics of interest as a way of sparking new collaborations that advance the Centre's mission.
<b>Strategic planning</b>	In 2025, the Centre will be 10 years old, and we are developing a strategy for what the next five years of Centre will entail, as well as celebrating our achievements. We are scoping a strategic partnership with the <b>Work Foundation</b> (a think tank that is part of LUMS) to bring a greater employment focus to our work, reflecting social sustainability priorities.
<b>Develop membership and members services</b>	We have recruited a Membership and Events Co-ordinator to support members' needs and run a programme of Hub-related and more general membership activities. We will continue to support members' writing ambitions while also developing media training and capacity to engage with policy. We will continue with the Transforming Tomorrow podcast series and reinforce our connections to Sunway University in Malaysia.

# Engagement

## External engagement highlights

### Institute for Chartered Accountants in England and Wales (ICAEW)

Prof Jan Bebbington and the ICAEW collaborated to create a new online course in the **Fundamentals of Sustainability**. The course consists of four modules with lectures (from Prof Bebbington), readings, web resources and interviews with sustainability accounting practitioners. The course is aimed at accounting students (but available to anyone who wishes to take it), is free (once registered with ICAEW), is accessible to anyone anywhere in the world, and takes eight-ten hours to complete. The course has also been used alongside courses offered in universities. During the 10 months of 2023 when the course was available, 2,100 learners have taken the course with a completion rate of 25% so far. Presently, three universities in the UK have integrated this material into their existing modules at both undergraduate and postgraduate level. The feedback we have from the ICAEW is that students are loving the modules, which are dovetailing with the formal learning they have in this area from their home universities.

### Keynote listening with Pentland Brands

In October 2023, Prof Bebbington attended Pentland Brands' 'Vendor Roadshow' event that provided a setting for organisations in Pentland Brands global supply chain to take a deep dive into sustainability topics. Often these kinds of events have a 'keynote speaker', but Prof Bebbington attended as a 'keynote listener' instead. Participating in workshops and listening to the conversations, she was able to feed back to the organisers and participants what she had heard, thereby advancing participants' understanding of sustainability in business.

### Managing for the long term in the face of volatility

Time and sustainability in business is a theme on which much has been written. On the one hand, sustainability invites businesses to develop a more long-term focus than might otherwise be the case when they are making decisions. On the other hand, there are worries about possible 'tipping points' in the Earth system that means that business should react quickly to the challenges faced. In addition, there is evidence that more longstanding organisations are often those that are responding in more proactive ways to sustainability challenges. In May 2023, the Centre drew together a group of leaders of longstanding organisations to



Ethical, Responsible and Sustainable Tourism 2022 award winners Hedgerow Luxury Glamping, with Prof Jan Bebbington (right)  
© Marketing Lancashire



explore how they have navigated change in the past and whether this provides them with the resilience to deal with current volatility. A series of provisional observations were drawn from this workshop that have, and continue to be, 'sense checked' with Centre stakeholders. The work surfaced the existence of what we are calling 'longevity anchors'. These aspects create possibilities for longevity and resilience in the face of volatility and include:

- Organisational purpose, encompassing wider-than-financial outcomes, guides actions,
- Stewarding assets/institutions drives thinking, with a goal of preserving the best of what has come before,
- Keeping values and culture alive through inter-generational storytelling,
- Longevity as a 'team sport' with buy-in from key business partners,
- Protections against losing one's way exist, such as 'in perpetuity' thinking and knowing what is non-negotiable.

Another trend that we are starting to observe in business also relates to time and focuses on the formal inclusion of future generations in corporate governance processes in the form of advisory boards. This is another area where time and longevity are entering sustainability considerations: the perspectives of those who are going to be around for a long time are making their way to boardroom considerations. This is a trend to watch.

### **Marketing Lancashire Tourism Awards**

As part of LUMS's sponsorship of the Marketing Lancashire Tourism Awards for both 2022 and 2023, the Pentland Centre were the named sponsor for the Ethical, Responsible and Sustainable Tourism Award. A group of judges drawing from Pentland Centre members visited Lancashire Businesses nominated for the award and contributed to the overall decision-making. The 2022 awards were presented in February 2023. LUMS colleagues were also involved in other categories and collectively contributed to a joint workshop with the Awards scheme organisers and business network members where current research findings were presented and discussed.

## Internal engagement

### **Entrepreneurs in Residence conference**

We partnered with the Entrepreneurs in Residence (EiR) team in LUMS to contribute to their second annual conference on 20 September 2023. Key people in the management of the EiR programme are Brian Gregory and Salma Atcha, who are both members of the Pentland Centre.

With a focus on sustainability and sustainable growth in SMEs, the team hosted more than 80 delegates with six universities represented at the conference. As keynote speaker, Prof Jan Bebbington set the scene with a global overview of sustainability challenges. Next was a range of breakout sessions presented by business leaders, EiRs and academics. The conference was summarised and closed by Prof Ellie Hamilton, who has been instrumental in the EiR programme since its inception in 2006.

In addition, Cat Smith MP was present to launch the new Global Entrepreneur in Residence programme for the coming year. Cat, who is a Lancaster Alumni, was glowing in her support of the work of the EiR programme. Programme Director Brian Gregory said, 'by widening our EiR network to include other universities and their

own business connections, we expand our pool of global experts. Students will be able to have direct access to business leaders operating in markets across the global stage. This new programme puts Lancaster at the centre of the development in bringing business experts into the classroom globally'.



*Cat Smith, MP for Lancaster and Fleetwood, and Brian Gregory, Programme Director of the Lancaster Entrepreneurs in Residence network © Lancaster University*

*The theme of this, our second conference, was around Sustainable Transformation and how in a volatile environment our entrepreneurs could bridge short term priorities with longer term sustainability goals. The Pentland Centre delivered some truly thought-provoking content on the day. This stimulated some excellent conversations amongst our Entrepreneurs in Residence, not only on the day, but also on a continuing basis as the "entrepreneurial mindset" considered the themes and discussions.*

Salma Atcha, Business Networks Officer

### **The 'right' thing? Workshop for discussing practices for facilitating learning in ethics, responsibility and ecological sustainability – 21 September 2023**

This was a member-led and organised event to share and reflect upon teaching/learning practice in sustainability. Fifty-two participants from across Lancaster University, international partners, local partners and external organisations attended, with in-person, hybrid and online sessions, including presentations, panels, and interactive workshops. The workshop drew together research, teaching, and professional services colleagues.

Following the event, participants reported a variety of effects – integrating specific practices (including personal response systems, virtual reality, and aspects of gamification) into their teaching activities; developing the design of their curricula; developing knowledge exchange in this area; and introducing interdisciplinary thinking and practice in their pedagogy. A number also reported

a broader organisational effect of being inspired to influence the Curriculum Transformation Programme within Lancaster University, and some of the presenters were also asked to contribute to a forthcoming book on pedagogy.

One participant's comment nicely summarised an overall impact of the day:

*It was a helpful reminder that sustainability is not a bolt-on exercise to our activities but should be integral and influence all our decisions and practices.*

### **PRME Co-ordinator**

We have appointed a Principles of Responsible Management Education Co-ordinator to connect LUMS with the Lancaster University Sustainability Team, as well as to establish a network of PhD students involved in sustainability in business. Undertaking a PhD is a daunting process and one that can be a little lonely at times and this is why we are developing a sustainability in business network to support PhD researchers.

Supporting the University in its sustainability aspirations is also important for the Centre as we seek to 'walk the talk' ourselves and support Lancaster University to continue to place sustainability at the heart of its operations. For example, the University declared a climate emergency in 2020 and aims to become net zero by 2035 and much work is being undertaken to reach this goal. More information on the various projects, commitments and achievements of the University can be found on the **Sustainability webpages**. Pentland Centre professional services members are at the heart of this work.

## **Showcasing members' work**

The Centre's vision is for a world where business understands, acts upon, and furthers sustainability outcomes. Our members' research and its impact are critical to realising this vision. We also know that 'seeing is believing' (or in some cases with our work in 2023, 'hearing is believing') and that stories have the power to inspire sustainability efforts.

We have told stories about members 'transforming tomorrow' through their research and wider engagement activities using two formats. First, in January 2023 we published the *Transforming Tomorrow Research & Impact Digest* that showcased members' work as well as showing how the Centre's work connects to Lancaster University more widely. It can be **read or downloaded on our website**.

Following the same theme and rationale, we launched a podcast series in September 2023, also titled 'Transforming Tomorrow'. The podcast explores the work

undertaken by our members and is hosted by Prof Jan Bebbington and former journalist and press officer Paul Turner, one of our professional services members, whose role involves promoting research activities in LUMS. As well as interviewing Centre members on their work, episodes feature external contacts and partners, and discussions on relevant topics. Episodes are around 30 minutes in length and consist of conversations aimed at informing interested but non-expert listeners.

We produced 11 podcasts in 2023 (excluding trailers), with podcasts recorded or planned to take us through to the summer of 2024. All podcasts can be found at [pod.co/transforming-tomorrow](http://pod.co/transforming-tomorrow) or on whatever streaming service you use. Podcast topics for 2023 were:

**Topic and Guests**

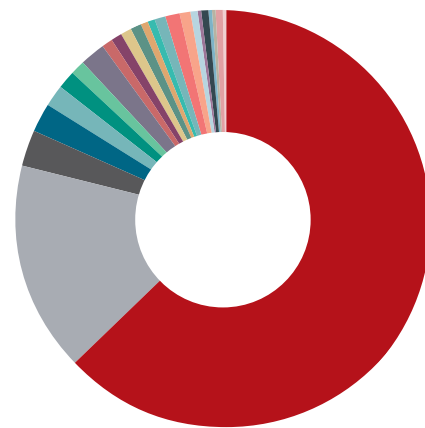
An Introduction to the Pentland Centre with Prof Jan Bebbington and Paul Turner	Sustainability Benchmarking, with Dr Dasha Smirnow
The Sustainable Development Goals with Prof Jan Bebbington and Paul Turner	Sustainability and Accounting, with Dr Richard Spencer of the ICAEW
Business and Biodiversity, with Duncan Pollard	Sustainability Policy at a Local Level, with Dr Jekaterina Rindt
Modern Slavery and Sustainability, with Prof Linda Hendry	Sustainable and Resilient Family Businesses, with Dr Allan Discua Cruz
Digital Inequalities, with Prof Katy Mason	COP 28 and Business with Prof Jan Bebbington and Paul Turner
ICT and Sustainability, with Prof Adrian Friday	



Prof Jan Bebbington, Dr Dasha Smirnow and Paul Turner, recording the episode on Sustainability Benchmarking, Nov 2023 © Nigel Thompson

We monitor podcast downloads and where people reside who are listening to our work. Most listeners are based in either the United Kingdom or the United States of America, but there are listeners across the world. Feedback has been positive and listener numbers are rising over time as new listeners continue to find the series. We have been delighted that stakeholders have shared these podcasts with their own specialist audiences, helping to increase listener numbers, and the reach of the podcast.

**Where are people listening?**



Data correct at 31 Dec 2023

# Knowledge and Action Hubs

Over the last 18 months we have developed several Knowledge and Action Hubs that gather together Pentland Centre members who share common interests. Presently there are four Hubs and we plan to run each of them for up to two years (and most likely beyond).

Hub leads and members co-develop programmes of activity that make sense to them and include workshops/seminars, gathering data to support research as well as engagement and impact activities. Alongside the Hubs, we still run a programme of seminars and workshops across topics related to sustainability in business: the Hubs complement this activity rather than replace it.

## Business and Biodiversity – lead, Professor Jan Bebbington

This is the most longstanding Knowledge and Action Hub, and began in September 2022 with two Learning Days that brought together scholars and practitioners to explore issues of common interest. The Hub supports annual surveys of how **corporate reporting on nature** is evolving over time, with the second review published in 2023. This Hub benefits from the work of Honorary Professorial Fellow Duncan Pollard, who has previously held several sustainability roles in corporations. Blogs on **ESG, sustainability, and biodiversity** have been well read, and Duncan's prior experience has been showcased in our podcast series. Here are three highlights of work in this Hub.

### Highlight 1: Corporate ecosystem restoration

A **publication** in the prestigious Science journal was developed through a partnership with ecosystem scientists at Lancaster Environment Centre and the Pentland Centre. The paper identified a lack of transparency about corporate ecosystem efforts among some of the largest businesses globally. The work does not evaluate company-led restoration itself but identified that there is a lack of public information about where and how restoration is being tackled, and what ecological outcomes are achieved. The paper's authors then provide information on the principles of 'gold standard' restoration and what kind of reporting would be suitable under each restoration principle. Work is ongoing on this project, with corporations and industry associations being brought together to co-develop how the restoration principles could translate into excellent corporate reporting practices. This approach is a hallmark of the Centre's research, in that areas for improvement are identified through robust scientific work and are then used as a way to develop mutually beneficial partnerships that will improve practice.

### Highlight 2: Trustworthy and Accountable Decision-Support Frameworks for Biodiversity – a Virtual Labs Based Approach

This work has been supported by the **'Economics of Biodiversity' programme**, itself funded by the Natural Environment Research Council (NERC) and the Economic and Social Research Council (ESRC), two funding bodies of UK Research and Innovation (UKRI). In keeping with the problems of addressing business decision-making around biodiversity, project collaborators have expertise in natural science (biodiversity, ecosystem services, land use, energy); data science (data infrastructure, decision-making under uncertainty); and the social sciences (environmental accounting, socio-technical design). **The project** examines two land use scenarios, namely solar park development and changing agricultural approaches, to work with decision-makers to understand their decision needs and those of their stakeholders. These decisions will be translated into a virtual lab setting which mirrors real-world decision context and allows stakeholders to gain an understanding of possible decision outcomes ahead of time. The overall aim of this work is to understand how 'trustworthy' and 'accountable' frameworks can be created that will support greater integrity in 'on the ground' outcomes for nature.

### Highlight 3: Business, nature and biodiversity reporting

There has been an increase in corporate awareness of their impacts and dependencies upon nature, especially as pressure on biodiversity grows. We have identified that this is a new challenge area for 'ESG' action (**see our blog on this topic**) and have employed a research associate to undertake the enabling research for developing a baseline understanding of how companies are responding to the demands of the **Task-force on Nature-related Financial Disclosures**. The Pentland Centre is working in partnership with the Institute of Chartered Accountants of England and Wales (ICAEW) to better understand and provide feedback to the early adopters of this framework.



**Lauren Thornton** joined the Pentland Centre in January 2023 to work on this project, which links closely to her PhD work on the theoretical development of “trust affordances” for socio-technical design within an environmental data science context. Lauren’s background is a blend of social and data science, having studied Social and Economic Sciences (BA Hons) and Political Science (MA)

at the University of Manchester before moving to Lancaster to study Data Science (MSc) and Computer Science (PhD). One exciting outcome of the collaboration is realising that the concept of accountability has been examined in accounting studies as well as in data science. Bringing these perspectives together has deepened understanding of these key concepts.



**Dr Neytullah Ciftci** joined the Pentland Centre in mid-2023 to work on the business and biodiversity reporting project. This marked a return to the United Kingdom for him after he completed his PhD in the University of Southampton in 2022. Neytullah’s background in researching accounting,

finance and governance has been put to good use to map the rapidly developing landscape of corporate reporting expectations and specifically examining how companies are using biodiversity scenarios to shape their understanding of their risks and opportunities and their impact and dependencies.



## Modern Slavery, Justice and Complex Supply chains – lead, Professor Linda Hendry

Early in 2024, we are launching a new Pentland Centre Knowledge and Action Hub under the heading of ‘Modern Slavery, Justice and Complex Supply Chains’. Our initial aim is to bring together a breadth of interdisciplinary expertise across Lancaster University that seeks to better embed social sustainability within both global and local supply chains. The Hub will provide a forum for research collaboration on how to enhance business governance systems that embody the principle of justice and lead to solutions co-created with industry to further combat modern slavery’ – noting that this principally takes the form of forced labour in this context.

The Hub builds on the expertise of Pentland Centre researchers from the Departments of Management Science, Accounting and Finance, and Organisation Work and Technology, and from both our Leipzig and Sunway campuses. Collectively, research in this Hub encompasses: methods of detecting and remediating modern slavery in global supply chains, including the textiles, fishing and conflict minerals industries; and assessing the impact of modern slavery legislation that requires organisations to produce annual modern slavery statements. Ongoing research continues, such as assessing the working conditions of migrant workers, and the social sustainability of the ‘left behind’ places where migrant workers have settled but have yet to flourish in both their workplaces and communities. Our plans also include expanding the network to organisations external to Lancaster University – both industrial and academic.



## People and the Ocean – lead, Dr Celine Germond-Duret

The People and the Ocean Hub gathers expertise on the wide range of connections that exist between people and the coastal and marine environment. The Hub is interdisciplinary and values a diversity of insights, from social sciences to arts and humanities, and from economics to law. It aims at sharing academic knowledge and fostering dialogue with private and public stakeholders. Expertise includes (but is not limited to): justice and the blue economy; sense of place; fisheries and social responses to fish farming; ports as novel points for ocean governance; and blue avian ecologies. Forthcoming activities include: a seminar series with external guest speakers (both academics and practitioners); a virtual common room (once a term); and a research and engagement project on “Mapping blue (marine) economic activities in the Northwest”. Here are two highlights of work in this Hub.

### Highlight 1: Seafood Business for Ocean Stewardship (SeaBOS)

This longitudinal project involving nine of the largest global seafood companies continues, with the highlight of 2023 being the publication of an **impact report** by the

cohort of companies. The report is available in English, French, Japanese, Spanish and Thai to ensure that companies in relevant countries can access insights from SeaBOS in their home language. We have paid this attention to providing insights in multiple languages because the scientific hypothesis being addressed by the SeaBOS project is that if the partners’ companies change towards more sustainable business practices there will be a ‘cascading’ effect to other companies in the industry. While the impact report provides a basis from which to evaluate the initiative’s performance, it also cross-references each company’s sustainability reporting, creating a network of accountability for performance. To the best of our knowledge, this is one of the few examples of interwoven individual and collective reporting in existence anywhere in the business world and we are working to better understand this innovation.

### Highlight 2: Ports Dialogue

In mid-September 2023, the Pentland Centre convened a group of 17 international scholars – plus six additional contributors who delivered pre-recorded video contributions – working on different elements of ports and maritime science to a Ports Dialogue. This event lays the groundwork for ongoing research into ports as sites of novel ocean governance. An early outcome of the event has been a blog by Prof Jan Bebbington and Prof Basil Germond on **Ports as sites for security and defence**.



Participants at Ports Dialogue after a tour of the Port of Amsterdam. L-R: Dr Martin Quinn, Dr Rod Bain, Dr Mina Akhavan, Dr Michele Acciaro, Dr Alexandre Lavissiere, Prof Adam Leaver, Desna Mackenzie, Prof Basil Germond, Dr Ila Bharatan, Prof Carlos Larrinaga, Prof Sami Bensassi, Prof Magnus George, Prof Phillip Roscoe, Prof Rob Zuidwijk, Dr Hendrik Vollmer, Frida Bengtsson and Prof Jan Bebbington

**Dr Salaheldin Hamad** joined the Pentland Centre from his home country of Egypt after completing a PhD in Malaysia in the areas of integrated reporting, sustainability accounting and corporate governance. Salaheldin is funded by the SeaBOS research grant to investigate if there is a discernible difference between the SeaBOS companies and the next 21 largest

global seafood companies. The project is looking to understand the effects that SeaBOS membership may have on a variety of corporate characteristics, including the degree to which their owners have joined 'responsible investor' platforms and how well member companies perform in benchmarks of their external reporting.



## Transition and Transformation – interim lead, Professor Jan Bebbington

This Hub was just a twinkle in our eye in 2023 and will be further developed in 2024. The overarching ambition of this Hub is to foster a practice-based and conceptual understanding of when and how change arises in sustainability understanding or performance. This Hub encompasses a variety of projects that are seeking to understand this dynamic in different settings and the work (see pages 8-9) on the value of longevity and future thinking also feeds into this theme. Here are two highlights of work in this Hub.

### **Highlight 1: Lake District Farmers, Knowledge Transfer Partnership**

Knowledge Transfer Partnerships (KTPs) are supported by Innovate UK and are co-funded and co-designed projects which link business and universities together to deliver innovative projects. The Centre (through Prof Jan Bebbington) is part of a KTP that commenced in 2023, focused on how farmers can move towards net-zero meat production along with the **Lake District Farmers (LDF)** and soil scientists in the University's **Lancaster Environment Centre**. The KTP associate (in our case, Dr Laura Giles) works between the two partners to deliver the project outcomes. LDF were founded in 2009 with a mission to facilitate quality-driven and sustainable supply chains for livestock farmers in Cumbria and the Lake District. The KTP examines the extent to which changes to on-farm practices may influence the farm carbon

balance as well as understanding the financial outcomes from 'regenerative' inspired decisions. The research includes: soil assessment and lab testing on four case study farms that supply LDF and are representative of Lake District upland farming practices; a soil carbon modelling system to understand likely future soil carbon balances, and a translation of what this will mean for financial outcomes. The outcomes of this partnership will be shared widely with LDF's supply network and beyond.

### **Highlight 2: Sustainability interventions in urban research**

This project addresses how to integrate insights from place-based sustainability innovations, transitions or transformations in such a way that knowledge and understanding is available for others to draw from to inform their own practices. The difficulty of doing this is substantial because place-based interventions are shaped by the nature of the circumstances that pertain in a place, and sustainability interventions can and do take many forms. Regardless, the need and desirability to share learning in a way that will allow innovation to cross-fertilise is necessary if we are to transition to more sustainable systems at pace. This project will draw knowledge from a sample of place-based urban sustainability projects to understand how project champions think about transitions towards sustainability, as well as how they draw from and feed into other projects. The outcomes of the project will shape how particular insights can be shared in a way to create greater change and identify what kind of data needs to be gathered to allow this to happen.

Usually outdoors and often muddy, **Dr Laura Giles** returned to the University of Lancaster in 2023 after completing her MSc in Environmental Management to lead on the Knowledge Transfer Project "Towards Net Zero Meat Production". This role consolidates the many facets of Laura's extensive research experience in the genetics of human muscle

physiology, conservation and the environment, and carbon accounting, as well as her love for the Cumbrian fells and upland farming. Previously, Laura worked for the University of Cumbria as a Research Fellow on the Eco-I NW project, supporting Cumbrian small businesses to transition to net zero practices through innovation.



Since completing her PhD, **Dr Carolynne Lord** has been involved in a range of qualitative sustainability-based projects that focus on the role of technologies in changing social practices. She has been using this experience to develop an understanding of the

technological and policy changes required in academic research practices to integrate individual intervention efforts into cohesive and coherent transitions.



# Development Activities

## Programme of events

We have undertaken a programme of research-focused seminars and workshops:

- **25 Jan 23** *CRUCIAL: Expert Prediction Markets for Climate Risk*, Dr Kim Kaivanto (LUMS, Economics) & Dr Mark Roulston (University of Exeter)
- **14 Feb 23** *Novel Risk Translation: Climate Change and the Real Estate Industry*, Michael Scotney (LUMS, Accounting and Finance)
- **1 Mar 2023** *Materiality as boundary object: Accretion of significance for sustainability*, Dr Di Wang (LUMS, Accounting and Finance)
- **16 Mar 2023** *Virtual common room: Shareholder Divestment & Corporate Behaviour – A Conversation*, Prof Bert Scholtens (University of Groningen)
- **29 Mar 2023** *Stewardship, Sustainable Change and the Anthropocene*, Dr Massimo Contrafatto (University of Sussex)
- **13 Apr 2023** *Stewardship: the new leadership?* Dr Marian Iszatt-White (LUMS, Entrepreneurship and Strategy)
- **17 Apr 2023** *The Common Good: an accounting perspective*, Prof Sheila Killian & Prof Philip O'Regan (University of Limerick)
- **18 Apr 2023** *Socio-ecological accounting: an open conversation*, Prof Jan Bebbington (Pentland Centre), Richard Spencer (ICAEW), Dr Shona Russell (University of St Andrews), Dr Hendrik Vollmer (Warwick Business School)
- **8 Jun 2023** *Accounting for Soils Dialogue*, Clément Boyer (Paris Dauphine University), Phil Scott (Lakeland District Farmers), Dr Laura Giles (Lancaster Environment Centre), Lauren Thornton and Prof Jan Bebbington (Lancaster University)
- **3 Aug 2023** *Accounting for time: The Environmental Crisis and the Crisis of Corporate (In)Action*, Prof Helen Tregidga (Royal Holloway University of London)
- **4 Oct 2023** *Bridging culture and commerce: The survival of technically obsolete skills in British heritage craft*, Dr Innan Sasaki (Warwick Business School)
- **7 Nov 2023** *Virtual Common Room: Promoting Sustainability at Lancaster University*, Natalie Bauer (Lancaster University)

## Community and capacity building

Alongside regular in-person and virtual meetings, we hold an annual Away Day for members, and a half-yearly check-in. These are the basis for supporting members to get to know each other and build a sense of community. Below we talk about more tailored opportunities for building community and capacity amongst our members.

### Professional Services membership

In April/May 2023 our pilot of membership for professional services staff in the Management School came to an end, and on evaluating the programme we decided that we would continue with this. It was clear that those who got the greatest benefit from membership were people who participated in Centre activities, and where there was clear alignment with their role, and so we will carry this learning into formally opening membership across the University.

*I have been made to feel very welcome at the Pentland Centre, the membership has helped me in my role, developing my understanding of sustainability and what it means to individuals in their various roles and how we can collaborate. I am a Pentland Centre evangelist and have been able to share the message with my network and have spread the word with my colleagues in Professional Services...[the Centre has] created a truly inclusive culture where everyone has a voice. Thank you.*

Feedback from the evaluation of the LUMS Professional Services membership pilot

### Writing retreats

Writing is an essential element of research and administration. Whether it is producing communications content, writing journal articles, creating specifications for a joint piece of work with business, or collaborating on an accreditation report – the impact of writing on our work with business cannot be overstated.



There have been two writing retreats during 2023. We work closely with our writing coach, Laura Premack, to ensure that the retreats are not only time away from everyday distractions to write, but also an opportunity to identify and overcome barriers to writing beyond the retreat, and a way to build community between different members of the Centre.

In January 2023, we offered two retreats to members working on group projects, and the two groups that participated were the LUMS EQUIS accreditation report writing team, and the Plastic Packaging in Peoples Lives (PPiPL) project. In September 2023, a group of members focusing on individual writing projects participated.

Number of participants:

- January 2023, 12 – 6 involved in EQUIS report, 6 involved in PPiPL project
- September 2023, 6 – all individual researchers, ranging from new PhD students to established academics.

*Laura really facilitated the development of a supportive space for our writing collaborations – her input really helped us to be open about the challenges and approaches to writing, and really helped us develop our culture of writing (language, rules, ways of being/doing). This cannot be over-estimated, as it is sometimes easy to assume we have a clear and shared understanding of the tasks, when this is not so! Thank you, Laura for the care and wisdom you brought to us.*

Participant on PPiPL writing retreat, January 2023.

*The Writing Retreat had a transformative and revolutionary impact on my work. I concluded the retreat with a rejuvenated perspective on writing, enabling me to approach my work joyfully and with increased efficiency. Remarkably, I have continued to apply the methods and principles I learned, resulting in a sustained positive influence on my writing. I feel a profound sense of progress.*

Participant on writing retreat, September 2023.



# Supporting Researcher Development

## Supporting LUMS research

In late 2022, LUMS announced that it was inviting expressions of interest for funding for research projects on the strategic themes of Sustainability, Social Justice, Innovation in Place, Cyber, and Health. The Pentland Centre saw this as a strategic opportunity to add value to

a LUMS initiative, by offering to match fund up to £2.5k for selected applications in the sustainability theme, where the application was from a Pentland Centre member.

Via this route, we supported two projects. Dr Divya Jyoti received LUMS Pump Prime funding, and Dr Felix Martin received LUMS Research Incentive funding. Here, Drs Jyoti and Martin explain the context of their work, and how the Pentland Centre support has helped them.

### Dr Divya Jyoti

The role of the ever-expanding fashion industry's behaviours, decisions, and actions in widening socio-economic inequalities, failing to create 'decent work' for, and violating human rights of vulnerable and marginalised communities globally, has been repeatedly highlighted. Often, these failures are attributed to supply chain complexities and a lack of adequate governance architecture in the locations of manufacturing operations. Repeated media and activist exposés on the rampant and persisting labour exploitation in Leicester in the UK, however, challenge several of these claims and pose an interesting puzzle – both empirically, and indeed theoretically (by challenging

assumptions which dominate the supply chain, governance, and CSR literature). How and why is it that a city once renowned for its rich and vibrant textile industry, famously characterised as, 'Leicester Clothes the World', despite the claimed investments by Government, third sector and business firms, continues to fail some of its most vulnerable? This project aims to initiate a conversation to better understand the 'curious' case of the city of Leicester and in so doing intends to draw implications for governance of place and modes of production.

The support of the Pentland Centre has enabled generation, strengthening and consolidation of internal and external stakeholder relationships, including with both



practitioners and academics, to generate interdisciplinary evidence and insights to further decent work in supply chains. It has allowed Divya to contribute research-informed insights to the community-based organisations in the city of Leicester and forge collaborations for producing research papers and teaching cases.

### Dr Felix Martin

Lebanon is a country in serious economic and financial crisis. It also has one of the highest overall gender gaps in the world (ranking 145 out of 153 countries in the World Economic Forum Gender Gap report 2020), and amongst the lowest global rates of women's labour market participation, (hovering at 29% for women and

76% for men). The country is hampered by systemic inequalities preventing women from accessing finance, owning land, and participating in the labour force.

With the support of LUMS and the Pentland Centre, Dr Martin spent ten days in Lebanon in June 2023 with the goal of advising the Institute de Management et



Services (IMS), an established Lebanese charity with a mission to “provide continuous training for women and youth in order to promote active, positive and responsible participation of citizens in Lebanese society”, on how to increase their local revenue generation activities. He carried out extensive interviews across Beirut, Byblos, and the Valley of Bsharre, plus explored opportunities for wider social impact through Hospitality-Pro, an IMS-sponsored apprenticeship programme in hospitality for Lebanese women college students.

His recommendations were to develop activities in three business areas:

- A “craft kitchen” run from existing facilities to sell to speciality shops and compete in popular food fairs and develop substitute products for foreign food brands (in high demand due to inflationary pressures).
- Develop a hospitality consulting business by building on existing business contacts acquired through Hospitality-Pro and benefitting from the network

of business consultants from their other programmes.

- Franchise some of IMS’s programmes to other NGOs or private schools around the country (including identifying people that could lead the consultancy and franchising efforts), potentially leading to the development of a hospitality business school in Jbeil 10 years down the line on the back of its business reputation.

## PhD researcher spotlights

PhD researchers are the next generation of academics, and their work is often at the cutting edge of our fields. We have started the process of creating a more formal support structure for these colleagues. Here are three examples of PhD researcher projects.

### Ophelia Chidgey

Ophelia’s research focuses on gendered human rights abuses and sustainable supply chain management policy in garment industry supply chains. Her research emphasises the importance of achieving gender equality and women’s empowerment within the garment industry, using a gendered lens to approach the development and implementation of all policies and due diligence. Her work suggests that gender needs to be higher on the agenda and embedded into all business priorities to achieve effective and sustainable impact.

The importance of this topic has increased given recent press coverage of workers’ experiences

in the garment industry and the financial and reputational damage to companies that arises when these issues are uncovered. More importantly, Ophelia is keen to highlight the impacts to workers’ lives of poor management of supply chains.

Ophelia’s research suggests that there is a need for further co-operation with non-traditional supply chain actors, such as workers, trade unionists and NGOs, to create holistic, effective, and sustainable change. Additionally, her research calls for greater collaboration between NGOs and academia to further develop knowledge of both problems and solutions to gender inequality within the garment



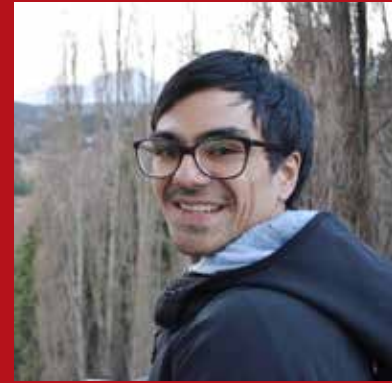
industry, especially local women’s organisations within sourcing countries. Finally, her research reasserts the need for businesses to prioritise gender, human rights, and social sustainability to put society on track to achieve the UN Sustainable Development Goals (on which performance is currently lagging).

**Camilo Cornejo**

Camilo is a Chilean lawyer and a current PhD student at Lancaster University's Law School. His research focuses on the concept of a just transition within the context of climate change and sustainable economies. He delves into the multifaceted aspects of this transition, considering its implications, rights, duties, and legal consequences for states and non-state actors, including businesses, CEOs, communities, NGOs, and professional groups.

His work encompasses governance and litigation, all under the overarching theme of climate justice and accountability.

Camilo's academic journey converges at the intersection of human rights, environmental law, corporate due diligence, and climate change. He has made contributions through publications and presentations on topics such as the Global South's perspective on the rights of nature, the 'in dubio pro natura' principle<sup>1</sup>, and



the wellbeing of future generations under the environmental rule of law.

**Matt Healey**

Matt (who has recently joined the LUMS Knowledge Exchange Team) has nearly completed a PhD exploring the value of outdoor learning and the changing value of nature in outdoor education institutions. Over the last three years, Matt has followed a group of 'keystone' organisations that provide experiential education programmes to young people and adults. Their collective expertise is in using experiences in nature to teach an important message, and they are specialists in instilling a durable moral responsibility to self, others, and the environment.

Understanding how such organisations build 'moral markets' for their products reveals how multiple ways of valuing the natural

environment are contested in organisational decision-making. This knowledge is generalisable across a gamut of organisations who are experiencing 'social-inertia', or as some have described it, the 'value-action gap'. Research has shown that such a tension between wanting to make a positive impact on ecological wellbeing, but failing to do so, has the potential to enact a type of social trauma, so called 'eco-anxiety'.

By working directly with expert practitioners, this project has developed and piloted a prototypical approach to eco-anxiety that link human and planetary wellbeing. In so doing Matt has designed an educational product that directly addresses eco-anxiety, significantly shifts



people's disposition towards acting on behalf of nature, and thereby increases their level of overall nature-connection. Accomplished by increasing the organisational leverage for nature and so provoking organisational creativity, this project is inspiring ongoing transitions towards sustainable business practices.

<sup>1</sup> An environmental law principle that translates to 'when in doubt, favour nature'. When uncertainty exists about the potential harmful environmental consequences of an activity, the decision-making process from private companies and governments should consider ecosystem protection and favour the environment.

# Appendix 1 – Centre Finances

## Donation

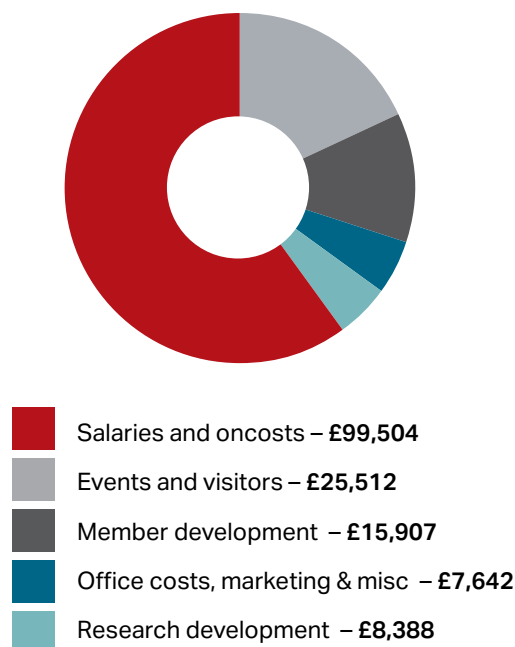
The Pentland Centre is immensely grateful for the support of our founder and sponsor, the Rubin Foundation Charitable Trust, both financially and for their support and advice.

The Trust provides a core grant of £125K per annum, and we have continued to draw down funds from pandemic-related underspend.

## Spending

In this reporting period, £156,953 was spent, with just over 60% of this being salaries and oncosts for the professional and research staff team. Spending this year has more than doubled compared to the last reporting period due to staff recruitment and a doubling of spending on events and visitors. The Centre focuses on adding value above existing activity elsewhere in the University.

Pentland Centre Spend 1 Jan – 31 Dec 2023



# Appendix 2 – Centre Members

## Pentland Centre staff

Jan Bebbington	Centre Director, Rubin Chair of Sustainability in Business
Isabelle Hoggmascall	Principles of Responsible Management Education Co-ordinator (from Oct 2023)
Desna Mackenzie	Centre Co-ordinator
Anya Nanning Ramamurthy	Casual Events Assistant
Neytullah Ciftci	Research Associate, Business and Biodiversity (from Jun 2023)
Salaheldin Hamad	Research Associate, Seafood Business for Ocean Stewardship (from Oct 2023)
Carolynne Lord	Senior Research Associate, Integrating Urban Sustainability Insights (from Mar 2023)
Lauren Thornton	Research Associate for Trustworthy and Accountable Decisions (from Jan 2023)
Guy Duke	Honorary Professorial Fellow (from Feb 2023)
Duncan Pollard	Honorary Professorial Fellow
Nadine Andrews	Visiting Researcher
Rod Bain	Visiting Researcher
Katherine Ellsworth-Krebs	Visiting Researcher (from Feb 2023)
Meng Jia	Visiting Researcher
Savita Verma	Visiting Researcher, Management Science
Lucy Wishart	Visiting Researcher

**Lancaster University Management School**

Paula Ainsworth	Quality Assurance and Enhancement Manager
Sophie Alkhaled	Senior Lecturer in Entrepreneurship, Entrepreneurship and Strategy (ENST)
Kostas Amiridis	Senior Lecturer, Organisation, Work and Technology (OWT)
Salma Atcha	Business Networks Officer, ENST
Sue Atherton	Head of Faculty Operations
Richard Baguley	Teaching Associate, ENST
Shantanu Banerjee	Professor of Finance, Accounting & Finance
Becky Bawden	Faculty Resource Manager
Jody Bawden	Project Administrative Support
Lenka Brunclikova	Research Associate, OWT
Mohammed Cheded	Lecturer, OWT
Maria Cherednychenko	Doctoral Research Associate, Accounting & Finance
Elisavet Christou	Lecturer in Management and Organisation Studies, OWT
Hameed Chughtai	Senior Lecturer, OWT
Emma Connolly	Events and Marketing Officer
Darren Dalcher	Professor in Strategic Project Management
Rory Daly	Head of Careers
Mark Dawson	Director of Digital Education
Dakshina De Silva	Professor, Economics
Allan Discua Cruz	Senior Lecturer, ENST
Nhu Quynh Do	International Lecturer in Logistics and Supply Chain Management, Management Science
Sylvia D'Souza	International Lecturer in Business Management, OWT
James Freund	Lecturer, Marketing
Mahmoud Gad	Lecturer, Accounting & Finance
Eman Gadalla	Lecturer, Marketing
Magnus George	Professor, ENST
Victor Giannandrea	Entrepreneur in Residence
Brian Gregory	Teaching Fellow, ENST
Charlotte Hadley	Research Associate, Marketing
Noor Hashim	Lecturer, Accounting & Finance
Linda Hendry	Distinguished Professor, Management Science
Anthony Hesketh	Senior Lecturer, OWT
Marian Iszatt-White	Senior Lecturer, ENST
Sarah Jack	Distinguished Professor, ENST
Divya Jyoti	Lecturer, OWT
Steve Kempster	Professor Emeritus, ENST
Joanne Larty	Senior Lecturer, ENST
Lingxuan Liu	Senior Lecturer in Sustainability, Management Science
Rebecca Liu	Senior Lecturer, Marketing
Felix Martin	Lecturer, Marketing



Jan Maskell	Associate Lecturer, Professional and Executive Management Learning
Katy Mason	Professor of Markets, Marketing and Management, ENST
Clare Mumford	Senior Research Associate, OWT
Radka Newton	Personal Chair, ENST
Dermot O'Reilly	Senior Lecturer in Management Learning and Leadership, OWT
Sena Ozdemir	Senior Lecturer in Marketing, Marketing
Libby Packham	Alumni Officer, LUMS Marketing, Recruitment and Alumni (MRA)
Argyro Panaretou	Professor of Accounting, Accounting & Finance
Martin Quinn	Reader, OWT
Neil Ralph	Senior Teaching Fellow, OWT
Ghadafi Razak	Research Associate in Sustainable Supply Chain Management, Management Science
Jekaterina Rindt	Lecturer, Marketing
Anita Schiller	Senior Lecturer, Economics
Kostas Selviaridis	Personal Chair, Management Science
Mark Shackleton	Professor, Accounting & Finance
Dasha Smirnow	Lecturer, Accounting
Valerie Stead	Professor in Leadership & Management, ENST
Ian Steel	Entrepreneur in Residence, ENST
Mark Stevenson	Professor of Operations Management, Management Science
Alison Stowell	Senior Lecturer, OWT
Debbie Stubbs	Post-graduate Programmes Officer (to Nov 2023)
Emre Tarim	Lecturer in Behavioural Sciences, Marketing
Johanna Telfer	Leader in Residence, ENST
Paul Turner	Content Manager – Research & Engagement, LUMS MRA
Di Wang	Lecturer, Accounting
Georgie Watson	Industrial Liaison Manager, Management Science
Peter Watt	Lecturer, OWT
Rose White	External Accreditation Manager
Jane Wigston	Student Programmes Co-ordinator, ENST
Chelsea Yao	Senior Lecturer, Accounting & Finance
Steve Young	Professor, Accounting & Finance
Zoe Zhu	Lecturer, OWT

### **Faculty of Science & Technology (FST)**

Alona Armstrong	Professor in Energy & Environmental Studies, Lancaster Environment Centre (LEC)
Patrick Bigger	Honorary Researcher, LEC (to Oct 23)
Adrian Friday	Professor of Computing and Sustainability, Computing and Communications
Laura Giles	Towards Net-Zero Meat Production Project Manager (KTP Associate), LEC

**Faculty of Arts & Social Sciences (FASS)**

Celine Germond-Duret	Lecturer in Environmental Politics and Policy, Philosophy Politics & Religion
Carys Nelkon	Partnership Development Manager
Rafael Savva	Lecturer in Law - EU Law, Law School

**PhD Candidates across Lancaster University**

Mo Abbasi Esbourezi	PhD Candidate, ENST, LUMS
Maryse Abi Haidar	PhD Candidate, ENST, LUMS
Jimena Alvarez	PhD candidate, Management Science, LUMS
Ophelia Chidgey	PhD candidate, Management Science, LUMS
Camilo Cornejo Martinez	PhD Candidate, Law School, FASS
Marta Ferri	PhD Candidate, OWT, LUMS
Jason Harrison	PhD Candidate, English & Creative Writing, FASS
Matt Healey	PhD Candidate, ENST, LUMS
Abdul Qadus	PhD Candidate, Management Science, LUMS
Michael Scotney	PhD Candidate, Accounting & Finance, LUMS
Jing Zhang	PhD Candidate, LEC, FST

**Other areas of Lancaster University**

Georgiana Allison	Head of Sustainability, Facilities
Darren Axe	Green Lancaster Manager, Students Union
Hilary Barraclough	Head of Business Development and Academic Events Services, Facilities
Natalie Bauer	Marketing & Communications Officer, Marketing
Daniel Cairns	Finance Partner, Finance
Stuart Foy	Development Manager, Facilities
Stephen King	Partnership Development Manager, Research & Enterprise Services

**Partner institutions**

Jose Alcaraz-Barriga	Lecturer in Management, Lancaster University Leipzig
Fiaz Ahmad	PhD Candidate, Sunway University
Yuka Fujimoto	Professor/Associate Dean, Sunway University
Stephen Homer	Lecturer, Sunway University
Mahrukh Iqbal	PhD Candidate, Sunway University
Ummara Razi	PhD Candidate, Sunway University

**Advisory Board Members**

Stephen Rubin	Chair of the Pentland Group plc
Sara Brennan	Positive Business Director, Pentland Brands
Edwin Charnaud	EMEA Chairman for Aon M&A and Transaction Solutions
Linden Edgell	Global Sustainability Director, ERM
Chris Loughlin	Former member of LUMS Dean's Council
Tom Trezise	Chairman, Patient Privacy Rights

# Appendix 3 – Members’ publications and grants

All the teaching and research members of the Pentland Centre have ‘academic homes’, in specific departments at Lancaster University, at other higher education institutions or with external organisations. These publications represent the insights that members have brought to the business/sustainability literature that may be of interest to you.

Likewise, members are actively bidding for, and are successful at being granted, research projects. The charts on page 30 show applications and bids by members during the reporting period where connection to the Centre has been a factor in a grant application. These figures are linked to their home departments within Lancaster University.

We are not claiming credit for these achievements. Rather these lists and charts demonstrate the added value being a member of the Centre brings to other areas of the University and partner institutions.

If you see something interesting here, please be in touch with Pentland Centre members directly.

## Publications

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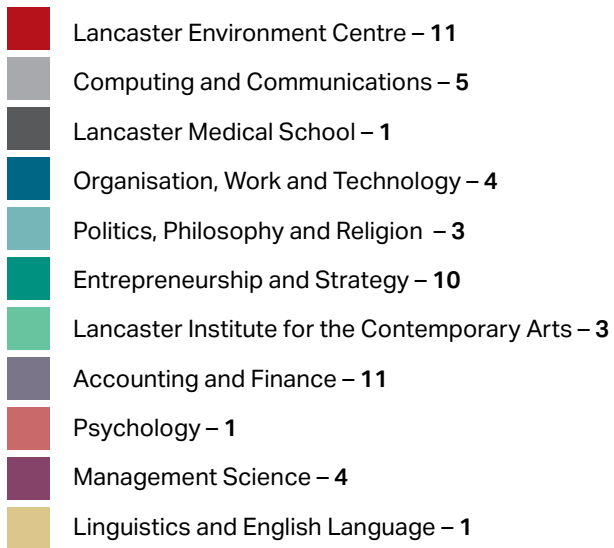
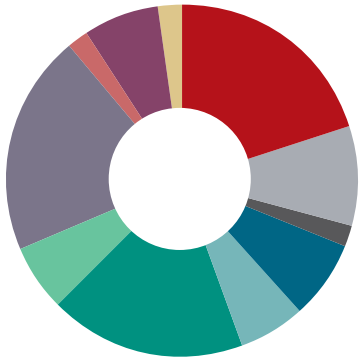
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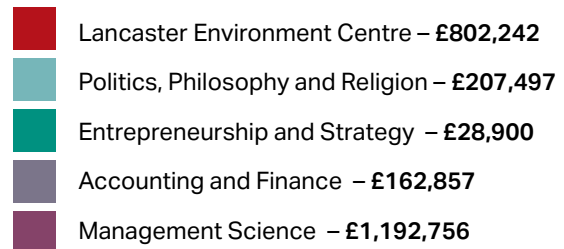
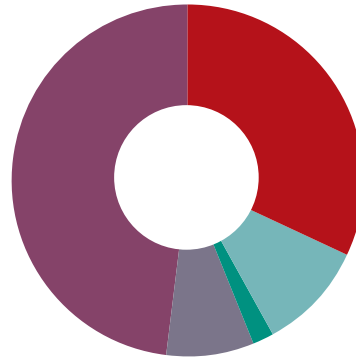
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# Research funding

**'Home' departments of funding applications (number of applications)**



**Successful funding applications by 'home' department**







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